Crafting the Divine Ship: Understanding Indigenous Shipbuilding Practices through Performative Traditions[1]

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Abstract

The Malabar coastline in present-day southwestern India is renowned for its maritime heritage and its indigenous shipbuilding traditions. Much of what is currently known about shipbuilding in this region's past is garnered from European documents, marine archaeology, and excavations of ancient ports. This article adds to this knowledge by consulting centuries-old performative traditions and folklore. Specifically, we examine the *Thottam of Marakkalathamma*, which is an expression of veneration for the goddess *Marakkalathamma*. It is sung as a prelude to *Theyyam* performances (a ritualistic dance form) that takes place in northern Malabar, in present-day India's Kerala State. The article focuses on the materials and labour of shipbuilding, the form and motifs of ships, how ships were tested in oceanic waters, and rituals associated with shipbuilding. By intertwining a translation of the *thottam* and ethnographic fieldwork, this article argues that a history of shipbuilding can be found in an embedded mode in this performative tradition.

Introduction

Shipbuilding is a remarkable testament to human ingenuity and maritime prowess. It reflects the technological advancements and cultural practices of societies that relied on the sea for trade, exploration, and transport. But ships often extended beyond being just vessels – they were also symbols of economic power and cultural exchange, connecting

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distant lands and people. The naval presence of a kingdom was shaped by the expanse of its maritime trade, its relations with port cities, the magnitude, quality, and uniqueness of its trade items, and the robustness of its ships. The Malabar coastline in present-day southwestern India has been among the most notable shipbuilding zones in the world since before the common era. This is evident from historical work that has relied largely on marine archaeology and terrestrial excavations.[2] However, knowledge that could be sourced from folk stories, performative traditions, ballads, and indigenous practices can add to these kinds of sources. These fragmentary narratives, buried in the edifices of religious belief and cultural expression, have immense potential to unearth aspects of maritime history. Several scholars, including Sanjay Subramaniam, David Shulman, and Velcheru Narayana Rao, have emphasized the need for an integrated approach that considers indigenous traditions as historical sources, fostering a more profound understanding of South Asian cultural and literary history.[3]

This article explores ship-building techniques represented in the *Thottam* of *Marakalathamma,* a ballad sung before the *Marakkalathamma Theyyam* performance. *Theyyam* is a prominent folk-ritual art tradition from northern Kerala, located on the Malabar Coast. The word *Theyyam* is derived from the Sanskrit word *daivam*, which means God. Around fourteen communities perform *Theyyam* dances, and most belong to subaltern castes, such as the Vannan and Malayan communities.[4] *Theyyam* is said to have originated from *Kaliyattam*, the dance of Goddess Kali.[5] and is believed to be at least

[2] Raghava Varier, "Patalayani Kollam: A medieval port town on the Malabar coast," in *Advances in History, Essays in Memory of Professor M. P. Sridharan*, eds. Kesavan Veluthat & P.P. Sudhakaran (Calicut: Professor M. P. Sridharan Memorial Trust, 2003), 154-179; V. Selvakumar, "Nature and characteristics of the sailboat excavated at Taikkal Kadakkarappally, Alappuzha District, Kerala," in *Glimpses of Marine Archaeology in India, Society for Marine Archaeology*, eds. A.S. Gaur and K.H Vora (Goa: Proceedings of the Seventh Indian Conference on Marine Archaeology of Indian Ocean Currents, 2006), 4-14; K.K.N. Kurup, "Indigenous navigation and shipbuilding on the Malabar coast," in *Shipbuilding and Navigation in the Indian Ocean Region AD 1400–1800*, ed. K.S. Mathew (New Delhi: Munshiram Manoharlal Publishers, 1997); A.P. Greeshmalatha and G. Victor Rajamanickam, "An analysis of different types of traditional coastal vessels along the Kerala coast," *Journal of Marine Archaeology*, 4 (1993), 36-50; Gerhard Kapitan, "Ancient anchors – technology and classification," in *Marine Archaeology: The Global Perspectives II*, eds. G. Kuppuram and K. Kumudamani (New Delhi: White Lotus Press, 1996); Noboru Karashima (ed.), *In Search of Ceramic Sherds in South India and Sri Lanka* (Tokyo: Taisho University Press, 2004); Victoria Tomalin, V. Selvakumar, M.V. Nair, and P.K. Gopi, "The Thaikkal-Kadakkarappally boat: An archaeological example of medieval shipbuilding in the western Indian Ocean," *International Journal of Nautical Archaeology*, 33, 2 (2004), 253-63; Alok Tripathi, "Antiquity of sailing ships of the Indian Ocean: Evidence from ancient Indian art," *Ziff Journal*, 3 (2006), 25-34; P.J. Cherian, V. Selvakumar, and K.P. Shajan, "The Muziris Heritage Project: Excavations at Pattanam," *Journal of Indian Ocean Archaeology*, 4 (2007), 1-10.

[3] Velcheru Narayana Rao, David Shulman, and Sanjay Subrahmanyam**,** "Forum: Textures of time: A pragmatic response," *History and Theory*, 46 (2007), 410.

[4] K.K. Gopalakrishnan, *Theyyam: Indian Folk Ritual Theatre* (New Delhi: Niyogi Books, 2024).

[5] According to C.M.S. Chandera, the legendary literary narrative of *Keralolpathi* discusses the roots of the ritual art of *Theyyam*, whereby the people of the North Malabar region were granted permission by Sage Parasurama to celebrate festivals like *Kaliyattam, Puravela* and *Daivattam* or *Theyyattam,* and consequently*, Kaliyattam* gave rise to *Theyyam*: C.M.S. Chandera, *Kaliyattam: Pathanavum Pattukalum* (Kottayam: National Book Stall, 1978), 25.

1,500 years old.[6] They are typically performed in specific sacred groves called *kaavu*, and a seasonal schedule of performances usually begins in the final week of October and lasts until May. A *Theyyam* performer undergoes strict ritualistic practices both preceding and during performances, as, when they perform, it is believed that they assume the role of a God. Several *Theyyam* performances subvert caste and class structures that otherwise persist in the region's societies.

