Unique Boat in the Bay of Bengal Coast of Orissa.

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The Orissa coast of east India is known to have been an important area of maritime activity throughout historical times. The use of its coastal and estuarine waters have facilitated the transportation of grain from hinterland and salt from the coastal area via ports established at river mouths and within coastal lagoons for many hundred years. Active maritime commerce supporting many varied forms of fishing still flourishes to day.

The particular environment in which it operates has influenced the design and structure of the boat. Its development has been conditioned by the geography of local waters, climate and the purpose for which the boat was needed. Apart from this, the availability of material for their construction, tradition of craftsmanship which develops among the boat builders and the nature of the culture of the people building them are some other requirements.

One of the earliest facts ascertained while investigating the design of Indian coast craft is the co-relation of particular design with definite regions on the coastline. Some clearly marked physical features characterize it. The amount of overlapping is comparatively insignificant. From all we can see is the prevalent design of fishing crafts. These are the same now in each region as they were hundred years ago. Each of these regions has its own boat type and its own characters.

The coastline of Southern Orissa has wide sandy beaches and surf beaten, which is typical of the coast of South India. The continental shelf of the Southern Coast is narrow and extended up to 40 km. Further, mouths of rivers are silted and inaccessible to the boats from the sea.

On the other hand the coast of north Orissa is characterized by creeks and rivers as well as extended tidal areas. The continental shelf in North Orissa is wide, forming a part of the shallow continental shelf of Bay of Bengal. Thus the Southern coast is narrow, having sandy beaches and open surf beaten coast. The Northern coastline is much shallow with a broad shelf, gradual slope and greater tidal range. Therefore, boats, which can withstand the surf of the sea, are found along the coast of South Orissa while the extended tidal shelf allows the use of displacement craft in estuarine and coastal waters.

The difference in ethnic and cultural background of fishermen also influences the structure of boats. The Masulas and Catamaran were the predominant watercrafts used by the fishermen of South India who constitute a majority in South Orissa. Therefore, the Masulas and rafts
are found in the Southern coastline where as the Oriyas and Bengalis of North Orissa use displacement crafts.

However, innovation in watercraft is possible when these factors coalesce. Apart from being an answer to the nature of the coast and the continental shelf in which a boat operates, any innovation in the structure of a boat is interplay between cultural tradition and economic imperatives. For instance, innovation in the traditional craft by installation of false keel or a rudder may be induced by the new economic environment of marine fishing, but the changes were not a sharp break from the traditional boat structure and its form. To give example of an extreme point the fiber made motorized watercraft which operates off Puri coast is a replica of 'teppa', the catamaran. So innovation in the structure or 'form' of the boats, to gain wide acceptance among the fishermen of a society at a particular point of time, must have the sanction of relevant cultural practices and belief. To put it inversely, the new boat form or structure must be in consonance with long established cultural tradition of that time.

The question arises why did such an extraordinary form exist? And more importantly, what were the factors, which led to such a remarkable continuity over last eight hundred years? An explanation to them may be sought in a regional boat building tradition, which requires in depth study of the evolution of boat building tradition of Orissa.

Ethnographic studies reveal diversity of boat types in the coast of Orissa. The structure and form of boats indicates difference in
geographical, economic and cultural pattern existing in the Northern and Southern coasts of Orissa.

**Cattamaran**

The log rafts, known as Catamaran, ply on the shores of Southern Orissa from Konark to further south, on the coast of Ganjam.

The surf beaten sandy coast line that runs with few interruptions from Tanjore to Orissa, hardly knew any sail other than the brown triangle of these sea going specialized rafts. Their Tamil name- Kathu Maran or "tied logs" - has become an English word. This bespeaks the uniqueness of their design. Two distinct types of catamaran exists. The finer and more elaborate model was found on the Coromandel Coast from Cape Calimere to the delta of Krishna. The other form was more primitive and less efficient, was found along the coast further north.

The Telugu fishermen north of Krishna and Godavari delta employ a primitive and simple form of Catamarans. On the shore of Ganjam, it consists of five logs brought to a narrow point at the fore end. Two accessory stem pieces being added to give a sharp beak point as in the best Tamil type. After the craft is abruptly truncated, the logs being cut off at the same level. Instead of being lashed together with rope, the logs are pegged together permanently. It is the comparatively smaller size of the crafts, which permitted the crew to carry it up the beach without separation of logs. The three median logs usually are the only full-length pieces used. The side ones being made of pieces of old logs pegged on to give the required curve to the side, upon each of the side logs a deep weather board set on edge is fixed, to give some light protection to the crew and their gear. The fore end of each board butts against the aft end of the stem piece of its own side. It gave a clear run fore and aft. Further South, on the coast of Vizagapatnam, the size was larger and the workmanship and the quality of the timber distinctly superior.

In the peculiar craft of this region, called 'teppu' in Telgu, we find a stage intermediate between the Coromandel or Tamil catamaran and the pegged-together Catamaran raft of Ganjam. Here the hull consists of two halves lashed together fore and aft when in use. Each half consists of a long log bearing a washboard surn on the outer edge, and with a pointed beak piece pegged upon the fore end. On coming ashore the rope lashings are cast off, where upon the two halves fall apart for ease in carrying up the beach.

In the largest size Catamaran a medium log is used to give greater beam. This is held in position by means of the fore and aft lashings when in use. In such case, the Cattamaran becomes divided into three main pieces when unleashed.

The medium log had also a pointed bow piece, but this was loose and not pegged on as was the case with those of the lateral sections. A small loose rudder is used when sailing, let down after between the ends of the main logs. Two men form the usual crew of one of these crafts.

One generally navigates these well-known floats by two men, but sometimes by only one with great skill and dexterity. Their main function was to pass through the surf on the beach all along the coast which country boat can not succeed. They are propelled through the water to a ship on the coast when boats of best construction and form would swamp. In the monsoon for balance a small outrigger is placed at the end of two poles, along with a bamboo mast and mat or cotton clothsail. When the tack and sheet of the said are let go, it falls fore and aft alongside. As it is light, it can be easily managed.
More than one Catamaran is joined to provide a bigger platform so that more materials could be transported and the ship could undertake longer journey. This type is called "Chapa" in the southern Orissa the specimen of which are found in the Chandan or Sandal festival in the month of Baisakha. But in northern Orissa such ships are known as Pui Pulia which are capable of carrying considerable load. But the floored outboard of Chapa was found unsuitable in open sea either for the voyage or for fishing operations. But the genesis of the outrigger owes more to the Chapa type of ships by shrinking the outboard-rowing gallery.

Orissa is one of the world's richest areas for sheer variety of traditional type of boat. These include the carvel built such as Chhoat and Salti and non-reverse clinker Danga. The Catamaran is viewed as a sophisticated solution to the need for a deep boat for specific operation in particular waters. Seeing it in the context of enormous range of boats were found on this stretch of India's east coast, one wonders how the clinched view of the conservatism of boatbuilder's ever arose.

References:
P Mohapatra, Traditional Marine Fishing Craft and Gear of Orissa, Bay of Bengal Program, Madras, 1861.
J Eyde, Description of the various classes of vessels constructed and employed by the Natives of the coast of Coromandel, Malabar and the Island of Ceylon for their coasting navigation, Journal of Royal Asiatic Society, June 1833.
J W Eyde, Mr Edye on the native vessels of India and Ceylon, London, 1834.
U Tietze, Artisanal Marine Fisheries in Orissa A techno Demographic study, Bay of Bengal program, Madras, 1884.

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