# TAMIL TRADERS IN SRI LANKA and SINHALESE TRADERS IN TAMIL NADU



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## TAMIL TRADERS IN SRI LANKA and SINHALESE TRADERS IN TAMIL NADU

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INTERNATIONAL CENTRE FOR ETHNIC STUDIES, COLOMBO

### Tamil Traders in Sri Lanka and Sinhalese Traders in Tamil Nadu

### New Archaeological Evidence on Cultural and Commercial Relationships Between Ancient Sri Lanka and Tamil Nadu

## Osmund BOPEARACHCHI (C.N.R.S. PARIS)

The main aim of this paper is to show how new archaeological and epigraphical evidence obtained from recent excavations and exploratory programs conducted in Sri Lanka and in Tamil Nadu, throw light on cultural, commercial and political relationships between South India and Sri Lanka. Tamil Nadu and Sri Lanka had maintained close contacts since proto-historic times, due to their geographical proximity. From the early period onwards, the South Indian mercantile communities like Vanijha, Sattu, Aiyavole, Nanadesis and Tisai Aiyirattu Ainurruvar and their medieval associated military communities like Vīrakkotiyar and Velaikkarar, in different periods played an important role in the economic and political history of the island. Obviously, it is beyond the scope of

Most of the new data discussed here were obtained from the archaeological program on the organisation of maritime trade connected with the ancient ports on the western and southern coasts of Sri Lanka, launched by the French Mission of Archaeological Co-operation in Sri Lanka in collaboration with the Archaeological Department of Sri Lanka. I am most grateful to Dr. W. Wijeyapala, former Director General of Archaeology for his unfailing help and collaboration.

Apart from the epigraphic and literary evidence, the commercial activities of these South Indian communities are known to us through their coins found especially at Anuradhapura, Polonnaruwa and other ancient sites of the island, see O. Bopearachchi, 1993.

<sup>&</sup>lt;sup>3</sup> For further details see K. Indrapala, (1990), S. Pathmanathan, (1976, 1984, 1990, 1994).

this article to deal with all the Dravidian communities involved in trade with Sri Lanka. I have already dealt with this question in detail in the light of numismatic and literary evidence. I have made an attempt in this paper, to highlight the activities of South Indian mercantile communities whose existence, in relation to proto-historic and early historic Sri Lanka, is relatively little-known. As we shall see later, recent archaeological discoveries place them in a different and important context.

A good number of inscriptions, written either in Brāhmī or in Sinhalese or in Tamil scripts, dealing directly with the south Indian shipping communities, have been brought to light by Senarath Paranavitana and some other scholars. The Indian and Sinhalese texts concerning political and economic aspects of these mariners are analysed to a certain extent by N. Wijesekara. Further to these data, as we shall see later, the numismatic and epigraphic discoveries made in the western and southern coasts of Sri Lanka and in South India in recent years enable us to re-evaluate the importance of cultural and trade relations between Tamil Nadu and Sri Lanka. Apart from these written documents, ceramics, beads, intaglios, seals and sealings discovered either sporadically or in an archaeological context, are also particularly significant. As I have pointed out in my earlier work<sup>7</sup> that the most important characteristic of all the ancient ports of the western and southern Sri Lankan coast, as well as many others around the island, is their geographical situation at the estuaries of rivers. The location of emporia along rivers must have facilitated transactions with the interior regions. The starting point of our investigations was the spatial distribution of ancient ports along the South Indian coasts. It is significant that ancient ports like Ponnani, Muziris (Muciri), Porakad (Bacare), Kolkho (Korkai), Karikal (Camara), Podouke (Putucceri) were situated either on the banks or at the mouth of the rivers, especially the Ponnani, the Achenkoil, the

<sup>&</sup>lt;sup>4</sup> O. Bopearachchi, 1993, 1995, 1998 and 1999.

S. Paranavitana, 1970 & 1983; Y. Subbarayalu Dec. 2001; K.V. Ramesh Dec. 2001 papers presented at Peradeniya University.

<sup>&</sup>lt;sup>6</sup> N. Wijesekara, 1952.

O. Bopearachchi, 1998 & 1999.

Tāmraparni, the Kāvaeri, and the Cenci. Arikamedu on the Ariyankuppam river, Kaveripattinam at the Kaveri river, Alagankulam on the Vaigai river and Dharanikota and Vijayapuri at the Krishna river are well known sites of this nature.8 All the three Tamil capital cities were inland towns, but each had one or several marts on the coast. For Karur, the capital city of the Cera kings, situated at the Amaravati river, and for Uraiyur, the capital city of the Chola kings, the main port was the Kaveripattinam, also called Kaveripumpattinam, in the Kaveri delta. For Madurai, the capital city of the Pandyas, a direct river connection along the Vaigai led to Salivur (modern Alagankulam) near Ramesvaram.<sup>9</sup> Thanks to the generosity of my Tamil colleagues for whom I hold a great esteem, I was enabled to visit all these very important sites, and examine archaeological material denoting maritime trade. I wish to thank very particularly Iravatham Mahadevan, K.Rajan, S. Suresh, R. Krishnamurthy, Y. Subbarayalu and S. Gurumurthy for their unfailing help.

Like in India, the most important ancient capitals of Sri Lanka too were inland, but each had one port on the coast. Manthai, the most active port in ancient Sri Lanka, is located close to the Aruvi Ari river (Malvatu Oya or Kadamna Nadi) which linked the port to the inland capital of Anuradhapura. Likewise, the geographical situation of the ancient capital of Polonnaruwa on the banks of the Mahaveli Ganga, which flows to the sea at Gokanna, is not a

In his excellent study, J. Deloch (1980 & 1985) has discussed in detail the role of ancient ports, situated beside rivers or lagoons on the coast of Tamilnadu, also see R. Nagaswamy, 1991.

<sup>&</sup>lt;sup>9</sup> K. Karttunen, 1995, p. 85.

