

Nautical Terms as Gleaned from Ancient Tamil Literature

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Abstract

During the beginning of the Common Era, the Maritime trade peaked in the regions of Southeast Asia, Peninsular India, Srilanka and the Red Sea coast. The Greek and Latin accounts clearly attest to the increased trade activities in this period. The use of large crafts for navigation is well recorded in these accounts. The early historic Tamil Sangam literature dated between 300 B.C.E. and 300 C.E. provide valuable data regarding the nautical knowledge of that period. Some researchers have attempted to collate and interpret the data on nautical terms available in this literature. However, a detailed contextual analysis based on the content of the poems has not been attempted so far. Many types of crafts such as naavaay, vangam, thimil, and punai, are found mentioned in the Sangam literature, and these terms are not in use at present. The field studies conducted by scholars have revealed the existence of many indigenous crafts having different names on the South Indian Coast. Due to modern development the usage of traditional crafts is fast vanishing.

In this paper an attempt is made to analyse the names and structure of the crafts that occur in the Sangam literature based on their contextual information. For example, the term naavaay is mentioned in the context of deep-sea craft which carried goods of various types. The data pertaining to the boats and ships and other nautical terms are analysed in this paper. An attempt is also made to find out the possible reasons for the disappearance of the various crafts referred in the literature.

1. Introduction

During the beginning of the Common Era, the maritime trade peaked in the Indian Ocean rim as attested by the Greek, Latin and Tamil sources. The use of larger crafts for navigation is also well recorded. However, an in-depth analysis of the native Tamil literature of the Common Era which has evidence for nautical terms is yet to be done. Hence, this paper focuses on the nautical terms found in the ancient Tamil literature (3rd century B.C.E.- 4th century C.E.) and analyses the types of boats. The literature was created during early historic *Tamilakam* which had a single linguistic territorial entity in Peninsular India, between 8°5' N and 13°40' N latitudes. The literature forms the main source of this study as archaeological source is scanty. However, an attempt is also being made in this paper to corroborate the textual references with limited archaeological evidence.

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Literary Sources

The ancient Tamil Sangam literature and post-Sangam epics namely *cilappathikaaram* and *manimeekalai* dated to be ca. 4th century C.E. provide information on maritime activities of the Early Historic *Tamilakam*. A brief account of the content and character of these texts are discussed below.

Sangam literature consists of anthologies of bardic corpus² with accepted time span of ca. 3rd century B.C.E. and 3rd century C.E. based on archaeological, epigraphical, numismatic and literary parameters. This literature is classified as *ettuththokai* and *paththuppaattu*.

The *ettuththokai* is the eight different collections of small poems of three lines to more than 50 lines. Based on the poetic analysis, *kaliththokai* and *paripaatal* are considered slightly late. The other six anthologies are earlier, though, some of the poems are considered to be later. The chronological order is as follows: *kurunthokai*, *narrinai*, *akanaanuuru*, *puranaanuuru*, *ainkurunuuru* and *pathirppaththu* (Tamil Dictionary/Glossary on Historical Principle/TDHP 2001).

The *paththuppaattu* collection has the ten songs, each one of which has more than a few hundred lines, where the poet describes about a hero or a chief or a king and his country. The chronological order is as follows: *porunaraarruppatai*, *mathuraikkaanjci*, *netunalvaatai*, *malaipatakataam*, *perumpaanaarruppatai*, *pattinappaalai*, *cirupaanaarruppatai*, *mullaippaattu*, *kurinjippaattu* and *tirumurukaarruppatai* (TDHP 2001).

These eight anthologies and ten songs were the poems of sentiments and exploits of the "noumenon" and the "phenomenon" in Tamil terminology of the *akam* and *puram* or somewhat simplified poems of erotic experience and heroism (Zevelebil 1975:80). In addition, the epics of Tamil literature namely *cilappathikaaram* and *manimeekalai* of 4th-5th century C.E. are included as they also provide information on maritime activities.

