TRADE ROUTES
TRADE ROUTES

In the beginning people were roaming in search of pasture land from place to place. They were leading a nomadic way of life. Small paths which were used by pastoralists emerged as highways in course of time. Some of the highways were the routes which linked capitals. There is another possibility of emerging trade routes. At first people met at a particular place, where they exchanged their goods. This periodical market also might have been the root cause for the routes. These paths or routes became the trade routes and they are in use till date. This is confirmed by the finds of hoards of coins on the national highways.¹

Trade routes are one of the important cause for the growth of trade. Except Mothi Chandra² none touched this area for their research. So, to get a clear idea is somewhat difficult. Recently a book states that only land and sea routes and about trade which had existed in 18th century A.D³, Sangam age and then sea routes are discussed in this work. Trade and trade route affected each one among its course of development. Tamil literature, foreign notices, excavations, coins and inscriptions help to know the ancient trade routes. In Tamil literature land route is mentioned as 'Peruvali'.⁴ In the foreign notices,
we come across the sea routes in details. Based on these we can build
land and sea routes of Tamil Nadu also their influence on trade.

**Mullai people and Highway:**

Throughout world there is a close connection with the pastoral
people in creating Highway. Nowadays also within a time bracket the
pastoral people moving from place to place for need of pasture land.
This migration of place is happening with an aim. In southern Baluchistan
pastoral people are on the move. 'Balusi' mean 'nomad' in Brahui
language⁵. This confirms that the pastoral people changing their place
for want of pasture land. In Agananuru highway has been mentioned is
most of the Mullai songs⁶. There could be close connection between the
Mullai region and highways, since it was pastoral tract. This also, shows
that the trade routes had emerged because of the cattle - breeders.

Here we can compare the situation in Balusitan⁷. There, the
pastoral people has been using the particular route for their pastoral
activities. In these routes many places are used as marketing points by
the pastoral people and agriculturists. There they exchanged their goods.
These are incipient markets. In course of time these marketing points
had emerged as merket places and the routes as trade routes.
Indus People and Highway

There is enough evidence to prove that the Indus pastoral people played an important role in transport. For cattle breeding they were in transhumance by that way themselves become traders. They carried goods through cattle in between the Indus cities. The excavation of varieties of potteries results that different people migrated to new settlement in distant areas. Afghan potteries made by 'Kulli' people are excavated in Indus. And Indus potteries also unearthed in Kulli. The distance between these two places are nearly 500 to 1000 kms. These two area people were linked as traders, only because of cattle keepers.8

In Sangam the Mullai people were in transhuman often for search of pasture land9. This is one of the cause for the formation of highway.

Thodar - Highway

Nowadays also among the thodas in Niligiris once in the year they take part in the migration rite (the changing the place settlement). This custom is prevalent only among Thodars10. In this celebration both people and buffaloes are participating. At that time they are using a particular way in Nilgiri. If any constraint they met they never changed.
their particular way in tune with custom. Before the construction of Pykara dam this path of the Thodas which crossed the river and endered the sites where rituals were took place. But even now in the dam water they and their cattle crossing by swimming and doing their custom. This shows that Thodas used a particular route to migrate to other place. This custom is a remains of Thodas, who pastoralists till date. This custom shows the close connection between Thodas and the routes or path. All over the world cattle breeders occupy an important roll in the creation of path and highway.

Tamil literature says Iyam, Suram, Vali, Neri, Aru and Peruvali are the words which denoted various routes. In all five fold lands (Thinai) 'Vali' which was used by people was mentioned in Sangam literature. In Mullai and Palai regions highways are mentioned. The routes which was referred to Sangam literature are in the neighbouring countries of Tamil Nadu

SURAM

The songs which speaks about the trader who went to Vadugar Nadu for trade mentions 'Suram' and 'Kadu'. Suram means Route. This suram and kadu may denote the way or Highway. Vali went through palai land. These highways situated in Kolar and Deccan. One among these is called as Dakshnapatha. 'Dakshin' means south
and 'patham' means route\textsuperscript{16}. Southern route was one of the highway in ancient India.

\textbf{Attam or Atar :}

Attam denotes Mullai Vali. Atar also mentions as vali in sangam literature. Many of the Ashokan inscription are found in the vicinity with or in the immediate neighbourhood of ancient gold mines and diamond working on the Deccan highway\textsuperscript{17}.

