
Ancient Seaports on the Eastern Coast of India: The Hub of the Maritime Silk Route Network

DURAIKWAMY DAYALAN

India has occupied the most important position of sea trade in the entire South Asian region since the beginning of maritime trade. The extensive maritime trade network between the Harappan and Mesopotamian civilizations as early as the 3rd millennium BCE is testimony to the long maritime trade history of India. The Harappans constructed many seaports including the first high-tide dockyard in the world for berthing and servicing ships at the port town of Lothal, Gujarat. From the dawn of the historical epoch, the maritime trade network of India expanded extensively. The long 5422.6 kms coastline of the Indian mainland (excluding the coastlines of the Andaman and Nicobar islands and the Lakshwadweep Islands) is well known for its several seaports manly located at river mouths or outlets to the sea. The main objective of this paper is to discuss in detail all the major ancient seaports on the eastern coast of India and their maritime trade activities. The narrative of these ports is based on archaeological explorations and excavations, foreigners' accounts, Indian literary sources, inscriptions, archival materials, and the field study and personal observation of the author.

Keywords: *Periplus Maris Erythraei*, Ptolemy, Seaport, Amphorae, Roman coin, Chinese pottery, Pepper.

Introduction

The eastern coast of India, which cuts through Tamil Nadu, Pondicherry, Andhra Pradesh, Odisha and West Bengal states, had many natural seaports of international fame even in early times. Extending from the Ganges Delta in the north to Kanyakumari (Tamil Nadu) in the south, the eastern coast is an emergent type which is characterised by offshore bars, sea beaches, spits, and lagoons. It is an aggradational plain (a term used in geology for the increase in land elevation, typically in a river system, due to the deposition of sediment) formed by river sediments. The eastern coastline of the Indian peninsula is well known for its several seaports located at river mouths or outlets to the sea. These include the opulent Ganges Delta and its dense fluvial network, which has openings to the sea through many outlets along the large fertile plain arching towards the Bay of Bengal, the Odhisha coastal plain, the Krishna and Godavari deltas of Andhra Pradesh, and the Coromandel Coast of Tamil Nadu with the prosperous Kaveri Delta. These river deltas are favourable for navigation and the distributaries associated with estuarine mouths naturally led to the development of many ports. The large lagoons, lakes, and other watery areas provided sheltered water bodies in which a large number of ports developed.

The *Periplus Maris Erythraei* and Ptolemy mention many ports such as Colchi, Camara, Argaru, Poduca, Sopatma, and others on the eastern coast of India. Archaeological investigations supplemented by literary sources have brought to light a large number of seaports all along the eastern coast (Figure 1). Some of the ancient port-cities like Alagankulam, Arikamedu, Kaveripattinam, Kayalpattinam, Korkai, Mamallapuram, Nagappattinam, Periyapattinam, Devipattinam, and others on Tamil Nadu coast like Dharanikota, Kalingapatnam, Kottapattanam, Machilipatnam (Maisolia), and Motupalli in Andhra Pradesh; Palur, Pithunda, Khalkattapatna, and Manikapatna in Odisha; and Tamulki (Tamralipti) and Chandraketurgarh in West Bengal have yielded material evidence exhibiting their dominant role in transoceanic trade and commerce with many countries in the early centuries of common era. The flourishing nature of these seaports is vividly recorded in the *Periplus Maris Erythraei* and many other foreign and local literary works and in the accounts of foreigners like Ptolemy, Pliny, Hiuen Tsang, I-Tsing, Marco Polo, Ibn Battutah, and many others.

The *Periplus Maris Erythraei* mentions that beyond Bacare, located just above the tip of the Indian peninsula on the west, was a dark red mountain (Pyrrhos) and another district stretching along the coast towards the south, called Paralia. The first place was called Balita.¹ It had a fine harbour and a village by the shore. Beyond this there was another place called Comari (Kanyakumari, Tamil Nadu), at which were the Cape of Comari and a harbour.

¹ This place may be the Bammala of Ptolemy, which some scholars identify with Manpalli, a little north of Anjenga or Anjengo, Kerala.

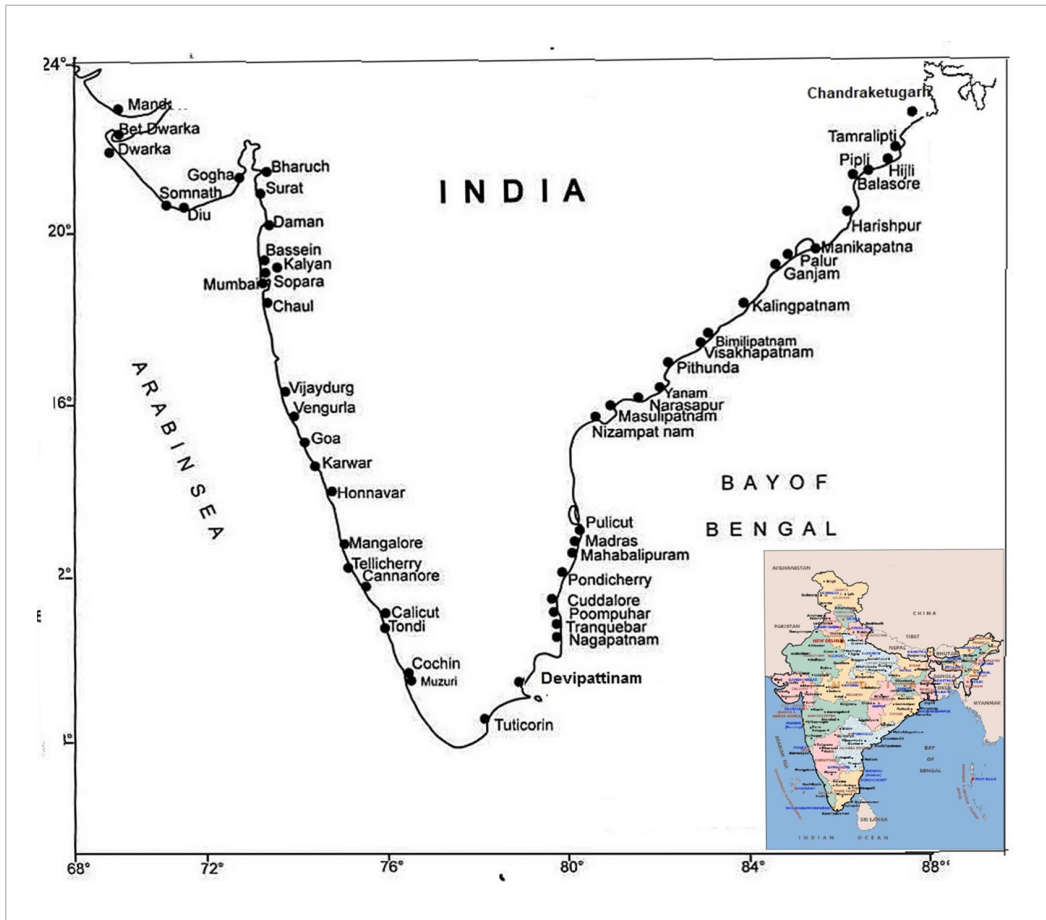


Fig. 1) Map of ancient seaports in India

Korkai

The important port next to Comari (Kanyakumari) on the Tamil Nadu coast is Korkai. Korkai is identified with Colchi referred to in the *Periplus Maris Erythraei* and Kolkhoi mentioned by Ptolemy. In the *Tabula Pentingeriana*, it is mentioned as “Colcis Indorum.” Korkai, in the Srivaikuntam taluk of Tuttukkudi (Tuticorin) district in Tamil Nadu, is located about 3 km north of the Tamirabarani River and about 6 km from the shore of the Bay of Bengal. In ancient times, Korkai was a well-known centre of pearl fishing. It is mentioned often in

Sangam literature² and in classical Western literature. The *Periplus Maris Erythraei* mentions that Colchi belonged to the Pāṇḍiyan Kingdom and it was famous for pearl fisheries. The Gulf of Mannar was called by the Greeks the Colchic Gulf. There must have been a bay close to Korkai in the Gulf of Mannar, which would have allowed more ships to anchor. Due to heavy sedimentation and deposition both by the sea and the river, the bay may have silted up in the medieval period. Scrutiny of satellite imagery and topographical sheets and tracking of palaeo-channels indicate that the ancient Korkai, once situated on one of the distributaries of the Tamiraparani River close to the sea, might have receded away from the shore in the course of time due to excess sedimentation.³ Notwithstanding, the small excavations at Korkai have not provided many clues about its maritime activities, but they have revealed that this port town existed many centuries even before the Common Era.⁴

Kayal

Kayal, also known as Kayalpattinam or Palayakayal in the Tutukkudi (Tuticorin) district in Tamil Nadu, seems to have emerged as a new port in the place of Korkai in the medieval period. It was originally situated almost at the confluence of the Tamiraparani River and the Bay of Bengal, but now it is about 2 to 3 km inland. It seems that it was a flourishing port town under the Pāṇḍiyas in the 12th-14th centuries CE. Marco Polo describes the city of Cail (Kāyal) as:

... a great and noble city, and belongs to Ashar, the eldest of the five brother kings. It is in this city that all the ships touch that come from the west, as from Hormos and from Kis and from Aden, and all Arabia, laden with horses and with other things for sale. And this brings a great concourse of people from the country roundabout and so there is great business done in this city of Cail.⁵

Kayal was also referred to as Kabil by Wassaf and Bawal by Rashid al-Din, Persian historians of the 14th century CE. It is recorded that Mohmad Bin Amir Wali Balkh from Afghanistan travelled to various places in India from 1624-1625 and then embarked on a ship for Sri Lanka from the port called Kabilbatan near Kanyakumari, which was under the control of

² *Akanāṇṇūru*, verse 130, line 11; verse 201, line 4; *Aiṅkaṇṇūru*, verse 188; *Cīrupāṇṇārupatai*, verse 55, line 62.

³ B. Arunachalam, B. Sukumar, and Ahalya Sukumar, "Reconstruction of the Ancient Port, Korkai in Tutukkudi District of Tamil Nadu," *Current Science* 91, no. 3 (2006): 278-280.

⁴ A. Abdul Majeed, "A Note on Korkai Excavations," *Tamil Civilization, Quarterly Research Journal of the Tamil University* 5, no. 1&2 (1987): 73-77.

⁵ Marco Polo, *The Book of Ser Marco Polo the Venetian, Concerning the Kingdoms and Marvels of the East*, 3rd ed., ed. and trans. Henry Yule and Henri Cordier (London: J. Murray, 1929), 370.

the Vijayanagara Kingdom. He mentioned that Kabilbatan had a large Muslim population and also about the selling of pearls there. On the basis of the details recorded by the traveller, Kabilbatan may be identified with Kayal.⁶

It seems the Arabs came here for trade purposes and many of them settled here permanently. Some of the early mosques here are datable to the 7th-8th centuries CE. Some of the Arabic inscriptions found at Kayalpattinam indicate that merchants from Egypt might have often visited this place or settled there permanently. One of the inscriptions on the cenotaph mentions that one Sheik Abubakkar, son of Cairo Utuman, died here on June 23, 1498.⁷ Caldwell, who explored this area in 1861, found a hoard of coins from the 13th century CE. Some of them seem to have been from the Gulf region and one was from Spain, issued during the regime of Peter of Aragon (1276 CE).⁸ Mackenzie and Walter Elliot also noticed some Chinese coins here.⁹ A large number of Chinese potteries (mainly celadon from the Longquan and Fujian kilns of the 13th century CE and Dehua porcelain), Southeast Asian potteries, and Islamic potteries were also found in explorations in and around Kayalpattinam.

Periyapattinam

Periyapattinam, a late medieval port town, is located on the shore of the Bay of Bengal, facing the Gulf of Mannar in Ramanathapuram district, Tamil Nadu. The material evidence, particularly the Chinese potteries found here, indicate that this port was prosperous mainly during the 13th-14th centuries CE, although it seems to have continued to function as a seaport until the 17th century. This place is probably to be identified with Dabadan, a port town mentioned in the *Daoyi Zhilue*, a Chinese work of the 14th century. Further, it has been suggested that Fattan, a port town referred to by Ibn Battuta (1304-1368), can also be identified with Periyapattinam.¹⁰ A tombstone with an inscription written in Hebrew found at Periyapattinam perhaps indicates the contact of this place with Israel and Palestine.¹¹ The small-scale excavation conducted here yielded a number of Chinese and Islamic potteries from the 13th-14th centuries CE.¹² The types of Chinese potsherds found were celadon, white

⁶ Mohammad Afzal Khan, "A Central Asian Traveller's Account of South India." In *Proceedings of the Indian History Congress*, ed. Satish Chandra (Gorakhpur: University of Gorakhpur, 1990), 267-279.

⁷ Archaeological Survey of India, *Annual Report of Indian Epigraphy (ARE)* (New Delhi: 1950), 379.

⁸ R. Caldwell, "Exploration and Excavation at Korkai and Kayal," *The Indian Antiquary, A Journal of Oriental Research* 6 (1984): 80-83.

⁹ H. Yule and C. B. Paleramo, "Malifattan," *The Indian Antiquary, A Journal of Oriental Research* 4 (1984): 8-10.

¹⁰ Noboru Karashima, "Periyapattinam: An Important Medieval Port on the Coromandel Coast and Its Identification," in *Ancient and Medieval Commercial Activities in the Indian Ocean: Testimony of Inscriptions and Ceramic Sherds-Report of the Taisho University Research Project 1997-2000*, ed. Noboru Karashima (Tokyo: Taisho University, 2002), 166-169. However, few scholars identify the Fattan mentioned by Ibn Battuta with Nagapattinam, Tamil Nadu.

¹¹ Archaeological Survey of India, *Annual Report of Indian Epigraphy (ARE)* (New Delhi: 1947), 35b.

¹² Tamil University, Tanjavur, conducted the excavations in 1987 and the author also took part in the excavations

porcelain, blue-and-white porcelain, brown glaze porcelain, and porcelain from Longquan, Fujian, Dehua, Jingdezhen, and Guangdong.¹³

Devipattinam

Devipattinam, another seaport on the southern side of Periyapattinam, is located on the northern side of a small peninsula projecting towards Sri Lanka. Devipattinam was referred to as Mali-Fitan by Wassaf and Mali-Fatan by Rashid al-Din, Persian historians of the 14th century CE.¹⁴ According to these two historians, a Muslim called Taqi al-Din, who served Sundara Pāṇḍiṭya as his minister, lived in the country of Ma'bar. While referring to him, both the historians mentioned that three ports, namely Fitan (Fatan), Mali-Fitan (Mali-Fatan) and Kabil (Bawal) were assigned to his control by Sundara Pāṇḍiṭya.