The settings alluded to in the poetry provide ample information on various spheres of maritime activities. A documentation of nautical terms in the literature is found in Victor Rajamanickam and Samuel Arulraj (1994). A monograph on ships and shipping of the Tamil region has also been attempted (Ragavan 1968). However, the context analysis of such terms, size and functions of the vessels from the literature and their possible provenance have not been attempted.

Among all the 20 texts, *netunalvaatai*, *malaipatakataam*, and *tirumurukaarruppatai* do not have nautical terms as they are unrelated to the maritime activities. Of *paththuppaattu*, *mathuraikkaanjci* accounts for four types of vessels. Of anthologies *kaliththokai* and *paripaatal* provide information of many terms, next to *narrinai*, *akanaanuuru* and *puranaanuuru*. The later period epics *cilappathikaaram* and *manimeekalai* give information on five types of crafts.

² During the early historic period there lived the bards who moved place to place and sang in praise of the local King or chief and received gifts for their subsistence. They were called as *paanar*.

II. Watercrafts from Tamil Literature

A thorough survey of the entire literature reveals ten terms for watercrafts. They are *ambi*, *kalam*, *mithavai*, *naavaay*, *otam*, *pahri*, *punai*, *thimil*, *thoni* and *vangkam*. The details and context are analysed for proper understanding of the probable size and function of each term.

ambi

ambi according to *Tamil Lexicon (TL)* is a small boat (*TL* 1982:96) found quoted in 14 instances. The context of vessel(s) with the sea is ten occurrences and with river(s) is four occurrences. It could be understood that this boat was used both in coastal fishing and river crossing. Regarding the appearance, the *ambi* which was tightly built alludes to horned buffalo floating in the pond (*narrinai* 315:3). This was also compared with the movement of elephant running after mirage to quench their thirst (*akanaanuuru* 29:18). Probably, these boats were black in colour and the shape could resemble that of an elephant. No reference to mast or sail is found.

This was used for coastal fishing with net(s) (*narrinai* 74:3) and also for shark hunting by the fisherfolk (*akanaanuuru* 187:23). The boats lying ashore were used by the seagulls to lay eggs and incubate (*aingkurunuuru* 168:2). The ruined *ambi* lying on the coast (*narrinai* 315:3) is also accounted. In a poem this term was used along with other vessels namely *thoni* and *kalam* implying the variation in the function and appearance of other types (*puranaanuuru* 343:2). In the same poem it is found that this boat carried fish for selling and carried back the bartered paddy, while other crafts performed different functions. The reference of a damaged *ambi* along with *marakkalam* (wooden vessel) and *vangkam* (*manimeekalai* 29:6-10) imply a clear difference between *ambi* and other boats.

Reference to *ambi* as a ferry service on the river is mentioned in the literature of later period(s), except on one occasion of an early period (*puranaanuuru* 381:24). The later literature mentions river crossing by *ambi*. The bows of *ambi* were decorated as horse, elephant and lion faces. This is quoted along with *marappunai* (wooden float) which was considered less luxurious (*manimeekalai* 13:178-179).

From the above information it can be inferred that *ambi* was a small craft of not more than elephant size and was used in the coastal fishing and transport of goods, and also used for river crossing. As *ambi* is not mentioned with any sail and also used for river crossing it could have been propelled by paddles.

kalam

In Tamil the term *kalam* has many meanings. But the main meaning is vessel, a container made of wood, earth or any metal. The meaning related to the present study is a ship or a boat (*TL* 1982:778).

In the literature of 17 occurrences one could discern that *kalam* was used for a ship with sails and it makes long voyages. However, in one instance the term was used for a littoral fishing boat (*akanaanuuru* 30:9). It is interesting to note that in most of the cases it is mentioned *kalam* was sailed by wind power

