

## Port Towns of Arikamedu and Pattanam: A Glimpse into the Ancient Maritime History of India

Sukriti Singh & Swati Gosavi

Research Associate at Maritime History Society, India

### Abstract

The history of ancient port towns of India dates back to more than 5000 years, which is confirmed by the archaeological excavation at Lothal, where a dry dock was excavated. It represents the long custom of overseas maritime trade relationship with the other parts of the world. India has ample of ancient ports along the west coast as well as east coast. Port towns were not just the trade centres but later they played an important role in exchange of culture and knowledge.

The Indian Ocean maritime routes were revealed in the beginning of the Common Era based on the understanding of the monsoon winds, a unique pattern in the Indian Ocean. After Rome established '*Pax Romana*' (Peace at Roman empire) in the first century of the common era, the knowledge developed among the sailors, the traders and travellers of Greece and Roman Orient on the use of the monsoon winds for navigation in the Indian Ocean.<sup>1</sup> This progress led to the establishment of many port towns on the Indian coast line both on west as well as east.

The time period we have chosen for this paper is one of the most prosperous period of India's maritime history that is from 2<sup>nd</sup> Cen BCE to 3<sup>rd</sup> CE. During this time, many port towns were established on the eastern and western coast line of the Indian peninsula. For the purpose of this research we would be elaborating about the ancient port towns of Pattanam and Arikamedu. The 2<sup>nd</sup> Cen BCE was the period of the initial urban settlements in the southern part of India. People had realised the impotence of the resources found in the land and major trade relationships had developed between India and the Roman empire as well as with Southeast Asian countries.

### Literature Sources

Pattanam is identified as *Muziris* as mentioned in the Periplus of Erythrean Sea and *Muciri* or *Muyirikodu* described in *Sangam* literature. The identification is based on the account in the Periplus of Erythrean that *Muziris* is 7000 fields away from *Barygaza* (Bharuch, Gujarat).<sup>2</sup> Periplus also mentioned that it is located midway between *Tyndis* and *Nelcynda*, at a distance of 20 stadia (4.4 km) from the sea on the *Periyar* river mouth.

Pliny refers to *Muziris* in his accounts '*Naturalis Historia*' (VI, 26, c. 77 CE) as

"Thence from *Ocelis* with the wind *Hippalus* they sail in the forty days to *Muziris* the first emporium of India, not to be sought on account of the pirates in the neighbourhood."<sup>4</sup>

While Ptolemy identifies the capital of *Chera* as ‘*Karoura*’ and give its location very close to *Muziris*. Whereas, Sangam literature mentioned that the capital of *Chera* Dynasty ‘*Karur*’ (identified near modern-day *Kodungallur*) was near port town of *Muciri*. Many poems from Sangam literature mentioned about *Muciri*. The poet *Tayankannanar* describes the port on the bank of *Culliyam Periyaru* ...

“In Cheran’s prosperous Muciri town, the huge  
And beautiful Culli river flows, muddied with  
White foam. The Yavanas come with their  
Fine ships, bearing gold, ad leave with pepper.”

*(Akananuru 149, trans. Vaideshi Herbert)<sup>4</sup>*

The ‘*Tabula Peutingeriana*’ is the old map of the world depicting ancient towns, seas, rivers, mountain ranges and Roman roads. It is dated 12<sup>th</sup> Cen CE, but it is a copy of the Roman map which can be dated to the first half of the 5<sup>th</sup> Cen CE. It is very important to note that, on the extreme right corner of the document *Muziris* is shown and nearby lake, *Lucus Muziris*. The temple of Augustus can also be seen close to it. A mountain range, probably the Western Ghats, is mentioned in Latin that ‘Where Elephants are born’. This is very fascinating because the Chera copper coins found at Pattanam site have elephant symbol on their obverse side. Elephant is a symbol of the Kerala state even today.

Arikamedu on the other hand was located towards the North of the river *Ponniyar* it is described in the Periplus of Erythrean Sea as *Podouke/ Poduca*, a coastal market town. Also, it supported the town of *Mavilanki (Tindivanam)* which was a political centre for the local chiefs. Arikamedu has been identified with Virai, the modern *Viriampattanam* near the site which was one of the *Velir* strongholds known to Sangam literature.<sup>3</sup> In the *Akananuru* Arikamedu is described as the harbour of the *Velir*, while the *Narrinai* says that it was the centre of the *Velir* chieftain *Velir Veliyan Venman*.

