The ORU & the YĀTRĀ

by

Vini Vithārana

To the villagers of
Pallikkuḍāva, Taṅgalla
—and to the memory of
those that are no more—
whose company inspired in me,
in my childhood and youth,
a fascination for the *oru*

INTRODUCTION

THE *oru*[1]—the dugout outrigger canoe of Sri Lanka—has fascinated me for long. I was born in a coastal village in the deep South where, amidst the abundance of coconut palms growing in fairly large fenced-out plots, each family looked after a few fruit trees and cultivated some vegetables for trade, exchange and consumption. There were a few fishermen too whose canoes, numbering no more than five, were generally seen in the small bay, the open sea adjacent or hauled up on the beach nearby. And the small population was usually satisfied with the local production of the non-staple articles of their diet.

It was not very much the gardens with the flowers and the greenery that drew me, but the beach and the sea and the blue sky beyond—the sea with its ripples and the waves, the deeps and the shallows, the rocks and the surf and the quiet and the storms, and the little grey canoes with billowing triangular sails, darting over its surface towards an unknown horizon (Fig. 1). I looked at them with wonderment as they disappeared in the gloom of the night each day and, on holidays and weekends, crept out of home each morning to see them arrive skimming over the waves and ripples that glistened in the gold and the silver of the rising sun. And the fishermen gave me a fresh fish as a present in exchange for which my mother would despatch a few coconuts or a slice of jak later in the day. I played with the fisher-boys and envied them as they made a trip out to sea with their elders and, occasionally, when a shoal of smaller fish entered our little bay, went out with them in their canoes for an hour or two at a stretch.

1992 cover: design by
Sanath Rohana
Wickramasinghe

On certain evenings when the canoes would not sail out to sea I sat on them with a book to read or a passage to memorize.

What an intimacy grew between me (as a child and as a youth) and the fisher-folk and the canoes with which they earned their meagre livelihood. And the resultant fascination persisted to have awakened my interests as a research worker today. The present work was preceded by a few remarks that I made in my research work submitted for the PhD Degree of the University of Ceylon,

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1. *Oru* is the nominal stem, as also the plural, in Sinhala; *oruva* (<*oru* + *v* + *a*) is the singular. Both forms *oru* and *oruva* may be used as a singular in the English language. See also *infra* note 13, pgs 15–16.

Peradeniya in l966[2]. Therein are found five typed pages (231–5) of subject-matter on the *horu* or *oru*; and although twenty-six years later I am not in full agreement with my conclusions as regards the canoe's diffusion etc., I must confess the present study is an expansion of the substance of those few pages.

Fig. 1 'Little grey canoes with billowing triangular sails'. From Kapitän, 2009, photo 141

This, however, is not the first instance when the *oru* has been the subject of serious study. In the *Siṅhala Ñānādarśaya* (1907–08, ix, 48; 114) K.G. de Silva published a list of technical terms connected with this craft. J.P. Lewis supplied an article on 'Boats and Canoes of Ceylon' to the *Times of Ceylon Christmas Number* (1914) and devoted a page (7–8) to the *oru*; and certain subject matter therein may certainly be improved upon. He says that 'the outrigger canoe is the fishing boat used by the Sinhalese fishermen from Chilaw down to Bentota', and then from Galle to Hambantoṭa (see map), that it 'answers the purpose of fishing in comparatively smooth water and where the winds are of regular habits admirably'. The *oru*, in fact, is found almost continuously from about Chilaw down the West coast with no gap between Bentota and Galle and even on the East coast, with no evidence to the contrary even during the period of the time of writing. What Lewis refers to as a 'Calpentyn Coaster' is very likely a *yātrā.* James Hornell, who may be considered as an authority on the world's watercraft, in his *Water Transport: Origins and Early Evolution*, deals with this type of craft in a general essay of about 15 pages (1946, 255–70); I did not, however, have the fortune of reading his article, 'Fishing and Coastal Craft of Ceylon' (1943), but it is quite possible that he incorporated his main findings in the more exhaustive major work published three years later. Wijesekera in his *Peoples of Ceylon* makes brief references (1949, 45; 140; 145–6) among which he mentions a Polynesian word *oru-u* ('boat') which I have failed to find in the sources named. Raven-Hart in an article of four pages entitled 'The Boats of Ceylon' in the journal, *Ceylon Today*, (195, I, 3) devotes two pages to the *oru,* and Raghavan devotes four pages in his *Karāva of Ceylon* (1961, 117–20) where he makes a few assumptions which are not wholly acceptable. He refers to the *oru* as the 'most distinctive of the deep sea craft of Negombo' and to the log-float or outrigger as a 'shrewd discovery taken to the zenith at the hands of the craftsmen of Negombo'. I wish that these compliments should not have been localized to Negombo and the craftsmen of the area, although they are not in the least undeserving of them. He admits that this craft 'has an elaborate technology perfected in the long course of its development', probably with a mistaken assumption that this course of development continued up to the very recent times. He also lays down 27½′, 38″ and 19½′ (8.4 m, 1.0 m and 5.9 m) as the length of the outrigger, the circumference of the outrigger and the distance between the outrigger and the hull, respectively; but no such 'standard' measurements may be conceived! Premaratna, in a monograph entitled *Fishing Dialect* (typed, l968)[3], provides about ten pages (18 *et seq.*) of subject matter about this craft and supplies many linguistic usages associated with it. Goonetileke's *A Bibliography of Ceylon* vol. III mentions a more recent work—*Geography of Indian Coasts* by D.E. Sopher—in which eight pages have been devoted to the outrigger canoe of Sri Lanka. I have not been fortunate enough so far to read this account.

It may also be remembered that a Captain Anderson composed a poem entitled 'The Wanderer in Ceylon' in which he has devoted several lines to the dugout outrigger canoe of Sri Lanka far back in 1812 to be quoted by Lewis in his article referred to above.

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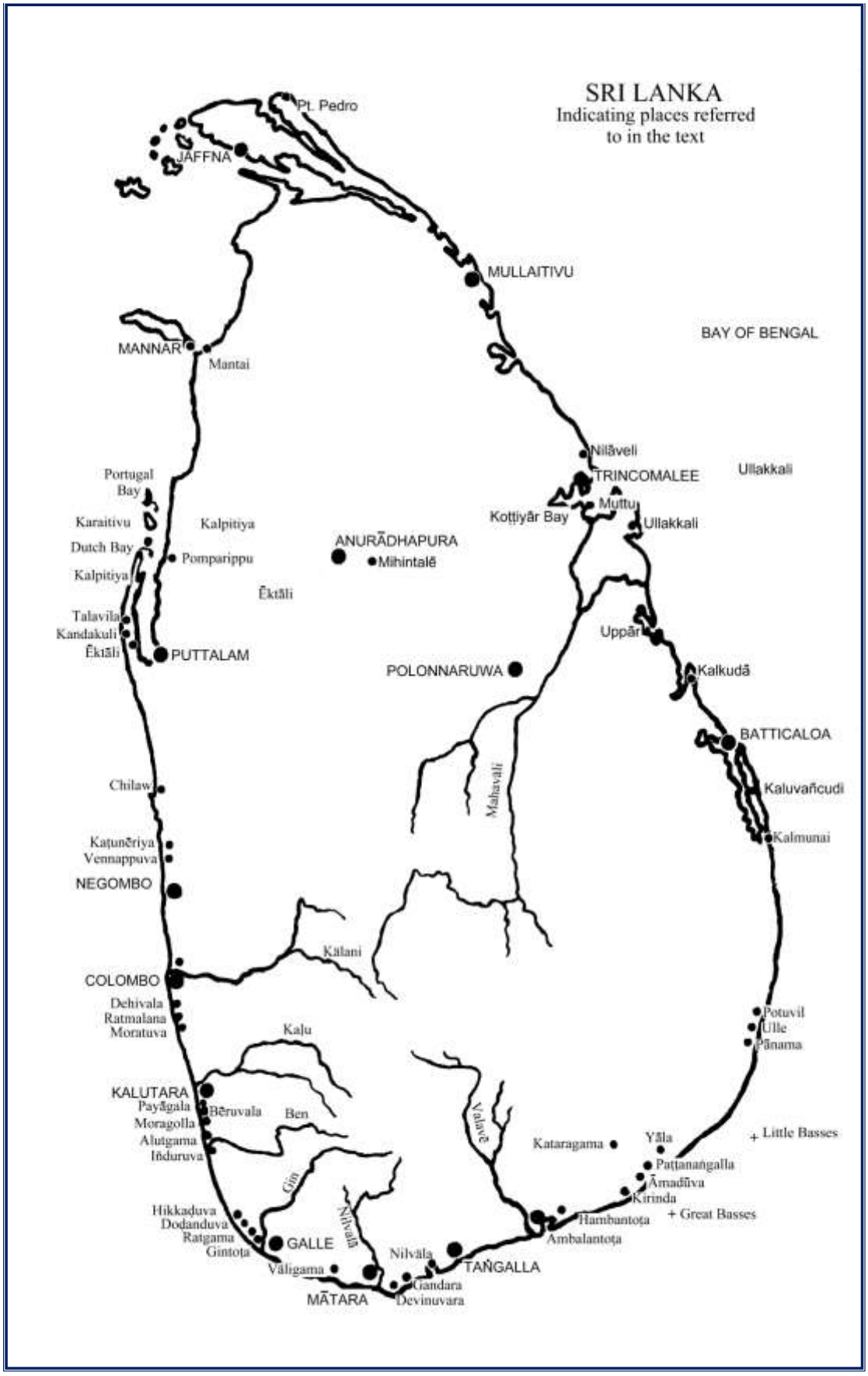
2 Printed and published under the title of *Sri Lanka – the Geographical Vision* by the Department of Educational Publications, Colombo, 1993.

3. Available at the Sinhalese Etymological Dictionary Office Library, Colombo 7.



Sri Lanka: indicating places referred to in the text

I am somewhat perturbed at the treatment received by the *oru* in the *Sinhala Encyclopaedia* (1974 — *SV*, 5, 510–11). Firstly, it has no head-word *oru* or *oruva.* Under *oru pāru* the reader is directed to refer to *jala yātrā* ('watercraft') in a subsequent volume which has not yet been published. Secondly the very next

article entitled *oruva hā aṅgula* ('the *oru* and the double-canoe') of less than a page supplies material which may easily be improved upon: reference is made to this craft as used on water tracts such as rivers and lagoons *(gaṅgā kalapu ādi jaläsayanhi)* along with the double-canoe (*aṅgula),* raft *(pahura)* and the barge or padda-boat *(pāruva),* but no mention is made of the hundreds of the *oru* that may be seen on the beaches and the sea in contrast to the very, very few that may be seen on these inland waters. The term *palupata*, as far as I am aware, does not mean the paddle (as indicated here) but the rudder or lee-board. The oarsmen are regarded as the *toṭiyō,* 'ferrymen', not in all cases (as mentioned here) but only in the case of a vessel used for transport across a water tract such river or a lagoon—a rather rare function today. It is not used in association with scores of fishing craft seen even on these fresh and brackish water tracts. The very much larger, sturdier and elaborate fishing craft that braves the open sea in all types of weather to supply an essential—an almost indispensable—item in the nation's diet, which plays a significant role in the economy of the land, which is the source of livelihood of thousands of the island's coastal dwellers and which is found in very large numbers on the island's shoreline, flood-plains etc., standing out as an important article of traditional material culture of the Sinhala people is relegated to a secondary position in being treated in a paragraph of fifty words. This craft certainly deserves far better treatment in an independent article of a few thousand words in the only *Sinhala Encyclopaedia*!

I am also intrigued by an extract from Seligmann as found quoted by Rivers in his article 'Ships and Boats' in the *Encyclopaedia of Religion and Ethics* (11, 472): 'A procession in which a boat is used occurs in a Sinhalese ceremony performed by the Muhammadan Moormen of Ceylon' (C.G. Seligmann in Quiggin, ed., 1913, *Essays and Studies presented to W. Ridgeway*, 452 *et seqq.*). I am unfortunate to have found no clue as regards this ceremony of Sri Lanka of the modern times and am therefore not in a position now to offer any comments.

My search for the *oru* took me back to my simple native village (over the western headland of which is a large tourist hotel newly built) and beyond to almost the full extent of the inhabited portion of Sri Lanka's coastline, seeing more of the craft and meeting more of the people who sail in it. The ready intimacy and the willingness with which these people supplied me the information that I required are reminiscent of my boyhood experiences. Nevertheless, on hearing that I have come to study their boat they questioned me: 'What is there to study in this dirty thing of ours?' When I tell them, 'There is so much, because this is one of the oldest possessions of ourselves—the Sinhala people; it is older than Buddhism', they are surprised beyond measure and, at first, unconvinced!

While arranging the data that I personally gathered in this manner, I also sent round a questionnaire to all the Divisional Fisheries Extensions Officer areas of the island—13 in number—in order to compare my findings with the information thus obtainable. They tallied in most cases and ran rather parallel in some; but in case they were in mutual contrast—even in simple disagreement—I revisited the localities in question or wrote back to the relevant officers who gave me sufficiently clear replies. Sometimes I did both, dependent on the degree of discrepancy and on the importance of the matter in question. I also met many fishermen who called at the Department of Fisheries (Galle Face, Colombo 2) and obtained further helpful information. A few students of the University where I worked also came to my aid when I was at times faced with questions regarding their native villages. My effort was to imbue this work with as much exactitude as was possible and I regret if any information supplied is yet at variance with the condition that prevails.

As may be expected, Sinhala literature and archaeology, being more religious than secular in character, provide little information regarding the *oru*—a craft admittedly used mainly for the destruction of life (a sinful occupation). But, whatever information that is available is suggestive, significantly, of the continued existence of this craft in Sri Lanka for the past 2000 years and that possibly with hardly any change in its structure. In this respect it may compare well with other items of Sri Lanka's traditional material culture such as earthen-ware, agricultural implements, wattle-and-daub houses etc.

There are, nevertheless, variations in type. Almost all round the inhabited coastline of the island and over other waters inland there is the *piḷā oru*—the simplest dugout outrigger canoe, likely pertaining to its very primitive type. There is also the heavy, sturdy and more elaborately built craft that can stand the roughest seas and winds churned up by the mid-year monsoon, quite in contrast to what Lewis declared over six

decades ago (quoted above). Regional differences are also evident in minor features such as oars, paddles, booms, anchors, rigging etc.

This craft, however, is not localized to this island, and I have included in this monograph a chapter on its distribution bringing out its characteristics as found in the various regions of its occurrence. The possible nature of its diffusion is also discussed in brief.

A special point of interest to the ethnologist may be that this canoe in Sri Lanka appears to be a traditional craft of the Sinhala people, although people of other racial groups—the Tamils and the Moors—also use it to a less degree in its simpler and smaller types and on shorter and less hazardous operations. It is likely that these groups borrowed it from the neighbouring Sinhalas—the Tamils as an addition to their traditional outrigger-less craft and the Moors of the East Coast as their only craft. The small *tōni* used by the latter and the large *vallam* (used for net-fishing), also seen largely on the East Coast, show a few Oceanic characteristics in the curved washstrakes, the pointed bow and the vertical board at the stern. I am not yet able to say for certain whether these similarities have been incidental or otherwise.

Time was when I lamented to myself that the *oru,* like a few other items of Sri Lanka's traditional material culture—the *sekku* (oil-mill), the *dōlā* or *palläkki* (palanquin), the *aňgula* (double canoe), the *kurakkan gala* (stone mill to grind *kurakkan),* the mat-weaving equipment etc.—will soon disappear. It was my desire, therefore, to make a study of it before its final disappearance in about, as I thought, another generation or two. My observations have shown me that my fear has been baseless: the number of this craft has declined only in a few localities and is, in fact, increasing in the east, simultaneous with the increase in the number mechanized craft. The *oru* will remain, because the only challenge that this type of craft faces, if at all, is in respect of deep-sea fishing. Fishing in the bays and other stretches hard by the shore, the lagoons and the estuaries and the inland tanks, net-fishing and in (certain localities) the transport of the large seine-net out to sea will continue to remain the function of the *oru,* specially among the Sinhala people. Mechanized craft may certainly increase in number over the deep-sea area, though not totally displacing the traditional craft even there.

I have also compiled a glossary of technical and other terms connected with the *oru,* its personnel, functions, environment etc. (Appendix). I am personally of opinion that most of them are indigenous *(niṣpanna* or *nipan)* words and expressions which came into vogue along with the craft itself several centuries ago, to remain with little change up to the present day. Regional differences are few and some terms, at least, may contain a clue about the nature of the old Sinhala tongue at a stage when it remained unaffected by influences from the Indian sub-continent. However, it would indeed be interesting to examine whether these terms possess an affinity with their parallels as found in the Indonesian and the further Pacific region (being the major area of prevalance of this canoe type). I have made a study of available sources with negatve results, but I am confident, that a broad based and deeper linguistic study by a competent scholar would be more rewarding.

I was engaged in this research on the *oru* fourteen years ago when I was attached to the academic staff of the Vidyodaya University Campus, Nugegoda, and Chs. I–VI were issued in a mimeographed form to a very limited readership then. The Research and Publications Committee of that institution granted me some financial facilities for which I am thankful. Mr. Basil Perera, Assistant Director (Mechanization), Department of Fisheries, organized for me the assistance of the Divisional Fisheries Extension Officers and Fisheries Inspectors right over the island; Mr. A. Ratnayaka, Assistant Director of Fisheries, also supplied me much information, sometimes turning over to me fishermen from various localities of the island who came to meet him. The staff of the Fisheries Library, Galle Face, supplied me much reading matter. The Ven. Dodanduve Dharmasena supplied me valuable information specially regarding his home region. I am thankful to them too.

The erstwhile presence of the *yātrās* was revealed to me subsequently, and Ch. VII was completed about a year later. The text of this small volume remains very much same as in the originals.

I am thankful to Air Lanka for granting me permission publish here a few paragraphs from a short article contributed by me to the *Serendib* (Vol. 8 No. 2 pgs. 18–23)—their in-flight magazine.

I also have to express my deep gratitude to the Sri Lanka National Library Services Board for sponsoring this publication and to Mr. Mahendra Senanayake of Sridevi Press, Dehiwala for having undertaken its printing.

And to the hundreds of fishermen of different tongues and religious faiths whom I met on various beaches around the of Sri Lanka—some old, some literate and some not, none wealthy in terms of rupees and cents, but all—all of them—invested with a rare cordiality and generousness, I am indebted.

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Sri Lanka
January 1992

This second internet edition bears no textual difference from the 1992 printed version, because the craft for all purposes is extinct, and will not 'move forward' as a traditional craft. Hence, I have no opportunity to add to what I know.

However, the statistics given in Chapter Six about its presence are no longer valid owing to the absence of recent records and also to the effect of the tsunami of a few years back.

V. Vithārana

June 2012

CHAPTER ONE

The HISTORY of the DUGOUT OUTRIGGER CANOE

THE attempts of early man to swim or to transport some material with the aid of a float such as a log may be taken as his initial exercises to conquer the world of water. Logs of light wood which are unsinkable also have been the earliest craft, for an adventurer would have, in degrees, crept on to one of them and sat astride it. Inspired also by branches, sticks and clusters of reeds that he would have seen over the various water tracts, he may have tried to ride over a few of them rudely lashed together[4]—the world's first rafts. He would have first paddled with his hands which were later substituted by a pole with which he may even have punted his rude craft. Anyway, he found it unsteady and rolling, which action occasionally threw him, together with whatever he carried on it, to the water. He next tied two logs, and then more of the same size, together, and found his craft rather steadier. But to his disadvantage he found this 'raft' heavy, slow and cumbersome, and difficult of manoeuvre and he had to summon further man-power to haul it up a bank. Of course, he did not give it up, but devoted himself to fashion other types. He split in half a fair-sized log and found it less susceptible to roll and, if he were a fisherman, he could also place on the flat surface his implements, bait and catch without the danger of their sliding to the water frequently. Using more of his ingenuity he scooped it out bit by bit (by fire and tools) and found it more to his liking. The light craft, supported by the airspace in the hull 'stood' more on the water, and he could prevent his legs from being constantly wet, initially by kneeling within the gentle hollow. He could also place his possessions within it with greater safety; the craft could also be hauled up a bank by himself alone; and more significantly, he could attain a greater speed and manoeuvrability than with the earlier craft. He gradually improved on this by tapering one end and then the other, by scooping out further and by fixing sticks and bits of rude plank across the beam to serve as seats.

4. It is sometimes held that a bundle of reeds was the most primitive watercraft (Buxton, 1924, 67). It was probably so in areas where reeds grew in abundance, though not in other regions.

Thus, likely, was born the first dugout canoe—the 'monoxylon' (*DA*, *s.v.)*. The remains of such examples, with signs of having been hollowed out by fire (Beals and Hoijer, 1954, 350), and possessing roughly shaped ends, are found at the bottom of European lakes specially of N Germany, Denmark and Yorkshire (Avril, 1960, 9; Birket-Smith, 1960, 192 *et seqq.*, Piggott, 1961, 32). These artefacts belong to the Mesolithic and the Neolithic times (20,000—3,500 years before the present era) and stand as evidence for a development in water transport during the period (Beals and Hoijer, 1954, 340), although it is generally held that man did travel by water even during the earlier Palaeolithic era *(ibid.*, 153), too. This type of canoe, however, did not disappear with the advancement of time and of civilization. There is a sixteenth-century picture of Indians of Florida using fire to hollow out a canoe and another of the Algonkian tribe of N Carolina engaged in the same task (Avril, 1960, 9; Birket-Smith, 1960, 192). Such craft are known even today in the Melanesian region (Lewis, 1951, 140–1), in scattered localities on the Western coast of India up to Kathiawar in the north and on the Kannara, Karwar and Ratnagiri coast of the South (the *paṭṭa valla tōni* of 7–12 m in length)[5], all in the company of much more advanced craft. On the coast of Pakistan are the flat-bottomed dugouts (shaped in the form of a wide and low U) called *tōni* (a term known in India and Sri Lanka to indicate some form of watercraft or other) introduced from Calicut in Kerala, but which are being produced locally during the present times (Traung, 1960, 25 and fig. 34). Dugouts carved out of poplar and cedar trunks—some of them 21 m long and able to carry 100 persons and 2–3 tons of freight—are to be seen among the Hiadas on the inlets and streams of British Columbia (Forde, 1953, 81, 103; Murdock, 1959, 229; Beals and Hoijer, 1954, 350). The primitive people of the Daly River basin of Arnhem's Land of N Australia (Bernot and Bernot, 1954, p1. 51), the Witatas of the NW Amazon region, the Gandas of Uganda, the Dahomeans of W Africa (Murdock, 1959, 459, 520, 562) and the Yoruba tribesmen of SW Nigeria also possess comparatively small dugouts together with the food-gathering Ainus of Sakhalin, Japan (Forde, 1953, 143, 167; Beals and Hoijer, 1954, 350; Murdock, 1959, 174). The Aztecs of South America appear to have possessed them as a means of transport of essential material to their cities (Murdock, 1959, 370). They are not unknown to Sri Lanka too.

But even the early Stone Age man could not be satisfied with this simple contraption which was fit for still waters only—it is on such water tracts that the 'monoxylon', wherever evident today, is used. There were waves to surmount, currents to battle against and oceans to conquer and this craft would have toppled over easily on such a confrontation.

For a craft of this nature to maintain itself on simple equilibrium it has to possess a width-height ratio of 2:1 (Adkin, 1962, 8). A monoxylon carved out of the trunk of a tree split in half along the diameter has this ratio—the width being the diameter and the height being the radius (½ diameter). But simple equilibrium is quite easily disturbed and hence, a more stable craft with the monoxylon as the principal member has to be contrived if these people—whose genius it was to make the monoxylon—were to venture beyond the still water tracts of their immediate surroundings.

This does not, however, mean that the monoxylon was given up by man for good—it has continued to prevail in its own habitat right up to the present day (as referred to earlier), although a more stable craft with it as the nucleus was evolved.

And that is the outrigger canoe composed of the dugout hull the outrigger and the booms connecting them.

Longer tree-trunks with broader girths could be carved into larger hulls that 'stood' higher in the water supported by proportionately bigger outriggers. They could, as such, carry heavier loads to greater distances than before over very much rougher waters.

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5 I am indebted to Mr. G. Kulathuran of the University of Trivandrum for this information.

The term *toni (droni,* Skt.), means 'trough' or 'tub' (*PSD*, *s.v.)*. Derivatives meaning 'boat' are evident in several Indian languages: *tōni* (Tamil and Malayalam), *dōṇi* (Kanarese and Tulu), *dōni* (Marathi and Telugu): *ASD*, *CMGD*, *PSDEM*, *TL*, *s.v.*

Incidentally the trough of the musical instrument *viṇā* is referred to in an 18th-century Sinhala prose work as *oruva (Milinda Praśnaya*, ed. Ekanayaka, 1915, 65)—the very word used for the dugout canoe. See also *infra* note 13, pgs 15–16.

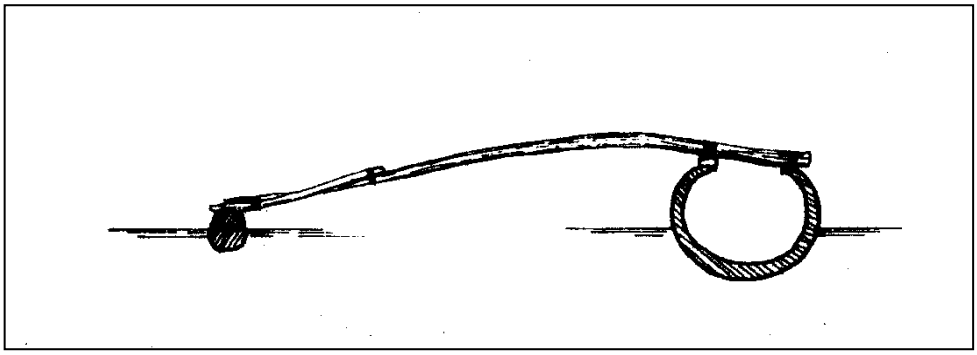

*Fig.2 Basic monoxylon with outrigger (*piḷā-oru*); some 300° of the circumference of the original log has been retained. From Kapitän, 2009, drawing 14*

A new discovery marked a further step in the evolution of outrigger canoe. It was no longer necessary to be satisfied with width-height ratio of 2:1, for the outrigger functioned as a formidable balancing device and could maintain a greater canoe-height at equilibrium. As such it was not necessary to split a log in half along the diameter: a greater circle of it—say even 300° of the circumference could be made use of for the hull, paring off only the rest (Fig. 2). The innovation gave the craft more height which in turn rendered its carrying capacity greater.

A further advancement came out with the addition of vertical plank-work—the washstrakes, along the full length of the sides of the canoe to a height almost equal to that of the dugout portion, and slantwise on the bow and the stern, forming the transoms or prow-boards. This plank-work gave the hull added height and, hence, a still greater load capacity, although it reduced the equilibrium of the hull to zero which, after all, posed no problem in the presence of the outrigger float. The boatmen also could sit higher and in greater safety, and command a view over an expanded horizon. Nevertheless it did pose a problem—a minor one: when the hull was level, the gunwale was very much higher than the outrigger (which is, at the most, 0.3 m in height) and, therefore, the usual straight booms could no longer be used without affecting an inconvenient list to the hull. As may be expected the early boatmen solved one of two ways: i. the use of curved booms (Fig. 3) and ii. lashing straight booms to vertical pegs that were driven into the outrigger and which rose to the required level. Further, the outrigger had to be proportionately heavy, too.

