

Classical Indo-Roman Trade: A Misnomer in Political Economy

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The paper attempts a critical re-appraisal of the oft-celebrated ancient Indo-Roman overseas trade in the light of the recent archaeological studies in India and abroad as well as against studies in contemporary political economy of the Tamil macro-region that included Kerala. The archaeological studies include the excavations at the Egyptian, Mediterranean sites like Myos Hormos, Quseir al-Qadim and Baranike and Pattanam, a land-locked site in Kerala on the southern West Coast of India, during the last few years. An independent evaluation of the archaeological data from these sites in the light of contemporary political economy of the Tamil South that included Kerala, as to see whether they contain any fresh clues which necessitate a revision of the extant presumptions about the features, processes and dynamic of the Early Historic (2nd century B.C – 3rd century A.D) social formation of the Tamil macro region. As a related question, the political economy of classical Egyptian and Roman maritime trading networks and of ancient India in general, has to be reviewed. Integration of the multiple sources and pursuance of a holistic perspective on the socio-economic aggregate of unevenly developed communities are essential for an adequate assessment of the nature of the early Mediterranean exchange relations with India (Thapar, R. 2005 pp.11-40). Archaeology should go beyond typology, stratigraphy and dates of artefacts to reach out people's practices, human relations and social process. Numismatics should inform history through economic insights into the anthropology of ancient exchange systems. Likewise, the literary source should render access to its embedded life-world plausible through textual analysis.

The Old Thesis

The history of India's maritime contact with Rome, generally described as Indo – Roman trade, has been a prominent theme of discussion in her historiography, exciting several historians with the imaginary notion of a maritime civilisation, as any book on ancient India would show. This is based on the Graeco-Roman texts of the mid first century AD such as Strabo's *Geography*, an anonymous merchant's experiential account called *Periplus Maris Erythraei (PME)*, Pliny the Elder's *Natural History (NH)* and Ptolemy's *Geography*, which give brief accounts on ports such as Muziris, Tyndis, Nelcynda and Bacare on the West Coast of India, none of which has been indisputably identified as yet (McCrindle, 1975; Majumdar, R.C. 1960; Sastry, K.A.N. 1939; Warmington, 1928; Charlesworth, M. 1951; Adhya, G.L. 1966; Miller, J.I. 1969)¹. In addition to these, a few allusions in ancient Tamil poems, popularly called the *Cankam* literature and the several hoards of Roman coins discovered in different parts of the Tamil South provide evidence *par excellence* for historians to imagine a glorious epoch of India's heavy overseas transactions (Elliot, W. 1886; Sewell, R. 1904, pp.200-03; Aiyer, K.V.S. 1917, pp.86-87; Gupta, P.L. 1965; Suresh, S. 2004, pp. 18-20).² Since the motor of trade being the Roman demand for pepper, beryl, pearls and textile from the Tamil South and Sri Lanka, the lead role and economic advantages of India have always been taken for granted. At Soqotra the presence of Indians on the island is attested by the *Periplus* which refers to "those sailing out of 'Limrike' to Soqotra with rice, cloth, slaves, etc. (Casson, L. 1989)³ The

discovery of shards of early Roman *terra sigillata* and amphorae at Arikamedu on the Coromandel added to the evidence of shipping of goods to the Mediterranean. Navigation between the east African coast and the Indian West Coast was, indeed, a common feature of the period. Generalisations about the maritime trade contacts have been made often indiscriminately using these varied sources in piecemeal and as it favoured the national/regional pride.

The story of Hippalus Wind apart, the awareness about latitudinal parallels and corresponding destinations had formed part of the working knowledge of contemporary overseas navigators. Traders sailing from the horn of Africa across the Arabian Sea knew that by navigating the 12^o latitude east would take them to the southern west coast of India (Casson, L. 1989, pp.83-85; Tchernia, A. 2005, pp.250-76). Seasonal overseas traffic of goods from the coast of peninsular India to Egypt was quite active under Ptolemies themselves, although the number of ships that had set out on sail was small and the order of preference of merchandises different. Teakwood and elephants were the preferred items of Ptolemies, while the Romans preferred spices. It was Augustus who provided for making the monsoon sailing phenomenal in terms of voyages to the east by ships huge in size and large in number. His conquest of Egypt at the end of first century BC, in fact, was motivated by the revenue potential of trade networks and caravan circuits from the horn of Africa across the desert to the Nile and beyond as well as the state obligation to respond to the pressure of social demand for eastern goods (Whittaker, C.R. 2004, pp. 52-61). With the Augustan conquest of Egypt, the Indo – Roman trade became significantly different from what it used to be in the previous ages, especially at the organisational level where it showed features of scheduled commerce under imperial patronage. The pressure of the social demand for oriental goods is best expressed in Pliny's reference to the growing anxiety of the Roman Senate about the drain of gold due to the regular import of pepper and other spices from the East is famous and widely cited as proof of the influx of gold in bullion and as coins to the Indian West Coast (NH.6.21).⁴

New Evidences

The excavations at the Mediterranean sites have yielded archaeological remains of overseas trade goods from the ports of southern West Coast of India and indications of the presence of Indians at Berenike as well as along the caravan track on the Nile (Sidebotham, S.E. and W.Z. Wendrich 1999; 2000; 2002, pp.28-31; Sidebotham, S.E. 2008; and 2011, pp.75-76).⁵ The archaeological remains unearthed from the Red Sea coast have added on to the revived enthusiasm of maritime historians in visualising the Tamil merchants' role decisive. Recent archaeological discoveries at several Egyptian, Mediterranean sites have provided new evidence for the transport of Indian goods through the Red Sea ports of Myos Hormos (Quseir al-Qadim) and Berenike. Excavations at Berenike, the transit port between ancient Egypt and Rome for merchants and merchandises making their way to the Indian coast, have yielded along with various other items, 7.55 kg of black pepper (*piper nigrum*) in a ceramic container made of Nile silt. Shards of common Indian pottery in good quantity, a few shards of Indian Rouletted Ware, a couple of which having Tamil-Brāhmi characters, brailing rings, remains of teak wood and cotton sails of Indian weave (?) are other items (Sidebotham, S.E. and W.Z.

Wendrich, 2000; Sidebotham, S.E. 2011, pp. 75-76). The status of Berenike as the starting point of sailors bound to the east, coupled with the presence of the teakwood among the finds there, probably suggests the possibility of an Indian boat-building centre on the Red Sea coast, the presence of Indian merchants and their ships in the Red Sea. At Myos Hormos, Quseir al-Qadim and Berenike, a few pot-shards with Tamil-Brāhmi characters, dating back to as early as the first or second century AD, have been discovered (Salomon, R. 1991, pp.731-36).⁶ One such writing mentions two Tamil names Cātan and Kannan. Another label inscription reportedly mentions *Korran* (*Korran Puman Korran*) meaning chieftain. Excavations at Berenike have yielded archaeological remains especially shards of domestic wares of ancient Tamils suggesting their extended stay in the place. Occurrence of Indian pottery shards at a few sites in the Berenike - Koptos route points to the sojourn of Indian traders travelling to Alexandria with merchandises. A collection of terracotta tokens, (*ostraca*), seemingly customs duty clearance given at Koptos for cargos to be sent across the desert to the Red Sea ports, constitutes a significant discovery at Berenike, providing important details about the legalisation procedures of goods on board (Bgnall, R.S. *et.al.* 2000).⁷ However, it is too small a collection to give any idea about the volume and variety of cargos (McLaughlin, R. 2010, p.15). Another set of *ostraca* known as the *Nicanor Archive*, consisting of caravan transport receipts, was excavated from Koptos (Fuks, A. 1951, pp.207-16; Sidebotham, S.E. 1989, pp.83-92; Young, G.K. 2001, pp.64-65).⁸ Nicanor was an Egyptian caravan owner at Koptos, from whom merchants had hired camels for transporting goods across the desert to Berenike. It appears that at the delivery point an *ostraca* was issued by the merchants acknowledging the safe receipt of goods from the camel men, who on return must have given the receipts to Nicanor.

