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Maritime Landscapes and Coastal Architecture: The Long Coastline of India

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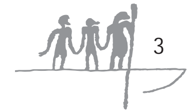
The Indian Ocean presented a unique environment to the sailor in antiquity. To sail in this region, the ships had to be "good weatherly sailors, fast, good carriers, deep-drafted and able to go to windward as well. In short they had to be *real* sailing ships" (Villiers 1952: 56-57). The monsoon winds not only determined the basic rhythm for seafaring activity across much of tropical and equatorial Asia, but also influenced agricultural activity in the region. Historians have long accepted that the 'world's largest area of monsoonal tropics, shares a pattern of rainforest and water which provided a background for all . . . economic and social activity' (Reid 2001: 218). This essay suggests that one way of understanding this complex web of interactions of the past is through a deep engagement with markers of maritime regions and the communities that inhabited these spaces. The indicators include archaeological artefacts, as evidence of ancient settlements and routes, architectural edifices and their networks of interaction and of course, continuing boat-building traditions.

The larger issue addressed here relates to perspectives through which monuments, especially those located on the coast are to be understood and made meaningful to

contemporary societies, both for an appreciation of their aesthetic value, as also to aid in their preservation for posterity. Monuments in Asia have generally been studied in terms of architecture and sculpture or with regard to chronology and patronage and more recently within debates of generation of colonial knowledge, but seldom with regard to cultural plurality and diversity and/or historical memory. Monuments enshrine many kinds of memories: memory of the vision of the builder; memory acquired over time; and finally, the created memory through transformation of the monument, either owing to its destruction or by altering its context or form. Monuments also become sites for enactment of rituals such as pilgrimage for the replenishment of memory and knowledge of the past.

The attempt in this essay is to articulate the complex connections built through the mediation of the sea both spatially and chronologically by an examination of coastal architecture in India. The focus here is on the historical period, as other papers in this book discuss the prehistoric past (cf. the essays by Yaduvir Singh Rawat and Akshyeta Suryanarayan). We start with a discussion of the architectural evidence for habitation in coastal zones in the historical period; and contrast this with an active engagement and contestation over maritime space as reflected in inscriptions. In the final section, we present an overview of the varied conceptualizations of the sea in textual narratives and juxtapose these with sculptural representations on religious architecture. We discuss this issue through representations of the concept of a saviour from troubles at sea, which are found at several Buddhist monastic sites and are depicted at both coastal and inland sites in South and Southeast Asia. These examples underscore the enormous reach of the sea, both as a physical space as well as entity that has long affected the human psyche.

Traditionally, the navigators of the Indian Ocean learnt their routes by identifying natural phenomena and by checking their positions by stars. Certain routes across the Indian Ocean were more feasible than others were and continued to be in use in the historical period. Stellar navigation made sailing along the latitude possible, though finding the longitude was relatively more difficult. However, longitude tables were theoretically prepared by mathematical computations and early versions of nautical charts were perhaps available for specific routes and sailing schedules. This mapping and remapping of the Indian Ocean across two millennia is important for Project Mausam, especially in an age prior to the encapsulation of this oceanic space through maps and nautical



charts. This has been discussed with reference to coastal Vietnam elsewhere in this book (cf. the essay by Tran Ky Phuong). In this paper, the focus is on the India and both the west and east coasts, as discussed in the next section.

Seascapes and the Coastline of India

The demarcation of seascapes may be understood through intellectual traditions of writing, but more importantly through an active engagement with the nature of coastal installations that physically circumscribed the seafaring world. In the 1950s, the Swedish maritime ethnologist Olof Hasslof introduced the term *sjobruk* or maritime cultural landscape signifying demarcation and utilisation of maritime space by communities for settlement, fishing, shipping, pilotage, etc. (Westerdahl 1992: 5). The Indian Ocean is perhaps one of the few regions where this concept can be applied for an understanding of maritime history and archaeology on account of the continued survival of maritime regions. These regions have participated historically in the Indian Ocean network and in several cases are characterised by local traditions of boat building and navigation, architectural features and archaeological sites, as well as narratives of the central experience of trans-locality of maritime communities. Thus it is important to comprehend conceptions of the sea by people who lived along its coasts and traversed it for a variety of reasons.