\textbf{Aru :}

In South India, all the ancient highways were on the river banks. Sangam literature also mentioned the work 'Aru' for route, which also meant river\textsuperscript{18}. For the ancient settlements, water formed an important aspect which decided their continuity. Hence the early routes were located on the river banks.

\textit{Silapathigaram} mentions the way which went along the course of the river, which is existing even now\textsuperscript{19}. Highway which is going along the river Kaveri one of the ancient highway. The hoard of Roman coins excavated on the river bank sites such as Vellalur, Perur, Sulur, Kulumam, Anaimalai, C. Kalaiymuthur speak that highway went along the river course\textsuperscript{20}.
Most of the trade centres situated on the bank of the river - Sangam literature denotes this Aru to indicate street of the cities.

**Vali:**

Vali denotes other than highways\(^{21}\). It is used by people commonly. Even this vali also went along palai land.

**Highways:**

There are references about highways in the Sangam literature the earliest Tamil written records speak about these highways which existed Mullai and Palai lands. Purananuru says the highway which went to Puhar\(^{22}\).

Paripadal mentions a highway which went from Madurai to Thiruparangundram\(^{23}\). Now it is a highway which goes towards Thirunelveli.

Highways, were in the use even during 4th Century B.C. Maloney has shown that the gold of the Deccan plateau reached the west coast during the 4th B.C.\(^ {24}\). Fine hexagonally - cut beryls have been found in pre Muryan levels at Taxila\(^ {25}\). The Arthasatra refers to pearls from Tamraparni conch shells from South India and Vaidurya or bryle of various colours probably from Padiyur in Coimbatore district\(^ {26}\).
Dakshnapatha (southern route) was mentioned in Sathapatha Brahmans. Kautilya has mentioned about this highway. According to him this route was the best route which was free from highway robbery. It also passed through the area full of mineral wealth. Many ancient trade centres had been spotted on this highway. This way was originated in Ganga Vally. Then it ran through Deccan (Hence it is called as Dakshnapatha) and reached Tamil country. Karur is situated at this highway. In the end it terminated at Cape Comarin. Then it was an active trade route. Hence Karur has emerged as a trade centre quickly. Now this highway is national highway seven.

Highways in Epic:

Highways are mentioned in epics. We get more information in Silapathigram. Chinthamani says very little. In Perugathai, nattuppervali and 'Kattu' Peruvali are referred. Silapathigaram mentions a highway which went along the bank of Kaveri to Uraiyur and then through Kodumbalur it reached Madurai. In the boundary of Chola Nadu, this highway divided into three and reached Madurai. From Madurai along the river Vaigai a highway went to Chera Nadu.

In ancient days, minor ruler with small areas had ruled not like Maurya, Gupta Kingdom. So in each and every chiefdom, while
entering in their country they collected a tax called 'toll' from the traders. These rulers are in both forest and countries. With this, Perungathai may state Nattu Peruvali and Kattuperuvali Manimegalai and Kambarangayananam mention about highways.

On the highway, tolls were collected by guards from the traders. Agnananuru refers to 'Vayavar' guarding traders who had organised in a 'Sathu'. At cross roads there were soldier on guard and they collected tolls from traders.

Kongu Peruvali:

Palghat pass was the major cause for the emergence of national highways. Three major highways were branched off from Palghat pass. One was passing through Perur, Avinashi, Erode, Salem, Thagadur, and Kolar. Another was passing through Vellalur, Sulur, Kattankanni, Kodumanal, Kodumudi, Karur, Velautampalayam. Then it reached Uraiyyur and terminated at Pumpuhar. Last one passing through Anaimalai, Udumalai, Kolumam, Palani, Thangala (identified with Dindugal) and Madurai, terminate at Rameswaram or Kodikarai. By this we can assume that these highways played a major role in ancient trade.
Bharuch - Kanchi Highway:

From Bharuch situated near Bombay went a highway up to Kanchipuram. This highway passed through Paithan one of the Satavahana capital and touching Kanchipuram and went south. From Paithan it went through Brahmgiri, Chandravalli, Sikgarthurgam, Sripurvatham and Kanchi. Roman coins were unearthed in some of these places. By this it is clear that Yavana traders used this highway.

Sea route:

Tamil literature speaks very little about the sea route. We have to dependent foreign authors for the information about the sea route. The author of Periplus Pliny and Ptolemy say about sea route in detail. Pliny mentions Arabian Sea, Indian Ocean, and also the wind which is very harsh.