Though one is yet to precisely locate Muziris, there is a strong case of discovery and identification of the port now based on geological and archaeological evidence, thanks to the excavation at a few points of the Pattanam site (Shajan, K.P. *etal.* 2004, pp.312-320; Cherian, P.J. *et.al.*2007, pp.26-27; Selvakumar, V. 2009, pp. 28-41; Gurukkal, R. and C.R. Whittaker, 2001, pp.335-50).⁹ The site of Pattanam has yielded a variety of organic and inorganic categories of archaeological objects such as wood, plant-fibre, spices, vegetables and nuts as well as beads and bead-materials, uncut gem-stones, copper, bronze and iron objects, backed bricks, roof-tiles and shards of different types of ceramic including the early Roman (KCHR, 2007; 2008; 2009; 2010; 2011).¹⁰ The data from Pattanam, both the explored as well as the systematically excavated, constitute the latest archaeological evidence for the long-term regular transportation of spices, gems, beads and so on to the Mediterranean world and beyond. The major items among the archaeological finds at Pattanam as in the case of Aricamedu, are shards of Mediterranean ceramic variety such as amphora jars, garum jars and huge grain jars (Tombr, R. 2008, pp.37-38). Goods shipped from Muziris to Berenike as confirmed by recent studies, were mainly forest products like teak, ivory, peacock feather, *akil* and medicinal herbs; spices such as black pepper, cardamom, *costus*, *bellium*, *lykion*, nard and *malabathrom*, marine products like corals, pearls and tortoise shells; and fabricated products such as gems, glass, semiprecious-stone beads, cameo blanks and textiles including silk. The Pattanam excavation has produced evidence for the shipping of *moong* beans, green gram, gooseberry, sesame seeds and coconuts too. All this points to

the remarkable significance the shipping of trade goods had in contemporary Roman economy (Bang, P.F. 2008; Romanis, F.D. 2008, pp.41-43).

The manufactured goods shipped from Muziris as corroborated by the recent archaeological discoveries at Pattanam deserve special mention. Beads of semi-precious stones such as beryl, carnelian, quartz, agate, amethyst, garnet, chalcedony and onyx, and glass constitute the most voluminous quantity among the craft-goods excavated at Pattanam (KCHR, 2011). A good quantity of beryl and carnelian raw material, a few stone moulds, their chips, broken pieces and abandoned defective ones collected from the trenches suggest camping of craftsmen engaged in gem cutting, bead making and polishing at the site. However, there is no indication of glass beads industry reported, although excavations have yielded glass beads in huge quantity. Apart from lapidary and metal smelting, brick and tile production are very well attested by findings at the Pattanam site. The remains, probably of a furnace, point to the possibility of some industrial activities. Similarly spindle whorls, hop scotches, discs and lamps unearthed at the site are suggestive of the textile industry. Triple groove roof-tiles that occur among the architectural debris in a very limited way, suggest no local manufacturing. The occurrence of Indian Rouletted Ware (IRW) shards, (Begley, V. 1988, pp.427-440; Ford, L.A. *et.al.*, 2005, pp.909-920; Peter, M. 2010, pp.1043-1054; Suresh, S. 2004, pp.93-94)¹¹ an evidently non-local pottery type, generally associated with long-distance inland merchants contemporaneous to Roman trade contacts, is indicative of the involvement of merchants from far away places like the Gangetic region. A Brāhmi label deciphered as *amana (sramana)* found on an IRW pot-shred has been taken as evidence for the presence of followers (*upāsaka-s*) of the heterodox orders mainly the Buddhist and Jain monks (Varier, M.R.R. 2008, pp.35-36). A huge quantity of shards of local pottery, mostly of the plain or coarse bowls, found all along the trenches as an assortment showing the ill-disposed state of the debris, indicate the functional presence of the most common wares.

The most significant among the new evidence is the *Muziris Papyrus*, a Roman document discovered in 1985, which records a loan agreement drawn in Muziris by a 2nd century Alexandrian creditor with a transmarine trader, signed by the main merchant, the financier and a third person, the goods manager, probably a Greek stationed at Muziris across seasons. The document containing a wide variety of information regarding the Mediterranean overseas trade with the West Coast, particularly with Muziris, the major port to which ships from Berenike had sailed, mentions a ship namely, 'Hermapollon' engaged in mercantile circuits between Berenike and Muziris during mid 2nd century A.D.(Rathbone, D.2000, pp.39-50; Casson, L. 1986, pp.73-79; 1990, pp.195-206)¹² It is more or less clear when exactly the port of Muziris, 'the first emporium of India' (*primum emporium indiae*) according to Pliny, had risen into prominence, thanks to mentions in *Periplus* and by Pliny, which would have us believe first century A.D the zenith of its prosperity (Casson, L. 1989, pp.83-84). The *Papyrus* indicates that the prosperity of the port was continuing during 2nd century A.D. We learn from the document that goods from the port were carried by camels to Koptos through the desert and from there to Alexandria by river (Rathbone, D. 2000, pp.39-50). Also, it helps us imagine how huge, extensive, systematised and costly the transactions were in those days

(McLaughlin, R. 2010, p.2.; Sidebotham, S.E. 2011, pp. 223-45).¹³ The heyday of Indo – Roman trade was the period between the beginnings of first century A.D and the second half of the second century A.D.(Fussman, G. 2005, pp.66-71)¹⁴ With the devastation of the empire's core as well as periphery by the Antonine Plague during the 60s and 70s of second century A.D Rome's easterly trade declined never to be revived again in the same magnitude (Potter, D.S and Mattingly, D.J. 1999, pp.105-06).¹⁵

Overstatements ?

As in the case of the previous set of literary, archaeological and numismatic evidences, the new set too have been interpreted piecemeal with little caution against overstatements and generalisations incompatible with the nature of contemporary economy, society and polity. The nature of the role and participation of South Indians in contemporary transmarine commerce has been overestimated in the light of inscribed port-shards, teakwood remains, and pieces of Indian cotton sails. It has been assumed that many Indian merchants had sailed in their ships as the teakwood remains and pieces of sails-cotton of Indian weave show. Some of the teak wood remains indicating planks of secondary use have been taken for parts of a dismantled Indian ship. Shards of Indian common pottery on the Red Sea coast have been taken as evidence for long stay of Indian merchants there. All this has been interpreted as proof of direct and significant participation by South Indians in contemporary overseas trade and of their making fortunes out of it.

In fact, as we draw closer to these so called archaeological evidences, they slowly wane and vanish as mirage. The teakwood remains mostly are in the form of unused planks, obviously imported by the Roman ships. There is no evidence as to believe that seagoing vessels huge enough to withstand the monsoon wind were built in India during the period. After all, the availability of teakwood and craftsmanship alone would not do for it; need was the prime factor, social demand and the state formation the decisive pre-requisites. It is now well-known that the ships sailing with the monsoon winds had required the angular mast of Arab design and hence could not have been built anywhere outside the pale of Arab culture. It is most likely that the ships were designed and built by the Arabs (Catsambis, A. *et.al.*,2011, p.501). The Indian identity of the remains of cotton sails excavated at Bernike and Myos Hormos is not an undoubtedly established issue as yet. In fact, the port-shards excavated from the Egyptian ports and trade-routes are predominantly of coarse ware, obviously used by manual labourers and slaves. Further, the Indian origin of these port-shards is not quite certain either, for they have been found all over (Tomber, R. 2000, pp.624-31).