It is said by Sila Padiyaram a man of wisdom from South during 50-200 AD (Post Sangam Era) that ‘*Puhar*’ or *Kaveripattinam* (Arikamedu) where “The sun shone over the open terraces over the warehouses near the harbour and over turrets with windows like the eyes of the dear. In different places of *Puhar*, the onlookers attention was arrested by the site abode of the ‘*Yavanas*’, whose prosperity never waned. At the harbour were to be seen with sailors from distant lands but to all they appeared as a community.”<sup>4</sup>

### **Physical Setting and Location**

Both the ports are located at the mouth of rivers. Pattanam is a coastal site situated in the delta of river *Periyar* and now about 4 km away from the Arabian Sea. Pattanam was excavated by Kerala Council for Historic Research, *Thiruvananthapuram* under the

guidance of archaeologist Dr. P. J. Cherian. Current excavated Pattanam archaeological site is positioned in *Vedakkekara* village of *Paravur* Taluk about 25 km north of Kochi in the Ernakulam District in Kerala, India.<sup>5</sup> The river *Periyar* flows 5 km North of Pattanam. The site is surrounded by old channels, a backwater, lagoon and stream. Though the site is surrounded by saline water, the Pattanam mound has sources of sweet water, which may be one of the reasons for the early ancient settlements.

Presently the excavated site of Arikamedu is located 4 km south of Pondicherry near the present-day village of *Virampattinam*.<sup>6</sup> In many texts the location is also named as Veerai. The excavated site of Arikamedu is located on the south bank of the bar ridden tidal inlet Ariyankappam river. According to Professor B. Arunachalam, the location of the site on a small inlet of a tidal stream could not have prompted a vast trade. “The channels of the river *Ponnaiyar* may have flowed through this port in the beginning of the Christian era, concludes Prof Arunachalam.”

The location of the ports near the river mouth implies their use of tides and the delta for harbour activity and sustenance. We should not imagine these ports as modern-day harbours with ample infrastructures and service facilities but these locations were identified as points where loading and unloading of goods could be done with respect to the tidal activity of the sea. These river mouths were very fertile place where agricultural activities could be done easily.

### **Time of Existence**

Early historic period 300 BCE to 500 CE witnessed the exchange of culture and the rise of urban settlements and ports cum markets, along the coast and the hinterland. Prior to that, in southern India, settlements began to appear abundantly from the beginning of the Iron Age that is around 1000 BCE, which also referred as megalithic culture. While considering Pattanam, it is denoted as the multi-cultural site by archaeologists, as the site occupies over several centuries and different historic periods.

However, the paper deals with the specific period signified as the beginning of the early historic period or as end of the Iron Age in archaeologist's language. This is the period when Indo-Roman trade was flourished. Ample evidences discovered during excavation, in the form of shreds of amphorae, *Terra Sigillata*, Roman glass fragments etc. Pattanam was the prime port under *Chera* Dynasty between 2<sup>nd</sup> Cen BCE and 2<sup>nd</sup> Cen CE. Many copper *Chera* coins were found at the excavation site.<sup>2</sup>

Arikamedu first excavated by Sir Mortimer Wheeler was assigned to the 1<sup>st</sup> and the 2<sup>nd</sup> Cen CE but recent excavations have pushed back the beginnings of the site to the 2<sup>nd</sup> Cen. BCE based on the presence of the roulette and Arretine ware.<sup>3</sup> As mentioned earlier the period boosted of prosperity and the soul reason for the wealth of the kingdoms was trade, both within and outside the country. It was also a period when the northern kingdoms started facing obstacles from the Parthians of Iran on the overland route (Silk Route).<sup>5</sup>

This problem collided with the understanding of the monsoon in the 1<sup>st</sup> Cen CE. This meant that the sea route became the faster and the optimum choice for traders settled across the Indian Ocean.

According to literary sources the *Pandyas* could have been the reigning dynasty in the region but the excavations across the site have revealed *Chola* coins which makes us wonder whether the Cholas has Arikamedu under their rule. Also, parts of the Sangam Literature define the coastal town as an outpost to the local chieftains from the *Yadu* (Yadav) rule.

