

An Archaeological Review on Maritime History of Odisha

RUDRA PRASAD BEHERA¹ & ARABINDA BOSE²

¹Assistant Curator, Odisha State Archaeology, Bhubaneswar. E-mail: 1986rudra@gmail.com

²Lect. in History, V.N. (Autonomous) College, Jajpur Road, Jajpur.

Abstract: Odisha is bearing the direct/indirect evidence of maritime activities in comparison to other coastal state of India. Odisha played a significant role in spreading Indian culture to other parts of the world in various context with the land and people of Mediterranean Sea, Persian Gulf, Red Sea, Africa and Indian ocean region (Southeast Asia). The maritime trade of the Odisha with other countries were started during early historical period. The coast of Odisha had transoceanic relation in the context of Indian-made, or Indian-influenced, objects found in archaeological sites in Southeast Asia belongs to the early historical period. Which is the formation and evolution of regional and inter-regional trading scope. The non-Indianized material such as ceramics, numismatic evidence from the coastal or hinterland Odisha shows the direct and indirect contacts of the land. The Indian influences in Southeast Asia were shows the multiple dimensions in expansion of socio-cultural-political history. Archaeological findings, explorations and excavations at various sites, epigraphical and numismatic evidences of different periods, and literary records reveals the seafaring archaeology of Odisha. From early historical period the maritime trade activities of Odisha was started and continued till medieval period.

Keywords: Indo Roman Trade, Southeast Asia, Architecture, Sculpture, Inscription, Palm leaf Manuscript, Foreign coin, Pottery, Buddhism.

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Introduction

Archaeological evidences like epigraphical record, regional architectural style, sculptural motif, artistic representation and antiquities from exploration/excavation found along the long coastline of

Odisha. Such sources put lights on maritime history of Odisha and have ample cause to reconstruct and review the regional history in context to global connections. Few reports have been reported and yet to be report in the form of textual references. The coastal plane numbers of rivers and their tributary and distibutaries are played vital role in connection to transoceanic activities. Major rivers and their tributary and distributaries are probably navigable for hinterland to coastal plain for overseas trade and commerce. People of India as well as Odisha were well versed with the patterns of monsoon winds and currents, which aided them to travelling through water craft in restricted boundaries and beyond. The traditional navigation system also played dynamic role linkage with overseas countries context.

Geographical Backdrops of Odisha for Maritime Study

The geographical settings of Odisha already been distinguished the archaeological materials to understand its socio-economic-cultural tradition. Topographical features of Odisha have signified the coastal plain, river valley, flood plain and foot hill expand the archaeological findings fortunate for the transoceanic contacts. The riverine track, coastal belt and hill tracts of Odisha connected to each other which helped for hinterland trade and commerce. The indigenous people of Odisha proficient with trading activities of agricultural product, forest product along with precious and semi-precious stones for overseas trade through the periods. Traders of north India and central India using the riverine track and hill track to reach the ports of Odisha without any difficulty. Mainly rivers valley like Rushikulya, Mahanadi, Brahmani, Baitarani, Subarnarekha and Vamsadhara which are connected with the Bay of Bengal having rich archaeological evidence. Those archaeological evidence directly or indirectly related to the past societies in different level. The overseas trade network not so easy in the norms of watercraft technology, seafaring knowledge, communication and facilities to set up ports and the deltas served as natural port or harbours of the state. The eastern littoral zone of India region evidenced ports like Tamluk / Tamralipti, Dosarene (Nearby Dhamara), Mananda (Nearby Paradeep), Khalkattapatanam, Manikapatana, Palur, Salihundam, Kalingapatanam, Pithunda, Masalipatanam, Bimunipatanam during early historical period and mediaval period (Fig. 1). These port sites mainly flourished in river mouth. The eastuary area or intertidal zone are help the sea going vessel for landing or mooring. Few of them are coming under present Andhra Pradesh. The available literary, inscriptional, numismatic and archaeological findings prevailing port sites, coastal structures, foreign antiquity etc, must take into consideration with the historical background along with trading activities, trade routes Still an incomplete picture of the maritime history of Odisha is seen, which leads to reconstruct of political, socio-economic and cultural relations of the land in details.

