

**“Maritime Trade and Cultural Exchanges in the Indian Ocean:
India and Sri Lanka”**

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Trade does not mean the exchange of commodities alone. With trade came the evolution of philosophies, iconographies, and cultures. My attempt here is to discuss how the movements caused by these human activities have amalgamated local traditions with foreign identities and created new forms of art and belief.

The discovery of a shipwreck near the southern coast of Sri Lanka, three miles from the ancient port-site of Godavaya has revolutionised our knowledge of the history of maritime trade in South Asia, particularly between India and Sri Lanka. It was found accidentally by R.P. Sunil and B.G. Preminda, two local shell-divers. They informed Oliver Kessler, who was excavating the land around Godavaya at that time, about this discovery. Dr. Siran Deraniyagala, then the Director General of Archaeology, who sensed the importance of this discovery took every possible step to save it from illicit diggings.

Two local shell-divers brought to the surface a stone object with three auspicious symbols (or ashtamangala) (*Nandipada*, *Śrīvatsa* and fish engraved on it. A surface excavation was carried out in 2008 by divers from the Department of Archaeology and the Central Cultural Fund (Maritime Archaeological Unit) with the assistance of the Sri Lanka Navy to assess the archaeological potential of the site. They raised to the surface some samples of Black and Red Ware (BRW), as well as two purified glass ingots.

Invited by Dr. Senarath Disanayaka (present Director General of Archaeology), we put together an international team of nautical archaeologists to undertake further research. In 2009, we contacted Prof. Deborah Carlson at the Institute of Nautical Archaeology (INA) at Texas A & M to discuss and develop a plan to excavate the shipwreck. The first step was taken in December 2010 by Deborah Carlson and Sheila Matthews, in order to attain a clear picture of the overall dimensions and physical characteristics of the wreck. After securing a collaborative research grant from the National Endowment for the Humanities, Sheila Matthews and Ken Trethewey visited Sri Lanka in December 2011 to make further inquiries to determine the plans for the next long-term campaigns. Sri Lankan divers of the newly founded Maritime Archaeological Unit of the Department of Archaeology (Sri Lanka) participated in this joint venture.

Encouraged by these two exploratory programs, a team of Sri Lankan, American and Turkish divers under the directorship of Deborah Carlson, Ken Trethewey and Sheila Matthews undertook underwater excavation program in December 2012, January 2013 and January to March 2014.

Needless to say, we are still in the early stages of research and our analyses of the wreck so far are preliminary. Further research will be conducted in the near future. At the end of this talk, we will outline how the Department of Archaeology and the Institute of Nautical Archaeology have planned to further develop the project. Our first observations are based on the initial operations conducted so far, and we alone are responsible for any conclusions drawn.

The organisation of East-West trade is well attested following the conquest of Egypt by the Roman emperor Augustus in 30 BCE. The political control of Egypt by Augustus gave rise to a very profitable sea trade utilizing the Red Sea to provide passage to India to acquire luxury goods that had become fashionable within the Empire. The writer of the *Periplus of the Erythraean Sea* probably written *circa* 50 CE, credited Hippalus with discovering the direct route from the Red Sea to India over the Indian Ocean by plotting the scheme of the sea and the correct location of the trade ports along the Indian coast.

Roman ships left Egypt in July to reach the Gulf of Aden and, from there, utilizing the south-west monsoon, sailed to the ports of Barygaza (Broach in Gujarat) or Muziris (in Kerala), on the west coast of India. Romans came to India mainly in search of pepper also called Black gold. Pliny the Elder's *Natural History* provides information on the prices of foreign goods in first century CE. Rome: "Long pepper ... is fifteen denarii per pound, while that of white pepper is seven, and of black, four." Regarding the cost of foreign commodities, Pliny (*NH*, 12, 101) complains: "... in no year does India absorb less than fifty million *sesterces* of our empire's wealth, sending back merchandise to be sold with us at a hundred times its prime cost." An Indian storage jar discovered in a courtyard north of the Serapis temple at the Red Sea port site of Berenike dated to the first century CE contained 7.5 kg of black pepper, a vital piece of evidence demonstrating the dynamics of Roman trade with India. Indian pottery sherds in the Berenike - Coptos route implies that Indians could have travelled to Alexandria along with trade goods.

Pattanam located in the Periyar Delta recently discovered and excavated by P.J. Cherian and his colleagues of the Kerala Council for Historical Research (KCHR), was no doubt an emporium. The special ceramic assemblage from the Pattinam excavations comprises the Mediterranean (Roman) pottery- which includes amphora (2779) and terra sigillata (111), and

the West Asian which includes torpedo jar sherds (1986) and Turquoise Glazed Pottery (861). According to Roberta the broad range of Mediterranean amphora sources includes particularly South Italy and the flat-bottomed Gaulish (French) wine amphora.