Songs sung before *Theyyam* performances are called *Thottam Pattu.* Such songs include both the *varavilli*, which is the ritual invocation to a God or Goddess, and a legend or story associated with the deity invoked. During the *varavilli*, a lamp (*vilakku*) is lit, and rhythmic chants beseech the deity to descend into the performer (*kolakkaran*). These songs remain closely guarded within the precincts of certain families and have been passed down from generation to generation with great faith and reverence. The *thottam* under discussion in this article is an expression of veneration of the Goddess Marakkalathamma, who is believed to have arrived on a *marakkalam* – a colloquial term that denotes a wooden vessel, which itself is derived from two words – *maram* (a tree) and *kalam* (a vessel). Marakkalathamma is one of around twelve *kanyaka* (maiden) goddesses who, according to folklore, arrived in present-day southwestern India via waterways along the Malabar coastline. Others include goddesses like *Arya Bhagavathy, Aryapookanni Bhagavathy, Ayathil Bhagavathy, Aryapoomala Bhagavathy* and *Uchoolikadavathu Bhagavathy*.[7]

The *Thottam of Markalathamma* is performed at shrines, such as Kappoth Kaavu (Anjampeedika), Koovaprath Kaavu (Kavinisseri), Muttil Kaavu (Pazhayangadi), Edamana Temple (Anjampeedika), Palappurath Kaavu (Kolmotta, Parassinikadavu), Cherupazhassi Kaavu (Mayyil), and Veluthoor Kaavu (Vadakancheri) in Kannur. In the *Thottam* itself, the divine maiden is addressed by various names, such as *Shoolakutariamma, Thiruvarmozi*, and *Narayudhamala.* These names are conferred due to *Marakkalathamma*'s association with various *illams* (brahmin households) in various contexts. The *Thottam of Marakkalathamma* is also one of the longest *thottams* that is sung, and hence, it is also known as *valiya thottam*, or the lengthy *thottam*. According to Abhilash Malayil, unlike the grandiose shrines dedicated to other *Theyyam* deities,

[6] Chandran Muttath, *Chilamp, Theyyam: Ulpathiyum Charithravum* (Thiruvananthapuram: Kerala Bhasha Institute, 2015), 12.
[7] Gopalakrishnan, *Theyyam*, 46.

Marakkalathamma has relatively few shrines dedicated to her. It 'is one of the rarest indigenous lores directly related to the oceanic realm.'[8]

Existing knowledge about ancient shipbuilding in present-day India has largely relied on material evidence. This includes documentary evidence written by Europeans since the fifteenth century, such as descriptions of ships, construction methods, trade routes, ports, and navigation, that are held in explorers' accounts and colonial-era investigations.[9] Historians and archaeologists have also investigated physical objects, such as models, reliefs, seals, sealings, plaques, paintings, sculptural panels, and coins.[10] Further, scholars have made significant use of texts and inscriptions in vernacular languages. These include Subrahmaniam's analysis of Sangam texts, Karashima's analysis of the Chola inscription at Krishnapatnam, and R.K Mukherjee's analysis of the eleventh-century Sanskrit work *Yuktikalpataru*, the latter of which draws on older traditions and provides insights into the technical sophistication of Indian shipbuilders.[11] A.J. Qaiser argued that this sophistication persisted under European rule, despite Europeans' claims of technological superiority.[12] Ethnographic approaches have also occasionally been used. Examples include Lotika Varadarajan's research on the construction of Indian vessels, K.K.N. Kurup's publications on maritime traditions in southwestern India, and K.S. Mathew's analysis of the *Kannakiyum Cheermakkavum* as a pre-modern maritime literature in Malayalam that addresses aspects of shipbuilding and launching.[13] The ships in the latter example were often referred to as *marakkalam*, a term that resonates in Sangam texts, such as *Akananooru and Purananooru*, and in Chola inscriptions. While the texts

[8] Cited in: Mahmood Kooria, "Introduction: Situating Malabar in the Indian Ocean," in *Malabar in the Indian Ocean: Cosmopolitanism in a maritime historical region*, eds. Mahmood Kooria and Michael N. Pearson (New Delhi: Oxford University Press, 2018), xxiv.

[9] For important contributions from the twentieth century, see: J. B. Hornell, *The Origins and Ethnological Significance of Indian Boat Designs* (Calcutta: Asiatic Society 1920); Alan Villiers, *Sons of Sinbad; an account of sailing with the Arabs in their dhows, in the Red Sea, around the coasts of Arabia, and to Zanzibar and Tanganyika: pearling in the Persian gulf: And the life of the shipmasters, the mariners, and merchants of Kuwait* (New York: C. Scribner's Sons, 1940); George. F. Hourani, *Arab Seafaring in the Indian Ocean in Ancient and Early Medieval Times* (Princeton: Princeton University Press, 1951).

[10] Tripathi, "Antiquity of sailing ships," 25.

[11] N. Subrahmaniam, *Pre-Pallavan Tamil Index* (Madras [Chennai]: University of Madras, 1966); Noboru Karashima (ed.), *In Search of Ceramic Sherds in South India and Sri Lanka* (Tokyo: Taisho University Press, 2004); R.A. Mukherjee, *A History of Indian Shipping* (Bombay: Longman's Green and Company, 1912).

[12] A.J. Qaisar, *The Indian Response to European Technology and Culture (AD 1489–1707)* (Delhi: Oxford University Press, 1982).

[13] Lotika Varadarajan, *Sewn Boats of Lakshadweep* (Dona Paula: National Institute of Oceanography, 1998); K.K.N. Kurup, "Indigenous navigation and shipbuilding on the Malabar coast," in *Shipbuilding and Navigation in the Indian Ocean Region AD 1400–1800*, ed. K.S. Mathew (New Delhi: Munshiram Manoharlal Publishers, 1997); K.K.N. Karup (ed.) *India's Naval Traditions* (New Delhi: Manohar Publishers, 1997).

accurately name various native crafts and hint at their functions, they do not provide much specific details about their design and structure. It is in this context that this article analyses the latter oral tradition to enhance knowledge about shipbuilding.

The significance of the *Thottam of Marakalathamma* lies in the fact that it offers rich, detailed insights into shipbuilding techniques, from the careful selection of wood to the finer intricacies of the vessel's launch. It also encapsulates the expertise, techniques, and cultural significance associated with maritime activities. By providing detailed descriptions of construction methods, materials, and paints used, as well as the cultural rituals surrounding shipbuilding, the *thottam* enriches our understanding of local maritime heritage. This article thus argues that this *thottam* should be interpreted as a serious account of maritime history. It serves as a repository of information about the materials and labour of shipbuilding, the form and motifs of ships, and how ships were tested in oceanic waters. In making this argument, we make a case for more serious readings of oral songs to build on knowledge about shipbuilding traditions that have hitherto largely been derived from material sources.

We have employed a mixed methodology for our study. For example, we analyse the text of M.V. Vishnu Namboodiri's, *Uttara Keralathile Thottam Pattukal*, which includes a textual analysis of the *Thottam of Marakalathamma*, and supplement it with the recollections of performers who sing the said *Thottam* during *Theyyam* performances.[14] We have also taken the personal reminiscences of two singers of the Marakkalathamma *thottam* from Kannur district (Kerala), and we have recorded interviews with nine indigenous ship builders (*uru* and *palliyodams*) in Kannur, Kozhikode, and Pathanamthitta district, as well as with two Ayurvedic medical practitioners to identify certain rare plant species and herbs that are mentioned in the *thottam.* Our fieldwork also involved an exploration of shipbuilding sites, including at Beypore, located on the northern bank of the estuary of the Chaliyar River, which was the epicentre of shipbuilding activities before the arrival of European mariners and merchants. We have also considered the expertise of carpenters from dockyards at Beypore (Kozhikode) and Azheekkal (Kannur), where boats are still constructed using traditional techniques. Collectively, these interactions helped us gauge the continuity of certain traditions and techniques that have endured into the contemporary age. In thinking through these various sources, we have employed a broad framework rooted in critical ocean studies and memory studies to analyze and contextualise oral traditions involving maritime activities.