(*puranaanuuru* 26:12; *puranaanuuru* 30:12; *puranaanuuru* 386:14; *kaliththokai* 5:6). In many cases, it is accounted as a vessel which brought wealth in terms of wine and gold (*akanaanuuru* 149:9; *puranaanuuru* 56:18; *puranaanuuru* 343:15) and in turn left with pepper. This could be the ships from the Red sea region and there is direct evidence in the literature for *yavanaa* (the Greek, Romans) ships coming with gold and wine leaving with pepper and other articles (*akanaanuuru* 149; *puranaanuuru* 56:18; *puranaanuuru* 343:5). It is also mentioned that the *kalams* were navigated with the help of the light houses built in the coastal region (*perumpanarruppatai* 350). There is an account that the poet amazes at the depth of the Kaveri river mouth that even the *kalam* did not roll down their sails and entered swiftly (*puranaanuuru* 30:12). In the epics the builders of *kalam* and their settlement are also mentioned (*cilappathikaaram* 5:31; *manimeekalai* 7:70). Hence, from the above evidence it can be inferred that *kalam* was a large deep sea vessel and sailed with the wind.

mithavai

The term *mithavai* which means a float (TL 1982:3199) is quoted only once as *mithavaiyar* (the people of the float) i.e. raft (*paripaatal* 6:35) with no additional details.

naavaay

This means a vessel or a ship (TL 1982:2109). It was a deep sea ship like *kalam*. These kind of ships were used by the Chera³ kings and they sailed in the Arabian Sea region and brought gold (*puranaanuuru* 126:15). The *naavaay* with full of goods from various countries is accounted (*narrinai* 295:6). This kind of ship went up to the river Ganges mouth loaded with products of the North and horses from the west (*perumpanarruppatai* 320; *mathuraikkaanjci* 83; *mathuraikkaanjci* 321). From the evidence, it can be found that they sailed with wind power and reached the desired ports (*narrinai* 295:6; *mathuraikkaanjci* 83; *paripaatal* 10:39) and as they had visited many ports their masts were tied with flags which were viewed from the distance (*puranaanuuru* 13:5). The *naavaay* was caught in a cyclone, the scene of the rolling and pitching of the ship are also alluded (*mathuraikkaanjci* 379). Therefore, one can infer that the *naavaays* were indigenous deep sea ships, as this term is not used in context with foreigners (*yavanaa*). These ships might have plied between the Ganges and the Red sea region or at least in the coastal regions of the Indian sub-continent as it include a list of various goods loaded. However, in the later literature the term *naavaay* is also mentioned as a decked river boat (*cilappathikaaram* 14:74). The material with which the *naavaay* was built could not be discerned from the literature.

³ In the early Historic *Tamilakam* the south region was ruled by Pandyas, the north was ruled by Cholas and the west was by the Cheras and they were called as *veendar* (King). Other than them many local Chieftains also ruled small areas which were not governed by the *vendars*.

otam

In Tamil *otam* means a Ferry boat or a raft (TL 1982:621). In the literature a solitary reference to *otam* is found (*akanaanuuru* 101:12). Here it is compared with the rising Sun in the sea implying a small sized vessel.

pahri

This means a boat (TL 1982:1494) and it occurs in one instance (*pattinappaalai* 30). This was a coastal boat which was used to barter salt with paddy. It can be compared with the *ambi*, as it was also used for exchange of paddy to fish (*puranaanuuru* 343). However, in poems the *ambi* for bartering is mentioned in the west coast context and *pahri* is accounted in the east coast.

punai

This means a raft or a float (TL 1982:1707). This term is used in the earlier literature such as *kurunthokai*, *akanaanuuru* and *puranaanuuru*. Hence this term was prevalent from the early period, but all in the context of river boats. These were made of European bamboo reeds *sh. Arundo donax* (*akanaanuuru* 6:8; *akanaanuuru* 180:9). The life-saving floating wood in the sea is accounted (*kaliththokai* 134:25), when the ships wrecked in a cyclone. On other occasions it is compared with the hero becoming the life-saver (*punai*) of a lover. The *punai* was a major craft used for water games in the river Vaigai near Madurai (*kaliththokai* 72:15). An account of *punai* being used in the river Periyar (*puranaanuuru* 192:9) is found. This was considered inferior to *ambi* as in the epic *cilappathikaaram* (13:179) the hero on one situation had to opt for *marappunai* instead of decorated horse, elephant, lion faced *ambi* boats. Sometimes in the literature the righteous life is compared with *punai* (*kurinjippattu* 208; *manimeekalai* 11:77). In only one instance this term was found used for coastal fishing (*akanaanuuru* 280:9). From the above it can be inferred that *punai* was a river craft used as a raft for water games and life-saving floats and were made of bamboo reeds.