Another important piece of evidence for direct Roman trade with India at the close of the first century CE was the discovery of thousands of Roman aurei and denarii on Indian soil, the majority attributed to the Julio-Claudian Period. Compared to the thousands of early Imperial coins found in India, it is very interesting to note that very few of the early Roman types were discovered in Sri Lanka. Why did the Romans, who had commercial relations with India, not enter into direct trading partnerships with Sri Lanka? The Greek geographer, Strabo (II.1.14) notes that from Taprobane, ivory, tortoise-shell and other merchandise were brought in abundance to the markets of India. It may be that there was no need for Romans to go all the way to Sri Lanka as long as its products could be obtained easily and abundantly at Indian ports. It was during this period, Indian exports such as Black and red ware and above all statues and portable reliefs denoting Buddhist origin reached the sea ports and religious centres of the island.

The epigraphic and literary sources along with archaeological evidence point to the dynamics of trade between Sri Lanka and Andhra. The Buddhists of Sri Lanka and their co-religionists in the Krishna valley were in close relationship especially during the first five centuries of the CE. It is also well-known, Buddhist art in Sri Lanka, apart from rare exceptions, is deprived of bas-reliefs or rock cut images depicting the life of the historical Buddha, even the few slabs carved with such scenes, found in the island, were imported from Amaravati-Nagajunakonda by traders and monks.

Most of the statues of the Buddha in the round and portable slabs executed in the Krishna Valley imported to Sri Lanka, were published by Senartah Parnavitana, followed by Ulrich von Schroeder and us. Among them, the panels found in 1894, in the *Bodhighara*, in a paddy field about a mile from Anuradhapura; in the *Bodhighara* south of the Jetavana Stupa unearthed during excavations conducted by the Cultural Triangle, in November 1986; and so far unpublished fragments found during the excavations conducted by Charles Godakumbure in the *Bodhighara* of the Abhayagiri Vihara, in 1962-3, are very significant in this context.

Two more reliefs found in recent past in Sri Lanka. The first panel was found in Tissamaharama, the ancient capital of the Ruhuna and the other in Kubukwewa, Kurunagala. It was also at Tissamaharama that a Buddha statue made of Andhra hard lime stone was found accidentally on a private land. The frieze from Tissamaharama depicts very clearly the story of Prince Nanda and Janapada Kalyāṇī. We see quite clearly, Janapada Kalyāṇī, standing,

looking out of the window, gazing at her husband who follows his stepbrother, the Gautama Buddha. In the *Samgāmāvacara Jātaka*, it is said that when Nanda left home Janapada Kalyāṇī was looking out of the window with her hair half combed. This is the only relief from Andhra where this Pāli tradition is respected. All the other known depictions of this episode of the Andhra tradition, follow the *Saundarānanda Kāvya* by Asvaghosa, where it is clearly related, hearing her husband had become a monk, Sundari “screamed loudly like a cow-elephant stricken to the heart with a poisoned dart”. The second frieze depicting the seven weeks after the *Sambodhi* (Perfect Awakening) that the Blessed One spent in the vicinity of the Bodhi tree, also respects the Pāli tradition more than Sanskrit one.

However a new era in Rome's relations with the island opens under the reign of Claudius, following the visit to the island by Annius Plocamus, a collector of the Red Sea dues. It is believed that following this visit a delegation from Sri Lanka was sent to the country of Romanukkhā (Rome). There is no doubt that Ptolemy's account of Taprobane marks the highest point of Graeco-Roman knowledge about the island.

Nevertheless, the great abundance of the Roman "third brass" in Sri Lanka may be a result of the revival of western powers through Axumite, Himyarite and Persian middlemen, which coincides with the foundation of Constantinople as the seat of the Roman empire on the one hand, and on the other hand, the gradual shift of the focus of trade from the south Indian coasts to Sri Lanka. Likewise by the fifth century Sri Lanka became the main centre of trade in the Indian Ocean. The shifting of the starting points, from the Red Sea to the Arabian Sea of the sea voyage and the evolution in the speed of ships made the journey to Sri Lanka and beyond easy. A good image regarding the trade activities during this period emerges from the account of Cosmas Indicopleustes, the Egyptian Greek of the sixth century CE. According to a description in his *Christian Topography* (XI, 13) Sri Lanka was playing an important role in transmitting merchandise between East and West, a role once played by Western India.

From about the seventh century Chinese traders, along with the Arabs and South Indians developed their commercial activities with Sri Lanka. By the eighth century the first trade links begin to take form. It was with the sudden burst of trade activities between China and Middle East from the seventh century onwards that Sri Lanka began to play a decisive role in the maritime trade between east and west. The main reason for this active trade relations between east and west was the unification of Arabian countries under the Islam putting an end to the Sasanian power in A.D. 650 on one hand and on the other hand the establishment of power by the Tang dynasty in China. It was at the peak of trade activities between West

and East that the Bodhisattva Avalokiteśvara and his consort Tara as the protector of mariners became popular in India and Sri Lanka.

