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Navigation in Ancient India

#LongThread



Indian civilization has been without a break for the last few millennia. This means there have been external connections and indigenous maritime assets.

Among the remains, the maritime assets archaeology are much prized and cited, a dock being the most prized. It also precludes the requirement of knowledge of the seas i.e. a compass.

The very word Navigation is derived from the Sanskrit word 'Navgatih'. The word navy is also derived from Sanskrit 'Nou'.

There were Sanskrit terms for many parts of a ship. The ship's anchor was known as Nava-Bandhan-Kilaha which literally means 'a nail to tie up a ship'. The sail was called Vata Vastra, which means 'wind-cloth'.

The hull was termed Stula Bhaga i.e. an 'expanded area'. The rudder was called Keni-Pata, Pata means blade; the rudder was also known as Karna which literally means an 'ear' and was so called because it used to be a hollow curved blade, as is found today in exhaust fans.

The ship's keel was called Nava-Tala which means 'bottom of a ship'. The mast was known as Kupadanda, in which danda means a pole.

Even a sextant was used for navigation and was called Vruttashanga-Bhaga. But what is more surprising is that even a contrived mariner's compass was used by Indian navigators nearly 1500 to 2000 years ago.

This claim is not being made in an overzealous nationalistic spirit. This has in fact been the suggestion of a European expert, Mr. J.L. Reid, who was a member of the Institute of Naval Architects and Shipbuilders in England at around the beginning of the present century.

This is what Mr. Reid has said in the Bombay Gazetteer, vol. xiii., Part ii., Appendix A: "The early Hindu astrologers are said to have used the magnet, in fixing the North and East, in laying foundations, and other religious ceremonies.

The Hindu compass was an iron fish that floated in a vessel of oil and pointed to the North. The fact of this older Hindu compass seems placed beyond doubt by the Sanskrit word Maccha Yantra, or fish machine, which Molesworth gives as a name for the mariner's compass".

It is significant to note that these are the words of a foreign Naval Architect and Shipbuilding Expert. It is thus quite possible that the Maccha Yantra (fish machine) was transmitted to the west by the Arabs to give us the mariner's compass of today.

Yukti Kalpa Taru, a treatise compiled by Bhoja Narapati has been translated and published by Prof. Aufrecht in his 'Catalogue of Sanskrit Manuscripts.'

A study of this treatise had been undertaken by Dr. Radha Kumud Mookerji entitled 'Indian Shipping' and was published by Orient Longman, Bombay in 1912.

The treatise gives a technocratic exposition on the techniques of shipbuilding, providing minute details on various types of ships, their sizes along with materials from which they were built. The Yukti Kalpa Taru sums up in a condensed form all the available information.

Apart from describing the qualities of the different types of wood and their suitability in shipbuilding, the Yukti Kalpa Taru also gives an elaborate classification of ships based on their sizes.

The primary division is into 2 classes:

Samanya (ordinary) and Vishesha (Special).

The ordinary type was for sea voyages. Ships that undertook sea voyages were classified into dirgha type of ships which had a long & narrow hull and the Unnata type of ships which had a higher hull

The treatise also gives elaborate directions for decorating and furnishing the ships with a view of making them comfortable for passengers. Also mentioned are details on internal seating and accommodation to be provided on the ships.

Three classes of ships are distinguished according to their length and the position of cabins:

1. Ships with cabins extending from one end of the deck to the other were called Sarvamandira vessels. These ships were recommended for the transport of royal treasure and horses.

2. Madhyamandira vessels had cabins in the middle part of their deck and were recommended for pleasure trips.

3. Agramandira ships were used mainly in warfare.

Indian shipping has thus had a long and brilliant history covering a period of about five millennia from the very dawn of India's civilization in the Indus Valley.

Both Hindu and Buddhist texts are thus replete with references to the sea-borne trade of India that directly and indirectly demonstrate the existence of a national shipping and shipbuilding. It was one of the great national key industry of India.

Indeed, all the evidence available clearly shows that for full thirty centuries India stood at the very heart of the commercial world, cultivating trade relations successively with the Phoenicians, Jews, Assyrians, Greeks,

Egyptians, and Romans in ancient times, and Turks, Venetians, Portuguese, Dutch, and English in modern times. There is enough evidence to prove that Indians maintained their maritime activity throughout the ancient and medieval periods,

naturally with variations in its extent and excellence, over such a long period. Both Basham and Marxist historians of India have presented untruths and half-truths as truth.

George Coedes French historian and author of Indianized State of South East Asia has said:

"I am convinced that such research will reveal numerous facts which will indicate a much deeper Indianization of the mass of the population than the sociologists will at present admit."

Sylvain Levi French art Historian has shown how references in the Ramayana, Mahabharata, Mahanidessa, and Brihat-Katha that the products of Burma and Malaya Peninsula were known to Indian merchants and

sailors and also some of its ports such as Suvarnakudya, Suvarnabhumi, Takkolam, Tamlin and Javam from at least first century A.D. (Ancient India – By V. D. Mahajan p. 752-753).

That Indian traders and settlers repeatedly undertook journeys to Southeast Asia, despite the hazards and perils involved, speaks well for their physical prowess, courage, and determination, even if allowance for the pull of profit is made.

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