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## **Coins and tokens from ancient Ceylon: being a critical survey of the coins and coin like objects unearthed on the island based on a thoroughly annotated catalogue of finds, and supplemented by an analytical part dealing with the island's ancient economy and its trade with the western world**

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## IV Analysis

### PRELIMINARY REMARKS ON CHAPTERS 8 TO 10

The following chapters provide a detailed analysis of the finds of Roman coins and their imitations, based on the material presented in the catalogue section of this study. Each of these chapters is naturally speculative to some degree. While the results of the research laid out in chapter 8 stand on fundamentally solid ground, the more far-reaching deductions offered in chapters 9 and 10 must be taken as partly hypothetical. Based on the coin evidence, I will add some considerations on the difficult problem of the economic and monetary condi-

tions prevalent in ancient Śrī Laṅkā, as well as on the equally hypothetical course of long distance trade between the western world and the Indian Subcontinent in late antiquity. These chapters should therefore be regarded as both theoretical and provisional and perhaps, strictly speaking, should not have been incorporated into a book primarily intended as a neutral presentation of the ancient coins discovered in Śrī Laṅkā. However, it was tempting to go one step further and to try to evaluate the collected material, although constantly bearing in mind its incomplete nature and the serious difficulties that it sometimes presents.

## 8 Coin finds: The dominance of the south

### 8.1 ROHAṆA: THE MATERIAL EVIDENCE

It is clear that the overwhelming majority of the Roman coins and their imitations found in Śrī Laṅkā were discovered in the territory of the former dominion of Rohaṇa, both in regard to the quantitative number of coins and the number of find places. With the exception of an expected accumulation of coins within the former boundaries of the ancient capitals and from their close vicinity, only the cultural material from Kantarōḍai, including the coins, can be compared with that from the south. The other finds reported from Uttara-desa are either unconfirmed (the Jaffna Peninsula [38]), dubious (Varaṇi Iyattalai [50]), or of later date (Māntai [65]).

The reliable finds of Roman coins and Nāimana imitations discovered in Rohaṇa are confined to the coastal area between Kosgoḍa in the west and Tissamahārāma in the east. Like a string of pearls, these sites are located close to the ancient highroad leading from Mātara/Devinuwara along the west coast to Māntai and the north. Although unconfirmed by the chronicles, the coin finds also suggest that this road continued in an eastward direction as well, at least as far as Tissamahārāma. By adding those finds that are only partly reliable, this string of sites becomes much denser, and extends from Tissamahārāma in the east to Negombo in the west. Most of the hoards were discovered between Mātara and Tissamahārāma, from: Mātara [144–147] – Nāimana [149–152] – Hittetiya [148] – Kitalaḡama [155, 156] – Polommaruwa [158] – Kapuhena [160] – Rekawa [161] – Ridiyagama [166–169] – Goḍavāya [176] – and Tissamahārāma [179–200]. No reliable discoveries have so far been reported from the southeast coast between Tissamahārāma and Batticaloa. In the other direction, the only hoard worth mentioning in regard to the number of coins found is that of Kosgoḍa [132]. Besides the coin finds, a vast amount of other cultural material is said to have been discovered in

the Tissamahārāma region, such as seals and seal-impressions, moulds for casting coins and ornaments, lead objects, pottery, intaglios and beads (Bopearachchi / Wickremesinhe 1999). Unfortunately, almost all of these objects were unearthed in a non-archaeological context at non-verifiable locations by local villagers digging for gems and are therefore of hardly any historical value. Nevertheless, we can at best add some of these objects to those discovered during the course of scientifically conducted archaeological excavations in this region, to confirm its importance in antiquity.

Returning to the coin finds, we need to provide an explanation for their geographical distribution as described above. Naturally, not every coastal find-spot can be interpreted as a major port where money-based commercial transactions, involving merchants of foreign nations, took place. However, the former existence of ports and commercial centres on the west and south coast, strategically situated on the river estuaries, has been postulated both frequently and vehemently by other scholars (Bopearachchi / Wijeyapala 1996; Bopearachchi 1995a: 378–382, 1996: 62–65, 1997/8: 269–274, 1998a: 135–143, 1999, 2002: 62). This idea, that marketplaces were established at ports and on navigable rivers, sounds like a novelty, but in fact this observation dates back at least to the nineteenth century:

“An leicht zugänglichen Stellen, etwa an Häfen, Wasserstraßen oder Gebirgspässen bilden sich schließlich Märkte aus, wo jeder das los wird, was er an Erzeugnissen mitbringt, und das findet, was ihm fehlt”<sup>233</sup>.

Such ports and emporia may or may not have existed at the time under discussion here, but in any case, they could only have been of local or secondary importance. It is not particularly helpful to confer the expression ‘commercial centre’ on what in reality must have been a small marketplace, as has been done in the following example. The starting

<sup>233</sup> Regling 1926: 206, quoting the national economist C. Menger from the nineteenth century.

point was a rock inscription of fourth or fifth century date, discovered at Diyagāma, about six miles northeast of Kalutara close to the Kalu Gaṅgā (Müller 1883: no. 85). Although generally well preserved, the text was broken in some places. Müller read:

“Hail ! . . . . . Mahakaḍaka spake: A lay devotee . . . . . his father spake and Caraka’s father Tambucaraka . . . . . the ferry and the paddy field one pata (in circumference) and Tambuḍaka six karishas and thirteen paddy fields”.

According to a new reading<sup>234</sup>, the inscription as left to us declares:

“Prosperity! To the great monastery named Kalkai of the commercial centre known as Kalyani (Kaliniya niyama) the following taxes were (donated) by the wife of Upāli and . . . The share of . . . (ya), the share of the instalment of the monastery the instalment of Jaba . . . the share of paddy field named Toti of . . . and of Upavalaka, one of hundred karīsas of paddy”.

The content of this inscription raises some problems. The central term *niyama* is translated as ‘commercial centre’. However, the Sinhalese *niyama* only means ‘market place’, as does the Pāli and Sanskrit *nigama* = ‘a small town, market town’<sup>235</sup>. This is indeed characteristic of Kalyāni today, the modern town of Kelaniya near Colombo. Surprisingly, as late as the twelfth century, this location was rated only as a ‘village’; by the thirteenth century it had developed into a ‘town’, and in the fourteenth century it was described as a fortified place (Geiger 1960: § 57). Nevertheless, this small market town may still have had the function of a commercial centre at an earlier date, but one should obviously avoid the exclusive use of such a modern expression, evoking the false impression of an important economic domain. The great monastery mentioned in the inscription was the Kalaka Mahāvihāra at Kalutara (Nicholas 1959: 118). The inter-relationship of these two sites remains somewhat obscure. It is certainly wrong to say that the inscription: “refers to the taxes paid by a villager to the monastery of Kalaki in the commercial centre known as Kalyani” (Bopearachchi 1997/8: 272 and 273). Most probably, the inscription refers to a grant of tax receipts from Kalyāni to the Kalaka Mahāvihāra at Kalutara, situated about thirty miles south of the modern market town. In short, a vihāra at Kalutara received income, in whatever form, from the market place at Kelaniya. Nowhere is it stated that

Kalutara was an, ‘ancient sea port’, and the same is true for the alleged ‘ancient sea port’ at Goḍavāya<sup>236</sup>. Likewise, there are no verifiable sources for the statement that there were ancient ports at Wattala – nowadays situated about three miles inland from the west coast – or at Salāvattoṭa – identified with modern Chilaw<sup>237</sup>. This assumption of a multitude of navigable seaports should also be doubted in regard to two Muslim nautical descriptions from the end of the fifteenth and first half of the sixteenth century (Conermann 1998: 166 and 169f.). In the first, it is stated that often a high motion of the sea prevails around the island of Śrī Laṅkā and that it is much safer to keep a considerable distance from the coast. Similarly, the second description characterises Śrī Laṅkā, from a nautical point of view, as torturous due to the rough sea. Hence, it would not have been possible for sea-going vessels to have put in to these small ports or anchorage grounds, even if they existed, and unloading offshore on the roadstead would seem to have been unwise judging by the rough nature of the ocean. Therefore, the only logical alternative explanation would seem to be that the coins unearthed along the coastal route had found their way to these locations by local distribution, or ‘migration’ from a central place. The material evidence from the fifth century points to the Mātara area. Taking into account only those catalogue entries for which we have a sufficient degree of certainty, we are left with an impressive list of discoveries from a very limited area of only two square miles, defined by the find spots of Mātara, Nāimana, and Hittetiya:

<sup>234</sup> Bopearachchi 1997/8: 272, n. 16, quoting the reading of M. Dias, the then Director of Epigraphy and Numismatics at the Archaeological Department, Colombo.

<sup>235</sup> Correctly translated as “market-town (*niyamataṇa*)” already by Nicholas in 1959: 118 and 120.

<sup>236</sup> Bopearachchi 1997/8: 272 and 273. For the latter see also this study.

<sup>237</sup> Bopearachchi 1997/8: 272 only states that: “We obtained positive results from the excavations and explorations conducted at . . .” If the identification of modern Wattala with the Vattalaḡāma / Mahāvattalaḡāma of the Clv. is correct, then this place is first mentioned in the thirteenth century (see Nicholas 1959: 120). For Nicholas’ equation of Salāvattoṭa = Chilaw (91 and 104) there seems to be no supporting evidence. Geiger 1960 makes no mention of Salāvattota, as it is not mentioned in the chronicles.

## Mātara

- 14 (exclusively?) Late Roman gold coins; one struck by Theodosius II (420–450) and another of fifth century date [146]
- 1 Byzantine *semmissis* of sixth to eighth century date [145]
- At least 208 Nāimana imitations [144]

## Nāimana

- A total of at least 1,300 Nāimana imitations [149, 151, 152] but probably far more
- About 3,000 probable Roman *æs* coins [150]

## Hittetiya

- 300 probable Roman *æs* coins [148]

Additionally, in the hinterland of Mātara, about five miles up the Nilwala Gaṅgā, a total of at least 450 Late Roman *æs* coins have been found at Kitalagama [155, 156]. Further north, about twenty-five miles from Mātara, ancient beads have also been found at Deniyaya (de Silva 1975: 251, 1920.10.1.1–21). The village of Polommaruwa [158], where more than 2,000 Nāimana imitations have been found, is situated just twenty miles along the coastal road east of Mātara, while Hakmana [157], depicted as ‘Haikman’ on a map of the early eighteenth century (Valentyn 1724: map 7), is also known in connection with imitations and lies ten miles northeast of the town. In the other direction, just thirteen miles northwest of Mātara, an Arab-Byzantine *solidus/dinar* of seventh century date has been found at Paragoḍa [142]. This find, together with the first two Mātara entries cited above, point to the later ‘international career’ of this port. Additionally, and only to complete the general picture, the dubious hoard of Roman silver coins allegedly discovered about eleven miles from Mātara, up the Nilwala Gaṅgā at Andanakatahela near Akuressa [143] can also be mentioned here. Three early Śrī Laṅkān gold pieces from the end of the tenth or beginning of the eleventh century may also have come from the Mātara area<sup>238</sup>. Furthermore, the large reconstructed Nāimana hoard [152] contains imitations that are evidently younger than the bulk of imitation specimens. Judging by the types reflecting Roman/Byzantine patterns, and the late Brāhmī used on them, these examples must be dated to the sixth or even seventh century. This brings us closer in time to the above-mentioned *solidus/dinar* also discovered in this area, and increases the

probability of mercantile activity here in the sixth and seventh century.

The strong evidence gained from the coin finds, making Mātara the best candidate for having been an emporium, is supported by nautical observation. Assuming that there have not been any dramatic changes in the geomorphological conditions, Mātara must have had ideal prospects<sup>239</sup>. Its harbour is situated at the mouth of the Nilwala Gaṅgā, which facilitates the transport of goods into the hinterland. According to Tennent (1860: 34), the Nilwala Gaṅgā was navigable by canoes and flat-bottomed boats for about fifteen miles. That this waterway and its tributaries were indeed used for this purpose is proved by the coin finds at Hittetiya, Nāimana, Kitalagama, Badulla, and in the River Badulla, and perhaps also at Akuressa; all of which were discovered very close to the river network. Moreover, the town of Mātara itself, with its natural harbour, is perfectly protected by an elongated peninsula extending in an east-west direction<sup>240</sup>.

Judging by the location of finds, the main direction of distribution was eastward, towards Tissamahārāma. There is currently very little information available concerning settlements and population in this area during ancient times, and more extensive data is only available for the mediaeval period (see Nicholas 1959: 59–73).

The Kamuhajivi vihāra, a monastery of fourth century date, was located to the east of Mātara, in the Ranna area, about one and a half miles west towards Tangalla, and the fifth century Vigamuva (modern Wigamuwa) vihāra was also situated in the same region. Finally, the Kahagal vihāra, erected or restored in the seventh century, was also located here (Nicholas 1959: 68f.). It is notable that the large coin hoards of Rekawa, Kapuhena, and Polommaruwa were discovered only a few miles southwest of the Ranna/Wigamuwa area.

<sup>238</sup> One specimen of the type illustrated by Codrington in 1924: pl. 57, was offered to Biddell in January 1931 as noted in his journal (p. 68, no. 1496): “Br(ough)t. by trader (?Matara) to Mount”. The other two specimens were of the Codrington 1924: pl. 64 type (journal p. 71, no. 1567) and pl. 67 type (journal p. 73, no. 1603); both obtained on 21.7. (or 8?) 1932, from a “MATARA Trader”.

<sup>239</sup> See Preu 1989: 28, concerning the ports of Galle, Weligama and Mātara, as well as Preu 1989 and 1991 in general for the geomorphology of the southwest coast.

<sup>240</sup> See the various maps in Muthumala 1999.

East of Ranna, we have only the unconfirmed hoards of Hungama and Lunama. Farther east, and close to Bēragama, lay the Velgam vihāra – which seems to have been an important monastery in ancient times – and the Galluvila dāgoba (CAR Archaeology 1933: J 16). Because of its proximity to these sites, Bēragama is therefore a possible location for coin finds, but not to the extent claimed. To the west of Mātara lay the coastal town of Kalutara, and the great vihāra mentioned in the fourth to fifth century inscription. Unfortunately, we have only the unconfirmed discoveries of about 800 Nāimana imitations [129] and c. 1,500 Roman coins [130] associated with this area, both of which may nevertheless be possible in the light of the inscription. Judging by the coin finds discovered in Rohaṇa therefore, we may categorically reject the generalised statement, “that the South-West appears to have been hardly peopled from the first century AD to the tenth century AD. Small settlements may have persisted along the coast” (Roberts 1971: 108).

Comparable observations have been made for India, both on the coast and in the interior. Buddhist sites came into being along the trade routes, at places close to the coast, or near ports (Padma 1993; Ray 1994: 136–143). Coins have been discovered at several of these religious complexes, and have been interpreted as evidence of the mercantile activities connected with these places. The interaction between the merchants and the saṅgha are evaluated, however, in a different manner than that suggested for Śrī Laṅkā in this study. In the case of the Indian monasteries, the importance of donations to the clergy comes to the fore, i. e. financial support from the merchants to guarantee the continued existence of the Buddhist complex<sup>241</sup>. Naturally, similar donations were also made to Śrī Laṅkā Buddhist monasteries as well. In these cases, however, besides royal donations, it was mainly private individuals who gave to the saṅgha. At the same time, it seems to be more than a mere coincidence that in the Gupta realm around the end of the fifth century: “A growing body of deeds, preserved on metal plates and stone, described the alienation of rights to land, taxes, or labor to ritual specialists (*brahmanas*) or temples” (Heitzman, s. v. *India [Patterns of Regional Growth]*, Oxford Encyclopaedia of Economic History 2003). Evidently, the clergy was an important economic factor at that time in India as well as in Śrī Laṅkā.

In conclusion, we may surmise that the coin evidence from Śrī Laṅkā shows a combined migration or distribution of coins from Mātara, in both western and eastern directions; not only along the coastal road, but also by coastal navigation. In both cases, the coins found in the coastal regions reflect internal commercial transactions, most probably the gathering or collection of local products to be brought to Mātara and from there traded internationally. Classical Greek and Roman authors mention the products of Śrī Laṅkā, including gold and silver, precious stones, tortoise shell, rice, honey, and ginger. The most disputed item in this context is whether the island exported cinnamon in antiquity. Most scholars agree that commercial trading of this spice commenced only in the Middle Ages, from around the thirteenth or fourteenth century<sup>242</sup>. This suggestion is supported by the testimonies of the Greek and Roman writers, none of whom mentions Śrī Laṅkā in connection with cinnamon. At most, there are only a few vague hints to knowledge of the true origin of this spice (RE, s. v. *Casia*, col. 1641 [Onesikritos]; Fallér 2000: 43 f. [Strabon]). In any case, the ancient Mediterranean world knew of cinnamon and a Śrī Laṅkā origin for this spice is possible. According to Weerakkody, cinnamon is first mentioned in Sinhalese literature in the tenth century, and it was probably in the southern part of the island, i. e. in Rohaṇa, where cinnamon was grown: “This plant grows best in the south-west of the island” (Weerakkody 1993: 38). In the eighteenth century, a tax called *Roenebadde* (Sinhalese *Ruhunabadda*) was imposed on the cinnamon peelers in this area (Arasaratnam 1978: 85). The area of origin extended north up the west coast of the island to Puttalam, where Ibn Baṭūṭā in the first half of the fourteenth century saw many cinnamon trees on the shore, brought down by river to the coast (Ibn Baṭūṭā, *Voyages*, p. 166; RE, s. v. *Casia*, col. 1643). Although it is highly speculative to conclude from mediaeval and early modern sources that the same or comparable conditions prevailed in antiquity, it is not however improbable that this native product of Rohaṇa was also traded in the densely inhabited coastal regions of the dominion. As a final object of speculation in this context, a passage written by François Valentyn in 1724

<sup>241</sup> For this aspect, see esp. Gokhale 1977 *passim*.

<sup>242</sup> For a comprehensive discussion of this question see RE, s. v. *Casia*.

can be quoted in full and without further comment (Arasaratnam 1978: 95f.):

“If it is true, , that in the time of Pope Paul <Paul IV, 1555–1559> a piece of cinnamon wood was found (which was preserved by the Romans as something valuable) which appears from its inscription to have been there at the time of Emperor Arcadius, son of Theodosius, who was living in AD 397 which is 126 years after the time of Claudius, it could well be that it was brought by the above mentioned <Śrī Laṅkān> ambassadors as a present to the Emperor <Claudius> when they came to Rome with the freed slave <the renowned *libertus* of Annius Plocamus, whose story is narrated by Plinius>”.

## 8.2 ROHAṆA: THE LITERARY EVIDENCE

In determining the geographical distribution of coin finds on the island (see chapter 8.1), it is clear that in the fifth and sixth centuries we should expect the emporium and the harbour to be in Rohaṇa, and not in the north as has always been assumed. In the description of the island given by Kosmas Indikopleustes, we find an apparently contradictory statement that of the two reigning kings, one possessed the harbour and the market place, while the other allegedly ruled the hyacinth country, i. e. the land where the hyacinth stones (zircons) were found. However, this is due to a rather free translation of the second part of the sentence. In fact, Kosmas only says that of the two kings, the second was ὁ εἷς ἔχων τὸν ὑάκινθον, i. e. ‘he who possesses the stone’, but not necessarily the land where it was found<sup>243</sup>. Using the singular, Kosmas obviously refers to the famous stone placed on a temple that is mentioned later in the same passage, and which was, perhaps, the renowned jewel known to voyagers several centuries later (Tennent 1860: 480, n. 6; Schwarz 1975: 481–483). Even if we accept hypothetically the free translation of this sentence, we still do not know from which part of the country gems were extracted in antiquity. It is only conjectural to assume that the modern centre of gem mining in the Ratnapura District is the same as the ancient mining centre<sup>244</sup>. Presupposing, “that in ancient times the gems were much more numerous than they are to-day” (Cook 1951: 201), the original source of the hyacinth remains obscure. For example, even today, sapphire and beryl can still be found near Kandy

(Cook 1951: 74). However, even if we accept the free translation without any reservation, and the identification of the Ratnapura District as the ancient centre of gem mining, the quotation from Kosmas Indikopleustes is not at all contradictory to the solution proposed. Although governed by two sons of King Silākāla (524–537), the gem areas in Malaya<sup>245</sup> and Dakkhiṇa-desa were controlled by the central government in Anurādhapura. Hence, the sovereign in Anurādhapura possessed the gems, while the sovereign at Tissamahārāma possessed the market place and the harbour. This is a confirmation of the account handed down by Plinius (*Nat. hist.* VI.22(24).85), based on information given by Śrī Laṅkān envoys who visited Rome during the reign of the emperor Claudius (41–54). Besides other details of interest, it is reported that there was a, “portum contra meridiem adpositum oppido Palaesimundo omnium ibi clarissimo ac regio (regia)”, i. e. a harbour facing south.

The descriptions given by Plinius and by Kosmas are in perfect accord with what is known as the port-of-trade system. This denotes that one particular port was exclusively chosen to act as an emporium for foreign merchants, facilitating the supervision of traders and their transactions<sup>246</sup>. This system is already attested by the existence of an institution called ἐμπόριον νόμινον, mentioned thrice in the *Periplus Maris*

<sup>243</sup> This has already been observed by Tennent (1860: 480, n. 6). Others, adhering to the free translation, include for example de Romanis 1988: 53 and 1997: 196–198, Weerakkody 1997: 245, and Faller 2000: 157.

<sup>244</sup> Faller 2000: 157, referring to Schwarz 1975: 479, assumes this identity.

<sup>245</sup> The origin of gems from this region is already attested in the Dipavaṃsa 11, 19–20, referring to the third century BC.

<sup>246</sup> Leeds (1961: 27) already gives a condensed description of such a place: “The term refers to a geopolitical unit in which trade was an affair of state, a function of the polity rather than of the economy. The general characteristics of the port-of-trade follow: 1. It was an autonomous, specialized town, city, or small state, intended by policy to serve as a meeting place for various groups of traders, usually foreigners. 2. It was usually a point of transshipment between distinct ecological regions... 4. Often the port-of-trade itself had no indigenous group involved in the actual exchange of goods other than the port officers who administered the transactions without themselves being party to them. 5. There were often groups of foreign merchants resident in the port-of-trade”; Polanyi 1963; Raschke 1978: 673f. and especially n. 1611ff.; Möller 2000: 19–25, clearly defines in detail the characteristics of a port of trade.



*Erythraei*, and which denoted a “legally limited port” (Casson 1989: 274–276; see also Salles 1993: 510). *μεσῆτις οὐσα* Śrī Laṅkā, at the latest by the middle of the sixth century, served as a ‘meeting-point’ for traders coming from the kingdoms of Aksūm, South-Arabian Ḥimyar, Persia and India in the west and from China in the east (Kosmas Indikopleustes XI, 445 D and 448 A). Of course, all these traders had to know where and when they were to meet, in order to avoid searching for trade partners or waiting for long periods<sup>247</sup>. From their own point of view, it was consequently natural and necessary to establish a single harbour as their main ‘port of trade’. Besides the immediate exchange of goods, information concerning offers and orders for the following year could also be collected here. Obviously, trade between reliable business partners who had known each other for many years, was much more convenient and secure than trade between unknown and constantly changing clients. In the latter case, it was time-consuming and cost-intensive for traders to have to locate one another each time on the basis of what economists call a ‘double coincidence of wants’. However, such fixing of the trading location could only have taken place in cooperation with the Śrī Laṅkā authorities in Rohaṇa, as these would have been responsible for the appointment and residence of the customs officials. In addition, the government representatives here could claim a percentage or had privileged purchase rights on all imported foreign goods. That the state of affairs described by Kosmas in the middle of the sixth century had also been the same much earlier is evident from the well-known story of Sopatros, narrated by Kosmas in his text (Kosmas Indikopleustes XI, 448 B – 449 A). The voyage of this merchant from the Ethiopian port of Adulis to Śrī Laṅkā is datable to the second half/end of the fifth century, and trade conditions do not appear to have been any different around the middle of that century. At about this time, it is reported by Palladios that on the island, “de Æthiopiæ et Persiæ finibus, et Auxmitarum locis ibi mercatores emendi, vendendi, permutandæque rei gratia conveniunt” (Palladios III, 7).

The one-port-only phenomenon can also be observed some centuries earlier in South India. According to the *Periplus Maris Erythraei*, there were only two *emporía* on the Malabar Coast – Muziris and Nelkynda – of which the first was the most prosperous due to its

contacts with northwest India and with the Greeks (*Periplus Maris Erythraei* § 55). The goods obtained from this trade were distributed by local, coastal seafaring as far as the ports of the Coromandel Coast (*Periplus Maris Erythraei* § 60). To the north of Muziris and Nelkynda along the western coast of India, the same was true for Barygaza. Greek ships landing at other ports were escorted under guard to this emporium, where Indian merchandise was brought from inland and from the coastal regions (*Periplus Maris Erythraei* §§ 51 and 52).

Under this premise, we need to reconsider the numerous hoards of coins mapped like a string of pearls along the coast of Rohaṇa. Having located the principal port of trade, the other sites should consequently be regarded as secondary, i. e. the coins were brought to these places by local distribution, originating from a single, central location. The coin evidence has led already to the Mātara region, and we now need to carry out a crosscheck on the literary evidence for any indications that might support the former existence of a port-of-trade on the south coast of Śrī Laṅkā.

One indication of a harbour suitable for the landing of one or two large ships can be found in the Mahāvamsa; the passage is datable to the end of the first or beginning of the second century. When King Iḷanāga (93–102) returned from exile in South India, together with the army he had raised there to reclaim the throne in Anurādhapura, the ships landed in a haven named Sakkharasobbha (Mhv. XXXV.27f.). One or two ships would have been sufficient to transport the elite troops he brought with him<sup>248</sup>, as the main army was recruited in Rohaṇa. Sakkharasobbha cannot be located, but it has been argued that it lay close to Tissamahārāma (Geiger 1912: 321; Nicholas 1959: 66). This suggestion is verifiable, as the army had to proceed rapidly towards Anurādhapura, and this would only have been possible using the highroad between Tissamahārāma and Anurādhapura. Moreover, it was precisely here, in the densely inhabited eastern part of Rohaṇa – judging by the multitude of inscriptions preserved<sup>249</sup> – that Iḷanāga would have been

<sup>247</sup> See also Humphrey 1985: 48 and *passim* for modern procedures of barter.

<sup>248</sup> For the capacity of ancient Indian ships see Schlingloff 1982: 52f.

<sup>249</sup> See the map in Parnavitana 1970 showing inscription sites.

able to assemble a mighty force, as stated in the Mahāvamsa. Nevertheless, this haven of Sakkharasobbha, though capable, was not necessarily the main port of trade.

An often-quoted inscription of second century date, discovered in Rohaṇa and allegedly reporting that the king granted the custom-duties of the port of Goḍapavata – equated with modern Goḍavāya in the extreme south – to a vihāra of the same name, has recently been read anew – with sobering results. According to the new reading, this inscription only refers to an emporium and not to a port. In discussing the central term *paṭana* used in this inscription, Falk has been able to show that this term indicated a trading place where, “commodities arrive by land or sea-route” and, “which may have a port or not”<sup>250</sup>. This is in line with the observation that judging by its location Goḍavāya could not have been more than, “a hazardous anchorage for an occasional sailing ship”<sup>251</sup>.

As an alternative proposal, the harbour of Galle has been suggested as a major port site (Tennent 1860: 499). This is true for later centuries (Tampoe 1995: 171–182) but not for the period under discussion here.