As revealed by epigraphic and literary evidence, the earliest donors and important patrons of Buddhist establishments of South Asia were caravan merchants and wealthy seafaring traders. The spread of Buddhism from the Indian subcontinent to Southeast Asia is closely connected with the growth of trade routes by merchants, travelling monks and teachers.

Some donors of the caves, the earliest dwellings of the Buddhists monks, were *nāvika* (mariners) or *vaṇijha* (traders). An inscription containing eleven lines written in Grantha script dated to the 7th century chiselled on a rock-surface at Tiriyāy, 29 miles north of Trincomalee, refers to companies of merchants who endowed a Mahāyāna Buddhist shrine dedicated to the Bodhisattva Avalokiteśvara and his consort Tara. This Bodhisattva is commonly mentioned in the literature as well as in the epigraphs of the island as Lokeśvara, Lokeśvara Nātha, or Nātha, and the present document clearly names the Bodhisattva as Avalokiteśvara. This caused Paranavitana to conclude that, in the 7th or 8th century, the ancient monastery at Triyaya was inclined towards Mahāyānism. The exactitude of his observations was proven in 1983 when the Department of Archaeology undertook an excavation at the site. On April 6 many bronze statues and reliquaries were found buried under a paving stone of a ruined meditation hall. Two bronze statues of standing Avalokiteśvara of the ascetic type, bearing a small effigy of Tathāgata Amitābha in the head-dress, two bronze statues of Avalokiteśvara seated in *rājatilāsana*, and two solid cast bronze statuettes of Tara standing in *tribhanga* along with a beautiful statue of Adhibuddha or Vajradharma with an elaborately worked *jatāmakūṭa* depicting the five Tathāgatas (*dhyānibuddhas*): Akṣobhya, Amitābha, Amoghasiddhi, Ratnasambhava and Vairocana were discovered on the same day. The solid cast bronze image of the Buddha seated in *vajrāsana* displaying the *bhūmiśparśa mudrā* of the Pāla style and the statue of Padmapāṇi-Avalokiteśvara seated in *lalitāsana* displaying the *varada mudrā* were certainly imports from the north-east India.

Another important discovery made three months back at Anuradhapura highlights the trade and religious contacts with the middle Gangetic valley very particularly with Nalanda and Bodhgaya. It is a terracotta plaque depicting the Buddha Śākyamuni seated in Vajrasana and making the gesture of *bhūmiśparśamudrā* found in the ancient city of Anuradhapura. It is flanked by several small stupas. Around the halo surrounding his head, there is an inscription

reading the *pratitya-samutpdda-gāthā*. The closest example is the one found in Chandimao close to Nalanda.

The fact that the Tiriyaya's location on the right bank of the Yan Oya, one of the main openings to the sea routes of the east, suggest that it may have accumulated souvenirs of mariners and merchants who were frequent visitors to the Buddhist shrine.

Bodhisattva Avalokiteśvara played an important role as the protector of mariners and the maritime trade in the Indian Ocean. Although the vast majority of modern scholarship takes for granted that ancient Sri Lanka was the home of the Theravāda Buddhism, the evidence of materials that, by the seventh century, Mahāyāna had gained a decisive victory over the orthodox tendencies of Theravada Buddhism. In this form of Mahāyāna Buddhism, the bodhisattva Avalokiteśvara was worshiped either as the curer of the sick or saviour of mariners from shipwreck.

The healing powers of Avalokiteśvara is mentioned in the *Saddharmapuṇḍarīka* (24, 19). It is well-known that the monolithic colossal statue of Avalokiteśvara fashioned out of crystalline limestone at Dambegoda was erected by King Aggabodhi IV (667-683), who, in Kanagama (the village of the blind), built hospitals for the blind and sick. The Mahāyanist images erected in the sanctuaries built either at the river mouths or bays facing the sea or inland along the navigable rivers are those of Avalokiteśvara in his role as the patron of mariners who confronted the inevitable perils of distant voyages. According to the *Saddharmapuṇḍarīka* (24. 6) "If one happens to fall into the dreadful ocean, the abode of Nagas, marine monsters, and demons, he has but to think of Avalokiteśvara, and he shall never sink down in the king of waters."

The reputation of Avalokiteśvara as a saviour of mariners from shipwrecks gained much popularity in Indian art, especially in Buddhist cave sculptures as well as in 5th-century paintings of the Western Deccan. One of the paintings at Ajanta depicts the Simhala Avadana, the story in which the Bodhisattva Avalokiteśvara—in the form of a magical white horse—rescued the prince Simhala and some of his fellow merchants who were shipwrecked and cast upon the shores of the island of Tamradvipa. The merchants who were not rescued were devoured by the cannibalistic ogresses in the guise of beautiful, charming women.