[14] Vishnu Namboothiri, *Utharakeralathile Thottam Pattukal* (Thrissur: Kerala Sahitya Akademy, 2005).

The *thottam* is also loaded with meanings from multiple perspectives – feminist, eco-critical, and subaltern, which future research could help elucidate. For example, a reading based on gender roles could express how the spatiality of ships reflected a hegemonic masculinity; an eco-critical reading of the *thottam* could open dimensions of the past where oceanic space and ships were venerated and the shipbuilding process was conducted with utmost respect to the surrounding ecosystem; a post-colonial reading could elucidate the dynamics of imperialism and relationships characterised by slavery within the maritime activities; and a philosophical reading could highlight the presence of cosmopolitan tendencies and oceanic consciousness that builds connections between communities. However, with our focus on shipbuilding and broader maritime activities, the remainder of this article is divided into three sections. The first discusses the divine lore of *Marakkalathamma*, the second examines shipbuilding in the *Thottam of Marakalathamma*, and the third analyses cultural production associated with the shipbuilding process. The article concludes with a reflection on the utility of such *thottams* (and oral traditions more generally) in elucidating maritime pasts.

The Divine Lore of Marakkalathamma

The *Thottam of Marakalathamma* begins with an invocation (*varavilli*) to the goddess, which includes a request to bestow prosperity to the land, people, rulers, and other stakeholders. Further, it narrates the story of a prosperous Brahmin merchant called Thiruvadithangal, who hails from the port city of Sreeshoolam.[15] The legend begins with his search for a prospective bride. As per his desire in the legend, the *karnarvars* (the senior-most males who held considerable authority over family and exercised control over important societal matters) arranged an alliance for him with the beautiful daughter of Kanaka Raja. After marriage, Thiruvadithangal, who is an ambitious merchant, is unable to sit at home idle for a long period. He builds a magnificent wooden vessel, called the *marakkalam* for overseas trade, and he soon departs for a voyage when his wife is seven months pregnant.

Thiruvadithangal travels in the *marakkalam* to various ports and, when he reaches the eighth port, Thiruvalathoor, he decides to take a brief hiatus and open a trade shop/warehouse called the *vanibha peedika* to sell his wares. There, he notices the house of a recently widowed Brahmin lady and expresses his keen desire to establish an

[15] Thiruvadithangal is also called Samudra Narayanan in certain versions. See: Raghavan Payyanad, *Methodology for Folklorists* (Kozhikode: Centre for Advanced Studies and Research in English Language and Literature, 2013), 369.

'*oonveedu*' or 'a dining house arrangement' with her.[16] After a relentless pursuit, Thiruvadithangal finally marries the lady. A year later, a beautiful daughter with divine powers is born to Thiruvadithangal. She is known by various names, but later, becomes the revered *Marakkalathamma*. The *Thottam*, displays how the child is not drawn to the normative codes of behaviour of her peers. Her favourite pastime is to sit in her father's trade shop (*vanibha peedika*) and to observe her father conducting trade. One day, this divine child has a premonition that her father would go away abandoning her and her mother; hence, with her acumen and sharp intellect, she befriends the *thandalars* (workers of the ship) to build a secret chamber (referred to as *daiva kuchil* in the *thottam*) in her father's ship.

As time progresses, Thiruvadithangal grows restless to return to his home at Sreeshoolam, and he plans to leave discreetly. He discloses this to his second wife and bequeaths his shop and wealth to her and their daughter. On the date that he plans, he boards the ship and leaves Thiruvalathoor. Marakalathamma, on hearing her father's abscondence and betrayal, uses her divine powers to stop the ship and join the crew in their journey. She hides in her *daiva kuchil* (secret cabin). Her grief and anger cause an awkward and wayward movement of the ship, making Thiruvadithangal suspicious of his daughter's presence. On close scrutiny, he finds his daughter angrily hiding in the secret chamber. The *thottam* concludes with the father's sincere repentance and the divine child's warm welcome at her father's home at Sreeshoolam by Thiruvadithangal's first wife and her stepbrother Nidragopalan.

[16] Such arrangements operated like *sambandham* relationships practiced in matrilineal communities of Kerala, whereby a woman would have a visiting husband. Such relationships were sanctified by the elders of the family and could be dissolved at any point.

Fig 1. Performer performing the Marakkalathamma Theyyam. The head gear or the mudi of the Theyyam performer represents a boat or ship like structure which is unique to Marakkala thottams. The accompanying artists wearing skull caps represent the thandalars in the narrative of the thottam.

Fig 2: A close up view of Marakkalathamma Theyyam Performer.

Fig 3: Thottam singers singing the Marakkalathamma Thottam.

SHIPBUILDING TECHNIQUES IN THE THOTTAM OF MARAKALATHAMMA

The *Thottam of Marakalathamma* represents a testimony of how science and technology are expressed in performative rituals and traditions and of how they are embedded in the collective memories of communities. Moreover, as cultural historian Jan Assmann has argued, cultural memories stay long after actual events or traditions are recorded, and they remain in society through collective consciousness. Assmann posits that cultural memories can comprise several aspects, including 'text, images and rituals specific to each society in each epoch, whose cultivation serves to stabilize and convey that society's self-image.'[17] Here, in the *Thottam of Marakalathamma,* cultural memory is reproduced in a

[17] Jan Assmann and John Czaplikacka, "Collective memory and cultural identity," *New German Critique*, 65 (1995), 132.

shipbuilding tradition from the perspectives of both merchants/patrons and workers. It is also a repository of several cultural practices followed during the pre-construction, construction, and post-construction stages. Additionally, the construction techniques and materials mentioned in the *thottam* reveal deep understandings of metallurgy, climatic conditions conducive to launching a vessel, and gratitude and respect for the natural environment.

Materials and Labour

Timber selection for shipbuilding varied according to the exposure of different parts of the ship to water, wind, and other elements. Several maritime historians, including K.S. Mathew, have shown how underwater rock formations, the presence of shoals, the volume of commodities to be transported, naval confrontations on the high seas, and the Indian Ocean monsoon system (and associated winds and rains) influenced the choice of timber for shipbuilding.[18] In the *Thottam of Marakalathamma,* timber selection for Thiruvadithangal's ship assumes enormous importance. It is reflected through the following exchange between Thiruvadithangal and the carpenters who helped to construct the *marakkalam*.