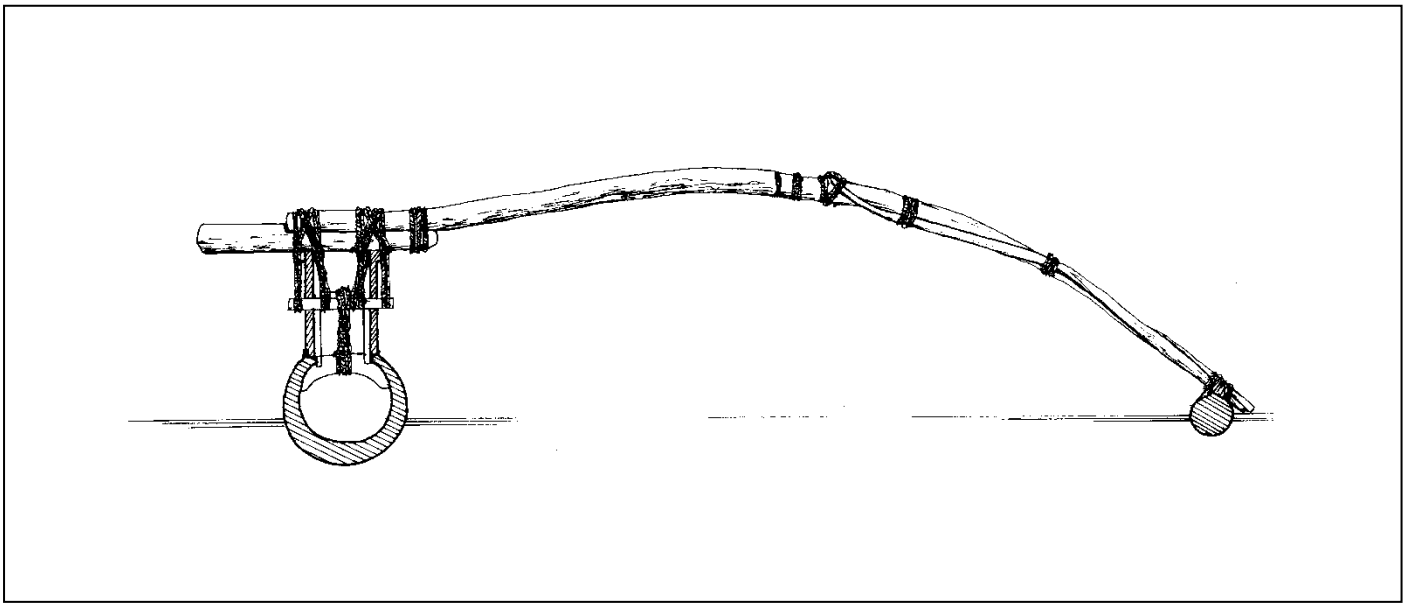

Fig. 3 Advanced monoxylon with outrigger, showing the washstrakes substantially increasing the freeboard of the basic log hull, together with the method of securing the outrigger booms. From Kapitän, 2009, drawing 31a

Taken as a whole the stability and the carrying capacity of the dugout outrigger canoe rest on i. the depth of the hull, ii. the distance between the hull and the outrigger and iii. the weight of the outrigger:

i. a large hull carved out of the trunk of a tree is able to carry a heavier load than a small hull. It is to increase the depth of the hull further (i.e. over and above the existing depth of the dugout) that the washstrakes and the transoms are fixed.[6] This plank-work is light, and hence, without effecting a proportionate increase in weight, it gives an almost 100% increase in height to the canoe which helps in preventing the water breaking in, thus enabling the carriage of a heavier load.

ii. a relatively short distance between the hull and the outrigger would not be able to give the craft the desired balance, and too great a distance would mar its manoeuvrability. A distance of about ⅔ the length of the hull appears to be the ideal.

iii. the weight of the outrigger should be such that it can counter the force of a sudden gust of wind against the sail. If the outrigger is too light it would tend to rise resulting in the boat capsizing if the wind came from the direction of the outrigger itself; if too heavy, it would sink also capsizing the canoe if the wind struck from the outside, and it would also generally slow down the canoe, and even cause a 'drag' on its side tending to keep the vessel moving in a circle constantly. An outrigger should only be so heavy as to skip over the water surface at full speed hardly rising above that level.[7]

As a means of propulsion the oar was an early discovery on the part of man, being a substitute—and a far better one—for his pair of hands. From a punting pole to a fashioned blade took many thousands of years, but the latter provided for greater speed. Initially the vessels would have been paddled forward—i.e., with the rower being seated at the rear facing the bow—with a blade in no way hinged to a row-lock and, therefore, completely free of the canoe. Rowing, i.e. with an oar the handle of which runs through a row-lock of whatever type on the gunwale (if there was one), with the oarsmen seated facing the stern, appears to be a subsequent development.

A major step forward came with the devising of the sail for harnessing the wind as an agent of motive power. And the outrigger, it has to be remarked, facilitated the wide use of this contraption by reducing to the minimum the danger of the vessel capsizing. The raw material for weaving the early sail may have been strips of pandanus leaf available on coastal tracts or reeds available on marshes and lake-fringes.

A sail also makes demands on a rudder, and the early version may have been a plank, one end of which was dipped in the water.

With the basically essential components thus devised, it is natural that regional variations occurred with the elapse of time in the permutation and combination of the hull, the booms and the outrigger, the main of which are the following:

i. the hull not carved of a single block of wood, but 'made of short slabs', connected to the outrigger as in the Easter Islands (Sharp, 1975, 205; Cassey, 1931, facing p. 56)

ii. the monoxylon with two outriggers one on either side (no doubt, for better stability) as in the Philippine Islands, Indonesia and W New Guinea (Hornell, 1946, Map; Lewis, 1951, 114 and fig. 38)

iii. the monoxyla of equal height and length joined by booms as in the Polynesian island of Atiu (UNESCO, 1975, Panel 127)

iv. two monoxyla of equal height, but one shorter and functioning as outrigger, and joined by booms as the Taumotu Group (east of Tahiti) or Polynesia *(ibid.*, Panel 27 a and b)

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6 Hornell (1946, p1. XXVIIb) reproduces a representation from Egypt of workmen raising the sides of a canoe by attaching such a plank-work, and captions it as 'Raising sides of a dugout'. But such a 'raised' canoe demands an outrigger—a contraption unknown to ancient Egypt. The canoe here is likely of another type of watercraft.

7 For a discussion of the stability characteristics of the West coast *oru* see Grainge (2012, 163–5, 168).

v. two monoxyla joined by a platform of planks forming the 'double-canoe' as in Fiji, Tonga (Sharp, l975, 206; Attenborough, 1960; 194–5), Sri Lanka etc.

vi. two outriggers joined by a platform of planks as seen in Negombo, Sri Lanka

vii. an outrigger joined by two booms to a flat-bottomed craft *(pāru)*—no doubt for better stability—as in Iňduruva and between Ratmalāna and Moraṭuva, Sri Lanka

and

viii. the dugout hull joined to an outrigger by means of a single boom as in Kilakarni of S India (Hornell, 1946, p1. XLa) or two booms as in Sri Lanka or more than two booms as in W New Guinea and the Andaman Islands *(ibid.*, 255).

CHAPTER TWO

The DISTRIBUTION of the DUGOUT OUTRIGGER CANOE

ALTHOUGH the dugout canoe (with or without the outrigger) was known to early man, the present day distribution is not wide-spread as may be expected. No reason may be found for its disappearance from the North European scene except for the universal reason that it was not spacious enough to accommodate increasing loads and that at least the local version was not able withstand strong seas over long distances, giving way thus to the development of more suitable craft. That these inhabitants did not discover the outrigger at all may only be conjectured. Whatever may the reasons be, the monoxylon with the outrigger is, by far, localized to the coasts of Kerala, the SE tip of S India and Pakistan, the Andaman and Nicobar Islands, Madagascar, the Polynesian, Melanesian and the Micronesian oceanic region and Sri Lanka (Fig. 4).

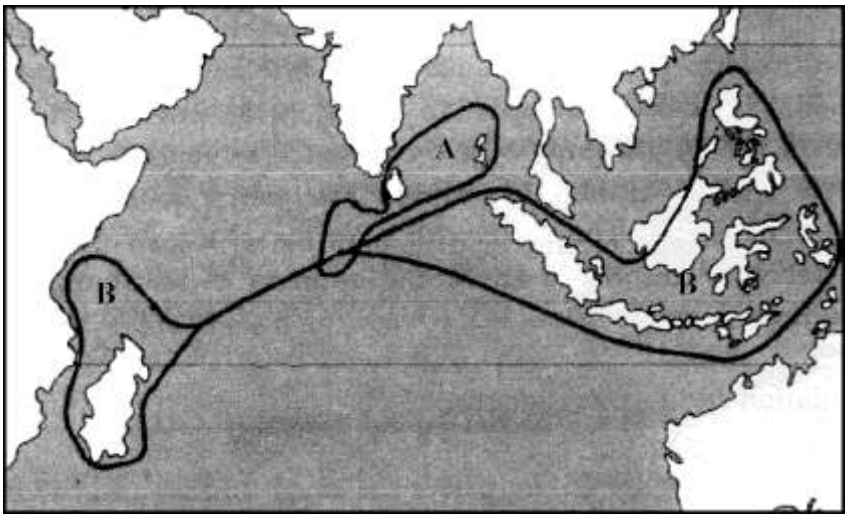

Fig. 4 Distribution of outrigger technology: A = single outrigger zone; B= double outrigger zone (after Hornell)

Of all these regions Sri Lanka is that with the most ancient history, her civilization spanning a period of two and half millennia, and the Sinhalas who did and do form the island's major population have possessed this type of canoe even at the dawn of the Christian era (See Ch. III, pgs 15 *et seqq*).

The Keralas whose history is shorter by a few centuries have had this craft, according to Raghavan (himself, of Kerala) as a 'recent introduction' (1961, 117–18). There is strong evidence to the arrival of (Buddhist) emigrants from Sri Lanka by about 1 AD (Aiyappan, 1965, 116, 119–20), and it is, therefore, possible that this canoe—if not the knowledge regarding it—arrived on the local scene along with them. *The Periplus of the Erythraean Sea* records the availability of this type of canoe on this coast round about this period (Schoff, 1912, 45 *et seqq.*, 243).[8]

Further south, in the Kilakarni area of the Palk Strait coast there are dugout canoes with short outriggers attached to the hull with only one boom (Hornell, 1946, p1 XLa).

To Pakistan the dugout canoe with or without the outrigger has been introduced from Kerala and is called *dhatti hora* (Traung, 1960, 1, 25 and fig. 136).

8 Schoff, the translator, supplies the picture of a Sinhala canoe as an illustration.

In the case of the Andaman Islands, Mount (1863, 317–18) surmises that a storm carried a 'Cingalese' (i.e., Sinhalese or Sinhala) boat across the Bay of Bengal and cast it ashore there to be copied by the Islanders. It is likely that he was inspired by the tradition indicated by Mann (1932, 147) according to which outriggers were adopted for the local canoes after a deluge. It does not appear by this evidence that the outrigger canoe was indigenous to the area.

So far as Madagascar is concerned, it is said that the intrepid Pacific Islanders crossed the Indonesian barrier and ventured westwards across the Indian Ocean in their large dugout outrigger canoes to colonize the island before the Negroes from the neighbouring African continent set foot there. The Malagasy language today is, no doubt, Malayo-Polynesian (Jarret, 1962, 327–8). This colonization, however, would have been possible only after the principal migrations from the Indian region eastwards to the Pacific Islands were largely over, i.e., after the 11th century AD (see *infra* pp. 14–15*)*. Of the regions that possess this canoe Madagascar appears to have the most recent history.

The Pacific Ocean region is, by far, the most extensive of the outrigger canoe locales. Although the island groups are widely dispersed—some removed from the nearest neighbour by hundreds of miles—there have been throughout their history very frequent contacts between them. And in this respect this canoe has played a signal role in being the chief means of transport and communication; and of the types of canoe employed the 'twin' or 'double canoe' (the *ndrua, tongiaki* and *tipahirua* of Fiji, Tonga and Polynesia respectively) was outstanding (Sharp, 1975, 206; Attenborough, 1960, 194–5; UNESCO, 1975, Panels 27 and 28). Fishing is a major occupation here and the part played by the canoes hardly be exaggerated. It is also the most productive equipment in all Oceania (Attenborough, 1960, 57) and in certain regions every household aims at owning a canoe (Hogbin, 1963, 151). Polynesian pilots *(tohunga tautai)*, in particular, are skilled navigators[9] and the Micronesian *prau* or *prao* is the world's fastest sailing canoe (UNESCO, 1975, Intro and Panel 24 c). As such it would be useful to make a brief survey of the canoes of this region before attention is focussed to their counterparts in Sri Lanka.

Although this canoe is known in all archipelagos of the Pacific Ocean some of the finest of the type are to be found in the West Carolinas, the Marshall Islands and Fiji; and of them the Fiji *prau* (the *waka)* is of better timber (Sharp, 1975, 206). The canoes here are generally of three types:

i. large sea-going craft with sail and platform constructed over the booms; they are called *masawa* and *nagega* in the Trobriand Islands (New Guinea) and are owned communally; some are regarded as 'sacred canoes' *(vaka tapu* or *vanga tapu)* belonging to the chieftains; in Samoa there were some of 45 m in length during the last century.

ii. the smaller but equally servicable craft—the *kalipaulo*—of the Trobriand Islands, and the *pao pao* that form the 'little fleet'—*fauriki* —of Tikopia.

and

iii. the small and simple (hull+boom+outrigger) craft without washstrakes *(kowo'u* of Trobriand and *tovi* of Tikopia) standing very low in the water (Malinowski, 1960, 112–13, Attenborough, 1960, 194; Hocart, 1952, 169; Firth, 1959, 134–35; 1967, 117; Rose, 1959, 67, 188).

In general the first two types possess a platform, while some may have two each for passengers and goods (Lewis, 1951, 142). In some localities there are small canoes with the stern rising vertically *(ibid.*, 144). In New Guinea are double-masted outrigger canoes—*lakatoi* (Malinowski, 1960, 108).

Certain other details that may be useful in the present study may be outlined thus:

The wood of which the hull—the most important part of the canoe—is constructed has to be of a strong variety which does not rot quickly in seawater. In the Marshall and the Gilbert Islands it is of the breadfruit tree and in Tikopia *callophyllum* (Attenborough, 1960, 194; Firth, 1959, 135, 139).

9 The seminal study of Polynesian navigational techniques is by Lewis (1994).

In certain areas as New Zealand the hull has a pointed (therefore V-shaped) keel, and hence cannot remain stable unaided (Malinowski, 1960, 108 fn.).

There are numerous instances when the number of outrigger booms in a canoe is more than two; West New Guinea and the Andamans have canoes with over ten (Hornell, 1946, 255).

The booms (*kiato*) are attached, specially in the larger canoes, to the outrigger (*ama*) indirectly by lashing them first to perpendicular pegs (*patiatia*), which are driven into the outrigger at a height that keeps the booms parallel to the ground (and the water), enabling the construction of a platform (Adkin, 1962, 272, 274, P1. I, figs 1 and 2). The lashings are, however, pliant. Canoes in which the booms are lashed directly to the float, tight and rigid, are evident too.

The outriggers are not rounded sometimes, the bottom being more or less flattened as in New Zealand (Adkin, 1962, 271, fig. 2).

The mast is made to stand in a socket, or a cross-piece, in which case it is forked at the bottom. It is held vertical by rattan ropes, and the top is holed or forked to take in the sail spar. Some canoes as those of the Admiralty Group have two sails (Lewis, 1951, 143).

The sails are mostly of the lateen type, i.e., they are triangular, and are held on a long yard held on the mast at an angle of approximately 45° and there is also another spar running along the sail foot. The sails are also reversible (UNESCO, 1975, Panels 24a, b, c, 28f, h), which means that by manipulating the rigging the mast can be pivoted and the position of the sail altered for tacking. There is, however, a non-reversible sail and rig in Samoa meant for use with a following wind *(ibid.*, Panel 35a).

The sail in almost the whole of the Pacific region is of mat woven of pandanus leaf (Attenborough, 1960, 195) which is very extensively found; and sometimes they are of strips of bark and pieces of palm-leaf sheaths (Lewis, 1951, 144).

The oars have blades of various shapes—long, slender, pointed, circular etc.—depending on nothing else but traditional acceptance *(ibid.*, 145).

A prominent feature of the canoes of this region is the decoration and the beautification of the hull. In Polynesia the whole of the *waka tapu* hull is decorated (Firth, 1967, 128). A very common feature is the highly decorated prow-board. It is, first, shaped artistically with an oval crowning it and all over are seen curvilinear designs in red, white and ochre; sometimes, as in New Guinea, such designs are wrought of cowries fixed on the boards (Malinowski, 1960, 108, pls. XXIV, XLIX, LV). In the Western Pacific region red ochre is stained on the bow and the stern, and a stained cowrie is attached to the prow-board at the launching ceremony *(ibid.*, 147). In certain areas of the South Pacific even the handles of oars are ornamented (Lewis, 1951, 145). In addition almost every canoe in the Western Pacific region has a name (Malinowski, 1960, 122).

This ornamentation, it is important to point out, is not merely to satisfy the aesthetic requirements of these islanders: it is magical in intent, as well (Rivers in *ERE*, 11, 473).

It is also the custom in many of these Oceanic localities to shelter specially the larger canoes in canoe-houses (e.g. the *oka* of East Solomons). Smaller ones are generally covered with leaf (Fox, 1925, 184; Malinowski, 1960, 108).

In the process of constructing a canoe the hollowing of the log is the work of one or two specialists; but the sewing together of the planks and the prow-boards, trimming and lashing are performed generally by the collective effort of the villagers. So performed also are the activities such as the piercing and the lashing of the outrigger, caulking, painting and readying the sail (Malinowski, 1960, 125–6).

With the canoe playing an extremely significant role in the social life of these peoples, it is only to be expected that they have various rites connected with it. They are, however, not uniform, and no such character may be expected over such a vast and dispersed area. In certain regions the forest deity is invoked before a tree is felled by making an offering *(iyau)* of whales' teeth; and morning drums are beaten and a feast partaken as the canoe is being constructed. In New Guinea the wood spirit *(tokway)* is asked to leave

the tree before it is cut down, for otherwise the trunk would be knotty or full of holes, as the islanders believe; and if the canoe is made for a chieftain they go to the extent of making a human sacrifice (Hocart, 1952, 104, 177–8; Malinowski, 1960, 124–5, 127, 152).

At the launching—a ceremony of great significance *(tasasoria)* in the Pacific region—there is much singing and feasting, and a gift is made to the carpenters *(ivondoki)* and the canoe is taken to the 'Lord of the Reef' who is presented with a water-bailer *(ibid.*, 104, 146–7). In North New Guinea the building of a boat is a communal affair with a whole village coming together for the feasts and other rites (Hogbin, 1963, 151). In Tikopia three major rites of a seasonal nature are connected with canoes: *faunga waka, fainga waka* and *anoa fariki,* and appeals to procure more and more fish are regularly made; and the first catch of a canoe is offered to the deities (Firth, 1940, 23). Here each canoe is assigned to a guardian deity by the chief; and the adze—the implement which is the most utilized in the making of a canoe—is regarded as sacred and is left guarded on a special shelf in a temple *(ibid.* 23–24, 28). In Polynesia many rites are associated with the 'sacred canoe', and there is a *kawa* (drinking) rite performed even when it is laid up, though there is no special rite connected with the ordinary canoe—the *pao pao.* No women take part in these rites (Hocart, 1952, 104; Firth, 1967, 117, 248).

As in the case of many items of traditional culture of the world in general, there is a tendency in certain localities for the disappearance, in unfelt measure, of the dugout outrigger canoe. It is no more evident over the coast of New Zealand where it was 'not common' among the Maoris even when Captain Cook (l769–70 and 1773), Parkinson (1773) and Best (1853) visited them. There are six recoveries of their *waka ama* exhibited at museums today (Barrow and Keyes, 1966, 278–9). In 1889 a British cruiser destroyed the whole Samoan fleet (some *praus* of which were 47 m in length) from which condition the Islands never recovered (Rose, 1959, 67). And in all localities of the region European cutters and whale-boats have taken over many of the tasks once performed wholly by native craft. In the Andamans the Jarawas have moved to the interior, and have lost the art of canoe-building (Sen, 1962, 60), and it is possible that these Islands once had a larger number of dugout outrigger canoes than they possess at present.

The fact that this canoe is wide-spread over this ocean has led to the general assumption that the focal point of its distribution is Indonesia from where it spread as far as Hawaii and New Zealand towards the East and the South and westwards to the Andamans, Sri Lanka, Madadascar and East Africa. Hornell (1946, 253) upheld this theory and it is also supported by Wijesekere (1949, 145, fn. 1) so far as this canoe in Sri Lanka is concerned. Both these scholars, however, do not indicate any acceptable historical evidence in support—the former bringing in the relationship between Ceylon (Sri Lanka) and the Indonesian Islands as from only the 10th century (although evidence is available for its presence in the former during much earlier times) whilst stating that this canoe diffused westwards at 'a rather late date' (1946, 258–9, 264). It is not impossible, however, that the Indonesian region received the idea of the dugout outrigger canoe from elsewhere initially and acted as the centre of diffusion to some of the localities, subsequently.

As shown by the researches of Firth (1967, 60), van Loon (1940, 86–7), Luke (1949, 9–12) and Nag (1941, 32–35) the Pacific Islanders, inclusive of the Maoris of the extreme South, have come over the sea from the Asian land mass, and Aryan immigrations from the Indian region have added considerably to their blood. In addition, the sculptures of Borobudur in Java (Indonesia) depicting the Indian colonization of the island during the early centuries of the Christian era show narrow and top-heavy Indian ships with booms and outriggers made of planks or logs tied together (Mookerji, 1957, 33, pls. 1, 3, 5, 6).[10] The oceanic region further to the East has a history of only fifteen centuries (Heyerdahl, 1953, 20–1). It is possible, therefore,

10 In the Philadelphia Museum is a model of these 'outrigger ships' of which the originals have been estimated to be 18 m long with a beam of 4.6 m (Mookerji, 1957, 34). For a description of this type of vessel in Sri Lanka in the early part of this century and before see Ch. VII.

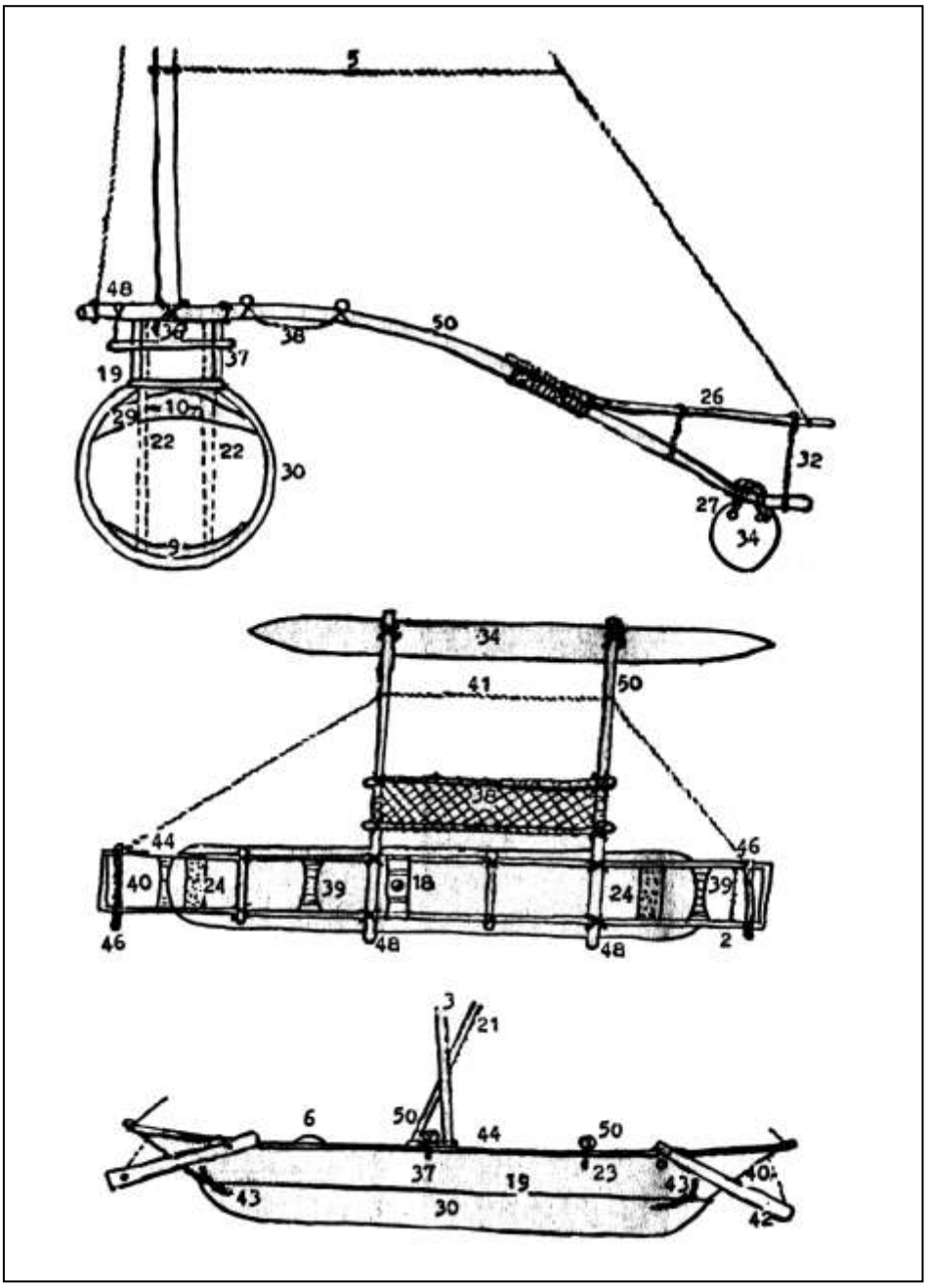

Fig. 5 Cross section, plan view and side elevation of a Sinhalese oru*, showing structural components: 2* äniya kōṭuva *(wooden pin through washstrakes), 3* atlī kuṁbaya *(secondary mast), 5* atväla *(lifeline), 6* aval oṭṭuva *(strip of wood to support oar), 10* barata kōṭu *(horizontal pins securing vertical ribs (22) to which the outrigger booms are lashed), 18* heppuva *(mast step), 19* hevaniya *(coir rope stitching washstrake to hull), 21* hiṭuvana liya *(main mast), 22* hiṭuvana vaṅguva *(pair vertical ribs to which the outrigger boom is lashed), 23* iddaṇḍa *(horizontal pin through washstrakes to which the outrigger boom is lashed), 24* innapuṭuva *(plank across gunwales service as seat), 26* kaḍise *(pole lashed to main boom over outrigger), 27* kanhiya *(hole in outrigger for lashing), 29* katavāriya *(wooden rib beneath outrigger boom), 30* kaṭupota *(logboat hull), 32* kilimatta *(rope at end of* kaḍise*), 34* kollāva *(outrigger), 37* lāli kūḍuva *(washstrakes), 36* kummulla *(foot of mast), 38* mässa *(platform over outrigger booms), 39* maṭāma *(rounded pin between the gunwales, 40* midilla *(washstrake end boards), 41* pahakona *(outrigger stay), 42* palla *(rudder/leeboard), 43* palukuraṅguva *(curved wooden strip on which the rudder bears), 44* piṭa pōraya *(gunwale), 46* tarappu kōṭu *(cleats at bow), 48* vāriya *(leeward end of boom), 50* viyala *(outrigger boom). Drawing by Dharmasiri Kāriyawasam*

that this canoe technique was introduced to this region through these (earlier) migrations from the Indian region to which it was likely indigenous.[11]

Among the cultural affinities that seem to exist between the Sinhala people and some dwellers of the Pacific region, as pointed by Hocart (1952. 61–84), this canoe is one; and all these are attributed to an infiltration of the people of the Pacific region to Sri Lanka during an ill-defined 'ancient' period of history (Wijesekera, 1949, 45, 145 fn. 1: 1959, 25–6). Whatever may be said of the rest, this much may be said of the canoe: that the chronological details mentioned above point to:

i. the earlier presence of this canoe in Sri Lanka (and the rest of the Indian region) than in the Pacific region

and

ii. the diffusion of this craft eastwards from the Indian Ocean region at a period of history earlier than that during which the seafarers of the Pacific region ventured to cross over westwards to the Indian Ocean region.

The *oru* of the Sinhala people of Sri Lanka are, therefore, not to be taken as an item of material culture introduced from the Pacific region.

Further, similar objects being present amongst peoples living in localities which are far removed from one another—some occurring in complete isolation—are, indeed, many. And diffusion is not an acceptable explanation in respect of all these instances. Some of them, at least, may be the result of independent origin, because the human mind working in order to satisfy like needs can make way for similar techniques and resultant artefacts (Sayce, 1933, 231–2, 236). The dugout outrigger canoe occurring over such widely dispersed localities is possibly yet another example—and an excellent one.

From the foregoing evidence the following conclusions may therefore, be arrived at:

i. that the dugout outrigger canoe has been known to the Sinhala people for at least 2,000 years, being available in considerable numbers at the dawn of the Christian era

ii. that, very likely, it diffused Westwards to the South coast of India 100 to 200 miles away, and Eastwards the Andaman Islands a 1,000 miles away—the latter accident—from Sri Lanka

and

ii. that it is very likely an indigenous item of Sri Lanka's traditional material culture (Fig. 5).