R.L. Brohier (1935, p. 12) assumes that the section of the Mahawali Ganga between the island of Kalinga in Polonnaruwa and the sea off Trincomalee was of sufficient depth at all times to be navigable for small vessels. Though Gokanna became a flourishing harbour from the eleventh century, when the royal capital was transferred from Anuradhapura to Polonnaruwa, there is sufficient evidence to show that it was known as early as the fifth century AD to merchants who reached the island from the east. The Cūlavamṣa (XLI, 70-80) mentions Gokanna at the mouth of the Mahaweli Ganga, at the Bay of Trincomalée, during the reign of Kitsirimegha (AD 555-573) "He (Kittisirimegha) took him with him and came in a moment to the Gokanna sea".

coincidence.<sup>10</sup> In the same way, Tissamaharama, Sri Lanka's ancient city in the south, blossomed due to its location on the left bank of the Kirindi Oya which connected the town to the ancient port of Kirinda.

There is no reason to believe that during the first three centuries of our era. Roman traders had direct connections with Sri Lanka. This was probably due to the time gap between the two monsoon winds, used for sailing, which put Sri Lanka out of reach. 11 Lionel Casson 12 has convincingly shown that, at the time of the Periplus (circa first century AD) the starting point for ships leaving Egypt for India, were the ports of Myos, Hormos and Berenice. It is now believed that the goods to be exported were brought via the Nile to Coptos and from there, transported across the desert by camel or donkey to the corresponding ports. The proper time to leave Egypt for India was July. Making use of the South-West monsoon winds, the ships sailed through the Gulf of Aden and reached the ports of the west coast of India in September or in October. The return journey had to be scheduled for the month of November, taking advantage of the North-East monsoon winds. Merchants hardly had a month to sell their goods and load their ships with new merchandise. Sailors may have not continued their voyage up to Sri Lanka, for risk of missing the North-East winds which assured their return journey. It was certainly more profitable for the merchants to buy the Sri Lankan products from the Indian markets, than spending a year on the island waiting for the next, North-East monsoon. During this period, the South Indian traders may have played the intermediary role between Roman traders and Sri Lankans. Pliny's specific reference to the ships of Taprobane carrying 3000 amphorae<sup>13</sup>, in contrast with the Roman vessels capable of carrying over 10, 000 amphorae, shows that the navigation through the straits

O. Bopearachchi, 2006 a.

<sup>&</sup>lt;sup>12</sup> L. Casson, 1991.

D.P.M. Weerakkody, 1997, 226: "The sea in between is shallow, not more than six yards deep, but in certain channels so deep that no anchors touch the bottom. For this reason ships have prows at either end so that they do not need to turn about in the narrows of the channel. Their capacity is about three thousand amphorae."

of Mannar was undertaken not by Romans but by Sri Lankans. It was during this period when the South Indian traders were playing the intermediary role between Roman traders and Sri Lankans, that they came from Andhra-Tamil Nadu to Sri Lanka in search of merchandise.

The following sea ports subjected to our investigations are all situated at the estuaries of rivers: Salavattota (Chilaw) at the Deduru-oya, Wattala at the Kelani Ganga, Kālalittha (Kalutara) at the Kalu Ganga, Bhīmatittha (Bentota) at the Bentota Ganga, Gimhatittha (Gintota) at the Gin-Ganga, Mahāvālukagama (Weligama) at the Polwatta Ganga, Nilwalatittha (Matara) at the Nilwala Ganga, Gothapabbata (Godavaya) at Walawe Ganga and Kirinda at the Kirindi Oya.

We obtained positive results from the excavations and explorations conducted at Giribawa on the left bank of the Kala Oya, which flows to the sea at Uruvelapattna; 14 at Panirendava,

Concerning the explorations conducted in the area around Giribawa, see O. Bopearachchi, 1999, p. 16.

For the excavations conducted at Panirendava, 1998, see O. Bopearachchi, 1999, p. 8. In 1998 the Department of Archaeology and the French Mission of Archaeological Co-Operation opened two test pits over a distance of 100 meters. The sondage P.R.1 enabled the excavation of an unused furnace wall to which six conical-shaped tuyères were fixed. The second sondage, P.R.2, revealed the existence of a U-shaped furnace entirely made of refractory walls. The furnaces where iron ore was reduced are situated in the cavity in the middle of the heap of slags. After each reduction, the furnace was broken and the slags and scarps were piled up, creating layers composed of slags in voluminous blocs, fragments of furnace walls, and tuyères filled with solidified impurities and charcoal. The carbon 14 analysis carried out on seven P.R.1. samples by the Beta Analytic Radiocarbon Dating Laboratory in Miami, Florida, revealed that the centre was active during the Xth and XIth centuries. Aside from the carbon samples, several el ements of the furnaces were taken to France to be analysed at the University of Montpellier II Sciences. These samples had been collected from the debris in the heaps disposed in the form of a horse-shoe. The two most interesting samples correspond to ferruginous slags and tuyères (SL.P.1 & SL.P.2-c). Two other samples are ferruginous slags mixed with clayey earth (SL.P.2-a & SL.P.2-b). The fifth and sixth samples are glass fragments (SL.P.2-d & SL.P.3) and the last one, a crystallised element (SL.P4).

on the left bank of the Deduru Oya, 15 which flows to the sea at the ancient port of Salavattota; at the village of Pilapitiya, on the right bank of the Kelani Ganga, about seven kilometres from the ancient sea port of Wattala 16 and at Ridiyagma on the left bank of the Walawe Ganga which flows to the sea at the ancient sea port of Gothapabbata. 17 Although each and every discovery made in our excavations is not discussed here, the importance of major findings will be highlighted in relation to cross-cultural relationships between Tamil Nadu and Sri Lanka.