The inscriptions from the late Pāṇḍiṭya period (13th century CE) found in the Tilakesvara temple at Devipattinam provide interesting information about the import and export of goods from this seaport and also about the details of the taxes levied on them. Pepper, areca nut, perfumes, and other items were exported from here. Furthermore, many goods from inland were brought here for export. The goods were transported by small and big boats. The entry fee collected in the port for *tōni*, a kind of ship, was $\frac{1}{4}$ *paniam* (money), whereas for *cīruru* (another type of ship), it was $\frac{1}{2}$ *paniam*. It seems the capacity or size of *cīruru* was bigger than *tōni*. The merchant guild known as *Nāṇātēvikaḷ* was probably responsible for maritime trade.¹⁵ Exploration in this site has yielded a large number of Chinese celadon and porcelain datable from the 13th-14th centuries to the 16th-17th centuries CE.¹⁶

as one of the excavators.

¹³ Noboru Karashima, "Periyapattinam: An Important Medieval Port on the Coromandel Coast and Its Identification," in *Ancient and Medieval Commercial Activities in the Indian Ocean: Testimony of Inscriptions and Ceramic-Sherds: Report of the Taisho University Research Project 1997-2000*, ed. Noboru Karashima (Tokyo: Taisho University, 2002), 166-169.

¹⁴ H. M. Elliot, *The History of India as Told by Its Own Historians*, vol. 1 (London: Trubner and Co., 1867), 69; H.M. Elliot, *The History of India as Told by Its Own Historians*, vol. 3 (London: Trubner and Co., 1871), 32 & 33; Karashima, "Periyapattinam," 164-169.

¹⁵ *South Indian Inscriptions (SII)*, 8, (New Delhi: Archaeological Survey of India, 1937), Nos. 403 and 405.

¹⁶ Sasaki Tatsuo, "Trade Ceramics from the Coast of the Indian Ocean," *Journal of East-West Maritime Relations* 1 (1989): 117-128.

Alagankulam

Alagankulam¹⁷ is an ancient seaport situated on the banks of the Vaigai River, about 3 km away from the seashore and just opposite the northern tip of Sri Lanka. Excavations at this site have brought to light fragments of imported amphorae, a large quantity of rouletted ware sherds, stamped pottery and Roman coins of Vallentine (383-395 CE), Theodosius I (383-



Fig. 2) Alagankulam: Mediterranean pottery and Roman coins

¹⁷ D. Tulasiraman, "Tamilagattil Romaniyar cila Putiya Ceytugal," *Tolliyal Ayyuttokuti* vol. 1, no. 2 (1985): 76-90; R. Nagaswamy, "Alagankulam: An Indo-Roman Trading Port," in *Indian Archeological Heritage (Sh. K.V. Soundara Rajan Felicitation Volume)*, eds. C. Margabandhu et al. (Delhi: Agam Kala Prakashan, 1991), 247-253; T. S. Sridhar et al., eds., *Alagankulam, An Ancient Roman Port City of Tamil Nadu* (Chennai: Department of Archaeology, Government of Tamil Nadu, 2005).

393 CE), and Arcadius I (395-480 CE), along with a variety of local pottery and antiquities (Figure 2). Alagankulam might have been actively involved in maritime trade in the pre- and post-Common Era. The coin and pottery evidence shows that trade with the Roman world was revived during the Byzantine period after some intervening lull. The site has also yielded a new type of red rouletted ware. The rouletted wares are usually either in grey or black, but the types found here are bright red and somewhat resemble Arretine ware but are certainly different from it. This site may be identified with an emporium called Salour, referred to by Ptolemy as situated to the north of Korkai. *Maduraikkāñci*, a *Saṅgam* tome, referred to an important port town of the Pāṇḍiya kings named after high-quality paddy (*Cāli*), i.e., Cāliyūr.¹⁸ Cāliyūr may be the same as the Salour referred to by Ptolemy. This port seems to have been an important port of the Pāṇḍiya rulers near Madurai, their capital, and was also well connected with it through river and land. The Vaigai River, which flows close to both places, must have been used for navigation in the early period.¹⁹

Nagappattinam

Nagappattinam, a port city situated further north of Alagankulam, was referred to as Nikama by Ptolemy,²⁰ Nagavadana by I-Tsing, Pa-tan by Marco Polo, Malifattan by Rashiduddin and Navutapattana in the Kalyani inscriptions of Dhammaceti (1476 CE).²¹ Perhaps Nagappattinam substituted for Kaveripumpattinam as an important maritime centre in Tamil Nadu in the medieval period. This city remained a significant seaport as well as an important centre of Buddhism for quite a long time. *Periyapurānam* and a few other literary works of the medieval period speak about the busy inland and maritime trade activities of this place. The close association of this place with Buddhism is revealed through diggings in the localities called Velippālayam, Nāṇiyakkāra Street, and Maruntukkottala Street between 1856 and 1934 which yielded as many as 350 Buddhist bronze images ranging from the 9th century to the 16th-17th centuries CE.²² The mass production of bronzes in Nagappattinam indicates that this place was an important centre of Buddhism. As a result of maritime contacts between South India and Southeast Asian countries, there existed in Nagappattinam a colony of foreigners and also a Buddhist temple and *vihāras* for the foreign merchants/travellers and also perhaps the foreigners mainly from Southeast Asian countries residing there. During

¹⁸ *Maduraikkāñci*, lines 75-88.

¹⁹ Now this stretch of river is dried up and some portion of it is also occupied for various purposes.

²⁰ John Watson McCrindle, "Ptolemy's Geography of India and Southern Asia", *Indian Antiquary-A Journal of Oriental Research*, XIII (1884): 332.

²¹ Taw Sein Ko, "A Preliminary Study of the Kalyani Inscriptions of Dhammaceti, 1476 A.D.", *Indian Antiquary-A Journal of Oriental Research*, XXII: (1893): 11-53.

²² T. N. Ramachandran, *The Nagappattinam and Other Buddhist Bronzes in the Madras Museum, Bulletin of the Madras Government Museum* (Madras: Udhaya Printers, 1992).

the reign of the Pallava king Narasimhavarman II (c. 700-728 CE), it seems, a temple was constructed probably at Nagappattinam with the consent of the Chinese king for the sake of perhaps the Chinese Buddhists who came to Nagappattinam from China for trade.²³

Buddhist *vihāras* were also constructed by the Śailendra rulers of the Śrīvijaya Kingdom (which comprised Sumatra, Java, and the Malaysian Peninsula) at Nagappattinam, perhaps for his subjects who frequently visited this place for trade purposes. The larger Leyden copper plates of Rājarāja Cōḷa (985-1014 CE) record that a Buddhist *pallī* (temple) in the Cūltamanivarma Vihāra was erected by the Kitara king (*kitaratt-araiyan*) Māravijayottuṅkavarman at Nagappattinam, perhaps for his subjects who settled at Nagappattinam for trade purposes. The record states that Rājarāja granted the revenues of the village of Āṇaimānkalam to the Buddha residing in the surpassingly beautiful Cūltamanivarma vihāra. It had been built in the name of his father by the glorious Māravijayottuṅkavarman, who was born in the Śailendra family, was the Lord of the Śrīvijaya and the ruler of Kattaha ... (and) who was the son of Cūltamanivarman, at Nāgappattinam.²⁴ The smaller Leyden copper plates of Kulōttuṅga Cōḷa I (c. 1070-1122), dated to 1090 CE, record the exemption of certain taxes to the *palluccantam* villages of two Buddhist *pallis* at Nagappattinam at the request of the ambassadors of the king of Kattaram. One is called Rājēndracōḷapperumpalli and the other is Śailendra Cūltamanivarma vihāra, alias Rājarājapperumpalli, both built by the king of Kattara (*kitarattu araiyan*).²⁵ As stated earlier, Śailendra Cūltamanivarma vihāra was constructed by the Śrīvijaya king Māravijayottuṅkavarman during the time of Rājarāja Cōḷa I after obtaining permission from the latter. Interestingly, an inscription (1015 CE) of Rājēndra Cōḷa I refers to the grant made by an agent of the Śrīvijaya (Kidāram) king to the Tirukkārōṅamudaiya Mahādēva temple at Nagappattinam.²⁶ An inscription of the Kulōttuṅga Cōḷa I period found at Chidambaram (Tamil Nadu) states that the stone (gemstone) presented to Rājēndracōḷa dēvar by the Kāmbōja (Cambodia) king was placed, as per the instructions of the king, in the front portion of Tirucchiṅṅambalamudaiyār temple and subsequently fixed in the upper front row of the stone wall of the front hall (or shrine).²⁷

Like Śailendra kings and the Chinese, rulers and traders from India also established many colonies, religious centres and other edifices in foreign countries, particularly in Sri Lanka, China, and Southeast Asian countries.²⁸ South Indian traders and merchant guilds such as *Ainūravar*, *Maniṅṅāramam*, *Nānādēsi*, *Paḍineni-vishayam*, *Paḍineni-bbūmi*, and *Aṅṅjuvanantam* played

²³ K. A. Nilakanta Sastri, *Foreign Notices of South India - From Megasthenes to Ma Huan* (Madras: University of Madras, 1939), 117.

²⁴ *Epigraphia Indica*, XXII -1933-34 (New Delhi: Archaeological Survey of India, 1984): 213-266.

²⁵ *Epigraphia Indica*, XXII -1933-34 (New Delhi: Archaeological Survey of India, 1984): 267-281.

²⁶ Archaeological Survey of India, *Annual Report of Indian Epigraphy (ARE)* (New Delhi: 1956-57), Nos. 161 and 164.

²⁷ *Epigraphia Indica*, V-1898-99 (New Delhi: Archaeological Survey of India, 1960), 105-106.

²⁸ D. Dayalan, "The Role of Archaeology in the Study of Maritime Buddhism in India," in *The Maritime Silk Road and Seaport Cities*, eds. Moon-Soo Jeong et al. (Seoul: Sunin Publishing, 2015), 233-266.

a significant role in establishing/patronizing religious and secular establishments abroad.²⁹

There are several inscriptions from the 9th and early 10th centuries in central and eastern Java containing references to the terms *bunjeman*, *bunjaman*, and *binjaman*.³⁰ It seems that these terms are variants of *Anjumaniam*, a merchant guild which was active in South India during the medieval period. The term *Anjumaniam* found in Tamil inscriptions in Tamil Nadu and the Kerala coast is the same as the *banjamana* found on the Konkan coast in the Marathi-Sanskrit and Kannada inscriptions. Probably this merchant trade guild included Jews, Syrians, Christians, Muslims, Parsees, and others and had an extensive trade network from Arabia to Java.

Since Nāgappattinam was an important port city as well as a Buddhist centre, many traders and travellers from various countries visited this place. *Da tang xi yu qiu fa gao seng zhuān*, written by the venerable Yi-Jing between the first and second year of Tian Shou of the T'ang dynasty (c. 690-691 CE), mentions that thirty-nine Buddhist monks came to India through the south sea during the T'ang dynasty period and visited Nagappattinam, perhaps to see the Buddhist edifice there.³¹ The description of a place called Tuta meaning an "earthen tower" in the flat land of Pattan (Nagappattinam) in the *Daoyi Zhilue* refers to the existence of a brick tower which had a Chinese inscription. The inscription quoted in the *Daoyi Zhilue* gives the date of construction of the tower as the eighth moon of the third year of Xianchun (c. 1267 CE). It is stated in the *Daoyi Zhilue* that Chinese people came to Tuta and engraved the inscription in that year.³² Marco Polo of Venice visited Nagappattinam in the 13th century on his way to China and describes an eastern *stūpa* in the flat land of Pa-tan (Nagappattinam) as follows:

It is surrounded by stones. There is a stupa of earth and brick many feet high. It bears the following Chinese inscription: The work was finished in the 8th moon of the third year hien chw'en (1267). It is related that these characters have been engraved by some Chinese in imitation of inscriptions on stone of those countries; up to the present time they have not been destroyed.³³

²⁹ D. Dayalan, "Role of Trade and Tamil Traders in Promoting Buddhism," in *Sivasri: Perspective in Indian Archaeology, Art & Culture (Birth Centenary Volume of Padma Bushan Dr. C. Sivaramamurti and Padma Bushan Sh. K.R. Srinivasan)*, ed. D. Dayalan (Delhi: Agam Kala Prakashan, 2013), 15-34.

³⁰ H. B. Sarkar, *Corpus of the Inscriptions of Java (Up to 928 A. D.)* (Calcutta: Firma K. L. Mukhopadhyay, 1971-72), 131, 140, 151, and 236; A. M. Jones Barratt, *Early Tenth Century Java from the Inscriptions* (Dordrecht: Foris Publications, 1984), 151 and 186-187.

³¹ Huimin Bhikkhu et al., "Buddhist Eminent Monks' Tracks and the Sea Silk Road in Tang Dynasty" (paper presented at the Seminar on East Asian Buddhist Traditions organized by the Electronic Cultural Atlas Initiative (ECAI) and Vietnam Buddhist University, Ho Chi Minh City, Vietnam, August 21, 2007).

³² *Daoyi Zhilue* is an important 14th century Chinese work on the countries in the southern sea stretching from Southeast Asia to West Asia.

³³ Ramachandran, *The Nagappattinam*, 14.