> *enthellam ethellam maram kollum nammude daiva kappalinu ?*
> *urupp maram kollam daiva kappalinte manimarathino*
> *jaathi maram nannayi yathoru panikkum kuttamillallo*
> *chandana maram kollam daiva kappalinte chaaru palakakk*
> *kumkuma maram kollam daiva kappalinte kurumbadikk avatho*.[19]
>
> Thiruvadithangal (asks the carpenters): Which all types of trees (wood) would be most suitable for our divine ship?
> Carpenters: The wood of *uruppu* tree is deemed ideal for crafting the ship's *aniyam* (stem) and *amaram* (stern)[20]
> The wood of *jathi* tree can be utilized for constructing any part of the ship.

[18] K.S. Mathew, "Shipbuilding on the monsoon battered Malabar coast in the pre-modern period – a preliminary study in naval archaeology" (Indira Gandhi National Centre for the Arts, 2016), 49: https://ignca.gov.in/mausam/Malabar_Coast_pre-modern_period_KS_Mathew [Accessed: 5 Feb. 2026].
[19] Namboothiri, *Utharakeralathile Thottam Pattukal*, 198.
[20] In traditional shipbuilding terminology, *Aniyam* refers to the ship's front portion or stem, while *Amaram* denotes the back portion or stern. These terms are used both locally and in oral traditions and *Thottam Pattu* to describe different structures of the wooden vessel.

> The wood of *Chandanam* tree is suitable for the side planks of the divine ship
> The wood of the *Kumkuma* tree is selected for the frames of the divine ship.[21]

As Thiruvadithangal's divine ship was 66 kol[22] in length (approximately 165 feet), trees with specific measurements and attributes were chosen for the project. The *thottam* identifies four essential trees for constructing sea-worthy vessels*, uruppu maram, jathi maram, chandana maram, and kumkuma maram*. *Uruppu maram*, a tree species in Malabar that is commonly known as 'iron wood,' was commonly used for making the bow and stern. The *uruppu* tree grows very tall and is generally found in the evergreen forests of the western ghats. *Jathi maram*, or teak, is notable for its remarkable strength and durability, making it perfect for crafting any part of the ship's body.[23] *Chandana maram*, or sandalwood, is valued for its beauty and resilience, and is often utilized for the side planks. *Kumkuma maram*, or the soft wood from a Palash tree, is used for making frames (*kurumbadi*). During our field visits to Beypore, the carpenters associated with constructing the *uru* (whose knowledge is transmitted intergenerationally without the aid of any written manuals) informed us as to how the teak was the most sought out wood for constructing an *uru*. Historians, including João Baptista Lavanha, have highlighted how teak and *ayini* or *anjili* (botanically known as *artocarpus birustus*) were the most suitable timber for the outer parts of ship. European writers of the medieval period appreciated this variety of timber for its resinous and bitter sap, and noted that it was distinguishable by its crisp leaves. They wrote that nature seemed to have created it exclusively for naval architecture.[24]

The *thottam* also describes the transportation of heavy logs to the *pandyala* (warehouse), where carpenters worked.[25] It discusses how workers drilled holes in the logs, inserted ropes, and handed the ropes to elephants, who used their trunks to carry the heavy logs. The logs, which would typically be carried by men and lifted by elephants, were, according to the *thottam*, transported with great gusto and celebration. They were stored in the *pandyala* (warehouse), which protected them from sunshine and mist, which

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[21] All the translations for this essay are undertaken by Dr. Bhasura Sangeethika M, Prof. Maya Vinai, and Prof. Tony Sebastian, whose mother tongue is Malayalam.
[22] *Kol* was a measurement unit used by carpenters of southern India and is mentioned in the *Thach Shastram*. One kol is approximately 2.5 feet.
[23] In several parts of north Kerala, unlike in southern parts, the teak wood is known as the *jathi maram*. Whereas, in southern parts of Kerala, *jathi maram* refers to the nutmeg tree or the myristica fragrans.
[24] João Baptista Lavanha, *Livro Primeira da Architectura Naval*, trans. R.A. Barker (Lisboa: Academic de Marinha, 1996), 143.
[25] Namboothiri, *Utharakeralathile Thottam Pattukal*, 200.

could otherwise lead to the formation of cracks. Specialist carpenters came from surrounding zones – the *Thottam of Marakalathamma* mentions that many came from a placed called Magalan. They worked under the supervision of *moothakarmi* (master carpenters). The latter's role was to maintain the accountability of their charges. The below lines suggest their commitment to work and dedication to their employer.

> *Nammal engane kudich madich irrunnaal porallo*
> We shouldn't just be sitting (idle) here getting drunk and intoxicated like this.[26]

During our field visits to both Beypore and Azheekal, we observed the same scenario whereby carpenters undertook all their construction activities in a designated enclosed space near the banks.

Metals were also a crucial component of shipbuilding. The *Thottam of Marakalathamma* stands as testimony to how *irumbu* (iron), *urukku* (an alloy of iron known for its strength and durability), *pichala* (brass), *chembu* (copper), *karodu* (black pewter), and *vellodu* (white pewter) had to be procured and supplied in ample quantity to facilitate construction.[27]. Markets were important in this context. The *Thottam of Marakkalathamma* mentions specific shops in Sreekariyoor market (current location unknown) as being preferred by merchants, such as Thiruvadithangal, due to their superior-quality goods and reasonable rates.[28] The following lines indicate how Thiruvadithangal ensured that the best quality raw material was made available for the blacksmiths.

> *onninu onnu nalla kurav koodathe vila kondu eduthare*
> They bought everything without any shortage and at an appropriate price.[29]

The market was also a place to acquire the supplementary labour of *thandalars* (slaves or bonded labourers). Seven thousand *thandalars were* summoned by the *mootha chetti* or trader for Thiruvadithangal's scrutiny and selection.[30] This indicates the availability of a choice of workforce for merchants like Thiruvadithangal. The *thandalars* were integral in

[26] Ibid., 193.
[27] Ibid., 202.
[28] Ibid., 176.
[29] Ibid., 202.
[30] Ibid., 217.

making preparations for the voyage, such as stitching their uniform, preparing eight flags for eight port cities (green flag for Thiruvathoor), getting the sail (*payya*) and flagpole (*pamaram*) ready before the journey, and making *alaskayar kamba* (thick rope).[31]

Blacksmiths were responsible for making four anchors or *nangooram*.[32] As these processes were considered crucial, Thiruvadithangal took a keen interest in directly supervising them. Most of the metalwork was undertaken by blacksmiths in a space called *pannikottil* (workshop).[33] In the *thottam*, Thiruvadithangal requests the blacksmiths to craft (*varkhuga*) the anchors with great care.[34] Although the exact material of the anchor is not specified, the usage of the word the term *varkhuga* suggests that they could have been made from metal rather than stone, which was popularly used in Malabar. However, the corresponding lines in the *thottam* mention *panni kallu* (heavy stone) being purchased from the Sreekariyoor market, thus complicating such a conclusion. Works of historians, such as V. Selva Kumar, have identified the presence of stone anchors in abandoned and reused conditions in many coastal and inter-tidal zones in India.[35] This might imply that the construction of the *marakkalam* in the *thottam* occurred around the time of the European arrival, as metals were regularly used in the anchors of European ships. Meanwhile, the crafting of four anchors suggests the need for spares in case of damage, while also indicating their potential usage in manoeuvring through difficult and varied zones.