Let us now look at the archaeological evidence on cultural and trade relationships between Sri Lanka and South India during the proto-historic and early historic periods. Proto-historic Sri Lanka was more closely linked with South India. In the excavations conducted at Gedige in Anuradhapura, Pomparippu, Kantarodai and Ibbankatuwa, substantial quantities of potsherds were found, which parallel the Iron Age and early historical wares of South India, such as Megalithic Black and Red Ware. 18

Concerning the sondages in summer 1997, at the village of Pilapitiya close to Kelaniya, see O. Bopearachchi, 1999, pp. 10-13. Even today rafts can go up to Sitawaka, about forty km from the river mouth, where one of the short-lived capitals of the sixteenth century was situated. H.W. Cave (1908) has described how, even at the beginning of the twentieth century, sailing craft carried chests of low-grown teas 60 miles down this river to the sea and thence to the harbour and the warehouses of Colombo.

For the results of the explorations and excavations at Ridiyagma, from 1993 to 1996, O. Bopearachchi, 1999, pp. 13-16.

See S. Daraniyagala, 1972, 1986, 1992 for excavations at Gedige, Anurdhapura; V. Begley, 1970 for Pomparippu; V. Begley, 1967 for Kantarodai; and H.-J. Weisshaar, 1992, for Ibbankatuwa.

The Department of Archaeology and the French Mission of Archaeological Co-operation in Sri Lanka jointly carried out three sondages in summer 1997, at the village of Pilapitiya close to Kelaniya, about seven kilometres from the estuary of the river Kelani, in order to clarify the stratigraphy and to determine the different chronological phases of the early historic settlements of the site.

The excavations conducted by us in 1997, at the village of Pilapitiya close to Kelaniya, also yielded early historic Black and Red Ware.<sup>19</sup>

We were also able to collect at Ridiyagama<sup>20</sup> and at many sites along the Walawe Ganga, large quantities of early megalithic Black and Red Ware, some of which were engraved with early historic symbols.

K. Rajan and I undertook a comparative study on these post firing graffiti marks, usually found on the shoulder portion of the Black and Red Ware, attested from his excavations at Kodumanal in Tamil Nadu and from our explorations and excavations at Ridiyagama and Kelaniya in Sri Lanka.<sup>21</sup> The moon symbol which takes the form of the Brāhmī akṣara ma occurs individually or in composite form on the potsherds collected from both sites. The symbol composed of one vertical line at the centre and two oblique lines on its side, meeting at a point on the top, serving as a basic element, also appears in more elaborate forms with additional strokes. The ladder like symbol, in simple or composite form, is attested in Kodumanal, Ridiyagama and Kelaniya. The swastika

From 1993 to 1996 we carried out systematic explorations and 20 excavations at Ridiyagama, about twelve kilometres upstream from the mouth of the River Walawe. The ancient settlements, clustered round the two ancient reservoirs, are today completely under water as a result of an extension built by the British at the beginning of the century. In 1995, the excavation brought to light six stratigraphic layers, subdivided into 45 different contexts determined by significant features. Different phases of occupation go down to a depth of 1.35m. Fragments of Black and Red Ware were numerous in the third layer. The fourth layer yielded copper slags, mica, burnt charcoal, early Black and Red Ware, terracotta objects and beads. This layer is thus characterised by extensive different human activities. The most ancient layer brought to light a small number of potsherds and copper slag, thus indicating the beginning of human settlement. The approximate dating of the different phases of settlement from the fourth century BC to seventh century AD is supported by Roman coins, Black and Red Ware and other ceramics, copper slag followed by iron slags and beads. In 1996, more than twenty furnace structures were excavated. Some of these furnaces may have been used for forging iron or for cementation.

O. Bopearachchi & K. Rajan, 2002.

symbol is found in both sites individually or in various composite forms with arms branched out. It is interesting to note that the most ancient layers of the excavations at Kelaniya brought to light fragments of Black and Red Ware which can be dated with certainty back to the 6th century BC. This chronology is now confirmed by the calibrated dating obtained by C 14 analyses. It goes without saying that most of these graffiti marks are also attested on the Black and Red Ware fragments found in the Gedige Excavations at Anuradhpura.<sup>22</sup>

Various scholars have classified these symbols as potter's marks, owner's marks or as clan marks.<sup>23</sup> K. Rajan identified the graffiti marks attested in the megalithic burials at Kodumanal as clan symbols, but he made it clear, based on statistical analyses, that graffito found in the habitation had other meanings as well.<sup>24</sup> The limited excavations and lack of proper documentation still elude in understanding the true meaning that stands behind these signs. However, occurrence of the same individual or composite graffiti marks both in Sri Lankan and Tamil Nadu sites, enable us to suppose without much of a risk that there was a continuous cultural and trade contact between these two regions. It is interesting to note here that the petrographic analysis done on thin-sectioning of Black and Red Ware samples collected from our excavations at Ridiyagama and Kelaniya, carried out by Jean-Louis Reille, du Département des Science de la Terre de l'Eau et de l'Espace de l'Université Montpellier II Sciences, shows very clearly, that in spite of the distance of more than two hundred kilometres which separate the two sites, the homogeneity of the pottery as far as the characteristic mineral inclusions are concerned.

The possibility of one production centre in time and space seems to have come to light, thanks to the X-ray diffractometer

See S. Daraniyagala, 1972, p. 123-4 2 for excavations at Gedige, Anurdhapura.

S. Seneviratne (1984) identified few of these symbols as clan or family symbols.

<sup>&</sup>lt;sup>24</sup> K. Rajan, 1997, pp. 79-80.

<sup>&</sup>lt;sup>25</sup> See I.W. Ardika, & al. 1993; V.D. Gogte, 1997.