Literature and Maritime Study

The word *Samudra*, frequently mentioned in Rig *Veda*; which about the ocean/sea. But the word *Sapta Sindhu*; probably referring to sea or broadly describes the big rivers or water body of the *Sapta Sindhu* region (Ritti 1988). It clearly shows that the Rig Vedic people had knowledge of the sea. Similarly, in the *Ramayana* and the *Mahabharata* mention about Burma, Malaya Archipelago which shows their contact during that time. (Banerjee 1930). The *Sankha Jataka*, the *Samudra Jataka* and the *Mahajanaka Jataka*, mentions that the traders from central India used to come from Benaras to Tamralipti (Law 1967), which is the ancient port of Kalinga. The Buddhist literature *Mahavamsa*

mentions that Asoka sent his missionaries to Ceylon from Tamralipti. The *Vassantara Jataka* mentions that Kalinga (ancient Odisha) as a great commercial and industrial state, from which rice, fine cloth, ivory, diamonds and other goods were exported even to foreign countries (Rao 1971, Mohanty 2011). The *Buddhist scriptures (Vinaya Pitaka, Digha Nikaya, Dathavamsa), Jaina scriptures (Uttaradhyayanasutra)* and the Ceylonese Chronicles reveals that Dantapura, the capital city of Kalinga was linked with Cylone (Cowell 1907, Das 1977). Kautilya's *Arthashastra*, mentioned duties and responsibilities of *Navadhyaksha*, who exercises the duty of the superintendent of ships to inspect the accounts concerning navigation on the sea regarding sea borne trade and commerce. (Das 1977, Shamasastri 1967). Also varying duties were levied on different articles transported on board the ships. The *Arthashastra* also mentioned about the tax for passengers and fisherman with certain rules and regulations to be followed in marine mercantile affairs.

Asoka conquered Kalinga during 261 BC and gain control over trade centres, as well as trade route, port town and natural resources (Mookerji 1912). Till the 3rd century BC Kalinga was a major power of Eastern India in marine activities. There is also evidence about Asoka's son Mahendra and daughter Sanghamitra, who sailed from the famous port of Tamralipti to Ceylon. Dhauli and Jaugada are two Major Rock Edicts of Asoka suggests that the existence of coastal route from Ganga to Godavari coast which formerly part of Kalingan Empire (Dikhsit 1978). The Hathigumpha inscription of Kharavela referred about *yavan*, who are the foreigners (Panigrahi 1981). The Periplus of the Erythraean Sea (Schoff 1974), an account left behind by an unknown Greek author who visited India during 1st century AD, the Natural History written by Pliny (Melmoth 1945) and the Geography of Ptolemy (McCrinkle 1985) (AD 150) mentioned about the location of Indian cities along the sea coast and their significant. Paloura of Ptolemy is identified with the village of Palur nearby Chilka lake (McCrinkle 1985).

Legends and local traditions of Java mention that twenty thousand families were sent to Java by the prince of Kling. The Javanese inscriptions, dated between the 9th and 11th century, refer to foreign merchants and captains of ships. These foreigners include the Kalingas, the Arrays, the Simhalese, the Dravidians, the Pandikiras, and the Khemars. In the inscriptions the Klings or Kalinga people were clearly distinguished from people of other parts of India. Kalinga was so famous for maritime activity and described as the Kalinga sea (Kalingodresu). Apparently, the modern Bay of Bengal was known as the Kalinga sea during ancient times, which was dominated by the maritime activities of Kalinga. The ancient text of *Dasakumaracharita* of Dandin mentions that the Chinese travellers Fahien and Hiuen Tsang visited the Binduvagiri temple situated near river Rupanarayana at Tamralipti and subsequently the temple was destroyed by the foreigners (Law 1967). The *Kathasaritsagara* suggests suggest that Tamralipti was the main port for Chinese traders at that time (Kar 1973). The Arab and Persian writers of the 9th and 10th centuries AD throw put light on the sea borne trade and sea ports of ancient Odisha. Ibn Khurdah-bin, Ibn Rusta and the anonymous author of *Hadud-al-Alam* mention the main places and ports of Odisha under Bhaumakaras namely Mahisya (Midnapore), Jharkharo (hilly tracts), Orissa (Orissa proper), Ganjam (South Orissa) and Andhra (a part of the Telugu speaking territory) and the main ports were Kalinganagar, Ganjam, Keylkan, Al-Lava and Nubin of which last three have not been identified (Panigrahi 1981). *Madala Panji*, the Jagannath Temple chronicle, also bears some information on the maritime history of Kalinga. The people from Greece, Rome, China, Persia came to Kalinga for trade were known as *Yavanas* or *Mlechhas* in the chronicle (Mohanty 1969).