The Architectural Testimony of the West Coast

The Western Coastal Plain is best described as a narrow strip of land between the hills of the Western Ghats on the east and the Arabian Sea on the west (Fig. 1.1). It ranges in width from 50 to 100 kilometres and extends from the present state of Gujarat in the north through Maharashtra, Goa, Karnataka, and Kerala. Numerous rivers cut across the region. Mostly originating in the Western Ghats, the rivers are fast-flowing, usually perennial, and empty into estuaries.

The starting point for this discussion is Gujarat marked by a long coastline from the Gulf of Kachchh to the Gulf of Cambay and characterised by mud flats and saline wastes. In the coastal regions of Gujarat, Buddhist caves were excavated from second century BCE to the sixth century CE. Rock-cut caves are known from Kateshwar and five from Siyot in Lakhpat taluka in the extreme north-west of Kutch. Other coastal sites in south Gujarat include Talaja in Bhavnagar district with thirty rock-cut caves (Fig. 1.2) and Kadia Dungar near Bharuch.

Valabhi located on the Bhavnagar creek, at the head of the Gulf of Cambay, emerged not

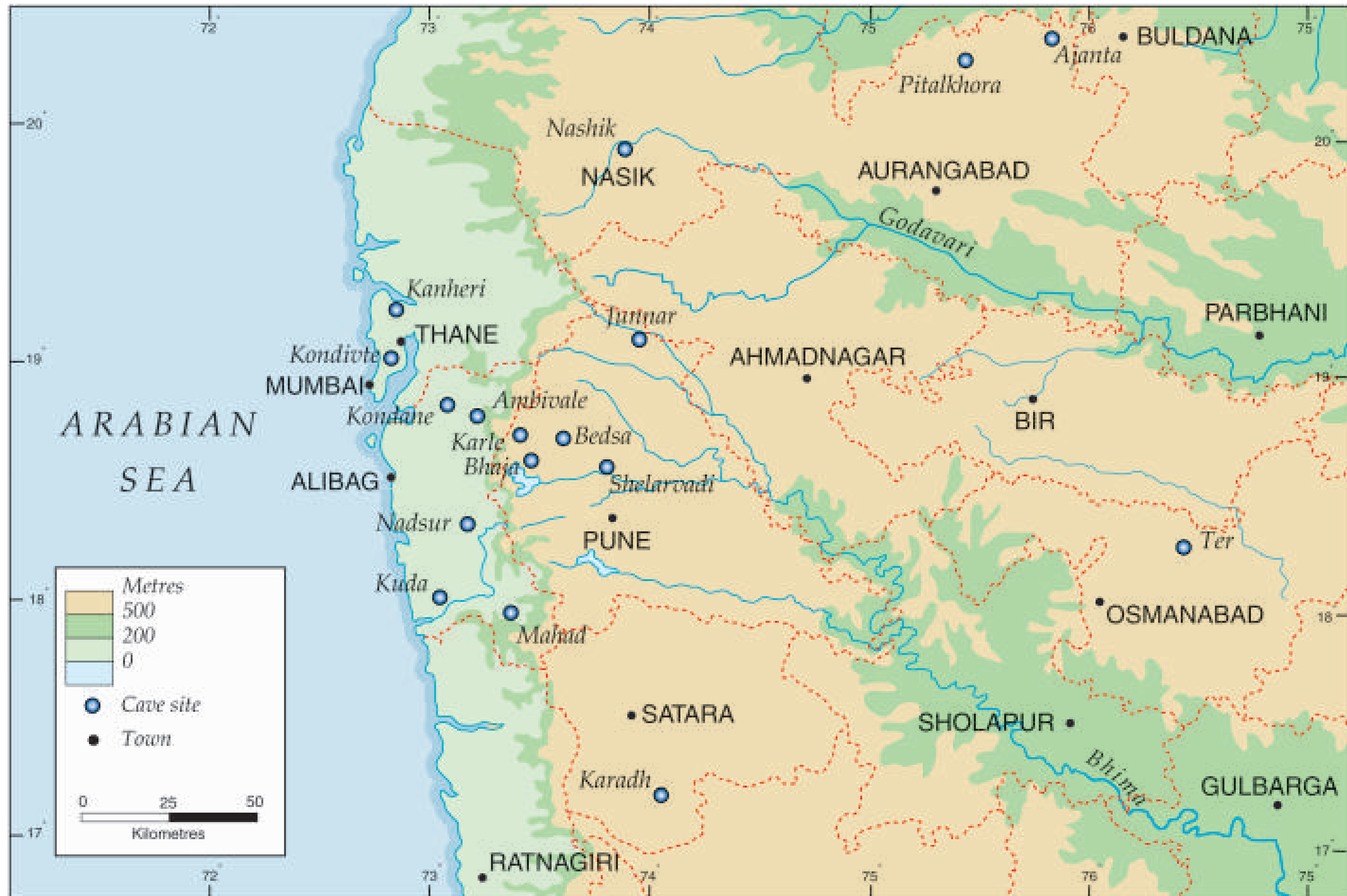


Fig. 1.1. Map of the Western Deccan showing locations of early Buddhist sites.

merely as an outlet for maritime trade, but also as the capital of the ruling dynasty of Maitrakas (493 – 776 CE) and the core area for religious consolidation. Contemporary Sanskrit literature such as the literary work the *Da akum racaritam* by Dandin describes Valabhi as a prosperous trading centre, where the chief of sea-traders lived (Kale, 1986: 164, 332). References to its wealthy resident and travelling communities of traders are also found in the

Fig. 1.2. Caves cut in the side of the hill at Talaja with modern Jain temple on top.

copper plate inscriptions from the reign of the Hepthalite ruler Toramana whose kingdom extended over north-western and western India in the late fifth and early sixth centuries CE (Mehta and Thakkar 1978).

More than a thousand Buddhist caves were excavated in the hills of the Western Ghats and its offshoots at about fifty centres in the present state of Maharashtra, from the second century BCE onward. Broadly these sites are located