CHAPTER THREE

The HISTORY of the DUGOUT OUTRIGGER CANOE in SRI LANKA

AMONG the considerable array of items of traditional material culture of Sri Lanka[12] the *oru*[13]—the dugout outrigger canoe—holds a position of importance. It is, indeed, one of the largest of these items, and is found

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11 Lewis (1951, 139) expresses a conjectural opinion that the Fijians probably made the first canoes in the Pacific Ocean area. It leads one to assume that these Islanders were an indigenous population and were not immigrants. This is a rather questionable assumption. Incidentally, Hornell (1946, 259) sees a similarity between the small plank-built vessels of West Madagascar and the Sinhalese (Sinhala) coaster—*yātrā*—and between the hull planking of the Sinhala canoes and that of the vessels also of the same region. He does not, however, speak about the one as being the result of the influence of the other.

For *yātrā* see Ch. VII.

12 Referred to as (Tāmraparṇi, Skt.>) Tambapaṇṇi in Pali classical literature, as Taprobane in Greek and Latin authors and as Ceylon in English writings up to the very recent past. The island was officially re-named 'Sri Lanka' after a republican constitution was adopted on the 22nd May 1972.

13 *Oru* is the nominal stem form which is also the plural form in the Sinhala language; and *(oru +a> oru + v +*a>) *oruva* is the singular form. *Oru* in Sinhala means a trough, in general, as in:

on the coasts, the estuaries and ferries and the coastal lagoons, the lakes and, rarely though, on some of the irrigation reservoirs (the 'tanks') of the interior—in short, wherever the Sinhala people[14] in particular, take to the water. There are over 7,000 of these in the company of other traditional craft such as the raft *(pahura),* the log-raft *(teppama* or *kaṭṭamarama* or 'catamaran'), the flat-bottomed barge or padda-boat *(pāru),* the thin, long and outrigger-less *tōni* or *vallam* (mainly of the Tamil fishermen) and the double-canoe *(aňgula),* as also of the modern fibre-glass and other mechanized boats. The *oru* canoes also range in size from the frail and simple *piḷā oru* of a mere 1.5 m in length (which may be seen being rowed even by a single girl over the shallow and placid waters of a lagoon or a ferry of the South and the South-western Country) to the sturdy 10 m *häḍi oru* or *bala oru* of the Western and Southern coasts respectively (that, with a crew of eight, weathers monsoonal storms of the open sea fifty kilometres away from land).[15]

The term *oru* and its variant *horu*[16] are interesting linguistic usages with no parallel or related form in the Sanskrit and Pali languages. As semantic equivalents Geiger (1941. *s.v.)* cites only *uḍupa* and *ulumpa* (Skt. and Pali, respectively) which, however, have no phonetic similarity. The neighbouring Tamil language too does not supply a parallel and *tōni,* as referred to earlier, is the general term for boat in this language. On the eastern border of the Indian Ocean where the dugout outrigger canoe is known, the terms for the various types are *jalor* (dugout), *perehu* (canoe), *kapal* and *sampan* (boat) (*CMGD*, *s.v.*)—none of which has a phonetic similarity with *oru.* Marathi of the NW Deccan, however, has the forms *hoḍaka, hoḍaki* and *hoḍi* meaning 'boat' (*ASD*; *PSD*, *s.v.*) and in Pakistan there is the Urdu term *hora* for canoe (Traung, 1960, figs. 36, 46). These, it may be said, do have a phonetic relationship with the Sinhala term. A language in which the term *oru* itself is known is Maldivian, a tongue largely derived from Sinhala (Geiger, 1941. *s.v.*).

Both forms *oru* and *horu* occur in Sinhala literature for the first time in the *Jātaka Aṭuvā Gäṭapadaya* (ed. Jayatilaka, 1943, II, 20)—an exegetical work of the 12th or the early 13th century; and this reference is significant as it reveals the physical character of the craft: *ek daňḍu horuvak,* i.e., 'a *horu* (made of) a single block of wood'. A later reference in the *Pansiya Panas Jātaka Pota* (13th century) is equally noteworthy: *gasak kapā horuvak käṇa,* i.e., 'having cut down a tree and dug (of it) a *horu* (ed. Pemananda, 1959, 493). It now becomes clear that a *horu* or *oru* is a canoe dug out of a single block of wood, generally the trunk of a tree. Its main component—the hull—therefore, is in one piece, basically, whereas every other type of vessel is made of several sticks, logs or planks, as the case may be, fitted together. Further, the original (Pali) *Jātakaṭṭakathā* expression is *ēka dōniṃ nāvaṃ,* lit. 'one trough vessel'.

A local ceremony in which the *oru* appears to have played an important role is reported to have taken place during the reign of Mahā Dāṭhika Mahā Nāga (9–21 AD). The occasion was the great Giribhaṇḍa Pūjā at Mihintalē near Anurādhapura, and the king is said to have caused the lighting of a festoon of lamps over the

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i. *käňda oru,* stone troughs found at ancient refectory sites (Anurādhapura and Mihintalē) likely for storing water or cooked rice

ii. *behet oru,* 'medicine troughs'; may have contained medicinal oils in which a patient was immersed (Thūpārama, Madirigiriya and Mihintalē). Deraniyagala (1960. 87–9 & pls) opines that they were sarcophagi

iii. *paňḍu oru,* wooden or stone troughs found in temples; used for dyeing and washing monks' robes (*SV*, *oruva saha aňgula, s.v.*)

iv. the trough of the musical instrument *viṇā* is also referred to as *oruva* in the *Milinda Praśnaya* (ed. U. P. Ekanayake, 1915, 65)

Both forms—*oru* and *oruva*—may be used in English as a singular.

14 The Sinhala people (Sinhalas or Sinhalese, also referred to as Cinghalese in early English writings on the subject) are of Caucasoid stock. Their ancestors appear to have migrated from the Indian mainland's north western and north eastern coasts half a millennium before the Christian era and they have constituted the island's main population throughout its history. Today they number over twelve million out of a total population of 16 million.

15 Cave (London, 1912) supplies pictures of many of these craft: a raft of sticks and planks (163), bamboo rafts (186), log raft (728), barges or padda-boats (130, 193, 204 etc.) and double canoe (286) along with an *oru* of the simple type (51, 188) and several of them with washstrakes (29, 130, 199 etc.). A sketch by J.L.K. van Dort (late 19th c.) also shows many of them: Exhibit no. 23/96, 363/21, National Museum, Colombo.

16 The elision of the initial *h,* effecting no change in meaning, is a common phonetic feature of the Sinhala language.

waters of the ocean within a distance of a *yōjana* from the land *(akāsi dipamālā nirantaraṃ salilēhi samuddassa samantā yōjanantarē)*. This reference in the *Mahāvaṁsa* (tr. Geiger, 1950, XXXV, 80) does not refer to the ways and means of the lighting of the lamps, but the *Pūjāvaliya* (ed., Sraddhatisya, 1953, 725)—the Sinhala prose work of the 13th century—contains a little more elaborate description: *muhuda piṭa yodanak tän yatä horu anavakāsa koṭa tabā, horu piṭa äviri bandavā, täna täna maṇḍapa karavā, sūvisi dahasak mahāsaṅghayā muhudu piṭa vaḍā hiňduvā....* (i.e. 'having compactly stationed *horu* over the ocean to a distance of about a *yōjana,* having erected platforms over the *horu,* having erected pavilions at various places and having invited 24,000 of the great Order of monks and assembled them over the ocean...'). The description in the *Rājāvaliya* (ed. Pēmananda, 1926, 42)—the 17th century prose work—adds a further detail: *ekunsiyak oru lakdiva hātpas-hi muhuda piṭa bäňdi yodanak tän paṭan.. . .* (i.e., 'around Laṅkādīpa over the ocean for a distance of a *yōjana*, ninety-nine *oru....*').

It has, however, to be confessed that none of the above works is contemporaneous with the ceremony referred to, they being composed after four, thirteen and seventeen centuries respectively, after the event. The *Mahāvaṁsa* passage does not refer to the vessels, and the other two works do not refer to the lights; and the ninety-nine boats referred to in the *Rājāvaliya* is far too small a number to cover the island's coastline completely. But there is no reason to doubt that all the three references pertain to one and the same ceremony performed under royal patronage, in which the *oru* vessels were used to accommodate the monks and to carry the festoons of lamps.[17]

Nevertheless, taken on face value, these references with their considerable chronological gap do not establish that this sea-going craft known locally at the dawn of the Christian era was the *oru* or the *horu* (made of a single block of wood) of the 13th century. But several types of vessel which are easily identified (some being known by these very names even at present) are referred to in Sinhala literary works. The *Siyabaslakara* (eds, Srinivasa, Dhammasena and Dhamminda, 1948, 19) of the tenth century, the *Dharmapradīpikāva* (ed., Dharmarama, 1927, 207) of the twelfth century and the *Visuddhi Mārga Sanna* (ed., Sraddhatisya, 1950, 409) refer to *näva* (ship); the *Jātaka Aṭuvā Gäṭapadaya* (ed. Jayatilaka, 1943, 119) and the *But Saraṇa* (ed., Sorata, 1931, 169) of the twelfth century refer to *aňgula* or *haňgula* (double canoe); the *Dhampiyā Aṭuvā Gäṭapadaya* (ed., Jayatilaka, 1927, 144) of the tenth century and the *Muvadevdāvata* (ed., Kumaratunga, 1951, 2) refer to *pasura* or *pahura* (raft); the *Saddharmaratnāvaliya* (ed., Jayatilake, 1929, 582) and the *Saddharmālaṇkāraya* (ed., Sarananda, 1931, 476) of the thirteenth and the fourteenth centuries respectively, refer to *paḍavu* (lighter); the *Milinda Praśnaya* (ed., Ekanayaka, 1949, 572) of the 18th century refers to *sampan* or *hamban* (smack); and the *Haṃśa Sandēśaya* (ed., Tennakone, 1960, 80) of the fifteenth century and the Päpiliyāna Inscription (ed., Jayatilaka, 1922, 44) of the eighteenth century refer to *pāru* (barges). These, no doubt, were known as such right from their earliest presence, and in the absence of any evidence to a semantic change in the case of any of these words, none of these may be taken to mean the dugout outrigger canoe. It is plainly logical, therefore that the term *oru* was used to mean the very craft so known today right from the earliest times of its occurrence in the island.

In support of this contention may be mentioned that the geographer Strabo of Asia Minor (65 BC–19 AD: *Geographica*, XV, i, xv) and the Roman author Pliny (23–79 AD: *Natural History*, VI, xxiv, 82) refer to watercraft of this description in the seas to the west of Sri Lanka (Taprobane),[18] and the fact that they were contemporaneous with King Mahā Daṭhika Mahā Nāga is of special significance.

One may now arrive at the conclusion that the *oru* vessels employed by this monarch to enhance the popular appeal of his Giribhaṇḍa Pūjā ceremony, as also to increase the scope of popular participation, by having them spread out over the ocean at a distance of about a *yōjana* from the shore right round the island, and carrying festoons of lights and accommodating thousands of the Order on platforms build over them were:

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17 For a possible fertility aspect of this festival, see Vithārana, 1991, 13–25. In China boat races were held aspiring for rain and in Attica they were held n honour of Dionysus—god of fertility and of winds: quoted in *ERE*, 11, 473.

18 Referred to by Lewis (1914, 8). Pliny's reference (Rackham, 1961; *Natural History*, VI, xxiv 82) is actually to 'ships' of large size, and he leaves no room to interpret it as small craft as are used for fishing. What he refers to may be the *yātrā oru* (see Ch. VII) which would have traversed these seas during contemporary times. This does not, however, mean that the small version did not exist at the time.

i. dugout outrigger canoes *(oru)*

ii. seaworthy craft with washstrakes and transoms and the curved booms connecting a heavy outrigger

and

iii. possibly equipped with the rigging and sails (made of whatever material) and, of course, the rudder blade, in addition to the paddles.

As such, they were not different from the vessels that one may see over the beaches and the sea uninterrupted from Negombo to Taṅgalla on the Western and the Southern coastline of Sri Lanka two thousand years later, today.

A factor that may stand testimony to the antiquity of the *oru* is the indigenous nature of the majority of the technical terms known to the craft and the trade, as also the names of many fish caught by the local fishermen (See Appendix: Glossaries). Such a situation, no doubt, points to an era when the influence of foreign languages (such as Sanskrit) had not begun markedly to bear upon the indigenous tongue.

It is unfortunate, however, that local watercraft are not much in evidence in the sculpture, painting etc. of Sri Lanka. Whilst a carving at Dūvegala (*CALR*, III, iii, 204 and p1. xx) shows a sailing ship (which is rather not relevant to the present study) three scenes from the Tivaṅka Piḷmagē, Polonnaruva (12th c.) depict three vessels:

i. the 'Boat Scene' which shows the Buddha seated in the *padmāsana* on what appears to be an *aṅgula* (double canoe) comprising a platform built over two dugout canoes (*ASCAR*, 1909, 40 and pl. XXVII)

ii. an unidentified scene showing the hull of a canoe one end of which is rising against a wave, a mast angularly disposed and a drooping sail which appears to be triangular; the hull is shown length-wise in the fore-ground in such a way that the outrigger (if there was one) remains fully covered; it is difficult to say for certain whether this hull is a dugout or not, although to all appearance it is one; the sail appears to be a lateen one as of the South, today

and

iii. an unidentified scene showing only the ornamental curved prow of a vessel in which a personage is seated.[19]

On the ground floor of the National Museum, Colombo, one may see the remains of a dugout hull salvaged from the bottom of the Kälaṇi River in 1952 (Fig. 6). It is 8.8 m in length, 0.7 m in height and 0.8 m in diameter. The ends (which are not dug) are made to project about a foot outwards. At each end of the hollow, at the bottom, a cross-wise ridge is evident, and its purpose is not clear because its like is not repeated in the present-day dugouts. Perhaps it was meant for the rowers to obtain a firm foot-hold as they strained at the oars. The beam is 38 cm and there is no evidence (such as a row of small holes bored along the edge) to the erstwhile presence of washstrakes. At a distance of 1.47 m from one end is a pair of holes (i.e. on either side of the hull) and 1.12 m towards the middle from here is another pair; and it is likely that each of the pairs was used to lash a boom. Close to the other end too, but on one edge only (because the other has weathered off), is another hole which very likely marks the position of the other boom. What the next pair of holes (located somewhat towards the centre) was meant for, it is difficult to say. Was there a third (central) boom? On both sides of the bottom are cracks, and parts of the wood have weathered off. At both ends of the hull there are two holes of 13 cm in diameter, and the purpose of these too, it is difficult to say for certain. This hull compares well in length with the largest ones that may be seen in the island during the present times, and the diameter of the largest ones today is some 5 cm shorter than that of this specimen.[20] Although this craft is large and heavy (it is carved out of a *raṭa del* trunk) it appears to have

19 All three are exhibited in the Frescoes Gallery of the National Museum, Colombo.

20 See *infra* Ch. V, pgs 35–6. The lengths recorded, it should be noted, are the lengths of the dugout portion only.

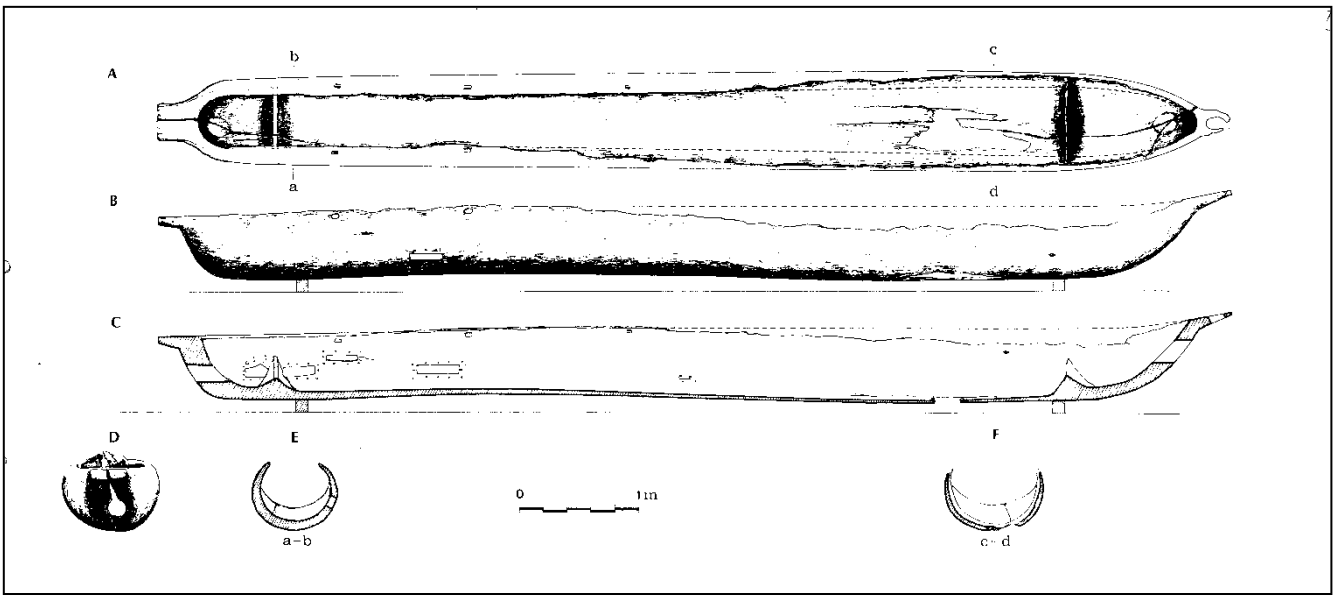

Fig. 6 Logboat find from the Kälaṇi Ganga. The forward end is to the left. Length as reconstructed is 8.97 m. ***A*** *Plan, with a damage hole in the bottom.* ***B*** *Prospect of the port side.* ***C*** *Longitudinal section: the starboard gunwale shows three small carved rectangular holes, which, together with two similar holes on the port gunwale, are taken as evidence of an outrigger.* ***D*** *Front view from forward with the hole from the disintegrated heartwood and gunwale edges shown as reconstructed.* ***E*** *Cross section a–b showing the sickle-shaped profile of the forward internal partition.* ***F*** *Cross section c–d showing the sickle-shaped profile of the after internal partition. From Kapitän, 2009, drawing 46*

been of simple construction (hull–booms–outrigger). It is likely that it was a river transport craft of the early years of the last century and before. Or was it part of a large-sized *aṅgula* of the times?[21]

There is no evidence, however, to the first appearance of the *oru* type of canoe in the island, or of its introduction (if at all) to it—the Giribhaṇḍa Püjā being the earliest instance of reference. It is not impossible, therefore, that it was known in the island before that, and that by the reign of the king referred to it was found in the fishing ports of the island, the rivers and the lagoons in such numbers as to enable the monarch to commission their use, stationing them rather compactly over the ocean at a distance if about a *yōjana* — *muhudu piṭa yodanak pamaṇa tän yatā horu anavakāsa koṭa tabā* — as quoted above.

This is no reason to doubt the continued existence of the *oru* in Sri Lanka, although literary and archaeological evidence is not in abundance. On the other hand there is also not the slightest clue—even a belief or a legend of a regional sort, at least—to lead one to the merest conjecture that it once existed and disappeared to re-appear during relatively modern times.

In addition to the references from Sinhala classical literature to other types of watercraft (indicated above) the word *horu* occurs in the *Dhampiyā Aṭuvā Gäṭapadaya* (212), the *But Saraṇa* (178) and the *Dharmapradīpikāva* (8). Further, a simile in the *Saddharmaratnāvaliya* (497), viz., *habaluvakin muhuda pän ukā gannā sē,* alludes to the insignificance of the amount of sea-water scooped out by a paddle, and stands as an indirect bit of evidence to the existence of the canoe.

The *oru* is also mentioned in a list of watercraft in the *Ruvanmal Nighaṇḍuva* (ed. Dharmabandu, 1953)—a glossarial work in verse—of the early fifteenth century. Terms for a few accessories—*kuṁba* (mast), *riṭi* (spar or oar) and *palu* (rudder) are mentioned along with it (143–4). The *Haṃsa Sandēśaya* (80) composed a few decades later mentions *oru* of Kolaṃba (Colombo), Vattala and Puttūruva plying in the Kälaṇi River. The fishing 'tones', 'tonnes', 'doney' and 'donies' of Sri Lanka's western ports mentioned in the Portuguese tombos of 1593 are very probably these craft and no other and the Portuguese rulers, at some stage of their

21 A further account of this craft given in Kapitän (2009, 168–9) reports that it has been ^{14}C dated to 2300 BP ± 100 years.

period of control of certain maritime areas of Sri Lanka (1505–1658), exacted from each fishing boat a tax called *oru panam* which appears to have been continued by the Dutch who followed them: 1658–1796 (Pieris, 1949, 36, 38, 64, 67 etc.; 1913–14, 83; 1918, 82). A sketch of the Colombo Harbour and the neighbouring Fort area entitled 'Die Stadt Colombo' and 'La Ville Colombo' printed in France in 1656 shows, in the distance, an *oru* with a sail.[22] A verse ascribed to King Rājasiṅha II (1658–87) refers to his arrival at the residence of a paramour by an *oru* (Prajnaloka, 1952, 156). Heydt—a German visitor to Sri Lanka (1733–37)—describes this (which he calls 'thoenge' or 'thonge'—very likely a misspelling of the Tamil *tōni,* 'boat') thus: 'each is built from one log only, and filled with two planks at the sides, as also forward and aft like stem-pieces; but they are quite narrow so that one can hardly stand in them. And because they are very narrow and yet carry a high sail, a piece of wood is attached by two crooked sticks to one side of each, so that if the vessel heel in one direction the weight of the wood on the other side hinders and keeps the little ship upright. But if it will heel in the other direction, then the wood must first be pushed under the water; and since it resists this, the vessel is thus hindered from capsizing' (Raven-Hart, 1952, 5–6, 36–7). Heydt also supplies a few sketches of marine scenes of Sri Lanka—drawn by a friend, Arent Janson—in some of which these canoes are represented (pls. 49, 63–6, 82).[23] Ives, a surgeon on a British ship which touched on this island in about 1755 AD, reports: 'The boats used by the natives of Ceylon are trees hollowed; but when the boat, on account of the size of the tree is too small, they build on top of it a trough square at both ends; they are about thirteen or fourteen inches (33 to 36 cm) wide and as many feet long; the tree part at the bottom is much wider; they have outriggers and sails..' (Raven-Hart, 1963, 42). The *Gaṅgārōhaṇa Varṇanāva* composed in about 1806 (ed. Kumaratunga, 1933, 26–8, 33–4, 36) refers to a procession of various types of vessels in the Nilvalā Gaṅga at Mātara and one of those referred to is the *oru.* Cordiner supplies two sketches showing a canoe in Colombo with a rectangular sail and another with two masts at Trincomalee, and pays a tribute to these 'Cingalese' canoes: 'because they give a pleasing animation to the view' (1807, frontispiece and facing 266, 57). In 1812 Captain Anderson composed a poem entitled 'The Wanderer in Ceylon' in which he makes a vivid description of the *oru* (Lewis, 1914, 7). The British Governor Sir Edward Barnes replaced an existing fish tax in the Colombo District with a tax on fishing boats, dependent on their size, and payable monthly (1820). It failed to bring about the expected revenue and was repealed by Governor Sir Edward Paget after only two years' trial (Oct. 1822). Nine years later (Dec. 1831) the Commissioner Colebrooke recommended a monthly licence scheme for fishing-boats (de Silva, 1962, 527–8, 573, 585). Tennent, writing of Galle in 1859, refers to 'the most common and by far the most graceful' dugouts of the Sinhalese 'which dart with surprising velocity amongst the shipping' (1859, I,. 103–4) and a painting of the Fort of Galle as viewed from Closenburgh printed in 1864 shows one of these with a sail.[24] And J. C. Willis (1907. 105) says: 'The common boat is the large single canoe with outrigger on one side and large square sail. The outrigger is always kept to windward, and the boat is sailed either end first. In strong wind one or more men sit on the outrigger'. During the early decades of this century this type of canoe was used within the Colombo Harbour by traders who brought their ware to the ships for sale (Cave, 1912. 34).

Frequent mention of the *oru* is also found in the folk poetry of the Sinhala people. They are referred to as plying in the sea and the rivers Nilvalā, Kälaṇi and Mahaväli (Wijesekara, 1950, 87, 94, 248; Prajnaloka, 1952, 12–16, 321–22; de Lanerolle, 1937, 28–29). One makes mention of how a damsel came rowing in an *oru* while a youth was preparing a field for sowing.[25] One verse includes the rowing of an *oru* in the sea among the pleasurable sports (such as entering a forest to break bee-hives and suck honey, the climbing of trees to pick flowers and to wear them as garlands, swimming and going from land to land resting and eating

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22 Exhibit PR. 65, National Museum, Colombo. There are several paintings and sketches in this gallery, undated, but likely of the 18th and 19th centuries, showing the *oru.*

23 Of Janson's sketches p1. 49 shows the canoe clearly. The sail, however, is represented as a thin isosceles triangle disposed vertically with the base at the top. Evidently, the artist had seen the rectangular sail of the West coast canoes; this sail when billowed out in the wind appears thus when viewed from an angle.

24 Printed by Day & Son, London 1 January 1864.

25 *varuvak vitara mama kuṁburak koṭana koṭa*
oruvak pädan ā laṅda mā issaraṭa (Wijesekara, 1950, 73)

the while),[26] while another in the same strain refers to a trip in the *oru* to invite friends and relations for a wedding ceremony.[27]

A *tovil kavi* (devil-dance stanza) pertaining to the appeasement of the demon of the river-port or ferry *(toṭa yakā)* refers to an *oru* transporting goods (de Lanerolle, 1960, 64).

There are two verses associated with the *oru* which, in addition to the surface meaning, may also be philosophically interpreted:

gahak kapā gena oruvak koṭā *gena*
habalak sadā gena gaňgakaṭa damā *gena*
egoḍat balā gena megoḍat balā *gena*
koluvek temī gena oru pädi *muḷāvena* (Wijesekara, 1950, 242)

('A lad, having cut down a tree and dug of it an *oru* (see *supra* pg. 16), having made ready an oar, having launched it into a river and having fixed his eyes both on this shore and the other, keeps hopelessly rowing')

boruvak no veyi me kiyannē *sadā lā*
oruvak tibeyi maha mūdē *kiňdī lā*
palupat dekak gena dāṭaṭa *sadā lā*
padinaṭa bāri ya sayurē diya *siňdī lā*

('It is not a fabricated lie that I say. There is an *oru* sunk in the great ocean; it is not possible to get two oars to the two hands and paddle it, because the ocean water has dried up')

The allusion to the ignorant being with his component body in the ocean of existence, trying to negotiate it with the help of all that he can contrive in the face of despair is evident in these two verses.

But the folk poet is not unaware of the dangers of sea travel, be it in the *oru* or such other frail craft. In the songs of the padda boatmen *(pāru kavi)* are allusions to water-fiends (*diya rakus*) and to the salutation on the part of the boatmen to the deities after setting foot on land (Wijesekara, 1950, 244, 255), and a didactic folk verse instructs one to travel in the *oru* with constant heed *(oruvē yana sihiyaṭa gena palayallā*: Prajnaloka, 1952, 184).

There is also a *sähälla* (long metrical verse composition) of the fishermen—particularly of the seine netters—with a reference to the *oru* (de Silva, Mullapitiya K. H., 1957, 214).

There are, in addition, a few Sinhala proverbs associated with the *oru*:

äniyen giyat avaren giyat eka ma lu: 'It is said that it is the same whether one travels in the bow or the stern'

oruvaṭa kollāva vageyi: 'Like the outrigger to the canoe'

oruvaṭa loku kollāva vageyi: 'Like the outrigger which is too big for the canoe'.

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26 *kälē yamuva mī kaḍamuva päni* *bomuva*
atu aga yamuva mal neḷamuva *paḷaňdimuva*
mūdu yamuva oru padimuva *pīnamuva*
raṭakaṭa yamuva maga siṭimuva bat *kamuva* (Wijesekara, 1950, 259)

27 *saňda pānē bada pānē gaman* *yamu*
rā vuṇu tänaka ambalamaka vāḍi *vemu*
aṭa panamaka päni aragena bedā *kamu*
yāḷu apaṭa oru pädapan bulat *demu* (Wijesekara, 1950, 261)

('Let us go on the journey in the light of the moon resting in an *ambalama* (resting lodge) when night falls; let us partake of six *panam*'s worth of honey. Friend, row the *oru* for us, and we shall offer betel')

Offering leaves of the betel creeper (piper betel) is the traditional manner of inviting for a wedding ceremony.

vatura nēna oruvaṭa diyāḷuva moṭada?: 'Of what use is the water-bailer to the canoe that does not leak?' (Senaveratna, 1936, 12; *SV*, *s.v.*, *oruva saha aṅgula*)

Folk poetry and proverbs in general are not dateable, unless of course they allude to a historical occurrence; and in most cases their origin may be said to lie in the depths of the indeterminable past. The above quotes and references, therefore, may be regarded as further testimony to the antiquity of the outrigger canoe—the *oru*—of Sri Lanka.