<sup>&</sup>lt;sup>26</sup> V. Begley, 1988.

analysis done by Indian and Australian specialists, on samples of so-called Rouletted Ware from various Indian. Sri Lanka and South-East Asian sites.<sup>25</sup> As we know, Vimala Begley<sup>26</sup> contested the hypothesis put forward by Mortimer Wheeler<sup>27</sup> according to which Rouletted Ware found at Arikamedu was an import from the Roman World. Begley treated Rouletted ware as a regional product and not import, though the technique of decoration could have been acquired from the classical world at some point of time. Siran Deraniyagala suggested, in 1992, that one could postulate that the Rouletted Ware had its origins in the medium-fine Grey Ware and that its characteristic gun-metal lustre reflected technical inputs from the Northern Black Polished Ware tradition of the Gangetic Valley.<sup>28</sup> Having analysed representative samples from India, Sri Lanka and South-East Asia, by XRD, Vishwas Gogte arrived at the same conclusion: "It is therefore highly suggestive that not only was RW produced in the Ganga Plain but also that the painted circular decorations of the PGW period gradually developed into the beautiful indented concentric patterns in the NBP period, contrary to the view that the technique was influenced by the Classical or Imperial Roman worlds".29

It is also interesting to note that the occurrence of the Rouletted Ware during the terminal phase of the NBP period (c. 250 B.C.) at Chanraketugarh,<sup>30</sup> Sisupalgarh,<sup>31</sup> Alagankulam<sup>32</sup> Arikamedu<sup>33</sup> and Anuradhapura<sup>34</sup> suggests the evolution of the Rouletted Ware from the Northern Black Polished Ware. This chronology is further confirmed by the calibrated dating by c. 14 between 250 to 185 B.C. with 68% probability, obtained from the context 9 of our own excavations at Kelaniya which yielded fragments of Rouletted Ware.

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<sup>&</sup>lt;sup>27</sup> R.E.M. Wheeler & al. 1946.

<sup>&</sup>lt;sup>28</sup> S.U. Deraniyagala, 1992, p. 712.

<sup>&</sup>lt;sup>29</sup> V.D. Gogte, 1997, p. 83.

<sup>&</sup>lt;sup>30</sup> V.D. Gogte, 1997, p. 80-2.

<sup>31</sup> B.B. Lal, 1949.

<sup>&</sup>lt;sup>32</sup> R. Nagaswamy, 1991.

<sup>&</sup>lt;sup>33</sup> V. Begley, 1988; V. Begley & al. 1996, pp. 115-285.

<sup>&</sup>lt;sup>34</sup> S.U. Deraniyagala, 1992, pp. 712-3.

According to Vishwas Gogte, the Rouletted Ware samples from India, Sri Lanka and South East Asia subjetcted to XRD analysis, contain minerals identical to those of Rouletted Ware and clay from Chandraketugarh, the famous port situated in the Gangetic delta. Likewise, he concluded that the Chandraketugarh-Tamluk region was the source of the Rouletted Ware found in other Indian sites, Sri Lanka and South-East Asia.<sup>35</sup>

The analyses on Rouletted Ware are still in an initial stage and some scholars do not completely share Gogte's hypothesis. K. Rajan is of the opinion that the amount of Rouletted Ware found in Tamil Nadu particularly in Alagankulam suggests that this ware would not have been produced in Chandraketugarh-Tamluk region alone. At Alagankulam, more than a two metre cultural deposit yielding Rouletted Ware, covering a phase more than a century was found.<sup>36</sup> If Rouletted Ware was continuously imported from Chandraketugarh-Tamluk region over a century as suggested by Gogte, then other cultural material definitely would have come from that region. In contrast to that, Algankulam yielded quite a number of Roman artefacts, Brahmi script of Sri Lankan origin, but not of Chandraketugarh-Tamluk region. Therefore further collaborative evidence is necessary before coming to any conclusion. Whether there were one or many producing centres, we begin to understand the patterns of trade routes developed through the Megalithic period onwards between the East coast of India and Sri Lanka. The exports of Northern Black Polished Ware followed by Rouletted Ware may have reached the island of Lanka through these trade routes. So, the ports like Kaveripatinam, Arikamedu, Algankulam in South India may have been frequently visited by these traders.

V.D. Gogte, 1997, pp. 80-2, and more recently V.D. Gogte, in H.-J. Weisshaar, H. Roth & W. Wijeyapala, 2001, p. 198-202,

<sup>&</sup>lt;sup>36</sup> Personal communication.

<sup>&</sup>lt;sup>37</sup> S. Suresh, 2004.

As we know, around ninety Indian sites spread in most part of South India have revealed the rouletted ware. 37 The maximum number of finds is, not surprisingly, from Andhra and Tamilnadu region. Several discs made using broken rouletted ware were unearthed from Tissamaharama.38 The excavations conducted by us at Kelaniya, yielded several fragments of imported Rouletted Ware, similar to the ones found in the South Indian coasts. This was the first time in the Sri Lankan history, that a site situated in the western Wet Zone, away from the capitals of the Sinhalese kings in the northern Dry Zone, yielded archaeological material which can be dated with certainty back to the fourth and third centuries BC. It is also interesting to note that like in Algankulam, 39 the Indian sea port closest to Sri Lanka, the excavations at Kelaniya revealed three out of five major types of Rouletted Ware. 40 Similar types of Rouletted ware are also attested in the Arikamedu excavations. 41 The Rouletted Ware is known to occur throughout Coromandel coast and also in Sri Lanka, indicating a well-established communication network, linking the entire East coast of India with Sri Lanka. The results of our own excavations and explorations on the western and southern coasts of Sri Lanka, show that not only the North, but also the West and South of the island, should be included in the communication network.

Apart from ceramics, beads found in South in India and Sri Lanka highlight the close communication networks linking both countries. Hundreds of beads made of crystal, glass, stone, ivory, bone, shell, clay and above all semiprecious and precious stones,

The excavations conducted by Sri Lankan and German archaeologists under H.-J. Weisshaar & W. Wijeyapala (1993) at Akurugoda (Tissamaharama), yielded not only early historic Black and Red Ware, but also several fragments of Rouletted Ware, see V.D. Gogte, dans H.-J. Weisshaar, H. Roth & W. Wijeyapala, 2001, p. 198-202, As a result of clandestine diggings at Akurugoda and Minihagodana in Tissamaharama unprecedented number of engraved disks made of Rouletted Ware were found, see O. Bopearachchi & R.M. Wickremesinhe, 1999, pp. 118-9.