Nevertheless, the few shards of IRW (16 shards of 3 dishes) and stamped bowls collected from Berenike could be part of the personal belongings probably of merchants from India. Similarly the label inscription in Tamil-Brāhmi characters dating back to the first or second century AD, found on a pot-shards which mentions Cātan and Kannan, could be perhaps names of two merchants from the Tamil South. A similar label inscription discovered from Berenike mentioning *korran* (*korra-puman*) meaning chieftain may be indicative of the seafaring of a Tamil chieftain (Pillay, K.K.P. 1963,

pp.39).¹⁶ It is a fact that there are a few allusions in ancient Tamil poems to the chieftain's participation in overseas trade. For instance, an allusion in *An.152* is about the ships of Tittan Veliyan bringing gold. It is interesting to note that in the Graeco-Roman literature of the second century A.D there are stories of rich Indian merchant princes visiting Alexandria.¹⁷ Even if we take all this as solid evidence for the Tamil Chieftain to have sailed to Berenike with his merchants for making fortunes out of overseas trade and stayed at the Red Sea ports of Myos Hormos, Quseir al-Qadim and Berenike, this cannot be stretched too far to visualise a lead role of Indians in contemporary maritime commerce, since the imagination is sure to be unrealistic in the absence of the essential political economy preconditions, such as adequate hinterland base, technology, surplus, stratified social relations, rise of aristocracy and formation of the state power with its juridico-political manifestations.

No Hinterland Base

Excavations at Arikamedu as well as Pattanam have shown some indications of crafts production at the sites, by unearthing lapidary waste, swindle whorls, crucibles and iron slags. These indications of manufactured goods and craft production are crucial, for they provide clues to the nature of social organisation of labour as well as of ownership and control. However, there are no clues as to who owned and controlled the manufacture. Likewise, there are no clues as to who worked the gems and who the bead-makers were. The Arikamedu and Pattanam data do not provide any clues to the local settlers and their means of subsistence. The only local artefact of significance with local base was perhaps textile including silk, but we do not have any idea about who owned and mobilised the industry, how and by what means. The several early historic/Iron Age sites like Alakankulam, Kalayamuttur, Kodumanal, Vellalur and so on with indications of the metal, mineral and ceramic industry have also not given any clues to such questions (Champakalakshmi, R. 1999, pp.117-140; Subbarayalu, Y. 1992; Rajan, K. 1999)

At the lowest stratum of the Pattanam site the early Iron Age non-burial remains, predominantly shards of Black and Red Ware (BRW), have been unearthed, for the first time in Kerala, in their stratified contexts as superimposed by the multicultural relics of overseas trade (Shajan, K.P. and V. Selvakumar, 2007, pp.30-45; Cherian, P.J. *et.al.*, 2009, pp.236-40). The debris of superimposed material culture over the BRW clearly shows replacement of the previous settlers rather than absorption or transformation. However, the presence of local people in the port-town is attested by shards of local wares in substantial quantity. It is reasonable to presume that many were hawkers and peddlers of local subsistence goods and providers of menial services. Apart from the sequential disposition of the two strata, there is no archaeological evidence at the site as to presume the transformation of the BRW people into crafts-specialists like bead-makers or gem-cutters. This precludes the possibility to try and discuss a general transition of the social formation from Iron Age/Megalithic to the Early Historic (Selvakumar, V. *et.al.*, 2005, pp.57-66; Tomber, R. 2005, pp.67-68).

There is no indication of any hinterland base for the port-town that was primarily a camp of transmarine traders, inland merchants and cargo suppliers involved in seasonal

imports and exports of goods. The locality hardly had any symbiotic link with the port-town as its hinterland providing manufactured goods and services of specialised arts and crafts, except iron smelting and pottery. It appears that specialists of crafts production were non-local, mostly drawn from far-off places. They seem to have reached the port-town with the raw material concerned and stayed on doing their craft at the site during the season. The site is conspicuous for the absence of the remains of any permanent structures. It cannot be called an urban site in the strict sense of the term which denotes a strategic point of convergence of goods and services with its infrastructure of circulation, communication and governance, sustained by the hinterland (Champakalakshmi, R. 1999, pp.117-140).

Foreign Merchant Camps

The Mediterranean relics recently unearthed at Pattanam, as in the case of Arikamedu, prompt us to presume that contemporary Indian ports were, in fact, foreign merchant camps and their bazaars. For instance, among the Mediterranean ceramic goods, the presence of amphorae implies import of olive oil, wine and garum, of which the first and last hardly had any use-value to the local people. Olive oil and garum were the main cooking oil of Romans and Greeks. There are remains of huge jars as well, probably used for carrying grains and hence indicative of their import. The Mediterranean merchants were not rice eaters, and hence required to carry with them enough grains of their preference. Likewise, they had to carry their oils and beverages too. It is reasonable to presume that the items such as grains, olive oil, dry fruits and wine were imported obviously not for exchange, but for the self consumption of merchants and organisers of trade who were primarily, Greeks, Arabs, Egyptian Jews and Philistines. Remains of Roman glass bowls, fragments of painted glass objects, and glass pendants discovered at the site are suggestive of personal belongings rather than a part of the merchandises. The shards of Mediterranean ceramics consisting of amphora and *terra sigillata*, the West Asian torpedo jar as well as Turquoise Glazed Pottery seem to suggest the relics of the foreign merchants camping at the site. The Roman amphorae jars were used as containers of wine, oil and certain lasting food items. The *terra sigillata*, a finer slip variety of Roman pottery with a glossy red surface used on the dining table by Roman aristocrats, was obviously personal goods.

Ports of Roman – Indian contacts in general had to be settlements of Mediterranean merchants who were constrained to stay at the site of shipping, at least for a few months, i.e., during the gap between the two monsoon-winds. It is not possible to distinguish the merchant settlement from the port, since both were so integral to each other in those days. The existence of a Graeco-Roman settlement at the port is presupposed by the *Putingarian Table*'s mention of a temple of Augustus at Muziris. Archaeological finds at Arikamedu as well as Pattanam suggest that Arabs, Greeks, and Romans had their settlements in and around the port-site. The data confirm that these port-sites were primarily bazaars of foreign merchants with their storehouses close to the wharf at the inlet from where boats carried goods to ships off-shore. They must have consisted of workshops of craftsmen and local people providing various goods and services. The *Papyrus*, an agreement signed under Roman Law, between merchants and moneylenders

with a third party (obviously a Roman trade manager) stationed at Muziris for a fairly long period, confirms the existence of a Roman settlement at the port (Casson, L. 1990, pp.195-206).¹⁸

Arikamedu and Pattanam were *bazaars* where transmarine and inland merchants converged for exchange of goods. They were predominantly camps of Mediterranean and Arab merchants, indeed with several long-distance inland traders whose network was extensive. Both the sites were littoral landscapes (*neital*) inhabited by fisher-folk and salt makers (*paratavar* and *umanar*), who had no role in the *bazaar* other than bartering their products. They were not users of money as measure of value, means of payment and medium of exchange. With no sense of exchange value and profit, they were not the users of market. This is not to mean that the entire people in the Roman empire were of the same level of economic development and material culture. As in the case of any other civilization, the Graeco-Roman was an ensemble of unevenly developed communities too, of which some were even totally non-monetised (Manning, J.G. 2008, pp.84-111).¹⁹ Even among many whose services were hired at different points of halt and transit the mode of payment was barter, as we understand from the Muziris Papyrus.