The best candidate is Mātara. The village of Devinuwara (Devundara, Dondra) – known from the chronicles as Devanagara and first mentioned in the year 1041 – is situated only five miles southeast of Mātara. As the southernmost point of the island, Devinuwara was already known to the Greek geographer Ptolemaios in the second century as *Δαγάννα πόλις ἰερά Σελήνη*<sup>252</sup>. According to Sinhalese sources, the town itself was founded by Dappula I in the seventh century (Geiger 1960: § 8). In the Middle Ages, Devanagara was the site of a famous Hindu shrine dedicated to the god Vishṇu (Clv. 83.49), and Ptolemaios’ record clearly indicates that the worship of Vishṇu at this place might date back as early as the second century. The worship of the moon might be connected with the god’s avatāra of the turtle, as both are mentioned in the episode of ‘the churning of the sea’. The birth of the god Soma, the moon, is described here, as he was born from the churning of the sea. Therefore, it would be quite natural to create a place of worship for him on the seacoast. However, this is highly speculative. What remains is the fact that this region was known as a religious centre even to a Greek geographer of the second century. During the reign of Parakkamabāhu II (1236–1271), we

know from the Devinuwara slab inscription<sup>253</sup> that: “According to this epigraph the sea port of Devinuvara or Tendiratota was administered by an officer titled Mahāpandita. Custom-duties were imposed by the Mahāpandita and merchants were safeguarded from illegal imposts. Those coming from foreign countries were not allowed to set up places of business without permission and royal officials were required not to accept gifts from foreign merchants” (Siriweera 1998). From the twelfth century, we have literary evidence for trading activity within this region. Only about seven miles west of Mātara was the port of Vālukagāma, modern Weligama (Vāligama), where in the reign of Parakkamabāhu I (1153–1186) merchants lived, “to whom their life and their money were dear”<sup>254</sup>. Another two centuries later, Ibn Baṭūṭā observed that Devinuwara (Dondra) was also inhabited by merchants (Ibn Baṭūṭā, *Voyages*, p. 184).

Next to Devinuwara, Mātara is one of the southernmost towns on the island. Thus, it was the ideal meeting point for ships coming both from the West and from the East. Taking the southern monsoon route, ships from the Red Sea and the Gulf of Aden in the West inevitably arrived in India on the Malabar Coast, in the Kerala area. From there, the currents during the period of the southwest monsoon flowed south, reaching the west coast of Śrī Laṅkā in the latitude of the Puttalam Lagoon (c. 8° N), before passing down the coast to Mātara in the extreme south of Śrī Laṅkā<sup>255</sup>. In the other direction, i. e. to China, the sea voyage invariably started in the south of the island. This has been demonstrated by the reconstructed return journey of Fā-Hien to his homeland (Jacq-Hergoualc’h 2002: 51–53). Having sailed from Śrī Laṅkā presumably in

<sup>250</sup> Falk 2001: 328f. The author himself admits: “Because of some uncertainties the translation can only be provisional”.

<sup>251</sup> Nicholas 1959: 67; Roth 1998 and Kessler 1998 are of a different opinion.

<sup>252</sup> *Geographia* VII.4.5. Lassen (1858: 224) identifies *Dagāna* with modern Tangalla.

<sup>253</sup> Wijesuriya 1990: 195–198; esp. 197 where lines 24 and 25 concerning the Mahāpandita are discussed.

<sup>254</sup> Clv. 75.45f. For the colossal statue of a Bodhisattva dating from the ninth to tenth century, see Finot / Goloubew 1930: 642, Nicholas 1959: 71, and von Schröder 1990: 693.

<sup>255</sup> Tennent 1860: 35f. (text and drawing), and Cook 1951: 60f. (with fig. 19). See also Roth 1980: 319 fig. 4, and Kessler 1998: 15.

September 413, the captain of the vessel obviously headed for the northwest of Sumatra with the help of the southwest monsoon. This first part of the voyage is the only one of interest in the present context. In order to cross the Bay of Bengal safely, to reach Sumatra or at least a point on the southern coast of the Malay Peninsula, it was essential to catch the winds of the southwest monsoon off the southern coast of Śrī Laṅkā. The prevailing currents drove ships along the coast to the southeast corner of the island and then into the Bay of Bengal (Cook 1951: fig. 19).

As a concluding remark, one may state that after the middle of the fifth century, Mātara increased its former 'career' as a commercial centre in the Indo-Śrī Laṅkā trade (see below chapter 10), as attested by the finds of genuine Roman coins in this area. It became an internationally frequented emporium, as documented by the finds of Byzantine gold coins [145, 146] and by the Arab-Byzantine *solidus/dinar* found in the nearby village of Paragoḍa [142].

The role played by the southern dominion of Rohaṇa during this period is elucidated by various literary sources. The most comprehensive records are derived from the Śrī Laṅkā chronicles; the Mahāvamsa and the Cūlavamsa, including passages based on a now lost, 'Chronicle of Rohaṇa' (Geiger 1929: 261 ff.; Clv. p. 92 n. 3), incorporated for example in the Cūlavamsa. 45.38–81. The former existence of such a chronicle is itself an important indication of Rohaṇa's once exceptional status.

The territorial extent of Rohaṇa can be precisely described. Starting in the west at Kalutara and following the Kalu Gaṅgā to Ratnapura, then turning south, following the road to Pelmadulla – Opanake – Balangoda – Belihul Oya – Wellawaya – and Buttala. From here, following the upper Mānik Gaṅgā north to Passara, and continuing north by road to Bibile and Mahiyangana, before finally following the Mahaweli Gaṅgā to its mouth at Mutur.

This study is focused on the 300 years of Śrī Laṅkā history between the reign of King Mahāsena (334–362) and that of Dappula I (up to 653), who was king at Anurādhapura for seven days in 650, and afterwards reigned in Rohaṇa for another three years. The beginning of this period was chosen because the Late Roman coins issued by members of the contemporary Constantinian dynasty could theoretically have been first brought to the

island during the reign of Mahāsena, while the end of this period was fixed in the mid seventh century because a fragment of the 'Chronicle of Rohaṇa' terminates with the death of Dappula I.

In general, information on Śrī Laṅkā internal affairs, the topographical details of the island, and its relationship to neighbouring South India have been handed down in the Mahāvamsa, the Great Chronicle. The first part of this chronicle was written in the fifth century, while its continuation, known as the Cūlavamsa, dates from the thirteenth century.

Local epigraphic records, from throughout the centuries, provide us with many valuable data concerning the use of coins and other media of payment.

Classical Greek and Roman writers also contribute greatly to our knowledge of ancient Śrī Laṅkā. The data provided include geographical and topographical details, the minerals and products of the island, internal affairs, commercial relations with other countries in the East and West, as well as embassies – whether authentic or alleged – sent to the Roman Empire.

When describing contacts between China and Śrī Laṅkā, the Chinese sources are mostly confined to the listing of embassies. Only in a very few cases are detailed reports concerning the island given, as for example in the records of the Buddhist pilgrims Fā-Hien in the fifth and Hiuen Tsiang in the seventh century.

However, from a chronological point of view, we must first examine a western source. This record has been handed down to us only indirectly. In a later Armenian geography of the seventh century, geographical fragments have been preserved that were written by Pappos of Alexandria in the first half of the fourth century. These in turn are mainly based on the geographical work of Ptolemaios. What is important in this context is the fact that Pappos uses a different nomenclature from that of Ptolemaios when he states that on the island there were two cities located 150 miles apart, of which one was named Manakor and the other Royan (Pappos, 'The thirty-sixth country', in Hewsens p. 205). I think we can be quite sure that Royan in fact denotes Rohaṇa<sup>256</sup>, and not a city. This fourth century name is closer to the Śrī Laṅkā original than

<sup>256</sup> Weerakkody (1997: 102) has already hesitantly pointed to this possibility.

that of Ptolemaios. In his description of Śrī Laṅkā, the southernmost inhabitants dwelling there are named Ῥοδαγγᾶνοι (other mss. have Rhogandini, Rondagani, Rhagandani and Rhogandani)<sup>257</sup>. According to Lassen (1858: 222), the Greek word is a corrupted version of the native Rohaṇaṭhāna. The Pāli word *ṭhāna* means ‘place, region, locality’ (PTS 289), so that Ptolemaios’ expression can be translated as the, ‘region of <the inhabitants of> Rohaṇa’.

During the reign of King Mahāsena (334–362), Rohaṇa was obviously subject to the central government at Anurādhapura. The chronicle (Mhv. 37.41 and 37.47) describes the construction by Mahāsena of two vihāras and a tank in the territory of Rohaṇa.

Next chronologically is a lithic record. It is only from a slab inscription found at Kataragama (Moneragala District, Southern Province) that we know of the existence of an otherwise unrecorded sovereign named, ‘Mahadaḷi Mahana Raja, son of Prince Saratara’. The inscription has been dated on palaeographical grounds to the late fifth century<sup>258</sup>. The partly confusing constructs given by the editor of this inscription need not be discussed here. Suffice to say that we do not have to rely on any speculations about a local ruler in Rohaṇa who gained sovereignty only during the unsettled period after the death of Mittasena, when the Tamils ruled for twenty-seven years at Anurādhapura. Likewise, there is no reason to construct a speculative genealogy of Tamil rulers based on hypothetical name equations, arguing that one of them, Dāthika (allegedly Mahadaḷi Mahana), the successor of Tiritara (allegedly Saratara), may have extended his territory as far south as Rohaṇa<sup>259</sup>. What is clear is the fact that, if correctly dated, a local king is attested at Rohaṇa in the late fifth century.

An event that took place around the middle of the sixth century throws some light on the puzzling history of Rohaṇa. This is the revolt of Mahānāga, the royal collector of revenue, who later became Andhasenāpati<sup>260</sup> and finally king at Anurādhapura from 556 to 559. The Cūlavamsa (Clv. 41.89) states that: “He made of Rohaṇa a territory whose products fell exclusively to himself and took up his abode there”. As Mahānāga was sent to Rohaṇa by the king in order to collect taxes there, this province must have been part of the territory ruled by the central government in Anurādhapura at that time. Therefore, we either have to presume the existence of a viceroy at Tis-

samahārāma, who was perhaps a member of the royal family, or we must think in terms of a certain number of local chieftains, who were tributary to the king. The latter seems to be the most likely possibility, as Mahānāga was able to establish himself as the local ruler of Rohaṇa, where he became powerful enough to later successfully wage war with the king at Anurādhapura. In the present context, it is of particular significance that the revenues collected by the Rohaṇakammika<sup>261</sup> Mahānāga consisted not of coined or bulk metal but of, “many goods which were produced there <i. e. in Rohaṇa>” (Clv. 41.86).

During the reign of Moggallāna III (611–617), we are told of a royal sword-bearer who fled together with his son to Rohaṇa: “Dwelling there he soon brought the land into his power” (Clv. 44.55). In 617, after having killed Moggallāna III in battle, the sword-bearer became king at Anurādhapura, where he ruled as King Silāmeghavaṇṇa up to 626. By marrying his daughter to Dappula of Rohaṇa, called ‘Great Lord’ in his own land, and conferring on him the title of *yuvārāja*, thereby making him the legitimate heir to the throne, the king in Anurādhapura clearly regarded the independent southern sovereign at Tissamahārāma as being of equal rank. Before this, the elder brother of Dappula, called Aggabodhi, had already been regarded as, “the independent ruler over the province called Rohaṇa” (Clv. 45.41). As Dappula’s mother is described in the ‘History of Rohaṇa’ (preserved in Clv. 45.38–82) as having been the daughter of the ruler of Rohaṇa, it is obvious that Silāmeghavaṇṇa, the former sword-bearer and now king at Anurādhapura,

<sup>257</sup> Geographia VII.4.9. The trustworthiness of Ptolemaios’ description has been repeatedly stressed, as for example by Schmidt-Kraepelin 1968: 66, who states: “Alles in allem ist die Ptolemaeus-Karte jedoch weit besser als alle aus den folgenden 1400 Jahren bekannten arabischen, spanischen und portugiesischen Ceylon-Darstellungen”.

<sup>258</sup> Edition, translation, and commentary by Paranavitana 1933h: 216–219; Paranavitana 1933 g: 181 f.; Mudiyanse 1990: 127 f.; Uduwara 1991.

<sup>259</sup> Paranavitana’s interpretation has already been doubted; see Uduwara 1991, in the comment to line 1.

<sup>260</sup> For this difficult to explain title see Geiger 1960: 142. However, ‘senāpati’ alone (comparable to a modern supreme commander of the forces) denotes one of the highest government positions. Strictly speaking, the Pāli ‘senāpati’ must be translated only as ‘general’ (PTS 723), but for the meaning of this title see Nicholas 1950: 116–118 and Geiger 1960: 131 and 142.

<sup>261</sup> For the title and its interpretation see Jayawardana 1952: 216 f.

must have established his rule over only a part of Rohaṇa's territory, most probably in the north. As he entered Anurādhapura in the same year, and thus left the sovereignty of the Great Lord at Tissamahārāma untouched, a peaceful coexistence was possible.

From the introductory sentences of the Cūlavamsa passage quoted above, dealing with the history of Rohaṇa, it seems clear that this region had always held an exceptional status. There are two more events recounted in the Cūlavamsa that support this view. When King Silākāla (524–537) handed over certain provinces to his two eldest sons, the first was given Pācina-desa (Eastern Province) but was sent there only with the words: "Go and dwell there". The second son however was given the two provinces of Malaya and Dakkhina-desa (Southern Province), with the chronicle narrating that the king "entrusted him with the care of the sea-coast" (Clv. 41.33–36). This is doubly informative. In the second quarter of the sixth century, Rohaṇa was obviously not under the rule of the king in Anurādhapura, as it is not mentioned here, while the care of the west coast between Kalā Oya and Kalu Gaṅgā was clearly considered of special importance (see below).

At the beginning of the seventh century, Aggabodhi I (601–611) handed over what appears to have been his most important southern province to the heir to the throne – this becoming customary from that time onwards – while his nephew was enthroned as king of Malaya (Clv. 42.6–8). Again, Rohaṇa is not mentioned. However, a century later, a 'King of Rohaṇa' is attested by a Chinese source, and was considered important enough to be visited by a Chinese traveller (Lévi 1900: 420 and 426f.; Senaveratne 1916: 109). The geomorphological features of this region were obviously responsible for Rohaṇa's exceptional status. It was difficult to access by land, and therefore hard to administer or control, and it is described in the Cūlavamsa as, "Rohaṇa with its terrible wilderness" (Clv. 51.136).

At this point, a short synopsis of the chronological data associated with the history of Rohaṇa, as discussed above, might be helpful:

1 <sup>st</sup> half of the 4 <sup>th</sup> century	Rohaṇa is mentioned in the work of Pappos
334–362	Rohaṇa is subject to King Mahāsenā at Anurādhapura

c. 480/500	An inscription of an independent Rāja in Rohaṇa
524–537	Rohaṇa is not mentioned with the other provinces (Clv.)
before 550	Two kings of Śrī Laṅkā are mentioned by Kosmas (see below)
about 555	Mahānāga becomes local ruler after usurpation
601–611	Rohaṇa is not mentioned with the other provinces
611–617	A royal dignitary becomes local ruler
from about 617–653	Rohaṇa independent (from the 'History of Rohaṇa', preserved in Clv.)
705–715	The 'Chinese' Buddhist monk Vajrabodhi visits the King of Rohaṇa

Throughout the period under review, the dominion of Rohaṇa was always the main destination for refugees who had to flee from the capital, for whatever reason. The first of these events took place during the reign of King Mahāsenā (334–362), when monks of the abandoned Mahāvihāra moved to Malaya and Rohaṇa (Mhv. XXXVII.6). One of the most prominent examples of a mass-exodus is that which took place after the usurpation by South Indian invaders. After having defeated the Śrī Laṅkā king Mittasena in 436, the Tamil victor Pāṇḍu ascended the throne at Anurādhapura. This was the beginning of a foreign rule that was to last for twenty-seven years. The Cūlavamsa records that after the lost battle: "All the kinsmen of the noble families betook themselves to Rohaṇa, on this side of the stream the Damiḷas ruled" (Clv. 38.12). The stream mentioned here is the Mahaweli Gaṅgā, the natural boundary of Rohaṇa in the Northwest. The road chosen must have been the one leading from Anurādhapura via Polonnaruwa and Alutnuwara to Tissamahārāma, the final destination of their journey<sup>262</sup>. For a great number of people, who were used to living as members of the court and among the noble families of Anurādhapura, the capital of Rohaṇa was the only acceptable or possible

<sup>262</sup> Cook 1951: fig. 9, showing the ancient roads indicated in the Mahāvamsa.

alternative. Another high-ranking fugitive also followed the ancient road described above in the seventh century. Fleeing to Rohaṇa in 611 however, King Saṅghatissa, accompanied by his son and a loyal minister, only got as far as Maṇihira (modern Minnēriya), about ten miles west-northwest of Polonnaruwa. Here they were captured by their persecutors serving the usurper Moggallāna III, and they were brought to, “the secure and safe Sihagiri”, where the king and his son were executed (Clv. 44.30ff.).

In c.640, the defeated king Aggabodhi, “betook himself to Rohaṇa to restore his army and train” (Clv. 44.143). Ten years later, under a mock treaty with the South Indian Tamils, who had just been expelled from the island but were now invading again, “he <the king> sent all provisions found in the palace <at Anurādhapura> to Rohaṇa to secure them from the enemy” (Clv. 45.17). This action in the year 650 was the immediate cause of war with the invaders and local Tamils led by the later king Dāṭhopatissa II.

The material gathered here from native sources leaves no doubt that, from the late fifth to at least the mid-seventh century, Rohaṇa was a dominion governed by an independent ruler, called (either generally or temporarily) ‘Great Lord’. A foreign source confirms this statement:

δύο δὲ βασιλεῖς εἰσὶν ἐν τῇ νήσῳ, ἐναντίοι ἀλλήλων ὁ εἷς ἔχων τὸν ὑάκινθον, καὶ ὁ ἕτερος τὸ μέρος τὸ ἄλλο, ἐν ᾧ ἔστιν τὸ ἐμπόριον καὶ ὁ λιμὴν (Kosmas Indikopleustes XI, 445C).

This passage, taken from the topography of Kosmas Indikopleustes, is of central significance for the history of Rohaṇa. Written about 550, it throws some light on the island’s political geography, even though it is doubtful whether Kosmas himself ever visited Śrī Laṅkā (Jayawardana 1951: 37; Cansdale 1995; Faller 2000: 152f.). Either overlooked or misinterpreted by scholars dealing with the commercial history of this period, it provides at least two important pieces of evidence concerning the political and geographic structure of ancient Śrī Laṅkā. Examining the passage in detail, the expression ἐναντίοι ἀλλήλων can be interpreted in two ways. The word ἐναντίος can mean either ‘to lie or to stand opposite’, or ‘hostile’. In the first case, we have a merely geographical description, expressing that there were two rulers governing territories lying opposite to each other. In the second however, the phrase denotes a political confrontation,

where the two sovereigns additionally behave in a mutually hostile manner. The latter is the usual – but unproven and highly speculative – interpretation adhered to by most scholars, suggesting a number of political possibilities (e.g. Weerakkody 1997: 137f. and Faller 2000: 156f.). The most tempting is the well-known story of the parricide Kassapa and his brother Moggallāna, as narrated in the Cūlavamsa (Clv. XXXIX ). However, those scholars (e.g. Bopearachchi 1992: 116, quoted by Mango 1996: 157; Weerakkody 1997: 137; Faller 2000: 156f.) who try to identify the two kings mentioned by Kosmas with these historical individuals, should take into consideration what the Cūlavamsa really says: “Now in the eighteenth year the royal hero Moggallāna came thither . . . from Jambudīpa and collected troops at the Kuṭhāri-vihāra in the Ambaṭṭhakola district” (Clv. 39.20–22). As this can be located roughly northeast of Kurunēgala (Mhv. XXVIII. 20, n. 1; Nicholas 1959: 107), Moggallāna most probably disembarked somewhere on the west coast. A suitable landing place would have been modern Colombo<sup>263</sup>, as from there he and his twelve friends could have rapidly proceeded to the Kurunēgala area on the roads leading to the north and northeast (see Cook 1951: fig. 9). Moggallāna returned from continental India in the eighteenth year of Kassapa’s reign<sup>264</sup>. Although the Cūlavamsa is mute on his fate during this period, it is clear that he must have been absent from the island, and thus could not have been the second king ruling in Śrī Laṅkā mentioned by Kosmas. Furthermore, there is also a chronological problem. Kosmas wrote in about 550 using the present tense (εἰσὶν) when relating the state of affairs in Śrī Laṅkā – and in fact he precisely describes the political and topographical realities of that time<sup>265</sup> – whereas Kassapa ruled much earlier in 478–496. Hence, there is also no necessity to presume that Kosmas’ topography was based

<sup>263</sup> Without quoting any authority, Lassen (1861: 292) has already stated as a matter of fact that Moggallāna landed in the region of modern Colombo.

<sup>264</sup> *Jambudīpa*, as a name for continental India, occurs again in a fifth century context in Clv. 37.216. South India, on the contrary, is described a little later in Clv. 38.11 simply as “the opposite coast”.

<sup>265</sup> This interpretation has already been preferred by Tennent (1860: 480), though he does not definitively exclude (n. 5) the ‘hostile version’. Schwarz (1975: 479) rightly argues in favour of the ‘geographical version’.

mostly on information he had received from Sopatros more than thirty-five years before, or to argue that the dichotomy of the island refers to the well-known Pāṇḍya invasion of 436 and the subsequent flight of the nobles from Anurādhapura to Rohaṇa<sup>266</sup>. Staying close to the source itself, we have to acknowledge that the story of Sopatros is only inserted as a kind of appendix, annexed by Kosmas to his description of the island. Although the story concerning the high estimation of Roman money is topical, it also provides some valuable data<sup>267</sup>. For example, the existence of *τελώναι* is informative, indicating a well organised mercantile system. Foreign merchants were received first by the customs officials<sup>268</sup>, who obviously had to inspect the cargo of the ship(s) and to estimate its value.

As already attested by Ptolemaios (Geographia 7.4.10), Kosmas describes a royal residence at Anurādhapura (Ptolemaios' *Ανυρόγραμμον*<sup>269</sup> *βασίλειον*). Lying opposite to it was Tissamahārāma (Ptolemaios' *Μαάγραμμο* v = Mahāgāma), the capital of an independent Rohaṇa, as indicated by Ptolemaios only with the term *μητρόπολις*, denoting a capital city and the seat of the Rohaṇa government<sup>270</sup>. The importance of Rohaṇa was still attested by Arab geographers in the ninth century, when they referred to Adam's peak as *Al-roboun*. It is stated here as well that two kings governed the island (Reinaud 1845: 5f.).

<sup>266</sup> De Romanis 1988: 51–54. It has been convincingly expounded by Schwarz (1975: 484) that Sopatros arrived on the island after the termination of the Pāṇḍyan occupation, i. e. after 463.

<sup>267</sup> Schwarz (1975: 484) has pointed to the mixture of topical and actual narratives in the story of Sopatros.

<sup>268</sup> Not "tax collectors", as translated by Weerakkody (1997: 245).

<sup>269</sup> The etymology according to Lassen (1858: 283): Ptolemaios' *Anurogrammon* = Sanskrit *Anurādhāgrāma* = village of Anurādhā.

<sup>270</sup> See also Faller 2000: 124f., in rightly refuting Weerakkody, who does not agree with the equation *Μαάγραμμον* = Mahāgāma.

## 9 Some considerations on the monetary and economic history of Śrī Laṅkā in general, and of Rohaṇa in particular

### 9.1 INTRODUCTORY REMARKS

In regard to the use and manufacture of coins in general, the following statements can be made: “The spread of the circulation and production of coinage is suggestive in general terms, but neither the presence nor even the production of coinage in a given area is a sure indication of the extent and nature of the use of money” (Howgego 1995: 21). Moreover, “it cannot be repeated too often that appreciable numbers of hoards from a given area do not necessarily reflect a plentiful supply of coin in that area” (Hendy 1985: 301 n.224), and that “access to and involvement in international commerce does not necessarily promote the adoption of a monetary system to facilitate that trade” (Wicks 1992: 109).

When applied to fifth century Śrī Laṅkā, and to the Roman coins and their imitations found on the island, these principles highlight the fact that we do not have a single piece of evidence for the actual use of these specimens; for example as a medium of exchange (trade), for a payment of any kind (services, taxes, civil servants, military personnel), or for the storage of wealth etc. In the best instances, we can only offer more or less plausible suggestions, based on the answers to the following two, central questions:

- How were Roman coins used in Śrī Laṅkā?  
and
- Who manufactured the imitations and why?

When discussing the economic history of ancient Śrī Laṅkā, most scholars presume the existence of a monetary economy on the island, in which people were accustomed to handling money in the modern meaning of the word, i. e. as a medium of exchange in everyday transactions. The sequence of coins established by Codrington in 1924 is widely accepted for the ancient period; starting with punch-marked

coins and ending (roughly speaking) with the minting of the first Śrī Laṅkā coins in the tenth century. However, this generalised overview is now hard to accept, as the analysis of the coins themselves, the inventories of the hoards, and their geographical distribution, raise some awkward and difficult questions.

Firstly, we need to ask which specimen types can really be accepted as money? Secondly, where did these come from? And thirdly, how were they used in Śrī Laṅkā? As far as we can tell, there is very little solid ground to stand on. Only the punch-marked coins and their imitations (blank ingots), and the Roman *æs* coins with their imitations, can now be accepted as having once been media of exchange, at least in a limited way. On the other hand, the goddess plaques, maneless lion tokens, and ‘earliest inscribed coins’ can definitely be rejected in this regard.

By summarising and partly anticipating the results of this study, the answer to the question on the nature of early Śrī Laṅkā monetary conditions is simple and straightforward: There were two kinds of money – an ‘all purpose money’, and a ‘special purpose money’<sup>271</sup>. The Śrī Laṅkāns made use of only two sorts of foreign coin: Indian punch-marked coins – and their locally manufactured cast imitations – were accepted all over the island as media of exchange, while Roman coins were confined almost exclusively to the territory of Rohaṇa. The latter, like the imitations of them manufactured in the south and often ‘signed’ with Buddhist symbols, served as special purpose money, and were connected in some way with religious sites. This is clear at least from the symbolism used on the imitations.

<sup>271</sup> For the definition of these expressions and further examples, see Grob 1999: 21ff.





Fig. 255. *Pūrṇaghaṭa* on a Nāimana imitation (enlarged × 2).

The often heart-shaped *pūrṇaghaṭa* (overflowing jar) depicted in the left field (Fig. 255), is a well known religious symbol found on many stone monuments at sacred sites, for example at Anurādhapura and Mihintalē (Boisselier 1979: figs. 4, 9, 13, 43, 75, 80; von Schröder 1990: figs. 94A-H). A quite unusual representation of this vessel is known from Tām(r)alīptī (modern Tamlūk in West Bengal). Here, a probably Śuṅga period terracotta plaque of the second century BC has been unearthed showing a *pūrṇaghaṭa* with overflowing punch-marked coins (Ramachandran 1951: 232 and 234f.).

It also appears on a seal-impression discovered at Tissamahārāma (Fig. 256), where it is part of a design composed of three (?) religious motifs<sup>272</sup>.



Fig. 256. Seal-impression from Tissamahārāma with *pūrṇaghaṭa*, trident, and flywhisk (original width 4 cm).

The trident-like standard shown in the centre is one of the eight auspicious Buddhist objects (Geiger 1960: § 89). On some of the Nāimana imitations, it forms part of the obverse design (Fig. 257).



Fig. 257. Nāimana imitation with trident (enlarged × 2).

A comparable design to that of the Tissamahārāma seal-impression is known from an Indian Gupta-age terracotta token of c. third to fifth century date, ascribed to the civil ad-

ministration (Mitchiner 1998d: 25, no. 3). Here too, a religious component has been added by choosing the trident of Śiva.

The object (only partly visible) on the left hand side is a *camara* (flywhisk), which is also an auspicious symbol. Combined with the *pūrṇaghaṭa*, it is depicted twice on another seal-impression also allegedly found at Tissamahārāma (Bopearachchi / Wickremesinhe 1999: K.34).

Together with other auspicious symbols, it is also represented on seals discovered at the Jētavanā stupa in Anurādhapura, and dated from about the second to fourth century (Karunaratne 1990: 97 and 100).