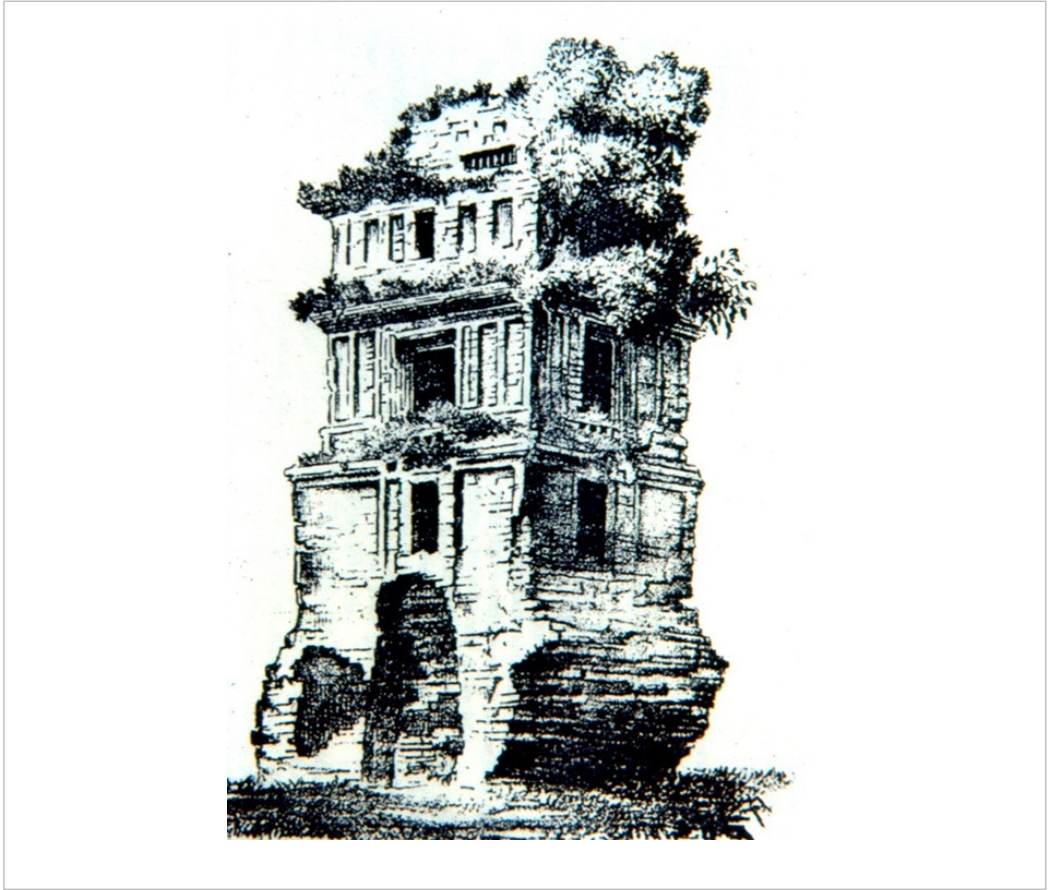


Fig. 3) Nagappattinam: brick pagoda known as China Pagoda

The existence of a Buddhist edifice constructed by the king of China at Nagappattinam is also attested to by the Kalyāni inscription (1476 CE) of Dhammaceti, the king of Pegu.³⁴ According to the inscription, a group of *theras* visiting Ceylon, being shipwrecked, travelled on foot to Nagappattinam and there they visited the site of the Patarikarama monastery. They worshipped an image of the Buddha in a cave constructed at the behest of the Maharaja of Cinadesa. It is well known that a broken brick tower stood in Nagappattinam until 1867,

³⁴ Taw Sein Ko, "A Preliminary Study of the Kalyani Inscriptions of Dhammachi. 1476 A.D.," *Indian Antiquary: A Journal of Oriental Research* 22 (1893): 45. The Kalyāni inscriptions are situated at Zaingganaingm, the western suburb of the Pegu. They comprise ten stone slabs with inscriptions on both sides. The language of the first three stones is *Pali* and that of the rest is *Talaing*, being a translation of the *Pali* text. Dhammachi or Rāmadhipati, the king of Pegu, put up these inscriptions in 1476 CE.

when it was pulled down by the Jesuits.³⁵ It was variously known as the Putuvelikōpuram, Old Pagoda, Black Pagoda, and Jaina Pagoda.³⁶ Sir Charles Valentyn (1725) called it Pagood China (i.e. Chinese Pagoda).³⁷ This structure was closely similar to the multi-storied brick pagodas of China or Southeast Asia in character (Figure 3). Nagappattinam has yielded numbers of Chinese celadon and porcelain and Southeast Asian potteries during explorations, in addition to Chinese coins from the 11th-12th centuries CE and a bronze bell with a Chinese inscription.³⁸

Kaveripumpattinam

Kaveripumpattinam in the district of Tanjavur, Tamil Nadu, the celebrated port city of the illustrious Cōlas of the *Saṅgam* age and also a notable Buddhist centre, is said to have been situated on the confluence of the Kāvēri River and the Bay of Bengal. This city was known by several names in the ancient period, e.g., Pukar,³⁹ Pūmpukar,⁴⁰ Kakanti,⁴¹ Campapati,⁴² and Kaveripumpattinam.⁴³ Ptolemy refers to this place as “Kaberis Emporion,”⁴⁴ whereas the *Periplus Mari Erythraei* calls it “Camara.”⁴⁵ Tamil literature of the first three centuries CE gives a vivid account of this celebrated port city of the Cōlas, its harbour, sailors, merchants, and merchandise. A poem from the 1st-2nd centuries CE states that big ships entered the port without slacking their sails and poured out on the beach precious merchandise from different overseas countries and also other ports of India.⁴⁶ It also speaks of a tall lighthouse on the coast summoning the ships to the harbour by night⁴⁷ and yavanar-*irukkai* (a colony of foreign traders).⁴⁸ The *Patṭinappalai*, a Tamil work of the early centuries CE, gives a vivid description

³⁵ Walter Elliot, “The Edifice Formerly Known as the Chinese or Jaina Pagoda at Negapatam,” *Indian Antiquary: A Journal of Oriental Research* 7 (1878): 224-227.

³⁶ Elliot, “The Edifice,” 224.

³⁷ Elliot, “The Edifice,” 224.

³⁸ Arumuga Seetharaman, *Tamiṅgaṭ Tolliyaḷ Cānruḷaḷ*, vol. 1 (Tanjavur: Dhanalakshmi Patippagam, 1994), 21.

³⁹ *Cilappatikāram*, Canto 1. Maṅkala vaḷttuppāṭṭal, line 16 & 22; Canto 6. Kattalātu kātai, line 32; Canto 7. Kāṅal vari, line 52, 56, 64, 163, 171, & 179; Canto 8. Venir kātai, line 4; *Manimēkalai*, Canto 5. Manimēkala teyvam vantu tōṅriya kātai, line, 109.

⁴⁰ *Cilappatikāram*, Canto 1. Maṅkala vaḷttuppāṭṭal, line 10.

⁴¹ Though there is no clear word denoting “Kakanti” found in *Manimēkalai*, R. Nagaswamy considered the presence of such a name in the above work and identified it as Kaveripumpattinam. R. Nagaswamy, *Art and Culture of Tamil Nadu* (Delhi: Sundeep Prakashan, 1980), 123-124.

⁴² *Manimēkalai*, *Patikam*, line 8.

⁴³ *Annual Report of Indian Epigraphy* (New Delhi: Archaeological Survey of India, 1991), Nos. 261-273.

⁴⁴ G. E. Gerini, *Researches on Ptolemy's Geography of Eastern Asia* (New Delhi: Asian Educational Services, 1992), 408.

⁴⁵ W. H. Schoff, *The Periplus of the Erythraean Sea - Travel and Trade in the Indian Ocean by a Merchant of the First Century* (New York: Longmans, Green, and Co., 1912), 46 and 242.

⁴⁶ *Patṭinappalai*, line 185-192.

⁴⁷ *Cilappatikāram*, Canto 7. Kāṅal vari, line 3.

⁴⁸ *Cilappatikāram*, Canto 5. Intira viḷa uretutta kātai, line 10.

of the various goods and articles of trade which came to Kaveripumpattinam and their respective places of origin. Mention is made of horses from across the ocean, pepper from the western coast, semi-precious stones and gold from the northern hills, a fragrant wood called Aquila and sandalwood from *Kutamalai* (Potiyil hill), pearls from the southern seas (*tenkattal* – coast of the southernmost part of Tamil Nadu), red coral from the ocean on the southern side (*kunakattal*), products from the Ganges and Kaveri valleys, food-products from *Īlam* (Sri Lanka), and perfumes from *Kāḷakam* (Kattāram-Kedah Province of Malaysia).⁴⁹

At Kilaiyur, a suburb of Kaveripumpattinam, a massive brick platform, probably representing a wharf in the backwaters where boats could be anchored to wooden posts, was excavated (Figure 4).⁵⁰ It seems the first stage of the wharf was composed of a series of poles driven into the soil under water at low tide, in an alignment of rows and seemingly secured to one another and to planks probably fixed on top as a platform, for loading and unloading commodities brought from the sea into the backwaters by boats. This appears to have been elaborated and strengthened in the subsequent stage by a regular brick-built wharf of twin platforms, complete with a floor course and space in between the quay-like platforms for breakwaters to run through without eroding the bricks. Carbon¹⁴ dating of the wood associated with the wharf was approximately between 300 BCE and 200 BCE for an average of 250 BCE. Similar wharf-like structures of the early historic period were also excavated at Dharanikota (Andhra Pradesh) and Rajbandar (Elephanta Island off Mumbai).

Some of the records state that seafaring traders and Buddhist monks from Sri Lanka, China, and Southeast Asian countries who came to India via the sea often landed at Kaveripumpattinam and from there they went to various other places. The *Sihalavattthupakarana*, an anthology of Buddhist stories perhaps written some time in the 5th century CE, mentions that one of the sea routes followed by the Buddhist pilgrims from Sri Lanka to visit various Buddhist centres in India was from Mahakonda (perhaps Mahatittha), the port of embankment in Sri Lanka, to Kāveripattana in Tamil Nadu, the port of landing. From there, they travelled overland to the north of India in the company of caravan traders, facing many hazards and dangers.⁵¹

Incidentally, Kaveripumpattinam was not only famous for its seafaring activities, but also well known in times of yore as a glorious centre of Buddhism. Many texts indicate the existence and perhaps the prosperous conditions of the Buddhist establishments at Kaveripumpattinam.⁵² Interestingly, excavations carried out at Kaveripumpattinam have

⁴⁹ *Patutimappalai*, line 185-192.

⁵⁰ A. Ghosh, ed., *Indian Archaeology 1962-63 - A Review* (Delhi: Archaeological Survey of India, 1965), 13; K.V. Soundara Rajan, *Kaveripattinam Excavations 1963-73 (A Port City on the Tamil Nadu Coast)*, *Memoirs of the Archaeological Survey of India*, vol. 90 (New Delhi: Archaeological Survey of India, 1994), 24-26.

⁵¹ Jacqueline Ver Eecke, *Le Sihalavattthupakarana Texte Pali et Traduction*, vol. 123 (Paris: Ecole Francaise D'Extreme-Orient, 1980), 34-39.

⁵² *Manimēkalai, Cilappatikāram, Makāvamsa, Abidammavataru, Buddha namcatta katā.*

brought to light the remains of a *vihāra* of the 4th-5th centuries CE and a Buddhist temple of the 6th century or a little later.⁵³ In addition, a large number of Buddhist bronzes have also been found in and around Kaveripumpattinam. For some reason or other, trade activities weakened at Kaveripumpattinam after the 6th-7th centuries CE and in turn Buddhism also lost its importance in this city.



Fig. 4) Kaveripumpattinam, Tamil Nadu: remains of ancient wharf

Arikamedu

Arikamedu, a well-known Indo-Roman trading station, is identified with “Pouduke” of the *Periplus Maris Erythraei* and Ptolemy. It was about 6 km from Pondicherry, situated on the bank of the Ariyankuppam River which flowed into a lagoon barred by a sand-bar from the Bay of Bengal. The area surrounding Arikamedu has several sea inlets and backwaters,

⁵³ A. Ghosh, ed., *Indian Archaeology 1964-65 - A Review* (Delhi: Archaeological Survey of India, 1969), 24-25; M. N. Deshpande, ed., *Indian Archaeology 1972-73 - A Review* (Delhi: Archaeological Survey of India, 1978), 32-33.

thus making it a suitable location for harbouring ships safely. A small fishermen's village called Virampattinam, located about a kilometer south of Arikamedu, is considered to be identical with Virai, a coastal town of a Velir chieftain referred to in ancient Tamil literature.⁵⁴ Arikamedu is a celebrated archaeological site, probably the most famous in South India. The site of Arikamedu was first mentioned in the travel writings of the French astronomer Guillaume Le Gentil, who visited Pondicherry in 1768-71. In 1937, the historical importance of the site and its connection with the Roman Empire was recognised for the first time after Gabriel Jouveau-Dubreuil collected from here some beads and gems, one of them with the head of Augustus in intaglio.⁵⁵ Subsequently, scholars and amateur archaeologists from the Ecole Francaise de Extreme-Orient, Hanoi Museum, Madras Museum, and others visited the site and undertook explorations and excavations. From 1941-44, small scale excavations were carried out under the direction of L. Faucheux and R. Surleau, and these excavations were partly published in a brief report by Faucheux in 1945 and by Pattabiraman in 1946. In 1945, the Archaeological Survey of India conducted systematic excavations under the direction of R. E. M. Wheeler.⁵⁶ J. M. Casal conducted excavations in the fairly extensive area from 1947-50.⁵⁷ After a comprehensive review of the archaeological works at Arikamedu, the site was again excavated by Vimala Begley and others between 1989 and 1992.⁵⁸ The renewed excavations proved that the site was first occupied during the third century BCE and that the height of the region's trade with the Mediterranean was from 50 BCE to 50 CE. It is worth mentioning that Strabo recounts that a hundred and fifty ships sailed to India each year via southern Egypt.⁵⁹

The various explorations/excavations have brought to light a most impressive assemblage of Mediterranean artefacts like red-gloss pottery (Arretine and related fabrics),⁶⁰ Mediterranean shipping amphorae, Roman intaglios, glasses and gems, Roman lamps, a Graeco-Roman gem with the head of Augustus in intaglio, Egyptian faience bowls, besides black and grey rouletted ware, local potteries, stone and glass beads, terracotta figures, and other objects (Figure 5). The occurrence of Chinese and Southeast Asian pottery from the medieval period

⁵⁴ *Akanāṅṅīru*, 206, 13.

⁵⁵ G. Jouveau Dubreuil, "Les Ruines Romaines de Pondichery," *Bulletin de l'Ecole Francaise d'Extreme-Orient* 42, no. 2 (1941): 448-50.

⁵⁶ R. E. M. Wheeler et al. "Arikamedu: An Indo-Roman Trading Station on the East Coast of India," *Ancient India* 2 (1946): 17-124.

⁵⁷ J. M. Casal, *Fouille de Virampattinam- Arikamedu* (Paris: Imprimerie Nationale, 1949).

⁵⁸ Vimala Begley, Jr., P. Francis, I. Mahadevan, and K. V. Raman, eds., *The Ancient Port of Arikamedu - New Excavations and Research 1989-1992*, vol. 1, *Memories Archeologiques* 22 (Pondicherry: Centre d'Histoire et d'Archeologie, Ecole Francaise D'Extreme-Orient, 1996); Vimala Begley, Jr., P. Francis, I. Mahadevan, and K. V. Raman, eds., *The Ancient Port of Arikamedu - New Excavations and Research 1989-1992*, vol. 2, *Memories Archeologiques* 22 (Pondicherry: Centre d'Histoire et d'Archeologie, Ecole Francaise D'Extreme-Orient, 2004).

⁵⁹ Strabo, *Geography* (London: William Heinemann Ltd., 1928), 12.