Orissa's cultural and commercial contact with China seems to have continued from early times to a later period. The *Chu-fan-chi* of Chau-Ju-Kua written in AD 1225-26 refers to Kia-ling sea going vessels (i.e. Kalinga ships) and their system of trade organization (Ray 1991). Chau-Ju-Kua mentions two types of ships plying between Kalinga and Canton. The Sanskrit text *Yuktikalpataru* also narrates the techniques of construction of various types of water craft including sea going vessels. Without these literary sources the study of maritime history of a region is unsubstantiated.

Epigraphical Context

Kharosthi-Brahmi script of early centuries of Christian era inscribed on a seal along with a sea vessel from Bangarh indicate that the maritime trade with other countries. The vessel on the seal also depicted filled with corn and the bows at both ends are decorated with *Makara-mukhas* (Mukherjee 1989, Sarma 1991). A seal found at Chandraketugarh, depicts a boat with a single mast and bears Kharosthi-Brahmi inscription. The vessel similar to the ship motif on the coin of Gautamiputra Yajnasri Satakarni and the boat motif painted in the caves of Ajanta (Slingoff 1988). Numbers of Buddhist teachers like Buddhaghosa, Buddhadatta, Bodhi Dharma Vajrabodhi (Tantrik Buddhism), Dinnage (Nyaya), Vinitaruchi faith took Buddhism to the Far-Eastern countries through the sea route from the East coast of India. The Hathigumpha inscription of Maharaja Kharavela of Kalinga captured the market town of Pithunda, an ancient metropolis, and a port town on the East coast near Machilipatnam. In the inscriptions of Ghantasala first-second century AD there are references to *Mahanavika*, who is a master mariner residing at *Mahanagapurvata* probably eastern ghat hill range (Subramanian 1932, Ghosh 2002). The inscription of Jaya Verma discovered at Funan of Indonesia which mentions Jaya Verma's wife Prabhabati was born in the Pushyabhuti dynasty.

Art and Architectural Context

The monuments / religious architectural relics along the coast of Odisha such as Hindu temples and Buddhist stupas was served as port, port town, trade centers and light house etc. Which were meant for the purpose of oversea trading activities as well as landmark for trader. For example; Kalingapatnam, Salihundam, Bovikonda, Thotalakonda, Bateswar Temple of Kantiagarh, Jagannath Temple of Puri, Sun Temple of Konark, Kuruma (Fig. 2) etc. (Tripathi 2002, 2006, 2009, Behera 2017) The art history and pictorial depiction of certain belongings, motifs also signify the maritime activities of the region. For example, giraffe motif from Konark, Astamahabhaya Tara of Buddhist pantheon from Ratnagiri and Vardhanpur, Boat motif from temple wall i.e. Sun temple at Konark, Jagannath Temple at Puri, Brahmeswar Temple and Mangala temple at Bhubaneswar etc. are reflected th boatbuilding activities and uses of water craft in various occasion (Behera 1970, 1994). An eroticism on boat found on a temple wall in Royal palace of Khandapada, Nayagarh. Not only in stone but also in palm leaf illustration boat motifs and pleasure boat depiction have been reported (Tripathi 2000, Patanaik 2012). This is very important as well as peculiar the boat motif used for religious, social, economic context of Odisha. (Fig. 5)

Numismatic Context

Numismatic sources fully attest to the overseas contacts of Odisha. The occurrence of punch marked coins and the Northern Black Polished ware (NBP) from Gedige and Anuradhapura in Sri