In addition to the few references to the *oru* itself found in classical Sinhala literature (quoted above) there are also a few terms denoting parts and accessories of contemporary watercraft (including the *oru)* scattered over a few literary works. *Yaṭi* and *riṭi* of a *näv* (ship) occurring in the *Jātaka Aṭuvā Gäṭapadaya* (ed. Hettiarachchi and Rammandala, 1960, 21) and the *Pūjāvaliya* (ed. Sraddhatisya, 1953. 7) are somewhat synonymous—they mean 'pole'—and would have meant the thin and long oars or the paddles. The *Kav Siḷumiṇa* (ed., Sorata, 1946, 210) refers to *luvara* (mod. *ruvala*), sail, and to *kuṁba*, the mast; and the *Jātaka Aṭuvā Gäṭapadaya* (21) to *kuṁba* and *ruval adanā badanā yot rähäna* ('ropes that hoist and tie up the sail'). The *Girā Sandēśaya* (ed., Kumaratunga, 1951, 56) refers to *kum,* the mast. The *Jātaka Aṭuvā Gäṭapadaya* (21) and the *Pūjāvaliya* (7) also refer to *palupata,* the rudder.[28]

With that history of around 2,000 years behind it, the *oru* remains the chief watercraft of the Sinhala people today, be it to sail in the ocean around, the brackish estuaries or fresh water tracts such as lagoons on the coastal fringes, the rivers and the inland irrigation tanks. Fisheries Department statistics indicate the presence of 7,189 craft of this type (*CMF*, 13) amounting to 42.7% of all traditional fishing craft of the island in 1972. But not all the *oru* vessels of the island are fishing craft, for they are used on the ferries too, and hardly any one of these used over the fresh water tracts on the interior for fishing or other purposes is known to these statistics. A further factor is that over the flood plains of the rivers in the South West Country an *oru* is among the possessions of almost every household. The Kaḍuvela-Malvāna-Hanvälla area of the Kälaṇi Valley is a case in point. A single *oru kaṅda* (the dugout hull) with no washstrakes may be seen turned over in the back-yard or the verandah (used as a long seat here) of a household, and with the river rising (usually at the height of the SW Monsoon in May and after) it is taken out, two booms and an outrigger lashed and made ready for the possible adverse conditions during which this small vessel may remain the only means of contact with the world outside. The return to normal conditions sees its dismemberment and the hull's arrival once more to the back-yard or the verandah. Scores of these craft over the flood-plain settlements of the interior too are unknown to any table of statistics. It is, therefore, not unfair to add another 1,000 to the above figures.

A craft with the associated technology being handed down from one generation to another with little or no change for well over, say, a thousand years would certainly be regarded as traditional. But if the final phase of its evolution ceased two thousand years ago and if it is evident to the present generation in the same form in which it existed at the dawn of the Christian era, one is sometimes tempted to refer to it as 'primitive'. As such, the *oru* is not only a traditional craft, it is also a primitive one, for, there does not appear to have been any improvement or a useful addition to it for the last two thousand years.[29]

But, is it undoubtedly so? If 'primitive' be taken, as in ordinary parlance, to mean 'early, ancient, old-fashioned, simple, rude' etc., such artefacts as the *oru* may be so described. However, its meaning is rather more specific in anthropology and tends to suggest an inferiority and poor quality of technology or of productivity brought about by the lack of inventiveness on the part of a people, their lethargy and conservatism. And in this respect a vital question may be posed: could any other watercraft dependent on locally available raw-material and suited for the purpose for which it was intended and adapted to the particular geographical environment have been better designed?

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28 *Palu* (that which controls': √*pāla*—'to control'; *pālēti*, Skt. & Pali)+pata (<*patra,* Skt.—'board' or 'blade'). The Sinhala Encyclopaedia erroneously regards this as synonymous with *habala*, 'steering paddle'; *SV*, *oruva saha aṅgula, s.v.*

29 'His rude forefathers did the same — Age after age without a change
To follow them his highest aim — In the same beaten track to range'

(Capt. Anderson in 'The Wanderer in Ceylon' – Lewis, 1914.7)

'Primitive' may perhaps be regarded as a somewhat apt adjective to describe the simplest version of the *oru*—the *piḷā oru* (see Ch. V)—if one may for a brief moment disregard the outrigger as an invention. But the washstrakes, the rudder, the rigging, the sail, the process of tacking etc. certainly point to an appreciable degree of experimentation and of inventiveness which transcends the limits of primitiveness.[30] Yes, the elaborate *oru* was evolved several centuries ago, but has survived unchanged because no change in its shape and construction could have been the better suited for the environment and for the purpose for which it was meant. One may hence agree with Raven-Hart (1952, 117–20) in posing: 'Ancient, yes, but primitive..?'

The presence of boat-building as an occupation pre-supposes the availability of tools and in a civilization such as that of the Sinhalas that built cities of wood and stone even during the pre-Christian times there need be no doubt about the availability of these and other equipment together with the necessary know-how. Implements such as the axe (*porova*), the adze (*vāya*), the borer (*kaṭu*), the chisel (*niyana*), the hammer (*miṭiya*), the needle (*idi* or *hidi*), the saw (*kiyata*) etc. are referred to in Sinhala classical literature.[31]

Next come the requirements in respect of tying and binding, and strings and ropes made of coconut fibre easily come into the picture. The coconut palm, though perhaps not endemic, has been a native of this island, no doubt, from the earliest times of human habitation; and this versatile palm has provided the essential raw material for the rope-making industry that is being carried on in the coastal villages. There is no popular substitute in Sri Lanka and, likely, there has never been one. And every bit of string and rope that went into the construction of the *oru* has been of this fibre and it continues to be so with recent substitutes occupying an extremely insignificant position.

Taken as a whole, the traditional nature of this craft is undoubted and, although such items of material culture have not totally disappeared from amongst peoples who have attained a high state of civilization, this may be one of the instances in the world where such a craft plays a significant role in the economy and the pattern of life of a present-day people. The secret lies, no doubt, in the fact that it serves its purpose adequately, standing well up to the dire adversities for which it is meant. Further, the test of centuries has demonstrated that, its seemingly frail construction notwithstanding, an accident occurs extremely rarely. As a consequence very likely, there was hardly any factor right down to this period of time which necessitated further changes and adaptations once the present stage of its evolution was reached.

A remark, though at the risk of being redundant, may be made of the fact that the builders of these canoes have limited the material utilized for their construction to local vegetal products only (except, of course, for the sail and the patch-work done during the present times) as noted by Capt. Anderson over one and a half centuries ago:

> 'The cocoa's husk the cord supplies—
> That every plank securely ties,
> And not a nail, a bolt or screw—
> Is found the simple structure fabric through' (Lewis, 1914, 7).

CHAPTER FOUR

The MAKING of an *ORU* in SRI LANKA

THE process of making an *oru* starts, as may be expected, with the selection of the right tree with .the required girth and maturity. It is felled, the branches lopped off and the maximum length of the trunk taken—all the work of an axe. It is next hewed and the two ends tapered upwards with an adze. The top is slightly flattened, and two lines are drawn of a solution of charcoal and water length-wise marking the area of surface within and beneath which the wood has to be scooped out. And then the slow, patient and vita1 work starts, sometimes with the aid of the adze and sometimes with the hammer and chisel. Not a chip more

30 For an account of the drill used to come about in the West coast *oru* see Grainge (2012, 160–1, 163).

31 These works, however, are of the post-ninth century era and do not belong to the earliest period of the island's civilization. Works compiled up to the ninth century in particular are presumed lost on account of various reasons.

than is necessary to maintain the required thickness of the hull is to be removed, and that quite evenly. With no measuring device, it takes a workman of no mean skill to execute this work satisfactorily well. Both the inside and the outside surfaces are next planed, and the dugout, with the major portion by far of the original log's bulk removed, is now ready to be transported to the shore area for further attention (Fig. 7).

Fig. 7 Hollowing out a logboat hull with an adze. From Kapitän, 2009, Photo 39

Fig. 8 Stitching with the 'envelope-flap design'

The choice of a thinner tree for the outrigger is similarly made, cut down and similarly planed. On its top, as thought fit by the artisan, two humps are left over, which are next perforated across horizontally (forming the *kanhiya* – for native terms see Glossaries) to take in the rope joining it to the two booms. The ends are tapered so that the termini curve upwards.

And still thinner and curved tree-trunks or branches are also made ready as the booms.

Once the hull *(kaṭupota* or *oru kaňda)* is removed to the shore area, a row of holes at approximately 8-cm spaces is bored over each of its two length-wise edges, and planks with corresponding perforations are attached alongside to form the washstrakes; and the binding is composed of a lining of coconut leaf, 5 cm in breadth, over which two thin strands of coconut-fibre rope are made to run in a design of two diagonals crossing within a rectangle—an 'envelope-flap design'—forming the *hevaniya* (Fig. 8). At the two ends of the washstrakes the angularly disposed transoms (each called a *midilla)* are similarly sewn. Next, this long jointing and any other incidental patch-work or joint are caulked over with boiled resin. A smooth wooden lining is fixed to run over the washstrakes forming the gunwale *(piṭa pōruva).*

Between the gunwales short planks are fixed, as may be desired, for the purpose of sitting down or to keep various implements etc., and short rounded wooden nails *(äniya kōṭu, avara kōṭu* and *tarappu kōṭu*) are driven across the washstrakes with the ends jutting out on both sides for the purpose of tying rope-ends or to place a person's feet when necessary etc. These also give added strength to the super-structural washstrakes (Fig. 9).

At about the middle, openings are made through the washstrakes to take in the rope that joins them to the central boom and a similar pair of holes is made a satisfactory distance away to take in the rope that lashes the second boom.

Thin coir rope is made use of for this purpose, and each 'round' is made fast by the aid of a lever, and hammered in tightly. With the outrigger too similarly fastened to the booms, each through the *kanhiya* (the hole in the 'hump'), the basic canoe can stand steady.

Fig 9 Tarappu kōṭu *(wooden pegs or cleats) in place*

Long sticks are placed length-wise along each boom, and are bound up tightly with coir rope to give added strength and a spring-like tension.

By the central boom a thick block of wood in which a socket has been dug with its 'lip' raised (the *kavaya)* is made fast across the washstrakes for the purpose of planting the mast (Fig. 10). (This requirement need not be satisfied if a sail is not intended.)

Fig. 10 Detail of the lashing of the central boom of a West coast oru*, showing the mast step (*kavaya*) for the secondary mast*

Fig. 11 This photograph of a West coast oru *show a* palla *(rudder plank) at one end of the hull and two at the other, which are changed one for the other when the* oru *changes tack (Grainge, 2012, 161–2, 166). From Kapitän, 2009, Photo 75*

At convenient distances rings of coir rope are attached to the gunwales to take in the handles of the oars.

At either end of the vessel a rudder plank *(palla)* is attached, its upper end set through a wooden nail or ring of rope, and the lower and loose end attached to a rope with which it can be raised or lowered; and two tapering pieces of wood *(palukuraṅgu),* arched upwards, are nailed to the hull to act as a buffer against which the rudders are made to move up and down. The *palla* etc., it must be remembered, are necessary only if the canoe has a sail (Fig. 11).

A stick *(kaḍise)* is tied horizontally to the central boom at about ⅔ of its distance from the hull, so that a good length of the former remains over the curving boom up to the distance of the outrigger. A few strands of rope are made to run between it and the boom, and the end of the stick is connected with a stronger rope to the end of the boom at the outrigger. The *kaḍise* is necessary only if the *oru* is to have a sail and the required rigging (Fig. 12).

In the case of the South coast canoe the single mast is slung with the aid of a wooden pin driven across it horizontally at its base, on the central boom by the hull; and the rigging (from the mast-top to the *tarappu kōṭu* at either end of the hull, to the end of the *kaḍise* and to *vāriya)* completed. In the case of the double-masted vessel of the West coast the main mast is similarly slung while the other is free-placed in the *kavaya* nearby (Fig. 13). The two masts stand in the form of a V, the tips of whose arms are connected by a rope on the sail's own top margin. The top of the main mast is connected to the *tarappu kōṭu* and the *vāriya*, while that of the secondary mast is connected to the *kaḍise* (see also *infra* Ch. V pgs 34–5).

A rope is made to pass from one end of the canoe to the other *via* the middle of the two booms; and another is made

Fig. 12 The kaḍise *lashed to the central boom. Also seen are the two humps on the outrigger and the* kanhiya *in them to which the booms are lashed, together with the stay running to the mast head*

Fig. 13 Reverse view of the central boom shown in Fig. 10, showing the foot of the main mast slung from the central outrigger boom, a feature the West coast oru *shares with the South coast* oru

to extend from the main mast at about shoulder height to the rigging (*vāvarē*) that runs to the *kaḍise* (Fig. 14). (This—the *atväla*—is to enable a boatman to cross on to the outrigger over the boom, if necessary, whilst at sea.)

Two or three strong sticks—generally bamboos—are placed over the boom, parallel and close to the hull, and fastened to form a small platform or shelf—*mässa* (Fig. 15).

In the making of the sail the cloth is first shaped and stitched as required. To reinforce its edges a 'lace-work' of thick thread worked over a strand of coir rope *(däl äs manda)* is fastened to the border. The sail is either left in the colour of the cloth itself, i.e., white, or is dyed brown by being soaked in the cooked extract of the peel of *kaḍol* fruits or of the bark of the *kayila* creeper.

This description outlines the process of building an outrigger canoe in Sri Lanka, as it also indicates the main components of one. Variations which do exist depend on the region, the size of the vessel etc., and are indicated in the fore-going where necessary.

An outstanding peculiarity of the *oru* is that both ends of the hull are identically shaped so that there is no difference between the bow and the stern. This is mainly because the outrigger has always to be kept to the windward when the sail is unfurled and, therefore, a prow at each end is indispensable in the process of tacking. Pliny (*Natural History*, VI, xxiv, 82) of the first century AD noticed this craft in the sea to the west of Sri Lanka (Taprobane) proceeding with either end foremost—*utrinque prorae*.

Fig. 14 The crewman standing on the boom is hanging onto the atväla *or lifeline running from the main mast to the* vāvarē. *From Kapitän, 2009, Photo 77*

Fig. 15 The mässa—*the bamboo platform rigged over the outrigger booms*

As far as the timbers selected for making various parts of the *oru* are concerned there appears to be a uniformity, except in a very few instances. They are generally hard woods that can withstand constant soaking, specially in saline water, as also the strong attacks by storms. The woods selected generally are the following:

for the hull: *bädi del, kos, mal māra* (*Artocarpus nobilis, Artocarpus integrifolia, Acacia leucophlora*)

for the washstrakes: *aṁba, hora, kos, raṭa del* (*Magnifera indica*, *Dipterocarpus zeylanicus*, *Artocarpus integrifolia*, *Artocarpus nobilis*)

for the booms: *doṁba, kaḍol* (Negombo), *pataṅgi, punna, sūriya* (Kaḷutara, Negombo) – (*Calophyllum inophyllum*, *Rhizophora mucronata* (Negombo), *Caesalpinia sappan*, *Calophyllum inophyllum*, *Thespesia populnea* (Kalutara, Negombo))

for the sticks that reinforce the booms: *pinibaru* (*Hopea jucunda*)

for the outrigger: *kohoṁba, luṇumidella* (*Azidirachta indica*, *Melia dubia*)

for the rudder: *buruta, halmilla, hun māra, kolon, kos, māra, milla, palu* (*Chlonoxylon sveitenia*, *Albizzia odoratossima*, *Adina cordifolia*, *Artocarpus integrifolia*, *Albizzia lebbek*, *Vitex altissima*, *Mimusops hexandra*)

for the mast: *cīna, doṁba, uṇa* (for double-masted canoes), *velaṅ* (*Calophyllum inophyllum*, *Calophyllum inophyllum*, *Bambusa vulgaris* (for double-masted canoes), *Pterospernum suberifolium*)

for the oar-blade: *aṁba, buruta, halmilla* (Bēruvala, Negombo), *kōn, kos* (*Magnifera indica*, *Chlonoxylon sveitenia*, *Berrya ammonilla* (Bēruvala, Negombo), *Scheichera trijuga*, *Artocarpus integrifolia*)

for the oar handle: *del, doṁba, hora, kaḍol, käppiṭiya, mal māra* (*Artocarpus nobilis*, *Calophyllum inophyllum*, *Dipterocarpus zeylanicus*, *Rhizophora mucronata*, *Croton laciferus*, *Acacia leucophlora*).

Once the construction of an *oru* is complete, the first launching is an occasion for a small-scale festivity. In the Catholic areas of the West coast and Batticaloa the priests bless the craft sprinkling holy water and lighting incense sticks before it is pulled down the beach. The fishermen offer prayers before setting off. Sometimes a special prayer is held within a church at which priests would say 'God bless these fishermen and this boat and protect them from calamity'. Eats and drinks are next served.[32]

The Moors of Negombo hold a short religious ceremony in the presence of a priest, after which alms are served. In Batticaloa in addition to recitals from the Koran, incense sticks are fixed to the canoe and lighted before it is launched.

The Buddhists of Bēruvala launch a boat only at an auspicious moment. In Trincomalee boiling milk is made to overflow, after which a feast of milk-rice and plantains is held, preceding the auspicious moment. Sometimes vows to deities are made in aspiration of the safety of the crew and good catches of fish.

A custom prevalent at Väligama is for the owner of the vessel to press his back against the transoms and lift his folded hands in salutation to the deities.

At Mātara the fishermen sprinkle sea-water on the vessel and salute it with folded hands before launching it.

At Kōṭṭagoḍa the fishermen make a salutation to the (Buddhist) Triple Gem and to the eastern direction before the launching.

At Dikvälla alms of *hāl kiri* are offered along with the presentation of lighted wicks dipped in ghee to the fishermen.

At Taṅgalla alms of *hal kiri* are offered.

At Hambantoṭa Buddhist fishermen make a salutation in the direction of the land before the launching.

The Hindus of Batticaloa select an auspicious day for the ceremony; they prepare milk-rice (*pōṅgal*) and offer it to their gods inclusive of Sürya, the Sun God.

In the Trincomalee area there is a general belief that a divine or a demonish spirit resides in a tree, and that he has to be pleased before the tree is cut down. The ceremony at the launching is held specially in his honour.

Once launched, an *oru* lasts at least 25 years dependent on the type of wood, mainly of the dugout hull. *Bädi del* seems to be the weakest and a hull made therefrom lasts the least. One made of *māra* lasts about five years or more, while one made of *kos* (jak) lasts the longest—over 20 years. The same may be said of the outrigger. These figures are, however, approximations as a record is hardly maintained of them.

Coconut oil is applied periodically (at intervals of 3 or 4 months) over the outside of the hull to render it water-proof. In Trincomalee and Negombo shark oil is, sometimes, applied.

32 A strong bond exists between the Catholic Church and the fishermen. Church societies or the Church itself helps them by granting loans tide over difficult periods, to buy implements etc. These are quickly repaid. The Church also settles any disputes, and holds occasional prayers for the protection and general welfare of the fishermen.

The various lashings of the *oru* which are vital for maintaining the strength of the craft are replaced after a 12 or 18 month interval. In the South this task is generally performed after the Sinhala New Year festival (13th or 14th April) in preparation for the next fishing season starting off in about May.

The *hevaniya* is not cut up and replaced frequently. This binding does not take a strain, but it has to be recaulked frequently to keep it water-proof.

A sail's life-span depends on its strength and on the amount of beating that it can take. Sometimes a new sail may be torn to shreds by the very first gale it may encounter! Under normal circumstances, however, a sail lasts about five years.

Of any dugout outrigger canoe it is the boom, of all its parts, that comes under almost constant and, at times, the most tremendous strain; and a broken boom means, invariably, a capsized hull. If a mast, rigging and sail stand the onslaught of a gale-force wind and the outrigger remains buoyant, a weak boom—just one of the pair—can spell death to the crew. Hence, at least the reinforcing sticks are replaced with fresh lashings almost every six months. The booms last approximately three years.

There is not much ornamentation evident in the Sri Lanka canoes. Comparatively few examples of simple drawings flowers and fishes and crosses may be seen on the washstrakes of some. The East coast Moors sometimes paint their hulls and draw floral patterns over them (in the same way as they decorate their bullock carts) as may be seen at Ulle, south of Potuvila.

As may be seen from Chapter II, the Pacific Ocean area is the world's major dugout outrigger canoe zone, and a comparative study of this canoe as found in this region with its Sri Lankan counterpart may be worthwhile.

There are no 'sacred canoes' in Sri Lanka or types of canoes each belonging to a social class as in New Guinea. Neither are canoes communally owned in Sri Lanka.

The Sri Lanka canoes are mediocre in size when compared with, specially, the Samoan ones some of which measured 45 m in length. The former also do not have V-shaped keels as those of New Zealand. Further, both ends of the typical Sri Lanka canoe are tapered upwards unlike in some of the Pacific region in which the stern rises vertically.

As in the Marshall and the Gilbert Islands, bread-fruit (*del*) is a timber used for the hull. *Callophyllum (doṁba)* is not used for the hull in Sri Lanka, although this is so done in Tikopia.

No Sri Lankan canoe has more than two booms although many in New Guinea, for instance, have over ten each; and in all canoes of Sri Lanka the booms are lashed directly to the outrigger. Platforms built on the booms are a common feature in the Pacific region and any corresponding structure in the Sri Lankan canoe is limited to a shelf composed of a few timbers, rope and netting.

There are no instances in Sri Lanka where the base of the outrigger is flattened as in New Zealand.

The rigging in Sri Lanka is of coir rope (sinnet) and not of rattan.

The sail in the Pacific region is invariably lateen, and is in the shape of a rather elongated isosceles triangle with the short base more or less vertical, 'and never horizontal, when the sail is hoisted. What appears as a lateen sail in Sri Lanka is, in shape, a right-angled triangle with the hypotenuse on top. The other local sail types are rectangular and square (see *infra* Ch. V pgs 34–5).

There is no second yard or boom attached to the foot of the sail in Sri Lanka, although such a contraption is evident in the Pacific area. In the former thick cloth, and not any leaf, goes in to make the sail. Tacking is practised in both regions.

Canoe houses are not evident in Sri Lanka. Sometimes (as at Hikkaḍuva) the hulls only are sheltered under thin long arch-shaped cadjan 'hoods'.

The practice of naming canoes and painting (generally the washstrakes and the caulked binding) and beautifying them with simple drawings (flowers, fish, crosses etc.) appears to be gathering momentum in Sri Lanka of late. A name may be that of the son or daughter of the owner, or even that of a popular movie or, in

the Catholic localities, a saint. Names sometimes reflect the owner's lowly state: *Asaraṇayā*—'the helpless one', *Duppatā*—'the poor one', *Duppatāge Duka*—'the poor man's sorrow' etc. These works of art can hardly be regarded as magical in intent, although the ornamentation seen on the Pacific canoes are particularly so.

Rites performed in the process of construction, launching etc. of a canoe are not as elaborate as those known in the Pacific region. What is available in Sri Lanka are simple religious rites accompanied by an offering of alms in most cases, and there is neither prolonged feasting and dancing nor the performance of sacrifices as in the Pacific region. Only in the Trincomalee area is a forest spirit appeased before cutting down a tree for making a canoe; he is also propitiated at the launching.

Collective effort in the building of a canoe is not as evident in Sri Lanka as it is in the Pacific region.

There is also a distinction in the purpose for which the outrigger canoe is utilized in the two regions. In the vast Pacific area it is a very common means of transport both of persons and of goods, the accommodation being provided also by the platform and the occasional cabin built over the straight and horizontal booms. It has to be so because the physical environment of the region makes it imperative that whatever be the watercraft it has to be the principal means of transport. This, however, does not mean that fishing is a secondary function here. In Sri Lanka the *oru* is not a means of transport except across a few tracts of still water such as lagoons and river-ferries, and the position of importance it once held even here is now declining. Fishing is, by far, the only function of the *oru* in Sri Lanka.

It would now be useful to make a preliminary study of the implements that are being used in the process of fishing from an *oru* in Sri Lanka.

The *pitta* (rod), the *väla* (line) and the *biliya* or *bilī kaṭṭa* (hook) with the *āma* (bait) is one unit. The rod is usually the main rib of a frond of the *kitul* palm. Being tenuous it bends without breaking, so that is can take the weight of a fish of average size.. The line of today is of nylon (which has taken the place of the one made of several strands of cotton thread woven together, in use approximately 30 years ago). About 30 cm of steel wire is attached to it, and at the very end is the hook. Sometimes the line is dropped into the water, jerked out and dropped again, sometimes swayed to and fro in uniform movements, and sometimes is jerked along the surface, the variations of movement depending on the fish present. The last method called *kahav gāma* in the South is specially to catch the *koramburuvā* (*Clupea* (*Harengula*) *moluccensis*). The rod to catch the *balayā* (bonito) of the deep sea is of *uṇa,* bamboo.

The *yota* (line) of the present times is of nylon thread of varying thickness depending on the size of the fish hunted. It was once several strands of cotton thread inter-twined over which the crushed bark of the *kayila* creeper was rubbed to make it water-proof. The lines are also of varying lengths depending on the depth of the area of sea over which the operation is carried on; and greater lengths are also required for trailing the hooks at speed. At the end of the line are a lead weight and the hook with a fish-bait—octopus being the favourite; and there may be several hooks throughout a good portion of the length of the line.

The *däl* (nets) are of three kinds:

i. *at däl* ('hand nets') or *vīsi däl* ('throw nets') which are about 1.5 m in radius with lead weights *(baru)* attached to the edge, and which are cast to the water with a twist of the elbow

ii. *kaṭṭi däl* ('area nets') which are deployed over the water-surface with the help of buoys and weights in the deep sea, and with stakes in lagoons and estuaries,

and

iii. *mā däl,* the big seine nets which are carried in vessels for laying over the water encircling a shoal of fish.

Dugout outrigger canoes are made use of for laying all three types, although for the last, large flat-bottomed vessels (*pāru*) too are employed in many areas. The following are some of the items of other gear used:

i. The *avulambiliya:* the iron hook of 30 cm in length with a wooden handle to hold fast and raise fairly large fish on to the canoe.

ii. The *maspolla:* the wooden cudgel to beat the fish on the head as soon as it is caught.

iii. The anchor: In the South a stone of about 10 kg in weight attached to a rope functions as a very simple anchor. On the East coast it is a stone of about 5 kg in weight lashed to the end of a pole 0.9–1.2 m in length; at the other end of the pole is a stick of about one inch in thickness tied to form an acute angle with it: and the rope is attached to the hook thus formed. On the West coast two or three disposed-of railway line base-plates or fish-plates, or short simple iron rods are attached to a somewhat pyramidal frame-work of sticks, and the whole contraption is attached to a rope at the top.

iv. The *mayiyama:* a simple contraption made of a wooden board and a long line with a lead weight (*baru*) on one end. When thrown to the water the *baru* sinks to the very bottom enabling the crew to measure the depth of the sea where they are. Further, with the line not stretched to the full, the light wooden board drifts away to a distance if there is a current, thus enabling the crew to understand the direction of the drift. The *mayiyama* is known specially in the Kaḷutara area.

CHAPTER FIVE

TYPES of *ORU* in SRI LANKA, their DISTRIBUTION and DIMENSIONS

THE following types of the dugout outrigger canoe may be observed on the coasts and the inland water tracts of Sri Lanka:

I.i. The *piḷā oru* (Fig. 16)

This is the simple and primitive type and is composed of:

i. the dugout hull

ii. the booms

and

iii. the outrigger.

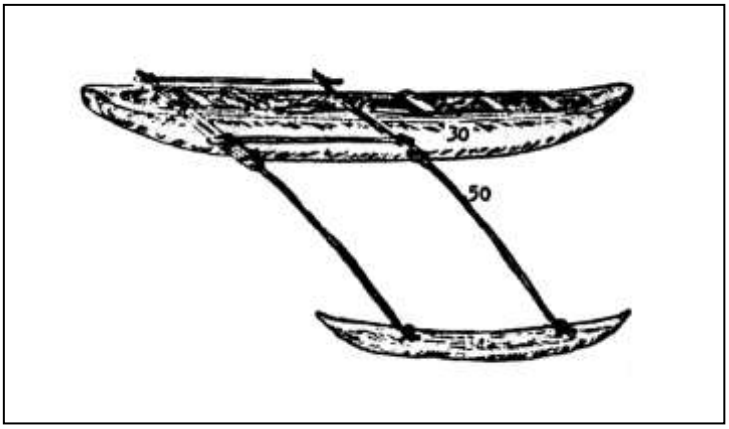


Fig. 16 The piḷā oru*, with the dug-out hull (*kaṭupota *– 30) and the outrigger boom (*viyala *– 50) marked. Drawing by Dharmasiri Kāriyawasam*

The low hull standing no more than 30 cm in height (20 cm in many cases) does not make demands on curved booms which are, therefore, straight poles lashed to the hull and the outrigger, which itself is a similar pole, often not tapered. The hull may even be 1.5 m in length, and each of the booms and the outrigger, 1.2 m. The *piḷā oru* is paddled by one person seated on a plank nailed to the hull at the stern, facing forward; he manipulates the paddle by holding its handle with both hands—the left placed higher—and does so alternately on both sides of the hull to keep it on a straight course; there is no rudder, and if he wishes to turn left, he keeps paddling more on the other side. There may be another occupant (if the vessel is large enough) who may also paddle. In the majority of cases these vessels are seen on the comparatively still waters of lakes (Beira in Colombo), lagoons (Negombo, Doḍanduva, Koggala, Batticaloa etc.) and rivers (Kaḷu, Ben, Gin, Nilvalā etc.). In the extensive and, at times, rough Koṭṭiyār Bay (inclusive of the Trincomalee Harbour) many of these, owned particularly by Moor fishermen of the Muttūr area, may be observed. Light and simple as they are, they may even be paddled by small boys.