overlooking creeks and coastal settlements and at passes along overland routes. Of these, nineteen centres are significant in terms of providing inscriptional data and have yielded a total of more than two hundred inscriptions (Ray 1986). Of these Kanheri near the present city of Mumbai was the largest religious centre along the west coast of India with one hundred and four caves located in the fertile basin of the Ulhas river dated from first to eleventh century CE. There are three eleventh century inscriptions in cave 90 in the Pahlavi script, which is a writing system adopted for various Middle Iranian languages (Gokhale 1991, 142).

A trend that is relevant to the reconstruction of coastal landscapes relates to shifts in coastal centres over time, for example between the ports of Bharuch, Sopara, Kalyan, Chaul and Surat—all located on the Konkan coast in the present states of Gujarat and Maharashtra. These shifts were linked both to silting of river mouths where the centres were located, as well as to changes in internal routes linking the coast to the capitals and cities of the interior. It was only with the transformation of the motley collection of seven islands with a variety of landing places into the port of Bombay in the nineteenth century that an identifiable and permanent port city was created on the west coast of India. Until this transformation, several landing places had been in existence in the vicinity of Bombay.

Moving south, the coastal belt of Karnataka extends to about 10 to 20 kilometres inland and is rich in mineral resources such as iron, copper, limestone, mica, gold, garnet, etc. An early site on the Kanara coast was Chandor or Chandrapura on the river Paroda leading to the sea. Archaeological excavations conducted at the site of Chandor (ancient Chandrapura) in district South Goa have exposed the complete plan of a brick temple complex datable from fourth to eleventh century CE. Cosmas Indicopleustes, the sixth century native of Alexandria who travelled to India and Sri Lanka, refers to a series of coastal centres in his *Christian Topography* (Wolska-Conus 1968-73, Book XI: 367-68), especially on the Karnataka and Kerala coasts. The coastal belt of Kerala extending over 580 kilometres is relatively flat, teeming with paddy fields, coconut groves and is crisscrossed by a network of interconnected canals and rivers.