Before 1st A.D. sea voyage went along the coast line. It start in west coast went through Bharuch, Mekhran and it went through the coastal area of Iran, through Persian Gulf, Egypt and reached Red Sea, Alexandria. It was well known trade port. It was situated at the place where east and west meet. Here Asia, Europe and African traders stayed.
SEA ROUTE AND TRADE ROUTES
IN INDIA
Before Augustus, Alexandria was under Arabians and Somaliyas. After recovery by Augustus Indian traders got change to visit here.

Yavana traders considered Baruch as the first and major port of Indian Penninsula. It is well flourished northwestern trade port. Here all the countries traders visited here.

**Silk route:**

China had dominated the silk trade. They knew to produce silk from Silkworm, but they did not part this knowledge to anybody. So, all other country traders like Yavanas, Arabians, Persians went China for silk. That trade route which was used for this is called as Silk route. Not only this but one more silk route had also existes there, along the coastal area of Southeast Asia, Malaysia, Burma runs the East Indian island and through west of South India, it reached Red Sea.

These routes were used not only for the silk trade but also for other important changes in political line also was used. The silk route along sea had helped the trade.
Eastern Sea route:

The epic Manimegalai discusses Eastern trade. The routes started as silk route and reached in the eastern countries. East Indian islands and southeast Asia involved in trade even before 2nd A.D. in Combodia, Java and Sumatra. Sanskrit inscriptions in Grantha character are discovered, so the south Indian people were the authors of these inscription while setting their life there.

Korkai, Marugurpatinam, Puhar, Mamallai, Vasavasamudram all these trade centres are linked with Southeast Asia, East Indian islands and Srilanka only through sea route.

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

After the discovery of the Monsoon, a voyage from Italy to India, took 6 weeks. The ships Sailed from Mussel harbour (Rass Abu Sumar) at the winter equinox. When the north wordly wind blowing favouring travel to Africa and South Arabia, travellers for India & Srilanka started their voyage in July because crossing the Red Sea before the first September they got favourable monsoon wind took them the Arabian Sea with case.

Bharukachcha had very intimate trade relations with Paithan the captial of the Satavahanas and Tagara (Tea) a famous town in the Deccan. The journey between Broach and Paithan took 20 days & from there Tagara could be reached in another ten days. One route started from Masulipattinam and the second from Vinnukonda. Both theses routes met in the south - coast of Hyderabad and then this route passing Ter. Paithan and Daulatobad reached Mankind (Ajanta Hills). From here started a very different journey on the western that traversing a distance of 100 miles reached Broach. This was the famous route of the Satavahana empire which naturally terminated at Kalyan.

Canaetae (perhaps oyster rocks) situated off the west of
Karwar sea - coast & Cherasonesur (Karwar) these ports were always in fear of pirates\textsuperscript{55}. After (Cannanore or Hanvar) which was the first market & Tyndis (Ponnani) which was the first port in Tamilagam called Damrica\textsuperscript{56}. The famous port of Muziris in Kerala is indentified with Cranganore & Nelcynda with the port near Kottayam\textsuperscript{57}. In Muziris the Arab & Greek ships loaded with cargo cast anchor. This port was situated at a distance of fifty miles from Tyndis (Tondi). At the mouth of a river. Nelcynda was situated at a distance of fifty miles from Muziris in the Kingdom of the Pandyas.

Before the periplus the ships proceeding from Aden & Cana followed the sea coast. Hippalus was perhaps the first pilot who inquired about the situation of the ports & the seas & how the sailors could take up a straight course in the sea\textsuperscript{58}. Therefore, the south western wind was named after Hippalus from that time ships proceeding to Damarica via Cana and the cape of Spices sailed a little off from direction of the wind. The ships proceeding to Broach and Sindh sailed at three days distance from the coast, and from three following the favourable wind they sailed straight to Tamilnadu.