These are employed for rod-fishing, setting up nets and traps and collecting the trapped fish. Dozens of them may be seen in the Batticaloa lagoon where a fisherman standing on the stern casts his throw-net into the water. The majority of them are sail-less. On the Southern lagoons they are also used to pick water-flowers (*ōḷu* and *neḷum)* and the fruits of the *kirala* that grow on the fringes. Over these shallow stretches even girls may be seen paddling them. A few are observable on the placid Mannar lagoon, too.

I.ii The *piḷā oru* with the gunwales

This version shows a slight advancement over the above type because the brim is lined with a wooden strip forming the gunwale with, sometimes, a curved and pointed prow-board. Such vessels are very much in evidence on the East coast lagoons, and are owned by Tamil and Moor fishermen. A square sail hoisted on a mast fixed to a short foot nailed to the bottom of the dugout, or a rectangular one hoisted on a main mast, and another on a 'sub-mast' tied angularly to it at about a third of its height may sometimes be seen on this type of craft.

Fig. 17 A boy, who will pole this kaṭṭi däl oru *from the bow, waits for the fisherman, who will paddle it from the stern. Negombo Lagoon, from Kapitän, 2009, Photo 55*

II. The *däl oru*

Canoes of this type are a larger version of type I and, in keeping with the size, are more strongly lashed. The outrigger is heavy and shaped, and is not merely an unchiselled pole. Some are over 7.5 m in length. They are specially meant for net-fishing in the lagoons the quiet waters of which do not make demands on washstrakes, and the absence of height renders the performance of the intended tasks quite convenient. Vessels of this type may be seen in Negombo, Chilaw etc. There is no sail, and the craft is paddled forward as in the case of the *piḷā oru.* They are sometimes known as *kaṭṭi däl oru,* specially in the Negombo area (Fig. 17), and as *kullā*[33] in the Batticaloa area where the term is also used for the canoe with the washstrakes too.

III.i. The *oru* with washstrakes (Fig. 18)

This is composed of:

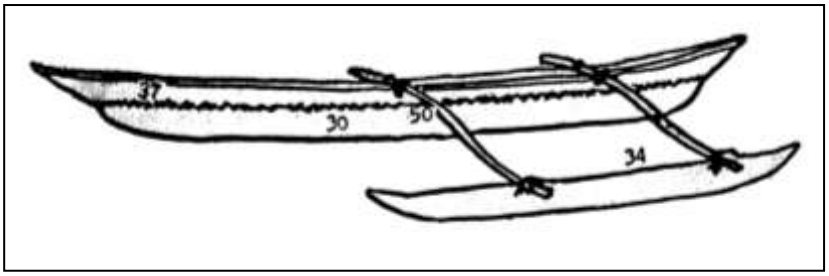
i. the dugout hull

ii. the straight and parallel washstrakes meeting squarely the narrow transoms (at the two ends)

iii. the curved booms

and

iv. the outrigger.



Fig, 18 Oru *with washstrakes* (kuḍa oru *or* kuḍā oru), *with the dug-out hull (*kaṭupota – *30), the outrigger (*kollāva – *34), washstrakes (*lāli kūḍuva – 37) *and booms (*viyala – *50) marked. Drawing by Dharmasiri Kāriyawasam*

This is the most numerous of all local watercraft and may be seen over a major part of the coastal stretch southwards from the Kalpiṭiya Peninsula (in which the village Kandakuli may be regarded as the northern-

33 Casie Chitty (1854, 44) uses *kullah dhoney* for the *oru* of the Galle area.

most point where permanent settlers own this canoe), round the full stretch of the Western, South-Western and Southern coasts as well as the Eastern and the North-Eastern coasts (though not with the same continuity, from Pānama to Mullaitivu). Those of the type may also be rarely seen on rivers and river-ferries (as at Mātara on the Nilvalā) and lagoons (as at Doḍanduva). Of the several thousands found in the island a majority, by far, belongs to Sinhala fishermen.

These are rowed by means of (two-piece) oars (blade and handle) levered on either side of the hull against the gunwale (or near about) by the crew that faces stern-wards, or a sail gives them motive power. The small ones—*kuḍa oru* or *kuḍā* oru—may be managed by one man, but the biggest ones—*bala oru* or *häḍi oru*—may take eight as crew, and those of the average size may have two or three.

On the East coast these are sometimes referred to as *gandara oru,* because many fishing families from the Southern hamlet Gandara have settled down on various localities here with their *oru* vessels.

III.ii. The transom-less *oru* with low washstrakes

These are evident on the Kaṭukurunda and Payāgala coasts on the Western sea-board. The washstrakes are only about 10 cm in height. Ėach end of the (transom-less) hull is bored to take in a ring of rope with the aid of which the craft can be dragged up the beach. These have no sails, and are meant for net-fishing within a short distance of the coast.

III.iii. The *mā däl oru*

Further south on the same coast at Hikkaḍuva and Gintoṭa may be seen large *oru* vessels (60 cm beam and 1.5 m high from the ground to tip of transom) having a comparatively short and light outrigger. These are used to carry the seine-net *(mā däl)* out to sea. The hull-side ends of the two booms are made to protrude 60–90 cm from the washstrakes so that more men can place their backs to haul the loaded canoe down to the waves. Further, two parallel timbers are made to project 1.2–1.5 m out of the transoms as an extension of the gunwales to provide for a seat for an additional oarsman. These canoes are also sail-less, and are not used far from the shore (Figs 19 and 20).

Fig. 19 Three mā däl oru*: seine-fishing under way. The* mā däl oru *offshore is following the net bag. Of the two* mā-däl-oru *beached in the foreground the one to the right is already prepared to go out fishing again. From Kapitän, 2009, photo 69*

Fig. 20 A mā däl oru *showing the configuration of the oars up forward in the bow. Also visible in the photograph is the extension of the hull-side end of the forward outrigger boom, which allows the shore crew to launch and recover the log boat. From Kapitän, 2009, photo 70*

III.iv. The *piḷā oru* with washstrakes

On the East coast these vessels with thin washstrakes of only 3–10 cm in breadth may be seen. The transoms are sometimes disposed vertically.

IV. The *vallam* or *vallam oru* (Fig. 21)

This vessel has the usual dugout hull over the sides of which are the washstrakes which are not straight and parallel as in type III, but are curved to meet at a point at the bow and at a flat vertical board at the stern; and

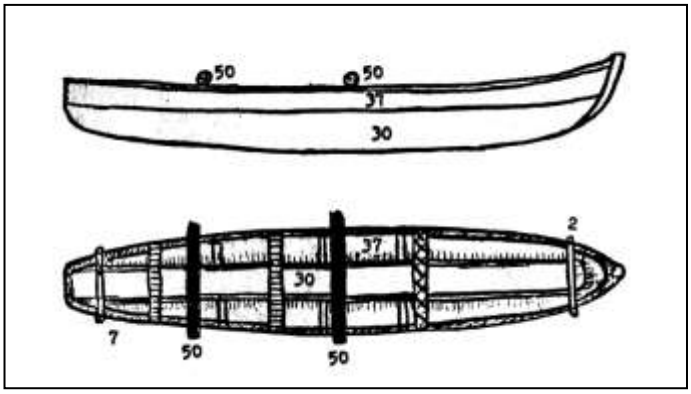


Fig. 21 Vallam oru, *with the dug-out hull (*kaṭupota – *30), washstrakes (*lāli kūḍuva – 37) *and booms (*viyala – *50) marked. Also marked are the* äniya kōṭuva *and the* avara kōṭuva *(wooden pins connecting washstrakes in the bow and stern – 2 and 7). Drawing by Dharmasiri Kāriyawasam*

they also do not rise vertically but open outwards, thereby resulting in a broad beam specially at the centre. These are used for net- and bait-fishing, the larger ones specially employed to carry the seine-net out to sea. They may be seen on the still back-waters and in the sea close to the shore, and are mainly distributed over the East coast from Pānama in the south to Mullaitivu in the north barring, of course, the desolate unpopulated tracts. They are also seen at Bēruvala (SW coast) and in a few other localities further south—Hikkaḍuva, Doḍanduva, Ratgama and Gintoṭa, having being introduced from Bēruvala barely twenty years ago.

A special feature of this *oru* (also called *tōni* on the East coast) is the prow-board. These roughly triangular wooden appendages of about 25 cm in height are fixed to the bow end over the washstrakes (which meet at a point), and even at the stern in very rare instances. These are ornamental in intent, there being no apparent functional role. They are plain, with the abruptly rising sides slightly concave and the top flattened.

The *vallam oru* thus, with a prow-board and a transom at the rear has a distinct bow and a stern unlike in the other types. This is likely owing to an influence from the Pacific region (see *supra* Ch. IV pg. 28).

Small versions of this canoe (2.5 m long and 30 cm high) may be seen throughout the East coast. Large ones (6 m and 60 cm respectively and over 60 cm in the beam) may be seen, for instance, in the Back Bay and the Dutch Bay of Trincomalee. The height makes curved booms necessary in the case of the latter.

These canoes do not have a fixed rudder, the steering being done by the leader who sits at the stern facing forward with a (single-piece) long bladed paddle. He generally plies it on both sides alternately to keep his craft running straight on, or more on one side to effect a turn as desired. His companions would ply a very crude paddle—a mere coarse plank shaped circular or oblong fixed to a pole. When beached, the rudder-paddle is generally hung on two loops of string on the hull on the outer side parallel to the ground.

The outrigger is lighter and proportionately shorter than in an *oru* of type III.i, for instance.

A sail too can be fixed to the larger ones. The mast is 2.5–3.0 m high and is planted in a socket — the mast-foot made fast, not to the washstrakes or a boom, but to the bottom of the dugout. The sail is generally in the shape of a square (of about 1.5 m each side in the smaller) and is held on a spar tied to the mast-head. The rigging is in the usual manner.

The outrigger, in general, is short, and the proportion of its length to that of the hull is about 1:2, which is smaller than that in the case of type III.i.

These vessels are sometimes hauled on the beach over log rollers; and in the Batticaloa lagoon they may be seen drawn up over a roller and a stilt above the level of the shallow water.

Examples also may be seen on the East coast of *vallam* hulls, comparatively broader and shorter than those referred to above, setting out to the water with two booms and an outrigger inside them to be taken out and lashed in the proper manner if the wind rises and the water surface tends to be choppy. Such a practice is known to the Kilakarni coast of South India on the Palk Strait (Hornell, 1946. 256).

There are also three sail types, on the basis of shape, seen in the dugout outrigger canoes of Sri Lanka:

1. The lateen sail
2. the rectangular sail

and

3. the square sail.

1. The lateen sail (Fig. 22):

This sail, in reality, is a trapezium. It is held on a yard hung on a single mast at an angle of approximately 45°; and with the length of the vertical side on the bow comparatively very short, the sail as a whole is seen at a distance in the shape of a right-angled triangle (with the vertical side on the stern, the base at the foot and the yard forming the hypotenuse). The bottom apices are connected to the two ends of the dugout by the rigging. When not in use, the sail is furled around the yard which is kept attached to the top of the mast (as usual), and the mast itself is not brought down. This sail is evident over the Southern coast and in other areas to which the fishermen from here have migrated permanently or for a season: Trincomalee, Batticaloa, Potuvila etc. This sail shape, it may be mentioned, is common to other areas of the Indian Ocean and may be seen on the Maldivian *bagalās,* the Arab *dhows* and the *hōras* and *bēdis* of Pakistan (*MI*, 1, 73; *EB*, *s.v.* dhow; Traung, 1960, figs 46, 49 etc.).

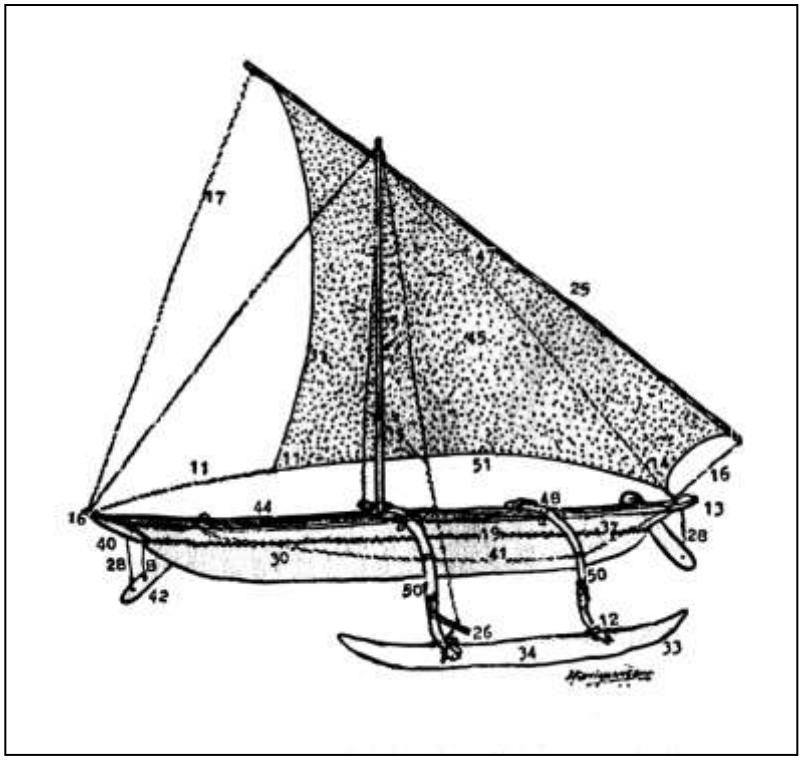


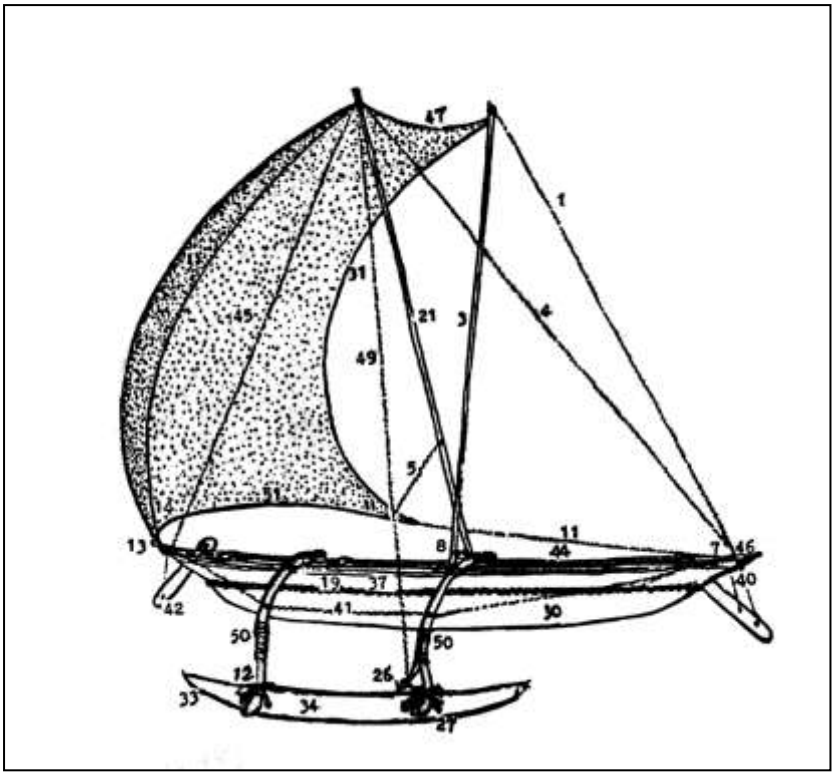
Fig. 22 South coast oru rigged with a lateen sail: 5 atväla *(lifeline), 8* baḍa rāna *(cord for lifting/lowering the rudder/leeboard), 11* dāmānaya *(sheet), 12* diya bämma *(lashing boom to outrigger), 13* gohubāna *(tack), 14* gohuva *(further sheet), 16* haṭakalē *(rope connecting bow and lower end of yard (25), 17* hēḍāva *(rope connecting stern and upper end of yard (25), 19* hevaniya *(coir rope stitching), 25* kaḍagaha *(yard), 26* kaḍise *(pole lashed to main boom over outrigger), 28* kassaruva *(rope attached to lower end of rudder), 30* kaṭupota *(logboat hull), 31* kavuḷuva *(leach), 33* kollä talla *(underside of outrigger end), 34* kollāva *(outrigger), 35* kuṁba gaha *(mast), 37* lāli kūḍuva *(washstrakes), 40* midilla *(washstrake end boards), 41* pahakona *(outrigger stay), 42* palla *(rudder/leeboard), 44* piṭa pōraya *(gunwale), 45* ruvala *(sail), 46* tarappu kōṭu *(cleats), 47* uḍuturāva *(head of sail), 48* vāriya *(leeward extension of boom), 50* viyala *(outrigger boom), 51* yaṭa turāva *(foot of sail). Drawing by Dharmasiri Kāriyawasam*

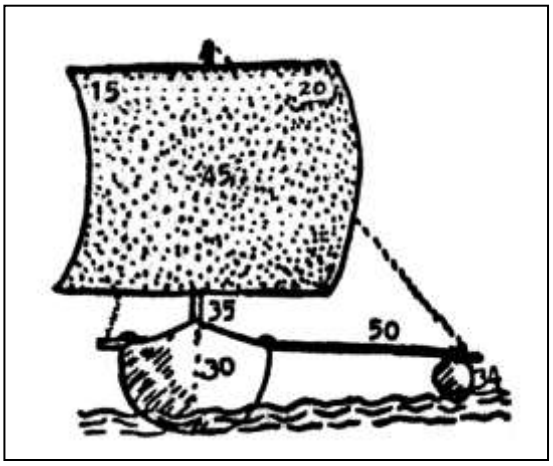
2. The rectangular sail (Fig. 23):

This is the sail of the double-masted *oru* seen mainly on the West coast from Alutgama northwards to Kandakuli, and on the East coast localities (ex. Trincomalee, Batticaloa) to which fishermen from this coast migrate occasionally, The longer sides of the sail stand vertical when unfurled, and the top apices are tied to the tops of the two masts, while those at the bottom are connected by rope to the bow and the stern of the canoe. When greater speed is necessary, or when the load to be carried is relatively heavy, a second and smaller sail is sometimes hoisted between the main mast and a third (short) mast erected to stand angularly away to one side of the canoe. This ancillary sail is evident in the Negombo and Moraṭuva areas—to a greater extent in the former. When not in use the sails are furled, folded and the masts bought down and laid over the booms or the hull itself. A sail hoisted on two masts may be seen on similar canoes of a part of Madagascar as well (Hornell, 1946, 270 and fig. 65).

This sail is sometimes referred to as *mōriya ruvala* in the Kaḷutara area.

No reason may be adduced for the adoption of these two sail techniques—the lateen and the rectangular—each in its particular coastal stretch of Sri Lanka. For, a mutual difference in the geographical environment or any other causal factor is not evident. The canoes themselves are identical in design, and the performance of the one sail is as good as that of the other.





Figs 23 (left) and Fig 24 (above) West coast oru *rigged with a rectangular sail and East coast* oru *rigged with a square sail: 1* accu yota *(vang) 3* atlī kuṁbaya *(secondary mast), 4* atyota *(backstay), 5* atväla *(lifeline), 7* avara kōṭuva *(cleats at stern),8* baḍa rāna *(cord for lifting/lowering the rudder/ leeboard), 11* dāmānaya *(sheet), 12* diya bämma *(lashing boom to outrigger), 13* gohubāna *(tack), 14* gohuva *(further sheet), 15* gōmāyammulla *(top starboard corner of sail), 19* hevaniya *(coir rope stitching), 20* hīnamulla *(top port corner of sail), 21* hiṭuvana līya *(main mast), 26* kaḍise *(pole lashed to main boom over outrigger), 27* kanhiya *(hole in outrigger for lashing), 30* kaṭupota *(logboat hull), 31* kavuḷuva *(leach), 33* kollä talla *(underside of outrigger end), 34* kollāva *(outrigger), 35* kuṁba gaha *(mast), 37* lāli kūḍuva *(washstrakes), 40* midilla *(washstrake end boards), 41* pahakona *(outrigger stay), 42* palla *(rudder/leeboard), 44* piṭa pōraya *(gunwale), 45* ruvala *(sail), 46* tarappu kōṭu *(cleats at bow), 47* uḍuturāva *(head of sail), 49* vāvarē *(windward shroud), 50* viyala *(outrigger boom), 51* yaṭa turāva *(foot of sail). Drawing by Dharmasiri Kāriyawasam*

3. The square sail (Fig. 24):

This may be seen on the East coast, specially in the small vessels belonging to Moor fishermen. These are hoisted on a yard disposed at a right angle to the mast, and sometimes between a main mast and a (secondary) gaff tied angularly to the former at about a third of its height. Such sails which are slightly longer vertically may be seen at Kalkuḍā. When not in use the sail, the mast and the rigging are placed within the canoe.

Historical evidence as regards these sail types is scarce except for a few paintings and sketches executed by European artists during the last four centuries. A sketch entitled 'Die Stadt Colombo' and 'La Ville Colombo' (1656) shows, in the distance, an *oru* with a rectangular sail (PR. 65, National Museum, Colombo). So do the 18th-century sketches by Jansen, a German visitor (Raven-Hart, 1952, pls 49, 63–6, 82 etc.). The sail seen in the painting of the 'Fort of Galle from the Island of Closenburg' (Day & Son, London, 1864) is triangular. No such representations are available of the square sails of the East coast.

The longest *oru* vessels of Sri Lanka are over 9.0 m along the gunwales as measured from tip to tip, and are found in the following order: Hikkaḍuva (11.18 m, 10.87 m and several over 10.7 m), Trincomalee (10.06 m and 9.75 m), Väligama (10.01 m), Taṅgalla (9.91 m and 9.75 m) Kaluvañcikuḍi in

Batticaloa (9.83 m), Negombo (9.22 m and 9.14 m) and Kōṭṭagoḍa (9.14 m). In respect of height, an *oru* at Hikkaḍuva comes first (1.73 m at the tip of the transom and 1.37 m at the middle), with those of Kōṭṭagoḍa (1.68 m and 1.35 m), Kaṭunēriya (1.37 m), Väligama (1.32 m and 1.22 m) and Trincomalee (1.30 m) coming next in order.

It is rather difficult to say where the smallest is, as some of the *piḷā oru* type are just over 1.5 m in length. In the Koṭṭiyar Bay there are many small vessels both with and without washstrakes of around 2.5 m in length and no more than 20 cm in height. If those with washstrakes that venture out into the open sea are considered, a canoe at Taṅgalla which is only 2.64 m in length and 61 cm in height may be considered the smallest. A few of less than 3 m may be seen at Bēruvala and Kōṭṭagoḍa (2.74 m), Väligama and Moragolla (2.79 m), Dikvälla (2.87 m), Moragolla (2.95 m) and Hambantoṭa (2.97 m); and those of 3 m are found at Taṅgalla and Trincomalee. A maximum range in the size of the *oru* may, therefore, be observed at Trincomalee, Väligama, Taṅgalla and Kōṭṭagoḍa.

A few *oru* vessels at Kaluvañcikuḍi (Batticaloa), Trincomalee, Taṅgalla and Negombo have hulls with a diameter of over 60 cm, while a few at Hambantoṭa, Dikvälla, Mātara, Väligama, Bēruvala and Kaṭunēriya possess those of 60 cm. The width at the washstrakes is generally narrow with 51 cm being the widest observable in a canoe at Trincomalee and 36 cm coming second in two at Taṅgalla and Hikkaḍuva and a 'span breadth'—approximately 20 cm—appears to be the common beam dimension. In the case of the *vallam oru* this is very much wider with 38 cm at the stern increasing to over 60 cm at the centre, a feature which distinguishes this craft from the straight and narrow beamed *oru.*

There is no strict proportion between the lengths of the hull and the outrigger, although in all cases the latter is shorter. In Taṅgalla, for instance, an 5.5 m outrigger is attached to a 9.75 m hull (proportion a little over 3:5), while at Kōṭṭagoḍa a 8.25 m outrigger is attached to a 9.75 m hull (proportion 9:11). On the Muttūr coast may be seen several of the *piḷā oru* type in which the hull is 2.5 m and the outrigger 1.25 m (proportion 1:2), and an extreme case may be recorded on this coast itself in which a hull of 4.5 m is attached to an outrigger of only 1. 5 m (proportion 1:3). Such a craft may traverse only over still water tracts.

Neither can the distance between the hull and the outrigger (i.e. the length of the booms measured straight) be strictly related to their respective lengths. In the small craft at Muttūr the hull may be 2.5 m and the distance 1.25 m (2:1). At Devinuvara figures of 7.5 mand 3.0 m (5:2) are observable. At Mātara lengths of 7.5 m and 2.5 m (3:1) and at Hambantoṭa, of 8.25 m and 4.5 m (9:5) are evident.

Outriggers with the greatest circumference (measured at the middle) may be observed at Kōṭṭagoḍa (1.2 m), Devinuvara and Väligama (1.2 m), whilst in most localities it is 60–90 cm in the bigger canoes. In the *piḷā oru* of the East coast the outrigger is a mere pole of 25 cm, in circumference, and is roughly lashed to the still thinner booms.

There also does not appear to be any criteria in determining the height of the mast. Unless it be that a mast has to be replaced to accommodate an already available sail, the height of the former seems to depend on the whim of the owner and the length of the timber at hand. Masts of over 6 m are observable at Trincomalee, Negombo, Kaḷutara and Taṅgalla and in those very localities shorter masts may be seen on canoes of equal or, sometimes, of greater length.

Though opinion may differ on whether the *oru* is only ancient without being primitive or whether it is both ancient and primitive[34] (see *supra* Ch. III pgs 22–3) no disagreement exists regarding its effectiveness—that it has served its purpose throughout its history, and continues to do so. It is also hardy and stable, and with a good wind the sailing *oru* is as fast as a modern mechanical fishing craft and equally dependable. Is it not, then, a technological achievement, although in design it may belong to a two thousand year old past?

34 The coracle of the Welsh fishermen is regarded as a craft which is both ancient and primitive—'a comic sight and the most primitive to be found in the twentieth century' (Wymer, 1946, 100). So are the vessels of Patagonia and the Euphrates-Tigris region and of the Missouri Indians (Beals and Hoijer, 1954, 350).

Up to the very recent times no metal was used in the construction of the *oru* and every pin and reinforcing rib is of wood, the lashings are of coir rope and the joints of coconut leaf and coir string. It is likely that the sail of old was woven of coconut leaf strengthened by criss-crossing coir rope. So was it during the early 17th century as noted by Petrus Plancius (Brohier and Paulusz, 1951, 11, 39) and during the early 19th century, as noted by Cordiner (1807, I, 58). Today, however, nails and sheets of copper are used in patch work and sails are of thick cotton fabric—these being the only 'modern' features of the canoe.

The structural differences evident in the hull, the booms and the outrigger of canoes in various localities are intended, no doubt, to suit the particular environment as much as for the best performance of the intended tasks.

The absence of a distinct bow and stern in the more numerous *oru* vessels (except for the *vallam oru* that is), which factor enables the craft to sail either end foremost, is likely a unique character of this type of vessel.

It has, however, to be admitted that the *oru* has not been designed with an eye on the comfort of the occupants. The space between the washstrakes—the beam—allows hardly any freedom of movement within it, and no attempt has been made (except in the net-carrying *vallam)* to broaden this space. The men have to keep standing or sit on the thin gunwales or on bits of hard plank fixed between them; and no thought has been given to the provision of more comfortable and wider seats. Although a relatively spacious platform may be formed with planks or bamboos over the two booms, that possibility too has been ignored. Such a platform can certainly accommodate much of what is being carried and it can even provide sitting space for the boatmen when the craft remains stationary in water or enable many of them to lie down during any occasion of inconvenience. A small cabin built over this platform is not an impossibility either, at least over the larger canoes. A long narrow platform may be built over the jutting ends of the two booms on the outer side of the hull.