The *dhammacakka* (wheel of doctrine; Fig. 258) is incised into stone footprints of the Lord Buddha (Boisselier 1979: fig. 14), accompanied by other auspicious symbols including the *pūrṇaghaṭa* mentioned above and the swastika shown below (Fig. 259).



Fig. 258. Nāimana imitation with *dhammacakka* (enlarged × 2).



Fig. 259. Nāimana imitation with swastika (enlarged × 2).

The excavations at Tissamahārāma have yielded a seal-impression depicting a swastika surrounded by undecipherable characters (Fig. 260). It may have been produced by a seal very similar to the one allegedly discovered at the same site<sup>273</sup>.

<sup>272</sup> Müller 2001: 244. A comparable seal-impression was allegedly found at Tissamahārāma as well: Bopearachchi / Wickremesinhe 1999: K.34.

<sup>273</sup> Müller 2001: 246 (seal-impression); Bopearachchi / Wickremesinhe 1999: J.13 (seal), and D.4 for an almost identical seal-impression.

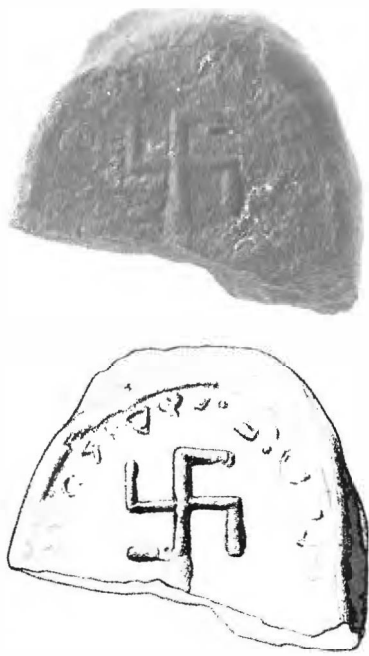


Fig. 260. Seal-impression with swastika.

For a very few specimens, a composition combining the two preceding symbols was engraved into the reverse die (Fig. 261).



Fig. 261. Nāimana imitation combining *dharmacakka* and swastika (enlarged  $\times 2$ ).

The fact that many of the hoards where the exact circumstances of discovery are known were found in or very close to religious buildings, supports the assumption deduced from the coins' appearance. It has already been argued that the imitations might have been produced in Buddhist *vihāras*<sup>274</sup>. This suggestion can be supported by data from a much later period. A mould for casting early Śrī Laṅkān coins, dating from the end of the ninth to the tenth century, was unearthed during the course of archaeological excavations at the Abhayagiri *vihāra* in Anurādhapura<sup>275</sup>. An interesting parallel can be cited from Egypt in late antiquity. It

has recently been proposed that imitations of Late Roman / Early Byzantine *æs* coins might have been cast there in ecclesiastical or monastic buildings (Noeske 2000: 815, n. 20).

## 9.2 BUDDHIST MONASTERIES AS CENTRES OF WEALTH

Income and expenses in the form of coined money are documented at Buddhist monasteries throughout the ages. Besides money, wealth is frequently measured in regard to other kinds of possession. Before going into details, it should be noted that evidence also exists concerning the possession of wealth by Indian Hindu clergy. The *Pañcatantra*, which was written during the period from about 100 BC to 500, lists grants of villages to the *Brāhmaṇas*, and also refers to an individual monk owning money (*Pañ.* I (22), I (124)ff.). A discovery made in the Buddhist monastery at Bairāt in Rājasthān, has been put forward as evidence for the possession of private wealth by a monk or nun. During the course of excavations in 1935/36, a small jar of coarse clay, containing thirty-six silver coins, was unearthed in the area comprising the former monastic cells. Eight punch-marked coins were wrapped in a piece of cloth, and deposited together with twenty-eight other specimens struck by Greek and Indo-Greek kings. The hoard had been buried sometime during the first century BC<sup>276</sup>. As the jar was hidden in the immediate vicinity of one of the cells, the excavator concluded that the treasure, "must have been deposited there by a monk or nun in disregard of the usual monastic rules which prohibit members of the Order to keep valuable articles" (Sahni 1999: 42). This is indeed against the rules of the *Prātimokṣa*, according to which monks as individuals were not allowed to accept gifts of money or to trade, whereas the clergy as a whole was entitled to do so (*Prāt.* SV IV,18 and 19, SV IV,20). Therefore,

<sup>274</sup> Walburg 1985: 48, quoting (n. 141) an earlier, unverified publication by Prinsep, referenced in Hardy 1850: 65f.

<sup>275</sup> A mould for casting fractional *kabhavanus* of the type shown in Codrington 1924: pl. 58; Wikramagama *et al.* 1984: 61, 9.4.

<sup>276</sup> The exact date depends on the last coin in this hoard, struck by Hermaios. The dates attributed to this king by various scholars range from c. 70 to 1 BC.

either the evidence from Bairāt is an example of a violation of this prescript, or we have to interpret this hoard as the possession of the community of monks as a whole. The latter seems to be the most likely explanation, as an individual monk or nun would scarcely have been able to secretly accumulate such a large number of coins. Likewise, it would have been impossible for that person to use the money unnoticed.

A compilation of sources from the third century BC to the ninth century will elucidate the mercantile and economic role that Śrī Laṅkān monasteries played in antiquity. Religious complexes not only *were* centres of wealth, but they necessarily *had to be* so. When the Chinese monk Fā-Hien came to Śrī Laṅkā at the beginning of the fifth century, he also visited several monasteries. The number of monks living in each vihāra, as recorded by the traveller, not only gives an impression of their importance but also indicates the amount of income, in kind and cash, necessary to keep these communities alive. The Abhayagiri vihāra housed 5,000 monks; about 2,000 lived at the Mihintalē; while 3,000 monks resided at the Mahāvihāra (Fā-Hien 102, 107). Unfortunately, we only have detailed data about the administrative and economic conditions within a Buddhist monastery from a much later period. It is open to debate as to what extent, if at all, the monastic structure described in the tenth century tablets of Mahinda IV at Mihintalē can be applied to vihāras of the fifth century.

Before listing the sources, an admonition is appropriate. Deciphering ancient Śrī Laṅkān inscriptions is never easy and sometimes the readings given by various scholars differ significantly from each other. Furthermore, in those cases where inscriptions are only quoted in translation, we do not know what expression was used as the central term for ‘money’, or indeed whether ‘money’ is meant at all. To demonstrate the serious difficulties involved, an example may be helpful. It has recently been stated that, “a BC 2<sup>nd</sup> Century inscription from Dambulla records the endowment of fifty pieces or sataḍa dhana (Paranavitana 1970: No. 857). The type of coin is not specified”. This statement follows Paranavitana’s translation of, “ima lenaha śa(ta)ḍa dhana-labe = To this cave there is an income of money of half a hundred” (Senanayake 2002: 4f.). However, both these quotations must be doubted. H. Falk of the *Institut für Indische Philologie und*

*Kunstgeschichte, Berlin*, kindly checked the original text of inscription Paranavitana 857 and gained the following result<sup>277</sup>:

“The reading is śa-pa-ḍa where ḍa is placed beneath pa, and not behind. A ta is definitely not there. Hence, we have no hundred and no half a hundred, and the meaning of śa-pa-ḍa is unknown. The word dhana may denote corn, a weight, or a standard of values”.

Thus, the existence of fifty coins or pieces of money is without any foundation. This example clearly shows how cautious one has to be when basing deductions exclusively on epigraphic records.

These sources can be listed under different categories of monastic wealth:

*Direct income, possessions (excluding real estate), and expenses*

#### *Second century*

The Sinadiyagala inscription records that King Vasabha spent 4 × 100,000 *kahāvāṇa* for the repair of a vihāra. In the same inscription it is stated that he, “caused to be dug this Kalupahaneka tank at a cost of five thousand kahāvāṇa” (Codrington 1924: 193, no. 1).

#### *Second century*

According to different translations, an inscription from Palu Mekichchewa, dating from the reign of Gajabāhu, records that:

- “The great king Gāmini Abhaya he distributed ... a tank 5,000 karshāpaṇas (in circumference) ... having dug it out [he gave] to the priesthood the four pratyayas” (Müller 1883: no. 10).
- The king, “having caused the Vadamanaka tank in the Upala division to be dug at a cost of five thousand kahāvāṇa (granted the same) to the Community of monks” (Codrington 1924: 193, no. 2)
- The king, “having borne [the expense of] five thousand kahāvāṇas, and having caused the Vadamanaka Tank in the Upala division to be dug, [granted the same] to the community of monks” (EZ I, 211 [Wickremasinghe])

#### *Second century*

In an inscription at Situlpahuwa King Gajabāhu,

<sup>277</sup> Personal communication.

“ordered the payment daily of 2 kahawanus for the medical expenses of the Situpahu temple out of the income (fines) from the court house” (CAR Archaeology 1934: J 18 [vi]; Hettiarachchi 1990: 66, no. 20).

#### *Second century*

A Dambulla rock inscription records the donation of paddy fields and money to the Chatawana dāgoba (Hettiarachchi 1990: 70, no. 122).

#### *Third century*

An inscription at Situlpahuwa records that King Kaniṭṭhatissa, “repaired a tank in Situlpahuwa spending a large amount of money and donated his water tax for renovations” (Hettiarachchi 1990: 67, no. 42).

#### *c. Third century*

An inscription discovered at Murutāngē (North Western Province) near the steps leading to an ancient stupa: “Records the gift of three hundred damakahavanu for the work (of cutting the steps) by an elder named Saṅghatissa” (Paranavitana 1928–1933: 22, no. 381).

#### *Fourth century*

An inscription at Piligama (Province of Uva) records a donation of 25 *kahāpaṇas* to the Pa-hanabena vihāra (Kurunaratne 1984: no. 84).

#### *Fourth century*

“The rock inscription at Kota Veheragala ... describes how 60 *kahāvaṇas* in instalments of 30, 20 and 10 were donated for the benefit of that temple” (Codrington 1924: 194, no. 15; Hettiarachchi 1990: 71, no. 170).

#### *c. Fourth century*

An inscription at the Pānamavava vihāra (Eastern Province): “Contains a donation of *kahāpaṇas* for the offerings of oil and flowers (at a dāgāba)” (Paranavitana 1928–1933: 113, no. 458).

#### *c. Fourth century*

An inscription at the Naigala vihāra (Hambantota District, Southern Province): “Records a gift of *kahāpaṇas* for the vassa festival <marking the technical cessation of the rainy season>” (Paranavitana 1928–1933: 121, no. 503).

#### *Fourth to Fifth century*

The Hinguregala rock inscription records the sale of rice fields to the Vasaka vihāra. The monastery officials had to pay in cash: 20 *kahāpaṇas* for one paya (= ¼ karisa or 2–2.5 acres) of land, 40 for two payas and 60 for three payas (Mudiyanse 1990: 128; Siriweera 1994: 101).

#### *Beginning of the Fifth century*

The Chinese monk Fā-Hien, travelling in India and Śrī Laṅkā, reports that on the island: “In the treasuries of the monkish communities there are many precious stones, and the priceless manis <maṇi = a jewel, gem>” (Fokwō-Ki p. 104).

#### *c. Fifth century*

An inscription at the Saṅgamu vihāra (Kurunēgala District, North Western Province): “Registers a gift of 100 *kahāpaṇas*” (Paranavitana 1933 g: 224, no. 739).

#### *Fifth to first half of the Sixth century*

An inscription at Anurādhapura records that, “two merchants from Agodi, having spent money from Āndhra country gave one hundred *kahāpaṇas* for the benefit of the bikkhusaṅgha of the Devanamipya-Tisa monastery” (Dias 2001: 98).

#### *c. Sixth century*

An inscription at Anurādhapura: “Records a gift of hundred *kahāpaṇas* to the Kasabigiri Vehera by two individuals” (Paranavitana 1933 g: 201, no. 609).

#### *Second half of the Sixth to first half of the Seventh century*

Eight short inscriptions, discovered near ‘Burrows Pavilion’ in Anurādhapura, all record donations of *kahāvaṇas* to the Abhayagiri vihāra. Six of the sums mentioned were intended to be used for the maintenance of slaves –

- |          |   |
|----------|---|
| Inscr. I | : two persons gave 100 <i>kahāvaṇas</i>     |
| II       | : one person gave 100 <i>kahāvaṇas</i>      |
| III      | : three persons gave 2,000 <i>kahāvaṇas</i> |
| IV       | : one person gave 100 <i>huna-kahāvaṇas</i> |
| VI       | : one person gave 1,000 <i>kahāvaṇas</i>    |
| VII      | : one person gave 100 <i>kahāvaṇas</i>      |
| VIII     | : four persons gave 100 <i>kahāvaṇas</i>    |

Inscription V simply states that three individuals together donated 100 *kahāvaṇas* to the monastery (Paranavitana 1943a).

*c. Sixth to Seventh century*

A rock inscription at Pidurangala vihāra (near Sigiriya, Mātālē District, Central Province): “Records the gift of paddy and gold *kahāpaṇas* to the vihāra” (Paranavitana 1933 g: 228, no. 739).

*Fifth to Ninth centuries*

Several inscriptions from this period attest that manumission on the one hand, and donations for the maintenance of monastery-slaves on the other, guaranteed a relatively regular income to the vihāras. For example, two slaves were freed by paying 100 *kahāpaṇas* each to the Issarasamaṇa monastery, while several individuals donated 100, 1,000, and 2,000 *kahāpaṇas* to the Abhayagiri vihāra for the maintenance of the slaves working there. The evidence for slaves owned by monasteries dates back to the second century. According to the fifth century commentator Buddhaghosa, the kings granted slaves to the monasteries (Mudiyanse 1990: 129).

*Donations of real estate**Third century BC to Ninth century*

During this period, numerous donations of villages, land, paddy fields, tanks, channels, caves, and groves are recorded to many vihāras and dāgobas (Sirisoma 1990 *passim*; Hettiarachchi 1990 *passim*; Mudiyanse 1990 *passim*).

*Donations of income**Pre-Christian to First to Second century*

An inscription of uncertain date found at Bakkiela, “refers to a water tax which the king turned over, as an offering, to the Kubilava Tisa Pavata vihara” (Sirisoma 1990: 26).

*Second century*

An inscription at Thamaragala, “refers to the donation by a woman of her share of taxes from a tank to the bikkhus [monks] of the Gutapavata temple” (Hettiarachchi 1990: 70, no. 91).

*Second century*

In an inscription at the Abhayagiri temple, “the donation of the share of fish from a tank is mentioned” (Hettiarachchi 1990: 70, no. 97).

*Second century*

An inscription at Ilukwewa mentions the donation, “of one out of the four shares of a tank” (Hettiarachchi 1990: 70, no. 109).

*Second century*

The Heenukwewa inscription records that a woman, “has donated her share of a tank to Nanda Thera’s Pirivena <pirivena = cell, the dwelling chamber of a monk> in Abhayagiri” (Hettiarachchi 1990: 70, no. 128).

*Second century*

The Randenigame inscription records, “the donation of tax from a tank to the Sangha <the community of monks>” (Hettiarachchi 1990: 70, no. 129).

*Second century*

An inscription from the Akasa dāgoba in the Ruhunu Wild Park mentions that an individual, “donated the main tax from the Gutaviya tank to the monks of the temple known as Atata” (Hettiarachchi 1990: 71, no. 142).

*End of the Second century*

According to the Kokebe inscription, the daughter of a prince, “donated the tax called . . . (Wahawara baka), that is the meat tax levied for hunting animals in a forest belonging to her as well as the income from the prime paddy field” (Hettiarachchi 1990: 66, no. 37).

*End of the Second to early Third century*

An inscription at Trincomalee records, “that an army commander . . . had donated the share tax from a paddy field to the Welgama temple [in Trincomalee]” (Hettiarachchi 1990: 66, no. 34).

*Third century*

“A large inscription at Minvila . . . says that the taxes from three ports or ferries between the twin Mahaveli rivers have been donated [by King Kaniṭṭhatissa] for the maintenance of the temple” (Hettiarachchi 1990: 67, no. 45).

*Third century*

The Ochchappakallu inscription records that King Kaniṭṭhatissa, “. . . donated the share tax of a number of tanks to the temple there” (Hettiarachchi 1990: 67, no. 49).

*Third century*

According to an inscription fragment in the archaeological museum at Anurādhapura,

ceremonies and rituals should be performed using money deposited in the temple during the reign of King Kaniṭṭhatissa (Hettiarachchi 1990: 67, no. 51).

#### *Third century*

The Linmale inscription reports that a certain Hona Deva, “repaired a tank and donated its water tax to the shrine at the Bo tree of the Sihapabbata temple” (Hettiarachchi 1990: 67, no. 47).

#### *Third century*

According to the Sangapola inscription, a woman, “donated one out of the four taxes from the Gonagirigama tank to the Girmalaka temple” (Hettiarachchi 1990: 71, no. 158).

#### *Third century*

The Kahatagasdigiliya inscription, “speaks of donating the fish tax from a tank to a temple” (Hettiarachchi 1990: 71, no. 160).

Besides direct income and collective possession, the monasteries gathered financial support in other ways, for example by grants of interest on deposits and loans:

#### *Interest in the form of money*

##### *Second century*

According to an inscription at Angamuwa, the interest on 100 *kahāvaṇas* deposited at the Mala Anulapawatta Mahāvihāra should be used to hold the Ariyawasa festival (Hettiarachchi 1990: 70, no. 106).

##### *Third century*

Two of the three inscriptions at Weherakema (Veherekema) give, “instructions to use the interest from twenty *kahavanus* for expenses in connection with the annual bana preaching at the Talaguru temple on the occasion of the mahapavarana poya (technical cessation of Vas or the rainy season)” (Hettiarachchi 1990: 71, no. 154).

##### *c. Fourth century*

An inscription at Labuāṭabāṇḍigala (near Morawewa, North Central Province): “Records the deposit, with a guild, of the sum of 100 *kahavaṇas* for the purpose of defraying the expenses of vassa festival <marking the technical cessation of the rainy season> at the Devagiri Vihāra, with the interest therefrom”.

A second, fragmentary, inscription at the same site speaks of another deposit, in this case of 20 *kahāvaṇas* (Paranavitana 1928–1933: 112, nos. 449 and 450).

#### *Interest in the form of goods*

##### *c. 355*

An inscription on a rock named Tōṇigala (Northern Province): “Records the deposit, with a guild in the northern quarter of the city, of certain quantities of paddy and other grains with the stipulation that their interest should be utilized for feeding the monks of the Yahisapava monastery during the vassa season <the rainy season>”. In the case of the paddy, the interest was 50%, collectable during three different harvests of the year. In the case of the other grains, the interest was 25%<sup>278</sup>.

This compilation, which is by no means complete, and the accepted interpretation of many of these records (Hettiarachchi 1990: 77–84), might suggest an economy incorporating a well-developed monetary system. However, this interpretation must be modified. Compared with other records of economic interest, the list of sources that explicitly mention coined money is relatively short, even if we add some additional entries where only *kahāvaṇas* are mentioned without further detail:

##### *Third century BC to First century*

This inscription at Māmpiṭiya (Kegalla District) only mentions (a donation of?) two *kahāpaṇas* and (another donation of?) . . . *kahāpaṇas*. This may be the earliest document mentioning the use of *kahāpaṇas* in Śrī Laṅkā (Paranavitana 1933 g: no. 617).

##### *Second century*

The Ottappuwa inscription mentions a donation – most probably to a monastery or temple – of 1,500 *kahavanu* (Hettiarachchi 1990: 70, no. 104).

##### *Second century*

According to a rock inscription at Dambulla, 600 *kahawanu* were paid for the purchase of two paddy fields (Hettiarachchi 1990: 70, no. 122).

<sup>278</sup> Paranavitana 1928–1933: 102 and 110, no. 441 (EZ 3, no. 17). Money is not mentioned at all in this inscription, in contrast to what is stated by Wijesekera 1952: 185.

### Second century

The Wilewewa inscription (in Anurādhapura District) mentions that the mother of King Gajabāhu bought a tank for 4,000 *kahāvaṇas* (Hettiarachchi 1990: 97).

### c. Third century

An inscription at Nuvarakanda mentions a gift of *kahāvaṇas* (Paranavitana 1928–1933: no. 539).

### c. Fourth century

A fragmentary inscription at the Pānamavava vihāra (Eastern Province): “Seems to record a donation of *kahāpaṇas*” (Paranavitana 1928–1933: no 459).

Some additional inscriptions compiled by Codrington (1924: Appendix D) are of comparatively minor significance as they only mention small sums, the term *kahāpaṇas* alone, or their context is obscure.

Generally speaking, the sums mentioned are relatively small, except in those cases where members of the royal house appear as donors<sup>279</sup>. In the second half of the fourth century King Sirimeghavaṇṇa, “spent 900 000 (*kahāpaṇas*) and arranged therewith a great festival for the Tooth Relic” (Clv. 37.96). In the Mahāvamsa especially, kings are said to have spent fantastic sums of money; up to  $4 \times 1,600,000$  or 6.4 million pieces when King Duṭṭhagāmaṇi ordered the building of the Mahāthūpa in the first century BC. The incredible quantity of 1.6 tons of silver allegedly deposited at the building-site for the payment of the workers cannot of course be taken literally, but it stands figuratively for the king’s generosity. Nevertheless, from this passage we learn that it was customary in the first century BC to pay in cash for labour, as the king declares that: “Work shall not be done here without wage” (Mhv. XXX.17–18).

## 9.3 MONEY AND THE ECONOMY

By checking the entries of Geiger’s compilation (Geiger 1960: § 76), we find an interesting and extremely important notice concerning the island’s monetary history. As part of a description in the Cūlavamsa (51.135) of the reign of Udaya II (885–896), it is stated that: “The gold that he had spent in these eleven years was estimated at thirteen hundred thousand (*kahāpaṇas*)”, i. e. 1.3 million coins. This sentence is doubly instructive. As in many

other cases where certain sums are mentioned in the chronicles – only reporting ‘a thousand’ for example, without giving any object – it is assumed here that *kahāpaṇas* are intended. However, this implication is not self-evident, as is clear from another part of the Mahāvamsa where the translator has again added ‘(pieces of money)’, but refers to the Mahāvamsa Tikā (Vamsatthapakāsini, a commentary on the Mhv.) where “pieces of clothing” are mentioned instead (Mhv. XXXVI.33 and n. 5).

Doubtless *kahāpaṇas* are meant in the first context mentioned above; however – and this is the second important cognition – not in coin, but as a unit of account or notional equivalent<sup>280</sup>. It is probable that in those cases where it is not explicitly stated that a payment was made in cash, i. e. by using the term *kahāpaṇas*, but where only a number is given, one should not add ‘*kahāpaṇas*’ but, ‘worth the sum or number of ... *kahāpaṇas*’. A comparable suggestion was made by Codrington when trying to interpret the incredibly large sums of money spent by various kings. He argued that the numbers of coins mentioned could only be taken in the sense of, ‘at the estimated value of ... *kahāvaṇas*’ (Codrington 1924: 11 f.). Definitely to be rejected is the interpretation of a passage in the Cūlavamsa, where it is narrated that Dhātusena in the second half of the fifth century, “erected for a hundred thousand (gold pieces) a large and splendid house for the Bodhi Tree” (Clv. 38.69). Standardised gold pieces or coins were certainly not used at this early date. In fact, in all these cases it was a payment in kind, comparable to the procedure in ancient Mesopotamia. Here, payments and purchases were expressed according to silver weights, such as the *sheqel*, *mina* or *talent*, but payment was actually made using natural produce, usually grain (Gebhart 1949: 65). From the coin finds, and through the results of a critical study of the inscriptions and chronicles, a much earlier assumption, based only on the inscriptions, can now be affirmed. It was suspected that up to the early seventh century trade had been carried out mainly by way of barter, even though some money was already in circulation: “Though the economy of the country has shown much development [in the period from 67 to 616], it need not necessarily have been followed by the increase

<sup>279</sup> An instructive summary of the relevant passages in the Mahāvamsa is given by Geiger 1960: § 76.

<sup>280</sup> So called by Howgego 1995: 13.

of trade. But the inscriptions provide hardly any material on trade or money transactions. Perhaps a large part of the exchange of goods that went on was done by the process of barter though money transactions are not unknown". And again: "Though this is evidence that money was in circulation we have to assume that barter was still the common means of exchange" (Perera 2001 [1948]: 174 and 176). A barter trade with foreign merchants is recorded in the early eighth century. A Chinese source narrates that thirty-five Persian ships arrived at the Śrī Laṅkān port of Po-tchi-li, where the merchants wanted to obtain precious stones by barter (Lévi 1900: 421), and barter is mentioned again by another Chinese source in the eleventh century<sup>281</sup>.

No significant changes in commercial behaviour seem to have taken place before the seventeenth century: "Though foreign coins are current, they are only taken at their just weight and value, and must be silver or gold, all others are rejected" (1602) (F. Pyrard de Laval, quoted by Quiggin 1949: 196). Another European source states: "But all sorts of Money is here <i. e. in the Kandyan kingdom> very scarce. And they frequently buy and sell by exchanging Commodities" (1681)<sup>282</sup>. In 1724, Valentyn describes a barter trade in which three parties were involved; viz. the Tamils of Jaffna, the Singhalese, and the Dutch (Arasaratnam 1978: 172). Generally, barter trade even in modern times is not unusual among self-supporting rural societies or communities. In the eighteenth century it was reported that: "The King of Candy has introduced in the island of Ceylon a kind of money, which consists of a piece of silver wire rolled up like a wax taper. When a person wishes to make a purchase he cuts off as much of the silver as is equal to the price of the article" (P. da S. Bartolomeo [1776–1789], quoted in Codrington 1924: 164). This, of course, refers to the *larins*, but it also clearly shows that this medium of exchange was handled by weight (i. e. as bullion) and not by nominal value. That foreign currencies were likewise valued only as precious metal is evident from the heterogeneous composition of a hoard from Gampola (Lowick 1977).

In 1724 Valentyn records that 120 conch shells were equal to twenty Dutch *stuivers*, indicating that shells were also used as money (Arasaratnam 1978: 185). Moreover, in seventeenth century India, the common people only used cowry shells for monetary transactions. The inhabitants of one village, for example, were

unable to change a single rupee into cowries at a ratio of one rupee to c. 3,000 cowries, and they were also unable to distinguish between silver and German silver (an alloy of copper, nickel and zinc)<sup>283</sup>. Finally, in the middle of the nineteenth century the monetary situation was still largely unchanged from that of the preceding centuries:

"Da zwischen den eigentlichen Ceylonern oder Singalesen der Tauschhandel noch gebräuchlich ist, so findet man bei ihnen den Gebrauch des Geldes nur selten. Was sich an Münzen bei ihnen findet, sind von Goldmünzen: die Pagode, und als Silbermünze der Riddy oder Rheedy; dieser letztere besteht aus einem bloßen dicken, gebogenen Stück Silberdraht und gilt 64 Kandyan-Challies, sein Wert beträgt ungefähr 7 Pence Sterling. Von kupfernen Challies haben sie zwei Arten; den holländischen Chally, welcher gewöhnlich, und den Dambadina-Chally, welcher selten ist" (Baumann 1851: 213f.) [As barter trade is customary between the Śrī Laṅkāns, they seldom use money. The coins to be found there include the pagoda (gold) and the riddy or rheedy (silver). The latter is merely a thick bent piece of silver wire valued at sixty-four Kandyan challies. It is worth about seven pence sterling. Of copper challies there are two kinds, the common Dutch, and the rare Dambadina chally].

Hence, we have no difficulty in explaining the rare occurrence of punch-marked coins in Śrī Laṅkā, in marked contrast to the impression given by the chronicles, but supported by the epigraphic evidence and the coin finds. Naturally, the immense sums quoted in the Mahāvamsa cannot be taken literally (Codrington 1924: 11ff.). A Chinese source is more reliable in this respect, confirming again the testimony of the epigraphic and numismatic records. The author reports that: "The king of Ssu-ho-t'iao contributes toward the food for the monks with three silver ounces daily". The text was written during the time of the western Jin Dynasty,

<sup>281</sup> Petech 1954: 224f. Other translators date this record to about the end of the tenth century: Cook 1951: 8, quoting Rockhill & Hirth.