Cherabothra or Kerala exported large quantities of black pepper\textsuperscript{59}. At one time Kerla extended from cape Comorin to the Karwar
point but at the time of the Periplus its northern part had slipped out of
the hand of the Cheras and its southern part had been occupied by the
Pandyas. Therefore, Kerala at that time consisted of the former
Malabar, Cochin and northern Travancore. Tyndis was its northern
point, but its most important port was Muziris. In this port the Roman
and Arab ships exchanged Indian goods with Roman goods. They also
made transactions in cash. According to Pliny early merchants coming to
Kerala transacted their business by sign language. It is also said that a
temple was erected here in honour of Augustus. In the south of Muziris
the ships of Nelcynda cast anchor at Porkad. In the time of the Periplus
Nelcynda was within the power of the Pandyas and it may be due to the
intension of the Pandyas to gain the monoply of the pepper trade. Pliny
further informs us that those Greek merchants who reached Nelcynda
were informed by the Pandyas that the supply of pepper at Muziris was
much less than they excepted.

The Pandya kingdom at that time was confined to Madura,
Tinnavelly and part of Travancore. The Gulf of Mannar was once famous
for its pearl fishery, its famous centre being Cochin (situated on the mouth
of the Tamiraparani river). Criminals were employed for pearl fishery.
It seems that the writer of the Periplus did not proceed beyond Nelcynda
because its accounts of the ports beyond Nelcynda are confused.
Periplus mentions a mountain which could be identified with Varakalli or Anzenzo Rocks on the sea coast of Pyrrhon⁶³. After that appeared Paralia. The region extending from Cape comorin was also a place of pilgrimage at that time. People came here to take holy bath and lead a pious life⁶⁴. In Tamilnadu the Cholas were most powerful and their empire extended from the Periar river to Nellore and Pudukottai and in the south up to the Vaigai river. Its capital Aragaru (Uraiyur) which was destroyed in the 7th Century was a part of Trichonoploy and was famous for its muslin⁶⁵. The Palk Strait was famous for its pearl fishery. The most important port of the Chola Mandala was Kavaripattinam or Puhar which was situated at the mouth of the northern bank of the Kaveri.

Among the other parts of the Chola Mandala were Poduce (Pondicherry) and Sopatma. The recent excavations at Arikamedu near Pondicherry have yielded evidence that in the first century A.D. it was flourishing port. Sopatma has been identified with Sopattinam of the Tamil literature and it could perhaps be identified with Marakanam now situated between Madras and Pondicherry. In these ports the rafts known as sangara plied. The ships sailing from the mouth of the Ganga to Suvarnadvipa were known as Colandia⁶⁶.
As at Puhar there was a small colony of foreigners. Then poduca of the Periplus a poduca emporium of Ptolemy is Pondicherry.

**SHIPS**

The Sanger raft was made of single logs tied together. The outriggers were made of sawn timber. These two boats were joined together with a cahin. A boat named jangar still plies on the sea coast of Kerala. Pamphas sangar is derived from Sanskrit sanghata. The Jaina Angavijja mentions one of the kinds of boats as Sanghatam.

Colandia is perhaps of Malayali region. Rajendralal Mitra, however, derives this word from Sanskrit Kalantarapota. Perhaps these big ships sailed from Korkai to foreign countries.

The sturdy construction of these two masted ships plying on the Chola Mandala is evident from some of the coins of Sri Yajna Satakarni.

The Periplus has mentioned only summarily the cities & ports after Chola Mandala. He draws our attention to Masalia or Masulipattinam and informs us that it was famous for its fine muslin. Dosarene (Tosali) or Orissa was famous for its trade in ivory.
In ancient times Indian ships sailed to Malaya, east Africa and the Persian Gulf beyond which they could not proceed owing to the restraints put by the Arabs. In the first, A.D. with the permission of the Kshatrapas, some big ships sailed to the Persian Gulf up to this century the Arabs were two monopolists of the western trade & therefore they did not allow Indian merchants beyond Ocelis through Axumites allowed them the use of this port, They were, however, free to sail on the Indian sea coasts.

The goods from Tamil Nadu for foreign countries were loaded in the ports of Cochin. But some Alexandraian ships reached Nelcynda. In the seas of Sri Lanka ships of 33 tons sailed a therefore the voyage between the mouth of the Ganga of Sri Lanka was very much reduced. Ships sailed regularly on the Chola Mandala. From the sea-coast of Kerala ships sailed to the ports of Comara, Poduce & Sopatma. To the north of the Chola Mandala in the domain of the Satavahanas two masted ships sailed. Further north Tamiluk was known for its heavy shipping.