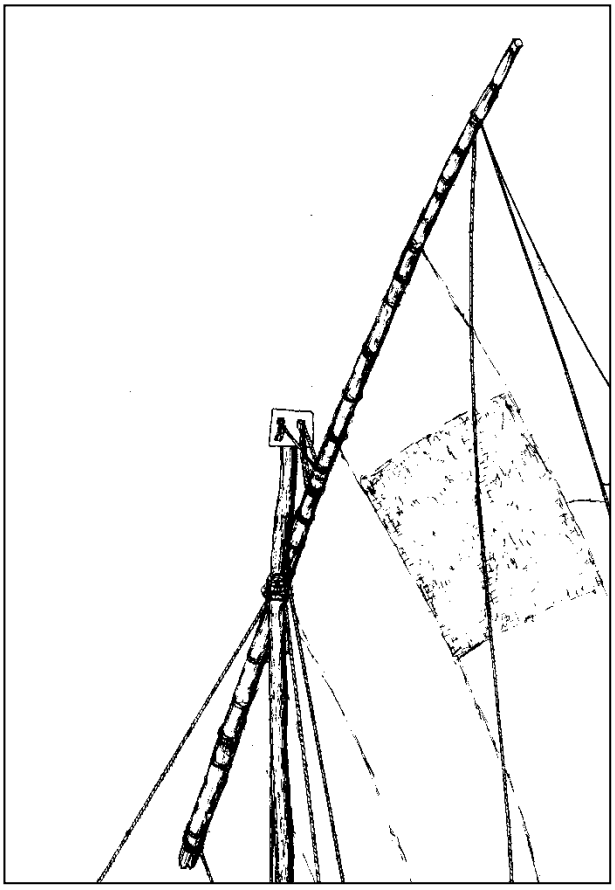


*Fig. 25 Rotating block (*kōvāna*) at the head of the mast of a South coast* oru. *Its ability to rotate allows the sail to the hoisted either side of the mast, enabling the* oru to procede either end forwards *(Grainge, 2009, 177–8). Detail from Kapitän, 2009, drawing 33b*

These features, i.e. the platform and the cabin, it may be remarked, are known to certain regions of the Pacific such as the Society Islands and Fiji (UNESCO, 1975, Panels 28e and h). They were also known to the *oru* of Sri Lanka of the 19th and the early 20th centuries. Tennent (1859, 44) refers to a 'wicker-work smeared with clay' over the gunwales and Lewis (1914, 8) mentions the 'roofed platform' of an *oru* in which he travelled from Negombo to Jaffna as a passenger.[35] There is no reason to believe that these structures were unknown to the local canoes continuously during earlier times, although no evidence of such presence is available in the island's literature, archaeology etc., except for the reference to such platforms of 2000 years ago (See *supra* Ch. III pg. 17).

Further, the frail rudder can be substituted by one of the type seen on many watercraft today—the one with the tiller attached to the stern of the vessel—and which is easier to manipulate. The wheel—an item which can be very useful specially in the rigging—is hardly known in this canoe; and in the absence of a pulley block mechanism every rope is pulled and tightened around a piece of rounded wood which

35 Whether these were the larger *yātrās* (see Ch. VII) may be doubted, the text not being sufficiently helpful.

Fig. 26 Another view of the kōvāna*, this time with the mast unstopped. Without this rotating block South coast* oru *hoist their sails with the halyard running through a hole in the top of the mast and do not reverse ends when tacking. Detail from Kapitän, 2009, photo 33b*

can wear off the strands fast. An exception may be cited in the *kōvāna* (seen at the top of some masts of the South coast canoe) which takes in a rope that lifts and lowers the yard of the sail (Figs 25 and 26). This, however, is not seen in all vessels, as some mast-tops are merely bored to take in this rope. Is the *kōvāna* a comparatively recent introduction? But the word seems old!

That the *oru* has not been amply substituted in the Sri Lanka waters is best borne out by the fact that the numbers of this craft have, in no way diminished in the face of the trends towards modernization; and the only places from which it has dwindled in numbers or even disappeared are the former ferries at which bridges have been constructed anew. And the inevitable economic problems of the future appear to assure the *oru* a place of greater importance than at present in the affairs of the country. It is, therefore, opportune to modify its design as may be found necessary so that it may, in addition to its main traditional role, make further contributions to the national economy as a means of transport and communication, too.

CHAPTER SIX

The *ORU* and the SINHALA PEOPLE

OVER a vast majority of the 969 main fishing villages that dot the 1,600 kilometre coast-line of Sri Lanka (*CMF*, 7) the dugout outrigger canoe is known. Of the 16,831 traditional fishing craft of the island (1972) these canoes number 7,189, i.e., 42.7% of the total, the others being log rafts (6,015 or 35.7%), planked vessels (2,472 or 14.6%) and dugouts without outriggers (1,155 or 6.8%). Of the total number of the island's fishing craft inclusive of mechanized 3½ ton boats and fibre-glass boats the percentage of the dugout outrigger canoe is 36.8% (*CMF*, 13). They are known in 12 of the 13 Divisional Fisheries Extension Officer (DFEO) units of the island—Jaffna being the exception—although in two areas within two of them (Pomparippu of Puttalam and Mantai of Mannar) it is unknown. In Mannar these vessels number only four in the company of 317 other indigenous craft (*CMF*, Table 2.7). On the other hand in Kalmunai and Taṅgalla this is the only indigenous craft (717 and 423 respectively). However, it has to be borne in mind that not all *oru* vessels of the island are fishing craft (see *supra* Ch. III, pg. 22) and, hence, these numbers do not reflect the prevailing situation realistically.

But its existence throughout the coast-line is not continuous. Kandakuli, a village situated about 11 kilometres to the north of Talavila on the western (i.e., the sea-ward) coast of the Kalpiṭiya Peninsula, appears to be the northern-most point of continuity on the Western coast. On the Eastern (i.e., the lagoon-ward) coast of this peninsula is the village of Ēkātli (5 kilometres SE of Talavila) to the north of which this canoe finds no harbour. They may, however, be seen in the Karaitivu island situated off-shore to the north of the Peninsula seasonally (when fishermen from Negombo migrate to temporary *vāḍis* here to make dry-fish). After a gap of about 80 kilometres from Kandakuli is Mannar (also visited by migrant fishermen) with its four dugout outrigger canoes of the elementary *piḷā oru* type in the possession of permanent settlers; and then a gap of 225 kilometres round the rest of the Northern shoreline separates this point from Mullaitivu with its 148 dugout outrigger canoes (*CMF*, Table 2.7). Another 80 kilometres SE-wards is one of Sri Lanka's major fishing localities—Trincomalee, with its 766 vessels of the *oru* type (*ibid.*). Continuity becomes gradually restored southwards with the presence of several of the *piḷā oru* type in the Ullakkali and Uppār Lagoons, the Mādurā Oya estuary and the sea until Batticaloa (with its own 50-kilometre long lagoon covering 3,500 sq. kilometres) is reached. This DFEO unit has 2,087 *oru* vessels—the largest number that may be seen in any of the island's DFEO units, amounting to nearly thrice the number that may be seen in

either Negombo, Trincomalee, Galle or Kaḷutara units (768–717) which come in order of sequence. In the Kalmunai unit is the Pānama lagoon which marks the southern limit of the distribution of the *oru,* and largely of human habitation as well, on the East coast. A gap of nearly 80 kilometres separates Pānama from Kirinda on the SE where live Malay fishermen with their *oru* craft under the Taṅgalla DFEO unit. Between Panama and Kirinda are the seasonal *vāḍis* at Āmadūva and Paṭṭanangalla (on the coast of the Yāla National Park) visited by fishermen of the Taṅgalla area with their *oru* vessels (Oct.–April). From Kirinda westwards the continuity of the *oru* becomes gradually restored; and from Taṅgalla to Galle, and then northwards along the West coast to Kandakuli, i.e., over a stretch of 400 kilometres, the *oru* is in almost continuous existence.

In respect of dugout canoes without outriggers (monoxyla) the Jaffna DFEO unit leads with 343 (out of an island total of 1,155) in the absence of any one vessel with the outrigger. Mannar has 317 monoxyla as against the four with the outrigger referred to—a proportion of 79:1; and Puttalam maintains a near equilibrium with 196 and 206, respectively. Trincomalee is another monoxylon area with 178, and Batticaloa has 53. Other units have quite small numbers (*CMF*, Table 1.7).

The distribution in the island of the *oru* vessels, by far, appears to depend on two factors:

i. geographical

and

ii. ethnic.

A few of the interruptions in the continuity of this canoe are also interruptions in the continuity of human settlements. Between Kalpiṭiya and Mannar, Mannar and Jaffna, Pt. Pedro and Mullaitivu, Pānama and Kirinda human settlements are few and far between in the arid zone scrub and a stretch of sandy desert (SE-wards of Pt. Pedro). Further, the comparatively still waters of many of these coastal stretches north of Kalpiṭiya on the West coast do not make demands on a craft in which much attention has been paid to the maintenance of equilibrium. As a consequence, an additional contraption such as an outrigger is not a necessity. The Puttalam lagoon, the Dutch Bay and the Portugal Bay immediately to the north, the Mannar lagoon, the Palk Strait, the Jaffna lagoon, the waters in the off-shore islands area of the Jaffna Peninsula are able to supply the necessary protection to monoxyla and other outrigger-less craft. As such neither additional effort nor material need be expended to make a complex craft. This explains to a fair degree the absence of the outrigger in canoes of this region.

Secondly, in this area—specially in Jaffna, Mannar and Batticaloa—Tamil people form, by far, the major segment of the population[36]; and in the first two areas 100% of the non-immigrant fishermen are Tamils[37] who own the least number of outrigger canoes in the island, possessing those of the elementary type—the *piḷā oru*—if at all.

Take the case of the Negombo unit which has a large sheltered lagoon (comparable to the lagoons of the North) with 438 Lagoon Fishing Management Units (LFMUs). In the company of 1,768 outrigger canoes there are only 3 outrigger-less dugouts here. Galle with 224 LFMUs has only 8, Colombo with 34 has 13, Kaḷutara with 37 has 1 and Taṅgalla with 126 has not a single outrigger-less dugout canoe (*CMF*, Table 2.8). It becomes evident now that even the lagoon fisheries in these areas employ the outrigger canoe where necessary, to a considerable extent, even though monoxyla are sufficiently safe over these still waters. (In Taṅgalla, for instance, the former is the only available craft). Incidentally and significantly, these are areas with a major population of Sinhalas and where (as in Galle, Kaḷutara and Taṅgalla) the fishermen are almost 100% Sinhalas.[38]

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36 Mannar: Tamils 68.1%, Sinhalas 4.1%; Jaffna: 97.5% and 0.9% and Batticaloa: 61.8% and 4.6%, respectively (*CP*, 15, 29, 17).

37 On observation, there being no formal statistics.

38 On observation. A few Moors are reported to be members of certain crews here. But their numbers are too few to have an appreciable bearing on these figures. The Kaḷutara District has, for instance, 62,481 Sinhalas and 7,423 local Tamils, and the 38,697 Indian Tamils are estate workers. Of Taṅgalla it has been said that 'the inhabitants are mostly fishermen' who carry on their trade 'with uncommon industry' (Casie Chitty, 1834, 98).

The availability of 148 outrigger canoes (as against 128 monoxyla) in Mullaitivu (a preponderant Tamil area) reveals an interesting situation: the fishermen who use this craft both in the lagoon (761 LFMUs) and the sea, are Sinhalas of whom some are permanent settlers and some are migrants (March–Oct.) from the Negombo–Vennappuva area, and they use the *oru* with the rectangular sail typical of their home area, as well as the sail-less *mādäl vallam* (for carrying the seine-net— *mādäla*, out to sea).

Kalmunai on the East is another locality with no outrigger-less canoes and it possesses 717 outrigger craft, used both in the lagoon (790 LFMUs) and the sea. Moors and Sinhalas are, by far, the fishermen here.

Batticaloa is certainly an area where fishermen of all communities in the island meet; and although the Sinhalas out of them appear to be numerically rather low, they are actively engaged in their own brand of fishing in the deep sea—the Bay of Bengal—either as permanent settlers or migrants from usually the Southern coast and the Negombo area. A large number (2,087) of all types of the *oru* (with only 53 outrigger-less ones) may be seen in this DFEO unit in which the extensive Batticaloa lagoon, several small lagoons and broad, calm estuaries (over all of which are located 3,160 LFMUs) lie cheek by jowl with the open sea. A mix-up of the functions of each *oru* type is also evident in that a few large vessels (i.e., those with straight washstrakes of 10 metres or more in length and 1 metre in height at the middle) are employed for net fishing in the shallow sea area, (and not for deep-sea fishing)—a task which may be performed by smaller and lower craft. Such vessels, generally owned by Sinhala fishermen, are the property of Tamil fishermen here, sometimes.

These factors, together with the historical subject-matter in Ch. III, lead to the following broad conclusions:

i. that the *oru—the* dugout outrigger canoe—is not a distinctive watercraft of the Tamil people of Sri Lanka, although they have adopted its elementary type—the *piḷā oru*—in the midst of a heavy majority of other traditional craft typical of them, mainly for shallow water fishing in certain limited localities

ii. that the Moor fishermen of the East coast also use the simple version of the *oru,* together with those with the curved washstrakes and broad beam, for fishing in sheltered bays and lagoons and for offshore fishing

and

iii. that the *oru* is a typical cultural possession of the Sinhala people in whose midst it is being used in tanks, rivers, lagoons and bays, and in the deep sea even beyond the sight of land in all types of weather, remaining with hardly any structural change for at least the last 2,000 years.

This strong cultural relationship has been almost unconsciously recognized by a few foreign and local writers during the recent past. Cordiner (1807, 57) refers to these craft as 'Cingalese fishing boats'; Tennent (1859, II, 103) as the 'canoes of the Sinhalese'; and Cave (1912, 34 and pls 29 and 130) refers to them as 'Sinhalese canoes' and 'Sinhalese Fishing Canoes', averring that they are 'used almost universally by the Sinhalese'. Mount (1863, 317–18) speaking of the presence of the outrigger canoe in the Andaman Islands surmises that a 'Cingalese' canoe washed away to those shores by a storm was adopted there as a model, and supplies a sketch of a double-masted West coast canoe with its rectangular sail unfurled. Hornell (1946, 257–9) refers to the hull of the outrigger canoe as a 'Sinhalese hull', and the canoe itself as 'saddling outriggers of the Sinhalese fishermen'. Wijesekara (1949, 146) says that 'the Sinhalese engage in deep-sea fishing in these simple craft which can stand up to the worst weather'.[39]

39 Even the larger outriggered sailing ships, the *yātrās,* have been described as typically 'Sinhalese':

i. the lexicographer Clough (1830, *s.v.*): 'largest kind of Sin. boat'

ii. the lexiographer Carter (1924, *s.v.*): reproduces the above gloss (of about a century old, by then)

iii. Hornell (1946. 257–9): 'Sinhalese yatra' and 'Sinhalese coaster'

See Ch. VII, pgs. 45–6.

It is also the Sinhala fishermen that are the more dextrous and adventurous in the use of this canoe. No doubt, the Tamil and the Moor fishermen use it—the smaller type mostly and, in many instances, sail-less, as referred to above—in shallow and still waters of lagoons etc., for net fishing within a mile or two of the shoreline and to carry and lay the large seine nets within a few hundred yards of the shore, all in good weather and calm seas, and generally during the daytime. But the Sinhala fishermen in the use of this craft are limited neither by distance, the weather, the type of sea nor the time of day and would venture out to the broad and deep ocean even out of sight of land armed with the mastery of the fine art of manipulating the sail, of tacking and of controlling the rudder plank, and with an almost intuitive 'smell' of finding their way back under the most adverse of conditions (see also *infra* pg. 56 *marakkalahe s.v.).*

Although fishing is one of the earliest occupations of the people of Sri Lanka and the *oru* is thus a significant item in the material culture of the Sinhala people, the associated folklore is rather scanty. It is not possible to state the reason; and the only difference there is between this and any other traditional occupation known to the island's people is that none of the latter is as risky and hazardous. But this is no reason to justify the general absence of associated folksongs in many parts of the island (although the *oru* is mentioned in such compositions of a general type, which are not of the fishermen, in particular, as referred to in Ch. III, pg. 21). Wijesekara (1949, 140, fn. 1) does not refer to a single boatmen's song, although he notes that a few songs of the seine net fishers are preserved. In respect of folktales too, the situation is not far different and in Parker's collection of 177 folktales of the Sinhala people there are only two that make reference in passing to the *oru* (1972, II, 205, 229), and none of them concerns a fisherman or a canoe, in the main.

It is customary, nevertheless, for fisher folk to speak of the exploits of their forefathers, i.e., those within living memory, and to chant extempore compositions whilst engaged in various tasks on land or in the sea. But these are not memorized and passed on to another person—not to speak of another generation. The myths or folktales common to them are those generally known by the rest of the people of the country and are not in any way particular to their life and trade.

Further, although Sinhala literature has a rich tradition of popular verses dealing with various folk crafts such as house building, agriculture, weaving and pottery, to name a few (Coomaraswamy, 1956, 229, 246–7, Godakumbura, 1955, 288, 340), there is no such composition of which the subject is boat building or fishing.

There is, however, a tale known to the fisher folk of Taṅgalla which speaks of a migration and the founding of a (i.e., their) settlement.

It is said that once a few *oru* vessels loaded with fishermen set out from Negombo (Mīgamuva) sailing southwards in quest of the *balayā* fish and in search of a locality to found a new settlement. They had, in fact, agreed that they would turn shorewards at a point in the sea at which they would obtain a catch of a 1,000. They reached the sea opposite Galle without any appreciable catch and turned eastwards to run parallel with the southern shoreline. Soon luck seemed to be with them and they began to have larger and larger catches the more eastwards they sailed—but not of 1,000 as yet. Off Nilvälla they baited 999 and temptation was strong to turn into the bay and terminate their expedition. But the captain was firm and chose to sail on. The next day and five miles to the east they caught the required number, with the Taṅgalla Bay within sight on the left. They hastily turned in and on reaching the coast planted their new settlement there.

Nothing more may be said about this tale other than the fact that this southern sea region is a major haunt of shoals of the *balayā* (skipjack: *BFRS*, 23, 1972, 21, 25) and that by chance or otherwise the incidence of the surname Varṇakulasūriya (see *infra* Appendix, Glossary VIII) appears to be more frequent among the fisher folk of Negombo and Taṅgalla than in any other area of Sri Lanka.

Casie Chitty (1834, 80) refers to the term Mīgamuva (local term for the Anglicized 'Negombo') as 'honey village' and relates the story of a swarm of bees *(mī mässō)* settling on a boat beached there.

A folksong from the Negombo area is as follows:

Sindāttiri deviyan ge dev balayen mē panna
godaṭa yanna māḷu ṭikak alla ganna

sallivalaṭa vikuṇa ganna
kāma ṭikak ara ganna

('May we through the grace of the Sindāttiri Deva, catch some fish, take it to the shore and buy some victuals.

Sindāttiri appears to be a corruption of *siňḍu taru,* 'ocean star'. Mary, mother of Christ, is accepted as the Star of the Ocean in this largely Catholic area.)

These quatrains from the Southern coast indicates a few 'landmarks' in the neighbouring tract of sea:

vārayā vārakan ma yi *bahinnē*
ūriyē uturukan ma yi *bahinnē*
māriyā pakul asse api *yannē*
ḷihiṇiyā kaḍollen taṅgalu *yannē*

('The *vārakan* and the *uturukan* are blowing, and we are creeping among the tall churning waves onwards to Taṅgalla through Ḷihiṇiyā Kaḍolla.

vārakan uturukan: winds (see *infra* Appendix, Glossary VI)
Ḷihiṇiyā Kaḍolla: gateway to the Taṅgalla Bay

The following is a chant of the fishermen of Dehivala as they throw in the bait to catch big fish in the deep sea:

purē vā	('Hail !
mēka hari dälak nam	If this is a true net
mē polē ata ahu velā mayi enne	The fish is certain to eat the bait here
goḍa diyaṁba issara pav kaṭṭi	Formerly there was much sin on land and the deep
äm māḷu peṭṭi	Here are the baskets of the bait
däla mäda rataya yi	There is redness in the middle of the net
äm māḷu rataya yi	—the redness of the bait (fish)
däla mäda iruva yi	In the middle of the net there is turmoil
äm māḷu iruva yi	It is the turmoil of the bait (fish)
däla mäda boraya yi	There is murk in the middle of the net
äm māḷu boraya yi	—the murk of the bait (fish)
borē borē äm māḷu borē	Murk, murk—the murk of the bait
ratē ratē äm māḷu ratē	Redness, redness—the redness of the bait
dälē māḷu äm bahinavā	The fish is clustering round the bait in the net
äm uḍa enavā	The bait is coming upwards')

Magical practices in connection with the *oru* are not unknown, specially along the Western and the Southern sea-board of Sri Lanka and in other areas where the Sinhala fishermen have settled down or to which they have migrated. Magic of both types—the 'white' and the 'black'—is practised. The former is to increase the catch in general and, in case of the sailing craft that venture out into the deep sea (the *bala, häḍi* and *vārakan* 'types', see Appendix, Glossary II), to render them immune from disaster. The latter is intended to cause diminished returns and disaster to a boat in general. 'White' magic usually takes the form of talismans containing *yantara* or *yantra*, i.e., diagrams etc. carved and inscribed on copper sheets of 25–50 mm in breadth; and charmed oils *(tel)* are utilized for both types (Fig. 27). Charmed water is sometimes sprinkled over the sea with the intention of enticing a shoal of fish into the area.

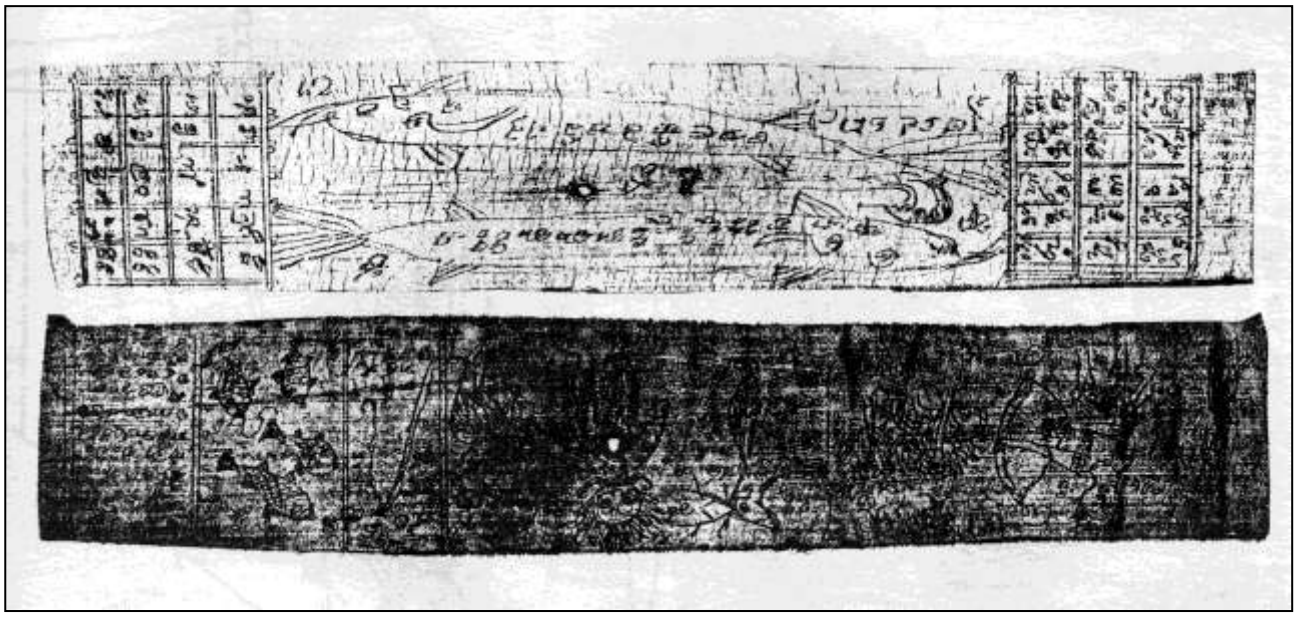

Fig. 27 A yantra *to entice fish into a bay. Drawing by Dharmasiri Kāriyawasam*

The fishing magic in general includes the 'protection' *(ārakṣā* or *ārassā)* of fishing bays too; and these particular charms are intended to 'trap' shoals of fish—generally the small ones such as the *hurullā, pännā, koraṁburuvā* and *lāggā*—within a bay preventing them from leaving it, to be caught by both boat- and net-fishers. The technique is too drop into the sea at either headland enclosing the bay, a *sura,* i.e., a cylindrical case of 25–50 mm in length made of copper sheet and gilt in silver or gold, and containing the rolled talisman.

The practice of this magic is a strict father-to-son affair and hardly is it imparted to a pupil who is not a member of the family, whereas the imparting of knowledge in other types of magic is not as 'close'. The reason is perhaps that the occupation concerned is hazardous and is closely tied up with the very sustenance of a community who are generally poor, as also with their very lives. Charlatans are, therefore, a social risk.

A researcher is, therefore, confronted with the difficulty of obtaining the magical texts, diagrams, the associated processes etc. from these traditional practitioners.

CHAPTER SEVEN

The *YĀTRĀ*

THE *yātrā*, also called *maha oru*[40] ('big *oru'* or 'big outrigger canoe') was a type of sailing ship with an outrigger attached, and formed the chief means of transport over the coastal waters of Sri Lanka and even beyond, up to the first few years of the fourth decade of the last century. One feels fortunate that those who have sailed in these vessels, or at least have seen them—the last of their disappearing 'tribe'—are yet among the living, and are an asset, in the absence by far of any other source material, in a study of this traditional watercraft.[41] These *yātrās* called at all major and minor

40 *Yātrā*, (Skt.), 'voyage', 'journey, 'vessel'; a *tatsma* (loan-word) in Sin. *(yātrā + a + > yātrā + v + a>) yātrāva* is the sgl. form.

An *oru* is specifically a dugout outrigger canoe (see Ch. III, pgs, 16, 18. etc.), though used here in a general sense.

41 I am indebted to the following for much of the information contained in this Chapter: Ven. Doḍanduvē Śrī Dharmasēna, Kumārakanda Vihāra, Doḍanduva, Siripāla Jayasiṅha and W.P. John Siññō of Taṅgalla, Peter Jayasūriya of Rājagiriya (formerly of Taṅgalla) and Ranjit Mānavaḍu of Doḍanduva.

ports of the island—Kalpiṭiya, Puttalam, Chilaw, Negombo, Colombo, Pānadurē, Bēruvala, Ambalangoḍa, Doḍanduva, Galle, Devinuvara, Nilvälla, Taṅgalla, Hambantoṭa, Batticaloa, Mūduruva (Muttūr), Trincomalee, Jaffna and Mannar—and even reached the Maldive Islands, the southern ports of India and Malacca (Figs 28 and 29).

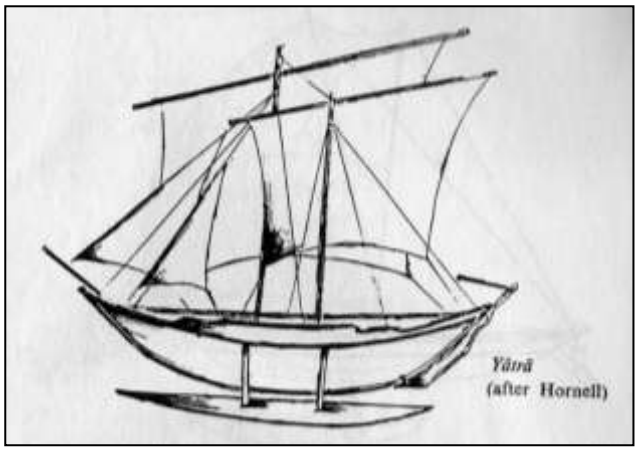

Fig. 28

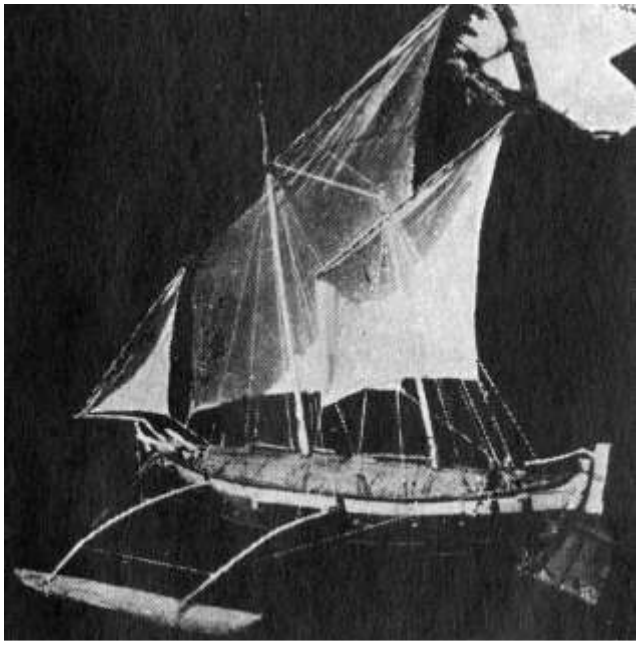

Fig. 29 Model of a yātrā *formerly at the Kumārakanda Vihāra, Dodanduva, now in the National Museum, Colombo*

The last *yātrā* of Doḍanduva was wrecked in the Maldive Islands in 1930 and abandoned;[42] and the owner-captain (surnamed Bodiyabadugē) of one from Taṅgalla passed away on the return from Burma and was buried at sea.