Forts were other important structures that played a major role in the demarcation of the visual topography in the Indian Ocean from the ninth to tenth centuries onwards. Unfortunately there is very little that remains of these earlier fortified settlements and a majority of the present forts date from the thirteenth century onwards

(Naravane 1998, 127). The presence of fortified settlements along the coast should be seen in the context of emerging trade guilds with operations across the Indian Ocean who forged close links with royal houses. The most prominent in peninsular India was the Ayyavole beginning from the eighth or ninth century to the seventeenth century, while others included the Manigramam, and several other merchant groups (Abraham 1988). Thus a very different sailing regime from that functioning at present was in place. This was also reflected in the modest nature of coastal centres as compared to the present metropolises of Mumbai or Goa. The west coast also provides for a different engagement with the sea when compared to the east coast of India, as discussed in the next section.

The Archaeology of the East Coast of India

The Bay of Bengal forms the north-eastern part of the Indian Ocean bordered on the east by Burma and the Malay peninsula and on the west by India. The southern extremes reach the island of Sri Lanka, and the Andaman and Nicobar Islands. It is beyond these islands that the waters of the Bay of Bengal merge with those of the South China Sea that extends from the Malacca Straits to the Strait of Taiwan encompassing the coasts of Thailand, Vietnam (cf. Tran Ky Phuong in this volume) and south China. In this section, the discussion is limited to the coastal regions of India and mainly to the present states of Odisha, Andhra and Tamil Nadu (Fig. 1.3).

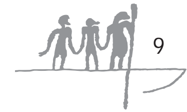
In the second-first millennium BCE peninsular India was home to iron-using megalithic communities and social integration was measured through the construction of large monuments of stone, often sepulchral in nature. Chronologically, the Iron Age megalithic sites span several centuries from 1200 BCE to 300 CE and extend across all regions of peninsular India, including along the coasts. The presence of Megalithic sites is evident along the river Krishna, as also along the Andhra and Tamil coasts. In addition to the inland network, there are indications for the participation of these Iron Age communities in a wider trading network incorporating sites in north India as well as those in Sri Lanka (Ray 1994, Chapter II).

Starting from modest beginnings in the third century BCE, the east coast is marked by large Buddhist monastic complexes overlooking the sea. Recent archaeological research has brought to light several Buddhist sites in Odisha, though the major expansion occurred from the fifth to thirteenth centuries CE, when more than one hundred Buddhist sites are known in the region.

Fig. 1.3. Map of the Eastern Deccan showing sites with Buddhist monastic complexes along the coast.

Nearly 140 Buddhist sites are listed along the Andhra region dating from the second century BCE onwards and the distribution along the coast from Srikakulam in the north to Ramatirtham and Nandalur in the south is quite striking. Of these, thirty Buddhist sites have yielded stone inscriptions recording donations made by a cross-section of the populace to the Buddhist Sangha or community of monks.

Arikamedu, 4 kilometres south of Pondicherry on the Tamil coast, is perhaps one of the few historical sites that have been subjected



to several seasons of archaeological excavations starting from 1941 onward. One of the early excavators, Mortimer Wheeler had suggested that the site was abandoned with the decline of Roman trade in the second century CE. This idea has changed as a result of more recent work conducted between 1989 and 1992, which has provided evidence for the continuation of the site well into the tenth-eleventh centuries CE (Begley et al., 1996, 1). The settlement at Arikamedu grew along the river bank and the impetus for its growth was provided by trade, with fish being one of the traded items along with pepper, salt and paddy.

An issue that requires consideration at this stage relates to the extent and vigour of the trading network linking eastern India with the Bay of Bengal and evidence for the spread of Buddhism across the Ocean. A cluster of fifth century inscriptions of unequivocal Buddhist affiliation was found in Kedah on the west coast of the Malay peninsula. Three of these inscriptions are made of local stone and bear similar illustrations of Buddhist stupas. Texts very similar to these inscriptions have been found on the island of Borneo and on the coast of Brunei (Christie 1995, 256). The most interesting of these inscriptions in Sanskrit, which refers to the setting up of the stone by the mariner Buddhagupta, resident of Raktamrttika, identified with Rajbadidanga in Bengal, on the successful completion of his voyage (Fig. 1.4) (Chhabra 1965, 23-24).