thimil

The term *thimil* means hump of a bull or fishing boat (TL 1982:1047). This term is found used only in the context of the Ocean. The fishermen in Tamil *paratavar* used this craft for hunting the sharks and other kind of fish. Going in *thimil* catching sharks with nets (*narrinai* 111:6; *akanaanuuru* 340:18) and many occasions with harpoons (*narrinai* 199:6; *narrinai* 388:4; *kurunthokai* 304:4) are referred to besides catching other kinds of fish and diving for conch shells (*kurunthokai* 123:5; *akanaanuuru* 240:3; *akanaanuuru* 350:11). The shape and size of the *thimil* could not be discerned, but they were used only in shallow waters. The robustness of *thimil* has been accounted as *kotunthimil*, the tight construction of *thimil* is mentioned as *thinthimil* and the long boats of this kind were called *netunthimil*. Reference to old boats with new nets and the nets with small openings also occurs (*akanaanuuru* 60:3; *akanaanuuru* 70:1). These boats were used for night as well as day fishing (*akanaanuuru* 65:11; *narrinai* 331:6-8). Lights were used in all the fishing boats of this kind (*narrinai* 199:6; *narrinai*

388:4). The scene from the shore of night fishing with *thimil* type of boats was compared to forest fires (*akanaanuuru* 65:11). These boats were owned by individuals and were not of single social group (*narrinai* 331:6-8). They also were helped in knowing their position by the light of the light houses (*pattinappaalai* 111-112). From the above evidence it is clear that the term *thimil* was used only as fishing boats and they must have been small or medium sized coastal vessels.

thoni

This term means a boat (*TL* 1982:1236). This kind of boat was alluded to the horses moving in rows like the boats (*thoni*) floating on the sea (*puranaanuuru* 299:3). The *thoni* was brought ashore after fishing, is accounted in *akanaanuuru* (50:1). It is interesting to note that the people who fished in the boat *thimil* were mentioned as *thoniar*, implying the *thimil* was also called as *thoni*.

vangkam

The term *vangkam* means swiftly moving ship (*TL* 1982:3452). In the *literature* the term meant big ships that travel long distances. So the size of the ships could be fairly large. The vessel which went up to the river Ganges is accounted as *vangkam* (*narrinai* 189:5). The mast of the *vangkam* is also mentioned (*narrinai* 258:9). The captain navigated the *vangkam* with the help of light houses (*akanaanuuru* 255:1). They left for various places to obtain wealth (*pathirppaththu* 52:4; *cilappathikaaram* 14:107). The *vangkam* was curve-shaped (*kaliththokai* 92:48). Making series of ships to go up to Ganges is also mentioned (*cilappathikaaram* 26:165). The people from Java Island came in these *vangkam* type vessels (*manimeekalai* 14:73). And on many occasions the deep sea vessel *vangkam* is accounted in *manimeekalai* (14:73-85; 21:85; 25:126; 25:238; 26:85; 29:7). The *vangkam* that was wrecked is also accounted in *manimeekalai* (29:16).

Other nautical terms

Light houses

The term lighthouse in Tamil is *kalangkarai vilakkam* (vessel>*kalam*, Shore>*karai*, light > *vilakkam*). There are instances mentioning the tall tower lights used as navigation markers. The *akanaanuuru* (255:1-6) mentions that from *vangkam* the sailors had located their vessels position based on the lights lit, on the high storied building rooftops. This is also attested by the *pattinappaalai* (111-112), but the vessel used for the fishing is mentioned as *thimil*. The *perumpanarruppatai* (346-351) alludes to the lights lit in the night was for the boats, by climbing on the ladder on the building which almost touches the sky. However, the direct term *kalangkarai vilakkam* is found in *cilappathikaaram* (6:141).

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Anchors

The stone anchor which damaged the ship due to cyclone in *mathuraikkaanjci* (375-379) is the solitary reference.