A group of sculptures especially the Buddhist caves of Kanheri, Ajanta, Ellora and Aurangabad depict the *Aṣṭamahābhya* Avalokiteśvara, the story in which the Bodhisattva comes to rescue human beings from the eight great perils, and among these dangers his reputation as a saviour of mariners from the shipwreck is given a prominent place. The most evocative sculpture of the so-called 'Litany of Avalokiteśvara' is the one carved at left-hand

side of the sanctum of the cave no. 7 at Aurangabad. On this panel, Avalokiteśvara, with a lotus in the left hand and his right hand making the *Abhāyamudrā*, is shown protecting his devotees from the following dangers (reading clockwise from the top right hand corner:

1. enraged animals (behind the keeling couple, a lion with the raised left foreleg);
2. poisonous reptiles (behind a kneeling couple, two cobras with rear up hoods);
3. wild beasts (behind a imploring couple, an elephant emerging from the jungle);
4. evil spirits or demons (in front of the demonic figure, a [weeping?] mother holding a child seated next to a standing man);
5. shipwreck (two men and probably a woman sailing a ship with two masts);
6. captivity and slavery (an image [partly broken] behind two male figures);
7. sword of the enemy (behind a couple in distress [one carrying goods on the head], a man threatening with a sword) and
8. from devouring fire (in front of the blazing flames, a pleading couple).

These eight perils are explicitly described in the *Saddharmapuṇḍarīka* and must have been known to the artists who executed the ‘Litany of Avalokiteśvara’ not only at Aurangabad, but also many other caves in Maharashtra. The perils evoked in the Mahāyāna texts and depicted in stone reliefs are the ones that travellers, traders, pilgrims and mariners encounter in their perilous land or maritime voyages. The simple evocation of his name saves them from perils.

The Bodhisattva Tara, born out of the tears of compassion of the bodhisattva Avalokiteshvara, also his consort had the same reputation as saviour goddess of mariners. The best work of art depicting *Aṣṭamahābhya Tara* was found in Ratnagiri in modern Orissa.

Like in India, Avalokiteśvara enjoyed similar esteem in Sri Lanka when Mahāyānism reached its apogee around the 8th century CE. Apart from the bronze statuettes of Avalokiteśvara discussed earlier, two main types of stone images of standing Avalokiteśvara are attested in Sri Lanka. The first is the yogi or ascetic type and the second is the princely or jewelled type. The latter wears royal garments and highly complicated ear-rings (*makara kuṇḍala*), necklaces, armlets and anklets. The yogi Avalokiteśvara is essentially an ascetic figure that can be distinguished by the *ajina*, the hide of an animal such as an antelope or tiger, tied around the waist to hold the *dhotī*. The high crown on his head complements a slightly elongated face. Two braids of his hair fall across shoulders. D.K. Dohanian sees a parallel between this type of ascetic Avalokiteśvara and Śiva of the early Pallava style depicted in the *Trimurti Cave Temple* in Mamallapuram (Mahabalipuram). If this hypothesis is correct, the stone Avalokiteśvara images cannot be dated before the 7th century because the

Pallava sculptures at Mamallapuram are generally dated to the reign of Narasimhavarman (630–668 CE). One has to bear in mind that these two types of Avalokiteśvara, one ascetic or yogi and the other princely or bejewelled are found in Gupta and post-Gupta cave temples of Ajanta, Ellora and Aurangabad. Compared to the Sri Lankan type or ‘Sinhala type’ as labelled by Dohanian, the Maharashtra type is characterised by the *krishnajina* with head and paws thrown over the left shoulder.

Broadly speaking, there are two major clusters of Avalokiteśvara images on the island. One is on the east coast around Trincomalee, considered the fifth largest natural harbour in the world, and is referred to as Gokanna in Pāli or Gokarna in Sanskrit. The second cluster is situated on the southern coast around the ancient ports of Kirinda connected with the ancient city of Tissamaharama by the Kiridi Oya and Godvaya. Before I discuss the importance of these two areas, let us examine the other sites where Avalokiteśvara images have a relationship with the ancient emporia.

The well-preserved image of the Bodhisattva carved in high sunk relief at Kustarajagala (meaning literary “king with skin disease”) near the ancient sea port of Mahavalukagama (Weligama) is still subject to controversy. There are depictions of four (five?) *dhyānibuddhas* in the head-dress. According to the *Sādhanamālā*, Simhanāda-Lokeśvara in this aspect is the curer of all diseases. Dressed in princely garments and wearing different types of necklaces, armlets and earrings, the Bodhisattva stands frontally displaying the *vitarka mudrā* with the right hand and *āhvanā mudrā* with the left. The fact that the statue is situated about 500m as the crow flies from the ancient sea port of Mahavalukagama at the estuary of the Polwatta Ganga may also indicate that he was established there as the protector of mariners.

A dolomite statue of Yogi Avalokiteśvara was discovered in Kobeigane (Kurunagala District) not far from the Daduru Oya which flows to the sea at the ancient port of Salavattota. One broken statue of Avalokiteśvara was reported to have been found at the most important port site of Manthai. The first and long lived capital city of Anuradhapura connected with Manthai by the Malvatu Oya has brought to light many Avalokiteśvara images. The most recent finding in this context is the bronze statuette of Avalokiteśvara dressed both in ascetic attire and in princely garments found accidentally by a fisherman in the Malvatu Oya, inside the old city of Anuradhapura. The most interesting characteristic of this statue is the presence of the animal hide over the *dhoti* and the presence of a frontal animal face on the right thigh.