Though for all monetised ancient societies money just meant coins and hence credit money and token values had little or no relevance, ancient Greece and Rome perfectly exemplify the role of money as a driving force of social integration and economic activity (Hariss, W.V. 2008, p.6). Their monetary systems were highly developed and contributed to form the basis of the economic supremacy. Roman society was monetized quite rapidly during the 2nd century B.C.; monetary circulation rose markedly. As Roman domination expanded, regional money systems were permitted to operate in coexistence with Roman money. Provincial coins vanished as a result of growing impoverishment and were replaced by Roman money. In the context of Augustus' reorganization of the Roman state, the monetary system was reformed as well. Roman money spread to the most remote corners of the empire by way of soldiers and army's activities. The *aureus* and the *denarius* were the main first phase high value trade coins that circulated beyond the borders of the empire. Although coinage was the most widely used form of money, bullion was prevalent in transactions outside the city of Rome, and the extensive credit-money had contributed significantly to economic growth by sustaining stability of Roman money supply (Hariss, W.V. 2008, 19).

Virtually Roman Trade

All the source material clearly indicates that Roman – Indian trade was enabled and sustained by the Roman social demand. Although not entirely a state sponsored scheduled commerce, it was facilitated and protected by the juridico-political institutions as well as the imperial militia of the Roman Empire. The pivotal centres of trade were Alexandria, Koptos and the Red Sea ports. The entire routes from the Red Sea ports to Alexandria, a zone of great strategic importance not only for trade but also for mines, were protected by the forts, bastions and garrisons of the Roman emperor. Strabo mentions the Augustan campaigns against Ethiopia and Arabia for the protection of Red Sea ports with a strong naval reinforcement. Pliny says that the ships had archers offering

protection from piracy, who were most probably imperial soldiers rather than mercenaries, for the merchant fleet was predominantly or even entirely Roman. Roman aristocrats were the individual financiers of the merchants and their costly enterprises across the continents and seas. They often owned and controlled vessels. An activity quite risky, adventurous and uncertain though highly systematised, the Roman trade had involved the participation of multiple actors from communities of uneven development. Its organisation was never an individualistic enterprise (Kessler, D. and Peter, T. 2007, pp.313-332; Fritzpatrick, M.P. 2011, pp.27-54; Sidebotham, S.E. 2011, 195-205). A portion in the *Papyrus* is quite revealing:

“----- And I will weigh and give to your cameleer another twenty talents for loading up for the road inland to Koptos, and I will convey [the goods] inland through the desert under guard and under security to the public warehouse for receiving revenues at Koptos, and I will place [them] under your ownership and seal, or of your agents or whoever of them is present, until loading [them] aboard at the river, and I will load [them] aboard at the required time on the river on a boat that is sound, and I will convey [them] downstream to the warehouse that receives the duty of one-fourth at Alexandria and I will similarly place [them] under your ownership and seal or of your agents, assuming all expenditures for the future from now to the payment of one-fourth-the charges for the conveyance through the desert and the charges of the boatmen and for my part of the other expenses.”

The *Papyrus* and the archives of Nicanor are of immense significance for any study in the nature and organization of exchange between classical Rome and the Indian coast. The document lists items, their prices and the traders who lent out money and those who borrowed. The *Papyrus* now kept in the Vienna museum is obviously the trader's personal copy, for it mentions various expenditures such as customs duties, payment to the camel men etc., and the privilege of the trader in the transaction. It confirms the distinction between those engaged in transmarine commerce with the orient and the merchant middlemen or cargo suppliers. The document says that cargoes had to be unloaded at Myos Hormos or Berenike and transported on camels' back across the desert route to Alexandria from where they had to be carried beyond by boats to Koptos and finally to all over Europe. It was a very wide trader-network extending from Pozzuoli near Naples through Alexandria and Bernike to Muziris, and involving many agents and managers of trust and responsibility under strict agreements of obligations and assurances. The trade activity incurred a huge expense by way of payments of taxes, wages, service charges and securities (Hopkins, K. 2002, pp.190-232). On the whole the Roman – Indian exchange was an enormously expensive state protected enterprise by the Egyptian, eastern Mediterranean and Arab merchants primarily to cater to the demand of the Roman elites. It was a major source of revenue in the form of huge taxes for the Roman Empire which accounts for the supply of extensive military support. Run under the financial support and military protection of the Roman Emperor all along the highly inhospitable camel/caravan routes for the safe transport of the precious goods, it was virtually Roman trade, no less no more.

The record shows that the price of oriental goods was astounding with 25% of the estimated cost added as the taxes, tolls and transit wages paid at various points (Casson, L. 1990, p.198.; Sidebotham, S.E. 2008, p.186)²⁰ The Nicanor archives provide detailed information on the taxes levied on a variety of items transported along the desert roads

from Myos Hormos and Berenike to Egypt (Rathbone, D. 2000, pp.39.50). The *Papyrus* document gives us a concrete idea about the tremendously expensive nature of contemporary Mediterranean trade on the goods from the Indian ports. It required huge amounts of money for various purposes at several points between the port and market. The object of the highest cost in the enterprise was the vessel itself, which should necessarily have been of a size large enough to withstand the weather conditions of the sea and carry at least 11,000 talents of cargo. A Roman ship, reportedly, had the capacity to carry over 11,000 talents of merchandises. Each of such vessels loaded with cargoes from India was out and out a huge treasure worth over five thousand million drachmas (Sidebotham, S.E. 2011, pp.212-218; Casson, L. 1990, p.198).²¹

It was a very profitable enterprise too. A shipload of goods from the east was worth seven million *Drachmas* and hence they were transported with great care and protective participation by the ruling aristocracy of Rome. Spices, ivory, pearls, nard, tortoise shells, teak and silk were the most precious among the goods shipped. According to Strabo the ships that brought oriental goods from Muziris amounted to 120 per year on an average. There is no wonder in Pliny's mention of the Roman Senate growing anxious about the drain of gold. That the drain meant influx of gold to the Indian coast is not true, for most of it had gone into the hands of traders. Pliny has noted that the traders were able to sell their goods at hundred times their actual cost. "It will not be amiss to set forth the whole of the route from Egypt, which has been stated to us of late, upon information on which reliance may be placed and is here published for the first time. The subject is one well worthy of our notice, seeing that in no year does India drain our empire of less than five hundred and fifty millions of *Sesterces*, giving back her own wares in exchange, which are sold among us at fully one hundred times their cost price." (Pliny, 6.21, 6.26 and 12.41, Healy, J.F. 1991).

Contrasting Political Economies

Roman-Indian trade was not accidental but very much a structured outcome of the political economy and society of the Roman Empire that was characterised by huge wealth, absolute state power, eminently organised militia, an adventurously enterprising aristocracy, a rich entrepreneurial middleclass, sustained social demand for consumable overseas goods and a wide network of trade and market. The conquests of Augustus, which not only gave Rome control of Egypt's ports, but also those on the South Asian coasts, were diplomatically realized ways of meeting the social demand for consumable goods from the east. It pumped into the hands of the Roman aristocracy, enormous money enabling them to reinvest heavily in trade. It is significant to note that the Roman aristocracy was rich enough to commission overseas vessels and get goods of demand in Rome imported through Philistine, Arab and Greek merchants.