⁶⁰ D. Dayalan, "An Introduction to Roman Pottery," in *Recent Perspectives on Prehistoric Art in India and Allied Subjects (Essays in Honour of Dr. Shyam Kumar Pandey)*, ed. R. K. Sharma et al. (New Delhi: Aryan Books International, 1996), 194-202.



Fig. 5) Arikamedu: grey pottery with engravings, 1st-2nd centuries CE



Fig. 6) Arikamedu: Mediterranean amphora pieces



Fig. 7) Arikamedu

at Arikamedu indicates that this port city maintained an active contact with those countries until the medieval period. The Arretine ware, produced at Arezzo in Italy, belongs to the *terra sigillata* (stamped pottery) category as some of it is decorated with a stamped mould. Terra sigillata pottery is believed to have originated in the eastern Mediterranean area. Some of the Arretine ware found at Arikamedu has the stamping VIBII (VIBIE or VIBIF), CAMVRI and ITTA.⁶¹ Large numbers of sherds of amphorae of a Mediterranean type were found in Arikamedu (Figure 6). Wine from the Mediterranean region is often referred to in the *Saṅgam* literature as “*Yavana Terai*.” One *Saṅgam* poem says, “The sweet-scented wine (*tan! kama! tēral*) brought in by the lovely ships of the Yavaṇar (foreigners, mainly Romans) served unto you (king) everyday on trays of chiselled gold by girls with sparkling wrists and after testing of it, may you be filled with merriment.”⁶² The study of the style, nature and internal incrustation of the amphorae sherds found at Arikamedu shows that they were used as containers for various items like wine, oil, and garum (fish sauce) and they came from different countries such as Catalonia (Spain); Kos, Knidos, and Rhodes (Greek Islands); Campania and the adjacent area (southern Italy); the Istria Peninsula in the Adriatic Sea; and other places. The excavations at Arikamedu have also brought to light many structures, including a structure considered to be a dyeing vat used for dyeing muslin clothes which the Romans wanted (Figure 7). The large number of beads and bead waste found in excavations at Arikamedu indicates that this

⁶¹ Wheeler et al., “Arikamedu,” 39-40.

⁶² *Piṭṭanāṇṇūru* 56, lines 17-20.

site was an important centre of stone as well as glass bead making industry. Some of the beads both of stone and glass found in Southeast Asian countries reveal a striking similarity with beads manufactured at Arikamedu. Some of the potsherds engraved with old Sinhalese inscriptions found at Arikamedu and also at Alagankulam indicate the network of these port cities with Sri Lanka.⁶³

The *Yuan Shi* (*Yuan-Shi-zhin-bian*), the annals of the Yuan dynasty (1271-1368 CE) compiled in the 14th century, mentions the name of Xin-cun as the port on the Coromandel coast where Chinese envoys arrived in 1281. The Chinese text mentions that the Chinese emperor, being anxious to receive a mission from the king of Ju-lan as a token of his submission, sent imperial envoys to Ju-lan for that purpose in 1280.⁶⁴ The port city Xin-cun mentioned in this work is identified variously with Kāveripūmpattināṁ,⁶⁵ Sadras (Caturāṅgapattināṁ), and Sōpuram (Tiruccōpuram) or Cintāmanī on the Coromandal coast.⁶⁶ N. Karashima identified this place with Pondicherry on the grounds that Xin-cun means a “new village” in Chinese. Putuccēri, the original form of Pondicherry, also means a “new village” in Tamil.⁶⁷ As stated above, the discovery of many Chinese and Southeast Asian potteries from the 12th-14th centuries CE in the Pondicherry area testifies to the fact that this area flourished as an important seaport and trade centre during that period. Manappattu, a coastal site situated about 10 kms south of Arikamedu, has also yielded a large number of Chinese and Southeast Asian potteries from the late medieval period.⁶⁸

Mamallapuram

Mamallapuram was an important seaport right from the beginning of the Common Era. The first authentic evidence to prove that it was a seaport comes from the Tamil work *Periya Tirumoli* written by Tirumaṅgai Āḷvār (8th century CE) who describes the place as Kattal Mallai (Mallai on the seashore) where ships rode bent to the point of breaking as they

⁶³ Iravatham Mahadevan, “Old Sinhalese Inscriptions from Indian Ports: New Evidence for Ancient India-Sri Lanka Contacts,” *Journal of the Institute of Asian Studies* 14, no. 1 (1996): 55-68.

⁶⁴ K. A. Nilakanta Sastri, *Foreign Notices of South India - From Megasthenes to Ma Huan* (Madras: University of Madras, 1939), 150-152; Noboru Karashima, “Pondicherry in Chinese Sources,” in *Ancient and Medieval Commercial Activities in the Indian Ocean: Testimony of Inscriptions and Ceramic-Sherds - Report of the Taisho University Research Project 1997-2000*, ed. Noboru Karashima (Tokyo: Taisho University, 2002), 160-163.

⁶⁵ W. W. Rockhill, “Notes on the Relations and Trade of China with the Eastern Archipelago and the Coast of the Indian Ocean during the Fourteenth Century,” *T'oung-pao* 15 (1914): 431ff; K. A. Nilakanta Sastri, *Foreign Notices of South India - From Megasthenes to Ma Huan* (Madras: University of Madras, 1939), 150-152.

⁶⁶ T. N. Subramaniam, “A Tamil Colony in Medieval China,” in *South Indian Studies*, ed. R. Nagaswamy (Madras: Society for Archaeological, Historical & Epigraphical Research, 1978), 1-52.

⁶⁷ Noboru Karashima, “Pondicherry in Chinese Sources,” in *Ancient and Medieval Commercial Activities in the Indian Ocean: Testimony of Inscriptions and Ceramic-Sherds: Report of the Taisho University Research Project 1997-2000*, ed. Noboru Karashima (Chennai: Alamu Printers, 2002), 160-163.

⁶⁸ The site was noticed by the author.

were moving hither and thither laden with wealth, big trunked elephants, and gems of nine varieties in heaps. The *Saṅgam* work, namely *Perumpānāṟruppatāi*, written by the poet Kattiyālūr Uruttiran-kaṇiṇaṇār, refers to a place called Nīrpeyaṟru as an active seaport of Tondaimāṇ Ilantiraiyaṇ of Kāncipuram. It is possible that the name *Nīrpeyaṟru* was the earlier name of Mamallapuram. The seaport called Sopatma referred to in the *Periplus Maris Erythraei* has been tentatively identified with Mamallapuram. Ptolemy's reference to "Malange" is perhaps this place. The contact of Mamallapuram with countries beyond the sea, particularly with the Mediterranean countries, is attested to by the occurrence of Roman coins (Theodosius of the 4th century CE), amphorae pieces, and other objects in this area. A few Mediterranean amphora fragments have also been found at a coastal place called Vasavasamudram not far from Mamallapuram.⁶⁹ In addition, there is some epigraphical and literary evidence to prove that the Pallava kings had active contacts across the seas, cordial as well as inimical, with foreign countries like Ceylon, China, and the Southeast Asian countries. These maritime activities were more probably carried on through Mamallapuram, the notable seaport of the Pallavas throughout their rule (Figure 8).



Fig. 8) Mamallapuram, Tamil Nadu: view of monolithic temples of Pallava period

⁶⁹ R. Nagaswamy and Abdul Majid, *Vasavasamudram* (Chennai: Department of Archaeology, Government of Tamil Nadu, 1978).

The exact location of the seaport at Mamallapuram is a matter of controversy. However, the author of this paper identified a place called Punjeri, situated just 1.5 km west of Mamallapuram on the western bank of the Buckingham Canal, a backwater of the sea, as the location of the ancient seaport of Mamallapuram.⁷⁰ The reasons for identifying this place as the ancient seaport are:

- (1) The name Punjeri might have been derived from the term *Pukum-cēri*, which means in the Tamil language “the village of entry.” As such, the very name of the village may suggest that it was the place where ships used to enter.
- (2) The majority of ancient seaports in south India are located either on a river bank, close to the confluence of the river and the sea, or in a backwater area. Punjeri is, in fact, situated in a backwater area, near Mamallapuram.
- (3) The huge buried remains of structures, burials (megalithic burials), and ceramic varieties of the early period found at this site on the western bank of the backwaters (Buckingham Canal) prove its flourishing existence in the past.
- (4) A few metres away, towards the western side of Buckingham Canal, there is a small knoll. Running throughout on the western side of this is a set of 3 to 4 deep-cut grooves. It is most likely that these grooves were meant to receive the first course of any foundation of a huge structure like a warehouse.

Kottapatnam

Kottapatnam, located on the east coast near Sriharikota not far from Chennai, is a lesser known seaport in Nellore district, Andhra Pradesh. The name “Kottis” mentioned by Ptolemy is tentatively identified with this place. A variety of pottery including rouletted ware, stamped ware, kaolin pottery, Chinese porcelain, celadon ware, glazed ware, a coin of Taizong (1403–1424 CE) of the Ming dynasty, and many sherds of Thai celadon probably produced from the Si-Sachanarai kilns in northern Thailand found in this site undoubtedly indicates a well-organized trade link of this place with many countries like China, Thailand, and other Southeast Asian countries.⁷¹ A good number of painted Thai ironware also perhaps

⁷⁰ D. Dayalan, “Punjeri - A Pallava Sea-port near Mamallapuram,” in *Seminar on Marine Archaeology*, ed. Natana Kasinathan (Chennai: Tamil Nadu State Department of Archaeology, Government of Tamil Nadu, 1992), 52-56; D. Dayalan, “New Light on the Location of the Ancient Seaport of Mamallapuram” in *Tamil Civilization, Quarterly Research Journal of the Tamil Univeristy* 5, no. 1 & 2 (1987): 133-134.

⁷¹ K. P. Rao, “Early Trade and Contacts between South India and Southeast Asia (300 BC–AD 200),” in *Proceedings Volume of the XVth International Conference on South Asian Archaeology*, ed. E. M. Raven (Leiden: Leiden University, 1999), 353–61; K. P. Rao, “Kottapatnam: A South Indian Port Trading with Eastern Lands,” in *Ancient and Medieval Commercial Activities in the Indian Ocean: Testimony of Inscriptions and Ceramic Sberds - Report of the Taisho University Research Project 1997-2000*, ed. Noboru Karashima (Tokyo: Taisho University, 2002), 125-33; K. P. Rao and J. Cribb, “Chinese Coin Found at Kottapatnam, Nellore District, Andhra Pradesh,” *Numismatic Digest* 23–24

from Si-sachanarai kilns were found at Kottapatnam. Large glazed and unglazed jars from Thailand and other Southeast Asian countries have been found in this site and a few other sites in Tamil Nadu and Andhra Pradesh.⁷² The stamped ware (i.e., whole body of the ware except the rim is decorated with impressed designs) found at Alagankulam and Arikamedu (Tamil Nadu), Manikpatna and Jaugada (Odisha), Kottapatnam, and many other sites also probably came from Southeast Asian countries. The author has collected large numbers of grey-ware with chess-board patterns at Manalmedu near Pondicherry which are most likely of Southeast Asian origin.⁷³

It is worth mentioning that rouletted ware of Indian origin has also been found at many places in Thailand (Phukhao Thong), Indonesia (Bunai complex on the northern shores of Java and at Sembriran, north Bali), Vietnam (Trakieu), and many other places in Southeast Asia. X-ray diffraction analysis (XRD) of the roulette ware sherds found at Trakieu in Vietnam and at Sembriran in Indonesia revealed their Indian origin.⁷⁴ Interestingly, the L-shaped roofing tiles popularly known as Cōḷa tile reported in almost all the historical sites in Tamil Nadu are found at many places in Thailand and Malaysia (Bujang Valley). The beads, particularly of carnelian and other semi-precious stones, were exported from India either as a raw material or as a finished product. The collar-beads found at various sites in Thailand are very much akin to similar beads found in south India, particularly in Tamil Nadu. The glass beads of Sembriran resemble south Indian samples.⁷⁵ Similarly, the beads reported from Ridiyagama and Mantai in Sri Lanka, Ban Khuan Luk Pat in Thailand, Oc-Eo in Vietnam, and Kuala Selinsing in Malaysia appear to have been imported from India.⁷⁶ The finding of agate and carnelian beads at Ban Don Ta Phet, Thailand, indicates the earliest maritime contacts between India and Southeast Asia BCE.⁷⁷

(2001): 133–38.

⁷² H. Sasaki, “Chinese and Thai Ceramics in Kottapatnam,” in *Ancient and Medieval Commercial Activities in the Indian Ocean: Testimony of Inscriptions and Ceramic Sherds - Report of the Taisho University Research Project 1997-2000*, ed. Noboru Karashima (Tokyo: Taisho University, 2002), 134-144.

⁷³ A Buddha statue noticed by the author at this site is presently kept in the Pondicherry Museum

⁷⁴ D. Viswas Gogte, “The Chandrakhetugarh-Tamluk Region of Bengal: Source of the Early Historic Rouletted Ware from India and Southeast Asia,” *Man and Environment* 22, no. 1 (1997): 69-85; I. W. Ardika and P. Bellwood, “Sembriran: The Beginning of India Contact with Bali,” *Antiquity* 65 (1991): 221-222.

⁷⁵ R. Tomber, “Indian Fine Wares from the Red Sea Coast of Egypt,” *Man and Environment* 27 (2002): 25–31.

⁷⁶ C. F. W. Higham, *The Archaeology of Mainland Southeast Asia* (Cambridge: Cambridge University Press, 1989).

⁷⁷ Lan C. Glover, “Ban Don Ta Phet: The 1984-85 Excavation,” in *Southeast Asian Archaeology 1986*, ed. I. and E. Glover (Oxford: Archaeopress Ltd, 1990), 139-83; Berenice Bellina, “Beads, Social Change and Interaction between India and Southeast Asia,” *Antiquity* 77 (2003): 285–97.