One headless ascetic Avalokiteśvara image of dolomite marble was found in the Jaffna peninsula. It should be remembered that the famous port site of Jambukolapatuna (Kankasanturai) is situated to the east of Jaffna where the sapling of the scared Bo Tree was

brought by Sanghamitta from Tamilaripiti in India in the 3rd century BCE. An ancient road attested in the chronicles gave access to Anuradhapura from the ancient port of Jambukolapatuna. It is also written that in Tantirimalai also known as Thiwakka Bamunugama, the local ruler Thiwakka hosted the royal procession carrying the sacred Bodhi sapling to the capital city. Tantirimalai was also a Mahayana centre in the 7th and 8th centuries, as revealed by its rock-carved unfinished Bodhisattva images.

The image house of Mudū Mahāvihāra discovered under the dunes of the sea shore near the town of Potuvil, is a place of Mahayana worship, indicated by the two images of Avalokiteśvara facing a standing Buddha. One Avalokiteśvara image is in the form of an ascetic, while the other bears the royal paraphernalia of a prince. This shrine also has a direct contact with the rock carvings at Budupatunna, situated near the Wila Oya river, which flows to the ocean a few miles south of the Mudū Mahāvihāra complex. Here again we see on either side of the central Buddha image two Avalokiteśvara images, standing and facing the viewer under a stone chattra. The ascetic image displays *abhaya mudrā* with the right hand and *kaṭakā mudrā* with the left. The *dhotī* is held in place by an animal hide tied around the waist. The Bodhisattva clad in princely garments and jewellery standing to the right of the Buddha is also Avalokiteśvara.

Let us now discuss the two clusters of Avalokiteśvara images found in the Trincomalee area and in the vicinity of Kirinda. Apart from being an important natural harbour, Trincomalee played an important role as an active sea port on account of the Mahavali River which flows to the sea at Gokanna. Though Gokanna became a flourishing harbour from the eleventh century onwards, when the royal capital was transferred from Anuradhapura to Polonnaruwa, there is sufficient evidence to show that it was known as early as the 4th century CE to merchants who reached the island from the east. The ancient port site of Lankapattana (Illankathurai) is also situated at the estuary of one of the distributaries of the Mahavali River. It is believed that Princess Hemamali and her husband, Prince Dantha, on the instructions of her father King Guhasiva, hid the Buddha's tooth relic in her hair ornament and set sail from Tamralipti, the port at the mouth of the river Ganges, and landed in Sri Lanka at the port of Lankapattana during the reign of King Kirthi Sri Meghavarna (301–328). R.L. Brohier was correct to assume that the section of the Mahawali Ganga between the island of Kalinga in Polonnaruwa and the sea off the coast of Trincomalee was of sufficient depth at all times to be navigable by small vessels. Several images of princely and ascetic types of Avalokiteśvara were found in Polonnaruwa. Some statues of Avalokiteśvara are also attested

in many archaeological sites around Trincomalee, especially at Seruvila, a temple complex founded during the reign of King Kavantissa (2nd century BCE).

I have already discussed the importance of the ancient site of Tiriyāy near the Galvaraya, at the mouth of the Yan Oya (Yan aru). Apart from its rivers, lagoons and backwaters, its eastern coast seems to have played an important role in the internal trade. A broken statue of Avalokiteśvara was found in 2011 by the Department of Archaeology not far from the Mulathiv lagoon. The most significant discoveries revealing active trade activities were made at Kuchchaveli (or Kuchaveli), a small coastal town located north-west of Trincomalee. In 1955, while digging the foundations for the Rest House, workers discovered a torso of the Buddha made of limestone imported from Andhra. While restoring an ancient building in 1984, the officers of the Department of Archaeology found two Buddha heads and a torso most probably executed in situ using local dolomite stone by sculptors trained in Nagarjunakonda. Like Tiriyaya, the Kuchchaveli complex was in all probability a Mahāyāna centre during the 7th and 8th centuries as indicated by an inscription engraved on a boulder. The excavations conducted by the Department of Archaeology and the French Archaeological Mission at Kuchchaveli in the Summer of 2011 have clearly shown that, apart from being a monastic complex, the site was also an ancient sea port. The discovery of Black and Red Ware, Grey Ware, Rouletted Ware, Chinese porcelain and Roman coins found in the test-pits denote active trade activities.

Fragments of three other Avalokiteśvara statues were found in two sites close to Kuchchaveli. Two heads of the princely type were found in Namalwatta. A torso of a yogi Avalokiteśvara statue came to light from Nilaveli when constructing the infrastructure for the German Voice Radio Station. These are just few examples showing the importance of the Avalokiteśvara cult in the areas around Trincomalee.