<sup>282</sup> Knox 1681: pt. III, ch. VIII. For the general insignificance of money, see pt. II, ch. IV ('Of his Revenues and Treasure'), where it is described how rents and taxes were mainly paid in natural produce.

<sup>283</sup> Bowry, in his geographical account of 1669–1679, quoted by Sircar 1968: 279f. For the use of cowries in India and the Maldives Islands from the fourteenth century onwards, see Allan 1912.



265–313 (Seng Tsai, *Wai-kuo-shih*, quoted in Petch 1954: 220, text no. 11). Three points are of interest here: The monarch's contribution is of silver, it is given by weight, and it is a comparatively small amount. In this context, it makes little difference which estimate one takes as a basis for the weight of the ancient Chinese ounce (*liang, tael*): 6.137 g (Schrötter 1930: 674), about 15 g (Cribb 1979: 190), or 19.01 g (Althoff 1993: 23). By calculating an average weight of about 3.7 g for each punch-marked coin, one would need a minimum of five and a maximum of fifteen pieces to get three Chinese ounces of silver.

The relative scarcity of punch-marked coins of all kinds – viz. in silver, silver-plated copper or pure copper, and with or without punch-marks – is confirmed both by the results of recent excavations at Anurādhapura (Jētavanārāma and Abhayagiri), Māntai (where no specimens were found), Goḍavāya and Tissamahārāma, and from material published in the past<sup>284</sup>. Some stray finds from Tissamahārāma (Bopearachchi / Wickremesinhe 1999: G.57–93) can be added to this number. Despite this rarity however, they have nevertheless been found all over the island. By far the largest hoard of silver punch-marked coins so far reported was discovered at Minuwangōḍa and consisted of 1,048 pieces. According to Bopearachchi however, only 1,938 pieces had been previously reported as finds in Śrī Laṅkā up to the late 1980s<sup>285</sup>. Even if we assume a noticeable loss of punch-marked coins due to the intrinsic value of the precious metal, providing welcome raw material for the melting pots of silversmiths throughout the centuries, it is hardly conceivable that this gradual loss should account for the millions of missing pieces mentioned in the chronicles.

Judging by the inscriptions, the use of *kahāpaṇas* ceased by the seventh or eighth century, as donations and payments to vihāras were now recorded in measures of gold according to weight<sup>286</sup>. The epigraphic evidence, if correctly dated, is roughly in agreement with the archaeological data from Anurādhapura. Here, a punch-marked coin was discovered in a level lying above that which yielded an, “indecipherable Bronze Roman coin” (CAR Archaeology 1958 [1960]: G 28). Having also been found in later layers, the excavators presume that there was a further circulation of punch-marked coins from the sixth to the ninth century, followed by the introduction of the earliest Sinhalese coinage (Wikramagama

*et al.* 1983: 369). Further archaeological data from another monastic site seem to suggest a circulation up to the end of the tenth century (Still 1907a: 194), and this date is supported by the contents of a coin hoard found near Weuda [108] in the Kurunēgala District. Unfortunately, very few details of this hoard are known, except for the fact that silver punch-marked coins were found together with anonymous, early Sinhalese gold coins of tenth to eleventh century date (types Codrington 1924: pl. 60 and 66). The explicit mention of *kahāpaṇas* during the reign of Sena III, 937–945 (Clv. 53.29–33), is also close to this time. It is probable that in some instances the punch-marked coins remained in use up to this late period, although the reasons why remain obscure. In the case of the late textual tradition mentioned above, the meaning again can only be ‘expenditure worth ... *kahāpaṇas*’; especially as a figure of 40,000 is given.

The general decline of the *kahāpaṇa* is marked by a reference to *gold kahāpaṇas* in the Pidurangala inscription, dating from the sixth or seventh century. This expression combines the old medium of payment (the silver *kahāpaṇa*) with the new (gold). However, it does not denote a gold punch-marked coin, as the existence of genuine gold examples has never been established. Two controversial pieces were published in 1972 but their authenticity is doubtful (Bopearachchi / Pieper 1998: 11). A passage in the Cūlavamsa, referring to the reign of King Dhātusena (463–478/9), appears to support the argument in favour of the former existence of such coins. However, in discussing the statement that the monarch, “gave orders with the outlay of a thousand gold pieces”, the translator notes that: “Where only figures are given in the mention of values the uniform currency *kahāpaṇa* should be added” (Clv. 38.59). It is clear that from our present state of knowledge, a term denoting a weight instead of a coin should be added here, most

<sup>284</sup> See the relevant catalogue entries. Remarkably, Codrington 1924 does not mention finds of punch-marked coins. According to Still 1908, there were only 44 specimens in the Colombo National Museum. No further publications of Śrī Laṅkā finds are mentioned by other authors; for example, in Goonetilleke 1970 or Raschke 1978.

<sup>285</sup> Bopearachchi 1993: 68 n. 26, referring to Sirisoma / Amarasinghe 1986.

<sup>286</sup> See the inscriptions listed in Codrington 1924: 196ff.

probably the *kaḷaṇḍa*, which frequently occurs in later inscriptions when specifying the amount of gold offered. In fact, a gold ingot weighing 438.10 g has survived from the late seventh to eighth century, with “102 kalandas” inscribed on it (Sirisena 2002: 3 and 5). It was discovered during the course of excavations at Abhayagiri in Anurādhapura. The introduction of the first Śrī Laṅkā coins, of the *Śrī Laṅkā Vibhu* type, can be dated with relative certainty to the reign of Mahinda IV; that is to the period 956–972. In the inscriptions on the two famous tablets of Mahinda IV at Mihintalē (Paranavitana 1912), *kaḷaṇḍa* and *aka* of gold are mentioned several times. At only one point however in these texts is, “coined gold” referred to (Inscription B, line 57). This suggests that people were still accustomed to expressing payments in terms of weight, rather than in the new medium. The “coined gold” mentioned is definitely the *kaḥavanu*, which in weight corresponds exactly to the *kaḷaṇḍa* of 4.3 g, while the *aka* is one eighth of a *kaḷaṇḍa* or *kaḥavanu*. Thus, the introduction of the first Śrī Laṅkā coinage can be dated one to two decades earlier than proposed by Mitchiner (1979: p. 136). It is undoubtedly mistaken however to place the end of circulation of punch-marked coins in Śrī Laṅkā at about the third century (de Silva [G. P. S. H.] 2000: 31).

A glance at the adjacent Indian Subcontinent sustains the assumption of a long use for punch-marked coins. Here, archaeological evidence confirms their circulation up to about 500 (Ray [S. C.] 1993: 5; Pradhan 1992: 27f.).

Having discussed the coins, inscriptions, and archaeological data, as well as the literary tradition, in some detail and in their full complexity, we now have to ask the final and essential question: Is there any clear and conclusive economic system underlying the existing data, observations and deductions? Money is never handled ‘incidentally’ and the decision to introduce and to use money in the form of coins can be taken either privately, through the exigencies of commerce, or by an official order or decision. As we have seen, the only ‘all purpose money’ were Indian punch-marked coins, which had been used on the island for centuries. Although these were not issued by the Śrī Laṅkā monarchy, they were nevertheless generally accepted all over the island, and the government as well as private individuals made use of them. That they were needed is attested by the imitations

of them, fabricated by casting, and by the creation of centrally or locally produced Śrī Laṅkā small ingots, based on the pattern of the punch-marked coins.

The sudden arrival of Roman coins mainly affected the southern coastal region of Rohaṇa with its capital at Tissamahārāma. From the distribution pattern of original Roman coins, as well as their imitations, it can be deduced with certainty that both sorts formed a kind of local currency that was mainly confined to the territory of Rohaṇa, i. e. to that area which had first come into contact with them. With the sudden appearance of these coins in the fifth century, the existing monetary system based on one kind of money was on the verge to converting to a mixed system, which now had two media of exchange. However, the appearance of this new money, alongside the punch-marked coins and their imitations that were already known and in use, must have caused some real problems. It could not have played an immediate role as a parallel or double currency for transactions, as its value was impossible to calculate owing to its sudden occurrence, the unknown number of pieces available, and the uncertainty of future supply. However, the greatest problem must have been the question of convertibility. If they were exchangeable – what was the equivalent in value of a silver punch-marked coin when expressed in small-size Roman copper coins? Furthermore, assuming the existence of a mixed currency system, the exchange rate would have had to be fixed in short time intervals, because the basis for calculation was subject to permanent change depending on the inflow of the two types of coin, as well as on the Śrī Laṅkā production of imitation punch-marked coins and ingots. The acceptance and incorporation of Roman money into the existing economic system would thus have been very difficult. At this point, if we presume the existence of a fully monetarised economy that had to manage a mixed currency consisting of two extremely different and barely compatible coin types, the necessity of an imaginary money standard conclusively follows. By using a third, neutral and only virtually existent currency, all kinds of payments could be expressed and compared. Actual payment in cash could then be made using specimens of the two monies, according to the currently valid exchange rate between these and each unit of the virtual currency. However, no conceivable term for such an imaginary currency can be found in any

written source. This again, strongly points to the parallel existence of two currencies, each used for a specific purpose.

Comparable conditions to those just described were observed at the beginning of the twentieth century by a German national economist: “Noch deutlicher tritt diese Zersplitterung in einzelne von einander unabhängige Münzsorten in Erscheinung bei denjenigen Völkern, welche nicht durch den eigenen Erfindungsgeist, sondern durch die Berührung mit höher entwickelten, gemünztes Geld gebrauchenden Nationen die Münze als Tauschmittel kennen lernen. Bis zum heutigen Tage können wir beobachten, wie bei solchen Völkern sich die Münzen verschiedener handeltreibender Nationen zusammenfinden. Oft werden solche Münzstücke zu einem Gliede des gewissermaßen naturalen Geldsystems und verrichten ihre Dienste als Tauschmittel neben Rindern, Salz, Kaurimuscheln und anderen Tauschgütern. Das Zusammentreffen verschiedener Münzsorten aus verschiedenen Ländern führt hier zu einem bunten Gemisch, dem jede innere Gliederung und jeder Zusammenhang fehlt”. (Helfferich 1903: 41). This applies especially to a system which, like the ancient Śrī Laṅkā, was mainly self-supporting and in which taxes were paid in kind and not with coined money. Here therefore, we now have to ask about the underlying economic system<sup>287</sup>.

The main governmental interest in the economic sector was confined to the various possibilities of income: taxes, customs dues, and tolls. These, however, were collected in kind, as is clear from the chronicles, where nothing is recorded in this context about coined money. The same phenomenon has been observed in India (Mangalam 1991: 195). Labour in turn was an accepted substitute for payments in kind, most probably on a large scale (Geiger 1960: § 29; Murphey 1957: 41). Later, in mediaeval times, fines could be ‘paid’ by an agreed commitment of labour<sup>288</sup>. In the tenth century, these fines were expressed in terms of weight, for example in *kaḷaṅḍas* of gold (CAR Archaeology 1953: G 22.83). Even at the beginning of the nineteenth century, land tax was still levied in kind. A capitation or poll tax, which also existed, was levied not in money but in labour (Bertolacci 1817: 130, 132f. [following the reprint edition]). Members of the lower classes had to work for the government for a certain amount of time each year; either unpaid or for no more than a trifling recompense. The only persons

exempted were those who cultivated a paddy field of a minimum, pre-determined size.

Internal mercantile traffic in ancient Śrī Laṅkā seems to have been largely insignificant (Geiger 1960: §§ 98, 100). We are therefore compelled to conclude that coins were used only on a very limited scale in internal affairs. Another scholar, by contrast, argues for the existence of a limited but nevertheless not entirely negligible trade in the villages, and for buoyant commercial activity in the cities, ports, and market towns (Siriweera 1994: ch. 7). In the early eighteenth century, Valentyn confirms Geiger’s statement that the Śrī Laṅkāns were not traders, and that trade had always been in the hands of foreigners. The members of the four different castes of merchants were not native to the island but came from South India (Arasaratnam 1978: 79f.).

Besides coins, we might think of other standards of value, such as rice, which played the same role, for instance, in the Coḷa territory of mediaeval South India (Hall 1991: 99; Mangalam 1991: 200). In this respect, fifth century Śrī Laṅkā is comparable to pre-Mauryan India<sup>289</sup>. In both countries, the large-scale introduction of coins – the Roman specimens in Śrī Laṅkā and the punch-marked coins in India – had no real impact on the behaviour of the general population in their respective rural societies. The self-supporting units formed by a family, clan, or village were closed economies that had no need for coined money. In South India it has been demonstrated that during the mediaeval period from about 600 to 1000, coined money – at least in the early phase of this period – was not necessarily required for commercial transactions (Mangalam 1991). The same phenomenon has been argued for North India in Gupta and post-Gupta times, i. e. from the fourth century onward. Here it is claimed that the enclosed village economy only emerged on account of a decrease in trade with the Roman Empire after c. 300 (Chakravarti 2001: 73f.).

The main centres of wealth, as we have seen, were the monasteries, which maintained, at least in some instances, extensive landed property and various kinds of income. Owing to their education, members of the clergy were

<sup>287</sup> For the general economic conditions in pre-modern Śrī Laṅkā, see Siriweera 1994.

<sup>288</sup> EZ 1, no. 6 (translation of lines 50–54); and Siriweera 1994: 170, quoting additional sources.

<sup>289</sup> For India, see Banerjee 1990.

in a position to engage in abstract thought, and to develop an insight into economic relationships and the possibilities of gaining profit from them. Wealth and information circulated through religious networks (Beaujard 2005: § 10). The selling of surplus produce, which was either not needed or perishable, in order to obtain easily storable and durable coins that could be invested at a later, more suitable time, resulted in the accumulation of coins within the monasteries, as attested by the large hoards discovered at, or close to, religious establishments. The same argument has been made in regard to coins found in religious buildings in northwest India (Fussman 1987: 12). In some cases, the income of the monasteries must have been enormous. For example, it is recorded in the Sammohavinodini, a literary source referring to the time of Parakkamabāhu I (1153–1186), that the large and famous Situlpavuva vihāra (ancient Cittalappabata vihāra) and Tissamahā vihāra in Rohaṇa, “had paddy sufficient to feed twelve thousand monks for three years”<sup>290</sup>. Besides these practical considerations, the increase in the clergy’s prestige due to the possession and storage of large quantities of coins should not be underestimated. When handled and accumulated primarily by the *saṅgha*, these specimens were transformed into a kind of sacred money, or objects of prestige.

The course of events can be reconstructed as follows: After having been brought to Śrī Laṅkā by foreign merchants, Roman coins passed into the hands of those responsible for selling the products of the island to them. The kinds of wares traded were of two classes. Within the first category fell luxury goods such as gems, pearls, cotton garments, and tortoiseshell, as mentioned already in the *Periplus Maris Erythraei* (§ 61). To the second range of goods belonged those supplies necessary for the foreign traders to return home, such as food and fresh drinking water. This large-scale trade could not have been managed by private individuals or single peasant farmers but by the representatives of those who were in possession of the goods required: the monasteries. Indeed, the well-filled treasuries of the vihāras are described in the account of the Chinese monk Fā-Hien, who visited Śrī Laṅkā at the beginning of the fifth century. He observed that: “In the treasuries of the monkish communities there are many precious stones, and the priceless manis <maṇi = a jewel, gem>” (Fo-Kwō-Ki p. 104).

Trade between the *saṅgha* and its secular business partners could have been carried out either by lay officials of the Buddhist community, as in the case of the contract recorded in the Hinguregala inscription, for example, or by merchants licensed by the clergy. The *saṅgha* absorbed the bulk of the new currency, creating in the process a *special purpose money*, which was used almost exclusively in Rohaṇa for transactions between the monasteries and those who purchased their goods. Another possible means by which the monasteries obtained possession of so many Roman coins might have been through the custom of offering. Although the practise of bestowing money on the clergy is condemned as unlawful in the Mahāvamsa (Mhv. IV.13f.), this early record refers to the fourth century BC and certainly does not apply to conditions in the fifth century. By then, the *saṅgha* had become ‘professional’ in handling what had originally been forbidden, as is evident from the records compiled above. Besides their use by the monasteries, excavation finds from Tissamahārāma also attest to the ordinary use of Roman coins, as these were discovered in a non-religious context; unlike, for example, those finds from various sites at the Śrī Laṅkā royal capital in Anurādhapura. However, the use of coins seems to have been confined to members of the upper class. We know this because coin finds are scarce in the workmen’s quarter at Tissamahārāma, while they increase significantly in areas originally inhabited by wealthier individuals, as determined by the related artefacts discovered and the types of housing. As in most societies around the world, from antiquity to modern times, the common people in ancient Śrī Laṅkā hardly ever came into contact with coins – least of all with those of considerable value – simply because there was no reason why they should do so. However, the use of coins at Tissamahārāma in general was very limited. This is obvious when we look at the number of Roman coins and their imitations, and of Indian punch-marked coins, unearthed at Tissamahārāma during the course of 15 excavation campaigns: 42 Roman, 9 imitations, and 52 punch-marked coins (34 specimens as single finds and 18 as a hoard). Furthermore, we have to bear in mind that besides these isolated and comparatively few

<sup>290</sup> Dias 2001: 99, quoting Sammohavinodini, p. 338f. (*non vidi*).

excavated finds of Roman coins, only large or very large hoards are attested. Evidence for small hoards, documenting a widespread use of Roman coins in everyday transactions, is entirely lacking.

Nevertheless, single finds *are* attested in cities like Anurādhapura and Tissamahārāma, so that the former existence of at least some few small hoards there cannot be definitely ruled out. Even a dozen of Roman coins would have represented a considerable wealth. A hypothetical and unprovable explanation for the disappearance of amassed cash of some noblemen or traders would read like this: During unsettled times (see below) people had to fear for their property of which money was a movable part. In the absence of banks they tried to protect their money by storing it in another safe place, the hopefully respected sacrosanct area of a monastery or temple; one could even generally think of such behaviour<sup>291</sup>. For the temple accountant it had been unnecessary to store the different funds separated from each other, because only one type of money existed and the payback could be managed by either counting or weighing the coins. The large hoards discovered in or close to religious buildings may indicate a safekeeping function of the temples or monasteries; however, there is no hint in the sources that those institutions were ever involved in banking transactions.

As the quintessence of what has been said, we may state that it was not merely at the site of a temple where people came together for the purpose of trade (Chakravarti 2001: 18), but that it was the temple *itself*, or rather the associated monastery, which was the centre of commerce.

Support for the concept of *special purpose money*, originally confined to the territory of Rohaṇa and connected in some way with the Buddhist *saṅgha*, can be derived from a solitary but highly important Late Roman coin unearthed at Tissamahārāma. This coin of the emperor Leo (457–474) visually differs completely from all the other Late Roman *æs* coins so far discovered in Śrī Laṅkā. In contrast to the latter, which were struck in copper alloys of reddish-brown colour and on relatively thin blanks, this piece displays a golden brass colour and is at least twice as thick as the former; its diameter reaching a good centimetre. The most remarkable feature of this coin however, is a minute punch-mark that has been hammered, lopsided, deep into the reverse of this specimen (Fig. 262).

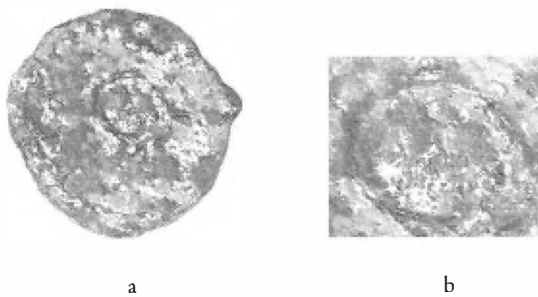


Fig. 262 a–b. Coin of the Roman emperor Leo with punch-mark (coin enlarged  $\times 3$ , punch  $\times 7$ ).

The animal depicted is well known from other works of Śrī Laṅkā art discussed in this study. The lion shown standing to the left with his tail curved over his back is definitely the same as the one depicted on the maneless lion tokens and on the seal-impressions unearthed at Tissamahārāma, Goḍavāya and Kantarōḍai. In other words, this punch is typically Śrī Laṅkā, and is not to be confused with those from India. In regard to the size and thickness of the coin, this specimen can be compared to the round ingots of probable Śrī Laṅkā origin; one of which was also unearthed at Tissamahārāma and showed some minuscule punches, although their forms were unrecognisable (Walburg 2001: 264 [22]). By the presence of the small punch-mark, we know that this Roman coin, although differing from all other pieces in size, thickness and colour, was definitely accepted as current money, circulating freely together with the Śrī Laṅkā ingots: In other words, it had been converted from *special purpose money* to *all-purpose money*. No other Late Roman *æs* coin so far discovered on the island has been treated in this way. An interesting parallel is known from the Indian mainland. Here, a punch-mark on a Neronian aureus was similarly detected on a silver punch-marked coin (Satyamurthy 1995: 53).

However, the mere presence of Indian punch-marked coins, as well as Roman specimens, does not allow us to presume the existence of a money-based economy in any way comparable to a modern one, where coins are used as a natural part of daily life. Although recognised and accepted by everybody, in early societies money could only be used as currency in a few precisely defined situations (Schmolders 1966:

<sup>291</sup> See Heichelheim 1938: 259, 352 and Weber 1958: 225, who describe the role of an ancient temple as a depository financial institution.

27). In this respect, we cannot speak of a true monetary economy, but only of a preliminary stage leading to it. Śrī Laṅkā, at this prescribed period of time, is a perfect example of this process. Comparatively speaking, this stage of development is not too far removed from that described for ancient Babylonia: “Tatsächlich war nur ein Teil Babylons Krongut und Tempelbesitz, der Rest war Privateigentum, von dem aber, wie angenommen wird, ein bestimmter Teil des Ertrages an den König abzuführen war. Jeder Staatsangehörige war grundsätzlich steuerpflichtig. Ebenso mußte er Frondienst leisten. Der Hofhaushalt (neben ihm auch die Tempel) hatten einen ungeheuren Waren- und Geldbestand und zentralisierte weitgehend den Verkehr” (Gebhart 1949: 64).

The economic system developed in Śrī Laṅkā, showing a very limited use of coins both socially as well as geographically, finds its counterpart in Indian trade and society: “The continuity of the barter-system in Indian economy reasonably raises the question whether India’s trade was ever dependent on the circulation of coins. The use of metallic currency, local, tribal or dynastic, was generally limited within a locality, tribal settlement or kingdom, as the case might be. In an all-India market or international market, trade-transactions used to be carried on mainly in barter” (Chatterji 1991: 152).

Even more congruous with the state of affairs deduced for Śrī Laṅkā are those developed for early Southeast Asia. One central conclusion derived from the economic study of this area is that: “While there is evidence that gold and silver (in the form of ingots, images, jewellery and coin) were significant stores of wealth, the geographical distribution of indigenous coinage points overwhelmingly to local rather than regional usage, stressing its non-commercial function. And, when it is possible to determine the precise use of this early coinage from literary sources, it served, almost without exception, to fulfil fiscal or religious obligations and did not further the needs of merchants or traders” (Wicks 1991: 95).

In the scenario developed so far, concerning the role of coins in the economic history of Rohaṇa, only one last point is missing, viz. the answer to the question as to why and when the use of coins ceased. The earliest definite proof we have for an indigenous Śrī Laṅkā coinage is derived from a passage already quoted in the *Cūlavamsa* (Clv. 77.102), describing the reign of

Parakkamabāhu I (1153–1186). Here it is stated that: “He introduced into the country <i.e. the South Indian Pāṇḍu kingdom> everywhere for trade kaḥāpaṇas which were stamped with the name of the Ruler Parakkama”. It was only during the reign of this king that a powerful centralised administration was able to guarantee the value of a now standardised currency and enforce its general acceptance, even beyond the boundaries of the kingdom<sup>292</sup>. From here, tracing backwards in time through the history of Śrī Laṅkā coinage, we arrive in the tenth century with its first inscribed coins. At this point our knowledge starts to dwindle. We need to fill in the gap between this late period and the fifth to seventh century, during which the last securely datable coins, namely the Roman specimens, are attested<sup>293</sup>. Known Roman hoards all close with coins of about mid fifth century date or slightly earlier. However, we have no idea how long the pieces in these hoards remained available for circulation, i.e. we do not know when the hoards were lost. The assumption that use of both kinds of coin stopped prior to the seventh century, as no specimens were found at Polonnaruwa (Codrington 1924: 33) is inconclusive. Roman coins and their imitations formed a local ‘currency’ within Rohaṇa, while finds outside the boundaries of the dominion are mainly confined to the east coast, showing the route taken by the coins from India to Rohaṇa. Coins crossing the northern border of the dominion in the fifth century can be connected to a political event. Dhātusena, later king at Anurādhapura, began his offensive against the Tamil invaders – who occupied the capital from 436 to 463 – from the territory of Dakkhīṇa-desa (Southern Province). It was here that all the people of noble descent came from Rohaṇa to support him<sup>294</sup>. Having vanquished the last Tamil ruler in 463, Dhātusena made Anurādhapura his official residence. The members of the noble clans returned with him, and were honoured by the king for their loyalty. With this historical movement, a certain number of coins ‘marched’ north to the capital and to nearby Mihintalē, where a hoard of Nāimana imitations has been discovered. During the course

<sup>292</sup> For the governmental role, see Wicks 1992: ch. 1, esp. p. 18.

<sup>293</sup> For the uncertain and still confusing numismatic history of early mediaeval Śrī Laṅkā, see Codrington 1924: 50 ff.

<sup>294</sup> Clv. 38.39, and the correction in Geiger 1960: 235.

of the political events following the murder of Dhātusena, an unknown but clearly significant number of coins were transferred with the kinsmen of the new sovereign Kassapa I to his 'summer palace' at Sigiriya.

Here we have to return to the coins themselves as our only primary source. The answer to our question must be sought among the results obtained from our investigation of the Nāimana imitations:

- It is logical and generally accepted that the manufacture of imitations began with the end of the supply of genuine Roman coins, i. e. from ±450.
- As the imitations are generally in an excellent state of preservation (and are *not* heavily worn as is always stated), they cannot have been in circulation for a very long time.
- The incredibly dense net of die-links observed, indicates a short but intensive production.
- There are only 'pure' hoards of imitations, as well as of genuine Roman coins. Within each of the two categories, only occasionally does a solitary intruder of the other kind occur.

We must first analyse whether these observations can be harmonised with the historical events of the fifth century, i. e. whether political uncertainty may have persuaded the people of Rohaṇa to bury their coins shortly after they were minted. The political conditions are known: The Pāṇḍyas invaded Śrī Lankā in 436. The later king Dhātusena organised resistance from the territory of Dakkhiṇa-desa, and it was here that members of the noble clans came from Rohaṇa to support him. The last four of the six Tamil rulers fell in battle against Dhātusena, the last in 463. In other words, there was a constant struggle between the invaders and the native nobility for about twenty years. As the first two foreign rulers died a peaceful death, Dhātusena must have become a serious challenger only during the reign of Khuddapārinda. Indeed, the chronicle states that this Tamil king "persecuted all those who attached themselves to Dhātusena" (Clv. 38.30). As there are no geographical details given in the chronicle concerning the areas where battles took place, we are confined to mere speculation.

Dhātusena and his followers operated from Dakkhiṇa-desa, i. e. from the territory south of the Kalā Oya, against an enemy residing in Anurādhapura. We can assume that at certain

periods of time both parties may have mutually penetrated the territory of their foe, although to what extent we do not know. Nevertheless, it is quite possible that the armies of the Tamil kings may have advanced in part deep into Dakkhiṇa-desa, and that this may explain some of the coin hoards discovered in the Southern Province (see 94 ff.).