Lanka belongs to Mauryan period 5th century BC. An exceptional type of punch marked coins with ship symbol is obtained from Chandraketurgarh (Ray 1991) of West Bengal. Important Buddhist site adjacent to Kalingapatnam port is Salihundam which also served as an emporium; where Roman coins of Tiberius (AD 14 - 37) were found during excavations (Subramanyam 1964). Similarly, at Bavikonda and Thotlakonda in the district of Visakhapatnam reveal Roman coins of Augustus (31 BC - AD 14) and Tiberius (AD 14 - 37) (Sree Padma 1993). The Satavahanas issued coins with ship motifs. Such type of coins was issued by the King Vasisthiputra Pulumavi and successor of Gautamiputra Satakarni (Sarma 1980). These coins are made of lead and are circular in shape and depict both double mast and are single mast ships anchored in mid sea. Gautamiputra Yajnasri, his successor, also continued this type of coin and known from Buddham, Vidyadharapuram, Guntur, Chebrolu and other places on the East coast of India (Sarma 1980). A coin now in the British Museum collection shows the portrait of cargo vessels approaching the anchored ship. The double mast ship type coins were continued to be issued by the Salankayanas also, who succeeded the Satavahanas in the Vengi country (Sarma 1989). Bull and double mast ship type copper coins were also issued by the Pallavas of before the king Mahendra (Sarma 1992). The Roman gold coins of Gordian, Constantine and other rulers found at Bamanghati and Tamralipti show evidence of contact with the Romans (Warmington 1974, Turner 1989). Chinese coin reported from Manikapatana port site as well as Khalkattapatana too. Ceylon coin issued by king Sahasmalla recovered from Manikapatana excavations (Pradhan 1991, 1996, 2001, Pattanaik 1997, 2000, Tripathi 2000, Patanaik 2012, Patra 2013, Behera 2016).

Archaeological Context

The archaeological findings such as potsherds, beads, miniature figurine made of semiprecious stone or terracotta etc. shows India as well as Odisha had neat cultural interactions with southeast Asia and classical Roman empire. The Rouletted ware, knobbed ware, Amphora, Roman bullae and caltrop etc. occurs at several sites in Eastern India (Lal 1949). These evidences indicate the contact between Eastern India with far flung areas. It is interesting that the knobbed technology transmitted to southeast Asia. The anchored ship symbol is noticed as graffiti mark on a knobbed pottery during the coastal exploration at Kalingapatnam. Ceramics found from the Excavations at Khalkattapatna and Manikapatana has revealed the Chinese Celadon ware, Chinese porcelain and glazed chocolate ware of Arabian origin etc. (IAR 1984-85, Sinha 1992). A fragment of amphora was found during excavations at Manikapatna (Nigam 1993). These findings indicate that Odisha had close transoceanic contacts with different part of the globe (Pradhan 1991). The extensive distribution of carnelian beads and seals of Indian origin in Southeast Asia shows the impact of organized maritime network between Indian ports of the Eastern coast, Southeast Asia, Sri Lanka and Mediterranean world (Glover 1990, Bellinna 2014) right from early centuries of Christian era.

Problems and Prospects of Archaeological Materials in Maritime Study in Odisha

Although all we know Odisha was one of the maritime activists of the India as well as world. Odisha also had its own and unique place in transoceanic activities, before early Christian era, if not earlier. After that few observations carried out by us which need to be vibrant / further research:

- The Giraffe image at Konark only evidence on relation with Africa and Odisha. So far, no other reference not been decoded yet.
- If Odisha having a long period of maritime activities; is there any Naval unit of Odisha during earlyhistoric period ?
- As K. C. Panigrahi defined that few main ports such as Keylkan, Al-Lava and Nubin of which yet to be identify.
- The rouletted ware from Odisha coast should match the mineralogical sequence of Gogte's X-RD analysis of Rouletted ware.
- Scientific study such as coastal geomorphology, monsoon timings, changes of river mouth along with current pattern of intertidal zone of Odishan coast needs to be study.
- The teeth of shark recovered from the excavations at Golbai and Suabarei put light on man and sea relation date goes back to bronze age.