### **Living and working**

#### **Architecture and communal life**

The geophysical studies conducted at Pattanam by Ms. Carmen Obied from Southampton University consisted of magnetometric survey of selected areas. This was aimed to find features like brick walls, households, kilns and other structures. Presently uncovered structures consist of suggestive wharf, warehouse and other unidentified structures. One of the major find is a dugout canoe made of *Anjili* wood. Uncovered architectural remains include foundations, brick walls, floors, toilet features and ring wells which could be a part of residential erection of the commercial buildings.

Initial excavation at Arikamedu exposed the existence of an oblong building (45m in length) with a single portioned wall and a side chamber towards the east. It was identified as a Warehouse. The brick work of the structure was externally rendered water tight by a tough lime plaster.

A similar structure was identified in the southern sector, with tanks and courtyards, held by many historians as a space used for the preparation of muslin cloth. In recent excavations wall fragments have been unearthed, but researchers are unable to place them in a particular time period.

During excavation, the site was divided into northern and southern sectors as the archaeologist realised the presence of two different types of settlements in the town. Some have concluded the presence of 'Yavanas' (Greeks and Romans) in the northern sector of the town. As mentioned earlier in the paper due to understanding of the monsoons the traders and merchants decoded faster sea routes. This directs us towards the realisation that there were settlements of foreign communities between the gap of southwest and northeast monsoons. This is one of the foremost reasons why Indian communities can be found settled in the Middle Eastern countries. The interaction of culture at that period is very evident in our day to day life as also in the cultures of the afore mentioned countries.

#### **Production and Trade**

All three major kingdoms of the south, i.e., the *Cholas*, the *Cheras* and the *Pandyas* were known for their trade in spices which were sold at high prices to traders. There are

evidences of trade between the southern kingdoms and the Greek or Hellenistic kingdom of Egypt and Arabia and also with China and the Malay Archipelago. The eastern coast under the *Pandya* rule was well known for its pearl, the western coast occupied by the *Cheras* was rich in pepper production, and the land under the Cholas was famous for its farm products. Because of the flourishing trade coastal lands became very important to the rulers. Ports became the focal point for indulging in coastal trade among the southern kingdoms, both within themselves as well as with other coasts, overseas and with distant lands.<sup>7</sup>

Pepper was the most popular among the spices exported. It was called as ‘*Yavana Priya*’ (loved by Romans). The local production of silk and cotton was an important industry, they formed an important commodity that was exported. Other items that were exported included ivory, pearls and precious stones.

Other commodities which exported were ginger, cardamom and cinnamon, turmeric and saffron, gems like beryl, and corundum, Safire, rare birds like peacock and parrots, tropical animals like lions, tigers and elephants, timber like teak, ebony and mahogany, coconut oil, malabathrum and many others. The trade was conducted using the barter system. The goods from the Romans and Greek traders mostly included wine in amphorae, brass and lead, glass, glass beads, copper, tin and antimony, orpiment, wheat and olive oil. However, the most important item of exchange was punched gold coins from the Roman Empire. Pliny in 1<sup>st</sup> Cen. CE laments about the drain of Roman gold into India and China for unproductive luxuries such as spices, silk and muslin.

Form of fine pottery known as ‘*Terra sigillata*’ was excavated from Arikamedu and also from Muziris. Some historians have claimed its usage by the then settled Greeks and Romans, but H.P. Ray in her paper ‘A resurvey of Roman contacts with the east’, claims that the pottery was used by the local elite. Also, the inscriptions on many parts of the pottery are in the *Brahmi* Script, though a Greek ‘*kappa*’ has also been unearthed from the site.

### Hinterland and Routes

Routes are very essential for any community to exploit natural resources, to interact with the neighbouring communities culturally and commercially as well as they are important for political, administrative and religious needs. Between 300 BEC to 500 CE large number of urban settlements and port towns emerged in Indian Peninsula. This early historic period had a vast network of main routes linking interiors of India to the coastal ports of Indian Ocean.