Blacksmiths also made the *kappachermangalam* (ship's drum) and *kappakahalam* (ship's horn).[36] During our field visits, the *thottam* singers informed us that these were probably two round musical instruments that were used for varied announcements and on-board instructions. The *thottam* explains that they were made with utmost care and that the raw materials, such as the bark of *eruk* (castor) trees, were procured from a market for crafting both.[37] Blacksmiths prepared nails, planks, and sound bells under the supervision of *perumkollan* (senior blacksmith), and they handed them over to the carpenters for further steps in the shipbuilding process. The *Thottam of Marakalathamma* elucidates the specialist labour and materials used in the shipbuilding process.

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[31] Ibid., 219.
[32] Ibid., 203.
[33] Ibid., 203.
[34] *Varkhuga* is an activity generally associated with metals and houses.
[35] V. Selvakumar, S. Damodaran, C.M. Jaseera, and R.A. Varghese 2021, "A stone anchor from Beypore, Kerala, west coast of India," *Heritage: Journal of Multidisciplinary Studies in Archaeology*, 9 (2021-22), 225.
[36] Namboothiri, *Utharakeralathile Thottam Pattukal*, 203. The term *kappakahalam* is derived from two Malayalam words, kappal which means ship, and kahalam which means a horn or a trumpet producing a loud noise. In addition, this information was reiterated by the performers of the *thottam* during our field visit.
[37] Ibid., 202-3.

The *thottam* also discusses the issue of water seepage, another crucial factor to consider during the shipbuilding process. It describes how *panthavum paruthiyum* (caulking) was done with the help of resin (*pantham*) from a tree and twisted cotton (*paruthi*). This was hammered into tiny spaces and cracks.[38] Some of these processes still have resonance today, as evidenced in our field research. Similar techniques are still used in the construction of *uru* and *palliyodams* (boats in Beypore and Aranmula, Kerala) and *nau* (in the Gangetic River basins). The *thottam* elaborates how it is followed by an application of *cheen enna* (a mixture of fish oil and lamp oil).[39] These practices are synonymous with boat building techniques in several coastal regions of western India, including the Karwar coast (Karnataka), whereby the entire boat was caulked with fish oil mixed with Kapus or cotton waste.[40] Thus, there are long-term contexts that are enshrined in the *Thottam of Marakalathamma* that help to understand historic and current-day shipbuilding practices in western India.

Chambers in Thiruvadithangal's Ship

The description of the *marakkalam* in the *Thottam of Marakalathamma* signifies that the *marakkalam* was an artefact in itself, and was notable due to both its pragmatic utility and its aesthetic designs. Once the ship's frame was constructed, various chambers were incorporated into the structure. The ship comprised of roughly seven chambers, including one treasury (*moolabhandaram*), four large water barracks (*thantra pathayam*), the master's chamber (*paravathani kottil)*, and additional chambers (*olichitra peedam* and *manichitra peedam*).[41] Each of these chambers played a specific role in the ship's overall architecture and purpose, contributing to its functionality and stability. They were designed and made separately, and only after construction were they assembled within the ship's body using the mortise and tenon joint technique.

In the *Thottam of Marakalathamma*, a space referred to as *parvathanikottil* in *ezarakalli* (direct translation unknown) was designated for *Thiruvadithangal* to sit and supervise onboard activities. Compartmentalization of the ship below the deck was a quintessential feature in indigenous ships. Radhakumud Mukherjee mentions how larger vessels could have as many as sixty cabins, which varied depending on the utility the ship served.[42] It is possible that the *ezarakalli* in the *thottam* could reference a seven-

[38] Ibid., 207.
[39] Ibid. In Beypore, the *uru* builders use limestone powder.
[40] Baldeo Sahai, *Indian Shipping: A historical survey* (New Delhi: Publications Division, 1996), 265.
[41] Namboothiri, *Utharakeralathile Thottam Pattukal*, 200-5.
[42] Mukherjee, *A History of Indian Shipping*, 193.

compartment storage area on the ship, where different types of goods were stored. This space helped to demarcate market goods that were to be sold at differing port cities. The *thottam* also mentions a separate chamber where firecrackers were kept,[43] referencing the symbolic bursting of 1,000 rounds of fire at certain ports, like Thiruvalathoor, to announce the ship's arrival. Marakkalathamma's secret cabin, called the *daiva kuchil*, is mentioned as having occupied a place near *ezarakalli*.

The *moola bhandaram* or the treasury was the most coveted chamber on the ship, where all the money procured from trade transactions was stored. It served as the financial hub for the ship's commercial activities. Drinking water was crucial to the sustenance of life on board for the crew. The *thottam* highlights this significance through the *thantra pathayam* (water bin or cask), which was designed for water storage.[44] During one of our interactions with *thottam* singer Shri Nikesh Peruvannan, he highlighted how dried ginger and clove were mixed in the drinking water of *thantra pathayam* to retain its freshness and to help ward off waterborne diseases that might develop on long voyages. According to Ayurveda, both ginger and clove were extremely beneficial in terms of aiding digestion, reducing bloating, and supporting the immune system. Collectively, these descriptions in the *thottam* suggest that Thiruvadithangal's ship was both customised to his specific demands and needs and rooted in wider shipbuilding practices.

Raw Materials used for Painting of Thiruvadithangal's Ship

Painting of the ship was crucial activity undertaken in the ship building project of Thiruvadithangal. Not only did it bestow the ship the endurance to harsh marine environment, corrosions, and marine organisms, these protective coatings went far beyond mere aesthetics. Radhakumud Mukherjee's *Yuktikalpatharu* aligns with Marco Polo's observation about the bottom of ships being smeared with a preparation of quicklime and hemp, pounded together and mixed with oil procured from trees. This resulted in a kind of unguent that ensured the more viscous properties of the mixture would firmly adhere to the ship.[45] The *Thottam of Marakkalathamma* discusses how Thiruvadithangal was willing to spend generously for procuring superior quality materials for painting his ship.[46] It mentions the *kalinnoor kummayam*, or a white coloured coating, which was utilized for

[43] Namboothiri, *Utharakeralathile Thottam Pattukal*, 230.
[44] Ibid., 205.
[45] Mukherjee, *A History of Indian Shipping*, 192.
[46] Namboothiri, *Utharakeralathile Thottam Pattukal*, 207.

both Thiruvadithangal's ship and the smaller auxiliary boats (*vai kappals*).[47] In the *Thottam of Marakkalathamma*, the coating was first applied to all the outer four sides of the ship, and then it was applied to interior areas, including the *ezharakalli.*