<sup>&</sup>lt;sup>39</sup> R. Nagaswamy, 1991 and N. Kasinathan, 1992.

<sup>40</sup> S. Gurumurthy, 1981, p. 300.

See for example, V. Begley et al., 1996, p. 243.

were found at Ridiyagama and Kelaniya. Among the beads of semiprecious and precious stones, carnelian, lapis lazuli, rock crystals, agate, amethysts were found in hundreds.

The discovery of unperforated beads together with fragments of semiprecious stones confirms beyond doubt, the existence of a bead making industry at Ridiyagama, Tissamaharama and Giribawa. The agate bead with the metal rod with corrumdum tip (missing) used for perforation, still seen stuck in the cavity, is further proof that beads were cut, polished and perforated at the site of Tissamaharama. The most fascinating discovery with this regard was made at Pabalugala at Giribawa. The presence at Giribawa of raw glass, unfinished beads, remains of melting furnaces and alumina sand source at the proximity, enable us to think of this site as a glass-producing workshop.

In recent years there have been a series of excavations at the early historical sites of Andhra-Tamilnadu. Beads constitute an important class of finds in most of the South Indian sites. These sites include Amaravati, Dhulikatta, Kotalingala, Peddabankur and Yeleswaram (in Andra Pradesh), Arikamedu (Pondicherry), Kanchipuram, Appukallu, Tiruvamathur, Karaikadu, Mallapadi, Perur, Kodumanal, Karur, Uraiyur and Alagankulam (in Tamilnadu). Some of these sites, especially the Tamilnadu sites, have yielded coins (both Roman and indigenous), ceramics and especially beads similar to those reported from Manthai, Anuradahapura, Kelaniya, Ridiyagama, Tissamaharama and other early sites of Sri Lanka. The beads from Ridiyagama are very similar, in colour and shape, to the types recovered from four major sites of South India viz. Arikamedu, Karaikadu, Uraiyur and Alagankulam.<sup>43</sup>

See O. Bopearachchi & R.M. Wickremesinhe, 1999, p. 129, no. P. 34; pl. 36, P. 34.

See R. Nagaswamy, 1991 for different varieties of beads from Alagankulam, and for beads of similar type see O. Bopearachchi, 1999, pp. 16-7; and from Tissamaharama, O. Bopearachchi & R.M. Wickremesinhe, 1999, pp. 126-31.

<sup>&</sup>lt;sup>44</sup> P. Francis, 1987, p. 29.

O. Bopearachchi, 1999, pp. 16-7.

The bead making industry at Arikamedu was large and productive.<sup>44</sup> The majority of the beads found here are spheroid or pear-shaped, similar to those from Ridiyagama. Lug-collared beads, identical to the ones from Ridiyagama,<sup>45</sup> have been reported in small quantities in the so-called Arretine and post-Arretine periods of Arikamedu i.e. from the first century BC to the end of the second century AD.

Bernard Gratuze and Laure Dussubieux of he Centre Ernest Babelon (CNRS - Orleans) carried out a large research program dealing with ancient glass in the Indian Ocean. The aim of this project is to determine the composition of glass objects so as to have a better understanding of ancient technology and trade exchanges. Glass samples from a large number of sites (glass workshop and consummation sites) were analysed, especially from Arikamedu, Kodumanal, Alagankulam in Tamil Nadu and Giribawa, 46 Ridiyagama and Kelaniya in Sri Lanka.

Two analytical methods were used: LA-ICP-MS (Laser Ablation - Induced Coupled Plasma - Mass Spectrometry) and FNAA (Fast Neutrons Activation Analysis). These methods enable to measure with a great sensitivity between 30 and 50 elements without causing the destruction of the sample. The samples are

We carried out a series of explorations in the area around Giribawa. The historical significance of this site lies in the fact that it is situated at the left bank of the Kala Oya which flows to the sea at Uruvelapttna. The site itself is not far away from the ancient bridge built by Parakrambahu I. The Cūlavamsa (LXX, 123-130) describes it as a solid bridge passable by files of elephants, horses and chariots, held together with iron bands and nails, made of beams of timber and twenty cubits broad. Even today the ruins of this bridge can be seen. The archaeological site extends from the bridge to a distance of five kilometres. We systematically collected and photographed potsherds, iron objects and particularly glass beads found by the villages when ploughing the fields or digging holes in their gardens. The most fascinating experience was the discovery of glass furnaces, thousands of glazed tiles, glass beads and hundreds of glass fragments and slag at the site called Pabalugala. The analyses were carried out on these collected samples.

mainly small monochrome beads obtained by the drawn method. A minority of disc-shaped beads, collar beads, and moulded beads were analysed as well. Each site under the investigations yielded several glass types, three out of them seem to have been largely diffused through Tamil Nadu and Sri Lanka.

The most important (by the number of specimens identified) is a glass type which is the result of the melt of an aluminous sand and of a soda flux taken from mineral deposit. Copper was used to give a red, an orange or a turquoise blue colour to the glass. Tin acts as a white opacifying agent when oxidised and as a yellow one when combined with lead. This glass type is widely spread through Sri Lanka and South India, even if very few specimens are known in Arikamedu. A second glass type is potash like. Pure potash ashes or saltpetre was used as fluxing agent and melted with high silica sand. Most of the potash glass samples are dark blue (this colour is due to cobalt), purple (due to manganese) and aqua-blue (likely due to the accidental presence of iron). Arikamedu yielded a big number of potash beads. Although the production site of this potash glass is still unknown judging from the important number of potash glass finds excavated in Arikamedu, it enables us to suppose that it was a glass producing workshop. The third glass type has close levels in soda and in potash. It means that a mixed fluxing agent was used. The levels of alumina and of lime are similar too. This glass is red and owes its colour to big amounts of cuprite (copper oxide, detected by X-ray diffraction). Only disc-shaped beads are included in this group. Such beads were found in Ridiyagama, Kelaniya, Alagankulam and Kodumanal.