The second cluster of Avalokiteśvara Bodhisattva images are found in the area connected with the ancient sea ports of Kirinda and Godavaya. Tissamaharama, which connected to the ancient sea port of Kirinda by the Krindi Oya, was established as the capital of the Sinhalese Kingdom of Ruhuna as early as the 3rd century BCE. Excavations conducted by the Department of Archaeology with German archaeologists at Akurugoda brought to light much needed evidence of the international trade in this region with India and other countries.

In December 2001, in Tissamaharama, not far from the Sandagiri Vehera, a Buddha statue and two small Bodhisattva images—most probably of Avalokiteśvara—were accidentally found in a private land known as Badu Watta. The Buddha statue resembles the

ones found at Kuchchaveli and Maha-Illuppallama and has all the characteristics of the late Amaravati tradition.

More than six statues of Avalokiteśvara are so far known from this area. Two statues are kept in the Yatala Museum, and one is conserved inside the image house built on the terrace of the Yatala *Stūpa*. All three statues are of the jewelled or princely type and are very similar to the colossal statue of the same Bodhisattva at Dambegoda. One is very clearly characterized by the *Kirtimukha* decorating the *jaṭāmaṭṭa*. Two statues of Avalokiteśvara, one ascetic and the other princely, were found in the image house at Situlpahuva, not far from the Kirinda sea port. These two types of Avalokiteśvara appear as a pair, as we have discussed earlier, at the sites like Mudū Mahāvihāra and Budupatunna. Also as mentioned earlier, the *yogi* Avalokiteśvara shares most of the characteristics of the Śiva sculpture of the early Pallava style of the *Trimurti* Cave Temple in Mamallapuram.

At Girihandu Saya at Ambalantota on the right bank of the Walwe Ganga, two torsos and one head of three different Avalokiteśvara statues were discovered. The presence of the Tathāgata Amitābha, depicted in head-dress is a clear indication that the image represents Avalokiteśvara, the *Bodhisattva* of compassion and the spiritual emanation of Amitābha.

The two torsos, one wearing princely garments and jewellery⁶⁵ and the other with an animal-hide around the waist, also belong to Avalokiteśvara. Significantly, the Walawe Ganga falls to the sea at Godavaya, an emporium or port described in an inscription on a boulder next to the ancient *stūpa*. The epigraph states that regular and minor duties in the sea-port of Goḍapavvata were given to the (Buddhist) Monastery (by) king Gāmini Ahhaya (Gajabahu (114-136 CE).

After this long detour, we come back to the shipwreck close to the Godavaya sea-port. The study of the Godavaya wreck's cargo in a firm archaeological context will provide significant data on the close cultural, social, religious and commercial interactions between Sri Lanka and Tamil Nadu in southern India during early historical period. According to surface exploration, the ship, wrecked three miles from the estuary of the Walawe Ganga, was carrying stone objects (grinding stones or ceremonial benches), BRW vessels, iron and copper bars, and, very significantly, purified glass ingots.

Metal samples taken from the shipwreck were positively identified as copper and iron by Maryse Blet-Lemarquand by MEB-EDX (*SEM-EDX Scanning Electron Microscopy Energy Dispersive X-Ray Analysis*). The discovery of furnaces which may have been used for forging iron or for cementation at Ridiyagama and wind-blown furnaces at Samanalawewa in the upper Walawe river valley are absolute proof for the existence of iron smelting technology

as early as the beginning of the Common Era. It is still too early to hypothesize on the relationship between the furnaces and the Godavaya cargo, but further analyses of the iron and copper bars might enable us to determine their origin.

Let us turn to the other objects uncovered from the Godavaya wreckage site. The first object uncovered, and the first piece of evidence regarding the chronology, is a grinding stone. The finding of the upper and the lower grinding stones during this year's excavation enables us to consider them as grinding stones. The newly found stone has a zig zag stripe pattern similar to one found buried under the Yatala stūpa terrace located in Tissamaharama, the ancient capital of Ruhuna. The first grinding stone recovered by our tow fishermen is analogous to one carrying an inscription also found buried under the Yatala stūpa. The inscription of the latter is in Prakrit, written in early Brāhmī script, and can be palaeographically dated to the third or second century BCE. The stone found in the Godavaya shipwreck, though deprived of an inscription written in early Brāhmī, has three auspicious symbols carved on the surface of the stone: two fish-symbols, the *nandipada* (footprint of the bull Nandi, Śiva's vehicle), and the *Śrīvatsa* (Sanskrit for 'endless knot'), the mark on Viṣṇu's chest where his consort Sri Lakṣmī resides. The stylised depictions of these three auspicious symbols appear on the Chatras (parasols) of ancient stūpas such as the one from Sarnath dating back to the 1st century BCE. The carvings on a *stambha* (column) at the northern *ayaka* (frontispiece) of the Jetavanarama Dagoba built by King Mahasen (274-301 CE), two symbols: *Śrīvatsa* and *Nandipada* appear also in a Buddhist context. Fish symbol can be seen on Sangam age coins of the third 3rd and second and 2nd centuries BCE. The earliest coins in Sri Lanka bear designs derived from the second series of Pandyan multi-type coins, struck during the period circa 210-175 BCE. It is interesting to note that a similar type of coin was found in the structural period G, which dates to the second century BCE from Sri Lanka and British excavations conducted in the ancient citadel of Anuradhapura. This object thus provides strong evidence for the close cultural links between Sri Lanka and India, and confirms further the hypothesis according to which the boats leaving India were sailing around the east coast of Sri Lanka, so as to reach the dynamic port sites of the south.