There was a shift in maritime networks around the middle of the first millennium CE and pilgrims visiting sites associated with the life of the Buddha formed a major category of travellers. The Chinese pilgrim Faxian arrived overland in India in 399 CE and returned by sea to China in 413-414 CE from Sri Lanka heading towards the northwest tip of Sumatra. The ship was wrecked on the way and perhaps landed in the Andamans. The next phase took Faxian to the northwest of Borneo where he arrived in 414 CE after 90 days at sea. The pilgrim remained in Borneo for five months and then left for China in mid-414 CE heading towards Canton.

Perhaps the most relevant example for this paper is the Buddhist monastery at Nagapattinam, which was a major landmark on the Tamil coast from the seventh to the nineteenth centuries CE. A Buddhist temple was erected at Nagapattinam specifically for Chinese Buddhists at the instance of a Chinese ruler during the reign of the Pallava ruler Narasimhavarman II (*c.* CE 695–722). The Chinese monk Wu-hing visited the site on his way to Sri Lanka (Ramachandran 1954: 14). One of the later Srivijayan kings, perhaps from the island of Sumatra, Maravijayottungavarman, is known

Fig. 1.4. Buddhagupta inscription set up on the west coast of the Malay peninsula on successful completion of the voyage, now in the Indian Museum, Kolkata.

to have provided for the construction of the temple. Revenues of a large village Anaimangalam were granted for its upkeep in 1006 CE by the ruler of the Chola dynasty of south India, King Rajaraja I.

Sir Walter Elliot (1803-1887), a Scottish civil servant in India, visited the Chinese Pagoda, as the site was then known, in 1846 on board the government steamer *Hugh Lindsay*, which travelled down the coast. Elliot described the structure at Nagapattinam as a "four-sided tower of three stories constructed of bricks closely fitted together without cement" (Elliot 1878, 224). There was a fort in its vicinity and, "about 11/3 miles NNW from the fort stands the old Black Pagoda, which is one of the most conspicuous objects in approaching this part of the coast, the whole of which has a low, drowned aspect when first seen from the offing, consisting as it does of a sandy barren soil planted with coconut trees" (Horsburgh 1817, 453). It may be mentioned that Nagapattinam was also the terminus of the great south Indian railway and an important landmark for the large numbers of ships and steamers travelling to the roadstead. As a depressing commentary of colonial policies, in spite of local objections, the governor-in-Council approved the demolition of the Buddhist monastery on 28 August 1867 by French Jesuits who had been expelled from

Pondicherry and had wanted to construct a college in its place.

After this brief overview of architecture along the east coast, we shift the discussion to explaining the engagement of the political elite with the sea in the next section.

The Sea as Contested Space

By the second-first century BCE, royal inscriptions initiate the practice of defining the domain of a king. Thus the inscription of Balasiri, mother of one of the early kings of the Satavahana dynasty who ruled over large parts of the Deccan in the early centuries of the Common Era, Gotamiputa Siri Satakani, while recording the gift of a cave to the Buddhist Sangha, also mentions honorific titles of the king to indicate his sovereignty over a vast territory stretching until the three oceans. This is a practice that continues into later periods. While describing the history of the early Chalukya dynasty of western India, the seventh century inscription refers to Mangalisa, whose army was powerful enough to invade all islands, crossed the ocean by bridges of boats and effected the plundering of the island of Revati (Fleet 1879, 13).

The Silahara kings who ruled over large parts of western India around the present city of Mumbai from 810 to 1240 regularly refer to themselves as lord of the western ocean (Mirashi, 1977, 127-30). The 11th century Panjim plates mention King Guhalla Deva of the Goa Kadambas as undertaking a pilgrimage to Somnath on the Gujarat coast, but he had hardly reached halfway when the mast of his ship broke and he was forced to take shelter with a ruler friendly to him at the port of Goa (Moraes 1995, 171), where a rich Muslim merchant by the name of Madumod, of Taji origin and the wealthiest of all the seafaring traders, came to the help of the king. In return, the king rewarded him with a lot of wealth. This record tells us for the first time of Arab traders settled on the Goa coast in 11th century CE. Clearly then maritime space formed an integral part of political thinking and conceptualization of the inhabited world—a world that was certainly claimed, but not always controlled.