Beads made of glass have been recovered from stratified layers in our excavations at Kelaniya, ranging in date from the second century BC to the third century AD. It is now clear that most of the beads collected in our excavations or from our surface explorations at Ridiyagama, Kelaniya and Giribawa are also attested in all the important settlement sites of South India. The conclusion to be drawn from these discoveries is that they belonged to the same trade network.

The epigraphic and literary evidence for the active role played by the Tamil merchants in the early phase of Sri Lanka's history is numerous. A recent study undertaken by I. Mahadevan has revealed the existence of a number of inscribed potsherds in the Prakrit (old Sinhalese) language written in the Brāhmī script, found at or near ancient sea ports along the east coast of India.<sup>47</sup> The 10 inscribed potsherds published by Mahadevan, bearing Prakrit Brāhmī script were reported from ancient trade centres like Kodumanal, Arikamedu and Algankulam.<sup>48</sup> According to palaeographic and linguistic features, these inscriptions can be dated from the second century BC to the first century AD. Let us examine eight out of them.

- 1. Arikamedhu: "Ku bi ra ha". It is a complete inscription written on a Grey Ware in Sinhala-Prakrit and in Sinhala-Brāhmī. Kubira in Prakrit or Kubera in Sanskrit is the god of fortune and wealth. The same name is also attested in inscriptions fund in the island.
- 2. Arikamedhu, first century A.D.: bu ta sa, of Butta, in Sanskrit bhūta.
- 3. Kanchipuram, first century B.C., on a Grey Ware: pu sa la khi ta, a proper name in Sanskrit pushya-rakshita /-lakshita. in Sinhala-Brāhmī.
- 4. Poompuhar (Kaviripattinam), on a Red Coarse Ware, first century B.C.: a bi ma ga t to, of princess Maga. Skt. mâgha.
- 5. Kodumanal, on a Red Slipped Ware, first century B.C.: [ma] la sa, of Mala; Skt. malla.

<sup>&</sup>lt;sup>47</sup> I. Mahadevan, 1996 a & b.

Two other inscribed objects, a seal and a sealing were reported from Bengal I. Mahadevan, 1996b. Also see K. Rajavelu, 1999.

- 6. Alagankulam, on a Grey Ware, first century B.C.: sa mu ... (probably Samu(da); skt. Samudra proper name.
- 7. Alagankulam, on a Black Rouletted Ware, first century B.C.: sa mu ta ha, of Samuda; Skt. samudra.
- 8. Alagankulam, on a Black and Red Ware, first century B.C.: sa ga; Skt. samgha. probably Samgha Buddhist. Sri Lankan origin is attested by the ga instead of gha.

According to S. Paranavitana<sup>49</sup>: "It is easy to recognise in 'Dameda' the prototype of 'Demela' or Demala', the designation in Sinhalese literature as well as in the current speech of the Tamil people who inhabit the extreme south of the Indian Peninsula. Its affinity to Pali, 'Damila, Skt. 'Dramida' or 'Dravida' in Tamil, which are the names, in the respective languages, of the Tamil people, is also not difficult to recognise".

The epigraphical evidence for the active role played by the Tamil merchants in the early phase of Sri Lanka's history is numerous, and the following are a few examples among many:

No. 94: The inscription in early Brāhmī script on a boulder in the area to the north-west of the ancient Abhayagiri Dagäba at Anuradhapura, records that the terrace (*Paśade*) was of the Tamil householders (*gahapatikana*) and was made by Samana, the Tamil, of Ilubarata.<sup>50</sup>

The record states that the Tamil ship-captain was entitled to the seat of honour and probably was the leader of the Dameda householders.<sup>51</sup>

Two Brāhmī inscriptions from Periya-Puliyankulama, are both of the same personage, a Tamil merchant named Visāka, referred to as a householder (gapati).

S. Paranavitana, 1970, pp. lxxxix-xc.

The se numbers correspond to S. Paranavitana, 1970.

<sup>51</sup> S. Paranavitana, 1970, n° 94.

 $N^{\circ}$  356: "The cave of the householder Visākha, the Tamil merchant.

N° 357: "The work of the flight of steps is of the householder Visaskha, the Tamil merchant"

Perhaps the most evocative inscription in this context is the one from Kuduvil in the Ampari District.

No. 480: "The cave of the merchants who are the citizens of Dighavapi, of the sons of . . . . and of the wife Tissā, the Tamil". As Paranavitana correctly observed: "Dighavapi, given as the place of residence of these brothers, was a seat of royalty in Rohana, second in importance to Mahagama only, and the place might well have attracted merchants from foreign countries who practised their own customs".<sup>52</sup>

Coins of the South Indian dynasties found in Sri Lanka are also important evidence for inter-regional transactions.<sup>53</sup> Coins labelled as Lakshmi plaques depicting the goddess Lakshmi, certainly struck in Sri Lanka, were found in the coastal regions of South India. Significantly a Lakshmi plaque of Sri Lanka was recovered from the river bed of Amaravathi, near Karur, a city situated in land around 250 km west of Kaveripatinam on the way to Chera country. The coins depicting on the obverse: elephant, temple and on the reverse, the symbol of the fish<sup>54</sup> can be dated to c. 210-177 BC, because the earliest coin types of Sri Lanka show many parallels with that of the Pandyas, by which it was inspired. The earliest coins in Sri Lanka bear designs derived from the second series of Pandyan multi-type coins, struck during the period circa 210-175 BC and bear a group of symbols on the obverse, among which an elephant normally figures. It is interesting to note that a similar type of coin was found in structural period G,

<sup>&</sup>lt;sup>52</sup> S. Paranavitana, 1970: n° 480.