The noble clans of Rohaṇa had most probably supported Dhātusena by sending fighting men to the adjoining Dakkhiṇa-desa. This would have naturally caused a weakening of strength in Rohaṇa itself. The ravaging Tamil forces may have taken advantage of these conditions. Using the high road leading from Anurādhapura via Polonnaruwa to Tissamahārāma, they could have advanced easily and quickly to the extreme south. Even after Dhātusena's victory, this threat remained: "Together with his brother he waged on the Island by every means unceasing warfare with the ravagers of the Islands, the Damiḷas, building fortresses, twenty-one in number" (Clv. 38.36). A probable indication that the Tamils may have penetrated deep into the south is the restoration by Dhātusena of the Dakkhiṇāgiri vihāra. This vihāra was formerly identified with the MulKirigala vihāra, situated about eighteen miles northeast of Mātara (Clv. 38.46 and n. 3). However, this equation given in the Rājāvaliya is now doubted (Nicholas 1959: 68). In the case of another monastery in Rohaṇa, the Bhillivāna vihāra, it is uncertain whether Dhātusena built or restored it, perhaps after it had been damaged or destroyed by the Tamils (Nicholas 1959: 67). Despite these uncertainties, it is nevertheless possible that coin hoards were lost during the course of the events described.

After the reign of Dhātusena, we have to proceed to the first half of the seventh century to find a comparable historical event that might also be connected with this problem. During the conflict between Dāṭhopatiṣṣa I and Aggabodhi, neither opponent recoiled from plundering the royal treasury and even religious buildings. Both waged war in a manner that, "the whole people suffering under the wars of these two kings, fell into great misery and lost money and field produce" (Clv. 44.130). The territory of Rohaṇa was directly affected in that the loser, "betook himself to Rohaṇa to restore his army and train" (Clv. 44.143). This process may not have been as peaceful as it sounds, and was probably connected with some degree of violence or coercion. However, religious sites and areas within the capital at

Tissamahārāma were obviously not affected. The Rajamahāvihāra, where a coin hoard has been discovered, is mentioned intact in the Cūlavamsa shortly afterwards, in the 650s, under its then name of Tissa vihāra (Clv. 45.59). The survival of the Māṇik vihāra is likewise attested by an inscription datable to the seventh or eighth century; the large Debarawewa coin hoard was unearthed only half a mile northwest of this monastery.

The next crisis seems to have been more serious than the one just described. Allegedly responding to a ‘family affair’, King Aggabodhi VI (727–766) and his cousin, the latter King Aggabodhi VII, together went to Rohaṇa to slay the seducer of the king’s daughter. The measures taken in reprisal seem out of all proportion to the apparent pretext of the expedition: “When at the head of a great army he <i. e. the king’s cousin> had brought the whole of Rohaṇa into his power, he delivered battle and seized him and his own wife Saṃghā” (Clv. 48.62). The battle took place in “the western mountains” of Rohaṇa, identified by Geiger with the mountain range southeast of Ratnapura (Clv. p. 115, n. 4). This would imply that the king and his cousin had left Anurādhapura with a great army, had marched south most probably on the road leading from the capital via Polonnaruwa to Tissamahārāma, and from there had conquered Rohaṇa territory at least as far as the western mountains (see Cook 1951: fig. 9).

The best candidate however for the cause of what is called the *Katastrophenhorizont* is a certain Mahinda, a nobleman living in the province of Rohaṇa during the reign of Udaya I (792–797). As in the previous case, the territory had to suffer consequences out of all proportion to the initial event. The aforementioned Mahinda fell out with his father, an *ādipāda* responsible for administering the revenues of Rohaṇa. The son therefore went to the king, and being clearly of a persuasive and charming nature won the sympathy of the monarch to such an extent that the latter married him to his daughter. Moreover, the king “sent troops to Rohaṇa” in a manner evidently planned by Mahinda to get rid of his father. Mahinda himself was not idle in these events, as he “set out, laid Rohaṇa waste with the help of the royal army, drove out his father to Jambudīpa, and took possession of Rohaṇa” (Clv. 49.13). We do not know the extent of the devastation but – judging by the

description – it must have been considerable. Mahinda was obviously driven by extreme avarice, behaving in such a ruthless manner in order to take possession of the wealthy dominion of Rohaṇa.

All or any of the four events described *might have been* a reason for hiding the coins, with the eventual result that the owners, or those persons responsible for keeping the money, had not been able to dig them up again. However, we need to make a distinction between coins still in use and coins still in existence, but not in use. This sounds like splitting hairs, but the differentiation is essential if the possible explanations just given are to be accepted. The quandary arises from the state of preservation of the Nāimana imitations. It is logical and generally accepted that the manufacture of imitations began when the supply of genuine Roman coins ceased, i. e. from ± 450. As the imitations are generally in an excellent state of preservation (and *not* worn as is always wrongly stated) they cannot have been in circulation for a long time. They were definitely withdrawn from circulation not long after they were minted, irrespective of what ‘not long’ might mean. However, being withdrawn from circulation does not necessarily mean being buried and lost forever. Storage with only occasional use is another possibility for explaining the good preservation of the coins. In this case, they could have survived in mint condition for a long time.

Most probably there is no universal or conclusive answer to the question of how long Roman coins and Nāimana imitations were used. Some hoards may have been buried in the fifth century, while others may equally have been lost in the eighth, depending on the individual context and local history of each location. However, the general situation of the region between Mātara in the west and Tissamahārāma in the east probably favours an early burial. Here, pure hoards of Roman as well as of imitation coins are only ‘contaminated’ by a very few specimens of the other kind, if at all. This means that neither coin type had time to be mixed and buried in one hoard.

The hoards discovered in the southern coastal regions of Rohaṇa seem to confirm the theory of the ‘shift to the west’. It has been argued that around the fifth to sixth century people migrated from the south-eastern part of Rohaṇa towards the west due to droughts



and famine<sup>295</sup>. This assumption has been mainly based on, “the dwindling of the number of inscriptions in this region after about the fifth century”<sup>296</sup>. In fact, inscriptions from the fifth and sixth centuries are generally very scarce on the island, and are especially so in Rohaṇa. We have fifth century epigraphic records from Tissamahārāma, Kataragama, and Moneragala (Mudiyansc 1990), but no inscriptions of this time are seemingly known from the areas west of Tissamahārāma. At the beginning of the fifth century, the Cūlavaṃsa records that, “the Island was vexed by the ills of a famine and a plague” (Clv. 37.189). In the middle of the sixth, as well as in the first quarter of the seventh century, the chronicle again records the occurrence of bad famines (Clv. 41.75 and 44.66). With the help of the coin finds, as well as by the results of the Tissamahārāma excavations, we can date these events more precisely. Taking Tissamahārāma as a starting point, the first ascertained hoard of Late Roman coins was discovered at Valaichchenai, about 115 miles up the southeast and east coast. In the west, we have to proceed to the Walawē Gaṅgā to find the first Late Roman coins in any large numbers<sup>297</sup>. Further west, the hoards become more numerous, culminating in the Mātara region. Thus the shift from the east to the west, i. e. from the dry to the wet zone<sup>298</sup>, must have begun sometime during the first half of the fifth century. The capital of Rohaṇa obviously ‘resisted’ for a short time longer. Here, at Tissamahārāma, the decline becomes archaeologically recognisable around 500, as there are “keine wesentlichen Siedlungsspuren nach dem 5. Jh. n. Chr.” (Weisshaar 2001: 107, 2002: 299, 2004: 145). The expected but markedly absent inscriptions of the fifth and sixth centuries are therefore ‘substituted’ in the west by coin finds, as proof indeed for the validity of the ‘shift to the west’ theory. It thus was this part of Rohaṇa that from the second half of the fifth century developed into the nucleus of the island’s international trade in later times.

At this point, on a purely trial basis, a totally different method of interpretation might be worth considering. The application of chaos theory to modern archaeological research has led to alternative conceptual models (Nick 2005: 153 f.). It is conceivable that historical developments, at so-called bifurcation points, may take a completely unforeseeable course due to apparently insignificant events or even the actions of a single individual (the so-called

*butterfly effect*). Furthermore, archaeological phenomena do not necessarily correspond with any known historical event as handed down to us in written sources – in short: anything goes. In this way, a completely different evaluation is therefore possible by switching from fact-driven to theory-driven models: “Wenn also die überlieferte Ereignisgeschichte nur sehr vage Anhaltspunkte zur Interpretation archäologischer Sachverhalte liefern kann, muß auf von außen entwickelte theoretische Erklärungsmodelle zurückgegriffen werden”. [If so, the event history bequeathed to us can only deliver very vague clues for the interpretation of archaeological facts, then external theoretical models must be returned to for explanation] (Nick 2005: 154). The use of coins appears to have been non-linear: foreign types appeared, were used and imitated, and then disappeared again. There was no constant development from the last centuries BC to the introduction of a regular coinage in the tenth/eleventh century. Clearly the use of coins was influenced and stimulated throughout the centuries by external and barely determinable factors, the original impetus, however, depending on the availability of the different coin types. The end of the utilisation of punch-marked and Roman coins (and their accompanying imitations) sometime between the sixth and the eighth or ninth century *might* have been caused by the historical events described, but it might equally have been the result of any number of other, trivial and unrecognisable, factors as well – contrary to the so-called “Dogma of Large-Large”, according to which large results must have large causes (McCloskey 1991: 32; Gerding / Ingemark 1997: 54). Śrī Lankāns obviously stopped using coins for several centuries. If it was not the known historical events that made people ‘forget’ coins, then

<sup>295</sup> Chandraprema 1989: 23–39, partly based on Siriweera 1986.

<sup>296</sup> Chandraprema 1989: 23 and 25 f., quoting Siriweera 1986. For the numerous inscriptions in the south-eastern part of Rohaṇa, datable from the third century BC to the first century, see the map given in Paranavitana 1970.

<sup>297</sup> This ‘vacuum’ between the two rivers was observed by Valentyn in 1724: “But along the coast from the above named river Cerinde to the great Walauwe River... one sees nothing but high mountains and many salt pans” (Arasaratnam 1978: 138).

<sup>298</sup> For the dry and the wet zones of Śrī Lankā see Domroes 1998: figs. 2, 3, and 8.

these either became unavailable through lack of supply, or were no longer needed. In the first case, alternative economic mechanisms would have had to be developed, while in the second, it was a free and essentially 'chaotic' decision to give up using coins.

## 10 Trade between Śrī Laṅkā, India and the western world from the fourth to seventh century, and how Roman coins came to Śrī Laṅkā

The finds of Late Roman coins in Śrī Laṅkā cannot be discussed without incorporating those of the same kind discovered in South India. The central question which has to be answered – based primarily on the coins themselves, but supplemented by evidence from the literary sources – runs as follows: Is there any observable relationship between Śrī Laṅkā and India in the fourth and fifth centuries that might explain the presence of Roman coins in both countries during this period?

In fact, there is not a single written source from this period that explicitly states that Roman ships ever sailed to India and/or Śrī Laṅkā<sup>299</sup>. Even in those cases in the fourth and fifth centuries when we hear of voyages *ad Indos*, we have to ask which country was meant by this expression: the Kingdom of Aksūm, Arabia, South China or India itself<sup>300</sup>? The same applies to the *rusulu maliki l-hindi* received by the emperors Honorius and Arcadius (Synaxarion p. 277). We do not know to which of the two emperors – Honorius in Mediolanum or Arcadius in Constantinople – these ambassadors with their presents were sent, nor who the ‘King of India’ may have been who sent them.

Data concerning apparent trade between the Roman Empire and India are however preserved in some literary sources. We have an account by Ammianus Marcellinus stating that in the middle of the fourth century a yearly market was held in the Syrian city of Batnae (near Edessa, and not far from the Euphrates which linked this region with the Persian Gulf), where many people gathered to buy goods sent from the Indians and the Chinese, and many other products that arrived by sea and by land<sup>301</sup>. A Roman garrison was stationed there. The description of the city given by Ammianus is confirmed thirty years later by Egeria: “*Ipsa etiam civitas [sc. Batanis] habundans multitudine hominum est; nam et miles ibi sedet cum tribuno suo*”<sup>302</sup>.

Both sources speak of annual trading events. Some years later, we are also informed about the land trade between the Roman Empire and the Sāsānian Empire. A decree datable to c. 387–15<sup>th</sup> May 392<sup>303</sup>, addressed to the *dux Mesopotamiae*, regulated the silk trade to the effect that only *comites commerciorum* were allowed to purchase silk from the Persians. Another decree, issued by the Emperors Arcadius and Theodosius between 16<sup>th</sup> October 408 and 21<sup>st</sup> August 409, strongly forbade any mercantile transactions other than in the cities of Nisibis, Callinicum (both in Mesopotamia), or Artaxata, the capital of Armenia (CI IIII, LXIII, 4)<sup>304</sup>. In this context, both payments in cash and barter trade are reported (*numeratum vel commutatum*). Nisibis is mentioned earlier in 359/360 as one of two cities – the second being Amida<sup>305</sup> – where trade between the Roman Empire and the Sāsānian Empire took

<sup>299</sup> About 100 years ago, a critical voice already stated, “and though many Roman coins have been found in various parts of the island, there is no proof that a single Roman ever landed on its shores” (Ferguson 1909: 84, n. 2).

<sup>300</sup> See Delbrueck 1956: 279, and the very critical but elucidating article by Mayerson 1993.

<sup>301</sup> *Res gestae* 14.3.3. Book 14 is dated to 353. The statement made by Demandt (1989: 340), based on the passage cited, that the Indians and Chinese themselves offered their goods for sale at Batnae, is untenable as Ammianus only speaks of “*commercanda, quae Indi mittunt et Seres*”.

<sup>302</sup> *Itinerarium* 19.1. Blockley (1992: 185, n. 30) has also correctly pointed to the distinction between ‘merchant’ and ‘merchandise’.

<sup>303</sup> CI IIII, XXXX, 2. For the following discussion see also Brandes 2002: 250–254.

<sup>304</sup> Nisibis is modern Nusaybin, in the Turkish Mardin Province, and close to the border between Syria and Turkey; Callinicum is modern Ar-Raqqah in north-eastern Syria; and Artaxata is modern Artašat, a few kilometres south of Jerewan.

<sup>305</sup> For the confusion with Edessa, see the literature cited in Drexhage 1983: 16.

place (*Expositio* ch. 22; Drexhage 1983: 5, 16; Pigulewska 1969: 58f.).

In describing the course of the war of 421–422 between the Roman and Sāsānian Empires, Socrates (*Hist. Eccl.* VII.18.7–8) states that inter alia the Persians confiscated merchandise from Roman traders (*καὶ ὅτι φορτία τῶν ἐμπόρων Ῥωμαίων ἀφείλοντο*). This confirms the continued existence of trade relations between the two nations in the border regions during these years. However, it seems that mutual interaction had become complicated by this time. The year before, a decree issued by the emperors Honorius and Theodosius II – dated 5<sup>th</sup> May 420 – allowed all the people living in the borderlands neighbouring the Sāsānians to surround their landed property with a wall (CI VIII, X, 10). The most endangered provinces were those of Mesopotamia, Osroene, Euphratensis, Syria Secunda, Phoenice Libanensis, Cilicia Secunda, the two Armenia, the two Cappadocia, Pontus Polemoniacus, and Helenopontus. The marchlands had obviously become increasingly dangerous, and the imperial decree of 408/409 was consequently confirmed and made even more rigorous by an edict dated between 29<sup>th</sup> April 422 and 23<sup>rd</sup> August 423 (CI IIII, LXIII, 6). These conditions were hardly favourable for the practice of an undisturbed and prosperous trade in this region. That trade, nevertheless, took place is attested by the sources quoted above. The intensity of that trade, however, is debateable. Considering the aforementioned testimonials, one should be cautious in speaking of a ‘flourishing trade’ at Callinicum and Nisibis, especially as no details of these transactions are recorded (Demandt 1989: 166). Another disruptive element in trade relations between the two empires emerged from the north. As early as 395, the Huns crossed the Caucasus, penetrated into Syria, and proceeded as far as Antiochia (Josua Stylites IX). Three years later, they were forced to withdraw (Seek 1921: V, 303; Demandt 1989: 167), but nevertheless remained a constant threat to both the Roman and Sāsānian Empires (see Greatrex / Lieu 2002: 44, 56–58). From the end of the fourth to the first quarter of the fifth century (and later), the borderlands between the two great empires – especially Armenia, Syria and Mesopotamia – were obviously disturbed areas. In order to avoid unnecessary risk, traders in luxury oriental merchandise naturally looked for other routes. A promising alternative was the sea passage via the Red Sea to the Chris-

tian Kingdom of Aksūm, which remained on friendly terms with the Roman Empire. One and a half centuries later, in 543, Procopius narrates that Byzantine-Sāsānian trade again flourished at Doubios (modern Dvin in Armenia), the capital of Persarmenia, with merchandise arriving from India, Iberia, and the Persian territories as well as from the Byzantine Empire (Procopius, *Pers. war* 2.25.3).

In the case of the sea trade, we have the record of a *capitatio* levied [ν]αυτῶν Ἰνδίας, the details of which are preserved in a papyrus dated 27<sup>th</sup> September 359 (P. Lond. Inv. 2574; Wilcken 1937; Kießling 1955). This fiscal order was intended to subsidise the sea trade with ‘India’, and was obviously necessary, as implied by another source from the same year. The anonymous author of the *Expositio totius mundi et gentium*, a kind of trade directory written in 359/360 (see Ruffing 2004), does not mention the two Red Sea ports of Clysma and Aila at all. The writer was most probably a Syrian and a trader himself, and he was well informed about commercial affairs in Syria, Palestine and Phoenicia as well as in Egypt and, to a lesser degree, in Arabia and Persia. The two cities of Nisibis and Amida, both situated in Mesopotamia, were well known to him. Their wealth was due to their geographical position between the Roman and Sāsānian Empires: Buying from the Sāsānians and selling to the Romans, and vice versa, the merchants in both cities made as much profit as possible. The East-to-West trade must have been particularly lucrative, as it is said that in the Sāsānian Empire: “*Alias autem abundare dicuntur in omnibus; data enim potestate ad eos adpropinquantibus gentibus negotii suae regionis, omnia abundare videntur*” (*Expositio* chs. 19 and 22). We therefore have two sources from the fourth century (Ammianus and the *Expositio*) which confirm that the Romans, at least in the decennium between 350 and 360, were used to buying eastern goods from the Sāsānians in the prescribed cities of Mesopotamia and Armenia.

In chronological sequence after the *Expositio totius mundi et gentium* we have to discuss the testimony of Epiphanius. As part of his *adversus haereses* (66.1), completed in 377, he mentions three ports in the Red Sea: Aila, Clysma, and Berenike. However, it was apparently only at the latter where goods from ‘India’ were traded and distributed further into the Roman Empire. The relevant passages can be interpreted in two ways. We can either view

the description as part of a story set in the third century<sup>306</sup>, or we can accept Epiphanius' observations as contemporary evidence, outlining the state of affairs in the second half of the fourth century<sup>307</sup>. A preference for the second interpretation would support the *Expositio*, because not a single word is said about the function or importance of the ports of Aila and Clysmā – only the names are mentioned, nothing else. Indeed, Brandes has described the supposed contacts with 'India' at the end of the fourth century, "ahistorisch" (unhistorical; Brandes 2002: 621).

In the fifth century however, there are at least two indicators that point to a continuation of Roman trade with India. We know from Theodoret (In Jeremiae cap. L vers. 35), that around the middle of the fifth century, ships sailing ad Indos departed from Aila (modern Elat). Nevertheless, in the same context, Theodoret also remarks that this harbour had been predominant in former times; thereby implying that its importance had dwindled. At about the same time, in the 440s, we are told of a (yearly?) great fair lasting forty days in the Cilician port of Aegea / Aigeai (modern Yumurtalık in Turkey), where – in all probability – eastern goods<sup>308</sup> were traded to western merchants who came by ship from Italy and North Africa (Theodoret, Epistola LXX; Theodosius 32).

About two decades later, in 468, the following events occurred. According to Malchus (Fragments, 1), a certain Ἀμόρκεσος "seized one of the islands belonging to the Romans, which was named Jotaba, and, ejecting the Roman tax collectors, held the island himself and amassed considerable wealth through collecting taxes" (Translation by Blockley 1983: 405/407). The island of Iōtabē (most probably Tīrān, the modern Ras Mohammed, situated at the mouth of the Gulf of 'Aqaba)<sup>309</sup> was in the best strategic position for a tax collector to reside, as all ships entering the gulf (at the end of which lay Aila) had to pass through the Madiq Tīrān, separating the Sinai Peninsula from the island. Bearing in mind that, in earlier times, a 25% importation tax (P. Vindob. G 40822, esp. 139–141; Casson 1986) was levied on goods from the Orient when first landed on Roman territory, the revenue of the Roman tax collectors must have been considerable, as is indirectly attested by the income of Amorkesos, the unofficial 'successor' to the Roman government officials<sup>310</sup>. We are told by Theophanes that in 497/8 the island of Iōtabē

was reconquered by the Romans, "and given back to the Roman traders to inhabit under its own laws, to import goods from the Indies and to bring the assessed tax to the emperor" (Theophanes, *Chronographia* p. 141 [ed. de Boor], p. 217 of the translation). Some thirty-five years later, the island was still an 'active' Byzantine outpost, as is reported by Chorikios in his third oration (Or. 3.67): "There is an island and its name is Iotabe and its purpose is to receive the cargoes from India, the tax on which is a great payment". It is probable that the customs duties levied had little negative effect on the intensity of trade (Drexhage 1994). From the reign of Theodosius II (402–450), we know that the Romans gave silk garments (σηρικοῖ ἐσθήμασι), precious stones from India (λίθοις Ἰνδικοῖς), and Indian pepper (ἐξ Ἰνδίας πεπέρι) as presents to the Huns (Priscus, Frgm. 11.2,35 and 11.2,310).

Despite continued debate on the precise identification of Iōtabē (Mayerson 1992), the testimony given by the two sources quoted above is unambiguous: Prior to 468, there had been an island (somewhere) in the Red Sea inhabited by Roman tax collectors and merchants, who were engaged in the trade with 'the Indies' and paying the resultant taxes to the Roman emperor. After having been occupied for more than a quarter of a century by Arabs, its former status was restored in 497/8. In all probability, the merchants on Iōtabē acted as intermediaries. They either received the cargoes directly from the East, and transhipped them onto smaller vessels to be traded to the ports of the Red Sea and the two gulfs (Mayerson 1992: 3), or they sent ships on to Adūlis to obtain the Eastern merchandise there. For example, two ships from Iōtabē are recorded at Adūlis in the year 525 (see below). At the transition of the fifth to the sixth century,

<sup>306</sup> As in Mayerson 1993: 174.

<sup>307</sup> Delbrueck (1956: 280) gives 347 AD for the completion of 'adversus haecreses', but see Marksches, s. v. *Epiphanius* [1], DNP 3 (1997).

<sup>308</sup> Jones (1970: 8) supposes imports from China, India and Persia, but the two sources quoted give no hint to the nature of the merchandise.

<sup>309</sup> Procopius, *Pers. war*, 1.19.33, locates the island 1,000 *stadia* (about 185 km) from the port of Aila, down the Gulf of 'Aqaba.

<sup>310</sup> In this context, Brandes (2002: 261) states that the trade with India was carried out via this island, and that the tax rate imposed on this trade was 10%. See on this topic also Greatrex 1998: 227.

the port of Clysma is mentioned again. By decree of the Byzantine Emperor Anastasius I (491–518), the *κομμερκιαρίος* of Clysma was obliged to contribute to the income of the *Dux Palaestinae*<sup>311</sup> by paying him parts of ‘the twelfth’ (IGLS 9046, line 10ff.). It is not clear what ‘the twelfth’ mentioned in this inscription really means, but it has been suggested that this was a customs duty levied by the Byzantine official in charge (discussion of IGLS 9046, pp. 117f.). The Latin equivalent of the Greek title of this administrative official was the *commercarius*, who was attached to the *comes commerciorum*, responsible for trade with other countries. The latter, for his part, was under the *comes sacrarum largitionum*, or minister of finance.

Here we need to discuss the role of Clysma or, to be more precise, the dating of the famous and often quoted passage from the itinerary of Egeria. The part of interest, describing the Red Sea port of Clysma (modern Tall al Qulzum – As Suways – Suçz) was written down in its present context by Petrus Diaconus in the twelfth century (*De locis sanctis* Y.6), and is worth quoting in full: “*qui portus mittit ad Indiam vel excipit venientes naves de India; alibi enim nusquam in Romano solo accessum habent naves de India nisi ibi. Naves autem ibi et multe et ingentes sunt; quia portus famosus est pro advenientibus ibi mercatoribus de India. Nam et ille agens in rebus, quem logotetem appellant, id est, qui singulis annis legatus ad Indiam vadit iussu imperatoris Romani, ibi ergo sedes habet, et naves ipsius ibi stant*”. This passage was formerly ascribed more or less convincingly to Egeria herself, and was thus considered to be an authentic record of the late fourth century. However, recent research, based on philological arguments and the analysis of Byzantine administrative practice, has unequivocally shown that it must date from the first half of the sixth century (Brandes 2002: 81, 260ff., and especially Appendix XII: Egeria und Klysma). With this re-dating, it joins and fits smoothly with the testimony of the contemporary writer Procopius, and with that of the slightly later Antoninus, in narrating that the two ports of Clysma and Aila were active in the trade with ‘India’ during the sixth century. The presence of Roman, Ethiopian and Indian ships in this region is recorded by Procopius (*Pers. war* 1.19.23–25). A few decades later, in about 570, it is related that ships coming from ‘India’ landed at Clysma and Aila

(Antoninus pp. 185 and 187). The numismatic material found in Śrī Lanikā, which is, so to speak, the corresponding evidence from the other side, will be discussed further below. In addition to the new dating of the passage from Petrus Diaconus quoted above, we also need to take a closer look at its contents as well. The interpretation of this text originally proposed in 1887, has hitherto been generally accepted: A Roman official residing at Clysma, called the *logothet*, probably gathered Indian-going vessels together once a year and sailed himself with this fleet to India<sup>312</sup>. Later writers have partly embellished this scenario by introducing Muziris, for example, as the port of destination in India, and by postulating the existence of Roman factories there<sup>313</sup>. Recent research, however, has shown that there was probably no permanently residing *logothet* at Clysma during the first half of the sixth century<sup>314</sup>. Moreover, it has been correctly pointed out that this official, of whatever status, would hardly have been permitted to leave his post for long, annual trade voyages to India (Brandes 2002: 617, n. 21). Furthermore, there is no indication whatsoever in the fourth and fifth century papyri that there had ever been any governmental participation in eastern maritime trade (Bagnall 1993; Gonis 2003). The same lack of governmental interest in trade – naturally excepting the question of tax – can be observed throughout the preceding three centuries: “Merkantilismus wurde nie zu einem Thema römischer Regierungspolitik” (Pleket 1990: 150; Young 2001: 211f.). On the other side of the border with Persia, the Sāsānian state was likewise uninvolved in the

<sup>311</sup> Greatrex 1998: 234, n. 26, presumes Palaestina III.

<sup>312</sup> Mommsen (1887: 360) remarked: “Von der Anordnung, dass der römische Controleur selbst jährlich nach Indien fährt, vermutlich also die römischen Indienfahrer Jahr für Jahr zur Flotte vereinigt, wie dies in der That schon der Monsun erfordert, ist meines Wissens sonst nichts überliefert”.

<sup>313</sup> Delbrueck (1956: 287) gave the following opinion: “Also lag in dem von Traianus angelegten festen Hafen Clysma eine stattliche Indienflotte, und ein Regierungskommissar, der jährlich nach Indien fuhr – vermutlich nach Muziris –, hatte dort seinen Amtssitz. Die römischen Faktoreien in Indien bestanden demnach noch – die letzte Erwähnung der Art”.

<sup>314</sup> Brandes (2002: 260) states: “Tatsächlich sollte man davon ausgehen, daß es in Klysma weder einen dauerhaft stationierten Logotheten noch einen *κομμερκιαρίος* gab. Damit entfallen auch alle Erwägungen über angebliche Zölle, die dieser eingezogen haben soll”.

transactions of its merchants (Gyselen 1998: 106; Daryace 2003: § 27).