It was customary for *yātrā*-men from the South (who were Buddhists) to visit the ruins of the Sēruvila Vihāra whenever they called at Muttūr; and it was in a *yātrā* from Doḍanduva that the Ven. Daṁbagas-ārē Sumēdhaṅkara (1892–1984)[43] of revered memory made his first visit (1921) to Batticaloa and Muttūr (Śrī Dharmasēna, 1984, 6) and a few subsequent ones too. It was also in a *yātrā* that an image of the Buddha in stone now seen at the Śailabimbārāma in Doḍanduva is said to have been conveyed from Kāvēripatnam.

The owner of a *yātrā* was, by normal standards, a rich man, and there were some who owned two or three of them; and the ancestors of one of Sri Lanka's national leaders of the early part of this century—Sir James Peiris—owned a fleet of them.[44]

Doḍanduva on the SW coast of Sri Lanka appears to have been the most outstanding *yātrā* port, at least during the last few decades of the existence of these vessels and before 1930 they provided direct or indirect employment to by far a major sector of the population of this small township and its hinterland. Available information refers to Kāriyavasam Paṭuvata Vitānagē Don Siyadōris da Silva—a land-owner of the coastal village called Paṭuvata, establishing freight-carrying by *yātrās* as a

42 An article entitled 'The Last of the Sailing Ships' by Arthur Alwis in the *Mahinda College Magazine* (V, (4–5), 138–) of 1936 records this disaster.

43 It was this monk who founded (or resuscitated during the present era) the Maṅgalārāma at Batticaloa and inaugurated the restoration of the historic Sēruvila Dāgäba (2nd *c.* BC), and founded many of the new *vihāras* on the East coast of Sri Lanka.

44 An undated 8-page biography of Sir James Peiris in Sinhala, author unnamed (*Sar Jēms Pīris*), pg. 1.

commercial enterprise. He constructed one vessel and his friend, Puñci Siñño *marakkalahe*[45] (chief boatman or mariner), another—likely a large one in which eighteen formed the crew *(kalāsi)*. The latter vessel (which came to be known as *Amugoḍa oruva*), however, did not return from its maiden voyage (see verses, *infra*, pg. 50).

Not only was Doḍanduva an important port of call, it had a dockyard where these vessels were built mainly by the members of the Paṭuvata Vitāna and Mānavaḍu families who possessed the necessary traditional expertise. During the 1930s about 40 *yātrās* were served by this port, and it was to this port—to the Dharmasēkara family, to be specific—that the last of the *yātrās* belonged. The last *yātrā* from Sri Lanka to the Maldive Islands also sailed from here (it had stopped in the ocean owing to the absence of wind when a current broke both the anchor-ropes and dragged it westwards to be wrecked on a Maldivian reef (see *supra* pg. 44); the captain and the crew, long thought to be dead, returned many months later). It was an entertaining habit of the lads of the port area to take bets in identifying a *yātrā* as its sail appeared above the horizon on its return journey. In the Kumārakanda Vihāra is a model of a *yātrā*[46]— the only tangible evidence today of a traditional craft which had braved the ocean waves for two millennia and a tribute, however small, to those ingenious craftsmen and intrepid sailors (Vosmer, 1994).

Although these details pertain to the very recent past, there is no reason to believe that the *yātrās* have had a short history of a few decades only. The geographer Strabo of Asia Minor (65 BC—19 AD) and the Roman author Pliny (23–79 AD) refer to outriggered craft in the seas to the west of Taprobane (i.e., Sri Lanka), and of these, Pliny's reference is to ships of large size (Lewis, 1914, 8; Strabo, *Geographica*, XV, i, xv; Pliny, *Natural History*, VI, xxiv, 82) which may be accepted as the *yātrās* beyond any reasonable doubt (see also *supra* Ch. III, pg. 17).

Outriggered sailing vessels are represented in the sculptural friezes at Borobudur, Java (8^{th}–10^{th} c.) which depict the arrival of Aryan emigrants to the Indonesian Islands (Mookerji, 1957, 33 and pls. 1, 3, 5, 6), and it is possible that the Sri Lankan vessels were similar in appearance and construction except, of course, for the outrigger which in these bas-reliefs appear to be a cluster of logs tied together—different from the single log of the Sri Lankan craft. In the Philadelphia Museum is a model of these 'outrigger ships' of which the originals are said to have been 18 m long with a 4.5 m beam (*ibid.* 34; see also *supra* Ch II. pg. 13).

A contemporary Chinese source—a literary work of the T'ang Period (9th c.) called *T'ang Kuo Shih Pu* (ed., Li Cho, Shanghai, 1979) provides a very valuable though brief account of the ships arriving in that country from the 'Lion Kingdom', i.e., Sri Lanka. It says that among the ships that sail through the Southern Sea, those 'from the Lion Kingdom are the largest with stairways for loading and unloading which are several tens of feet in height. They come loaded with valuable goods. Barbarian leaders own and command these ships. ... All through the periods spent on the sea routes white pigeons are kept on board these ships for sending messages. If a ship were to be wrecked, these birds are able to fly several thousand *li* and return' (Vol. II, 63). It proceeds to mention that ships from the Southern Sea, inclusive of those from the Lion Kingdom, came to China annually (quoted by Senaka Bandaranayake *et al*., 1990, 278).

In a 'book of landmarks' (*kaḍa-im-pota*, post 14^{th} c.), called '*Śrī Laṅkā Dvīpayē Kaḍa-im*', occurs the expression *näv-oru* (Abeyawardena, 1968, 197)—a combination of *näv*, 'ships', and *oru*, 'out-rigger canoes'. It is not possible to say whether the term meant both these types of vessel or whether

45 The term *maha-kevuḷu,* 'chief fisherman or boatman', may be yet another source of deriving this word. *Maha-kevuḷu* is the Divehi (Maldivian) term now in use. *Kevuḷu* is a Sinhala word at least a thousand years old *(DhAG.* 264). See also Appendix pg. 56.

46 Hull: 1.2 m; outrigger: 75 cm; mast 90 cm. Constructed *c*. 1898 by Siyadoris' son, Jān Siñño—father of the Ven. Śrī Dharmasēna. This model is presently in the National Museum, Colombo.

it meant 'ships (which are) outrigger vessels', i.e., the *yātrās*. If it meant the latter, which is the more probable (otherwise the expression should have been *näv saha oru*, where *saha* means 'and'), *näv-oru* would have been another term by which the *yātrās* were known.[47]

Two fifteenth century Sinhala *sandēśa* (epistolary) poetic works—the *Parevi* (78) and the *Girā* (74) refer to *näv* in the sea off Uḍagalpiṭiya (Doḍanduva) and Pānadurē and the latter (148–9) also refers to the *näv* which carried the military expedition of Parākrama Bāhu VI to Pāṇḍya during the contemporary times. It is likely that these vessels were *yātrās* and the appearance of some of them in the sea off Doḍanduva (see *supra*, pgs. 44–5) is significant.

It is possible that the local vessels leaving for 'the other Coast' (with a capital C) from the western ports such as Kaḷutara referred to in the Portuguese tombos of 1593 (Pieris, 1949, 38) are none other than these craft; and Clough who compiled a *Sinhalese-English Dictionary* in 1830 (to be revised in 1887) includes the word *yātrā oruva* therein, explaining it as 'the largest kind of Sin. Boat'. Evidently, the learned lexicographer saw them personally in the local ports and the coastal waters. Casie Chitty (1834, 13) refers to the 'yatra dhonies' of Caltura (Kaḷutara) sailing for the Coromandel Coast of South India. A sketch by J.L.K. van Dort (late 19th c.), exhibited at the National Museum, Colombo (23/96, 363/21) and illustrating many types of watercraft of Sri Lanka, shows, in the centre, a large outriggered vessel with three triangular sails; which undoubtedly is a *yātrā*. Lewis (1914, 7) refers to these vessels as 'trading dhonies' of the southern ports and the picture of the 'Calpentyn Coaster' supplied by him is nothing but a *yātrā*. Carter in his own *Sinhalese–English Dictionary* (1924) repeats the gloss supplied by Clough nearly a century ago. Hornell (1943, 40–53: 1946, 257–8) supplies short accounts and sketches of the *yātrā*. Leonard Woolf (1962, 39), the provincial administrator of Sri Lanka, writing in 1909, refers to the traders from Galle, who, in 'their ships', competed with the steam-ship companies in the transport of salt from Hambantoṭa. No description of these 'ships' is, however, supplied and it can only be supposed that they were none other than the *yātrās*.

The hull of a *yātrā* was constructed of planks, usually of *doṁba* (*Callophyllum Inophyllum*), no less than 2 ins (5 cm), in thickness, carvel laid. The joints were made water-proof with a lining of coconut husks and coconut leaf sewn to the binding with rope and subsequently caulked—the process called *galappatti* (<*calapetar*: Portuguese).

The hulls were of various sizes, ranging from 50 to 60 cubits (i.e., nearly 100 ft.—30 m) in length and 10 to 15 ft. in height (3 m to 4.6 m). The beam ranged from 12 to 20 ft. (3.7 m to 6.1 m) and from its centre rose two masts—a main and a mizzen, to about 20 ft. (6.1 m), and in some the main was the trunk of a *saṁdun* tree,[48] and was kept in place by shrouds, fore- and backstays and a stay connecting the mast-heads. Each mast also carried a lateen sail on a bamboo yard and, sometimes, a smaller sail above the main ones. There were a foresail and a jib too. These secondary sails were hoisted when the wind was generally low and were kept rolled up otherwise. All the sails were of thick cloth—usually that woven in Batticaloa *(maḍakalapu redi)*—or canvas.

The rudder was shaped to conform to the curve of the stern and was a broad thick plank, approximately 2.3 m^2. It was manipulated with the help of the rudder-bar by the captain *(marakkalahe)* who sat on the deck above it. (Compared with the rudders of other contemporary vessels, this appears somewhat over-sized!) A secondary rudder to act as a leeboard was placed in the region of the main mast touching the water on the starboard side and was used only when sailing against the wind.

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47 This combination (*samāsa*) may either be of the aggregative type (in which case it would mean 'ships and outrigger canoes') or of the adjectival type (where the first noun qualifies the second).

48 A costly, fragrant wood of medicinal value, Skt. & P. *candana,* Sin. *saṁdun* and *haṁdun.*

The construction, on the whole, was 'refined and neat', according to Hornell (1943, 44) who contrasted it with the 'roughly put-together planking of the masula boats' of Madras.

Unlike an *oru* (see *supra*, Ch. V, pg. 37), the *yātrā* had a definite bow and stern, and the outrigger was on the port side; and the process of steering the vessel was by the simultaneous manipulation of both the rudder and the sails at which task a captain had to be adept.

The outrigger connected to the hull with the help of two booms was relatively small, but was able to prevent the hull from inconvenient rolling. In the event of storms when on voyages to other lands, its function would certainly have been vital. A boom passed through a hole in the hull's uppermost plank on both sides thus straddling the deck, and a peg was driven through it on either side outside the hull making it firm against it. Each boom was also lashed to the outrigger through a hole carved in the latter. That there were any structures built on the booms may be surmised (see *supra*, pg. 37, footnote 35).

Oars and paddles were unknown to a *yātrā.* It was provided with two anchors at the bow.

Ten to fifteen men formed the crew *(kalāsi)* in general and they worked under a strict code of conduct—the disobedient even being subject to being tied to the mast and whipped. Of the crew the cook held a position of relative importance.

The central area of the hull was the hold where goods of all types were stacked and covered with water-proof material. Dependent on its size, a *yātrā* carried 25 to 75 tons of freight—an average of 50 tons burden, according to Hornell (1943, 43). On the deck towards the stern was the area meant for sleeping and rest; the beds could be folded against the sides of the hull when not in use.

On the deck was also a little platform laid with earth on which was built the fire-place over which meals were cooked. Water was stored in large wooden vats down below and was well protected and used with care specially when on long voyages. In addition to foodstuffs, refreshments and medical supplies were available on board.

Amidships, on the port side was a crane for loading and unloading heavy commodities. A loaded *oru* drew up (as occasion demanded) between the booms of the *yātrā* and the crane lifted the goods on to the deck; or, in the case of small vessels with a draught of approximately 5 ft. (1.5 m), workmen themselves, sometimes standing in a chain in the water, attended to the task of loading and unloading.

In several instances, the owner himself was the captain of the vessel. It was he that knew the harbours and the routes, had a foreknowledge of the impending weather, had an expertise in the art of manipulating the sails and the rudder(s), whilst being a past master at direction-finding; and he was also an able physician.

Not all *yātrās* carried a compass—and none during the ninteenth century and before. During the day the sun was, of course, the main guide and one of the stars the mariners relied on was the Southern Cross which they identified a few degrees above the horizon on their voyages to and from Malacca and the Maldive Islands. They also could 'read' the movements of the water and the flight of birds.

There is no doubt that the *yātrās* were dependent on the monsoons and it is only to be expected that they sailed eastwards and northwards with the SW monsoon, and southwards and westwards with the NE monsoon; they also took advantage of the land and the sea breezes of the inter-monsoonal periods on their local port-to-port runs (Vosmer, 1994, 113).

It is also interesting to note the presence of several surnames associated with carpentry among the inhabitants of the Ambalangoḍa-Hikkaḍuva area. *Vaḍu* ('carpenter' or, in the classical sense 'builder') *+gē* ('of the house of') occurs in several of these as in Ambalangoḍa Vaḍugē,

Doḍanduva—, Kulappuvā—, Loku—, Maha—, Malliyā—, Māna— and even Yātrā—, all of whom would have been in some way connected with the construction of *yātrās.*

At a time when overland transport facilities in Sri Lanka were slow and expensive, or even not available to certain remote places, the *yātrā* appears to have been the main means of transport specially of heavy commodities; and it is possible that it played a significant role during the nineteenth century too and the early decades of the twentieth (when local commercial activities experienced unprecedented expansion). No doubt roads were constructed by 1831 connecting Colombo to all important towns right round the island—Mannar, Jaffna, Batticaloa and Trincomalee included; and the coastal railway southwards had reached Moratuva in 1877, Doḍanduva in 1890 and Mātara in 1905, and it reached Negombo (north of Colombo) in 1909, and then Jaffna (in the far north) in 1905. But these services were not as yet competent enough to displace the traditional means by sea.

Merchandise from Galle (such as cloth, imported foodstuffs including polished white rice from Burma and Siam, salted fish -*luṇumāḷu* from Doḍanduva, tea), for instance, was conveyed to Taṅgalla by *yātrā,* and Bayis Appu *mudalāli* (merchant) of the latter town had his own vessel for the purpose, which he also used for transporting salt from the nearby *lēvāyas* (salterns) of Hambantoṭa to all other parts of the South and the SW coast. Textiles from Batticaloa, salt from Puttalam, palmyrah products (jaggery, mats, boxes) from Mannar, wood from Trincomalee, and dry and salted fish from Mannar, Kalpiṭiya and Batticaloa found no way out to the Southern and Western market-towns except by *yātrās* for many centuries. And there is no reason to doubt that the exchange of commodities between Jaffna and Mannar and the rest of the island was to a considerable extent by *yātrās* (with the sailing 'dhonies' of Jaffna and S India maintaining trading contacts with the ports on the west) until the roads and railways reached these distant urban areas.

The second and third decades of the last century saw the gradual growth of an unprecedentcd challenge to the *yātrās* in the shape of the expansion of steam shipping, both in the local and international sphere, and of the railway and the road lorry services as carriers of heavy goods to all parts of the island. The *yātrās* disappeared never to re-appear. A few houses at Doḍanduva, for instance, yet possess the thick wooden planks that once formed the hull and the decks of the last of these vessels.

Many rites were associated with the sailing of these vessels. It was customary to set out, especially on a foreign voyage, after a religious ceremony entailing offerings and vows and the *marakkalahe* feasted his crew at his home just before departure. If one touched at Hambantoṭa, the sailors did not mind sparing a few days for a trek to the shrine at Kataragama and the *vihāra* at Tissa, however arduous the journey over arid jungle paths would have been. The visit to Sēruvila by the callers at Muttūr has been referred to above. Once out at sea, they resorted to further rites on occasions of storms and other distress: they took refuge in the Buddhist Triple Gem (the Buddha, Dhamma and Saṅgha), took the Five Precepts *(pañca sīla),* and recited *gāthās* (religious stanzas) and the *parittas* (protective incantations) and made vows to deities. And if they saw cause for anxiety in the sea opposite the Catholic areas of the West coast, they appealed to those saints with the same fervour.

It is interesting to note that Siyadōris da Silva and Puñci Siñño *marakkalahe of* Doḍanduva (see *supra*, pgs. 44–5) made their vows in particular to the God Saman of Samantakūṭa who is not recognized as important in marine activities—Devol[49] would have been more appropriate. But

49 Devol is a regional deity propitiated particularly by the fishermen of this coast as a sea divinity and shrines dedicated to him are located at Ambalangoda, Sīnigama, Doḍanduva, Unavaṭuna and Devinuvara in an 80-kilometre arc on the SW Coast. Annual festivities are held in Äsaḷa, i.e., July-August.

Samantakūṭa[50] of the Central Highlands is a very prominent geographical feature visible to the western and southern sea-board of Sri Lanka—it is, in fact, the first landfall to ships approaching the ports here and is a holy mountain itself. It is likely that these associations, more than any other, motivated these sailors to make their vows to this divinity. Of course, Devol was not ignored: at Uḍagalpiṭiya is Doḍanduva's own Devol shrine (and it is opposite this point that *yātrās* are mentioned in the Parevi Sandēśa: see *supra*, pg. 46) and six and a half kilometres to the north is the better known Sīnigama Dēvālaya; homage was paid to this deity at both places by these mariners. And wherever they have been, they were back home by the first week of April in anticipation of the Sinhala New Year festivities that fall on the 13th or the 14th of the same month.

Special commodities brought back from the Maldive Islands were Maldive fish, dry fish, the fish essence called *riyākuru* and the sweet-meat, *bonda haluvā;* and those from S India were tiles *(raṭa uḷu)* and salted fish, the latter packed in large vats. On outward voyages to the latter it was the custom to take the wooden strips and iron hoops (that go to form a vat) loose (in order to save space) and put them together only when the fish was ready for packing.

The scarcity of Sinhala traditional verses connected with the sea and associated pursuits is well marked (see *supra*, pgs 41–2) and it has been possible to find only a few about the *yātrā* and its activities. These verses are evidently recent compositions (some marking actual events) which have not undergone the polishing process by the mass of common people over considerable periods of time and it is possibly as a result that they are not free of several basic flaws. It is likely that they remain in the same form in which they were composed during the century or half ending in about 1930 and hence, they are better not accepted as 'folk poetry' in the strict sense of the term. However they contain useful information, though scanty, as regards *yātrā* construction, foreign destinations, physical features of the sea and the land which were familiar to these mariners and their beliefs and ritual.

malakkāva maha dura raṭa *asannē*
talakkāva gena näva piṭa bala mūdeyi *liyannē*
samukkāva gena näva piṭa *balannē*
siṅhala deseṭa näva sarasā *padinnē*

'Listen, Malacca is a far-away country ..... (I am) observing (the area around) with the aid of a telescope *(samukkāva)* from the deck of the ship. It is to the Sinhala *dēsa* (Sri Lanka) that (we are) sailing after decorating the ship'. (The meaning of the second line is not clear and has been left untranslated. Note the metrical flaw here)

aṅdun giren rivi pāyayi *balannē*
saṅdun kuṁbē piṭa gena näva *baṅdinnē*
saṅdun ruka tabā tada koṭa *baṅdinnē*
jipinsāsayaṭa näva sarasā *padinnē*

'Look, the sun rises over the Aṅdun Gira,[51] and (we) are erecting the mast of *saṅdun* on the deck of the vessel. (We) are tying the *saṅdun* mast with tight ropes. (We have) decorated the vessel and are sailing.....

(The meaning of *jipinsāsayaṭa* is not clear and has been left untranslated).

50 Also called Sumanakūṭa or Samanoḷa and popularly, Adam's Peak. Supposed to possess the imprint of the Buddha's foot, hence also called Srī Pāda, (lit.) 'Auspicious Foot'. Height: 2,245 m.

51 A mythical mountain, black in colour; has no association with sunrise or the East and has been used here only to rhyme with the first word of the following line.

The following verse has been composed to mark the maiden voyage of the vessel of Siyadōris and Puñci Siñño (see *supra* pg. 45):

gaman yanna näkatin oruva *bā genē*
saman deviyanṭa puda paňḍuru bäňda *genē*
viman sāgarē kaṇu mul soyā *genē*
apit yamuva häma deviyanṭa väňda *genē*

'We have launched the vessel at an auspicious moment and made offerings and vows to the God Saman. (We) are going in search of mansions in the ocean, careful of its obstructions. Let us start off with homage to all deities'.

This vessel, the *Amugoḍa oruva,* did not come back and was lost at sea, and this verse marks that occurrence:

me tänin oruva bālā gati *varāyaṭa*
diyaṁba pōru sata divvē *taragayaṭa*
kopamaṇa ruval ädalā divvat *soňdaṭa*
amugoḍa oruva tava näta āvē *gamaṭa*

'From here (they) got the vessel down to the harbour; and it ran several laps in the deep as though in a competition. Although it ran well under many a sail, the vessel of Amugoḍa did not come back home'.

That these mariners were versifiers by habit may be gleaned from the fact that at an instance when the wind stalled opposite Chilaw (on a Mannar–Doḍanduva run) they appealed to the Saints Anthony and Anna thus:

san antōni santānam *mā̆ṇiyanē*
ke bas kiyam teda äti *hāmuduruvanē*
meccara kalak duk vindayi *suvāminē*
ruvalaṭa huḷaň denavada dev *mā̆ṇiyanē*

'O, Saints Anthony and Anna (Mother), what words can I utter, majestic lords? We endured much pain all this time. O, heavenly mother, would you fill the sail with wind?'

The following verse too appears to have been composed at a time of distress as an appeal to the divinity at Kataragama:

kataragama deviňdu *kandassuvāminē*
oruva da ruval rattaranen sadā *genē*
hat kela parumāna ridiyen sadā *genē*
äsaḷa masaṭa emi hisa mata tiyā *genē*

'O Kandasvāmi, God of Kataragama, I will make the boat and the sail out of gold, and the seven spars of silver, place them on my head, and arrive (at your shrine) in the month of Äsaḷa'.

(The meaning of *kela* is not clear and has been omitted in the translation)

A scene ashore is depicted in this verse:

tirikunāmalē oru gos ena *kalaṭa*
puñci ā̆yo siṭuvati vällē *muraṭa*
oru enavā penenava mūdē *netaṭa*
viṭin viṭa ävit kiyanava *ammalaṭa*

'At the time when the vessels from Trincomalee are due to arrive, urchins are placed on the beach as scouts. When they note with their eyes the vessels drawing near, they inform their mothers from time to time'.

A few coastward 'landmarks' are noted in the following:

hambantoṭin ädalā ruval vigasinē
niyaňda kupata kollāvaṭa tiyā genē
valavē mōdaraṭa ibbāgala no penē
vaṭagala bala-balā duvapanna diyaṁbinē

'Having quickly unfurled the sails at Hambantoṭa, (we have) kept the Niyaňda Kupata on the side of the outrigger. Ibbāgala is not visible to the estuary of the Valavē (river). Run straight towards Vaṭagaḷa in the deeper area'.

The following verse depicts in brief the sad lot of the *yātrā* sailors:

pura soňdinā maḍakalapuva pradēsaya
purudu vuṇā karadiya apaṭa sāpaya
apa viňdinā duka danitot de māpiya
vatura no nā äs deka dannen bäri ya

'In the area of the good township of Maḍakalapuva (Batticaloa) we have got used to the curse of the brine. O, if our parents knew the distress that we are in! Having had no bath our eyes are extremely painful'

APPENDIX

GLOSSARIES

Words explained in these Glossaries are indicated thus: *

GLOSSARY I: TECHNICAL TERMS connected with the *ORU*

A

accu yota: Rope connecting stern to the top of main mast in double-masted West coast canoe
ahanrāmaya/ānsāma: Rope through *kōvāna** to lift or lower yard (with sail), in Southern canoe; halyard
äniya: Bow of a canoe (Tm. *aniyam)*
äniya kōṭuva: Wooden pin connecting washstrakes at bow
ānsāma: see *ahanrāmaya*
āppu lālla/bimpalla: Horizontal plank fixed length-wise inside hull for one to stand on
atlī kuṁbaya/atlīya/ pāvara daṇḍa/ruval kuṁbaya: Secondary mast of double-masted West coast canoe
atyota/kaṁbē/ruval kaṁbē: Rope connecting stern to top of secondary mast in double-masted West coast canoe
atväla/hiṭina rāna/hiṭi rāna: Horizontal rope connecting mast and *vāvarē**
avala: Oar, generally composed of long handle and rectangular blade
avala daṇḍa/avala līya/ daṇḍi līya: Beam lashed parallel to gun-wale over the booms for attaching the oars
aval malaya: Crutch or row-lock
aval oṭṭuva: Short strip of wood on gunwale serving as support to oar
aval polla: Handle of oar
aval puṭuva: Seat for an additional oarsman fixed on beams projecting over the prow
avara: Stern of canoe (Tm. *kaḍayal)*
avara kōṭuva: Wooden pin connecting washstrakes at stern

B

baḍa rāna/palu iha: Cord for lifting and lowering rudder
baḍavaňkuva/vakkatta: Curved rib at bottom of hull

bara äniya: Rope which attaches loosely the top end of rudder to gunwale

barata koṭu: Short horizontal wooden pins pressed between the (*hiṭuvana*) *vaṅgu*,* tightening them against the washstrakes

bimpalla: see *āppu lā̆lla*

D

däl äs manda: Lining of 'lace-work' of coir-rope on sail border

dāmānaya/dāmanna: i. Nearer sheet of sail
ii Rope connecting stern of canoe to this

diya bämma/diya tiriṅga: Lashing attaching boom to outrigger

G

gal kaṁbē: Anchor rope

gohubāna: Rope connecting bow of canoe to sheet (of sail) nearby

gohuva/govva: The further sheet

gōmāyammulla: Top right-hand corner of square sail on East coast canoe

H

habala: Steering oar with the long blade, at stern

habal oṭṭuva: Short strip of wood on gunwale serving as support to steering oar

häda: Rigging, specially in single-mast South coast canoe

haṭakalē: Rope connecting bow and lower end of *kaḍagaha** in South coast canoe

hēḍāva/hīnāva/vēḍāva: Rope connecting stern and top end of *kaḍagaha** in South coast canoe; brace

heppuva/kavaya/petta/ teppu kuṭṭiya: Mast socket or step

hevaniya/sevaniya: Coconut leaf and coir rope binding that sews the washstrakes, the transoms and the dugout hull to one another

hīnamulla : Left top corner of square sail of simple East coast canoe

hiṭina rā̆na/hiṭi rā̆na: see *atväla*

hiṭuvana līya/maha kuṁbaya/ mudungaha/uḍu daṇḍa/ uḍu miṭiya: Main mast of West coast canoe (Tm. *uḍu taṇḍai)*

hiṭuvana vaṅguva/ vaṅguva/vaṅkuva: Pair of vertical wooden ribs rising from bottom of hull along the sides of washstrakes, and to the top of which the booms are lashed