<sup>&</sup>lt;sup>53</sup> O. Bopearachchi, 1993, pp. 83-4.

<sup>&</sup>lt;sup>54</sup> R. Krisnamurthy, 1997: 34, pl. 3, no. 29.

O. Bopearachchi, 2006b.

which dates to the second century BC from Sri Lankan and British excavations conducted at Salgaha Watta 2 in the ancient citadel of Anuradhapura. The Pandyan fish symbol is also borrowed and appears on the reverse of these earliest Sinhalese issues.<sup>55</sup>

The most important discovery made in recent years, to confirm beyond any doubt the existence of Tamil traders on Sri Lankan soil, came from the southern coast of Sri Lanka. Hary Falk and I recently published a group of locally issued inscribed coins, hitherto unknown in a Sri Lankan context, which can be dated at least to a thousand years before the already known inscribed coin. <sup>56</sup> On the basis of the palaeography, these coins can be fixed without much of a risk between the second century BC and the second century AD.

Among the 44 coins that we have deciphered, two coins bear Tamil names. Coin no. A. 21 of our catalogue, depicts on the obverse a floral design and on the reverse the legend in Brāhmī which we have deciphered as: \\_ \rangle \subseteq \tilde{utirana}. Swastika \subseteq. 57 We concluded: "This coin is of utmost importance in that it presents us a personal name in a clear Tamil nominative form with an aksara na f, representing an alveolar nasal, which is not found in Ceylonese Brāhmī rock inscriptions, but which is well-known from South Indian inscriptions in Tamil Brāhmī, and now, from two of our coins (here and no. A. 37 below)".58 I. Mahadevan, the foremost authority on Tamil Brahmi, in a recent article, accepting our initial reading added: "The authors have correctly identified the Tamil alveolar nasal na here and point out that in Tamil texts, this character terminates proper names. However the legend is ūtirāna which has to be read in accordance with the conventions of Early Tamil Brāhmī, as < Uttiran>, a personal name in Tamil". 59 He further developed his arguments pointing out: "The

O. Bopearachchi & R.M. Wickremesinhe, 1999 and O. Bopearachchi, H. Falk & R. Wickremesinhe, 2000.

These numbers correspond to the catalogue of the book: O. Bopearachchi & R.M. Wickremesinhhe, 1999.

<sup>58</sup> Ibidem.

<sup>&</sup>lt;sup>59</sup> I. Mahadevan, 2000, p. 152.

<sup>60</sup> I. Mahadevan, 1996a, fig. 5.30 et p. 315.

name Uttiran is derived from Uttiram, the Tamil name for the asterism Uttara Phalugni. The name Uttiran occurs in a Tamil Brāhmī pottery inscription from Arikamedu".60

Our second coin is no. A. 37 with a design of a wheel composed of four spokes on the obverse. We had many difficulties in deciphering the legend in Brahmi, and tentatively proposed the "The reading is not absolutely clear, but the final  $n\bar{a}$  makes it clear that here again a Tamil proper name is found in the nominative form, as in no. A. 21".61 I. Mahadevan, proposed the following revised reading: t[i\*] sa pi t,ā na. Tissa Pittan, a personal name partly in Prakrit and Tamil. Tissa is one of the most commonly used names in early inscriptions. Like the name of Parumakas, it occurs 32 times. 62 Representing Skt. tisya it again is the name of an auspicious asterism, known as a royal name from the time of Devanampiya Tissa.63 Regarding the Tamil name Pittan, Mahadevan has underlined that it is attested in Sangam literature and also in a Tamil Brāhmī inscription from Kongarpuliyankulam exactly as on our coin.64

I. Mahadevan has also identified two more coins that we have published, and correctly interpreted the names as of Tamil origin. The first is no. A. 17 depicting a cock bird running to the right on the obverse. We read the Legend in Brāhmī: U U I A U mahācita apo, /mahācitta appo/, "Of Mahācittā", Skt. \*mahacitta- atmanas, admitting the greatest difficulties we had to decipher it. Mahadevan suggested that it looks to him as if the coin-mould has not been reversed and hence the true reading has to be obtained from the mirror-reflection of the coin-legend, starting from the 3° clock position and proceeding in the clockwise direction. He reads it as: ma la c[a] ta a na. 66 He then pointed

O. Bopearachchi & R.M. Wickremesinhe, 1999, p. 59, no. A. 37.

<sup>62</sup> S. Paranavitana, 1970, p. lxxxiv.

O. Bo pearachchi & R.M. Wickremesinhe, 1999, p. 53.

<sup>64</sup> I. Mahadevan, 2000, p. 153.

O. Bopearachchi & R.M. Wickremesinhe, 1999, no. A. 17, p. 54-5.

<sup>66</sup> I. Mahadevan, 2000, p. 153.

<sup>67</sup> Ibidem.

out that both Mallan and Cattan occur as personal names in a Tamil Brahmi inscription.<sup>67</sup> The next coin from our book that I. Mahadevan deciphered as a Tamil personal name is no. A. 20. Like many other coins from Tissamaharama, this coin has on the obverse a floral design. Deciphering the legend in Brahmi: + T. 片十~ましまし、?kapatikajaha apo. Divider ★, /?kapatikajaha apo/, "Of? Kapatikaja", we admitted that our reading of the name is more than uncertain.<sup>68</sup> I. Mahadevan's revised reading is: ka pā ti ka tā la a na. Mahadevan then pointed out that "Kapati Katalan" is a personal name in Tamil with a prefixed title in Sinhala Prakrit: "The title gapati (var. gapiti) in Sinh. Pkt. is derived from Pāli gahapati Skt. grihapati 'householder' a title borne by merchants and others".69 Mahadevan then shows that the change ga to ka in the title betrays Tamil influence. As far as the Tamil name "Katalan" is concerned, he correctly draws the attention to references in Sangam literature and in an early Tamil Brāhmī inscription from Mangulam.70