Ptolemy also mentions about the pirates of the Konkan and many cities in that region. Nitra (Pigeon Island) was a big port. He also mentions the states in Tamilakam. It is evident from him that in the II c. A.D. Muziris was the only lawful port of Kerala. Nelcynda & Becare
no longer had survived only in the form of a City. In the group of the cities Punnati (perhaps a place) near Seringapatnam or Kittur was the chief source of beryl. Caraura which was once known as Vanji or Karvur is now identified with Karvur near Cranganore. It was the capital of the Cheras in the time of Ptolemy. It seems that the beryl mines of Coimbatore in Tamilnad were known equally for everybody.

We can make a guess that the Cheras had the monopoly of the pepper trade the Pandyas were the monopolists of peral trade & the Cholas of beryl and muslin. According to Ptolemy the domain of the Pandyas was a small one and on its sea coast were two ports Elancoros of Elancon (Quilon) and Colchi. Their capital was cottiara (Kottaru) & they exercised their control over the cape Comorin. Their biggest city was Madura. According to Ptolemy after the cape Comorin and the Bay of Calligicon (the Gulf of Calimere) the Romans and Alexandrian Greeks sailed frequently on the eastern sea coast of India. But at that time the Cholas were on the decline. Their capital was at Orthura (Uraiuyr). Ptolemy observes that the cholas at that time were on the run. Perhaps this might have been due to the occupation by the Pandyas of the sea coast of Uraiuyr and the palk strait where pearl fisheries were located. According to Ptolemy the Chola ports were Nigama (Nagapattinam), Chaberis (Kaveripattinam), Sabaras (Cuddalore), poduce (Pondicherry),
and Malanga (Mavilangai). On the sea coast ports controlled by the Satavahanas were Maisolia (Masulipattinam), Kontakossyla (Ghantasala) & Alosygna (Koringa). Ptolemy also knew about many cities of Andhra

The 3rd A.D. saw the downfall of the Roman empire. Trouble rose on its communication system. The sea route from Rome to India closed down & the commerce again passed to the Arab & Axumite merchants. The Sassanians established their control on the Persian Gulf & on the silk land routes. In the later Latin Literature India again passed into the realm of fancy.

Arthasastra of Kautilya throws light on the land routes & sea routes which are not mentioned anywhere else. For the success of external & internal trade it was necessary to have good roads & govt officers to regulate the movement on them. The chariot routes, routes leading to ports, roads leading to the capitals of the provinces, the roads leading to the neighbouring states and the roads leading to the grazing grounds were four daindas or 24 feet wide. Sayonia roads leading to the military camps & roads proceeding to cemeteries and villages were eight dandas or 48 feet wide. The roads leading to the reserve forests for
elephants were 12 feet wide. The chariot roads were seven and a half feet wide, but the animal tracks were merely three feet wide.

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

On the Dakshinapatha or the Southern route trade in Chank shell diamond, precious stones, pearly and gold was carried on. Even in this route, that section was considered to be the best which proceeded to mining districts and was constantly used by merchants. This route was also less dangerous and less costly and therefore, merchants always used it because here they could easily buy goods. While comparing the relative values of bullock-cart route and tracks he considers the bullock-cart route better because this road could carry heavy loads easily.
Antiquity of Sea Voyage in Tamilnadu

Boats are found drawn on rock surfaces in two places in Tamilnadu being one at Karimaya Kavundanpatti in Madurai District. Another at Kilvalai in Viluppuram Ramasamy Padayatchiyar district. First drawing depicts a man sailing in a boat while each other travel in a boat. In the second drawing a long pole is also seen as if being used to move the craft. Both the boats are drawn in red ochre. On stylistic ground the figur of karimaya Kavundanpatti appears to be earlier that the latter and be assignable to the end of the last phase of Neolithic period in Tamilnadu i.e.1000 B.C. The kivalai painting may belong to 700 B.C. to 500 B.C. 78.

One more store evidence has come from Alagankulam a port city of Pandyas situated at the confluence of river Vaigai with the Bay of Bengal. A rouletted sherd bearing the figure of the ship on the shoulder portion has been unearthed recently from this site. The excavation conducted in the year 1977 at Alagankulam also yielded a pot sherd of red coarse ware bearing the graffito of a boat. The practice of engraving ship figure on the pot sherds seems to have prevalent in other countries also as the archaeologists who came across a pot sherd with the figure of a ship, during their excavation held at Berenike Situated in Egyptian Red Sea coast, in the year 1995.
In the beginning the transportation of mercantiles was made through river since the human habitations were on the river banks. In course of time, when they moved to the sea coast they had to sail on sea for seeking market in far off places. Though the sea voyage appears to have reached its Zenith during Sangam age, there was a dearth of material evidence.