An argument presented by H. P. Ray in one of her papers is that the prosperity of the port was dependant more on the resources of its hinterland than on their geographical location. A major principle followed on the Indian coast lone for the location of the ports or market towns is their accessibility to the routes of the interior.

The accessibility to the hinterlands was both over land and by river navigation. In the northern parts of the country rivers flowed on plains, the rivers in the south flowed on the undulating surfaces hence making it possible to cover shorter distances only.

Madurai described in *Sangam* literature was *Maduraikaanchi* was the Capital of *Pandyas* and major market place of the era. So, port towns of southern India were connected to Madurai. The route from Madurai to *Muciri* (*Muziris*) crossed through the settlements of *Thiruparankunram*, *Muttupatti*, *Kongarpuli-yankulam*, *Mudalaikkulam*, *Vikkiramangalam* & *Amanamali*. Rock Shelter with *Tamil-Bramhi* inscriptions has covered the route. An inscription at *Muttupatti* mentions the name of a merchant from *Muciri*, which confirms, that the route described above was used by the traders form the period. Another route was described by V. Selvakumar in his paper ‘The Routes of Early Historic Tamil Nadu, South India’ is from *Teni*, crosses the Western Ghats near *Bodinaayakkanoor*, goes through *Adimaali*, *Kothamngalam*, *Perumbaavoor* and *Aluvaa* in Kerala, reaches to *Muciri*.<sup>8</sup>

There are three major inland trade routes that have been studied by historians that connect Arikamedu with other settlements and ports. There are two routes which are studied by V. Selvakumar. The first route connected Arikamedu to Coimbatore passing through *Maligaimedu* and *Salem*. The second route was a coastal route along the sea which connected the major ports of Tamil Nadu (*Tamilaham*). It connected the important ports such as *Mayelapur*, *Vasavasamudram*, Arikamedu, *Kudikkadu*, *Kaaveripoompallinam*, *Tondi* etc. The Tamil Nadu state highway 49 (east coast highway) passes through this section.<sup>8</sup>

In addition, a major inland trade route connected the settlements of *Mailartha*, *Kacchi*, *Kovolur*, *Uraivur*, *Koudmbalur*, *Madurai*, and *Korkai*. The ports on the coast were connected to this route through arteries that went along river banks. Arikamedu was connected to this route with a pathway that went along the river *Ponnaiyar*.<sup>8</sup>

### Decline

There are many researches and conclusions available to decipher the decline of these ancient ports which were once a strong pillar to the economy. We would enumerate three of the main reasons that have been attributed to the decline of these ports. R. S. Sharma in his book on India’s Past has suggested the reason for decline of ports was the decline of trade. Also, political turmoil across the Indian Peninsula was also a reason for the ignorance of trade related activities. The *Chera* land on the west coast was badly split into different rules. In 4<sup>th</sup> Cen. CE and 5<sup>th</sup> Cen. CE till the rise of the *Pallavas* in the northern part, the area was undergoing a period of chaos. This period also overlapped with the decline of Roman Empire in the Mediterranean region and emergence of the Persians and Arabs.

Professor B Arunachalam had also stated that the changes in the course of rivers and their tributaries, led to the extinction of the port towns. The ebb and flood of tides near the mouth of the rivers was used for loading and unloading of goods. Port sites favoured locations on short tidal inlets and backwaters that were naturally navigable for small

boats. The port sites were restrained to the river valley that were the natural production areas with large populated areas and they were the main carries of goods for trade from the interior of the hinterlands. So, natural change in river flow and their paths also contributed in decline of ancient port towns.

## Conclusion

Concept of ports in ancient period was different than modern days; they were the safe and dry landing sites used for loading and unloading goods. Open sea locations were avoided for safety against the direct rage of the monsoon, cyclonic storm hits, and giant waves. That is the reason many ports were situated near river mouths and their deltas. Their structures were based on suitable tidal advances, exposure to strong winds and connectivity with hinterlands. Professor B. Arunachalam has given the geographical difference between west coast and east coast of southern peninsula of India, in his essay ‘River Shifts and Migrations in the Lower Courses and Port Sites’. In this essay, he has presented the river structures and their pathway primarily of *Kaveri* River and *Peryar* River, which caused the existence of ports along the west and east coast.<sup>2</sup>

Both the ports of Arikamedu and *Muziris* came into existence because of the availability of resources, trade opportunities and faster oceanic routes. They could be seen as locations performing harbour activities where goods were loaded and unloaded for further transport and consumption. The accessibility of these ports from the hinterlands acted as a major cause of their survival. The trade in return was the reason for the wealth and prosperity of the ruling kingdoms.