The trade contacts eastern littoral zone of India especially with Southeast Asia contributed to the growth of socio-economic conditions of both the regions in the form of Indian art, culture and religion. Buddhism spread over not only Southeast Asia but also all over Asia; as Buddha declared as Light of Asia. Scripts like Brahmi and Kharoshti and languages like Sanskrit and Prakrit were also transmitted Southeast Asia. The findings from exploration and excavation validate the fact that maritime contact of Odisha region. Findings such as ceramics of foreign origin, amphora, porcelain, celadon, Roman coin, Ceylon coin, Indo-Arabian anchor, caltrop etc. (Fig. 3 & 4) The trade contact of Odisha with other parts of the globe is multi dimensional because monks, traders, sculptors and envoys were travelling together. Further, the study shows that the maritime trade was seasonal depends upon the monsoon. Subsequently people are busy in collection of cargo, maintenance of vessels, etc. are continued as rotation manner.

Conclusion

The land of Odisha having historical and Archaeological material evidence regarding transoceanic trade and cultural expansion found beyond the Indian water. Although numbers of articles, books and monographs have been published on various aspects of maritime history of Odisha by the scholars in different phases. Analysis of archaeological records has been made to understand the involvement of Odisha in the maritime history of India as well as other countries of the world. The hereditary artistic elegance of the land and trading technology of ancient Odisha started from the early historic period transmitted beyond Indian water. Numbers of fortified settlement, religious structures, rivers outlet along the coast treated as port, port town, trading centers of the state in present as well as earlier. In other hand, the literary sources and archaeological findings from the sites quantitative analysis is required. If the findings from exploration and excavations may exhibited and analyzed in a single database; which will be help to further study of rich maritime history of Odisha.

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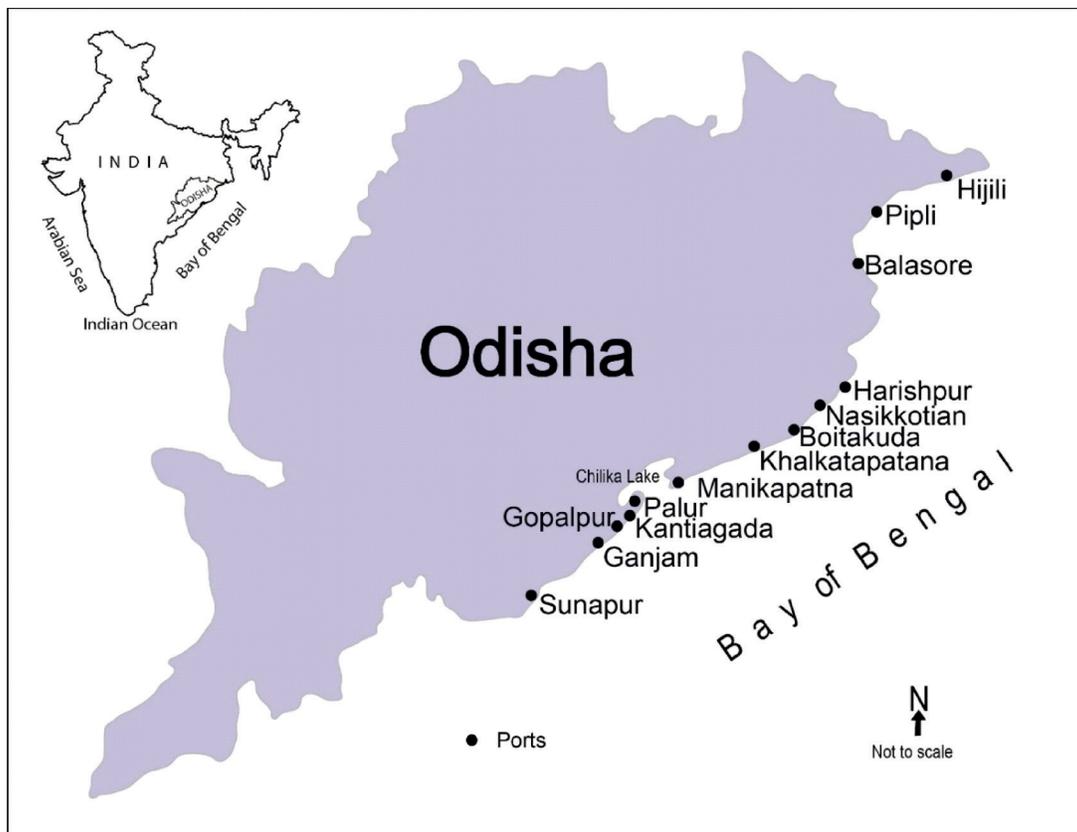