According to their typology, the BRW sherds collected from the surface of the Godavaya shipwreck can be dated by the typology approximately to the 2nd second century BCE. As mentioned earlier, at Ridiyagama and at many sites on the Walawe Ganga, large quantities of early megalithic BRW, some of which were engraved with early historic symbols, have been collected. A comparative study on these post-firing graffiti marks, usually found on the shoulder portion of the BRW, uncovered in excavations at Kodumanal in Tamil

Nadu and at Ridiyagama and Kelaniya in Sri Lanka respectively show that these ceramic objects may have a common origin.

As mentioned earlier, it is also interesting to note as we have seen earlier that the most ancient layers of the excavations at Kelaniya, conducted by the Department of Archaeology and the French Archaeological Mission, brought to light fragments of BRW which can be dated with certainty back to the sixth 6th century BCE as confirmed by the calibrated dating obtained on the basis of C 14 analyses. The occurrence of the same individual or composite graffiti marks in both in Sri Lankan and Tamil Nadu sites enable us to suppose without much of a risk that there was a continuous cultural and trade contacts between these two regions.

The preliminary investigations on glass ingots from the Godavaya shipwreck carried out by James Lankton and Bernard Gratuze open the door to the study of the glass exchange in South and Southeast Asia, and these samples are exactly the type of archaeological material essential for a more complete understanding. Chemical compositional analysis of the two glass samples were performed using LA-ICP-MS (laser ablation-inductively coupled plasma-mass spectrometry) at IRAMAT (Institut de Recherches sur les Archéomatériaux, Centre Ernest-Babelon, CNRS/Université d'Orléans).

All the samples are soda glass, with soda (Na_2O) (16 to 21 wt%) as the primary flux, and low magnesia (MgO) indicating a mineral source for the soda. Both samples have the high alumina (Al_2O_3) associated with glass produced in Asia. They are relatively higher in lime (CaO) and lower in potash (K_2O) than most Asian glasses. They contain moderate iron oxide (Fe_2O_3), as might be expected from the use of a rather impure sand as the silica (SiO_2) source. Chemical analysis confirms the presence of copper as a coloring agent.

Among the trace elements measured, the most striking is vanadium (V). Its content is elevated in all the samples. Up to now, these high vanadium concentrations are characteristic for glass found in southern India at such Tamil coast sites such as Alagankulam, Arikamedu, Karur Amaravati and Manikollai, although glass from none of these had the same very high V/ Fe_2O_3 ratios as the Godavaya glasses. On the other hand, glass most likely produced at such contemporaneous Sri Lankan site as Giribawa is much lower in vanadium and V/ Fe_2O_3 ratios, making Sri Lanka an unlikely source for the Godavaya ingots. Using the trace element contents, it appears that the Godavaya glass samples shared many chemical features with glasses found or produced on the Tamil coast of South India. They looked at particular trace element ratios or whole compositions, the results strongly suggest a South Indian origin for the Godavaya glass, with a particular focus on such unexplored sites as Manikollai and Appur.

The carbon 14 analyses carried out on three wood samples in the laboratories in India, France and USA date the shipwreck between the second the 2nd century BCE to and the first 1st century CE. The C14 analyses further confirm the chronology obtained by the pottery typology and glass testing. Therefore, this Godavaya shipwreck should clearly be considered as the oldest so far attested in the Indian Ocean.

The epigraphic and literary evidence for the active role played by the Tamil merchants in the early phase of Sri Lanka's history is numerous. A study undertaken by I. Mahadevan has revealed the existence of a number of inscribed potsherds in the Prakrit (old Sinhalese) language written in the Brāhmī script, found at or near ancient sea ports along the east coast of India. The 10 inscribed potsherds published by Mahadevan, bearing Prakrit-Brāhmī script were reported from ancient trade centres like Kodumanal, Arikamedu and Alagankulam.