A comparison with the situation of contemporary Britain will help us understand the case of the Tamil region better (Whittaker, C.R. 2009, pp.1-18) Though there was no Roman conquest of the Tamil region and its annexation as a part of the Empire, the situation of late Megalithic and Early Historic Tamil South is comparable to the late Megalithic semi-tribal Britain in the wake of Roman conquest Rao, G.R. 1972; Keshnik, L.S. 1974; Sundara, A. 1975; Gurukkal, R and Varier, M.R.R, 1999, pp.238-46).²² The

British political economy in the wake of Caesar's conquest and incorporation of the islands into maritime trade was a largely undifferentiated economy based on clan – kin ties and ethnic loyalties. However, the impact of the conquest and annexation was drastic enough to trigger changes at the base and turn it a differentiated economy and class structured society with kinship and ethnic loyalties fast disintegrating. Corresponding to the growth of the ruling aristocracy, an intermediary class was also on the rise enabling expansion of the trade networks of the Empire, the formation of several proto-urban centres, and the emergence of a few monarchical states like those at St. Albans and Colchester. The development necessitated overseas trade for the import of prestige goods for the kings and nobles who attracted gold and wine in exchange of grain and slaves. Britain became a full-fledged trading region of monetised people with a considerable level of effective demand.

The state of affairs in the Tamil South in general was not, at any rate, comparable to that of contemporary Rome or Britain. According to the extant sources, particularly the ancient Tamil anthologies, the Tamil South was characterised by a combination of several unevenly evolved and kinship based redistributive economies of chiefdoms structured by the dominance of agro-pastoral means of subsistence and predatory politics. However, it is essential to examine the political structure of contemporary Tamil chiefdoms in some detail before dismissing the possibility of the region to have organised overseas trade all by itself or at least involved in it as a partner. Characterisation of the political structure of the Tamil chiefdoms, which was of an uneven complex of different levels of size and strength but of active interrelationships, is extremely difficult, for they hardly fit in with any of the known models. There is an overlap of stages of development at different levels, adding to its complexity. Primarily they are of three levels of chiefdoms – the *Kizār* or village (*ūr*) chiefdoms, the *Vēlir* or hill (*malai*) chiefdoms, and the *Vēntar* or the regional (*nātu*) chiefdoms. Indeed, it was not, at any rate, the structure of a full-fledged state system even at the *Vēntar* level. It was not the structure of a simple pre-state polity either. The *Vēntar* level political structure was based on communal holding of resources and kinship based production. Their authority was determined by the range of redistributive social relationships sustained through predatory accumulation of resources.

Allusions in ancient Tamil poems indicate that overseas exchanges did enrich the status and ranking of the bigger chieftains, obviously through the acquisition of prestige goods such as wine and gold, and their redistribution. However, no fundamental transformation of the political structure could have taken place as a result of acquisitions of such luxury goods and augmentation of their redistributive relations. The bigger chieftains were actively interested in promoting overseas exchange traffic. The *Cēras* are mentioned to have taken steps to check the problem of piracy on the West Coast and made 'arrangements of lights' on the shore for the ships to make out the coast at night. Nevertheless, it was beyond the capacity of the chiefly infrastructure to extend services beyond the bare minimum and there is no evidence as to believe that the chieftains' explicit interest in the protection of trade and trade routes had started acquiring institutional manifestations. Several songs in the anthologies refer to the hazardous journey of merchants and caravans through forests and arid planes where no facilities of

protection from wayside robbers were available (PN.60, 116, 310, 313; AN.190). This exposes the nature of the political formations that precluded any organisational capability of protection and maintenance of traders and trade routes.

It is relevant to briefly examine the nature of the chieftains' relation with Roman trade and the way it influenced them. The three chiefly lines (*mūvēntar*) – the Cēra, Pāndya and Cōla – traditionally based at their original centres in the interior namely Karur, Madurai and Uraiyur respectively, had established a strategic outlet to their ports namely Muziris, Korkai and Kaveri respectively because of the Roman trade. The prominence of the Pāndyas among these chieftains is evident from the story of a Pāndyan Queen in the third century BC representing a confederacy of Tamil countries or an inscription at the Elephant cave of the Kalinga (Orissa) of the mid-first century BC to the booty of pearls from the Pāndyan coast or by Strabo to a Pāndyan delegation to Augustus.²³ Some of the ancient Tamil poems allude to the Tamil chieftains as masters of the sea. For example, a poem (PN.66) refers to an ancestor who “mastered the movement of the wind when his ship sailed on the dark and enormous ocean.” Another poem (PN. 126) refers to a Cēra who owned a navy that carried gold. Some of the poems allude to the strength of the chieftains in terms of new wealth (*yānar*), probably the revenue out of the Roman – Indian trade, thanks to the export-value resources of their forest hills (*malaittārm*). Through the exchange of forest goods some of the hill chiefs seem to have procured new resources like gold coins, precious stones and horse, the main prestige goods of the times. A poem incidentally refers to the hill products (*malaittārm*) and sea products (*katarrāram*), mainly pearls, of Cenkuttuvan, a Cēra chief and to the gold that reached ashore by boats, in exchange (PN.343). The chieftain is eulogised with a title, *katalpirakōttiyakuttuvan*, meaning he who lagged the sea behind, probably an expression referring to his naval mastery. The head of the Pāndya chiefdom, famous for pearl fisheries and silk industries, is eulogised in a poem as *yānar maiyar kōmān*, indicative of his command over new resources (PN. 71). The trade was beneficial to the hill chieftains (*Vēlir*), who were next in importance to the three lineages, and rich in such forest resources. The Irunko-*vēl-s'* hill is praised in a poem (PN.202) as gold yielding, obviously meaning the Roman gold arriving in exchange of resources like ivory, monkey, animal skin, sandalwood etc. These clues to the association of the chieftains in overseas trade cannot be stretched too far, attributing leadership initiatives and direct participation to them, because there are no corresponding clues to the development of a compatible social formation.

Non-stratified Society

The nature of the social stratification is best expressed in the system of social division of labour, for at once it signifies the level of technology and productivity besides the structure of social relations. As already noted, the principal social mode of labour realization was familial and hence based on kinship. A few skilled crafts like metal working, stone cutting, bead manufacturing and pottery were full-time trades of specialists and hence hereditary (Gurukkal, R, 2009, pp.255-271). As the most extensively used metal, iron had a central place among metals as the base of weapons whose significance in a society of predatory operations is explicit. Moreover, the practice

of burying iron objects along with the dead had pushed a great deal of iron out of circulation presupposing continuous iron working as a full-time occupation of hereditary specialization. The production of earthen pots, a characteristically brittle artefact, was obviously a continuous full-time activity, for their use was extensive both for the living as well as the dead. Moreover, the variety, fabric, polish, glazing, slips, paintings, texture and decorative designs of pottery suggest that it was a full time technology of specialised expertise. The number of such full-time artisans/craftsmen of hereditary occupations was relatively more in the headquarters of bigger chieftains of the *Vēlīr* and *Vēntar* levels. As the major redistributive pools of resources, bigger chiefly settlements were able to support more full-time crafts. Another full-time function of hereditary nature was that of warriors (*maravar*) whose service was essential for every settlement (*ūr*) since its principal mode of appropriation of resources was predatory. The familial and kin based division of labour and the hereditary nature of crafts suggest a social milieu of clan – kin ties with little scope for the rise of a stratified society enabling maximisation of the technology's potential range of development through a complex division of labour.