'Travalam' were found on the highways. According to some scholars this might be a periodical market or rest houses for merchants. Periyapalayam inscription speaks about sixty-four thavalams in South India. There is a village in Salem District by name Vempatithalam. It is interesting to note that these thavalams were named after trees. According to periyapalayam inscription, merchants and their soldiers had always lived in these thavalams.

**Contents:**

Medieval inscription refer 'Adikiltalam'. Tamil literature 'talam' means cantonment. Hence we can safely assume that 'Adikil Talam' means cantonment of traders army.

Sangam literature mentions 'Aralaikalvar' or highway 'Robberers'. In perungatai there are reference about skirmishes between highway robberers and highway guards. Highway
robbery was prevalent in 'Sangam age. This was also attested by Sundarai hymns about Murugan Poondi. To check the highway robbery highway guards were made to roam on highways. Megalithic monuments unearthed are located on the highway and trade routes. From this megalithic, many iron swords and knives have been unearthed. All these evidence reveal the fact that soldiers had lived in these settlements.

As already mentioned on the highways, tolls were collected by guards from the traders. Agananuru refers to vayavar guarding traders who had organised in a 'Sattu'. In the medieval time tolls were named as 'Sangam'.

Theru:

In Sangam literature 'Theru' was mentioned as trade centres. Theru and Perunteru were mentioned in medieval inscriptions. Merchants had lived there.

Trade and trade routes gradually developed in Tamilnadu. These routes ran through the area which was full of mineral wealth. Trade routes and highways were dotted with Rest houses and warehouses. Highway net works resulted in the emergence of trade centres. Some of the trade centres had ceased to exist an account of the fall of Roman trade.


3. Ibid.

4. Tamil Lexion Vol V p. 2803

5. Philip Carl Salzman "The Proto State in Iranian Baluchistan"

6. Agananuru verse 64,74,84,104


8. Shareen Ratnagar, Encounters the Westerly trade of the Harappa Civilization p. 44


12. Agananuru verse 182 line 11; Kurundokai verse 269 line 1.

13. Agananuru verse 7 line 13; verse 5 line 8

14. Tamil lexion Vol III p. 1525


18. Agananuru verse 182 line 11; Kuruntokai verse 269 line 1


20. K.S. Vaidyanathan The Ancient Geography of the Kongu Country p.68.

21. Agananuru verse 155 line 12,

22. Purananuru verse 30 line 13

23. Paripadal verse 8 line 95


25. Ibid

26. Ibid. p.31

27. Ibid

28. Ibid

30. Ibid.

31. Perunkatai Conto I, Kotai 49, line 75

32. Silapathikaram Conto II line 70-74.

33. Ibid

34. R.S. Sharma Urban Decay in India (C.300-C.1000) p.157.

35. Manimegalai Canto 12 line 59, Kamaramayanam Conto 1 verse 355

36. Agananuru Verse 89, line 13

37. Perumpanarrupadai line 81


39. Ibid.

40. Ibid.


42. Schwartz Berg Joseph.E. Loc.cit

43. Tamilnadu Varalaru Kulu, Tamilnadu Varalaru Sanga Kala valvial Madras, 1992 p.172

45. Ibid

46. Ibid.


51. V. Kankanabai The Tamils Eighteen hundred years ago p. 37


53. Ibid

54. Ibid

55. Ibid

56. Ibid

57. Ibid

58. Ibid

59. Modichardra Trade and Trade Route in Ancient India

60. Ibid
61. Ibid
62. Ibid
63. Ibid
64. Ibid
65. Ibid
66. Ibid F.N. p.118
68. Ibid
69. Ibid p.119
70. Ibid
71. Monasty and Guild,
72. Ko. Nayagam Op Cit p.60
73. Ibid
74. Modichandra Op cit p.122
75. Ibid
76. P.T. Srinivas Iyangar
77. Ibid p.26
78. Natana Kasinathan, Antiquity of Sea voyage in Tamilnadu. P. 1
"Kalvettu" 1997 April-July

79. S.I.I Vol. VII No. 442

80. Srimad Kambararayana Agarathi Vol III p. 51


83. Sundarar Devaram Thirumuruganpoondi Pathikam verse 1

84. Schwartez Berg Joseph E. Loc. cit

85. Agananuru verse 81

86. S.I.I Vol XXVI