The presumed contacts between the Roman Empire and Śrī Laṅkā in the fourth century are still disputed. The supposed Śrī Laṅkā origin of an embassy to the Roman Emperor Iulianus in 362, which is recorded by Ammianus Marcellinus (*Res gestae* 22.7.10), cannot be proved with certainty (see Weerakkody 1997: 23f. and Faller 2000: 135–141).

From a source of about mid fifth century date, it is evident that Roman ships obviously did not sail to Śrī Laṅkā at this time. Palladius states that, “*de Æthiopiae et Persiae finibus, et Auximitarum locis ibi mercatores emendi, vendendi, permutandæque rei gratia conveniunt*” (Palladius III,7). Roman ships are clearly not mentioned here. This difficult source has been much discussed and its attribution, dating, and tradition are complex. A condensed survey has been given by Faller, resulting in three possible solutions to the various problems (Faller 2000: 142–151). One interpretation, proposed by Weerakkody and preferred by Faller, can now be supported by the numismatic material. According to Weerakkody, the conditions described by Palladius must have been those of the mid fifth century, in connection with the South Indian rule over Śrī Laṅkā from 436 to 463. The Late Roman coins found in South India and Śrī Laṅkā perfectly conform to Weerakkody’s deliberations (see below). Faller’s suggestion of a possible sixth century date for the events described (Faller 2000: 150, n. 700), based on Geiger’s late dating of the Śrī Laṅkā kings, is not entirely helpful: Geiger’s, ‘List of the Ancient Kings of Ceylon’ (in which the late dates were proposed) was published in his translation of the Mahāvamsa in 1912 (pp. xxxvi to xxxix), but was later retracted by the author himself in favour of an earlier, conventional dating, published in his translation of the Cūlavamsa in 1930 (part 2, pp. viii to xv), and again in Geiger 1960: 223–227; the latter, “following the additional notes in his copy for personal use” (editor’s note on p. 223).

It has been argued that Roman merchants sailing from Clysma and Aila obtained goods from India and China at the East African harbour of Adulis (modern Zula, south of Massawa), which was already known to the author of the *Periplus* as a *port of trade* (*Periplus Maris Erythraei* § 4), and at the South Arabian port of Occlis (most probably modern as-Šaikh Sa’id on the Arabian side of

the Bāb al-Mandab), where they were brought in by Arabian and Ethiopian traders (Hannestad 1957: 425–27 and 455; Johnson / West 1967: 137; Dihle 1984: 145; Mayerson 1993: 174). In the time of Kosmas (II, 101 A), the harbour of Adulis was much frequented by merchants from Alexandria and Aila. Kosmas further states from his own experience that western ships did not sail beyond modern Cap Guardafui, as the open ocean was considered too dangerous for navigation (II, 88 A–C). Only a few people – for the miserable gains of commerce – dared to sail to the remotest parts of the earth (II, 96 C). Recent research has only partly accepted this first-hand observation, namely that the involvement of Roman traders was confined to the Red Sea (Greatrex 2005: 502)<sup>315</sup>. Early contacts between the Kingdom of Aksūm and India are seemingly attested by a find of Aksūmite gold coins of fourth century date in South India, possibly discovered at Mangalore in Karnātaka or in its vicinity, which were mixed with Late Roman *solidi* of fourth and fifth century date [286]. Another Aksūmite gold coin of probable Indian provenance was bought in Kerala in the early 1990s [280]. A double pierced gold coin of Ezanas is of uncertain provenance [298.4].

In this context, another alleged Aksūmite gold coin should be mentioned. This unique and somewhat dubious specimen was allegedly found in southern Arabia, and bears the name of the Aksūmite king MĤDYS<sup>316</sup>. Both the obverse and reverse designs on this coin differ completely from the known examples of this fifth century king, and indeed from all other Aksūmite coins in general. As proof of its authenticity, it has been pointed out *inter alia* that the specimen is pierced in three places; a double piercing at the position of 12 o’clock and an additional hole at 6 o’clock. The double piercing frequently observed on Late Roman, Byzantine, and Aksūmite gold coins from South India, was therefore used as an argu-

<sup>315</sup> In this context, we should not take too much into consideration the three small *æs* coins of Constantius II, Arcadius and Honorius that were discovered in Bahrain, or the four small specimens of the fourth century discovered in Saudi Arabia (Callot 2004: 71, n. 7). In contrast, those that are definitely of importance for the commercial history of the region are the gold and silver coins of Augustus and Tiberius ascertained from the East Arabian coast at ed-Dour and Sohar (Callot 2004: 69–72).

<sup>316</sup> First published by Munro-Hay in 1995.

ment that the MĤDYS coin had once travelled to India as well. The conclusion, however, that “it could well have been involved in the India trade” (Munro-Hay / Juel-Jensen 1995: 50), overlooks the fact that the double pierced specimens have all been discovered in India and never outside this country. Although there is a slight theoretical chance that the coin was struck in Aksūm, then taken to India to be pierced, and finally returned to South Arabia – where it was allegedly discovered over 30 years ago – it is most unlikely that this would ever really have happened.

It is only for the years 525/526 that we have a clear description of the state of affairs in or near Adulis. When the Aksūmite king, Kalēb, was preparing to wage war against the Ḥimyarite Dhū Nuwās on the opposite side of the Red Sea, he confiscated the following number of ships to provide transport for his troops: twenty from Clysmā, fifteen from Aila, two from Iōtabē, seven each from Berenike and the Farsān islands, and nine from India. The Aksūmite king himself ordered the construction of ten Indian Ocean vessels, and of another one hundred small ships<sup>317</sup>. Most of the foreign ships mentioned had obviously sailed down the Red Sea to the port of Adulis with the north wind, which blows from May to November (Blanchard 2001: vol. 1, 68), in order to meet those vessels that would come during the winter from India with the help of the northeast monsoon (from November to March). This is in accordance with a statement in the *Periplus* that the best time for shipping merchandise from Egypt to this region was in the month of September (*Periplus Maris Erythraei* § 6; see also Munro-Hay 1996: 406). The ships from the Red Sea ports were able to return to the north when the winds veered round between December and April. These were the yearly voyages from Clysmā to ‘India’, described by Petrus Diaconus and datable to the first half of the sixth century (Brandes 2002: 617f. and n. 21). This annual shipping sequence was already partly described in the testimony of Plinius during the first century. Ships sailing to India itself started from the South Arabian ports of Ocelis (probably modern as-Šaikh Sa‘id) and Cane (in the modern bay of Bir ‘Alī) in July; while the return journey commenced at the beginning of December and terminated in the first half of January, “*intra idus ianuarius nostras*” (*Nat. hist.* VI, 104 and 106; see also Bianchetti 2002: 280f.). Hence, each of these two journeys lasted about forty days. As the

Aksūmite army had left the capital on 19<sup>th</sup> May 525 to march to Adulis, it is evident that in this year the number of ships sailing from India had been confined to nine.

At the same period, Procopius mentions a Roman individual who was domiciled at Adulis and, “engaged in the business of shipping” (*Pers. war* 1.20.4). The presence of Roman traders in general in the Ethiopian and South Arabian regions at this time is documented by Malalas (*Chronographia* p. 433). From Yemen, a mixed hoard of Late Roman *solidi* and Aksūmite gold coins has been reported, and although it is slightly earlier in date, it seems to support the accuracy of Malalas’ statement. At al-Madhāribā, about seventy kilometres west of Aden, 326 Roman coins and 868 Aksūmite specimens were discovered in a clay pot (Munro-Hay 1989). The known Roman part of this hoard dates from Constantius II Caesar/Augustus (324–361) to Theodosius II (402–450), while the Aksūmite part ranges from the reigns of Ezanas to Kalēb, i. e. from c. 330 to 540. This hoard may be interpreted as a kind of counterpart to the one mentioned above from South India (Mangalore). Here, the Roman part also ranges from Constans / Constantius II to Theodosius II, while the Aksūmite coins are earlier in date than those from the Yemen, having been minted exclusively in the fourth century (Ousanas I and Ezanas). Concerning the mints themselves, the *solidi* of the al-Madhāribā hoard reflect the same pattern already documented from the contemporary *æs* coins unearthed in Śrī Laṅkā and India. The mints of Antiochia, Constanti nopolis, and Nicomedia remain dominant, while all the other eastern – and some western – mints are represented as well. The predominant role of Antiochia, and the presumed route along which the cash flowed, will be discussed in detail later in this chapter.

The presence of Indian ships on the East African coast is already recognised by about the middle of the fifth century. In the description of a voyage to India via Aksūm, narrated by Palladios, we are told the important fact that the traveller continued his journey from Aksūm on board an Indian ship with Indian merchants (Faller 2000: 146.7). This is clear evidence that besides the existence of a West-

<sup>317</sup> Nöldeke 1879: 188, n. 1; Delbrueck 1956: 293; Johnson / West 1967: 138. The Ethiopic version (Fell 1881: 69f.) has much higher, but unlikely, numbers of ships.



to-East trade, there was also a corresponding connection beginning in India, with East Africa as the main destination. Furthermore, Palladios records that there was a βασιλικος μικρός τῶν Ἰνδῶν residing in Aksūm, perhaps a representative of the Indian exporters (Faller 2000: 143.4 and 144 with n. 689). The presence of Indian traders in Egypt is attested even earlier, in the second and third centuries AD (Salomon 1991).

Indeed, the Roman merchants trading in luxury goods from the East would have had to consider very carefully which option was worse: Paying a higher price to intermediaries (the Aksūmites, South Arabians, and Indians) and personally bearing only the risk of transportation from Aila or Clysma to further points within the Roman Empire, or to venture the high risks of a direct, but expensive and uncertain ocean voyage. Naturally, the enticement of a large profit in the latter case must have been appealing, but on the other hand, economic prudence suggested an acceptance of the former. The intensity of the trade with India should not be overestimated, as there were only a limited number of customers, in the largest cities of the Roman Empire, who were in a financial position to buy these extremely expensive, luxury goods<sup>318</sup>. Furthermore, it has been argued that despite some known instances when enormous sums of money were evidently invested in commercial transactions, the trade with the East was nevertheless a negligible factor in the wider economy of the Roman Empire (Pleket 1990: 135, n. 4).

However, at least in the first century the annual expenditures of the very small and extremely rich upper class (Pekáry 1981: 17) for oriental luxury goods apparently amounted to 20% of the Roman national budget. The latter was calculated to about 500 millions of *sestertii* (Pekáry 1981: 14)<sup>319</sup> and from Plinius (*Nat. hist.* 12.84) we know that: “. . . *minimaque computatione miliens centena milia sestertium annis omnibus India et Seres et paeninsula illa <i. e. Arabia> imperio nostro adimunt . . .*”. The profit gained only from selling Indian goods in the Roman Empire was calculated by Plinius (*Nat. hist.* 6.101) to an amount of five billions of *sestertii* – a hundredfold of the purchase price; and ten times as much as the Roman national budget.

Only a few merchants owned ships (Iohannes Chrysostomos, *In Joan.*, homilia I, 3 and *In Matth.*, homilia XLIX al. L, 5), and most probably very few of them were ocean-

going vessels. Consequently, a merchant who wanted to take the risk of a long sea voyage, first had to borrow the money to rent a ship, the interest rates sometimes running as high as 50%. In addition, he needed more money to buy the goods. Another possibility was a joint venture with other merchants to obtain the necessary funds (Milewski 2001: 109f.). However, the loss of a ship and perhaps, on the return voyage, of a valuable cargo as well, could have caused the ruin of a merchant or even of a consortium. Perhaps as a result of this uncertainty, the ships used appear to have been very limited in size. In Egyptian papyri from late antiquity, only a few ships are mentioned which exceed the seventy to eighty tons physically necessary for a sea voyage<sup>320</sup>. Though no doubt annoying and less profitable, it was therefore much safer for Roman traders to buy their eastern merchandise in the ports of the Red Sea littoral. The value of just one cargo of oriental goods could be enormous. The figures preserved by a second century record (P. Vindob. G 40822) are impressive: It has been calculated that a shipload worth about seven million *drachmai* was sent from the Muziris region to Alexandria. With this sum of money, about 30,600 people could have lived for a year<sup>321</sup>. The loan made to finance this risky enterprise is alone estimated at one to two million *drachmai* (Rathbone 2003: 221). This document also provides an insight into the details of a contract between a merchant – using a foreign ship for his journey from Alexandria to India – and his creditor (Thür 1987 and 1988; Rathbone 2003: 220–225). The trade in oriental gems must have been particularly profitable, as we know that in the first century an emerald in Cyprus – where this type of precious stone is found – was offered for sale at a price of six *aurei* (Plinius, *Nat. hist.* 37.6).

By the end of the fourth/beginning of the fifth century, the Sāsānian Empire, the great

<sup>318</sup> See, for example, Pekáry 1981: 17; Drexhage, s. v. *Indienhandel*, DNP 5 (1998); Parker 2002: 74f.; Haldon 2005: 31.

<sup>319</sup> Parker 2002: 75, calculated 800 millions and 12.5% of the budget.

<sup>320</sup> Bagnall 1993: 35. For the carrying capacities of ancient ships in general see McCormick 2001: 95f.

<sup>321</sup> Calculations from Drexhage *et al.* 2002: 265. In another publication, the numbers calculated by these authors are even slightly higher: 6,355 families of 6 persons each or 38,130 individuals (Drexhage *et al.* 2002a: 54).

rival of the Romans, had established direct contacts with India and China. It is testified in chapter 69 of the Chronicle of Se'ert that a ship bringing pearls and other eastern merchandise to Persia from these two countries was allegedly robbed by pirates off the Persian coast; this event having apparently taken place during the reign of Jazdegard I (399–420). The story of the robbery may be fictitious, but the direct trade between Persia and both India and China can be taken as fact (Delbrueck 1956: 286). An observation narrated by Amianus Marcellinus in the 360s can possibly be interpreted as further evidence of these contacts. He states that along the Arabian coast of the Persian Gulf, “*oppidorum est densitas et uivorum nauiumque crebri discursus*” (*Res gestae* 23.6.11). It is, however, quite unclear whether these numerous ships were engaged in local or long distance trade, although the latter is assumed by recent research (Daryaee 2003: § 14). An established sea-route between the Persian Empire and India is already attested in the first half of the third century. In 239/240 or 241/242, Mani – the founder of Manichæism – sailed to India<sup>322</sup>. After the death of the first Sāsānian ruler, he returned to Persia by sea and landed at Rēv-Ardašīr, a town on the Persian Gulf (Böhlig 1995: 25). Finds of Sāsānian coins in China, together with the Late Roman / Byzantine specimens, seem to suggest that from the fourth to seventh century, Persian intermediaries were responsible for the trade between China and Rome (Thierry / Morrisson 1994; Morrisson 1995: 84). Here again, the imperial decree of 408/409 regulating the overland trade between the Roman and Persian Empires must be mentioned (see above). By the sixth century, Persian traders had gained a monopoly in the silk trade, attested by Procopius for the year 527 (*Pers. war* 1.20.9 and 1.20.12).

From the sources cited above, it is evident that western seafaring to the East during the fourth, fifth, and early sixth centuries – whether starting from the Kingdom of Aksūm, from the Sāsānian Empire, or perhaps in isolated cases from the Roman Empire as well – always seems to have had India as destination, and not Śrī Laṅkā. One apparent contradiction to this assumption is the account left by the Chinese pilgrim Fā-Hien, who visited Śrī Laṅkā at the beginning of the fifth century. In Anurādhapura, he saw the stately and beautiful houses of the *sā-vā*, *sā-bo* or *sā-bhā* merchants, commonly translated as “Sabæan”<sup>323</sup>. Based only on this

uncertain interpretation, a trading connection between southern Arabia and Śrī Laṅkā has always been assumed. It is interesting that these traders dwelt in the capital, and not at a coastal location or port site. Due to their presumed profession, i. e. being engaged in overseas trade, we would have expected them to be based at the main harbour(s), and not in the capital. More recently, another interpretation of the Chinese characters used in Fā-Hien’s report has been proposed, according to which they allegedly refer to the *sarthavahas*, the local “chiefs of the trading class” (Weerakkody 1997: 13). Apart from the linguistic component of this new argumentation however, its historical component does not withstand criticism. It is argued that Fā-Hien could not have known the expression ‘Sabæan’, as by the fifth century the ruling dynasty in southern Arabia was now that of Ḥimyar. However, inscriptions of even later date from South Arabia contradict this statement. One inscription, dated 516/517, includes in the royal title the expression ‘*mlk sb*’, ‘King of Saba’ (Ry 510, line 1). Another, dated July 518, was commissioned by an individual who calls himself explicitly *sb’yn*, i. e. ‘the Sabæan’ (Ry 507, line 12). A third, dated November 526, records “*principes et consules Saibāni*” (CIH 621, line 6). All three texts stand in an unbroken tradition beginning in c. 25 BC, when Sabæan potentates started to name themselves, ‘Kings of Saba and Dhū Raidān’, i. e. of Saba and Ḥimyar. Finally, a third interpretation can be offered. In analogy to another Chinese account, where a Sāsānian official in China is called *sa-pao* (Daryaee 2003: § 15), we may identify the foreigner seen by Fā-Hien in the fifth century as Persian. However, as this passage in Fā-Hien’s account remains highly doubtful, this source alone cannot be

<sup>322</sup> Böhlig 1995: 88 (*Kephalaia* 1, 14, 27, and a second fragmentary mention in 184, 20–185, 14). The exact dating of Mani’s voyage depends on the answer to the following question: Was it in the last regnal year of Ardašīr I, the first Sāsānian ruler, or in the last year of his life, i. e. after his abdication? In 239/240 Šāpūr I was crowned as Great King, while his predecessor Ardašīr I was still alive; the latter only died in the winter of 241 or spring of 242. Hence the years 239/240 or 241/242 are possible. For details of this complex chronology see Altheim-Stiehl 1978 and Mosig-Walburg 1980.

<sup>323</sup> *Fo-Kwō-Ki*, ch. 38. Beal’s translation (1884: lxxiv), concerning the houses reads, “very beautifully adorned”.

given as proof for the presence of western merchants on the island at the beginning of the fifth century.

Vice versa, ships departing from India in all probability sailed only to Persian, South Arabian and East African harbours, and did not proceed further up the Red Sea to the ports of Aila and Clysma. Only in a Greek source datable to the fifth (?) century, and in its Georgian translation, is said that Aila (Evlath, Elat) was a port for Indian, Persian, Saracen (only in the Georgian version), and Egyptian traders (Ὀδοιπορία 49–51 and PsBasilus p. 281). Comparing the peoples mentioned here, it seems highly probable that the ‘Indians’ listed were in fact the Aksūmites.

It has always been supposed that the Late Roman coins discovered in Śrī Lankā had been brought there directly from the Western world. According to the literary sources however, the main destination was in fact South India, and they were not transported there by Roman traders on Roman ships, but by intermediaries; primarily by merchants from the Kingdom of Aksūm. This observation is in accordance with recognised structural changes within the commercial world (Heichelheim 1938: 805–808). The long distance trader, specialising in only one product, had been replaced by a different kind of merchant. The latter made use of all the opportunities available to make a profit. He was engaged in short, middle and long distance trade, overland as well as by sea, and was present at those centres where he might expect to meet as many customers and clients, and to find as much merchandise as possible, i. e. in large national and international market places and port sites. It was therefore unnecessary for this type of Roman trader to engage personally in the expensive and dangerous long-distance trade with the East (see above). Moreover, governmental restrictions such as high import taxes<sup>324</sup>, the confinement of international trade to specific locations, and strong supervision of shipping (CTh VII,16,3), had made commerce less open and more bureaucratic. Taking into consideration the freight transport rates as preserved in Diocletian’s price edict, the most profitable trade must have been short distance transfer by sea<sup>325</sup>. In any case, the customers ultimately had to pay the prices requested – and evidently did so<sup>326</sup>.

Archaeological data from East Africa appear to support the view of a decreasing Roman engagement in this region. Excavations at Ras Hafun (Xaafuun), located at the Horn of

Africa and identified with the ancient Opōnē of the *Periplus* (See Casson, *Periplus Maris Erythraei*, 132), have yielded interesting results. At the site of Hafun west, dated from the first century BC to the first century AD, material originating from Mesopotamia, Persia, the Nile and the eastern Mediterranean – and possibly South Asia as well – has been discovered. In contrast, the main site at Hafun, dated from the second to third century, with a re-occupation sometime during the third to fifth centuries, showed a marked absence of Mediterranean and Egyptian objects: Only artefacts from Mesopotamia, Persia and South Asia were observed (Horton 1996: 449f.). This confirms that in late antiquity, Roman traders only sailed as far as Adulis to obtain eastern merchandise at that port, and it was therefore from Adulis that the Late Roman *æs* coins must have found their way to South India<sup>327</sup>. The most probable landing place on the west (Malabar) coast seems to have been the town of Muziris (modern Kodungallūr, about twenty miles north of Cochin)<sup>328</sup>. With the southern monsoon route, ships sailing from Ocelis at the Bab el Mandab arrived at Muziris, the “*primum emporium Indiae*” of Plinius (*Nat. hist.* 6.104) at which town a *Templum Augusti* is recorded in the Tabula Peutingeriana, a world map of late fourth century date. Unfortunately, we do not know to which *Augustus* the temple was dedicated. In the middle of the second century, this town is again attested as a port used in East-West trade (P. Vindob. G 40822). However, the contract mentioned above is not proof for the existence of a Roman colony of

<sup>324</sup> See P. Vindob. G 40822 for details of an import tax of 25% levied at Alexandria on goods imported from India in the second century.

<sup>325</sup> Duncan-Jones 1974: appendix 17. The ratio of sea to land is given as 1:28 (or even higher).

<sup>326</sup> See the critical notes in Drexhage *et al.* 2002: 140, concerning the index prepared by Duncan-Jones.

<sup>327</sup> The following conclusions are different to the results of my earlier thoughts on this question (Walburg 1991).

<sup>328</sup> The location according to Sewell (1882: 240) and Mitchiner (1995: 21). Karttunen, s. v. *Muziris*, DNP 8 (2000) does not give any precise location due to the inconsistency of the littoral. Gurukkal / Whitaker (2001: 348), cautiously accept the validity of the Kodungallūr attribution. Recently, the ancient site of Muziris has been identified quite convincingly with modern Pattanam, a town close to Kodungallūr (BBC News, 11.6.2006: <[http://news.bbc.co.uk/go/pr/ft/-/2/hi/south\\_asia/4970452.stm](http://news.bbc.co.uk/go/pr/ft/-/2/hi/south_asia/4970452.stm)>).

merchants at Muziris, as has been claimed<sup>329</sup>. In the middle of the fifth century, we still find traces of an unbroken tradition, describing Muziris' role as a landing place for ships coming from the West and as an emporium. It is stated that after many days of sailing since departing from Adūlis, the traveller: "*Muzirim totius Indiae citra Gangem emporium tandem pervenit*" (Palladios III, 7 [only in the Latin version]). Here, some considerations concerning an often cited Tamil poem of supposedly early date become important. It was convincingly shown that there is no proof that this poem, which describes the brisk trade with 'westerners' in the town of Muziris, is of first century date – as it is always presumed – but that, "it might equally well have been written several centuries later". (Parker 2002: 63 f.). This would perfectly support Palladios' statement.

From Muziris, the coins were then transported overland through the Pālghāt Gap further east. Coin finds have been reported inland at Perūr [251], Karūr [252–256], Tirucoilur [245], and Madurai [257–260], supplemented by those discovered on the east (Coromandel) coast [243]<sup>330</sup>. By far the largest number of coins has been found at Karūr, followed by those discovered at Madhurā (modern Madurai), the ancient capital of the Dravidian Pāṇḍu (Pāṇḍya) kingdom. Unfortunately, we are only well informed about the early history of the main place of discovery. Karūr was already known to the Greek geographer Ptolemaios in the second century, and was the capital of the Cera (Chera) kingdom. The city was situated along the road connecting Muziris on the west coast with Arikamedu on the east (Drexhage, s. v. *Indienhandel*, DNP 5 [1998] and Karttunen, s. v. *Karura*, DNP 6 [1999]). Two large hoards of early Roman *denarii* of first century date, and one find of five *aurei* from the same period, have been reported at Karūr (Turner 1989: 59 f.). At both Karūr and Madurai, the Late Roman copper coins have mostly been found in the riverbeds (Krishnamurthy 1994: 8). The Amarāvati River, a tributary of the Kāveri, connects Karūr with the Bay of Bengal, while the River Vaigai links Madurai to Palk Bay. We must consequently assume that the Roman coins available in large quantities in South India must have travelled from here to Śrī Laṅkā: But why and when? In this case, the presence of coins undoubtedly records trading activity between the two countries. The fact that Śrī Laṅkā exported goods to

South India is already reported in the early first century by Strabon (*Geographika* 2.1.14). It has also been mentioned above, that the city of Antiochia imported precious stones from India, besides other goods, in the late fourth century. These must surely have originated in Śrī Laṅkā, as the island has always been, and still is, famous for its gemstones. From the Kingdom of Aksūm, on the contrary, emeralds were exported to India, where they were highly priced in the time of Kosmas Indikopleustes (XI, 449 B).

It has so far been suggested that the Roman coins were shipped to the island during the course of active trade between South India and Śrī Laṅkā. Hence, we need to look at the working procedures of this trade, as far

<sup>329</sup> Dihle 1992: 154. What is definitely not correct in this context is the statement: "Fast nur in Südindien und Ceylon sind die großen Mengen kaiserzeitlicher Münzen ans Tageslicht gekommen, die von Augustus bis ans Ende des 2. Jh. n. Chr. reichen". The cited source (Raschke 1978: 630 f.) and the accompanying notes do not confirm this. Likewise, Drexhage *et al.* 2002: 137 is also a little misleading, when stating that finds in Śrī Laṅkā commence with coins of Claudius, perhaps misinterpreting Turner (1989: 90), in her discussion of the mysterious Māntai find of 1574/75.

<sup>330</sup> Gurukkal / Whittaker (2001: 340) give an unusual explanation for the absence of Late Roman coins in ancient Indian port areas like Muziris: "With copper, however, there are additional problems over the site finds, since it was still accepted as circulating specie in the bazaars until recently, and it has been poorly recorded". As a source for this statement, the authors quote Krishnamurthy (1994: 9 and 115–16), supplemented by the assertion that: "There are persistent reports under the early British administration of copper coins in use as small change". Apparently the authors must have misunderstood the passage from Sewell (1904: 609 f.) quoted by Krishnamurthy (1994: 9). Sewell describes how in 1881 he saw many Late Roman copper coins in a private collection in Madurai. The collector used to pay, "the full value of metal brought to him; in consequence of which many of the poorer classes used to search in the waste places about the town and the sandy bed of the river in the dry months". A little further down Sewell argues: "The presence in many different places in the same town of Roman copper coins found lying in the ground and in the sandy bed of the river, seems to imply that these coins were in daily circulation and were dropped carelessly or otherwise lost by the inhabitants of the place". However, this statement refers to the fourth and fifth century, as does Krishnamurthy's conclusion on p. 116 of the cited monograph, where he argues, "that Roman copper coins were probably used by the people of Karur and Madurai for their own daily commercial transactions". For the other, "persistent reports under the early British administration", the authors unfortunately give no reference.

as these can be deduced from the geographic distribution of coin finds on the island as well as in South India. The location of coin finds in Śrī Laṅkā suggests that Indian ships sailed directly from Madurai and Karūr – the chief localities for finds of Late Roman *æs* coins in India – and/or from other sites along the Coromandel Coast. In this context, the Indian village of Alagankulam deserves attention. Situated at the mouth of the River Vaigai, and thereby connected by water to Madurai lying further upstream on the upper course of the same river, it would have been an ideal point of departure for vessels crossing over to any part of northern Śrī Laṅkā: To Talaimannār, Māntai and Kalpiṭiya on the (north)west coast, or to Kalmunai, Pooneryn, Kantarōḍai and Vallipuram on the (north)east. This navigational route would have followed the pattern of a coastal network established about the beginning of the first century, and which extended from lower Bengal along the east coast of India to northern Śrī Laṅkā (Ray 1993a, esp. 582). A small ivory carving of second to third century date found at Tirukēśvaram (Māntai), which was formerly given a tentatively Indian or Mediterranean attribution (von Schröder 1990: pl. 5A), is now definitively associated with the terracottas from Kondapur in Andhra Pradesh (Ray 1996: 358). More significantly, excavations at the site of Alagankulam itself have yielded cultural material dating – if the proposed chronology is correct – from the third century BC to about 600 (Nagaswamy 1991; Ramachandran 1996/7). Included among the finds were three Roman *æs* coins of late fourth to fifth century date<sup>331</sup>.