The tendencies towards social stratification were much more evident in the headquarters of the three biggest chiefly lineages – Cēras, Cōlas and Pāndyas. In the ruling headquarters, marketing centres, coastal towns/ports several hereditary craftsmen and specialized functionaries drawn from hinterlands had worked and perhaps got organized into corporate bodies (*nikamam*). In the ports like Kōrkai, Muciri (Muziris) and Tondi (Tyndis), there seem to have existed artisan/craftsmen settlements (*cēris*) of hereditary occupations. Probably in the coastal towns/ports both the ruling authority and organized merchant groups must have used the labour of a class of servile people under conditions of coercion and relations transcending kinship. Poems refer to captives working in pearl fisheries. In the headquarters of the *Ventar* chiefdoms, the process of predatory operations and redistribution must have led to some kind of differential allocation of new position, status, roles and ranks within the complex redistributive relationships anticipating the beginnings of some kind of hierarchy, although the poems do not contain any clues to the emergence of a clearly stratified society (Kennedy, S. 1976, pp.1-15; Seneviratne, S. 1993, pp.57-77; Gurukkal, R. 2002, pp.39-59). The poems allude only to a primordial type of social differentiation represented by the binary between the highborn (*uyarntōr*) that comprised brahmanas as well as gods and the lowborn (*izipirappālar*). That the second category comprised all people suggests a very flexible kind of social division, and lack of indications to the existence of intermediary positions, confirms the fluidity. Similarly the differentiation in terms of the objective conditions of life was also confined to the binary between the redistributors (*puravalar*) and its dependent benefactors (*iravalar*). It is anachronistic to talk about the existence of an aristocratic group in such a society, not altogether complex and clearly stratified although at the same time not too simple to be egalitarian either.

The question then is as to whether or not chieftains could have constituted an aristocratic group by themselves. Indeed, chieftains were rich in their valuables and had people under their command but all in a contingent network of redistributive obligations within the kin – clan ties. Such a group of chiefly distinction but subsumed by the clan ties cannot be equated to a class by itself. The absence of clues in the sources to the

existence of such a distinct class is conspicuous, which is not accidental. There is a lot of difference between the chieftains and the wealthy as a class by themselves with increasing demand for non-local techno-economic consumables. There is little chance for the Tamil chieftains to have had any direct role in the trade that had involved deployment of several agents and managers, transport of goods across the sea, land routes through deserts, by river – unloading, weighing, reloading, leaving goods under the ownership and seal, paying cameleers, boatmen etc., for want of organisational as well as institutional infrastructure. Similarly, as the *Muziris Papyrus* of detailed contractual stipulations under the Roman Law shows, the transactions seem to have required a document based, law bound juridico-political set up of an empire. The Papyrus says:

“ With regard to there being- if, on the occurrence of the date for repayment specified in the loan agreements at Muziris, I do not then rightfully pay off the aforementioned loan in my name-there then being to you or your agents or managers the choice and full power, at your discretion, to carry out an execution without due notification or summons, you will possess and own the aforementioned security and pay the duty of one-fourth, and the remaining three-fourths you will transfer to where you wish and sell, re-hypothecate, cede to another party, as you may wish, and you will take measures for the items pledged as security in whatever way you wish, sell them for your own account at the then prevailing market price, and deduct and include in the reckoning whatever expenses occur on account of the aforementioned loan, with complete faith for such expenditures being extended to you and your agents or managers and there being no legal action against us [in this regard] in any way. With respect to [your] investment, any shortfall or overage [se. as a result of the disposal of the security] is for my account, the debtor and mortgager...”(Rathbone, D. 2000, pp.39-50).

A Misnomer

Conceptualising the extant evidence, the present writer had argued a couple of decades ago that the expression, ‘classical Indo-Roman trade’ could be a misnomer, for what had happened was not trade but a kind of exchange between trading and non-trading or the monetised and non-monetised societies, involving the use-value of goods and precluding the notion of exchange value, price and profit (Gurukkal, R. 1989, p. 159; Thapar, R. 1992, pp.1-27). Although the exchange had involved gold and silver coins of Rome, they were money, measure of value and means of payment only to the traders and not to the cargo givers of the region, who could have seen coins only as part of their precious valuables. In fact, in the strict sense, the term trade was inappropriate to the context of contemporary Tamil political economy that was characterised by other forms of exchange like reciprocity, redistribution, prestations and gifts (Herskovits, M.J. 1940, pp.36-48; Mauss, M. 1951, pp.65-72; Polanyi, K. 1959, pp.243-48; Godelier, M. 1967, pp.127-151; Sahlins, M. 1972, pp.139-164; Gregory, C.A. 1982, pp.33-46; 1994, pp.911-939; 1997, pp.146-163; Humphry, C. and Hugh-jones, S. 1992, pp.110-138).²⁴ Several hoards of Roman coins have been found at different parts in the Tamil South, including the recent addition from Valluvally, a place at a distance of six kms south of Pattanam. The excavations at Pattanam have yielded a few copper coins, probably in circulation among the merchants.

Mere presence or absence of coins hardly means presence or absence of trade in a society (Weerakkody, D.P.M. 1995, pp.1-30; Bopearachchi, O. 1996. pp. 59-77;

Weerakkody, D.P.M. 1997, pp.27-30; Burnett, A. 1998, pp.179-89; Ramanis, F.D. 2005, pp.157-237). Ancient Rome had brisk exchange with China, but as of now there is no numismatic evidence for it. Hundreds of Roman coins have been discovered in hoards as stray finds at various sites in southern India, a substantial number of which is often lost before being recorded and classified, hence failing to provide any reliable base to generalisations about the age, nature, and volume of trade. On the contrary, coins obtained as dispersed objects from stratified sites are better indicators of the period, nature and context of exchange, than as hoards. Occurrence of coins in hoards, perhaps suggests their non-currency status in time, place and culture. Further, the survival of the Roman coins in hoards, as fresh as from the mint, and several of them with an aperture at the centre or loops on the periphery, is a clear indication of their non-currency status in contemporary society. The hoards, some of which were of several head-loads, surfaced like treasure troves at sites of no explicit connection with Roman trade, except perhaps as zones of cargo items shipped from the Tamil South, and with no clue about who acquired and stored them how and why.²⁵ Obviously inland merchants and middlemen as cargo givers were certainly the main recipients of gold coins. The sources show that the chieftains were the custodians and suppliers of cargos and hence the recipients of gold. They are praised in ancient Tamil poems as givers of gold gifts to bards, obviously a stock expression seeking to gratify their patrons. However, gold coins must have been objects of gift to scholarly bards (*pulavar*) and among chieftains themselves, competitively as a culturally contingent means of status enhancement (Romila, 2005, p.28).

By and large the local people were not accustomed to exchanges based on money, for their transactions were through the system of barter and institutions of prestations, gifts, reciprocity, and re-distribution (Polanyi, 1959, pp.243-48; Gurukkal, 1989, pp.153-54).²⁶ The peoples of Tamil macro region were largely non-monetised as clues from literary sources would have us presume, a fact which probably accounts for the survival of the coins in hoards and as fresh from the mint. As a contrast, the peoples of the Chinese coasts were monetised, which probably accounts for the non-survival of Roman coins. What the people in the Tamil macro region needed were gold and silver which they used as ornaments and valuables of status and ranking. Hence the Roman coins were used mainly as objects of treasure *per se* as their discovery in hoards and appearance quite fresh from the mint, suggest. The gold and silver coins were turned into ornaments by putting them on a thread as several pieces found with loops on the edge or aperture at the centre would have us believe.