Motupalli

Motupalli, another less known seaport of the medieval period, located to the north of Kottapatnam in Andhra Pradesh, has an interesting inscription speaking of maritime trade activities. The proclamation in the Motupalli pillar inscription of Gantapatidēva (1244 CE) assures safety to traders arriving from all continents, risking the sea-voyage and its hazards like storms and shipwrecks. The levies on the items of import and export have also been listed in great detail and speak to the flourishing international trade from this seaport. Besides the mention of several continents, islands, foreign countries, and cities, the specific mention of Chini (China) is noteworthy.⁷⁸ Motupalli is probably the same as the “mutfli” mentioned by Marco polo.⁷⁹

Dharanikota (Andhra Pradesh), located on the bank of the Krishna River, was an important inland trade centre near the renowned Buddhist site Amaravati. The huge wharf-cum-embankment raised on post-holes at right angles to the navigational channel at Dharanikota indicates its busy maritime trade activities in the early historic period. The wooden wharf was subsequently substituted with a brick structure constructed all along the channel on its inner side and an earthen embankment was raised at the back. The raising of this formed a gradual gradient upwards from the brick wharf so that it acted both as a backing and a floodbank during the tide.⁸⁰

In fact, the large maritime façade of peninsular India and the fluvial networks of various river systems, opening out into the sea at many outlets, afforded comfortable waterway traffic and trade in the hinterland. Local merchants played an indispensable role in the promotion of maritime trade as their participation and involvement was essential for the identification of market centres and connecting routes to these markets. The Krishna River, one of the longest rivers in India (about 1300 km in length), rises in Mahabalesvar in Maharashtra and meets the sea in the Bay of Bengal at Hamasaladevi (near Koduru) in Andhra Pradesh. The Krishna River flows through the states of Maharashtra, Karnataka, and Andhra Pradesh. Its most important tributary is the Tungabhadra River, which itself is formed by the Tunga and Bhadra rivers that originate in the Western Ghats. Other tributaries include the Bhima, Malaprabha, Ghataprabha, Yerla, Warna, Dindi, Musi, Koyna, and Dudhganga rivers.

The Krishna River is one of the fertile regions in India. It afforded not only a convenient approach to the sea, but also brought into being a number of flourishing Buddhist and urban settlements. The river also immensely facilitated India's maritime trade and cultural relations with East Asian countries as this river delta and its dense fluvial network opening

⁷⁸ *Epigraphia Indica* XII-1913-14 (New Delhi: Archaeological Survey of India, 1982): 188- 197.

⁷⁹ Marco polo mentioned a kingdom called Mutfli having many mountains in which diamonds were found. L.F. Benedetto and Aldo Ricci, *The Travels of Marco Polo* (London: Routledge, 1939), 307.

⁸⁰ A. Ghosh, ed., *Indian Archaeology 1962-63 - A Review* (Delhi: Archaeological Survey of India, 1965), 1-3; A. Ghosh, ed., *Indian Archaeology 1963-64 - A Review* (Delhi: Archaeological Survey of India, 1967), 2-4.

out into the sea at many outlets which served as appropriate natural seaports. There are many important Buddhist centres on the banks of the Krishna River and its tributaries: Bhattiprolu, Ghantasala, Amaravati, Bapatla, Vaddamanu, Penumaka, Gudivada, Alluru, Gummadidurru, Jaggayyapeta, Goli, Manchikallu, Nagarjunakonda, Sannati and Kanganhalli (Bhima Vallay), Maski, and many other sites (Figure 9). It is interesting to note that many of these Buddhist sites also happened to be important local and international trade centres. It is not just coincidental, but probably there was a strong link between trade centres and Buddhism. Amaravati has also yielded quite a good number of Roman potteries, amphorae, and coins, as well as pottery and antiquities from Sri Lanka, China, and Southeast Asian countries. Nagarjunakonda, also located in the Krishna River basin, is one of the most famous Buddhist sites of Andhra, hallowed by its association with the celebrated Acharya Nagarjuna, the founder of the Madhyamika School of Mahayanism. Interestingly, there was a monastery known as Simhala Vihara (Sihāla Vihāra), probably constructed for devotees from Sri Lanka who frequently visited this site.⁸¹

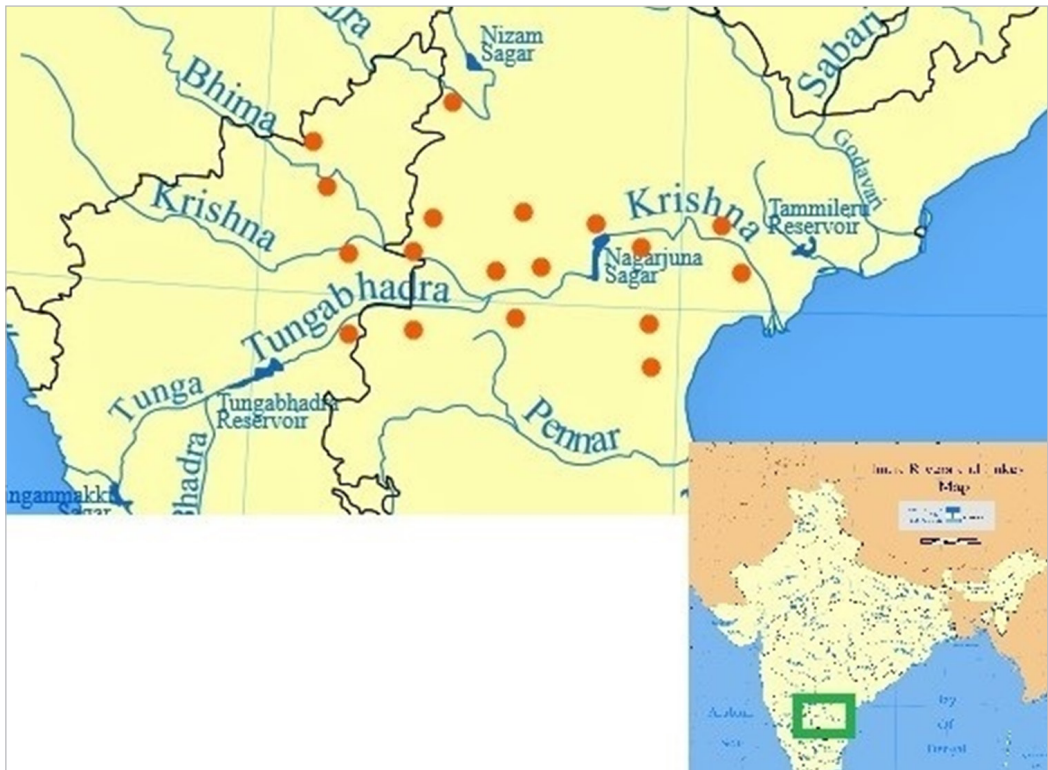


Fig. 9) Buddhist sites & commercial centres in the Krishna Valley

⁸¹ *Epigraphia Indica* XX-1929-30 (New Delhi: Archaeological Survey of India, 1983): 1-37.

Machilipatnam

Machilipatnam in Andhra Pradesh also remained an important seaport on the coast of the Bay of Bengal for quite a long period. It was located almost at the confluence of the Krishna River and the Bay of Bengal. This place was mentioned in the *Periplus of the Erythraean Sea* as “Masalia,” whereas Ptolemy called this place as “Maisolos.” Machilipatnam’s port served as the principal seaport of the Golconda Kingdom (mainly Telangana region) from the 15th to 17th centuries CE. Even during the colonial period (18th-19th century), it remained a significant port. Muslin was an important trade material of this place, and traders from various parts of the globe visited it for the purchase of muslin. It is believed that the word “*muslin*” originated from the name “Maisolos.” Several Roman coins and potteries of Mediterranean origin have been found in and around Machilipatnam during explorations and the excavations. In addition, potsherds from China and Southeast Asian countries have also been found here.

Visakhapatnam

Visakhapatnam, one of the natural harbours on the east coast of India which served as an active maritime trade centre in ancient times, is a leading seaport of India even now. It has a long history right from the 4th-3rd centuries BCE. It was considered a part of the Kalinga Kingdom, and later ruled by the Vengi, the Pallava, and the Eastern Gaṅga dynasties. Archaeological records suggest that the present city was built around the 11th and 12th centuries, and control over the city fluctuated between the Cōḷa dynasty and the Gajapati Kingdom until its conquest by the Vijayanagara Empire in the 15th century. During the colonial period, the Dutch, French, and other European merchants used this port for trading ivory, tobacco, muslin, and other products. The three inscriptions, two in the Telugu language and one in Tamil, found at Visakappatnam are quite interesting.⁸² The Telugu inscription, dated 1090 CE, purports to remit some taxes on house sites within the demarcated precincts of the Ainūṭṭuva-perumballi in Visakappattinam or Kulōṭṭungacōḷa paṭṭaṇam by the “Twelve” of the *Nagaram* of the town. The grant was entrusted to a merchant (*vyāpāri*) of the *Añjuvanimam* of Mātōṭṭam or Rāmakulavallipaṭṭaṇam. It is interesting to note that Mātōṭṭam, the place from where the merchant hailed, is obviously Mahātīttha (the present Mandai), a famous seaport town in Sri Lanka. The second title of the merchant Malaimaṇḍala-mārā perhaps indicates that he had links with the Kerala coast too.⁸³ The second Telugu inscription, dated to *Saka* 112 (1200, 1204 or 1207 CE), records a grant to the same Ainūṭṭuva-perumballi (this may be a

⁸² *South Indian Inscriptions* X, Nos. 211 & 651 and *South Indian Inscriptions* XXVI, No. 103.

⁸³ *South Indian Inscriptions* X, No. 651.

mosque) by a chief Mahamaṇḍalēśvara Kulōttuṅga Prithvīśvara. In this grant, the receiver was another merchant belonging to the *añjuvanmam* of Pāsāy.⁸⁴ The name of *Pāsāy* is strikingly similar to Pasai or Samudera-Pasai on the north coast of Sumatra in Indonesia.

Kalingapatnam

Kalingapatnam, an ancient port city as well as a notable Buddhist centre, was situated at the confluence of the River Vamsadhara and the Bay of Bengal, in the Srikakulam district, Andhra Pradesh (Figure 10). Kalingapatnam was a flourishing port under the Gaṅga rulers, and during ancient times, vessels from here sailed to Sri Lanka, Java, Sumatra, Malaysia, and other countries. The Jain *Uttaradhyana Sutra*⁸⁵ and Hathigumpha inscription of King Kharavela⁸⁶ mention the names of two ports, Pihunda and Pithunda respectively, belonging to ancient Kalinga. The port of Pithunda seems to have been located somewhat close to Kalingapatnam at the mouth of the River Vamsadhara.⁸⁷



Fig. 10) Kalingapatnam & Saligundam, Andhra Pradesh:
Buddhist stupas of early historic period

⁸⁴ *South Indian* Inscriptions X, No. 211.

⁸⁵ J. Charpentier, ed., *Uttaradhyana Sutra* (Uppasala: Appelbergs Boktryckeri Aktiebolag, 1922), 98.

⁸⁶ *Epigraphia Indica* XX-1929-30 (New Delhi: Archaeological Survey of India, 1983): 80.

⁸⁷ A. K. Pattanayak and S. K. Pattanayak, "Orissa and South-East Asia: A Study of Ancient Relations up to 15th C. A. D.," in *Role of Universities and Research Institutes in Marine Archaeology, Proceedings of the Third Conference*, ed. S.R. Rao (Goa: National Institute of Oceanography, 1992), 51-54.

Palur

Palur, situated in the Ganjam district of Odisha, was mentioned as an important port on the eastern coast of India. Palur is referred to in the Nagarjunakonda inscription (3rd century CE) of Virapurushadatta as an important maritime emporium.⁸⁸ G. E. Gerini, a researcher of Ptolemy's *Geography*, has identified the "Paloura" of Ptolemy with the present Palur.⁸⁹ Recent archaeological explorations around Palur (Kantigarh area) have brought to light potsherds of Chinese celadon ware, rouletted ware, and Mediterranean amphora pieces, which further strengthen identification of this place with the ancient Paloura referred to by Ptolemy. Palur has often been identified to be the same as Dantapura mentioned in Buddhist texts. The word "pallu" (in the Tamil language) and "danta" mean "tooth" and "ūr" is identical to "pura" or city.⁹⁰ According to the Pali *Dathavamsa*, a sacred tooth relic of the Buddha was presented by Thera Kshema to King Brahmadata of Kalinga who deposited it within a magnificent *stupa* at Dantapura.⁹¹

Ptolemy refers to an *apheterion* (point of departure), immediately to the south of Paloura (Palur), where ships bound for Khryse (the Malay Peninsula) ceased to follow the littoral and entered the high seas. Gerini has identified the *apheterion* of Ptolemy with the modern Gopalpur, just a little below the mouth of the River Rushikulya in the Ganjam district of Odisha.⁹²

Pithunda

Pithunda was another significant port of ancient Odisha. The Hathigumpha inscription mentions Pithumdam/Pithunda as a metropolis which Kharavela conquered in his 11th regnal year.⁹³ Ptolemy refers to a metropolis named Pityndra and locates it on the sea coast in between the mouths of the Maisolos (the Godavari) and the Manada (the Mahanadi), equidistant from both.⁹⁴ The Jain *Uttaradhyayana Sutra* mentions Pihumda/Pithunda as a port town.⁹⁵ Sylvain Levi sees the Pithumdam/Pithunda of the Hathigumpha inscription, the Pityndra of Ptolemy

⁸⁸ D. C. Sircar, *Selected Inscriptions Bearing on Indian History and Civilization*, vol. 1 (Calcutta: University of Calcutta, 1956), 233-234.

⁸⁹ G. E. Gerini, *Researches on Ptolemy's Geography of Eastern Asia* (New Delhi: Asian Educational Services, 1992), 743.

⁹⁰ S. Levi, "Paloura - Dantapura." *Indian Antiquary - A Journal of Oriental Research* 55 (1926): 94-99.

⁹¹ B. C. Law, trans., *Dathavamsa* (Lahore: Motilal Banarasidas, 1925).

⁹² Gerini, *Researches*, 743.

⁹³ Shashi Kant, *The Hathigumpha Inscription of Kharavela and the Bhabru Edict of Asoka - A Critical Study* (Delhi: D.K. Printworld (P) Ltd., 2000), 16, 28, 51, and 52.

⁹⁴ J. W. McCrindle, *Ancient India as Described by Ptolemy* (London: Trubner & Co, 1885), 68, 185, and 386-387.

⁹⁵ *Uttaradhyayana Sutra* XXI: 1-4.

and the Pihumda/Pithunda of the *Uttaradhyayana Sutra* to be one and the same.⁹⁶ Taking this into consideration, the ancient port of Pithunda may have been located somewhere near the Chicacole region (Srikakulam region) of modern Andhra Pradesh.