Without any doubt, ships arriving from South India sailed to the south of Śrī Laṅkā along its east coast. This is clearly apparent when comparing the finds from the west coast with those from the east. On the latter route, we even have at Kuchchaveli [58] an ancient seaport documented by the results of archaeological excavations, yielding Late Roman coins of fourth to fifth century date. More impressively, limestone Buddhas imported from South India have also been found at this site (Von Schröder 1990: 684, 06–03). In summary, the conjectural voyage of the South Indian merchants can be fully attested by coin finds along the east, southeast and southern coast, as well as by finds a few miles inland, at: Kantarōḍai – Vallipuram – Mullaitivu – Kuchchaveli – Trincomalee – Valaichchenai – Batticaloa – (Kurukkalmadam? – Ondachchimadam?

– Periyakallar? – Pandiruppu? – Kalmunai?) – Tissamahārāma – Goḍavāya – Dehigahalanda – (Ambalantoṭa?) – Ridiyagama – Rekawa – Kapuhena – Mātara – and Kitalagama. The villages in parenthesis, from Kurukkalmadam to Kalmunai, are places to where coins may have been transferred in modern times from a presumably central but single place of discovery (see the detailed commentary in the catalogue section 206 ff.).

The final destination in the south of the island was Mātara. It was here that the precious and semi-precious stones from the gem-mining area in the Ratnapura District, as well as from the Mātara region (sapphire and beryl), could be obtained (Cook 1951: 74 [Mātara] and 82 [Ratnapura]). This is indicated both by direct and later indirect evidence. Most significantly, the vast majority of confirmed coin finds have been reported from Mātara and its close vicinity, viz. Nāimana and Hittetiya. Hardly anything however is known of Mātara itself, which lies at the mouth of the Nilwala Gaṅgā<sup>332</sup>. Its ancient name was most probably Nilavālatittha (Nilavāla + tittha), denoting a ford or landing-place on the Nilwala Gaṅgā. As *tittha* (PTS 302) has the same meaning as *tara* (PTS 298), preserved in the modern name of Mātara (mahā + tara = great ford), we have no problems with this identification. The combination of mahā + tittha (Casie Chitty 1834: 160) also gives us the precise synonym for the northern port of Māntai, by which it is mentioned in the Mahāvamsa and Cūlavamsa. However, in this case only the second meaning of “tittha” as a landing-place is appropriate, as it describes the function of the harbour. For

<sup>331</sup> The very small number of coins found, can naturally only be evaluated as a cautious indication that should not, at least for the moment, be overestimated. Otherwise, we might arrive at an assumption based on too little evidence, as in the case of the interpretation of only three characters incised into a fragmentary sherd also discovered at Alagankulam. The text preserved, “... (?) ra jha ga ...”, has led to the following conclusion (Mahadevan 1995: 58): “*Rajah* was a royal title in Old Sinhalese occurring frequently with the names of kings, princes or local rulers in the early cave inscriptions of Sri Lanka. It is a pity that the fragmentary state of the sherd has denied us the name of an important personage from Sri Lanka, who probably visited Alagankulam” ... and who presumably had little better to do than to scratch his name and title into the surface of a pot or dish?!

<sup>332</sup> See for example the meagre records in Nicholas 1959: 70–72 and Geiger 1960: § 8.

Mātara too, we can perhaps assume a double meaning, indicating not only its geographical position at a ford crossing the Nilwala Gaṅgā, but also describing its function as a major landing place or harbour. By tracing the etymology of modern 'Mātara' backwards in time, we can observe an interesting phenomenon. 'Mātara' is a corrupt Portuguese version of 'Mahātota', which in turn, in Pali of the Kandy period, was spelled 'Mahātitttha'. This name dates back to the fourteenth century (Abeyawardana 2001: 51). According to popular belief, this place was connected with King Kumāradhātusena (513–522), who is said to have immolated himself on the funeral pyre of a deceased friend<sup>333</sup>. Nāimana has been tentatively identified with the *Νακαδούμα* of Ptolemaios, which the eminent geographer located on the equator (Rasanayagam 1926: 117). Although it would be tempting to accept this equation, as evidence of the antiquity and importance of this place, there is sadly no proof for the validity of this assumption.

In the light of the numismatic and literary evidence presented here, the chronological sequence of the mercantile relations between India and Śrī Laṅkā can be reconstructed in detail. The central event was the South Indian invasion of 436<sup>334</sup>, recorded in the *Cūlavamsa*: "The Damiḷa named Pāṇḍu had slain Mit-tasena <the Śrī Laṅkān king> in battle and now having come over from the opposite coast <South India>, held sway in Laṅkā" (38.11 ff.). According to this account, the northern part of the island was placed under Tamil rule, while the reign of the Lambakaṛiṇa dynasty at Anurādhapura was brought to an end. Pāṇḍu, who probably belonged to the royal family of Madurai (Majumdar 1970: 285), and his five successors, ruled the northern parts of Śrī Laṅkā from this time up to 463. From a South Indian point of view, this expedition must have taken place before the invasion of the Kalabhras, who overwhelmed the South Indian Kingdoms of the Pallavas, Coḷas, and Pāṇḍyas in the fifth century. The re-emergence of the Pāṇḍyas only becomes apparent towards the end of the sixth century (Majumdar 1970: 264 and 266f.). Hence, any peaceful mercantile contacts should predate the year 436. According to the chronological structure of the total mass of Late Roman coins discovered in Śrī Laṅkā, we can fix the date of shipment from the West to India at about 425/430. Subsequent to this, there was still the possibility for several years of trade between the mainland and the island.

During the period of occupation from 436 to 463, the trade between the two countries ended. This is clear both from the political factors as well as from the coin hoards themselves. The latest coins of any number represented in Śrī Laṅkā hoards are those dated 425–435 (following RIC; DOC provides a more general dating of 408–450). In either case, these coins were probably shipped from South India to Śrī Laṅkā before 436. After this time, trade collapsed for obvious political reasons and the later Roman coins of post 435 date, i. e. those of Marcian (450–457) and Leo (457–474), remained in South India<sup>335</sup>.

According to a completely different interpretation of the numismatic evidence, the Roman coins, as well as their imitations, might have been brought to Śrī Laṅkā by the Pāṇḍyan invaders during the period of occupation from 436 to 463; that is to say, at exactly the time just excluded<sup>336</sup>. If this were the case, however, we would have insurmountable problems in explaining why the overwhelming majority of the coins have been unearthed in the territory of Rohaṇa. It was precisely to this region, on the other side of the Mahaweli Gaṅgā and south of the Deduru Oya, that the Sinhalese nobility took refuge from the South Indian invaders. If the Pāṇḍyas really had brought the coins with them, we would expect the finds to be concentrated on the northern side of the river, i. e. in the Rājaraṭṭha territory which the South Indians occupied, and where they would then have been buried or

<sup>333</sup> Clv. 41.1, n. 1. Muthumala (1999: 6) quotes an unverified publication according to which: "This settlement was supposed to be the place of residence of King Kumaradasa as early as 415". The date given is obviously erroneous for 515, which refers to the year of a Sinhalese embassy to China (Clv. vol. 2, p. XVIII.9).

<sup>334</sup> In Tamil history, the date of Pāṇḍu is given as the year 358 of the Śaka era, which is equivalent to AD 436 (Prakasara 2003). Apart from Geiger, who dates this event to the year 433 and thus the beginning of the reign of Dhātusena to 460, Parker (1909: 281) and Codrington (1924: 11) for example, also fix the beginning of this monarch's reign to 463.

<sup>335</sup> This conclusion based on the hoard evidence is indirectly supported by the list of Roman coins compiled in Bopearachchi / Wickremesinhe 1999. This list ends with Theodosius II, and in this case the exact place of discovery is of minor importance: We only have to recognise that no coins of Marcian and Leo are mentioned.

<sup>336</sup> Bopearachchi 1984: 22, calling 1994: 3, this possibility, then proposed by Weerakkody, in question as being not wholly convincing. Weerakkody 1997: 168.

lost when Dhātusena proceeded from Rohaṇa to fight the Pāṇḍyas.

After 463, when Dhātusena (a member of the Moriya clan, which had settled in Rohaṇa since the second century) defeated the last Pāṇḍyan ruler in battle and re-established Śrī Laṅkā's sovereignty, the former trade contacts with South India were not revived. The coin finds support this view. Having killed Dhātusena in 478, the parricide Kassapa I ruled the kingdom at least temporarily from his new 'summer residence' at Sigiriya from 478 to 496. Three of four hoards of Roman coins discovered at Sigiriya however, terminate with pieces struck between 425 and 435. The fourth closes slightly earlier with a specimen minted in the period 408–423. With the only exception of two coins of Marcianus (450–457), no later, identifiable Roman coins have been discovered here, either as single finds in the past or more recently during the course of archaeological excavations. However, in contrast, a considerable number of Nāimana imitations have been found. The total coin inventory from Sigiriya supports a deduced cessation of supply from South India in 436. We may assume with good reason that the owners of the hoards from Sigiriya had had no opportunity to recover their property after the battle between Kassapa I and his brother Moggallāna I in 496. In summary therefore, the currency used at Sigiriya from 478 to 496 is exactly the same as that of the pre-436 period, with the addition of the imitations produced shortly afterwards. The single finds confirm this view. Apart from the two coins of Marcianus, there are no other specimens reported from Sigiriya that fill the gap between 436 and 496. After his victory, and having made Anurādhapura the sole capital again, Moggallāna instituted "a guard for the sea-coast" (Clv. 39.57), protecting the island against attacks from the mainland and thus reinforcing the break in trade connections with South India after the expulsion of the Damiḷas by Dhātusena in 463. A second reference to the importance of guarding the seacoast is made during the reign of Silākāla, 524–537 (Clv. 41.36). It has been argued – most probably correctly – that, "in providing protection, these kings were also trying to direct traders to their own ports" (Gunawardana 1990: 32).

This becomes apparent from the story of Sopatros, narrated by Kosmas Indikopleustes, which indicates the free access of foreign merchants – at least from the Kingdom of Aksūm and the Persian Empire – to the island in the

second half, or by the end, of the fifth century<sup>337</sup>. Furthermore, an additional aspect is revealed in his description: The focus of East-West trade had undoubtedly shifted from South India to Śrī Laṅkā. Muziris is no longer mentioned, but only the northern parts of the Malabar Coast up to River Indus (Kosmas Indikopleustes XI, 448 A). However, even here, it is not stated directly that these locations were frequented by merchants from overseas.

Preceding Kosmas in date is the testimony of Palladios. On the one hand, he is already aware of the importance of the island as, "*de Æthiopiæ et Persiæ finibus, et Auxmitarum locis ibi mercatores emendi, vendendi, permutandæque rei gratia conveniunt*", while on the other, Muziris is still known to him as, "*totius Indiæ citra Gangem emporium*" (Palladios III,7). This report is from exactly that time shortly after the interruption of political relations between Śrī Laṅkā and South India in 463, when Muziris was still active, but Śrī Laṅkā had already gained some prominence in the maritime trade with the West. The coin evidence confirms Weerakkody's dating of Palladius to about the middle of the fifth century. Post-Theodosian æs coins were still being introduced into South India via Muziris, but were no longer being shipped to Śrī Laṅkā; a result not only of the political situation, but also because of Śrī Laṅkā's own emerging, direct trade with the West. At the time of Sopatros, in the second half – or at least by the end – of the fifth century, this direct trade had become normalised, and the importance of Śrī Laṅkā reached its climax during the period when Kosmas wrote his topography, in the middle of the sixth century. The first numismatic representation of the direct trade

<sup>337</sup> Faller (2000: 159f.) follows Weerakkody's dating of sometime after 460, while Schwarz (1975: 484), dates Sopatros' voyage to the end of the fifth or the very beginning of the sixth century. The editor of Kosmas Indikopleustes' account already proposed in 1909 a time, "near the beginning of the sixth century" (p. 355, note to p. 323, l. 7). The dating given by Bopparachchi / Wijeyapala (1996: 27) is incomprehensible, but obviously misunderstands what Kosmas himself has said. Sopatros did not make his journey 35 years before Kosmas wrote his *Topography*, but had been dead for 35 years. Unfortunately, the authors do not explain their exact dating of Sopatros' voyage to 512. The false interpretation of this passage is admittedly taken from Tennent (1860: 479, n. 3; the authors quote the 1859 edition at p. 542, n. 2), even though they quote the translation of the relevant text in n. 91.

relations of this time is now apparent in the form of a small Aksūmite æs coin, datable to the end of the fifth or first half of the sixth century, recently unearthed at Tissamahārāma. In addition to this immediate and unequivocal evidence, we also have further signs of a new trade relationship between the western world and Śrī Laṅkā. A few of the coins found in Śrī Laṅkā have been modelled on late western patterns, or are genuine specimens of crude workmanship from the Mediterranean. These pieces show on their reverse either a barred cross (*Balkenkreuz*), a barred cross with a dot in each of the four quarters, or a rosette or star within a wreath. Scholars disagree about the dating of these coins. Mostecky has published a great number of them, which have been unearthed in North Africa (Mostecky 1997: nos. 653–697), and has assigned them to the period from c. 440 to 490. The type with four dots in particular (Fig. 263), seems to be characteristic of this region, although specimens have also been reported from a hoard in Dalmatia, dated to the later years of Leo I, c. 465–470 (Pearce / Wood 1934: pl. 8.16).



Fig. 263. Proto-Vandalic coin of the later fifth century.

In publishing an early sixth century hoard from Massafra, Hahn dates this coin type to a proto-Vandalic period of 455–480 (1987: nos. 196–202 and already 1986: 151; see also Hahn 1980). Asolati, in his publication of the Camporegio hoard, argues for the 470s (2006: 119). According to Morrisson, minting of these coin types commenced about the end of the fifth century (1980: 242), as they are represented in a North African find datable to the beginning of the sixth century. A slightly later dating, ascribing these imitative *nummi* to Gelimer (530–534), has also been proposed (I. Vecchi auction sale 15 [London, 15<sup>th</sup> June 1999], lots 1277–1279). Some specimens of the barred cross type unearthed in Beirut have been classified as “Unattributed Coins”, and dated from the “fifth to sixth centuries” (Butcher 2003: 245, nos. 2443–2452). The variant with four dots in the quarter compartments of a cross is also known from Palestine, where it is dated around the middle of the sixth century (Bijovsky 1998: 102). In Śrī Laṅkā, this type with the cross and four dots was

already known from a specimen published by Codrington (1924: pl. 41), another now in The British Museum (Walburg 1996: no. 95), and by a third example of unknown provenance (Walburg 1985: pl. 6.90). The obverses of the first two coins appear to have been struck from the same die. In addition to the cross-with-dots type, pieces showing only a star or rosette on the reverse are known from North Africa, Sicily, Palestine, Phoenicia, and Śrī Laṅkā<sup>338</sup>. The late dating of this entire group of imitation coins to the middle or second half of the sixth century seems convincing when we look at the Byzantine patterns on which these imitations were modelled. It is quite evident that the cross-with-dots and star/rosette designs are deliberately meant to imitate the coins of Justinian I, minted from 540 and 552 respectively (MIBE 211 and 237), or even specimens of the star-within-wreath type (Metlich 2004: no. 96) struck by the Ostrogoth king Baduila (541–552). A trace of MIBE 237 (a cross with four stars) can be found on the reverse of a specimen discovered in Śrī Laṅkā that has an “X” instead of a star in each of the four quarters of a large cross (Walburg 1996: no. 96). Another specimen of most probably North African origin was originally incorporated into the same category as the Nāimana imitations, because of its close similarity with the latter (Fig. 18.98; 264). However, judging by its physical characteristics, it seems that this piece was minted in North Africa early in the fifth century.



Fig. 264. Coin from North Africa.

With its weight of 2.23 g it is relatively heavy and has been struck onto a thick and almost triangular bronze blank. The reverse shows a cross within a circle. In the discussion of a fifth century hoard from Carthago special mention is made of a similar, crudely manufactured specimen attributable to Valentinian III; weighing 2.13 g and likewise struck on a triangular blank (Mostecky 1994: 44 and

<sup>338</sup> For Śrī Laṅkā see Walburg 1985: pl. 7.98 and 1996: nos. 97 and 150. For the other countries see Morrisson 1980, Hahn 1987, Mostecky 1997, Bijovsky 1998, and Butcher 2003.



cat. no. 2.644). Some more specimens of this kind (triangular and of heavy weight) are documented from other sites in North Africa (Turcan 1961: 223f.).

A final, striking similarity between a 'Vandalic' coin and a specimen discovered in Śrī Laṅkā should be mentioned (Figs. 265–266).



Figs. 265 and 266. Comparable reverse designs.

Both are unique specimens and it is quite clear that the reverse of the first coin was modelled on that of the second. The 'Vandalic' specimen is of uncertain date, but might belong to the same group of North African coins described above, dated to the late fifth/mid sixth century. These rare, unusual types, that differ so markedly from the well known and abundantly represented designs, such as the 'soldier with standard', 'cross within wreath', and 'wheel ornament', are concentrated in a group of coins probably from Nāimana. It is in this area, i. e. from the greater Mātara region, that the finds of Late Roman and Early Byzantine gold coins have been reported. These are important indicators of the new direct trade between Śrī Laṅkā and the western world in the late fifth and early sixth centuries, mediated through precious metal, probably valued in weight. By this process, a few contemporary western *æs* coins found their way to Śrī Laṅkā as well. The number of North African coins discovered on the island might be even greater than previously thought, if we compare, for example, the drawings of some coins characterised as 'contrefaçons barbares' with similar types from Śrī Laṅkā (Turcan 1961: 227 and Walburg 1985: pl. 83, 90, 91, 120, 156). In these cases it is hard to decide, because of their abstract designs, whether the coins are of African origin or were struck in imitation of Roman coins in Śrī Laṅkā.

To crosscheck the results of this deduction concerning the presence of late Vandalic copper coins in Śrī Laṅkā, we have to take a closer look at the state of affairs in North Africa

during this period. An increasing number of Late Roman gold coins has been attested here, starting from the reign of Theodosius II and ranging in date to Iustinianus I (Morrisson 1987: 328f.). Although geographically closer to the Western Roman Empire, the commercial orientation of Vandalic North Africa – from the beginning of the Vandal occupation in 429 to the Byzantine reconquest in 533 under Iustinianus I – was clearly turned towards the eastern part of the Roman Empire. The fact that the overwhelming majority of the coins found are from eastern mints – mainly Constantinople – documents this. Besides the coin evidence, there is additional testimony from archaeological and written sources that supports the numismatic data for the fifth century (Morrisson 1987: 330f.). It is therefore quite logical that Vandalic (or proto-Vandalic) *æs* coins of the fifth and early sixth centuries should have found their way to the eastern part of the Empire as a result of the active trade between the two regions, and from there were subsequently taken to Śrī Laṅkā. In this context, it is perhaps worth mentioning that extremely unusual items, such as coins of Claudius II and Tetricus, as well as uncoined blanks, are recorded not only from Egypt and the region of Syria / Palestine / Phoenicia but also occur in North African hoards (Turcan 1961: 202, 207, 215f., and catalogue 235ff.).

The chronological sequence of events described above, based on the South Indian invasion of 436, is supported by Chinese written sources<sup>339</sup>. Prior to the Pāṇḍyan occupation, there are records of Śrī Laṅkā diplomatic contacts with China. The first embassy arrived at China sometime between 405 and 418 after having travelled the incredible long time of ten years, and subsequent to this, official embassies from Śrī Laṅkā are recorded in the years 428, 430, and 435. These are supplemented by records of the travel of Śrī Laṅkā priests and nuns to China as well as by the voyage of Fā-Hien to Śrī Laṅkā. Then these contacts suddenly ceased. It is only eighty years later, in 515, that we hear of another Śrī Laṅkā embassy arriving at the Chinese court, followed by further missions in the years 523, 527, and 531. This interruption of contact between the two countries was doubtless the result of the

<sup>339</sup> The following compilation is based on Lévi 1900 and Senaveratne 1916.

Pāṇḍyan occupation, while the revival is attested by Kosmas Indikopleustes in the middle of the sixth century<sup>340</sup>.

The next question to answer is the one concerning the flow of cash. Judging by the structure of the Roman coin hoards, supplemented by the single finds, especially from the excavations at Tissamahārāma, we can say with a high degree of certainty that the Late Roman coins found in Śrī Laṅkā came from the region of Syria / Palestine / Phoenicia and from Egypt via South India. However, more investigation is necessary to elucidate the details of this movement, i. e.: What was the structure of the ancient trade between South India and Śrī Laṅkā on the one side, and with the western world on the other? Are these finds the accumulated product of a steady stream of merchants, who every year brought new coins with them to this region, or were they only transported to South India in one, two or three large shipments? In this context, we first need to ask about the chronology: When were the coins brought to South India? There is a strong indication that the vast majority of the Late Roman copper coins were brought to the subcontinent after 395. The fact is striking that only a single specimen of the large Æ 2 size has definitely been found in Śrī Laṅkā; having been unearthed at Tissamahārāma in 1998 [182.5]. Codrington has additionally described one large *foliis* of Constans (*fel temp reparatio*, falling horseman) and a *decagyrus* of Aelia Flaccilla, both of unknown provenance. At best therefore, we have only three large-size coins, the last examples of which, known as *decagyrus nummus*<sup>341</sup>, were withdrawn from circulation by Imperial decree on 12<sup>th</sup> April 395 (CTh VIII,23,2). The same observation holds true for South India, where evidently not a single large-size coin has so far been found. However, if we assume that there was a steady flow of cash from the Roman Empire to South India, beginning in the Constantinian era, we would therefore expect to find far more large-size pieces in South India and on the island. In Syria and Egypt, the two main regions of origin for the Late Roman coins found in Śrī Laṅkā, the large Æ 2 pieces are attested in hoards from the period 346–363, either as the only denomination or mixed with Æ 3 specimens. In the period 364–423, there are no mixed hoards reported, but only ‘pure’ hoards of Æ 2 or ‘mixed’ hoards of Æ 3 and Æ 4 (Schubert 1984: 120, 136f.). Although it must be admitted that large-size pieces are rare in

the fifth century hoards from Syria and Egypt, some however are attested, and more of these specimens are reported as single finds from both dioceses<sup>342</sup>. A Thracian burial mound in South Bulgaria, dated about 363, should also be mentioned here, containing both Æ 2 and Æ 3 specimens (Abstract of B. Bojkova in NL 142 [1999], no. 255).

This temporal deduction is supported by the results of the Tissamahārāma excavations. All the Roman coins, including those minted in the fourth century, were discovered in archaeological layers datable to c. 450 and later. In other words, the coins found do not reflect a general chronological sequence, with the oldest coins in the deepest layers and the youngest in the upper strata, as one might expect from a long, continuous process of acquisition and use (Walburg 2001: esp. 278 and n. 29). This research has also disproved Codrington’s statement that Roman coins and punch-marked pieces are not found together, even though their occurrence in the same place was reported (Codrington 1916: 179).

To answer the question as to how and why the Late Roman Æ coins found their way from South India to Śrī Laṅkā we have to recapitulate the following facts: In South India, that is in Kerala, Karnāṭaka and Tamil Nādu, Late Roman gold coins first appear with specimens of Theodosius II. As the Æ coins were almost certainly shipped to this region sometime after 395, we can assume a joint transfer of gold and Æ coinage to South India during the first two decades of Theodosius’ reign, i. e. 410–420/5. Hoards of Late Roman Æ coins have never been found here, either in Kerala, Karnāṭaka or in Tamil Nādu, but in contrast, an overwhelming majority of all the coins reported have been collected from the riverbeds. The remainder are mostly sporadic, stray finds (Mitchiner 1995: 94 and 1998b: 116). This would seem to imply that the Late Roman Æ coins never formed a regular currency in South India. In this respect, the explanation given recently by

<sup>340</sup> For the East-West trade in the time after Kosmas, see Lennartz 2001.

<sup>341</sup> For the nomenclature and identification of Late Roman coins, see Weiser 2000.

<sup>342</sup> Noeske 2000a: vol. 2 (catalogue). There are another two specimens in the Bajocchi Collection, which were most probably unearthed in Egypt (Bajocchi *et al.* 2003: nos. 3 and 4). Several specimens are reported from Beirut (Butcher 2003: nos. 1058–71, 1610–25, and 1647–56).

Mitchiner for the presence of the coins (1998b: 119) is not entirely convincing. It was argued that: “Many of the foreign coins found in South India appear to represent casual losses of small change – coins ... which eventually found their way into the local river”. This may be true for the occasional coin find, but certainly not for the thousands of Late Roman coins discovered in the beds of the Amarāvati and Vaigai rivers, at the towns of Karūr and Madurai respectively. These numbers hardly represent casual loss and their presence in the riverbeds, along with other ancient coins<sup>343</sup>, still requires explanation. Nevertheless, we can already state with certainty that at some of the places where Late Roman coins have been discovered, such as Karūr, Madurai and Kottayam, both earlier and later specimens have been reported as well. The multiplicity of coins discovered in the beds of the two rivers mentioned above, may be interpreted as an indication of premeditated action, suggesting that the coins had been thrown intentionally into the water. In both cases, with the River Vaigai at Madurai and with the River Amarāvati (Kāveri) at Karūr, we may assume a religious motivation. Madurai is a cultural and religious centre of great antiquity, while the River Kāveri is still a sacred river to Hindus, from which – besides the large numbers of ancient coins – finds of Middle Eastern and European currencies are also attested (Reddy 2006: 144). We might consider these as money-offerings comparable to those known from Europe, where they are connected with fountains, bridges and fords. For other Indian rivers, the same observation is true<sup>344</sup>. In Afghanistan, over 20,000 coins have been discovered in the bed of a sacred spring at Mir Zakah (Sircar 1968: 305). We can thus conclude from the location of the South Indian coin finds that there was obviously no monetary or economic necessity for the use of the Late Roman *æs* coins that were being introduced into the country as merchandise via the trading port of Muziris and through the Pālghāt Gap, as a result of the trade between the western world and South India. People evidently handled them in a non-monetary but ritualistic context – and additionally knew a profitable way to dispose of these coins to “someone” who was willing to accept the scrap. This is revealed by the thousands of specimens unearthed in Śrī Lankā. Such commercial practice is supported by the monetary history of South India in this period. The Pāṇḍyas and Coḷas had stopped

issuing and using coins around the middle of the third century, while at about the same time the Pallavas further north began minting large lead and potin coins with an average of two centimetres in diameter. Furthermore, in the Chera kingdom, the use of coins was obviously unknown until about the year 600 (Mitchiner 1995: 89–94). Hence the Pāṇḍyas and Coḷas had not used coins for about one and a half centuries before the arrival of the Late Roman *æs* coins, while the Pallavas had new coins of their own beside which the small to minute Roman specimens would have been neither competitive nor compatible.