The ports formed a multi-cultural avenue for arts, crafts and the amalgamation of different peoples.

---

<sup>1</sup> Networks of Trade, Polity, and Societal Integration in Chola- Era South India c. 875-1279, Kenneth R. Hall, Primus Books, 2014

<sup>2</sup> Navigation Environment of Ancient and Medieval Ports of Tamilaham, B. Arunachalam, KW Publishers. Pvt. Ltd., New Delhi, 2005

<sup>3</sup> Trade Ideology and Urbanisation, South India 300 BC to 300 AD, R. Champalaxmi, Oxford University Press, 1996

<sup>4</sup> Ancient and Medieval Ports of India, Lt Cdr Ann Swamy, Naval Dockyard Bombay

<sup>5</sup> Unearthing Pattanam Histories, Cultures, Crossing, P. J. Cherian with Jaya Menon, Kerala Council for Historical in collaboration with Sahapedia, 2014

<sup>6</sup> [www.asi.nic.in](http://www.asi.nic.in) accessed on 1<sup>st</sup> September 2017

<sup>7</sup> Maritime Heritage of Southern Peninsula, Prof. B. Arunachalam, Maritime History Society, Mumbai, 2010

<sup>8</sup> Port of the Ancient Indian Ocean, edited by Marie-Francoise Boussac, Jean-Francois Salles, Jean-Baptiste Yon, Primus Book, 2016

### Bibliography

- Arunachalam, P. B. (2002). Case for an Integrated Approach to the Study of Ancient Indian Ports. In *Essays in Maritime Studies- Vol II (MHS 5)*. Mumbai: Maritime History Society.
- Arunachalam, P. B. (2010). *Maritime Heritage of Southern Peninsular India*. Mumbai: Maritime History Society.
- Awati, M. (2002). Ports and Harbours of Ancient and Medieval India. In *Essays in Maritime Studies, Vol II (MHS 5)*. Mumbai: Maritime History Society.
- B.Arunachalam, P. (2005). *Navigation Environment of Ancient and Mediaeval Ports of Tamilaham*. New Delhi: KW Publishers Pvt. Ltd.
- Champakalaxmi, R. (1996). *Trade, Ideology, Urbanization- South India 300 BC to AD 1300*. Delhi: Oxford University Press.
- Cherian, P. (2014). *Pattanam Excavations: Interim Report of the Eight Season- 2014*. Thiruvananthapuram: Kerala Council for Historical Research.
- India, A. S. (2017, September 1). *Pondicherry*. Retrieved from ASI: [http://asi.nic.in/asi\\_exca\\_imp\\_pondicherry.asp](http://asi.nic.in/asi_exca_imp_pondicherry.asp)
- P.J. Cherian, J. M. (2014). *Unearthing Pattanam*. New Delhi: National Museum.
- R.Hall, K. (2014). *Networks of Trade, Polity, and Societal Integration in Chola-Era South India:CE 875-1279*. Haryana: Primus Books.
- R.S.Sharma. (2005). *India's Ancient Past*. New Delhi: Oxford University Press.
- Ray, H. (2005). A Resurvey of 'Roman' Contacts with the East. In *Athens, Aden, Arikamedu*. New Delhi: Manohar Publishers and Distributors.
- Swamy, L. C. (2009). *Ancient and Medieval Ports of India*. Naval Dockyard Bombay.
- Tchernia, A. (1995). Rome and India- Archaeology Alone ? In *Athens, Aden, Arikamedu*. Delhi: Manohar Publishers and Distributors.
- Tomber, R. (2016). Living in the Egyptian Ports: Daily life at Berenike and Myos Hormos. In *Ports of the Ancient Indian Ocean*. New Delhi: Primus Books.
- V.Selvakumar. (2016). The Routes of Early Historic Tamil Nadu, South India. In *Ports of the Ancient Indian Ocean*. Delhi: Primus Books.