These inscribed coins subjected to our research are so far only attested in the area of Tissamaharama. To our knowledge they are not so far attested in Anuradhapura, the oldest capital city of the ancient kings of Sri Lanka. We would not be surprised if such coins surface there one day. However, the discovery of coin moulds at Akurugoda, far away from the central political and administrative centres like Anuradhapura, is conclusive evidence that the coins in question were locally produced. Majima (no. A. 5), Tissa (nos. A. 9-12, & 43) and Naga (nos. A. 24, 30-32 & 44) are well known names of Sri Lankan kings, but we have no valid reason to believe that they were issued by the same kings. The absence of the title raja or mahāraja on these coins is significant in this context. Instead of the title raja, we find titles

<sup>&</sup>lt;sup>68</sup> O. Bopearachchi & R.M. Wickremesinhe, 1999, no. A. 20, p. 55.

<sup>69</sup> I. Mahadevan, 2000, p. 154.

<sup>&</sup>lt;sup>70</sup> *Ibidem.*, p. 153.

O. Bopearachchi & R.M. Wickremesinhhe, 1999, no. B. 1, p. 61.

These numbers correspond to the catalogue of the book: O. Bopearachchi & R.M. Wickremesinhhe, 1999, pp. 51-60.

such as gapati 'householder' (nos. A. 7 & 8) or barata 'lord' (no. A. 1). Many other coins are even without such titles (e.g. A. 6, 9, 10), as if ordinary people issued some of these coins. It seems that local rulers, lords, householders and even individuals were involved in these monetary activities. The finding of coins issued by lords and householders as well as individuals on the one hand and on the other, the discovery of coin moulds, money boxes and hoards<sup>73</sup> at the same site make us to think that monetary transactions were particularly developed in these areas. The issuing of coins in their own names written in their own script in Tamil, account for the fact that Sinhalese and Tamil merchants were actively involved in trade in the Southern coast of Sri Lanka. As I. Mahadevan<sup>74</sup> himself emphasised, in his remarkable article, recent discoveries in Tamilnadu of Sinhala Prakrit inscriptions on poetry from the port cities of Arikamedu, Alagankulam and Kaverippumpattinam on the east coast and, further inland, at Kodumanal, provide evidence of the presence of Sinhalese traders in Tamilnadu in the same period when Tamil traders were active at Anuradhapura and Tissamaharama in Sri Lanka. The new discoveries add to the growing body of evidence attesting to the close cultural, social, religious and commercial intercourse between Sri Lanka and Tamilnadu in the early Historical Period. Archaeology has no frontiers. I have attempted here, without any preconceived ideology, to show the function of material culture in a given society.

<sup>&</sup>lt;sup>73</sup> *Ibidem.* for coin moulds: pp. 61, 110-1; for money boxes and hoards: p. 98.

<sup>&</sup>lt;sup>74</sup> I. Mahadevan, 2000, p. 154.

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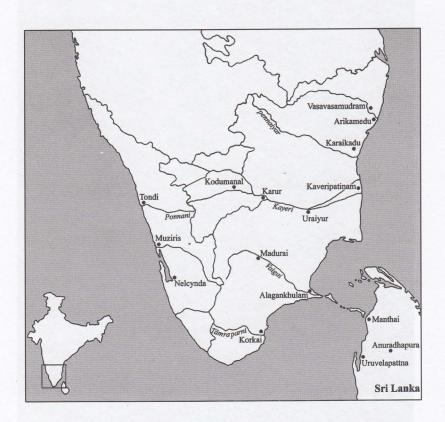
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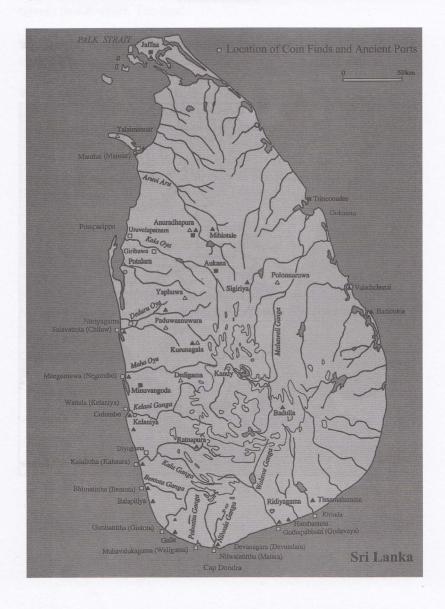
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### Illustrations

(1) Spatial distribution of ancient sites and ports along the South Indian.



### (2) Location of coin finds and ancient sea ports in Sri Lanka.



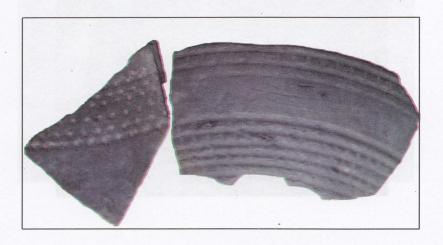
(3) Pilapitiya (Kelaniya) excavations: layer with early historic Black and Red Ware.



(4) Ridiyagama: Fragment of early historic Black and Red Ware with Swastika symbol in composite forms with arms branched out.



(5) Fragments of Rouletted Ware found in the excavations of Pilapitiya (Kelaniya).



(6) Inscribed potsherd in the Prakrit language written in the Brahmi script, bearing the inscription bu ta sa, of Butta, in Sanskrit bhûta, from Arikamedhu (first century A.D.).



(7) Coin bearing the legend written in early Tamil Brahmi: <Uttiran> from Tissamaharama.





(8) Coin bearing the legend written in early Tamil Brahmi: "Kapati Katalan" from Tissamaharama.