The possible transfer of the Late Roman *æs* coins at one time, and at a late date, was originally suspected by Burnett, but was afterwards discarded by him in favour of, “a series of at least several cargoes, or perhaps even a fairly steady flow” (Burnett 1998: 185). This later interpretation however also had its problems, of which Burnett was naturally aware. He rightly observed that there were comparatively few coins of the period 364–378 in the Śrī Lankā hoards, even though these were available in large numbers within the Roman Empire. However, his argument that there were too many Constantinian coins in the hoards to be possible for a mid fifth century date, can be easily disproved. According to Schubert (1984), coins of the Constantinian dynasty are regularly represented in Egyptian hoards of the late fourth and early fifth centuries in significant numbers: 15.3% (hoard U, buried about 370), 17.7% (hoard V, buried about 380), 8.6% (hoard X, buried after 402) and 10.6% (hoard Y, buried 408/410). The total percentage of coins of the Constantinian

<sup>343</sup> From the descriptions given by Mitchiner – 1998b: 56–58 (Karūr) and 63–65 (Madurai) – it is quite unclear which types of coin were discovered in the riverbeds and which ones were only seen by the author in the local bazaars and private collections, knowing nothing about their exact provenance. In his preface from 2000, Krishnamurthy attests that the coins described from Karūr – Thracian, Thessalian, Cretan, Rhodian, Seleucid, Phoenician, Askalonian, Iudaeic, Parthian, Edessan and Aksumite pieces – all came exclusively from the bed of River Amarāvati; the same provenance may also be assumed for the Tamil coins of Sangam age.

<sup>344</sup> Reddy 2006: 144; Gupta / Hardaker 1985: 34, n. 16: “The fact that most of the minute globule coins have come from river beds indicates that the custom of throwing coins into sacred waters was popular in Mauryan times and, then as now, people chose to throw in the smallest denomination”.

ian dynasty represented in those hoards of the period 364–423 investigated by Schubert is 16.04% (1984: tab. 85). The fifth century Egyptian hoards follow an identical pattern (Walburg 1985: appendix A). In three hoards ending with coins minted between 408 and 423, a total of 14.61%, 19.38% and 14.17% of the specimens had been struck under the Constantinian dynasty, while one hoard ending in the period 425–450 had 15.59% and a final example, ending in 474–491 showed 20.12%. In summary, 16.77% of the Egyptian hoards analysed from the 5<sup>th</sup> century consisted of coins minted prior to 364. In comparison, the percentage in Śrī Lankā hoards is 16.78%. These numbers are conclusive and unequivocal. One possible reason for the presence of a significant number of Constantinian coins in the eastern parts of the Roman Empire during the fifth century is suggested by the existence of at least one terracotta mould. The five impressions preserved in this mould were made by using two coins of the Theodosian dynasty and *three* different specimens of the Constantinian dynasty (Noeske 2001: 85f.). Hence, the evidential basis of Burnett's argument is inconclusive.

A comparison with the framework developed by Noeske for fifth century Egypt and Syria will demonstrate that the coins discovered in Śrī Lankā were indeed transferred via South India to the island as a bulk cargo in the first half of that century, and are not the result of a constant supply throughout the fourth and fifth centuries, as has been argued. For this purpose, the written descriptions given by Noeske (2000a, vol. 1: 112, 1.5 – 124, 1.7 and 268ff., 3.1 for the different periods) are compared with the dates and numbers of each identifiable coin type from Śrī Lankā.

(N IV, V, etc. = Noeske period IV, V, etc.)

TYPE / EMPEROR	DATE	No.	
<i>Constantinian dynasty</i>			
<i>solī invicto comiti</i>	317	1	N IV
total	317	1	
<i>crispus caesar</i>	324–330	1	N V
<i>prov. augg/caess</i>	324–330	2	
<i>securitas reipublice</i>	324–330	1	
Constantius II	324–361	3	
<i>constantinopolis</i>	330–335	2	
<i>gloria exercitus</i>	330–335	3	

<i>constantinopolis</i>	330–337	2	
<i>constantinopolis</i>	330–341	2	
<i>gloria exercitus</i>	330–341	2	
<i>urbs roma</i>	330–341	1	
<i>gloria exercitus</i>	335	1	
<i>gloria exercitus</i>	335–337	4	
<i>gloria exercitus</i>	335–339	1	
<i>gloria exercitus</i>	335–341	36	
<i>securitas reip</i>	335–341	3	
<i>gloria exercitus</i>	337–340	1	
<i>gloria exercitus</i>	337–341	4	
<i>pax publica</i>	337–341	1	
Quadrige	337–341	3	
consecration coin	337–346	6	
Constans	337–350	1	
Constantius II	337–361	1	
<i>victoriae dd auggq nn</i>	341–346	10	
<i>vn mr</i>	341–346	2	
<i>vot xv mult xx</i>	341–346	4	
<i>vot xx mult xxx</i>	341–346	9	
<i>victoriae dd auggq nn</i>	341–361	2	
total	324–346	108	
<i>fel temp reparatio</i>	346–350	1	N VI
<i>vota publica</i>	348–350	1	
<i>fel temp reparatio</i>	348–354	1	
<i>fel temp reparatio</i>	351–354	1	
<i>fel temp reparatio</i>	351–361	69	
Iulianus	354–363	1	
<i>fel temp reparatio</i>	355–360	3	
<i>fel temp reparatio</i>	355–361	1	
<i>spes reipublice</i>	355–361	14	
<i>spes reipublice</i>	355–363	10	
<i>vot v</i>	363–364	1	
total	346–364	103	

*Theodosian dynasty*

<i>gloria romanorum</i>	364–375	3	N VII
<i>gloria romanorum</i>	364–378	66	
<i>securitas reipublicae</i>	364–378	5	
<i>gloria romanorum</i>	365–367	1	
<i>gloria romanorum</i>	366–375	1	
<i>securitas reipublicae</i>	367–375	4	
<i>victoria auggg</i>	367–375	1	
<i>victoria augustorum</i>	375–378	1	
total	364–378	82	
Valentinian II	375–392	2	N VIII
<i>concordia auggg</i>	378–383	4	
<i>virtus romanorum</i>	378–383	1	
<i>vot xv mult xx</i>	378–383	3	

vota coin	378–383	3	
vot v mult x	378–387	1	
vot x mult xx	378–387	1	
vot x mult xx	378–392	3	
vota coin	378–392	1	
Theodosius I	379–395	1	
vot v	383	1	
vot x mult xx	383	8	
vot xx mult xxx	383	10	
victoria augg	383–387	1	
victoria auggg	383–387	2	
vot x mult xv	383–387	1	
gloria reipublice	383–392	1	
victoria auggg	383–392	1	
vot v	383–392	14	
vot x mult xx	383–392	3	
salus reipublicae	383–395	1	
Arcadius	383–408	19	
Arcadius/Honorius	383–423	1	
salus reipublicae	386–392	2	
salus reipublicae	386–395	313	
spes romanorum	387–388	3	
salus reipublicae	388–391	11	
Valentinian II	388–391	1	
victoria auggg	388–395	1	
gloria romanorum	393–395	3	
total	378–395	417	
<hr/>			
Honorius	393–423	14	N IX
gloria romanorum	395–401	7	
virtus exerciti	395–401	155	
A, H, T <sup>2</sup>	395–423	41	
concordia augg	401–403	18	
salus reipublicae	401–403	3	
concordia aug	404–406	2	
concordia aug/auggg	406–408	1	
gloria romanorum	406–408	327	
gloria romanorum	408–423	134	
Honorius/Theodosius	408–423	1	
vot x mult xx	408–423	1	
gloria romanorum	411/413	1	
concordia aug	425–435	1	
Cross	425–435	61	
victoria augg	425–435	2	
total	395–435	769	
<hr/>			
<i>Post-Theodosian</i>			
Marcian	450–457	7	N X
Lion	457–474	2	
total	450–474	9	

Noeske observed that

- The hoards generally commence with coins from the mid 330s
- Elder coins of suitable size frequently occur, while larger pieces such as Æ 2 are missing
- The coins reach an absolute peak with those minted during the period 383–395 (386–395 in the list above)
- After 395 a new peak, weaker than the first but nevertheless clearly observable, occurs with coins of the period 402–408 (406–408 in the list above)
- From 408 to 423/425 the number of coins decreases, and hoards terminate with the ‘cross within wreath’, *vota*, and monogram types

Although generally very alike, the hoards from the Diocese Oriens show two distinguishing features compared with those from the Diocese Aegyptus: The pre-383 coins are less prominent in the region of Syria, Palestine and Phoenicia and, as Burnett has already observed, the Valentinian coins are also scarce here, while they are both more numerous in the Egyptian hoards (Noeske 2000a, vol. 1: 125). This comparison evidently shows that the Late Roman coins discovered in Śrī Laṅkā were primarily taken from the material generally available in fifth century Syria / Palestine / Phoenicia. The fact that many of the Late Roman coins unearthed in Śrī Laṅkā came from this region supports a suggestion recently put forward. Common opinion has assumed an economic and monetary decline in this area during the course of the fifth century. Recent research, however, has evoked a contradictory view, showing indications of an increasing demand for small copper coins in fifth century Palestine (Bijovsky 2002). In other words, during the fifth century, the coins were certainly available in Palestine for shipment to Śrī Laṅkā in just the range of ‘assorted’ types that is clearly attested in Śrī Laṅkā hoards and in the sum total of single finds. Apart from the once doubted availability of small change in sufficient quantities, there can be no doubt about the enormous sums, expressed in terms of gold, that were invested into the Palestine region – mainly through religious motivation – up to about 460 and again, after a considerable break, under Iustinianus I (Avi-Yonah 1958).

The presence of Late Roman and Byzantine gold coins in India, and possibly in Śrī Laṅkā too, is not surprising. These were *the* trading coins of the time as attested by Kosmas Indikopleustes<sup>345</sup> in the second half of the fifth century, subsequent to their first appearance in India, and perhaps also in Śrī Laṅkā. In India, Late Roman gold coins start to occur in greater numbers with specimens of Theodosius II (preceded only by a lone *solidus* of Constantius II and by five other pre-fifth century *solidi* possibly from Mangalore or its vicinity). In Śrī Laṅkā, gold coins seem to be rare. Here we have only the fourteen undocumented specimens from the Mātara region, containing one *solidus* of Theodosius II and one fifth century *tremissis* [146]. These are supplemented by the Byzantine gold coins of fifth to seventh century date that once formed part of the Biddell collection [239], but which are all of uncertain or unknown provenance. The data from India and Śrī Laṅkā are supported by those obtained from regions further east. In China, as in India, Late Roman gold coins begin to occur in significant numbers only with specimens of Theodosius II and then continue up to Heraclius. The two coins of fourth century date allegedly discovered in China were definitely not found there (see chapter 1.4). Finally, an alleged gold coin of Iulius Caesar († 44 BC) is highly problematic, and it is possible that Iulianus Caesar (354–360) is meant. However, without either a description or illustration nothing further can be said about this specimen (Kang 2002: 134).

In Syria and Egypt, the areas of origin for the Late Roman coins of all metals found in South India and Śrī Laṅkā, an interesting phenomenon concerning the gold hoards has been shown. In Syria, gold pieces of the period 378–457, and in Egypt those from 378–518, are almost totally absent. ● Only three gold coins of Theodosius II are attested (Noeske 2000a: vol. 1: ch. 1.2 and vol. 2: Abu Mina [1906], nos. 3 and 4, Horvat Rimmon B, no. 2). ● On the other hand, there are no specimens in Śrī Laṅkā of what is called by Noeske the “valentinianische Gruppe” (Valentinian group), minted from 364 to 378, which is abundantly represented in both Syria and Egypt. Even at the Red Sea port of Clysma, a hoard containing about eighty *solidi* of this period has been discovered (Noeske 2000a: vol. 1: 77). Falling within this period however, is the decree of 374(?) issued by Valentinianus and Valens (CI III, LXIII, 2), by which the emperors strongly forbade the export of gold abroad. Merchants

who transferred any form of gold as part of their transactions *ad barbaricum* would not be punished by paying a fine but were to be sentenced to death. Theoretically, this law was still valid in 534, when the Codex Iustinianus was promulgated. In fact however, things had changed by the second half of the fifth century, as demonstrated by the Theodosian and later gold coins found in South India, and perhaps in Śrī Laṅkā as well, and by the story of Sopatros narrated by Kosmas Indikopleustes. According to this account (XI, 448 B-D), the Roman *solidus* – called by the author in Greek the νόμισμα ὀβρυζον – was highly esteemed by the Śrī Laṅkān king, in agreement with all the other nations of the world, which likewise admired the Roman coinage (II, 116 A). However, we must query whether the story told by Sopatros really took place. The voyage itself need not be doubted. What is questionable is the ‘coin story’ just recounted. The supposed admiration for the Byzantine *solidus* shown by the Śrī Laṅkān monarch in the fifth century, is doubtless a doublet of the well-known record given by Plinius in the first, narrating the appreciation of the Roman *denarius* by the Śrī Laṅkān king at that time<sup>346</sup>.

An indirect confirmation of the deduction outlined above can be derived from the al-Madhāriba hoard already mentioned (Munro-Hay 1989). This mixed hoard of Aksūmite and Late Roman gold coins is instructive in respect to the composition of the Roman part. The *solidi* represented here range in time from Constantius II Caesar to Theodosius II, i. e. from 324 to 450. Interestingly however, of the latter there is only a single coin while the rest of the hoard terminates with coins of the emperor Valens in 378 at the latest. The bulk of these specimens in turn date from the period 337–361, with a second smaller peak in 363/364. These data seem to confirm that the Late Roman gold coins of the period 324–378, found in such abundance here, were not sent beyond the Gulf of Aden to the East in the numbers later seen with specimens of the fifth and sixth centuries.

<sup>345</sup> For a detailed discussion of the passage in Kosmas XI 448 B – 449 A, see Faller 2000: 159f.

<sup>346</sup> *Nat. hist.* 6.24. This possibility was already taken into consideration by Tennent (1860: 479), and in 1909 by the editor of Kosmas Indikopleustes (p. 355), note to p. 323, l. 7. Hendy (1985: 277), seems to be of the same opinion, though he is more cautious in this matter and avoids a definitive statement.

Based on the evidence of the Late Roman and Byzantine gold coins – being the only reliably datable relics of this period unearthed in India or Śrī Lankā – we can determine the temporary end of the trade between the western and eastern worlds. In India and Śrī Lankā the coin finds terminate temporarily with specimens of Iustinianus I (527–565) before starting again with those of Heraclius (610–641). The period in between, covering the reigns of Iustinus II, Tiberius I, Mauricius, and Phocas, is missing from the numismatic record. This suggests that something serious must have happened that led to an abrupt end of the trade during the reign of Iustinianus I. The most likely event is the terrible outbreak of bubonic plague that devastated the ancient world from Central Asia to Wales from 541/2, and which also seriously affected the economic life of that time. In Egypt, for example, this period is characterised by extremely high grain prices from about 550 onwards (Heichelheim 1955: 510). The origin of the plague is still disputed. In Egypt, it first appeared at Pelusion (modern Tell el Farama) in the eastern Nile delta (Procopius, *Pers. war*, 2.22.6), and it may have travelled to this point from the Red Sea port of Clysma (Kislinger / Stathakopoulos 1999: 85 f.). According to Procopius, “this disease always took its start from the coast, and from there went up to the interior” (Procopius, *Pers. war*, 2.22.9). From Egypt, it spread to the West as well as to the East, via Palestine, Syria and Persia to India and further on, following the marches of war as well as the trade routes (Gibbon, ch. XLIII.III [vol. 4, pp. 415 f. and 418 of the edition cited]; Procopius, *Pers. war*, 2.22.6–8; Horden 2005). At the same time, the Sāsānians treasonably endangered the peaceful *status quo*, invading the Roman Empire and capturing Antiochia in 540. Thus, conditions for a flourishing East-West trade were certainly less favourable from 540 onwards.

This observation seems to contradict the testimony of Kosmas – at least at first sight. A closer look at the text, however, reveals that Kosmas is much more precise and expansive when describing the relationship between Śrī Lankā and India than that between the island and the western world. He even mentions the products of China with those of India, while he is mute in regard to the exports of Persia, Ḥīmyar, and Aksūm; countries which he only names incidentally (Kosmas *Indikopleustes* 445 A – 448 B). Trade of course existed with the

western world, but judging by the testimony of the coins and the relevant passages in Kosmas’ topography, it seems to have been less intensive than has previously been supposed during the period from Iustinianus I to Heraclius, that is from about 541/2 to about the first half of the seventh century. The reign of the latter emperor saw the loss of Syria, Palestine, and Egypt first temporary to the Sāsānians from 611 onwards, and ultimately to the Arabs from the 630s (Gibbon, ch. XLVI [vol. 4, pp. 571 ff.] and ch. LI [vol. 5, pp. 326 ff.] of the edition cited). By these events, Roman sea trade in the Red Sea region ceased.

Due to the uncertain numismatic data, one central question will most probably never be answered conclusively: Did western merchants ever directly use Late Roman and Early Byzantine gold coins to buy luxury goods from the Śrī Lankāns? Even if we take it for granted that the gold coins reported both existed and were found on the island, we do not know whether they were given and accepted as a means of payment or as merchandise in themselves. In regard to Rome’s trade with India during the first and second centuries, the latter case has already been argued (MacDowall 1990: 59) and the *Periplus Maris Erythraei* explicitly confirms this view.

We still need to search for a plausible explanation for the presence of Roman *æs* coins in the southern part of the Indian Subcontinent, and this can only be found in the state of affairs in the Roman Empire at the end of the fourth century. Here we have to deal with the various imperial financial decrees and their consequences. The period under review is difficult to analyse in regard to the *æs* coinage. However, it is only necessary to quote two laws to show the disastrous development of *æs* coinage during the second half of the fourth century. In 379, the price of a *solidus* had been fixed at a maximum of c. 2.4 kg of *æs* coinage (CTh VIII 4, 17). In 396, a new equivalent value was set which now fixed the *solidus* at 25 Roman pounds of *Æ*, that is, about 8.1 kg (CTh XI 21, 2). In daily life, this would have required 3,800 to 4,000 *Æ* 3 pieces in the eastern part of the Roman Empire during the period from 395/6 to 415 (or 425/6)<sup>347</sup>, and officially perhaps 6,000 *Æ* 4

<sup>347</sup> P. Oxy. LI 3628–3633; Depeyrot 1991a; Weiser (2000: 325), based on the weights of the coins, calculates a total of c. 3,270.

pieces<sup>348</sup>. This equation of 1 *solidus* = 25 pounds of *Æ* was reconfirmed in 438, and on 18<sup>th</sup> January 445 the gold coin was officially valued at 7,000 *nummi* (= *Æ* 4 pieces) when bought, and 7,200 *nummi* when sold, by a joint decree of Theodosius II and Valentinianus III (Nov. Valent. XVI; MIBE, p. 14). This is confirmed in practice by a papyrus of c. mid-fifth century date in which the *solidus* is rated at 28,000 talents = 7,000 *nummi* (Maresch 1994: 76 and 147–151). The ratio of 1 *solidus* to 25 pounds of *Æ* was possibly applied up to 475<sup>349</sup>. This coincides with the observation that from about the 380s gold started to become a ‘mass currency’, steadily increasing in use up to the seventh century (Banaji 2001: 77; Liebeschütz 1972: 84, esp. n. 10). At about the middle of the fifth century, a shift from *æs* to gold is observable in Egypt. Taxes collected in 435–445 were still being paid in incredibly high numbers of *nummi*, but some people already had to pay in *solidi*. In Syria, prices were expressed in gold coins by the 480s (Harl 1996: 177, 179; Kubitschek 1897: 165).

Here we must return to the presumed date for the shipment of the coins from the Roman Empire via South India to the island. The transfer of the majority of coins seems to have taken place during the reign of Theodosius II. This cargo was the result of the imperial decrees issued in 396, 438, and 445, after which it had obviously become more profitable to export the nearly valueless *æs* coins from the Roman Empire to South India, or to sell them in Adulis to the traders coming from there, than to try to collect together about eight kilograms of this “chicken-feed” copper<sup>350</sup> in order to buy a single *solidus* or, in other words, merely 4.5 g of gold. A second transfer took place during the reign of Leo, as attested by the presence of at least sixty-five coins of Marcian in the South Indian town of Karūr, and thirteen of Leo from both Karūr (10) and Madurai (3) (Krishnamurthy 1994: 102–111).

More generally speaking, a comparable, and admittedly speculative, scenario has already been proposed: “Is it not likely therefore that bulk heterogeneous lots of obsolete ancient coin were shipped to South India from the West? One may speculate that merchants may well have been able to gather up obsolete small coppers from Mediterranean scrap metal dealers... Thus attention might usefully be focussed, not on losses of contemporary coins from purses, but on the importation of sacks of mixed obsolete small coppers ... shipped

as scrap across the Indian Ocean, decades or even centuries after they had circulated in the West<sup>351</sup>. This intuitive suggestion comes close to the probable reality, now deduced more precisely from the detailed numismatic and archaeological data. The author of the passage quoted above rightly recognised the possible time factors involved within the sequence of minting, circulation, and export. However, we are still confronted with the common but incorrect assumption that the worn condition of the Late Roman *æs* coins found in South India and Śrī Laṅkā must have resulted from a long period of circulation *there*<sup>352</sup>. Comparable ‘delays’ in transport, although for other reasons, were recognised in the early contacts between India and the West. It is now an established matter of fact that the Julio-Claudian *denarii* of the early first century only came to India between about AD 70 and 100, while the Roman Republican *denarii* may even have arrived after 107<sup>353</sup>. Thus, the minting dates of the Roman coins discovered in both Śrī Laṅkā and India are not necessarily close to the dates of export to this region. Owing to their long circulation *within the boundaries of the Roman Empire*, which may have lasted for up to seventy to a hundred years, the specimens were already in a poor condition when they reached their final destination – a condition comparable to some of the early Roman gold and silver coins discovered in India (Turner 1989: 14–16 and pls. 1, 3–8). This view is supported by the late Roman *æs* coins of the fourth and fifth centuries unearthed in Alexandria (Lichočka: 2005). From about 2,000 coins discovered, roughly 50% were totally illegible, not only due to corrosion

<sup>348</sup> Maresch 1994: 77. Harl (1996: 178) gives 5,400 *nummi*.

<sup>349</sup> Maresch 1994: 76 and 80. Weiser (2000: 325) considers a period up to the monetary reform of Anastasius I in 498.

<sup>350</sup> Wheeler (1951: 360) is responsible for this characterisation of the small Late Roman copper coins.

<sup>351</sup> Tye 1999: 81; and already thinking in the same direction, see Cribb *et al.* 1990: 183, and MacDowall 1996: 91f.

<sup>352</sup> This view was most probably established by Tufnell (1888: 163), adopted by Codrington (1924: 33), followed by Warmington in 1928 (1974 ed.: 123), and is still held, for example, by MacDowall (1996: 91) and Burnett (1998: 185).

<sup>353</sup> Established by MacDowall in 1991, accepted by Burnett (1998: 184f.), and supported by Berghaus in 1998, publishing a *denarius* of Augustus with a Flavian countermark (p. 126f.).



but also because they were heavily worn. An observation made of modern coins may also serve as an instructive comparison: British machine-struck halfpennies made from coin bronze (Cu + 5–6% Sn), introduced in Great Britain in 1860 and characterised by a high degree of resistance to wear and abrasion in circulation, sometimes show the same features as those on the heavily worn Roman coins, even though these were manufactured from a copper alloy containing far less tin (King *et al.*: 1992). Having circulated for the same period as the ancient coins, i. e. for seventy to a hundred years, only the outlines of the figures are still discernible on the modern specimens, while the details are no longer recognisable. Unlike the antique coins, their modern counterparts had a high protective rim around their edge and a high relief, which meant that the process of abrasion took place more slowly. Once the coin relief has been worn down, however – irrespective of whether the coin is antique or modern – a greater part of the overall surface of the coin becomes vulnerable, resulting in an increase in the wear rate of the coin as a whole. It is therefore likely that in the case of the Late Roman *folles*, Æ 3 and Æ 4, it would not have taken even seventy years for pieces with a generally flat relief to have arrived at their current sorry condition.

To get a more reasonable idea of the mechanics of trade between the western world and India in the fourth and fifth centuries, we may take a closer look at those of earlier times. A recent critical analysis of the *Periplus Maris Erythraei* is perhaps particularly elucidating in view of the role of money in the East-West trade<sup>354</sup>. The author's final conclusion, which should be accepted without reserve, is that: "The long-distance trade was therefore purely barter trade in which money played a role only as a normal, by no means everywhere acceptable barter object. This circumstance does not necessarily have to be interpreted as a reference to "primitive" trading structures, but may on the contrary just as well be a result of stable trading structures" (Walser 2001: 107). This barter trade between the West and the East was still evident in Śrī Laṅkā around the middle of the fifth century when western, "*mercatores emendi, vendendi, permutandæque rei gratia conveniunt*" (Palladius III, 7). As in the time of the *Periplus*, the Late Roman *æs* coins were now similarly treated as merchandise; both desired and sought after by the Śrī Laṅkāns. However, it was certainly

not the metal content of the coins that the native inhabitants were primarily interested in. If this had been the case, the thousands of Roman coins would have been melted down and converted into other objects, and none of the imitations would have been made.

Besides the simple bartering of goods, coins of precious metal were now used again in a combined manner, both as merchandise and as a medium of payment. This is evidenced by the presence of Late Roman and Early Byzantine gold coins at least in India (and most probably in Śrī Laṅkā as well), beginning with those of Theodosius II; merchants now gave coined gold in exchange for the luxury goods of the East<sup>355</sup>. Chinese sources however, although of later date, seem to support the assumption of a trade based essentially on barter. In 527, mention is made of the practice of 'silent trade' on the island, and at the beginning of the eighth century, thirty-five Persian ships are reported in the Śrī Laṅkā port of Potchi-li, where the Persian merchants had come to obtain gemstones by way of barter (Lévi 1900: 414 and 421). Likewise, another Chinese source suggests an exclusively barter trade in India during the first half of the seventh century (Hiuen Tsiang, *Si-Yu-Ki* 2.18; translated by Beal, vol. 1 p. 89; Watters, vol. 1 p. 178). Unfortunately, the passage following this information is probably corrupt. One translation (by Beal) states that, "they always barter in their commercial transactions, for they have no gold or silver coins, pearl shells, or little pearls", while the other (by Watters) argues exactly the opposite: "Rare precious substances of various kinds from the sea-ports (lit. sea-bays) are bartered for merchandize. But in the commerce of the country gold and silver coins, cowries, and small pearls are the media of exchange". In another chapter, it is stated that: "Tradesmen go to and fro bartering their

<sup>354</sup> Walser 2001. The discussion about the date of the *Periplus* is beyond our scope, and is not important in this context. For the goods mentioned in the *Periplus*, see also Frank 1940: 286, and for the early Roman trade with the East in general, Ruffing 2002.

<sup>355</sup> See Morrisson 1995: 83, where she interprets the gold coins in the same way, but is indifferent in the case of the *æs*, simply acknowledging, "l'origine commerciale de cet approvisionnement". In 1999 (p. 502) she slightly modified her view in regard to the gold coins, now stating that: "Byzantinische Kaufleute zahlten ohne Zweifel die Differenz ihrer Rechnungen in Gold" (Byzantine traders without doubt paid the balances of their accounts in gold coins).

merchandize after paying light duties at ferries and barrier stations” (Hiuen Tsiang, *Si-Yu-Ki*; translated by Watters, vol. 1, p. 176).

In summing up, we need to recognise that much more scientific research is necessary concerning the intensity and practice of the East-West trade in late antiquity before we are finally able to get even a partially detailed and precise idea of it. The collection of material presented here, provided with additional comments and supplemented by some tentative considerations, is intended as a contribution towards this. Here, the wheel turns full circle again – I have no data yet.

In regard to the Roman coins discovered in Śrī Laṅkā, however, we can be far more conclusive in stating that they were only a strictly limited economic factor – additionally inculcated with a strong religious identity – in a sparsely monetarised society. Their presence provided the transitory inspiration for the creation of an indigenous currency through imitation of these imported items. This temporary process unequivocally shows that there was no real monetary need for coins at this stage of economic development. The numismatic ‘dark ages’ in Śrī Laṅkā lasted until the second half of the tenth century when, for the first time in the island’s history, a local, uniform currency emerged on a grand scale; not only fulfilling domestic demands, but later even spreading beyond the island.