Khalkattapatna

Khalkattapatna in the Puri district was a notable seaport on the Odisha coast in the medieval period. It was situated about 11 km east of Konarak on the left bank of the River Kushabhadra, which joins the Bay of Bengal about 3 km northeast of it. Excavations at this place have revealed material remains assigned to c. 12th to 14th centuries CE.⁹⁷ On the basis of the archaeological evidence, Khalkattapatna can be identified as one of the important seaports on the eastern coast of India, which had maritime trade links with many countries. The brick jelly floor excavated at Khalkattapatna can plausibly be recognized as a loading and unloading platform. The pottery recovered from here consists of Chinese celadon ware, Chinese porcelain, egg-white glazed ware, and glazed chocolate ware, all of foreign origin, and a variety of indigenous potteries. Besides the Chinese celadon ware and Chinese porcelain, a few Chinese copper coins datable to c. 14th century have also been unearthed.⁹⁸ The egg-white glazed pottery obtained from the site is supposed to be from Arab countries. It seems Khalkattapatna had an active maritime trade link with Southeast Asia, China, and even with countries in the west between the 12th to 14th centuries CE. The Tugu Rock inscription (5th century CE)⁹⁹ of western Java says that a river named Chandrabhaga, probably named after the Chandrabhaga River of Odisha, was regulated by a canal. The Kuki copper plate (840 CE) of Java speaks of potters and all sorts of servants of the inner apartments hailing from “Kling,” meaning Kalinga.¹⁰⁰ The mention of an ocean-related tax called “Samudrakarabandha” in the inscription of the Bhaumakara period (9th-11th centuries) indicates the busy maritime trade activities during that period in Odisha and also that there was a system in place to monitor the trade activities.

⁹⁶ Levi, “Paloura,” 145.

⁹⁷ Jagat Pati Joshi, ed., *Indian Archaeology 1985-86 - A Review* (Delhi: Archaeological Survey of India, 1990), 56.

⁹⁸ B. K. Sinha, “Khalkattapatna: A Small Port on the Coast of Orissa,” in *New Trends in Indian Art and Archaeology - S. R. Rao's 70th Birthday Felicitations*, vol. 2, ed. B. U. Nayak and N. C. Ghosh (New Delhi: Aditya Prakashan, 1992), 428.

⁹⁹ B. Ch. Chhabra, *Expansion of Indo-Aryan Culture During Pallava Rule* (Delhi: Munshiram Manohar Lal, 1965), 96-97; Sarkar, *Corpus*, 6.

¹⁰⁰ Sarkar, *Corpus*, 80 and 86.

Manikapatna

Manikapatna (Adigrama) in the district of Puri, located on the left bank of the Kushabhadra River at the northern end of Chilika Lake, was another important seaport of ancient Odisha. It is identified with the port Che-li-ta-lo mentioned by the Chinese traveller Huien Tsang.¹⁰¹ However, Alexander Cunningham has identified Che-li-ta-lo as Charitrapura and has identified it again with modern Puri, the seat of Lord Jagannath.¹⁰² Although Puri is on the sea shore and almost projects into the sea, it does not have any Buddhist monuments.

Huien Tsang mentions that Che-li-ta-lo was situated to the south-east of the Wu-Tu (Odra) country. This place was situated near the shore of the ocean. The city was naturally strong and contained many rare commodities. It was a thoroughfare and resting place for seagoing traders and strangers from distant lands. Near the city were five Buddhist monasteries close together with lofty structures and very artistic images. Seng-ka-lo (Ceylon or Sri Lanka) was at a distance of 20,000 li (5000 miles) from this place. During the clear nights the light on the top of the Tooth Relic tope in Sri Lanka can be seen from this place.

Excavations at Manikapatna have yielded lots of Chinese celadon and porcelain pieces, Chinese coins, Sri Lankan coins, and fragments of amphora. The discovery of two imported wares, i.e., a thin egg-white glazed pottery and a thick chocolate-glazed ware, indicate its contact with Arab countries (Figure 11). The discovery of Shahasamalla's coin from Manikapatna, Polonaruva, in Sri Lanka and Kotchina in Indonesia testify to a maritime network linking coastal Odisha, Sri Lanka, and Sumatra.¹⁰³ Abul Fazl (in 1595-1596) mentions that Manikapatna was a large port where salt tax was collected.¹⁰⁴ The trade link with Burma (Myanmar) is proved by the discovery of a brown glazed ware of Burmese origin at Manikapatna.¹⁰⁵ Interestingly, Maliwan and Aw Gyi, the notable ancient port cities in southern Myanmar, have yielded lots of materials of Indian origin such as carnelian beads, glass beads with elemental compositions similar to those of the beads found in ancient sites mainly in eastern and southern India, fine grey pottery, terracotta figurines of Maurya-Sunga style, and other objects.¹⁰⁶

During the late medieval period (16th-18th centuries CE), many seaports of Odisha

¹⁰¹ Thomas Watters, *On Yuan Chwang's Travels in India (A.D. 629-645)*, vol. 2 (Delhi: Munshiram Manohar Lal, 1961), 193-195.

¹⁰² A. Cunningham, *The Ancient Geography of India* (London: Trubner and Co., 1871), 510.

¹⁰³ Benudhar Patra, "Ports in Ancient Odisha: Historical Perspective," *Odisha Review* 71, no. 4 (2014): 118-124.

¹⁰⁴ Sila Tripathi, "Ancient Ports of Kalinga," in *Recent Advances in Marine Archaeology, Proceedings of the Second Indian Conference on Marine Archaeology of Indian Ocean Countries*, ed. S. R. Rao (Goa: Society for Marine Archaeology, 1991), 192-194.

¹⁰⁵ K. S. Behera, "Maritime Contacts of Orissa: Literary and Archaeological Evidence," *Utkal Historical Research Journal* 5 (1994): 66.

¹⁰⁶ Berenice Bellina et al. "Myanmar's Earliest Maritime Silk Road Port-Settlements Revealed," *Antiquity* 92, no. 366 (2018): 1-5.

such as Balasore (Kosambia), Chandabali, Chhauna, Churamani, Dhamarra (Dosarene), Harishpur, Laichanpur, Pipli, and Saratha had active trade contacts with the British, Danish, Dutch, French, and Portuguese.



Fig. 11) Manikapatna: Ceylonese and Chinese coins

Tamralipti

Tamralipti, one of the foremost seaports on the eastern coast of India, had an extensive maritime network with various port cities throughout the world. Tamralipti is identified with the modern Tamluk in the Midnapore district of West Bengal. It was located at the confluence of the River Rupnarayana and the Bay of Bengal and as such served as a natural seaport. The port of Tamralipti is referred to in different sources. Tamralipti is mentioned in the *Markandeya Purana*, the *Vayu-Purana*, the *Natyasastra* of Bharata, and the *Brihat-Sambhita* of Varahamihira. Jain and Buddhist texts also speak of this port city. The *Jatakas* makes frequent references to voyages from Tamralipti to Suvarnabhumi (Myanmar/Southeast Asia) in connection with trade and missionary activities.

The *Arthasastra* (3rd century BCE) contains profuse references to Tamralipti as an important centre of maritime trade. Ptolemy referred to it as Tamalities.¹⁰⁷ Chinese pilgrims like Fa-Hien, Hiuen Tsang, and I-Tsing referred to Tamralipti as a port situated on a broad bay, a place suitable for embarkation bound for China. It is recorded in the Dudhapani Rock inscription of Udayamana (c. 8th century CE) that merchants from such distant places as

¹⁰⁷ McCrindle, *Ancient India*, 167.



Fig. 12) Nexus of Tamluk port and Buddhist centres in the Ganges Valley

Ayodhya (in the Awadh Kingdom) used to frequent this port city for the purpose of trade.¹⁰⁸ The poet Dandin in his *Dasakumara Charita* referred to the coming of the Greeks to this port.¹⁰⁹ According to the *Kathasaritisagara*, Tamralipti was a maritime port and an emporium of commerce in the 4th century CE.¹¹⁰

Since Tamralipti (Tamluk) was the nearest seaport for visiting the main centres of Buddhism in India such as Rajagriha, Sravasti, Pataliputra, Bodhigaya, Sarnath, Champa,

¹⁰⁸ *Epigraphia Indica* II (New Delhi: Archaeological Survey of India, 1984): 344-345.

¹⁰⁹ B. Das, "Kalinga and Outside World," *Journal of Historical Research* 26, no. 1 (1983): 24-25.

¹¹⁰ C. H. Tawney, trans., *The Katha Sarit Sagara; or, Ocean of the Streams of Story* (Delhi: Munshiram Manohar Lal, 1968), vol. 1: 85, 87, 92, 139, 329 and 334; vol. 2: 248, 265 and 342.

Nalanda, Kaushambi, and other places, Buddhist travellers' from different parts of the world who came by sea landed here and from here went to various places (Figure 12). The *Samantapāsādikā* of Buddhaghosa, which contains material belonging to the 5th century CE, refers to ships often travelling between Tamralipti and Mahatittha.¹¹¹ Hemamala in the company of her husband from Dantipura in Kalinga was said to have brought the Tooth Relic to Sri Lanka in a trading vessel which sailed directly from Tāmralipti during the reign of Sirimeghavanna (301-327 CE).¹¹² The *Mahāvamsa* mentions that the sapling of the great Bōdhi-tree from India was brought by *Mabatheri* Sanghamitta accompanied by eleven *bhikkunis* by ship.¹¹³ Most probably *Mabatheri* Sanghamitta embarked at Tamralipti.

Besides textual and inscriptional references, antiquities recovered from Tamluk proper and its vicinity, namely at Ichhapur, Banka and Natshal, all situated on the right bank of the Rupnarayana, such as a gold coin bearing a Graeco-Roman motif, terracotta figurines and pottery pieces of Mediterranean origin, clearly testify to its international character. In addition, many potsherds and other materials from China, Sri Lanka, and Southeast Asian countries are also found in and around Tamluk. Similarly, a lot of materials of Indian origin found in Myanmar, China, Korea, Japan, and Southeast Asian countries might have gone mainly from any one of the eastern seaports of India, of which Tamralipti might have played a vital role. Northern black polished ware (NBPW) of the 5th-4th centuries BCE found in Thailand (Tham Sua, Kapoe, Phu Khao Thong, Khao Sam Kaeo, Tham Thuay) and Sri Lanka (Anuradhapura) probably indicate the early contact of these sites with the Bengal region.

Archaeological studies reveal that Chandraketugarh, situated about 35 kms northeast of Kolkata beside the Bidyadhari River, was an important port city of the ancient period. It is generally identified as a part of the ancient kingdom called Gangaridai mentioned by Ptolemy.¹¹⁴ The history of Chandraketugarh dates back to almost the 3rd century BCE, during the pre-Mauryan era. Artefacts suggest that the site was continuously inhabited until the medieval period. It had a high encircling wall complete with a rampart and moat. Terracotta seals from Chandraketugarh and Bangarh (West Bengal) depict seafaring vessels with Kharosthi-Brahmi inscriptions referring to *Tridesayatra*, meaning a voyage to three countries or directions (Figure 13).¹¹⁵

¹¹¹ James Legg, trans., *A Record of Buddhist Kingdoms by Chinese Monk, Fa-Hien* (Oxford: Clarendon Press, 1886), 100.

¹¹² B. C. Law, trans., *Dalhavamsa* (Lahore: Motilal Banarasidas, 1925), vv. 324 and 339.

¹¹³ Wilhelm Geiger, trans., *The Mahāvamsa or The Great Chronicle of Ceylon* (London: Pali Text Society, 1912), 19, 28-38.

¹¹⁴ Gangaridai or Gandaritae or Gandridae is a term used by ancient Greco-Roman writers to describe a people or a geographical region of the ancient Indian subcontinent.

¹¹⁵ I. K. Sarma, "Rare Evidences on Maritime Trade on the Bengal Coast of India," in *Recent Advances in Marine Archaeology: Proceedings of the Second Indian Conference on Marine Archaeology of Indian Ocean Countries*, ed. S. R. Rao (Goa: Society for Marine Archaeology, 1991), 38-40.



Fig. 13) Terracotta seals from Chandraketugarh and Bangarh

Excavations at Ambari, situated in the heart of Guwahati City in the Kamrup district of Assam, have revealed that it was notable in international trade. The River Brahmaputra, on the bank of which Ambari was located, was favourable for the navigation of vessels to far off countries. Foreign ceramics such as red-gloss pottery of Mediterranean origin, kaolin ware, Chinese celadon ware, green glazed ware, and paddle impressed ware found at Ambari exemplify its international network during the early period.¹¹⁶

Conclusion

The ancient seaports on the eastern coast of India played a dynamic role in promoting maritime trade with eastern and western countries. *Tianzhu* is the historical East Asian name for India. In ancient Chinese works, India was also referred to as *Tiandu*, *Yuandu*, *Yindu*, *Yinteja*, *Wutianzhu*, and *Xiandou*. In Japan, *Tianzhu* was pronounced *Tenjiku*, and in Korea, *Tianzhu* was pronounced *Cheonchuk* (India). The main products exported from India were pepper, cinnamon, cardamom and other spices; perfumes; metal; herbal medicines; hide; ivory; sandalwood and other forest products; carnelian; aquamarine beryl and other semi-precious stones; animals; muslin cloth; silk; pearls; and other products. Archaeological explorations and excavations in many sites, mainly in coastal areas, have yielded ample evidence to prove

¹¹⁶ B. B. Lal, ed., *Indian Archaeology 1968-69 - A Review* (Delhi: Archaeological Survey of India, 1971), 3-4; M. N. Deshpande, ed., *Indian Archaeology 1970-71 - A Review* (Delhi: Archaeological Survey of India, 1974), 4; M. C. Joshi, ed., *Indian Archaeology 1987-88 - A Review* (Delhi: Archaeological Survey of India, 1993), 8-9; M. C. Joshi, ed., *Indian Archaeology 1988-89 - A Review* (Delhi: Archaeological Survey of India, 1993), 6.

international interaction during the early period. The findings of a large number of coins, pottery, amphorae and other materials from Italy and various other European countries, West Asia, China, Korea, Africa, the Arabian Peninsula, Sri Lanka, Southeast Asia, and Far East countries in India are testimony to the dynamic maritime trade intercourse of India with those countries in the early period. Similarly, pottery, sculptures, inscriptions, and other materials of Indian origin are also found in those countries.

Trade routes, both maritime and overland, not only facilitated the exchange of materials, but also provided ample opportunities for religion, thought, culture, customs, technology, language, philosophy, and knowledge of art and architecture to reach foreign countries from India and vice versa. The travels of Buddhist monks and pilgrims and the simultaneous sharing of religious texts and relics indeed stimulated interactions between the Indian kingdoms and various regions of Sri Lanka, China, and other countries.

Faxian, Xuan-zang, and Yi-jing were among hundreds of Buddhist monks who made pilgrimages to India during the first millennium CE. Buddhist monks from Sri Lanka, China, Korea, Vietnam, and other Far East countries followed both land and sea routes to reach India. Notwithstanding that many of the pilgrims produced written accounts of their voyage to India, only a few of those accounts have survived to some extent in their entirety. The accounts of the journeys of Buddhist pilgrims and travels to India are valuable to understand the status of Buddhist establishments and the socio-economic conditions in India during their visits. Furthermore, these accounts also throw light on ancient land and maritime trade routes, the arduous nature of long-distance travel, commercial exchanges, and the relationship between Buddhist pilgrims and itinerant merchants. Faxian's narrative of his return journey from India on mercantile vessels, although marked by near-catastrophic experiences due to the ravages of the sea, demonstrates the relationship between Buddhist monks and itinerant traders as well as the existence of maritime trading channels linking the coastal regions of India and China.