Fig. 1: Map showing the important port sites and trade centers of Odisha



Fig. 2: Religious structures along the coast of Odisha belongs to historical period

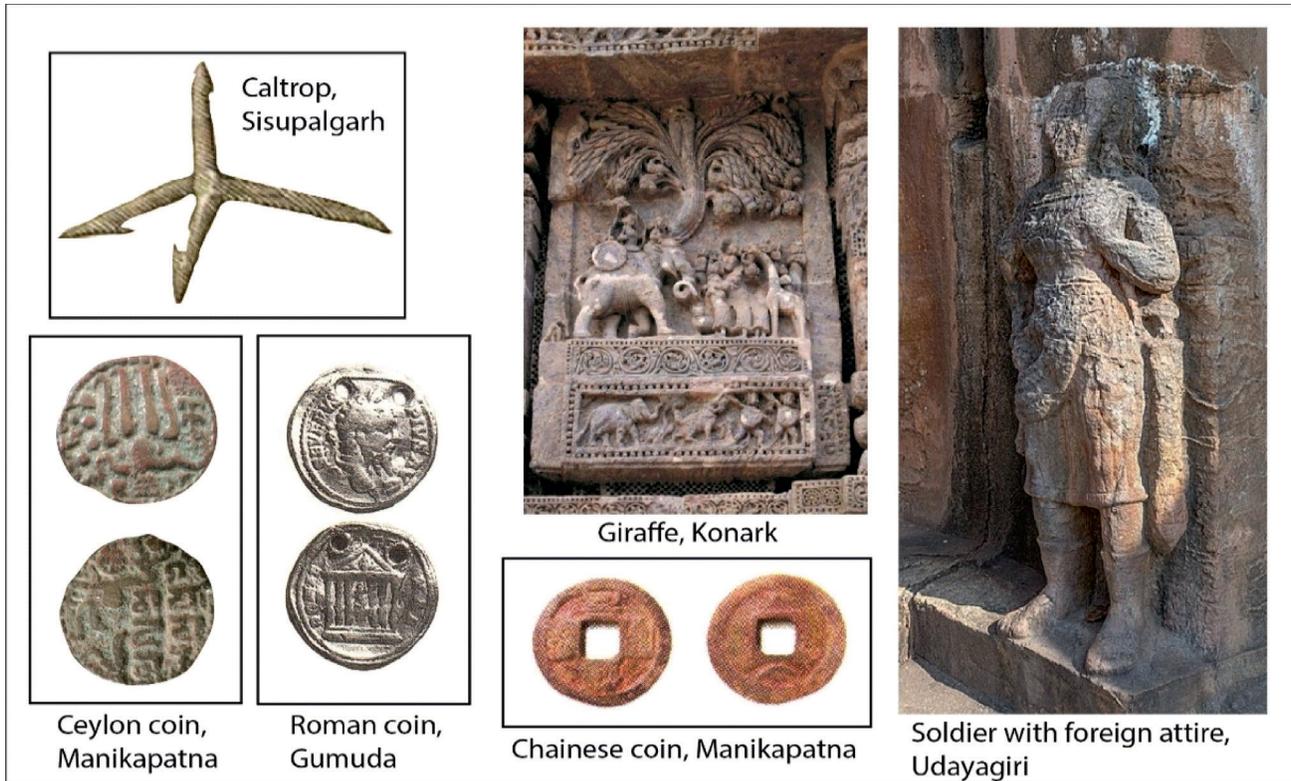


Fig. 3: Important archaeological findings with foreign affiliation from coastal Odisha



Fig. 4: Ceramics reported from different archaeological sites of Odisha



Fig. 5: Representation of boat motif found in Odishan art (a) Martanda Bhairava on boat, Konark (b) Odisha State Museum (c) Illustration of boat construction in palmleaf manuscript (d) Astamahabhaya Tara, Ratnagiri, Jajpur (e) Boat motif in Lingaraj temple (f) Replica of boat in Jagannath temple, Puri (g) Astamahabhaya Tara, Vardhanpur, Balasore (h) Herostone, Suvadiah, Bhadrak

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