To what extent did attempts to enforce political authority lead to conflict across the Ocean? A response to this issue is evident from an examination of hero stones found on the west coast of India. These were raised in memory of those who lost their lives in sea-battles and are dated from twelfth to fifteenth century CE. Four of the hero stones are housed in the Archaeological Museum of Goa and depict double-ended vessels propelled by oars, very similar to those known from the region at present. The ships are crowded

with soldiers armed with bows and engaged in fights (Figs. 1.5–1.6).

Clearly, there is a long history of conflict across the Ocean. At the same time, the sea is also conceptualized as a fearsome space. This leads to the next section where we shift the focus to the seafarer and the trials and tribulations so graphically depicted in textual accounts, but also represented on early religious architecture not only along the coasts, but inland as well.

The Saviour of the Sailor

The ocean evoked varied feelings in those who lived on its shores and those who traversed it. These are graphically depicted in poems included in the anthology of four hundred poems in Old Tamil of the early centuries of the Common Era (Hart and Heifetz 1999, 189-90) and are also portrayed on monuments. In the previous section we have referred to depictions of sea battles on memorial stones. In addition to these, there are sculptural reliefs on monuments of Buddhist monastic complexes both along the coasts, as also inland that deal with issues of ship-wreck and emphasize the power of believing in the Bodhisattva Avalokitesvara who is graphically shown as saving the devotee from several troubles, including ship-wreck. These references reflect an engagement with the sea, in its benign

Fig. 1.5. 12th century hero stone from the Archaeological Museum, Goa.

Fig. 1.6. 14th century hero stone now in the Archaeological Museum, Goa.

as well as malevolent form not only by merchants and trading groups, but also fishing and sailing communities and ship captains who carried cargoes across the waters.

The emergence of the cult of the Bodhisattva Avalokitesvara as a saviour of mariners and travellers in distress is generally associated with the Lotus Sutra (*SaddharmapuGar ka S tra*), which was translated into Chinese in the third century CE and became very influential in the countries of Southeast Asia. The scene of Bodhisattva as Saviour was also sculpted prominently at a large number of Buddhist monastic sites. Several renditions were made in the rock-cut caves of the western Deccan and over twelve painted and/or sculpted versions are known from the World Heritage site of Ajanta (caves 2, 4, 6, 10A, 11, 17, 20, 26), three from Kanheri (caves 2, 41 and 90), one from Aurangabad (cave 7) and two from the caves at Ellora near Aurangabad, though nowhere is the composition so elaborate and the treatment so elegant as in cave 90 at Kanheri. The image in cave 90, Bodhisattva Avalokitesvara, offers the devotee promise of salvation from the various perils depicted at the sides of the composition including attack by elephants, lions, robbers and of course ship wreck (Huntington 1993, 264-65).

In one of his previous births, Sakyamuni Gautama was born as Simhala, a merchant who

led five hundred others on a seagoing venture to Tamradvipa or Sri Lanka. They were shipwrecked, but eventually saved from the man-eating ogresses by the horse Balaha, who rose majestically into the sky with Simhala on his back. The ogresses, however, followed him back to his kingdom. Simhala once again rose to the occasion and saved the kingdom from being devoured by them. Simhala was crowned king and Tamradvipa was renamed Simhaladvipa (Holt 1991, 49-50). The story of the horse Balaha as saviour of merchants is prominently shown on a pillar from the site of Mathura, situated about 150 kilometres south of Delhi (Fig. 1.7), as also at sites in Cambodia and Indonesia. Representations of sea travel from Neak Pean in Angkor and Borobudur in central Java are also relevant for this paper. Neak Pean is a small island temple located in the middle of the last baray (the Preah Khan Baray or Jayatataka) constructed by a Khmer king in the Angkor area. The temple is faced by a much-damaged sculpture of the horse, Balaha, saving drowning sailors (Fig. 1.8).

Fig. 1.7. Relief depicting Balahasa Jataka on railing pillar from Mathura.