Ship building and repairing

Though there is no direct evidence of ship building and their location, the term *nankalam tarunarum* (*cilappathikaaram* 5:31), *kalampunar kammiyar* refers to those who built ships in the seafront. The term *kalamcey kammiyar* (the ship builder) indirectly refers to the ship building activity during this period. The damaged ropes and joints of a ship were repaired with the help of a kind of resin by the captain (*paripaatal* 10:53-55).

III. Discussion

The literature clearly suggests that several varieties of crafts were used during early historic *Tamilakam*, and this proves the intensive nature of maritime activities. On the basis of data discussed above the crafts used could be divided in to three categories namely the size, function and provenance.

The crafts *ambi*, *mithavai*, *naavaay*, *pahri*, *punai*, *thimil* and *thoni* were the medium or small sized crafts. *thimil* could have been well-designed because it served as a fishing craft. The crafts *naavaay*, *vangkam* and *kalam* were deep-ocean vessels. Not even a single clue to the shape of these crafts could be found.

In terms of function *punai* was used in rivers and *ambi* was used in the coastal transport as well as river crossing. As *mithavai* and *otam* are not referred to often their function cannot be discerned. *pahri* and *thoni* were coastal crafts that plied as a lightering boats and were also used in the lagoons.

As for provenance, it can be inferred that all the crafts mentioned in the literature were indigenous, except *kalam* that were associated with the *yavanas*. As reference to the ships builders is also available, it is clear that the various crafts were built by the local craftsmen.

The author of *Periplus*⁴ mentions about the ship named *sangara* which travelled up to Malacca (Schoff 1912:46). This could be *vangkam* mentioned in the Tamil text.

Archaeological excavations conducted at various port towns like Arikamedu (Begely 1991; Casal 1949; Wheeler, *et al.* 1946), Pampusar (Soundara Rajan and Raman 1994), Alagankulam (Abdual Majeed, *et al.* 1992), Korkai (Abdul Majeed 1987) on the east coast and Pattanam (Cherian, *et al.* 2007) on the west coast of *Tamilakam* prove beyond doubt that busy trade activities were undertaken in ancient *Tamilakam*. The volume of trade carried out with the Red Sea region was so huge (see Selvakumar this volume), that for exchange of various commodities there was a need to build various crafts. For which the early historic *Tamilakam* had indigenous knowledge on navigation and ship-building.

Although these conclusions are based on the literary evidence, the terms of crafts must be studied in comparison with Greek, Sanskrit and other

⁴ The unknown author of the book *The Periplus of the Erythraean Sea* provides geographical information on ports of Red Sea, Arabian Seas and Bay of Bengal and the trade during 1st century C.E.

languages of Southeast Asia. The crafts in the literature of the early historic period were scantily referred to up to the medieval period (Rajamanickam and Arulraj 1994) and lost their names in the course of history. The study clearly highlights that several categories of watercrafts were used for different purposes and the indigenous crafts had an active role in the long distance trading.