Yi-Jing, who took the maritime route to India, left the Guang-Zhou region in China and visited Fo-che, Mo-lo-yu, and Sumatra by travelling southwest. Subsequently, he travelled northwest to Kie-tcha. Then, he proceeded east and reached the Nicobar Islands (the land of the naked). Proceeding northwest from these islands, Yi-Jing reached Tamralipti in about half a month. While returning to China, he took the same route, landing again at Kie-tcha and Fo-che, but skipping the visit of Sumatra.¹¹⁷

The itinerary of Ou-hing recorded by Yi-Jing is as follows. He took ship from China during the season of "eastern wind" and took one month to reach Che-li-fo-che in Sumatra. He changed the direction of his trip and went to Mo-lo-yu, which he reached in fifteen days. From there, he took another fifteen days to get to Kie-tcha. After travelling in a northwesterly

¹¹⁷ Edouard Chevannes, trans., *I-Tsing, Memoire Compose a Vipoque de la Grande Dynastic T'ang sur les Religieux Eminents qui Allèrent Chercher la Lois dans ies Pays d'Occident* (Paris: Lerou, 1894), 118-125.

direction after leaving southern Sumatra, he is said to have “changed the route of navigation” again to proceed towards Na-kia-pa-tan-na (Nagappattinam). This last segment of his travels took thirty days. Then, he took ship again, and after ten days, arrived in Sri Lanka. Then, he proceeded in a northeasterly direction towards Ho-li-ki-louo (Harikela), the kingdom in East Bengal, which he reached in about a month.¹¹⁸ Hyecho (c. 700-789 CE), a Korean monk, went to India by sea and returned to China by way of Central Asia in 727 CE. His work was found in 1908 in the Mogao Caves at Dunhuang in a fragmentary condition without beginning or end.¹¹⁹

Interestingly, ancient sea voyages are still remembered by people in India, and to commemorate these occasions, they celebrate many social functions. For instance, the full moon day (*Kartika Purnima*) of October-November is celebrated by the people of Odisha as *Bali Yatra* (voyage to Bali Island). On this day, the people of Odisha go to nearby river banks, sea shores, and lakes with votive boats with lighted lamps and float them symbolizing a safe journey for traders to Bali. This celebration marks the adventurous spirit manifested in transoceanic voyages for trade, commerce, and exchange of culture with Bali, Java, Malaysia, Sumatra, and Thailand. Ancient ports are no longer extant, but the memory of past traditions is still preserved through these annual celebrations. Festivals of a similar kind are celebrated in Bali, Malaysia, Thailand, and Japan. For instance, during the festival named *Loykrathong* or *Loy brab Prabdi* in Thailand, ritualistic boats are floated in the water. During April and May, voyages from Southeast Asia to the east coast of India used to be easier due to the onset of the southwest monsoon. The return voyage festival *Khudurukuni Osha* is celebrated in September by the unmarried girls of Odisha who used to wait for their brothers to return with wealth and gifts from Southeast Asia.

¹¹⁸ Chevannes, *I-Tsing*, 144-45.

¹¹⁹ Hyecho's journey to India and his pilgrimage are recorded in his travelogue, entitled *Memoir of the Pilgrimage to the Five Regions of India*.

References

- Abdul Majeed, A. "A Note on Korkai Excavations." *Tamil Civilization, Quarterly Research Journal of the Tamil University* 5, no. 1&2 (1987): 73-77.
- Ardika, I. W., and P. Bellwood. "Sembriran: The Beginning of India Contact with Bali." *Antiquity* 65 (1991): 221-232.
- Arunachalam, B., B. Sukumar, and Ahalya Sukumar. "Reconstruction of the Ancient Port, Korkai in Tutukkudi District of Tamil Nadu." *Current Science* 91, no. 3 (2006): 278-280.
- Begley, Jr., Vimala, P. Francis, I. Mahadevan, and K. V. Raman, eds. *The Ancient Port of Arikamedu – New Excavations and Research 1989-1992*, vol. 1, *Memories Archeologiques* 22. Pondicherry: Centre d'Histoire et d'Archeologie, Ecole Francaise D'Extreme-Orient, 1996.
- _____. *The Ancient Port of Arikamedu – New Excavations and Research 1989-1992*, vol. 2. *Memories Archeologiques* 22. Pondicherry: Centre d'Histoire et d'Archeologie, Ecole Francaise d'Extreme-Orient, 2004.
- Behera, K. S. "Maritime Contacts of Orissa: Literary and Archaeological Evidence." *Utkal Historical Research Journal* 5 (1994): 55-70.
- Bellina, Berenice. "Beads, Social Change and Interaction between India and Southeast Asia." *Antiquity* 77 (2003): 285-97.
- Bellina, Berenice, Maung Sun Win, Kalayar Myat Myat Htwe, Htet Myat Thu, Cristina Castillo, Camille Colonna, Laure Dussubieux, Aude Favereau, Emiri Miyama, Baptiste Pradier, Thomas Oliver Pryce, Sachipan Srikanlaya, and Elisabeth Triviere. "Myanmar's Earliest Maritime Silk Road Port-Settlements Revealed." *Antiquity* 92, no. 366 (December 2018): 1-5.
- Benedetto, L. F., and Aldo Ricci. *The Travels of Marco Polo*. London: Routledge, 1939.
- Caldwell, R. "Exploration and Excavation at Korkai and Kayal." *The Indian Antiquary, A Journal of Oriental Research* 6 (1984): 80-83.
- Casal, J. M. *Fouille de Virampatnam-Arikamedu*. Paris: Imprimerie Nationale, 1949.
- Charpentier, J., ed. *Uttaradhyana Sutra*. Uppasala: Appelbergs Boktryckeri Aktiebolag, 1922.
- Chhabra, B. Ch. *Expansion of Indo-Aryan Culture During Pallava Rule*. Delhi: Munshiram Manohar Lal, 1965.
- Cunningham, A. *The Ancient Geography of India*. London: Trubner and Co., 1871.
- Das, B. "Kalinga and Outside World." *Journal of Historical Research* 26, no. 1 (1983): 18-26.
- Dayalan, D. "New Light on the Location of the Ancient Seaport of Mamallapuram." *Tamil Civilization, Quarterly Research Journal of the Tamil University* 5, no. 1&2 (1987): 133-134.
- _____. "Punjeri – A Pallava Sea-port near Mamallapuram." In *Seminar on Marine Archaeology*, edited by Natana Kasinathan, 52-56. Chennai: Tamil Nadu State Department of Archaeology, Government of Tamil Nadu, 1992.

- _____. "An Introduction to Roman Pottery." In *Recent Perspectives on Prehistoric Art in India and Allied Subjects (Essays in Honour of Dr. Shyam Kumar Pandey)*, edited by R. K. Sharma, and K. K. Tripathi, 194-202. New Delhi: Aryan Books International, 1996.
- _____. "Role of Trade and Tamil Traders in Promoting Buddhism." In *Sivasri: Perspective in Indian Archaeology, Art & Culture (Birth Centenary Volume of Padma Busban Dr. C. Sivaramamurti and Padma Busban Sh. K.R. Srinivasan)*, edited by D. Dayalan. Delhi: Agam Kala Prakashan, 2013.
- _____. "The Role of Archaeology in the Study of Maritime Buddhism in India." In *The Maritime Silk Road and Seaport Cities*, edited by Moon-Soo Jeong, Su-il Jung, and Guozhen Yang, 233-266. Seoul: Sunin Publishing, 2015.
- Elliot, H. M. *The History of India as Told by Its Own Historians*, vol. 1. London: Trubner and Co., 1867.
- _____. *The History of India as Told by Its Own Historians*, vol. 3. London: Trubner and Co., 1871.
- Elliot, Walter. "The Edifice Formerly Known as the Chinese or Jaina Pagoda at Negapatam." *Indian Antiquary: A Journal of Oriental Research* 7 (1878): 224-227.
- Geiger, Wilhelm, ed. and trans. *The Mahāvamsa or The Great Chronicle of Ceylon*. London: Pali Text Society, 1912.
- Gerini, G. E. *Researches on Ptolemy's Geography of Eastern Asia*. New Delhi: Asian Educational Services, 1992.
- Glover, Lan C. "Ban Don Ta Phet: The 1984-85 Excavation." In *Southeast Asian Archaeology 1986*, edited by I. and E. Glover, 139-83. Oxford: Archaeopress Ltd, 1990.
- Gogte, Viswas D. "The Chandraketugarh-Tamluk Region of Bengal: Source of the Early Historic Rouletted Ware from India and Southeast Asia." *Man and Environment* 22, no. 1 (1997): 69-85.
- Higham, C. F. W. *The Archaeology of Mainland Southeast Asia*. Cambridge: Cambridge University Press, 1989.
- Huimin Bhikkhu, Aming Tu, Fayuan Shi, and Chiaming Lee. "Buddhist Eminent Monks' Tracks and the Sea Silk Road in Tang Dynasty." Paper presented at the Seminar on East Asian Buddhist Traditions, Ho Chi Minh City, Vietnam, August 2007.
- Iyar, Saminatha U. Ve., ed. *Purānānūru* (Poem & Text). Chennai: S. I. S. S. W. Publishing Society, 1935.
- _____, ed. *Cilappatikāram* (Poem & Text). Chennai: Kapir Accukkūtam, 1950.
- _____, ed. *Patuimappalai* (Poem & Text). Chennai: Kesari Patippakam, Chennai, 1950.
- Jones Barratt, A. M. *Early Tenth Century Java from the Inscriptions*. Dordrecht: Foris Publications, 1984.
- Jouveau Dubreuil, G. "Les Ruins Romaines de Pondichery." *Bulletin de l'École Française d'Extrême-Orient* 42, no. 2 (1941): 448-50.
- Kant, Shashi. *The Hathigumpha Inscription of Kharavela and the Bhabru Edict of Asoka – A Critical*

- Study*. Delhi: D. K. Printworld (P) Ltd., 2000.
- Karashima, Noboru. "Periyapattinam: An Important Medieval Port on the Coromandel Coast and Its Identification." In *Ancient and Medieval Commercial Activities in the Indian Ocean: Testimony of Inscriptions and Ceramic-Sherds: Report of the Taisho University Research Project 1997-2000*, edited by Noboru Karashima, 166-169. Japan: Taisho University, 2002.
- _____. "Pondicherry in Chinese Sources." In *Ancient and Medieval Commercial Activities in the Indian Ocean: Testimony of Inscriptions and Ceramic-Sherds: Report of the Taisho University Research Project 1997-2000*, edited by Noboru Karashima, 160-163. Chennai: Alamu Printers, 2002.
- Khan, Mohammad Afzal, "A Central Asian Traveller's Account of South India." In *Proceedings of the Indian History Congress*, edited by Satish Chandra, 267-279. Gorakhpur: University of Gorakhpur, 1990.
- Law, B. C., ed. and trans. *Dathavamsa*. Lahore: Motilal Banarasidas, 1925.
- Legge, James, trans. *A Record of Buddhist Kingdoms by Chinese Monk, Fa-Hien*. Oxford: Clarendon Press, 1886.
- Levi, S. "Paloura- Dantapura." *Indian Antiquary – A Journal of Oriental Research* 55 (1926): 94-99.
- Mahadevan, Iravatham. "Old Sinhalese Inscriptions from Indian Ports: New Evidence for Ancient India-Sri Lanka Contacts." *Journal of the Institute of Asian Studies* 14, no. 1 (1996): 55-68.
- McCrimdell, J. W. *Ancient India as Described by Ptolemy*. London: Trubner & Co, 1885.
- Nagaswamy, R., and Abdul Majid. *Vasavasamudram*. Chennai: Department of Archaeology, Government of Tamil Nadu, 1978.
- Nagaswamy, R. *Art and Culture of Tamil Nadu*. Delhi: Sundeep Prakashan, 1980.
- _____. "Alagankulam: An Indo-Roman Trading Port." In *Indian Archeological Heritage (Sh. K. V. Soundara Rajan Felicitation Volume)*, edited by C. Margabandhu, K.S. Ramachandran, A. P. Sagar, and D. K. Sinha, 247-253. Delhi: Agam Kala Prakashan, 1991.
- Nattar, Venkatasami Na. Mu., ed. *Manimēkalai* (Poem & Text). Chennai: Caiva Cittānta Nūrpatippu Kaḷakam, 1992.
- Nattar, Venkatasami Na. Mu., and R. Venkatachalam Pillai, eds. *Akanānūru* (Poem and Text). Chennai: S. I. S. S. W. Publishing Society, 1957.
- Patra, Benudhar. "Ports in Ancient Odisha: Historical Perspective." *Odisha Review* 71, no. 4 (2014): 118-124.
- Pattanayak, A. K., and S. K. Pattanayak. "Orissa and South-East Asia: A Study of Ancient Relations up to 15th C. A. D." In *Role of Universities and Research Institutes in Marine Archaeology, Proceeding of the Third Conference*, edited by S. R. Rao, 51-54. Goa: National Institute of Oceanography, 1992.
- Ramachandran, T. N. *The Nagapattinam and Other Buddhist Bronzes in the Madras Museum, Bulletin*