Most of the raw materials used for painting were purchased from the Sreekariyoor market. Paints were not in a 'ready to use' form. Colouring agents or pigments, such as *karam* (black dye), *neelam* (indigo), *manayola* (a mineral, which lent a yellow colour), and *manchana* (bark of a tree which provided red pigment) were procured from the market and laboriously processed for usage in paints. For many of these paints, rice was the basic grinding material.[48] Women, who are otherwise absent in the *thottam's* description of the shipbuilding workforce, were the primary paint mixers. They ground and gathered the paints in a copper vessel before mixing it with coconut water (*elaneer velam*) and a juice of *narandha chaar*, a vine (*Cissus latifolia*) to bind it.[49] The *thottam* also mentions that *kalinoor kumayam* or white mortar is added with *thettam paral* (clearing nut) and *paal kaddukka* (mussel shell), which aids the properties and cohesiveness of the paint.[50] The mixture is placed atop a fire and is boiled until it reaches a particular consistency, and then transferred into a thousand new pots and taken to the site where the painting of the ship was undertaken.[51] However, before painting commenced, the workers cover and conceal four sides of the ship using coconut leaves.[52] This may have been to ward off the evil eye. But it might also have the pragmatic aspect of protecting it from harsh weather and moisture so as to give paints the required time to dry and settle. During our field visits to Beypore, we observed that this practice is no longer followed, and instead, the *uru* was covered with large blue tarpaulin sheets, which were visibly more convenient. After whitewashing all the exterior and interior portions of the ship, fourteen specialists (painters) from Sivancheru Mala, or mountain, were invited to draw aesthetic motifs and symbols to Thiruvadithangal's ship.

Inspection of the Ship to Ward Off the Imminent Dangers

The process of building a *marakkalam* was dynamic and each step involved scrutiny and inspections at varied levels. The *thottam* highlights how, during certain stages,

[47] *Vai Kappal* is a small boat that accompanies the main ship during its journey; it is used for traveling between the ship and the shore, carrying people and goods when the larger vessel cannot dock directly.
[48] Namboothiri, *Utharakeralathile Thottam Pattukal*, 208.
[49] *Narandha chaaru* could probably refer to *nannari chaaru* or *naruneendi chaar* in Kerala.
[50] Namboothiri, *Utharakeralathile Thottam Pattukal*, 208.
[51] Ibid.
[52] Ibid., 209.

Thiruvadithangal's presence was indispensable. His inspection during crucial junctures could not be left to even his most trusted lieutenants. A thorough inspection of the newly built ship occurred before its launch. The designated workforce to facilitate this was the *thandalars*, who had the skill and expertise to handle sophisticated devices to check and assess any kind of blockage at the bottom of the ship. The *thottam* shows how they used a thick rope (*aalaas kamba kayar*) bought from the market to gauge the extent of damage done to the bottom of the ship. They descended with the rope to check for any kind of imminent danger or awkward tilt in the ship. *Aalaskayar* was also used during the launch the ship into water.[53] In the *thottam*, it is depicted as tied to the *ellam thala* (bow) of the ship. It is shown as useful in the story when Thiruvadithangal became perplexed by the ship's unusual movements and, later its static position when Marakkalathamma boards the ship.

The first launch of the ship was supervised by the *aaladiyanamar*, or skilled craftsman, with a high degree of expertise in embarking and disembarking of a ship.[54] Then, according to the *thottam*, the ship-launching ceremony began with the *thandalars* opening the sea-facing doors of the *pandyala* or warehouse amidst great celebration. The transportation of the enormous ship from shore to water was a herculean task involving the effort of *both thandalars* and elephants. A chain was hooked to one end of the ship, and the other end was assigned to an elephant. When the ship was dragged towards water, the *thandalars* unfurled the sails and hoisted the flag.[55] The launching ceremony was combined with an assessment of the ship's practical functionality and a performance of rituals that were believed to ward off potential dangers that a ship could succumb to.

The second part of the ship's testing involved the oars and helm. Rowing was undertaken with various types of oars, including the *kaa thuza* (foot oar), *kai thuza* (hand oar), *neer thuza* (water oar) and *nila thuza* (definition unknown).[56] The *thottam* also mentions the *thandum chukanum* (helm or rudder), which was made meticulously.[57] The newly built ship also underwent extensive testing in different zones of the sea and seascapes, each with different characteristics, to ensure its stability and performance. These areas included in *uppu kadal* (saline water), during *chora kadal* (when the sky took a reddish colour, typically during the evening), and in *shoba kadal* (a turbulent or stormy

[53] Ibid., 218.
[54] Ibid.
[55] Ibid.
[56] Ibid., 208.
[57] Ibid., 218.

sea).[58] The purpose of these tests was to assess how the ship handled various environmental conditions and disturbances. Specifically, the craftsmen assessed any signs of instability, such as in unexpected tilts or curves. The newly built ship was often accompanied by small boats called *vai kappal* during this testing period. By navigating the ship through these different zones, they could identify if there were any structural weaknesses. These tests were essential to ensure the ship's reliability, safety, and seaworthiness, confirming that it could withstand different challenges once it was taken on longer voyages.

Rituals, Auspicious Symbols (Drawings) and Omens During the Shipbuilding Process

The success of shipbuilding and sea voyages were believed to be highly dependent not only on the expertise of labour, but also on the 'grace' of planetary forces and ecosystems. Varied cultures assume a diverse process to safeguard the ship from imminent dangers. James Hornell rightly pointed out over a century ago how coastal people of India, including in the region under review, endowed ships with more than inanimate attributes.[59] The present *thottam* explicitly mentions that the propitiation of Gods, demi-Gods, serpents, and other celestial beings was considered as a prerequisite. Even before the commencement of the shipbuilding process, a *kalamezhthu* for the serpents and *sree bhootabali* was conducted. *Kalamezhuthu* is a traditional ritual art form of Kerala, where colourful powder made from natural materials is used to draw elaborate figures of deities, such as Bhadrakali, Ayyappa, or Serpent gods, on the floor. It is performed especially in temples and sacred groves, and is often accompanied by songs (*kalampaattu*) and rituals. *Sreebhuta Bali* is a ritual offering performed in many temples of Kerala, especially in Devi and Shiva temples, to appease the *Bhutas* (divine spirits or attendants of the deity). It involves acknowledging the presence of these guardian spirits and is considered important to maintain spiritual balance and the overall sanctity and protection of the temple.