There is no reliable evidence for any of the Tamil chiefdoms organising trade with Rome. The Pāndya queen's delegation to the Augustan Rome is still as a story, for the presumption that the delegation was for the formalisation of exchange relations and promotion of transmarine commerce between the Pāndya country and Roman Empire, is not borne out by history (Whittaker, 2009, pp.1-18). Nevertheless, Roman Empire and its conquests had not led Rome to claim India as part of its empire, either. Since there was no empire in contemporary India, the trade contacts of the Roman Empire could have been based only on a relationship of imbalance in matters of exchange. Actually, it is anachronistic to talk about Indo-Roman trade in the light of the characterisation of the

political economy of the ancient Tamil South and the expression is hence a misnomer. The expression Roman – Indian trade is more appropriate. There has been little discussion of such questions relating to the political economy of contemporary Indian societies. With the result, the predominance of Indian overseas trade and her maritime civilisation based on spice export particularly of pepper, has always been a case taken for granted in the Country's historiography.

Contemporary political economy of the Tamil South was not developed enough to generate the necessary market demand for Mediterranean luxury goods. The items brought by the Mediterranean ships were: copper, tin and lead (western provinces of the Roman empire), sulphides of arsenic and antimony (Carmania and Arabia), chrysolithos or the golden stone (Isle of St. John), damask (Alexandria), wine (Italy, Laodice and Arabia), Storax (Egypt and Syria), sweet clover (Crete, Greece and Italy), frankincense (Arabia and East Africa), papyrus (Egypt), red coral (Sicily, Sardinia, Corsica, Italy, Spain and N. Africa), and Yavana girls. Of these goods the Tamil region had some demand for copper, tin, lead, arsenic and antimony in connection with bronze-making. All other goods had no relevance to the material culture of the region. However, the chieftains might have received wine but mostly as gifts. Under such conditions of low demand for luxury goods, it is unlikely that the Tamil merchants had organised overseas trade all by themselves. At the same time, the Roman demand for Indian spices being very high and hence trade in them extremely profitable, transmarine commerce could have definitely attracted the Indian merchants. But why should they plunge themselves into the risky enterprise while Egyptian and eastern Mediterranean merchants were reaching ashore offering opportunities to take benefits as cargo suppliers and inland merchants? If the Tamils were to run transmarine trade on their own they should have sailed with the southeast wind towards Berenike and returned after six months with the monsoon wind, an extremely adventurous enterprise for which hardly had they developed any operational infrastructure and network, as far as the extant sources show. The recent archaeological finds in the form of shards of Indian pottery at Berenike and along the Nile road are not enough to presume that they had been carrying on maritime trade on their own. Tamils being rice eaters, a considerable quantity of rice should have been carried with them, but there is no archaeological evidence for it. Moreover, spices excavated at Berenike are found in Mediterranean and Egyptian wares rather than in Indian pots.

Overseas trade was never an individualistic household enterprise but invariably a state protected joint activity of financiers, contractors and merchants under scheduled commerce in which mobilisation of monetary and financial arrangements were crucial in the operation of trade. It was a heavily collaborative, highly systematised, extensively networked, document based, contractual activity, with clearly stipulated rates of rent, interest, price and profit accounted in terms of money and with precise sense of weights and measures. It is true that there is indication in the form of a Tamil Brahmi label and poetic allusion to the chieftain participating in overseas trade. Poetic embellishments apart, it is hard to believe it. The chiefs hardly stand in comparison with the Roman aristocrats who were able to commission vessels for maritime trade. Chieftains of varying degrees of resource strength were indeed far above the people, but by being part of the

kin – clan ties embodied their tribes/clans, rather than constituting a class. However, the chieftains being in command of forest eco-zones rich in spices, ivory, peacock, gems etc., and some of them of the coastal tracts with pearls and textile, the major merchandises of the ancient overseas trade, they must have acquired a good amount of gold and silver. Nevertheless, the presumption that the chieftains had owned and controlled overseas trade is hardly realistic, for a Tamil chief could not have commissioned a sufficiently large seagoing vessel appropriate to the ocean, do all arrangements for its sail, take mercenaries on board for protection, negotiate with trade financiers, cameleers, transit managers, to transport the cargoes along the desert and exchange them. Such organisational capabilities are likely in a state power but hardly in a chiefdom level polity.

Even if we presume that the chieftain had shipped his goods only up to the Red Sea coast and had agents, managers and intermediaries for the remaining jobs, it is unbelievable because the various capability pre-requisites for all that, are utterly unlikely in a chiefdom level polity. If there was involvement of Indian ships in the trade, *Periplus* would have certainly mentioned it. The absence of mention in *Periplus* about local ships in the transport of cargo to Red Sea ports need not be accidental. There is no indication of the chiefly political authority undergoing transformation into state power and it is not accidental since the chieftain's gold and silver treasure forming part of the dead valuables was not able to catalyse productive reorganisation and circulation of labour making the redistributive society stratified. However, it is not unlikely that some Tamils had accompanied the traders in the Arab or Mediterranean ships, perhaps as merchant middlemen and providers of trade services on board. At best it would have been possible for some of the adventurous traders to set on sail in seagoing teakwood-boats in accompaniment with the foreign vessels up to the Red Sea port, exchange their cargo there to the middlemen and return. Hence, the expression 'Indo-Roman trade' is a misnomer in political economy. Nevertheless, this is not to set aside it unimportant in the history of the Tamil South, but to be realist in understanding its nature.

Concluding Observations

To conclude, the central argument of the paper is that an independent evaluation of the latest archaeological data unearthed at ancient port-sites of the Egyptian desert and Indian West Coast along with other extant sources, confirms that the classical overseas trade, celebrated in ancient Indian historiography as 'Indo-Roman trade' was Roman – Indian exchange, an exchange of serious imbalance, because of its being between an Empire and a region of uneven chiefdoms. A region characterised by the interactive co-existence of several unevenly evolved and kinship based redistributive economies structured by the dominance of agro-pastoral means of subsistence and predatory politics, the Tamil South was distinct for its semi-tribal political economy that precluded any demand for Mediterranean luxury goods. It is not surprising that the trade in spices, the most profitable enterprise, had not led to the rise of seafaring merchants in India. The presumption that the Tamil chieftains had a leading role in overseas trade is hardly realistic. No chieftain could have commissioned a seagoing vessel large enough to stand the monsoon weather conditions of the sea, set out with mercenaries on board, ship the

precious cargo safely to the Red Sea port, unload and transport it along the desert route to Berenike, for want of the organisational and institutional capability pre-requisites. Even the presumption that the chieftain had shipped his goods only up to the Red Sea coast and had depended on intermediaries for the remaining jobs, is unbelievable too for the same reasons. Overseas trade was too elaborate, in terms of institutional, organisational and transactional arrangements for a chiefdom to have played the lead role in it that necessitated the presence of state power. The gold and silver that reached the chiefdom could only get stored as a treasure of valuables, symbolic of its possessors' status and ranking, rather than a prime mover bringing about economic differentiation and social stratification, which could have transformed the chiefdom into a state. In short, the widely celebrated classical Indo-Roman trade as a concept remains a misnomer in political economy.

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End Notes

Abbreviations: *PN* = *Puranānūru*; *AN*. = *Akanānūru*; *Prp* = *Patirrupattu*

¹ The original text and translation of all these sources are now available on-line. The well known classics have contextualised and historicised their contents.

² References in ancient Tamil poems are very few and quite incidental. *Prp*. 2:6 refers to ship sailing for acquiring gold. *Pn*. 66 addresses Karikāla Cōla as born in the lineage of the one who controlled the wind and set the ships on the vast ocean for sail. *Pn*. 126 refers to the inability of others to enter the western sea where the Cēra led his gold-giving ship. *Pn* 343: (4-6) mentions those bringing ashore in boats the gifts of gold given by the ships. *An* 149 (9-11) mentions the *Yavana* ships coming with gold and returning with loads of pepper. *An*.152 mentions the ships of Tittan Veliyan bringing gold. For details of the sites of coin hoards see, Roman coins have been found in India at over 130 sites, with a concentration in the Krishna valley in Andhra and the Coimbatore region in Tamilnadu.