- of the Madras Government Museum. Madras: Udhaya Printers, 1992.
- Rao, K. P. "Early Trade and Contacts between South India and Southeast Asia (300 BC-AD 200)." In *Proceedings Volume of the XVth International Conference on South Asian Archaeology*, edited by E. M. Raven, 353–61. Leiden: Leiden University, 1999.
- _____. "Kottapatnam: A South Indian Port Trading with Eastern Lands." In *Ancient and Medieval Commercial Activities in the Indian Ocean: Testimony of Inscriptions and Ceramic-Sherds: Report of the Taisho University Research Project 1997-2000*, edited by Noboru Karashima, 125-33. Chennai: Alamu Printers, 2002.
- Rao, K. P., and J. Cribb. "Chinese Coin Found at Kottapatnam, Nellore District, Andhra Pradesh." *Numismatic Digest* 23-24 (2001): 133–38.
- Rockhill, W. W. "Notes on the Relations and Trade of China with the Eastern Archipelago and the Coast of the Indian Ocean during the Fourteenth Century. Part I," *T'oung-pao* 15, (1914): 431ff.
- Sarkar, H. B. *Corpus of the Inscriptions of Java (Up to 928 A. D.)* Calcutta: Firma K. L. Mukhopadhyay, 1971-72.
- Sarma, I. K. "Rare Evidences on Maritime Trade on the Bengal Coast of India." In *Recent Advances in Marine Archaeology, Proceedings of the Second Indian Conference on Marine Archaeology of Indian Ocean Countries*, edited by S. R. Rao, 38-40. Goa: Society for Marine Archaeology, 1991.
- Sasaki, H., "Chinese and Thai Ceramics in Kottapatnam." In *Ancient and Medieval Commercial Activities in the Indian Ocean: Testimony of Inscriptions and Ceramic-Sherds: Report of the Taisho University Research Project 1997-2000*, edited by Noboru Karashima, 134-144. Japan: Taisho University, 2002.
- Sastri, Nilakanta, K. A. *Foreign Notices of South India – From Megasthenes to Ma Huan*. Madras: University of Madras, 1939.
- Schoff, Wilfred H. *The Periplus of the Erythrean Sea – Travel and Trade in the Indian Ocean by a Merchant of the First Century*. New York: Longmans, Green, and Co., 1912.
- Seetharaman, Arumuga. *Tamīlagat Tōlīyal Cāṅṅugal I*. Tanjavur: Dhanalakshmi Patippagam, 1994.
- Sinha, B. K. "Khalkattapatna: A Small Port on the Coast of Orissa." In *New Trends in Indian Art and Archaeology – S. R. Rao's 70th Birthday Felicitation Volume*, vol. 2, edited by B. U. Nayak and N. C. Ghosh, 428. New Delhi: Aditya Prakashan, 1992.
- Sircar, D. C. *Selected Inscriptions Bearing on Indian History and Civilization*, vol. 1. Calcutta: University of Calcutta, 1956.
- Soundara Rajan, K. V. *Kaveripattinam Excavations 1963-73 (A Port City on the Tamil Nadu Coast): Memoirs of the Archaeological Survey of India*, vol. 90. New Delhi: Archaeological Survey of India, 1994.
- Sridhar, T. S., D. Thulasiraman, S. Selvaraj, and S. Vasanthi, eds. *Alagankulam, An Ancient*

- Roman Port City of Tamil Nadu*. Chennai: Department of Archaeology, Government of Tamil Nadu, 2005.
- Strabo. *Geography*. Translated by Horace Leonard Jones. London: William Heinemann Ltd., 1928.
- Subramaniam, T. N. "A Tamil Colony in Medieval China." In *South Indian Studies*, vol. 1, edited by R. Nagaswamy, 1-52. Madras: Society for Archaeological, Historical & Epigraphical Research, 1978.
- Tatsuo, Sasaki, "Trade Ceramics from the Coast of the Indian Ocean." *Journal of East-West Maritime Relations* 1 (1989): 117-128.
- Tawney, C. H., trans. *The Katha Sarit Sagara; or, Ocean of the Streams of Story*. Delhi: Munshiram Manohar Lal, 1968.
- Taw Sein Ko, "A Preliminary Study of the Kalyani Inscriptions of Dhammacheti. 1476 A. D.," *Indian Antiquary: A Journal of Oriental Research*, 22 (1893): 11-17, 29-53, 85-89, 150-159, 206-213, 236-243 and 274-275.
- Tomber, R. "Indian Fine Wares from the Red Sea Coast of Egypt." *Man and Environment* 27 (2002): 25-31.
- Tripati, Sila. "Ancient Ports of Kalinga." In *Recent Advances in Marine Archaeology, Proceeding of the Second Indian Conference on Marine Archaeology of Indian Ocean Countries*, edited by S. R. Rao, 192-194. Goa: Society for Marine Archaeology, 1991.
- Tulasiraman, D. "Tamilagattil Romaniyar cila Putiya Ceytugal." *Tolliyal Ayvuttokuti* 1 (2) (1985): 76-90.
- Ver Eecke, Jacqueline. *Le Sihalavatthupparana Texte Pali et Traduction*, vol. 123. Paris: Ecole Francaise D'Extreme-Orient, 1980.
- Yule, Henry, and Henri Cordier, trans. and ed. *The Book of Ser Marco Polo the Venetian, Concerning the Kingdoms and Marvels of the East*, vol. 2. London: J. Murray, 1929: 370.
- Yule, Henry, and C. B. Palermo. "Malifattan." *The Indian Antiquary, A Journal of Oriental Research* 4 (1984): 8-10.
- Watters, Thomas. *On Yuan Chwang's Travels in India (A. D. 629-645)*, vol. 2. Delhi: Munshiram Manohar Lal, 1961.
- Wheeler, R. E. W., A. Ghosh, and Krishna Deva, "Arikamedu: An Indo-Roman Trading Station on the East Coast of India." *Ancient India* 2 (1946): 17-124.

Duraiswamy Dayalan’s “Ancient Seaports on the Eastern Coast of India: The Hub of the Maritime Silk Route Network” is a follow-up study of his previous research “Ancient Seaports on the Western Coast of India: The Hub of the Maritime Silk Route Network”(2018). The illustrations in the prior study are presented below.

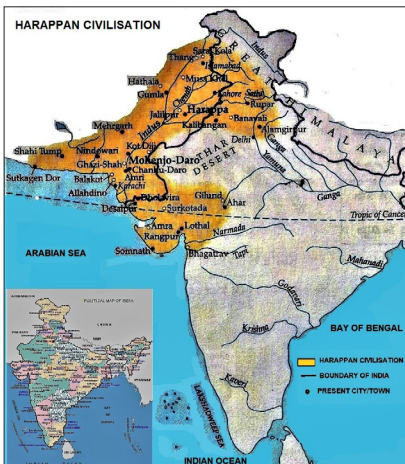


Plate No. 1)
Harappan civilization



Plate No. 2)
Harappan trade link



Plate No. 3)
Harappan seals and sealings

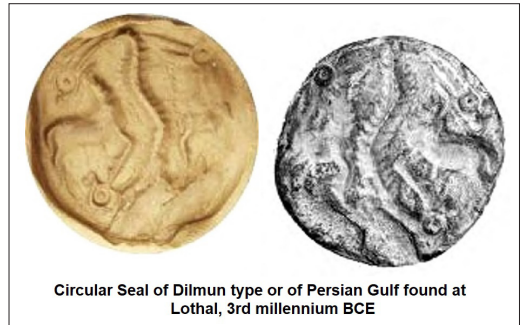
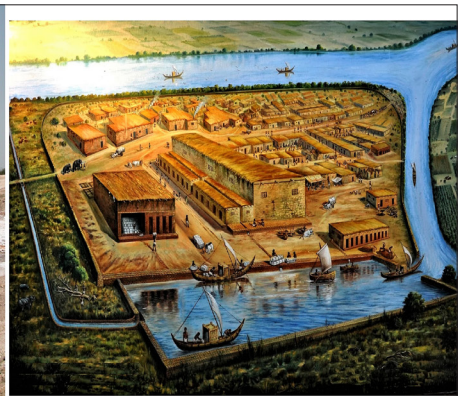


Plate No. 4)
Circular seal of Dilmun type or of Persian Gulf



High Tide Dockyard, Lothal, Harappan Period, 3rd millennium BCE

Conjectural Picture of the Dockyard

Plate No. 5) Lothal

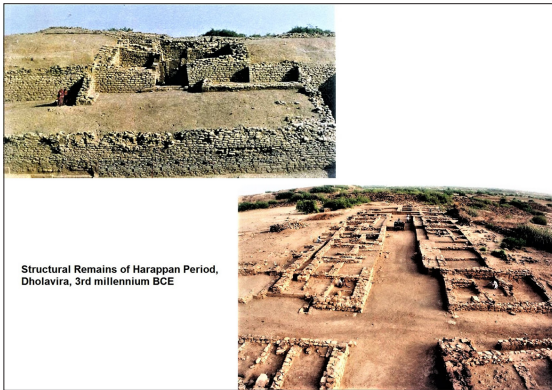


Plate No. 6) Dholavira

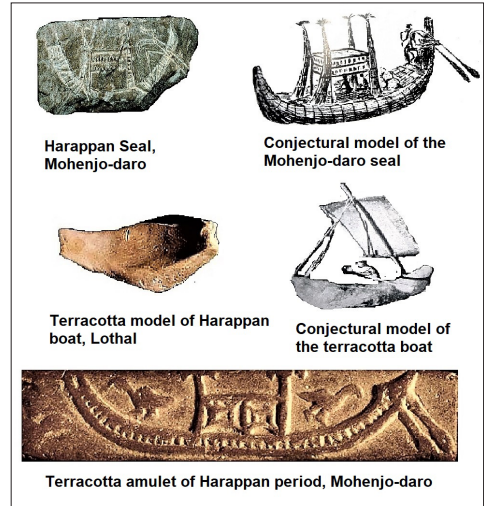


Plate No. 7) Boat seal

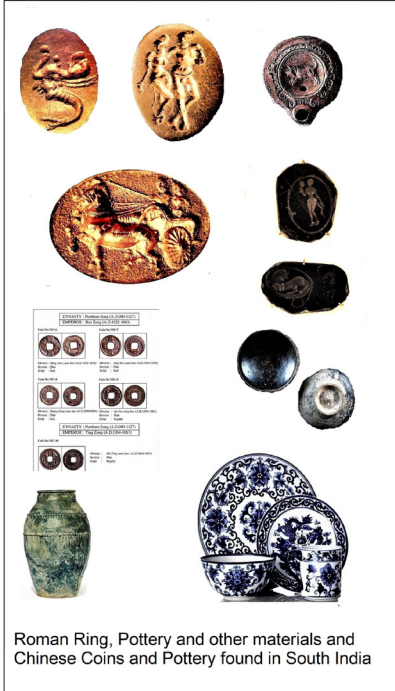


Plate No. 8) Foreign items

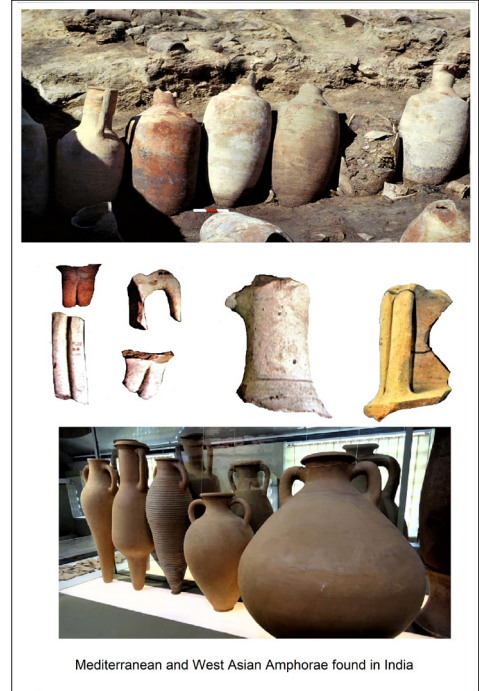


Plate No. 9) Amphorae



Gold Plaque of 2nd-3rd cent CE found at Bang Kluay, Thailand mentioned about a Shipman from India

Plate No. 10) Thailand seal



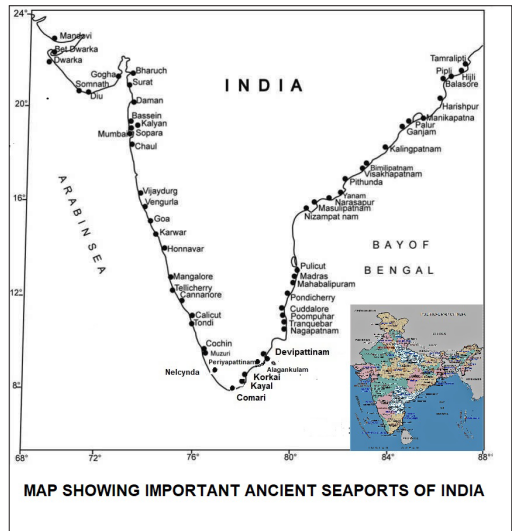
Roman coins found in South India

Plate No. 11) Roman coins



Depiction of different types of ships in the coins, paintings, sculptures, seals and sealing, etc.

Plate No. 12) Boat models



MAP SHOWING IMPORTANT ANCIENT SEAPORTS OF INDIA

Plate No. 13) Map of seaports in India

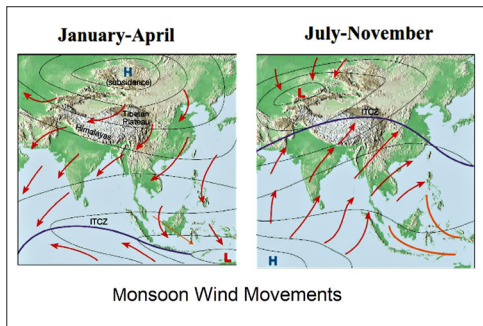


Plate No. 14) Wind movement



Plate No. 15) Hathab



Plate No. 16) Nala Sopara

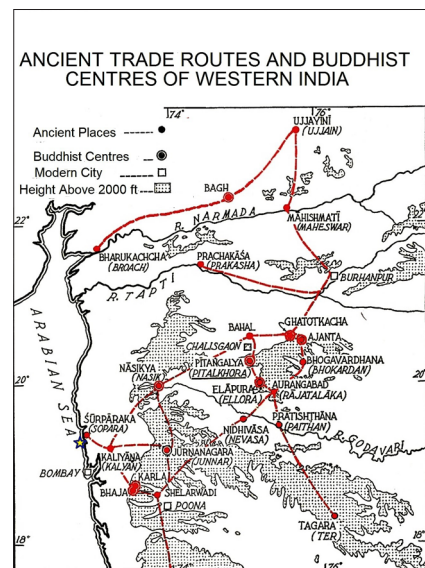


Plate No. 17) Trade route



Sassanian Turquoise Glazed ware, Sanjan

Plate No. 18)

Sassanian turquoise glazed ware



Carnelian Intaglio with Goddess Tyche, Pattanam

Plate No. 19)

Carnelian Intaglio with Goddess Tyche

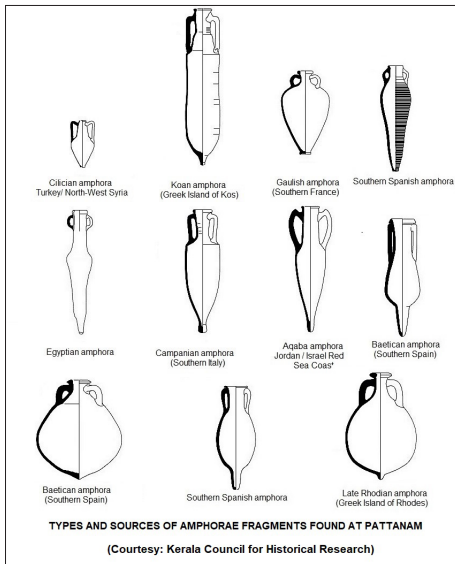


Plate No. 20) Amphorae Pattanam