The rituals in the *thottam* were conducted in an approximate 3.5-square-foot space (*nalpath eradi*) that was specially prepared for the purpose. The *Thottam of Marakkalathamma* describes an invocation to Lord Ganesha and Saraswati to remove obstacles and to allow the work to progress smoothly. It also mentions the *Asura Pooja*

[58] Ibid., 218-9.
[59] Hornell, *The Origin and Ethnological Significance*, 247.

for the appeasement of demonic or *Asuric* forces, so that there are no hurdles from their side during the construction process. Before the wood was sawn, a prayer was made in the forest to the inhabitants of the trees and their surroundings, such as birds and insects. Subsequently, the wood was struck firmly three times with an axe. This act represented a seeking of permission from birds and animals dwelling in the place to transfer their abode from the trees to elsewhere. The master carpenter then sprinkled rice and prayed thus:

> *ee malayil ulloru nagame bhoothame kelkkanam ningal*
> *njngal ee malammann van maram murich pokuvolame*
> *ee mala vittitt marumala noki kudi kooduka venam*
> *ariyittu thozhuthitt vai vangiyitt ninnar avarume*
>
> Oh, serpents and spirits dwelling in this mountain, you must please listen,
> we are about to cut down a large tree from this hill.
> You should leave this hill and seek refuge in another hill.
> After offering rice and bowing in reverence, they stepped aside.[60]

The reverence in the above stanzas reflect the deeply rooted collective eco-consciousness in the life of shipbuilders and sea voyagers. In fact, long before the introduction of the Brahmanical *Varnashrama* system, the ecosystem was revered as the source that bestowed life and energy. Individuals were aware that their sustenance depended on natural resources, and hence their actions reflected both their gratitude for the bounty received from nature and their guilt for ravaging them for materialistic desires.

In the *thottam*, every act in the process of shipbuilding was read in terms of omens (*lakshanams*) and the future course of events. The position in which the tree fell occupied great significance and it could help the *moothakarmi* (master carpenter) to read, predict, or foresee the series of events that would unfold in Thiruvadithangal's life. It was predicted that if the direction of the tree falls when cut was from the direction of *makaram* to *kumbam*, it would usher a sequence of auspicious events. *Makaram* and *Kumbham* in Malayalam refers to the two zodiacs (also months), namely Capricorn and Aquarius. In the *thottam*, the *moothakarmi* also prophesied to *aarthigal* or managers that he saw the *lakshanams* of an *eet illam* (delivery room) and the consequent childbirth.[61] Merchants, such as Thiruvadithangal, were keen to understand omens to assess whether their project

[60] Namboothiri, *Utharakeralathile Thottam Pattukal*, 196.
[61] Ibid., 197.

would beget profit and success. Each step associated with the shipbuilding process was embedded with cultural meanings and beliefs.

Drawing symbols was also an integral part of shipbuilding. Symbols were drawn on the different chambers of the ship for three purposes: to enhance the aesthetic look of the ship, to attract abundance, and to ward off evil eyes. The ancient treatise *Yuktikalpataru*, which gives an exhaustive description of twenty-five types of ships in India, also gives an elaborate description on decoration and symbols: 'Four kinds of metals are recommended for decorative purposes, viz. gold, silver, copper, and the compound of all three.'[62] The *thottam* highlights how most symbols had a mountain and a presiding deity. On the eastern side, is the illustration of *Adhityan* (the Sun God, who is considered the Lord of the East), with his chariot and his charioteers along with the *Udayakoolam* mountain.[63] This illustration is accompanied by *Varunan* (Lord of Water), and the resplendent Mount Meru, which is considered the abode of several Gods. The scene is completed with the presence of a peacock, a swan, and a koel (cuckoo), all rendered in different hues of colours. The southern side portrays Lord *Yama,* the Lord of the South, majestically riding the *Mahisha* (buffalo), holding a *Paasham* (rope) and a *Dhanda* (rod).[64] Behind him looms the imposing *Sreekaalakoodam Mountain*.[65] Lord Yama, in the Hindu tradition, is associated with death and the afterlife, and the southern direction is considered his realm of operation. The western side was populated with the image of the *Lord Chandra* (Moon God) who is depicted alongside the tranquil *Sreepaalazhi* Sea and the *Asthakoola* Mountain.[66] Many scriptures, such as the *Rigveda*, consider the Moon as a lunar deity that reigns over night, plants, and vegetation, and so it represents life itself. The scene also features Vishnu Narayanan in a reclining position on the serpent Anantha (*anantha shayana*) with his umbilical lotus bloom and his consorts, Mahalakshmi and Bhudevi, gracefully attending on him.[67]

Among the Gods represented as the trinity in Hindu culture (*Brahma, Vishnu*, and *Shiva*), Lord Vishnu (or Vishnu Bhagavan in the *thottam*) is considered as the preserver of the universe. The northern side is graced with a depiction of the powerful goddess Sree Bhadrakali, surrounded by her fierce associates. She is painted above *Vedhalam* called *Adhiyaan,* a fearsome figure with eight faces and sixteen hands, each holding one of the

[62] Mukherjee, *A History of Indian Shipping*, 25.
[63] Namboothiri, *Utharakeralathile Thottam Pattukal*, 211
[64] Ibid.
[65] Ibid., 212.
[66] Ibid.
[67] Ibid.

eighteen formidable weapons.[68] In Hindu traditions, Goddess Bhadrakali, along with being considered a fierce Goddess wielding her wrath against evil, is also considered a harbinger of all that is *bhadram*, meaning auspicious. Hence, it is common to find her form adorning the walls of homes as a symbol that drives away evil forces. Perhaps, the same sentiments could have been present in the painter's psyche while they adorned the eastern side of the ship. In addition, most of the scenes are set with a backdrop of a cuckoo, peacock, and swan, which are common images throughout. All of these birds have a place of reverence in Hindu traditions and are considered harbingers of luck and prosperity. In iconographic representations, peacocks have been depicted as a vehicle of warrior gods, such as Kartikeya, swans were regarded as a vehicle of the Goddess of Knowledge, Saraswati, and koel or cuckoo in the Vaishnava tradition symbolized a connection to the divine, its voice being a way to express longing and devotion. Thus, these symbols used on the ships convey the importance of religion and spirituality in the lives of the sailing community. Eight flags were painted to indicate the trade liaisons that Thiruvadithangal had with eight port cities. Perhaps, this acted in the manner of trade permits. For example, in the *thottam*, the green flag is associated with the port city of Thiruvalathoor.

Chayilyam, vermillion or a bright red/orange coloured natural pigment mixed with resin was used generously in these paintings to invoke abundance. Several spaces in the ship, such as the pillars, *ezharakalli* (seven compartments), *moola bhandaram* (treasury), and water barrack, were painted for the propitiation of the divine and the protection of the ship and its crew. The act of painting commenced from the eastern direction and was undertaken by fourteen specialists, such as *Shivanadigal* from the Shivancheru mountain. The *thottam* depicts these painters to be intuitive and as individuals who could foresee the course of events that would occur in their patron's life. Perhaps it was because of this that the *ezharakalli* had pictures depicting *Pattathiyamma* (first wife of Thiruvadithangal) breastfeeding her child, and *kappal marakkar,* assisting the navigation of the ship. Similarly, while embellishing the *ezharakalli*, *Shivanadigal* also drew paintings of Thiruvadithangal's son Nidragopalan, Thiruvadithangal's future relationship in Thiruvalathoor, and birth of his daughter.