I

iddaṇḍa/madde: Horizontal pin to which a boom is lashed at gunwale (Tm. *ittaṇḍa)*

innapuṭuva : Small plank across gunwale serving as seat

J

jāri kōṭu : Sticks made fast length-wise along boom

K

kaḍagaha/paramānaya/ paru-/parumāne : Yard (of sail)

kaḍise/kaḍissa/sarakkaḍa : Short pole lashed horizontally to the middle boom to rise over outrigger[52]

kalañciya : Rope that lashes sail to yard

kaṁbe: see *atyota*

kanhiya/kanvita/ kanviya: Perforation on outrigger to take in rope which lashes it to boom

kassaruva/ palukastōruva: Rope connecting outer end of rudder to gunwale

kaṭavariya: Curved wooden rib fastened convexly within hull

kaṭugala: Anchor composed of short iron and wooden spikes

kaṭupota/oru kaṅda: Dugout hull

kavaya: see *heppuva*

kavḷuva/manda: Leech (of sail)

kilimatta: Rope at end of *kaḍise**

kollä kaha: Tip of outrigger

kokkiya/kōvāna: Pulley on mast top for *ahanrāmaya**

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52 The Tamil word *kaḍisu* used by the South Indian fishermen of the Palk Strait shore, meaning a board on which men hang to maintain the stability of the canoe in rough weather (Hornell, 1946, 260), is also known to the fishermen of Negombo (Raghavan, 1961, 120). The Sinhala word *kaḍise* may be an adaptation, or *vice versa.*

kollätalla: Under-side of the tapering end of an outrigger
kollāva: Outrigger
koloñcimulla: Right top corner of sail of East coast canoe
koṭavalaya: Noose which attaches main mast to central boom
koṭṭaḍiya: Plank fixed above *iddaṇḍa**
kōvāna: see *kokkiya*
kuṁbagaha/kuṁbaya/kuṁbē: Mast
kumkoṇḍiya/–ḍuva: Mast top
kummulla: Foot of mast

L

lāli kūḍuva/pattāra kūḍuva: Washstrakes (Tm. *pattār)*

M

madde: see *iddaṇḍa*
maha kuṁbaya: see *hiṭuvana līya*
manda: see *kavḷuva*
māntaḍiya : Short stick which manipulates rudder; tiller
mässa/viyal mässa: Shelf, usually of bamboo poles, rope and netting, constructed over the booms
maṭāma/velma: Rounded pin placed between gunwales, fastened to them and entwined with rope
midilla: ` Terminal component of washstrakes, i.e., at bow and stern; transom (Tm. *sarakaḍai)*
mudun gaha: see *hiṭuvana līya*

O

oru kaňda: see *kaṭupota*

P

pahakona/pakkanaya/pakkanē: Rope running from bow to stern via middle of a boom
palla/palu lālla/sukkānama: Rudder or lee-board (Tm. *sukkān)*
palu iha: see *baḍa rāna*
palukastōruva: see *kassaruva*
palukuraṅguva/palu uru vaṅguva: Curved strip of wood on outside of hull against which the rudder moves
paramānaya/parumānaya/ parumāne: see *kaḍagaha*
pattāra kūḍuva: see *lāli kūḍuva*
pāvāḍam polla: Foot-rest across inside of hull
pāvara daṇḍa: see *atlī kuṁbaya*
petta: see *heppuva*
petta taḍiya: Wooden pin at lower end of main mast which is slung on the boom by the *koṭavalaya**
piṭa pōraya/piṭa pōra/ piṭa pōruva: Gunwale[53]
pulupōruva: Patch of wood nailed to a portion of hull and shaped to fit in to the general curvature in places which have weathered away

R

ruvala: Sail (Tm. *kurappai)*
ruval äs: Mesh-work on sail-border
ruval kuṁbaya: see *atlī kuṁbaya*

S

sarakkaḍa: see *kaḍise*
sevaniya: see *hevaniya*
sira paturu: Bamboo strips sometimes used in the *hevaniya*
sukkānama: see *palla*

T

talla: Angular sides at bow and stern
tarappu kōṭu: Horizontal wooden pins driven through washstrakes at bow and stern and to which the mast-ropes are lashed
tavva: A perforated hole
teppu kuṭṭiya: see *heppuva*

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53 *Piṭa pōraya* is referred to as *orukaha* and *orukas* by Clough (1830, *s.v.).*

U

uḍu daṇḍa/*uḍu miṭiya*: see *hiṭuvana līya*
uḍu turāva: Top border of sail

V

vakkatta: see *baḍavaṅkuva*
vaṅguva/*vaṅkuva*: see *hiṭuvana vaṅguva*
vāriya: Portion of boom jutting outwards from gunwale
vāvarē: Rope connecting top of main mast to *kaḍise** in West coast canoe
vēḍāva: see *hēḍāva*
velma: see *maṭāma*
viyala: Boom (Tm. *visal*/*viyal)*
viyal mässa: see *mässa*

Y

yaṭa turāva/*yaṭi turāva*/*yaṭi vārama*: Foot of sail

GLOSSARY II: TERMS for 'TYPES' of *ORU*[54]

äm oru: Small canoes for catching bait fish
bala oru: Large canoes for catching *balayā** in deep sea
häḍi oru: Large canoes in general
issage oru: Canoes used to catch prawns, *issō**
kaṭṭi däl oru: Canoes for laying nets in lagoons (Negombo)
kuḍa oru/*kuḍā oru*/*mūda oru*: Small canoes in general
piḷā oru: Small canoes of the very elementary type generally without washstrakes
vallam/*vallam oru*: Net-carrying vessels with open and curving washstrakes generally of the East coast
vārakan oru: Large canoes used during the rough season

(Note: The *bala, häḍi* and *vārakan* 'types' are often the same craft. *Häḍi* is a West coast term for the large *oru* which may be used to catch the *balayā* and go to sea during the *vārakan** period)

GLOSSARY III: TERMS for IMPLEMENTS etc.

äma/*änkaḍē*: Bait
äm pihiya: Small knife to cut bait
aňḍu iraṭṭa: Net-weavers' spindle
ataṅguva: Shrimp-net
ävilum biliya/*ävulum biliya*: Hook to lift large fish on to canoe
ävilum gala: Stone anchor
baru: Weights (of lead in small nets, and of stone in large ones)
bilī kaṭṭa/*biliya*: Hook
bōyāva: Buoy
däla: Net
at däla/*baru däla*/*vīsi däla*: Small net thrown out *(vīsi)* by hand *(at)* and having lead weights *(baru)*
ahurana däla: Enclosing net
hurulu däla: Net to catch the *hurullā* fish
mā däla: Seine net

Parts of *mā däla*

gaṇa däla: Portion of 6″ string mesh
kaḍuginiya manda: Long portion at either end woven into broad mesh in coir rope
koluva däla: Portion of 3″ string mesh
maḍiya: Central bag-shaped trap woven of close thread mesh
maha maḍiya: Upper half of *maḍiya* with opening
palle maḍiya: Lower half of *maḍiya*
taṭṭu däla: Portion of 4″ rope mesh
tiriṅguva: Portion around trap-opening made of close thread mesh
tūri maḍiya: Centre of the trap woven of ½″ thread mesh
saḷuva maḍiya: Trap of 1″–2″ thread mesh

54 Scale drawings and photograph of these and other Sri Lankan watercraft are reproduced in Kapitän (2009).

pāvena karamal däla:	Floating gill net
Parts of *pāvena karamal däla*:	
uḍu manda:	Upper edge of net
yaṭi manda:	Lower edge of net
diyāḷuva:	Water-bailer
ipilla:	Small float
maṅgara lāmpuva:	Thick-wicked lantern used by fishermen
maru väla:	Steel wire at end of fishing line to which the hook is attached
maspolla:	Striker
mayiyama:	Simple apparatus to measure depth of sea and direction of current (Tm. *mayiyam)*
nen diyāḷuva/niyam diyāḷuva:	Small water-bailer for wetting sail
pähä/pululla:	Rattan basket tied, half dipped in water, to canoe for carrying live bait
palāva:	Short, flat strip, usually of bamboo, around which net-meshes are woven
pannaya/panne:	Fishing gear such as rod, line etc.
äm p.:	Simple bait-and-hook gear
bala p.:	Pole-and-line to catch the *balayā*
däl p.:	Net
duvana p.:	Line dragged along by running canoe
maruväl p.:	Short line floated on two buoys
piti p.:	Simple rod-and-line gear
puḍu p.:	Line with one hook
rāmūdu p.:	i. Fishing gear used during the night ii. The act of fishing by night
siras p.:	Line with several hook-and-bait terminals dropped vertically down
telikaṭu p.:	Line meant for medium sized fish
yot p.:	Simple hook-and-bait line
pataṇḍuva:	Pole used to lay nets in the sea
pattara alla:	Net-weaver's spool
pāya biliya:	Baitless hook
ṭakāva:	Spindle for spinning several strands of thread to form a *yota**
yota:	Fishing line
adina y.:	Line thrown out to sea by a fisher on the shore
bara y.:	Line tied to waist of the tindal*
bassana y.:	Line let down vertically from boat
kada y.	Line tied to central boom near hull
koṭā y.:	Line tied down to the *kaḍise**
kuṭṭi y.:	Line tied down to the *pahakona**
manda puḍuva y.:	Line tied down to the *vāvarē**
puñci koṭa y.:	Line tied down to the *hiṭina rāna**
yaṭi talē y.:	Line tied down to the end of the *pāvara daṇḍa**

GLOSSARY IV: TERMS that refer to the PERSONNEL

The tindal or the 'captain' of the canoe, as referred in various localities:

annatā (Negombo), *hännaddā/hännadi rāla/hännädi rāla* (Mātara, Negombo, Trincomalee), *maṇḍaḍi rāla* (Kaḷutara), *mannaḍiyā* (Trincomalee), *marakkalahe/ marakkalāhe/marakkaläh*e (Bēruvala, Mātara, Taṅgalla), *niyamu* (Bēruvala), *taṇḍal* (Hambantoṭa, Negombo), *taṇḍalē* (Kaṭunēriya), *taṇḍayal* (Batticaloa)

bōdā:	Fish auctioneer or seller
gäṇiya/havula/kalāsiya/kalliya:	Crew of a canoe
vīccukāran:	Look-Out (Tm. in Batticaloa)

Remarks:

Hännaddā, together with its variants, appears to be the West coast term that may also be observed on the East coast which is visited by fishermen from these localities during the October-March season. Instances are not rare when Southerners who have settled down on the East coast have also got used to this term.

It is not possible to indicate for certain the etymology of this term. Learned people of these localities suggest:

i. *sannaddha* ('armoured', therefore, 'the one that is ready or equipped')
or
ii. *saṁvidhāna* ('organization', therefore, 'the one that organizes') as the possible sources.

Annatā, the term known in Negombo, appears to be a 'corrupt' form even of *hännaddā.* A generation ago, and in Negombo itself, a form *hanväddā* was also current.

Perera (1917, 37) refers to a term *mannandi rāla* (likely, *mannaṇḍi*) used to mean a headman supervising fishing operations at a fishing locality.

An interesting linguistic usage is the foregoing *marakkalahe* (and its variants) which denotes the leader or the captain of a canoe. It is a South coast term, rare on the South West and almost unknown elsewhere except where Southern fishermen have settled down (e.g. Trincomalee area) even as temporary migrants. The word possessed the very meaning as of today during the 16th century, for a Portuguese tombo recording the dues from the fishermen of Kaḷutara contains this word. It is, nevertheless, spelt as 'margalea' (Pieiris, 1949, 38).

The *marakkalahe* is, indeed, a man of the highest accomplishments as far as his trade is concerned. He knows his canoe—the making and the working of it from the beginning to the end—the implements and the fine art of using them; he interprets (through the stars) the time of the night, the compass directions and the directions of the currents; he knows to pin-point the diverse fishing grounds by day and even on dark, moonless and, sometimes, stormy nights, by taking alignments from distant objects such as light-houses and peaks of hills and mountains; he can recognize distant shoals of fish from the mere colour of the water surface; he knows to tackle the worst of storms even at dead of night and bring his craft safe to port as by sheer intuition; he knows the bays, the points, the estuaries, the rocks, the shallows and the reefs; he knows the winds, the drifts, the whirls etc., and the art of steering through them.[55]

But the word *marakkalahe* does not appear to possess the simplest association with any of these accomplishments. It does not appear to be one derived from a Sanskrit root form, and is unknown to Sinhala classical literature even in a modified form. It is however, phonetically connected to the Tamil *marakkalam* which means 'ship, vessel, boat', and *marakkalan* which means a sailor or the master of a ship (*TL*, *s.v.). S*ee also *supra* pg. 45, footnote 45.

The Moors of Sri Lanka, in addition, are known by the allied Sinhala term *Marakkala*, likely derived from the Tamil *marakkayār* (in turn derived from the Arabic *markab)* meaning:

i. a Tamil-speaking Muslim tribe
   and
i. boatmen (TL. *s.v.).*

Both these meanings are applicable to these people because their language today is Tamil, and their ancestors arrived in this island in sailing ships.

'*Taṇḍal*' and its variants are, no doubt, allied to the Tamil *taṇtal*, 'chief of a small vessel or ship' (*TL*, *s.v.).* It is also allied to the Maharastri *taṇḍel*, Hindi and Urdu *taṇḍēl*, Telugu *taṇḍēlu* and Malayalam *taṇḍel,* all of which mean 'foreman, 'chief of a body of men' and 'chief boatman'. The English 'tindal' is a derivative (*OED***,** *s.v.*).

GLOSSARY V: TERMS used by FISHERMEN in connection with the SEA

äm gal mūda:	Area of sea where lie rocks around which bait fish lives
bājja/valālaya:	Low tide
dōre	Sandy bottom of sea along shore-line
gähena mūda:	Fathomable sea
gal goḍa/gal maga:	Rocks on the shore-line
ganijja:	Flood-water in the sea
harāhava/harāva/harāya/ pulukkana:	Section of calm sea, November–March, on South and West coasts
hīn bassana mūda:	Fairly deep sea
hiri gāma:	Breaking of the surf
idivara diyamahana/valkeḷa:	Alignment taken when far out at sea
īruva:	High tide with big waves evident close to shore

55 The parallel with Chaucer's Shipman is noteworthy:

> But of his craft to rekene wel his tides,
> His stremes and his strandes him besides,
> His herberwe and his mone, his lodemanage,
> Ther was non swich, from Hull unto Carthage.
> ... ...
> He knew wel alle the havens, as they were,
> Fro Gotland, to the Cape of Finistere,
> And every creke in Bretagne and in Spayne. (*The Canterbury Tales*, ll. 403–6, 409–11)

kabba/kalaba/kalba: Phosphorescence
kaḷuva: Stretch of dark sea-water
kaḷuvara mūda/ maha bassana mūda/ piṭikala/pokkalama: Deep sea
karijja: Sea water
kupata: Rock out-crop in the sea
maha bassana mūda: see *kaḷuvara mūda*
makare: Extremely deep area of the sea
māriyā pōruva: Prevailing condition of the waves
māriyāva: Condition in which tall waves are accompanied by strong wind
māḷurata: Stretch of sea made ruddy by shoal of fish
nogähena mūda: Sea the bottom of which cannot be felt by the anchor available
piṭikala/pokkalama: see *kaḷuvara mūda*
puhāruva: Fishing ground
pulukkana: see *harāhava*
vaḍijja: High tide
valālaya: see *bājja*
vāṅgalē: Sea water churned up with sand

GLOSSARY VI: NAMES of OCEAN DRIFTS (A), WINDS (B) and STARS (C) as used by FISHERMEN

A

diyaṁba diyaväla/ diyaṁba ganna diyaväla: Drift towards the deep (Mātara and Bēruvala)
goḍa adina diyaväla: Drift towards the shore (Mātara)
goḍaṭa adina diyaväla: Drift towards the shore (Trincomalee)
goḍa bāna diyaväla: Drift towards the shore (Bēruvala)
goḍa mirikā ādduma: Drift running parallel to the shore (Hambantoṭa)
hulaṁba diya: Current accompanying strong wind (West coast)
huḷambōdiya: Northerly drift (West coast)
ruhuṇu diyara: Drift from the East (Taṅgalla)
sun diyara / *sunu diyaväla*: Interrupted drift (?)
uturu diya: Drift from the north (Mātara, Trincomalee and West coast)
uturu diyara/ uturu jiyara : Drift from the north (Taṅgalla)
uturu diyaväla: Drift from the north (Trincomalee)

B

goḍa huḷaṅ: Land breeze
karavaḍi huḷaṅ: Wind from the north (Bēruvala)
kelavakan: Wind from the east (Taṅgalla)
kōḍaya: Gust of wind
māri mōsam huḷaṅ: North East Monsoon (East Coast)
mōra boku huḷaṅ: Smelling wind (?)
mūdu huḷaṅ: Sea breeze
uturu goḍa huḷaṅ: Land breeze from the north (Taṅgalla)
uturu huḷaṅ/uturukan: Wind, generally from the north, during NE Monsoon
uturu mōsam huḷaṅ/ uturu mūde huḷaṅ: The North East Monsoon
vāra goḍa huḷaṅ/ vāra huḷaṅ: Land breeze
vārakan/vāra mūde huḷaṅ: Strong wind from the sea

C

hat dinna
hat päyē taruva
heṭṭi maran (Bēruvala)
hirikaḍa taruva (Trincomalee)
kappal taruva (Bēruvala)
kiri kada/kiri tel kada (Taṅgalla)
kurusa taruva (West Coast)
māñcu taruva (West coast)
mañjiyara taruva (Kōṭṭagoḍa)
näva (Taṅgalla)

pahan taruva/pān taruva/udaya taruva: Morning Star
pāḷos pāya taruva/pasaḷos taruva (Dikvälla)
purusa taruva (West coast)
ruhuṇu diyara taruva (Kōṭṭagoḍa)
uturu taruva (West coast)

Remarks:

It is not possible to define some of the above in terms of known data; such instances are left glossless; occasions are not rare when the fishermen themselves are vague about certain descriptions; sometimes one informant's description is at variance with another's.

The term *māri* in *māri mōsam huḷaṅ* is likely an abbreviation of *māriyā*, plural of *māriyāva**.

Some terms are not known throughout the coast-line of the island, but are regional usages and localities where they are rather more prevalent are indicated.

GLOSSARY VII: A few EXPRESSIONS used by the FISHERMEN

Ahina/ayina:	shoal of fish
Ambāva/hambāva:	chant, specially when dragging seine net
araniyaṭa bānavā:	to fish here and there with no fixed location
avulak enavā/dahak enavā/ sudak enavā:	'the shoal is nearing the boat'
hã̄lla kiyanavā/vali kiyanavā:	to sing the chorus, specially when dragging the seine net
kahavu gānavā:	to fish with jerking motion of rod, specially the *koraṁburuvā*
māḷu diya gahanavā:	shoal disturbing surface of sea
panavanavā:	tacking
pōruva:	in tacking, a run in each direction
rēndaya:	i. apportioning of fish ii. place where it is done
yānavā:	lie at anchor

A few 'secret' terms for fish

hoṅḍa kārayā for *kopparā*, *jākollā* for *kelavallā*, *kiribaṇḍiyā* for *äṭavallā*, *lē kārayā* for *balayā*, *madinnā/surā/suruṭṭuvā* for shark, *mānnakkārayā/mēsa kārayā/vansakkārayā* for *tōrā*, *tallatu kārayā* for *maḍuvā*, *vaṭṭi kārayā* for *talapatā*
yāḷuvā for a fish in general

GLOSSARY VIII: SURNAMES associated with the SEA and the *ORU*

Hännädigē, *Andrā –*, *Hēvā –*, *Juvanā –*, *Kaḷu –*, *Kōku –*, *Kūna –*, *Pasikku –*, *Sudu –*, *Suvaṅdā –*
Maṇḍāḍigē, *Maha –*
Marakkalagē, *Arsa –*, *Kaḷu –*, *Loku –*, *Maha –*, *Malnayida –*, *Sandrā –*, *Mayi –*
Marakkala Mānagē
Mihiṅdukulasūriya
Varṇakulasūriya, *– Paṭabäṅdigē*

Remarks:

It is likely that *Varṇakulasūriya* is a corruption of a form *Varuṇakulasūriya* which may have been the original surname. Varuṇa is a Vedic deity—the Lord of the Waters (Sorensen, 1963, *s.v.*) and is not unknown to the Sinhala people; and the *Sälaḷihiṇi Sandēśa* (ed. Kumaratunga, 1952, 49) alludes to him as *sädā ḷen varuṇa dev rada muhudä visu* ('. . with a faithful heart, the great divinity Varuṇa who lived in the sea'). The name means 'the sun *(sūriya)* of Varuṇa's clan (*kula*)', and 'Varuṇa's clan' is not an inappropriate term for these 'men of the sea'. There is, incidentally, a surname *Varuṇakulasingham* among the Tamil people of Negombo. The term *varṇa,* on the other hand, means 'colour', 'form', 'kind', 'clan' and 'letter of the alphabet' (*SSS*, *s.v.),* none of which can fit into the expression to give a sensible meaning—far from an appropriate one.

The form *varṇa* taking the place of *varuṇa* is an instance of a more common but phonetically similar word taking the place of a less common one.

The form Varnakuly is evident in a Portuguese tombo of 1593 (Pieris, 1949. 82).

The surname *Mihiṅdukulasūriya* also demands comment. *Mihiṅdu* is the Sinhala form of *Mahinda* and Mahinda is the revered sage who introduced Buddhism to Sri Lanka 23 centuries ago and there were a few kings too with the name Mahinda. The surname in question means 'the sun of Mahinda's clan' which does not appear to have any relevance so

far as its application to these people is concerned. The original form (now unheard of) may likely have been *Muhudukulasūriya—muhudu* being the sea; and *muhudu* can undergo a phonetic change and come to be pronounced as *mihidu* which can inspire a form *mihiňdu.*

GLOSSARY IX: INDIGENOUS NAMES of FISH (mentioned in the text) and their ENGLISH and ZOOLOGICAL EQUIVALENTS

alagoḍuvā:		*Euthynnus pelamis* (Linné)
aňcilāvā:		*Scombero morus guttatus*
äṭavallā:		*Euthynnus Alletteratus* (Rafinesque)
balayā:	Bonito/skip-jack/striped tuna	*Euthynnus (Katsuonus) pelamis*
hurullā:		*Clupea (Ambiygaster) leiogaster*
issā:	Prawn/shrimp	
kalamīyā:		*Pristipomoides typus* (Bleeker)
kelavallā:		*Thunnus (Germo) macropterus* (Schleg.)
kopparā:	Spearfish	*Tetrapturus indicus* (Cuv. and Val.)
koraṁburuvā:		*Clupea (Harengula) moluccensis*
lāggā:		*Engraulis baelma*
maḍuvā:	Ray	*Brachirus orientales* (Bloch and Scheider)
mōrā:	Shark	*Eulaniia* (species)
pännā:		*Mene maculata*
paravā:		*Caraux* (species)
talapatā:	Sail fish	*Istiophorus gladius*
tōrā:	Seer	*Acanthocybium* (species)

GLOSSARY X: NAMES of PLANTS (mentioned in the text) and their SCIENTIFIC EQUIVALENTS

aṁba:	*Mangifera Indica*	*māra:*	*Albizzia Lebbek*
bädi del/kälā –/miyan –/ raṭa –/val –:	*Artocarpus Nobilis*	*milla:*	*Vitex altissima*
buruta:	*Chlonoxylon Sveitenia*	*miyan del*:	see *bädi –*
cīna:	*Calophyllum Inophyllum*	*nädun*:	*Pericopsis mooniana*
halmilla:	*Berrya Ammonilla*	*neḷum:*	*Nelumbium Speciocum*
hora:	*Dipterocarpus Zeylanicus*	*ōḷu:*	*Nymphaea lotus*
hurimāra:	*Albizzia odoratissima*	*palu:*	*Mimusops hexandra*
kaḍol:	*Rhizophora mucronata*	*para māra/pini–:*	*Entorolobium saman*
kälādel:	see *bädi –*	*punna:*	*Calophyllum inophylum*
käppiṭa:	*Croton laciferus*	*raṭa del*:	see *bädi –*
kayila:	*Phyllanthus Reticulatus*	*sūriya*:	*Thespesia Populnea*
kirala:	*Sonneratia acidu*	*uṇa*:	*Bambusa vulgaris*
kohoṁba:	*Azidirachta Indica*	*val del*:	see *bädi –*
kolom:	*Adina Cordifolia*	*vāli kaha:*	*Memocylon Capitellatum*
kōn:	*Scheichera trijuga*	*välipänna:*	*Anisophila Zeylanica*
kos:	*Artecarpus Integrifolia*	*velaṅ/velaňga*	*Pterospermum suberifolium.*
luṇumidella:	*Melia dubia*		
malkāra	*Ochna squarrosa*		
malmāra:	*Acacia leucophlora*		

ABBREVIATIONS

AD	:	*Anno Domini*	ed., eds	:	edited by
BC	:	Before Christ	etc.	:	*et cetera*
c.	:	century	fig.	:	figure
c.	:	*circa,* about	fn.	:	foot note
cm	:	centimetre	ft.	:	feet
Ch.	:	Chapter	*ibid.*	:	*ibidem,* in the same place
DFEO		Divisional Fisheries Extension Office	i.e.	:	*id est*, that is

ins	:	inches	LFMU	:	Lagoon Fishing Management Unit
m	:	metre	Skt.	:	Sanskrit
NE	:	North East	*s.v.*	:	*sub verbo*, under the word
pg., pgs	:	page, pages	SW	:	South West
p1., pls	:	plate, plates	Tm.	:	Tamil
P.	:	Pali	tr.		Translated by
S	:	South	Ven.	:	Venerable
SE	:	South East			

>	becomes
<	is derived from
°	degrees
′	feet
″	inches

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About this book .....

Prof. Vithārana has taken up for intensive research a subject which had hitherto not been investigated in such detail by any scholar. In a comprehensive work which begins with the history of the dugout outrigger canoes in diverse civilizations and its distribution in various parts of the world, Prof. Vithārana deals with the history of this particular craft in Sri Lanka. In the process of his research he has gathered a mass of technical information on boat construction and ship-building in Sri Lanka. He ends his dissertation with a detailed examination of an apparently indigenous and certainly innovative outrigger vessel called *yātrā* developed in Sri Lanka.

Prof. Vithārana has brought into his work his usual research skills characterized by the extensiveness of the literature and the technical fields covered and the depth of details analysed patiently with meticulous care.

H.E. Dr. Ananda Guruge
Ambassador of
Sri Lanka in France

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Director-General of Archaeology

A very scholarly work, and certainly a timely one in view of our Maritime Museum project now nearing completion.

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A most fascinating monograph, and congratulations for a sound grasp of maritime and nautical technology and terminology.

Somasiri Devendra
Secretary, Sri Lanka Maritime Archaeology Society

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apē oru gäna potak liyanna puḷuvan bava hituvē nā
(We did not imagine that a book can be written about our *oru)*

Vimaladāsa and Edwin
(fishermen of Taṅgalla)

VINI VITHĀRANA

Prof. V. Vithārana (b. 1928), B.A., B.A. Hons. (1st Cl.), M.A., Ph.D. (Lond.), Ph.D. (Cey.), D.Litt. (SJP) was Associate Professor in Sinhala at the Śrī Jayawardenepura University, Nugēgoḍa, and Professor of Sinhala at the Ruhuna University, Mātara, of which he is presently Professor Emeritus. He specialized in the teaching of Classical Sinhala Literature and Historical Linguistics.

He is, however, a researcher in a variety of disciplines: Archaeology, Cultural Anthropology, Religion, History etc., and has compiled several major scholarly works and articles and delivered lectures in these fields at University level and at learned societies locally and abroad.

He is a recipient of several local and foreign honours and has recently (February 2012) been conferred with the Doctor of Literature (*Honoris Causa*) Degree by the University of Śrī Jayawardene Pura.

His main avocation today is the translation of outstanding Sinhala Classical Poems into English verse and of select English poetical works into Sinhala verse, metrical and rhymed as far as he finds possible.

EDITORIAL NOTE

Vini Vithārana's *The Oru and the Yātrā*, published in 1992, was the first extended study of the traditional Sinhalese outrigger logboat. In the light of the significant research since published, importantly Gerhard Kapitän's *Records of Traditional Watercraft from South and West Sri Lanka*, published as the second in the NAS Monograph Series in 2009, it remains a document of much historical interest. It is for that reason that the Nautical Archaeology Society agreed to sponsor this internet edition.

With the devastation of Sri Lanka's shoreline in the 2004 tsunami, her traditional watercraft were decimated. Those we now seen around her coasts are for the most part GRP clones. While these craft are handled in much the same as in the past, serving much the same function, traditional building methods are being abandoned. The account of constructional methods in Chapter IV and V is therefore to be understood as a description of practices then current – in spite of the retention in this edition of the present tense.

The opportunity has been taken to add more illustrations – photographs and drawings to the original line drawings and add reference to recent relevant publications. Minor drafting changes have been made to the text. Apart from that the text now published is to all intents and purposes that of the 1992 edition.

Gerald Grainge
NAS Monograph Editor
June 2012