³ The translation by Casson, L., has been found the most useful, for it accompanies a scholarly introduction and historical contextualisation..

⁴ The classic reference to this is in Pliny's *Natural History*, 6.21, 6.26 and 12.41. The trade in exotics is mentioned to have drained more than fifty million *sesterces* a year from the empire. This was a sum larger than the annual tribute that Caesar imposed on Gaul after his conquest of the territory.

⁵ The details of excavations at ancient port sites of Egypt such as Berenike, Wadi Kalalat and others have been compiled by the excavators, Steven E. Sidebotham and W. Z. Wendrich in the form of technical reports. Historical interpretation is given in the two books of S.E. Sidebotham.

⁶ All inscriptional remains brought to light prior to 1990 have been studied well. The recent tablets and label inscriptions have been commented upon by experts.

⁷ The Greek Ostraka discovered at the time of excavations in 1996–1998 are very significant for understanding the dispatch procedures of imported goods from the ports.

⁸ The details about the archive of Nicanor are quite important. One gets a real feel of the imperial presence of Rome in its trade with the Eastern world.

⁹ The exact location of Muziris much discussed can be at rest now. Having presumed its location somewhere near Kodungallur for quite a long time although with no palpable indication, scholars are still reluctant to accept the candidature of Pattanam, despite its clinching archaeological data. Their scepticism sometimes affects even the archaeologists who have excavated Pattanam, prompting them to believe that what they have unveiled is not Muziris *per se* but perhaps a small part of the eluding Muziris port. This is obviously due to the exaggerated imagination of the port as a huge urban complex, which it was never.

¹⁰ A comprehensive report of excavations done so far has not been published as yet. Only brief interim reports are available for the seasons during 2007, 2008, 2009 and 2010. The report of 2011 has been published as the ‘Fifth Season Report’ with some details. It has also compiled abstracts of papers presented by the Pattanam research team in the Conference of the International Association for Asian Heritage, held at Colombo, Sri Lanka, in April, 2011.

¹¹ The origin of IRW, a fine ware of high ceramic standardization and uniform technology, has been attributed to a single geological source, presupposing its distribution from a major kiln complex run by the potter community dispersed but within the same geological zone. The zone has not been clearly identified as yet.

¹² The full text of *Muziris Papyrus* in translation is available on-line. Rathbone, D. has reproduced it in his study of the financing aspect of Roman trade with India. Casson, L. analyses the content in detail in his study of the credit-money context of Roman trade and the shipping of goods from India.

¹³ The items of oriental goods were: Pepper, cardamom, cassia- cinnamon, nard, ginger, rice, lentil, cotton, ebony, citron, sesame oil and seeds, sugar, indigo, lyceum, bdellium, woods, cotton products, *costus*-roots, gum, aloes, coconut, melon, peach, apricot, millet, frankincense, gum resins, myrrh, elephant, rhinoceros, lion, tiger, hound, monkey, python, parrot, peacock, fowl, ivory, wool, woolen products, hide, fur, silk, lac, pearl, oysters, onyx- shell, conch shell, tortoise shell, ghee, musk, agate, carnelian, onyx, sard, nicolo, amethyst, rock- crystal, opal, ruby, sapphire, garnet, emerald, lapis-lazuli, zircon, tourmalines, jade, turquoise, iron, steel, copper, and Indian girls. S.E. Sidebotham’s book on the spice route has given a catalogue of archaeologically documented merchandise from Indian, Arabian and Mediterranean origin passing through Berenike.

¹⁴ Generally the dating has been done on the basis of the Graeco-Roman accounts and archaeology of the ancient Egyptian ports. G. Fussman makes the dates precise on the basis of inscriptional source from the Indian side.

¹⁵ The original source that reports Antonine plague of 165-180 A.D., is Ammianus Marcellinus, a Roman historian of 4th century. .

¹⁶ There is an old argument that Korran was the chieftain of Kutiramalai in Srilanka and a contemporary of the famous hill chieftains, Elini and Athiyaman Neduman Anci and Kumanan. The ancient Greeks have noted *Hippuros* (literal translation of Kudiramalai in Greek). The later studies have rejected this argument and it is now clear that ‘*korran*’ is a generic term meaning chieftain rather than the proper name of a chieftain. The label inscription is, indeed, referring to a chieftain of the Tamil region.

¹⁷ For instance, the *Charition mime* which is a Greek mime found in *Oxyrhynchus Papyrus* 413 (P.Oxy. III 413), as an untitled manuscript, remotely derived from Euripides' *Iphigeneia in Touris*. It has the scene of action transposed to India, wherein a number of characters speak in an unknown language, possibly Tamil.

¹⁸ *Muziris Papyrus* is reportedly a part of the two separate documents; one pertaining to a maritime loan and another relating to the security. What has survived is the document that dealt with the security.

¹⁹ The rural folk in ancient Greece and Rome followed the barter system. J.G. Manning says that monetization penetrated under the imperial economy, 'since the private economy of the rural masses was still largely characterized by barter while credit was constrained by personal, family, and status relationships.'

²⁰ *Muziris Papyrus* provides us real empirical data about the huge money involved in Roman trade with India. A ship load of nard, ivory and textiles worth 131 talents, estimated as the amount enough to purchase about 2,400 acres of farmland in Egypt. The total weight of the consignment was no about 7,190 pounds or three-and-a-half tons. An ordinary Roman merchant vessel had a capacity of 340 tons and was capable of carrying over 11,000 talents of merchandise. Each ship with such cargos was a veritable treasure. The parcels of ivory and textile alone had weighed 92 talents and were worth 528,775 *drachma*-s, a value of 1155 talents almost as much as the cost to build the aqueduct at Alexandria.

²¹ Sidebotham has worked out details of transport costs. He has attempted to estimate the buying power of Indian cargoes reaching Egypt's east coast.

²² The archaeology of the Megalithic culture, now frequently referred to as Iron Age culture has not seriously attempted to reach out the nature socio-cultural and political life of the people behind it. There is an effort to discuss the agro-pastoral base and chiefdom level polity of the late Megalithic phase in the study by the present writer and Varier.

²³ Pan Pāndyan Queen's visit is not borne out by history. Historically it is well attested that there were rich pearl fisheries on the Coromandel Coast as well as Sri Lanka. The delegation to Augustus is not borne out by history too, although Strabo mentions about it.

²⁴ Projection of evolved economic institutions and practices into transactions of primordial communities is anachronistic. Hershkovits, M.J opened up a serious discussion of the issue. It was Mauss, M. who offered the first detailed conceptualization of the issue at the instance of the institution of 'gift'. Karl Polanyi examined in detail the instituted process as manifested in reciprocity and redistribution. Godelier, M. situated it in the context of the social formation.

²⁵ Pollachi, Karur, Vellalur, Kalayamuttur, Madurai, Coimbatore and Pudukkottai in Tamilnadu and Eyyal, Kottayam, Valluvalli and Puthenchira in Kerala are the main sites. Of these Madurai was important as the headquarters of the Pāndya chiefdom and Valluvalli as a village close to Pattanam. Moreover, all these places have yielded archaeological remains of Iron Age with indications of crafts production.

²⁶ The concept of reciprocity and redistribution has been defined stressing the integral nature of the two. The relevance of the concept to the early historic Tamil South has been examined in the present writer's study of forms of economies and forces of change in ancient Tamil region.