Bibliography

Primary sources

DuraisamyPillai, S. (ed.), 1995	<i>Pathiruppattu muulamum vilakka uraiyum</i> , The South India SaivaSiddhanta Works Publishing Society, Tinnevely Limited, Chennai, (Reprint).
DuraisamyPillai, S., (ed.), 2002	<i>Puranaanuuru</i> , The South India SaivaSiddhanta Works Publishing Society Tinnevely Limited, Chennai (Reprint), Vol I &II.
Ilavazhakan (ed.), 1999	<i>kaliththokai</i> , The South India SaivaSiddhanta Works Publishing Society Tinnevely Limited, Chennai (3 rd edition).
Narayanasami Iyar, A. (ed.), 2001	<i>Narrinai naanuuru muulamum uraiyum</i> , The South India SaivaSiddhanta Works Publishing Society Tinnevely Limited, Chennai (Reprint).
Saminathaiyar, U.Ve. (ed.), 1985	<i>Puraa naanuru muulamum uraiyum</i> , Tamil University, Thanjavur (7 th Edition).
Saminathaiyar, U.Ve. (ed.), 1985	<i>paththuppattu</i> , Tamil University, Thanjavur (Reprint).
Saminathaiyar, U.Ve. (ed.), 1985	<i>Cilappathikaaram muulamum arumpatha vuraiym atiyaarkkunallaar uraiyum</i> , Tamil University, Thanjavur (10 th Edition).
Saminathaiyar, U.Ve. (ed.), 1980	<i>Aingkurunuuru muulamum pazhaiya uraiyam</i> , Dr.U.Ve. SaminathaiyarNoolnilayam, Chennai, (sixth edition).
Saminathaiyar, U.Ve., (ed.), 1980	<i>Pathirppaththu muulamum pazhaiyauraiyum</i> , Dr.U.Ve. SaminathaiyarNoolnilayam, Chennai (seventh edition).
SaminathaiyarU.Ve. (ed.), 1980	<i>Paripaatal</i> , Dr. U.Ve. SaminathaiyarNoolnilayam, Chennai, (sixth edition).
Sarangkapani, R. (ed.), 2003	<i>Paripaatal</i> , Kovilur Matalayam, Kovilur.
ShanmugamPillai, M. (ed.), 1985	<i>Kuruntokai muulamum uraiyam</i> , Tamil University, Thanjavur.
Somasudanranar, Po.Ve.,(ed.), 1983	<i>akanaanuuru (manimitaipavalam, nittilakkoovai)</i> , The South India SaivaSiddhanta Works Publishing Society Tinnevely Limited, Chennai (Reprint).

VenkatasamiNattar, N.M. (ed.), 1985	<i>Cilappathikaaram</i> , The South India SaivaSiddhanta Works Publishing Society Tinneveli Limited, Chennai (Reprint).
VenkatasamiNattar, N.M. and DuraisamyPillai, S. (eds.), 1985	<i>Ciiththalai caaththanaar iyarriya manimeekalai</i> , The South India SaivaSiddhanta Works Publishing Society Tinneveli Limited, Chennai (Reprint).

Secondary sources

Abdual Majeed, A., Thulasiraman. D., and Vasanthi.S., 1992	<i>Alagankulam - A Preliminary Report</i> , Dept. of Archaeology, Chennai.
Abdul Majeed. A., 1987	"A Note on Korkai Excavations", in <i>Tamil Civilization</i> , 5(1&2), Journal of Tamil University, Thanjavur pp.73-77.
Anonymous, 1982	<i>Tamil Lexicon</i> , University of Madras. Madras. Vol. I-VI and Supplementary.
Anonymous, 2001	<i>Tamil Dictionary/Glossary on Historical Principles project</i> , SANTI SADHANA, Chennai. Vol. I.
Begley, V., 1991	"Ceramic Evidence for Pre- <i>Periplus</i> Trade from Arikamedu", in (eds.) Vimala .Begley and Richard Daniel De Puma, <i>Rome and India</i> Oxford University Press, Delhi, pp.157-196.
Casal, J.M., 1949	<i>Fouilles de Virampatnam-Arikamedu: Rapport de l'inde et de l'occident aux environs de l'ere chretienne</i> , Imprimerie Nationale, Paris.
Cherian, P. J., Selvakumar, V. and Shajan, K.P., 2007	"The Muziris Heritage Project Excavations at Pattanam", in <i>Journal of Indian Ocean Archaeology</i> , Vol. 4, pp.1-10.
Ragavan, A., 2005	<i>namnaTTukappRkalai</i> , amizhtampatippakam, (First edition 1968), Chennai.
Rajamanickam, G.V., and Arulraj, V., 1994	<i>Maritime History of South India</i> , Tamil University, Thanjavur.
Schoff, W.H., 1912	<i>The Periplus of the Erythraen Sea</i> , Longmans, Green and Co., New York.
Soundara Rajan, K.V. and Raman, K.V., 1994	<i>Kaveripattinam Excavations 1963-73</i> , Memoirs of the Archaeological Survey of India No.50, Archaeological Survey of India, New Delhi.
Wheeler. R.E.M., Ghosh, A. and Krishna Deva, 1946	"ARIKAMEDU: An Indo-Roman Trading-station on the East Coast of India", in <i>Ancient India</i> , Vol 2, pp.17-124.