It goes without saying that any research on the maritime trade in the Indian Ocean connected with South India and Sri Lanka has to be based on a scientific survey of the shipwreck at Godavaya. In the following seasons, we hope to map, excavate and conserve the artefacts from the Godavaya wreck using methods developed and refined by the Institute for Nautical Archaeology (University of Texas A & M) over the past five decades. The provenience of all artefacts are and will be recorded by means of a digital photogrammetry system. We hope to carry out scientific analyses of wood to determine the origin. The further analyses of Iron and copper bars as well as glass ingots will enable us to determine the centres of production. All items already recovered and the ones to be airlifted at the end of this year from the wreck will be exhibited in the Maritime Archaeological Museum in Galle. So far, unlike Roman boats of which the architecture is known by the study of many shipwrecks, south Indian boats are only studied through iconography or ethno-archaeology. Whereas Roman boats are strongly built by a system of pegs and mortises, the south Asian ones are likely to have been constructed with sewn planks, as the traditional boats still in use. Since the ship remained untouched, there is still a possibility of discovering some wooden structure beneath the cargo, we might be able reveal this technical aspect as well. We also hope to consult the experts who have worked on shipbuilding techniques in the coastal regions of the Bay of Bengal. With some optimism we might even be able to determine the hull construction (I mean the function of clinker overlapping planks). These are the future aims of our collaborative program and the results of these operations will be made available to the scientific community through our web-sites and finally by the final reports.

Further scientific underwater excavations will help to understand the network of trade and communication between the inland capitals or political centres and the port-towns in river

estuaries, opened to long-distance exchanges. In this way, the joint project might lead to a rewriting of the economic, social, religious and cultural history of the area. Although textual sources and archaeological evidence account for the existence of a significant network of trade connecting Sri Lanka to India and the West, despite many surveys and excavations, no shipwreck has ever been found near the coasts of India or Sri Lanka: the Godavaya shipwreck is the first one to reveal a vast array of well-preserved material.

In conclusion, let me emphasize that Godavaya, like Kirinda, Gokanna and Manthai, was clearly an important port site, so there is no wonder why so many depictions of Avalokiteśvara, the mariner guardian, have been found along the Walve Ganga.

This preliminary investigation on the spatial distribution of the Avalokiteśvara statues in Sri Lanka as a whole show the importance of the role played by Avalokiteśvara as the protector of mariners. Although the research on this subject is still in its initial stage, it is obvious that the cult worship of the Bodhisattva Avalokiteśvara as the healer of the sick or protector of mariners was very popular in Sri Lanka. The Pāli Chronicles written by the Buddhist monks of the Mahāvihāra of the Theravāda tradition were primarily concerned with using the religious and political events to illustrate the importance of the Theravāda Buddhism. Although the Mahāvamsa does not make any reference to doctrinal or institutional manifestations of Mahāyāna, the archaeological and epigraphic evidence discussed in this paper show very clearly that, like Śaivism, Vaishnavism and Jainism, Mahāyāna Buddhism played a significant role in the history of the island. Partly as a result of the dynamics of maritime trade, by the 8th century the so-called heterodox monks of Abhayagirivihāra developed into a full-fledged Mahāyāna community when the Buddhists of Kanchi supported the secret and mystical beliefs of the esoteric and exoteric sub-sects of the Great vehicle. From this period onwards the Bodhisattva Avalokiteśvara gained great popularity as attested by the large number of his images erected all over the island.

In ancient Sri Lanka, Buddhist art underwent drastic changes as the focus of trade changed from one horizon to the other. In many cases, even without precise textual evidence, artistic expressions show the effects of different cultures. In short, the emergence of new Mahāyāna iconography must be seriously considered when studying the historical diversity of different cultures.

As I said at the beginning, with the trade, not only goods, but also ideas, cultures, religions and iconographies travelled from one place to the other making the lands around the Indian Ocean one cultural entity in its diverse forms ingenuously completing the sentiments and aesthetics of their respective populations.

Note This talk is based on the following publications:

O. Bopearachchi, "Sites portuaires et emporia de l'ancien Sri Lanka: nouvelles données archéologiques", *Arts Asiatiques*, 54, 1999, pp. 5-22.

http://www.persee.fr/web/revues/home/prescript/article/arasi_0004-3958_1999_num_54_1_1429

O. Bopearachchi, *Tamil Traders in Sri Lanka and Sinhalese Traders in Tamil Nadu*, monograph, International Centre for Ethnic Studies, Colombo, 2008, 32 p. <http://www.noolaham.net/project/127/12623/12623.pdf>

O. Bopearachchi, "Sculptures of Amaravati tradition in Sri Lanka", *Journal of the Asiatic Society*, vol. L, 2008, pp. 1-26.

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O. Bopearachchi, S. Disanayaka & N. Perera, "Recent archaeological evidence on the maritime trade in the Indian Ocean: Shipwreck at Godavaya", in *The Ports of the Indian Ocean from the Red Sea to the Gulf of Bengal, Kolkata*, éd. M.-F. Boussac & J.-F. Salles, Calcutta, 2013, pp. 393-411

O. Bopearachchi, "Sri Lanka and the Maritime Trade: Bodhisattva Avalokitesvara as the Protector of Mariners" dans *Asian Encounters exploring connected histories*, éd. U. Singh & P. Pandya Dhar, Oxford University Press, New Delhi, 2014, p. 161-187.