

Design Resource

## Boat Making, Kerala

The Craft of Making House Boat

by

Prof. Bibhudutta Baral and Mr. Antony William

NID, Bengaluru

Source:

<http://dsource.in/resource/boat-making-kerala>

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<http://dsource.in/resource/boat-making-kerala/introduction>

## Introduction

The traditional houseboat of Kerala, called Kettuvallom, means, a boat made by tying of wooden planks together. This craft has evolved over a few decades ago from the traditional cargo carrying Kettuvallams into a makeover of highly popular, eco-friendly luxurious boats. The most esteemed and attractive event is the competition of the “ChundanVallam” or the snake boat, measuring the length of 30 to 60 meters (over 100 ft.), accommodating around 100 rowers, 4 helmsmen and 25 cheer leaders. The boat race is conducted yearly and has been named after Pundit Jawaharlal Nehru as Nehru Trophy Boat Race. Interestingly, the nails are barely used for joining of the planks as most of the planks are bound with coir. The interiors and the exteriors of the houseboat are mostly made of wood. The house boat houses well furnished and luxurious bedrooms, attached bathrooms, kitchen, common wash room for the crew, wash area, spacious living room, romantic sun deck zone and a lengthy corridor for easy accessibility to all the areas. The contemporary house boats have been designed to meet high quality standards.



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## Making Process And Tools

### Introduction:

The boat is constructed featuring the prehistoric principles and techniques of boat building by the local carpenters. All the materials used are available locally and are eco-friendly. The main wood used to make the boat is "Aangili" (Artocarpus hirsuta). This timber is obtained from Kottayam district in Kerala. Nails are barely used for joining of the planks as most of the planks are bound/joined using coir/husk and coir rope. The planking of the hull is done by laying a series of wooden planks, cut lengthwise. The planks are carved on the sides, using a planer. The plank is drilled on both the sides, uniformly at equidistance, using a drilling machine. The planks are bound/joined temporarily with synthetic ropes through the drilled holes. For the filling, the husk is separated from the coconut shell and repeatedly beaten with a hammer. The strands of fibre are taken and bundled. This bundle is inserted inside the twelve strips of twines. This bundle of fibre and twines are stitched in a vertical and cross-stitch pattern, using a large needle and is hammered. This filling ensures boat sturdiness and makes it water resistant. The holes which were used for stitching are again stuffed with the husk to avoid seepage. The craftsman hammers from beneath the boat, pulls and tightens the coir. A coating of the caustic black resin (made from boiled cashew kernels) is used on the planks for water resistance.

### Boat making-Tools

### Introduction:

Most of the tools and instruments used in making a boat are available locally in Kerala. The palm trees, areca nut trees, bamboos and other natural raw materials are used for the construction of the boat. All the raw materials used onboard are eco-friendly, right from the solar power energy system to the decor used in-house. Following are the tools and raw materials used for making the boat:

- Chuttiga (Wooden Mallet) – It is used to fasten the nails
- Sooji (Needle )
- Kathri (Scissor)
- Uli - Chisels
- Veeduli – A Large V- Shaped Chisel
- Valam - Mallet made of mild steel is used to chisel out the wood
- Traditional handmade Drilling machine
- Earchavall - Saw – Two types – Handmade and machine - used to cut the wood into planks
- Fish oil or Veppu (Neem) oil for bending the plank
- "Aangili" wood (Artocarpus Hirsuta)
- Mayyara or Parumakkol - Marking tools, used to identify the thickness. The Mayyara is used to make parallel lines from one edge to another.

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- Chiplithadi – The Planer – is used to level or plane the wood at various stages.
- Mattam - Right angle, made out of wood is used to draw the angles.
- Thothu or Muzhakolu – Thothu is a measuring tools, made out of small wooden strips, is used to measure the width of the planks and a Muzhakolu, made from Palm tree, is used for larger length measurements.
- Sheetukol– The Depth Gauge – Is made from metal rods, used to clear the drill hole and to measure the length of the hole.
- Nails varying between 4 inch to 1 foot & files

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<http://dsource.in/resource/boat-making-kerala/making-process-and-tools>



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## Products

Several materials are used to make a boat. Bamboo is used for the framework of the roof and splits of the bamboo are used for weaving mat for the ceiling. Long bamboo poles or 'punts' are used to propel in shadow areas. The pipes, tank and other synthetic materials are covered with coir or panambu to maintain the aesthetic quality of the eco-friendly materials. For the finishing of the boat, following materials/products are used:

- Bamboo sticks
- Coconut fibre
- Ropes
- Bamboo mats
- Carpets
- Other furnishings

The varieties of boats manufactured in Alleppy are commonly:

- Transportation - Regular Boat, Passenger boats, Ferryboats
- Luxurious boats - House boat, fancy passenger boats
- Games - Snake boat
- Renovation of the existing boats



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## Slide Show

Views of the Boat Making:



The luxurious and traditional house boat of Kerala called Kettuvallam.

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Different type of house boats and passenger boats anchored at the bank of the river.



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The hull is one of the important parts in building the structure of boat.



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The metal skeleton structure of the keel and the ribs.





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The planks are affixed at the center for the extension of the boat.



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The boat is perched on the wooden logs for support and this method enables proper work activities of boat making.



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The raised platform enables easy accessibility for the craftsmen to construct the boat.



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The overview of the boat making platform.



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Making Process And Tools:



The plank is mildly heated to obtain the curvature of the boat.

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The additional planks are added for renovation and joined to the boat.



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The planks are temporarily nailed and stitched together with the synthetic rope.





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Work environment of boat making.



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The strands of fibre are bundled and the twelve strips of twines are inserted into the coir.



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The bundles are stitched with coir in a vertical and cross-stitch pattern, using a needle and hammered between the planks for boat sturdiness and water resistance.



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The cavity holds the twine within the grooves.



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The closer perspective of sealing the joints of the boat.



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The craftsman hammers from beneath the boat and pulls and tightens the coir.



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The craftman pulls the coir.



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The coir is pulled and tightened using the hammer.





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The hole is ensured to avoid seepage.



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The saw is used to cut the wood.



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The tools essential for boat making.



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A set of tools used for the sealing process.



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Products:



A passenger boat.

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A luxury passenger boat for tourists.



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A boat used for transportation of goods for trading.



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The traditional and luxury house boat of Kerala called Kettuvallom.





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The Chundan Vallam or the snake boat, used for the annual Nehru Trophy boat race.



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- [Online Infomation Centre for Crafts](http://www.india-crafts.com/)(<http://www.india-crafts.com/>)
- [Handmade in India](http://www.cohands.in/handmadepages/book0.asp)(<http://www.cohands.in/handmadepages/book0.asp>)
- [Crafts Council of India](http://www.craftscouncilofindia.org/)(<http://www.craftscouncilofindia.org/>)
- [Craft Mark](http://www.aiacaonline.org/)(<http://www.aiacaonline.org/>)
- [Arts and Crafts - Handicrafts and Handlooms](http://www.orissa-tourism.com/handi1.htm)(<http://www.orissa-tourism.com/handi1.htm>)

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