In the rock cut shrines at Ellora close to Aurangabad, the function of the Avalokitesvara as the saviour from the eight perils is delegated to the female deity Tara in cave 9. This theme occurs prominently in the monastic establishment at Ratnagiri in Odisha. Ratnagiri is a 25 metre high isolated hill of khondalite formation of the Assia range bounded on three sides by the rivers Brahmani, the Kimiria and the Birupa and local tradition refers to the region as being close to the sea in the past. Two standing images of Tara as saviour from the eight perils

Fig. 1.8. Balahasa Jataka from the Buddhist temple at Neak Pean, Angkor.

were found from the surface at Ratnagiri. One of the standing images, now in Patna museum, dates to the end of the 8th century CE and shows Tara flanked by scenes of the eight perils depicted in two vertical rows of four panels each (Fig. 1.9) (Mitra 1983, 444-45). A second image is dated to the 11th century on the basis of a fragmentary inscription and graphically portrays the fear of drowning in a sinking boat (Fig. 1.10) (Mitra 1983, 428).

In the final analysis, the maritime orientation of many of the shrines and forts discussed in this paper is evident. Histories written over the last five decades in different countries have primarily dealt with the period of the present nation-states and the discussion has largely centred on present

Fig. 1.9. 8th century standing image of Tara from Ratnagiri now in the Patna Museum.

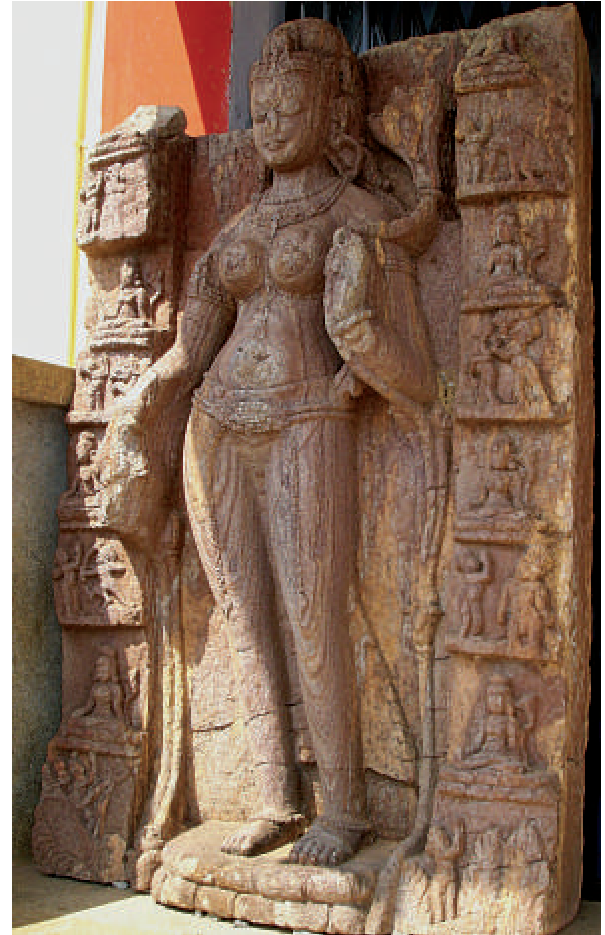


Fig. 1.10. Standing Tara image in Site Museum, Ratnagiri.

national boundaries and local identities versus external influences. Perhaps it is time to move beyond the paradigm of the nation-state in researching the history of the sea as these frontiers had little meaning in the earlier period.

It is also important that Project Mausam should create an awareness of the maritime heritage of the Indian Ocean so that some of the earlier links could again become a part of the enduring legacy of travel across the Indian Ocean. No doubt, ideas

about religious and ethnic identities often draw from prevailing notions of the past and it is here that the present and the past are inextricably linked not only to individual destinies, but more significantly to the larger meta-narratives of the nation states or as in recent years, the globalising world. A leading historian of Southeast Asia, Oliver Wolters, succinctly states that the purpose of history and the study of the past could well be an enhancement of self-awareness and a better understanding of the present (Wolters 1994, 2).

By focusing on nautical histories, architecture and archaeology, on the central experience of trans-locality of maritime communities and the mapping and remapping of maritime conceptions of space across two millennia, the project reorients the audience from the conventional linear imperial construct of maritime history as domination, conflict and control to looking at the reality of constant cultural transfer and transmission within the domain of the Indian Ocean world.

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