Honouring the craftsmen and workers were always a significant aspect of the shipbuilding tradition. It was considered essential to seek their goodwill before proceeding for an overseas journey. From the *perumkollan* (blacksmith) to the painter, everyone was honoured and invited to partake in a feast, and they were provided with new clothes and

[68] Ibid. *Vedhalas* or *vedhalams* are believed to be spirits who occupy cemeteries and, at times, assist warrior Gods like Lord Kartikeya and Bhadrakali to eliminate demonic forces.

their wages. They were also provided with entertainment, as *pannars* (musicians belonging to a specific community) were called to sing songs for the occasion. However, the specialists were bestowed with more exquisite gifts than others. For example, the *perumkollan* was given a handsome wage, a bangle, and silk cloth, but Ramayana-inscribed bangles were reserved for the *Sivanadigal*,[69] who was rewarded for his craftsmanship, creative acumen, and foresight.

A purificatory ceremony (or the *kalasham*) occurred after buying or procuring goods. The *thottam* reveals how the goods bought from *Sreekariyoor* market undoubtedly underwent a *kalasham*.[70] The same process is replicated before the identifying and cutting of wood for shipbuilding. The *thottam* also depicts the custom of lighting a lamp both at home and in the ship to usher grace and luck. In the Hindu culture, the lighting of a lamp symbolized the dispelling of darkness and ignorance. It can also be observed that before Thiruvadithangal left for a sea-voyage, he is insistent that his wife cleans the prayer room, where he reverently sits and prays and sprinkles a few grains of rice on his head. Rice is integral to religious ceremonies and social framework of the southern part of India. The sprinkling of uncooked rice (popularly known as *akshatam)* on the head before an important event is considered as a harbinger of abundance and prosperity. All the important rituals before the commencement of the journey are depicted to be taking place after the protagonist sits on a reserved space called the *velli sreepeedam*, or the silver seating pedestal. This seat of honour is engaged and is reserved for auspicious occasions.

Tides were also considered a very auspicious natural phenomenon for South Asian seafaring communities. They made navigation easier by raising the water level close to shores, which helped to ease the movement of ships. It is thus notable that, in the *Thottam*, Thiruvadithangal instructs both the *aarthigal* (managers) and the *thandalars* (labourers) to commence significant activities related to the ship only after observing the *veliyettam* or the tides. In fact, Thiruvadithangal insisted on departing from home for his oceanic journey at a specific auspicious time denoted as *kappalmeen udicha samayam*,[71] loosely translated as when the *kappal meen* rises. Historian Baldeo Sahai notes how in each state, a few bright constellations are used in maritime navigation: “The Tamils speak of the use of *Vaadi-velli* (Pole star), *Kappal-velli* (Ursa Majoris, the four stars of Saptarishi group that form a square), *Araa-men* (*Krittigai*, the Pleiades) etc. The people of Malabar speak of the use of the *Kasila-min* and *Palli-min* (of the same Pleiades group), the *Chemmeen*

[69] Ibid., 216.
[70] Ibid., 211.
[71] Ibid., 226.

(Orionis) etc.[72] By corroborating the colloquial terms of Tamil and Malayalam, *kappal min udicha samayam* could probably be the time when *ursa majoris* becomes visible. All these rituals acted as a conduit to boost seafarers' faith that nature and the gods would provide optimal support for their venture, helping them to overcome hostile situations and usher success in their enterprise.

CONCLUSION

The discussion of this present cultural production, when viewed from an emic perspective, illuminates the entrenched maritime history hidden deep within the flamboyant life of protagonist Thiruvadithangal. For Thiruvadithangal, the ship was not a mundane vessel that navigated the tumultuous sea. In the context of the *Thottam of Marakalathamma*, the ship functioned as a *temenos*, or sacred space. This ascribing of a reverence and faith to a vehicle facilitating oceanic materialism is not seen merely by his repeated utterances of '*ende daiva kappal'* meaning 'my divine ship.' It is also effervescent in each of his actions with regard to the activities concerning the ship. The present *thottam* stands as a testimony to a time when ships were attributed a divine status. It was a space of camaraderie, trust, empathy, and shared belonging. As depicted in the discussion, the workers and craftsmen shared a collective accountability in their work.

Furthermore, a close reading of the *thottam* reveals several significant aspects of shipbuilding in erstwhile eras, such as the types of wood used, the size of ships, the metals used, its anchors, its decorations, its compartments, and its paints. It stands testimony to the fact that shipbuilding happened as a reclusive activity and was customized according to the taste and needs of the patron. This kind of work greatly differed from shipbuilding in the famed shipyards of Narsapur Peta near the Masulipatnam port from the 1580s to the middle of the seventeenth century, which Subramanyam described as a more mechanical enterprise.[73] At no juncture does Thiruvadithangal become impertinent to workers regarding the speed or quality of the work. The *thottam* also provides a glimpse into the shipbuilding activity as a predominantly masculine space whereby the absence women is conspicuous in selection of the workforce and in the construction process except for their presence during the mixing of paints. This could be possibly due to the fact that shipbuilding activities were dependant on a host of allied industries which includes carpentry and the metal work that were generally and historically gendered male.

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[72] Sahai, *Indian Shipping*, 296.

[73] Sanjay Subrahmanyam, "A note on Narsapur Peta: A 'syncretic' shipbuilding centre in South India, 1570s-1700," *Journal of the Economic and Social History of the Orient*, 31, 3 (1988), 305-11.

Certain significant aspects of shipbuilding remain impervious in the *thottam*. This includes omission of crucial details, such as details about the ship's crew, sails, keel, and decorations on the stern. The inclusion of these details could have assisted in further fathoming the maritime past. Perhaps this study could be a taking off point for exploring other *Marakkala theyyams* and *thottams* that will be familiar to scholars of the performing arts. The rituals undertaken before the construction of the ship exhibit features that symbolize the harmonious coexistence between humans and non-humans, revered natural resources, and valued work ethics.

Folk traditions and performative dance forms like *Theyyams*, created by non-literary societies, exemplify the socio-cultural fabric of pre-modern times. Jan Assmann and John Czaplicka expound how text, image, and ritual are important for turning performances into agents of cultural memory.[74] Oral songs, such as the *Thottam of Marakalathamma*, that are sung during every *Theyyam* season reinforce certain practices for local communities, including people involved in professions such as carpentry and construction, which become embedded in a collective knowledge system and are transmitted from generation to generation. *Thottams* form a rich source of the maritime past and can be considered as a repository of extant knowledge on shipbuilding techniques, port city transactions, and gender relations in an ecologically conscious society.

Future studies that employ oral traditions of shipbuilding may open up additional avenues of research, especially for drawing comparisons across regions and by adding to extant knowledge derived from documents and archaeology. This article demonstrates how shipbuilding along the Malabar Coastline was not only a mark of maritime skill but also an activity that was deeply intertwined with local culture and rituals. Songs like the *Thottam of Marakalathamma*, sung before performances, reflect the spiritual and communal values that guided shipwrights and coastal communities, highlighting how craftsmanship and cultural beliefs were, and in some ways continue to be, heavily intertwined in certain parts of present-day Kerala.

[74] Assmann and Czaplikacka, "Collective memory and cultural identity," 129.