
PART II

The Indian Ocean Before Europe

INTRODUCTION

Understanding the period before the advent of the Europeans into the trading world of the Indian Ocean is essential if we are to assess the potential and ramifications of the Asian maritime enterprise and the political and social context in which it operated. The two chapters that make up this part raise key issues of the mercantile practice and conventions that were adopted by a range of merchant groups, testifying to the vitality and cosmopolitanism of Indian Ocean trading circuits. Chakravarti's introductory chapter makes a detailed case for an interdisciplinary approach to maritime studies, and for a reappraisal of the history of the Indian Ocean by looking at the complex development and evolution of a multilayered trading structure that reflected major shifts both in terms of social ecology and of political reorganization in the Indian subcontinent. This structure intersected with supporting networks and structures of mercantile activity, as well as with the other littoral economies and empires of the Indian Ocean. More specifically, the chapter focuses on the western seaboard, where the Jewish merchants, along with the Arabs thereafter, traded extensively along the littoral connecting the subcontinent with the West Asian peninsula. The vitality and interconnectedness of early maritime enterprise in the Indian Ocean, according to Chakravarti, provides the rationale for looking at the Indian Ocean as a central maritime space that featured in the political enterprise of contemporary states and empires, and for identifying the major periods of commercial resurgence. The formation of important mercantile communities and the evolution of commercial practices finds detailed mention, especially in the context of India's western littoral, which emerged as the premier maritime region and integrated large regional economies of West and South Asia. Chakravarti looks at the movement of traffic between states in West Asia and the west coast of India, and at the complex commercial practices that formed part of a developed and sophisticated commercial structure. His overview also provides us with details on commercial groups, whose operations seamlessly stitched the trading structure in the Indian Ocean. For the southeastern littoral of the Indian subcontinent, we have Herman Kulke, who looks primarily at the dynamics of Chola maritime policies in the Bay of Bengal. The Chola state was an important and impressive political entity in peninsular India, which entertained very clear conceptions of maritime aspirations and actively pursued a policy of integrating commercial and cultural connections between Southeast Asia and southern India. Chola maritime policies, especially under Rajendra Chola, happened to coincide with a new realignment of political forces in Southeast Asia, especially with Song power in China beginning to intervene in the trading shares of the Indian Ocean and the Malay kingdom of Srivijaya articulating its own maritime agenda quite unequivocally. The maritime profile of peninsular India,

embodied very distinctly in the activities of the Chola state, raises the interesting possibility of looking at maritime politics separately, and detaching it from the subcontinental perspective that has tended to dominate our understanding of Indian Ocean politics. What emerges from Kulke's chapter is the possibility of looking at the politics of maritime Asia as an independent entity. This presents us with new and alternative perspectives on political activity and configurations. The subcontinental perspective that has dominated history writing is not always helpful in studying maritime politics and processes; it is here that Kulke's chapter on south Indian and Southeast Asian polities raises the question of looking at the Indian Ocean as a new heuristic unit for addressing larger issues of state building and trading networks.

CHAPTER 2

Merchants, Merchandise and Merchantmen in the Western Seaboard of India: A Maritime Profile (c. 500 BCE–1500 CE)

Ranabir Chakravarti

PROLOGUE

The much sought-after interdisciplinarity of history leads to some tangible outcomes when this human science interacts fruitfully with several social sciences and earth sciences. The close linkages between history on the one hand and economics, political science, sociology and anthropology on the other are too well-known to need an elaborate statement. The inseparability of geography from history takes centre-stage in the analytical framework of the Annales school, best seen in the works of Febvre, Braudel and Ladurie. More recent research informs us of the linkages between environmental studies and understandings of the past, especially in the fields of climate change(s) and vegetation cover (afforestation, deforestation, floral and faunal resources, and communities integrated to those resources) over a long period of time. Significant strides in the field of maritime history drive this point home further. As this chapter deals with maritime history, the point may require some clarification. The historian's urge to understand the past often has to confront the issues of determining the spatial unit and the temporal framework of the intended study. The common exercise is to select a distinctive and easily identifiable landmass, usually a country or a continent, but more frequently an area corresponding to a modern nation-state. While in the case of Europe the identifiable spatial unit in terms of nation-state(s) can be established in the historian's discourse from the sixteenth century onwards, in other parts of the world—especially in Africa, Asia and Latin America—the modern nation-state as a distinct geo-political entity is a much later experience, often not occurring before the nineteenth century. Although the overwhelming number of essays and books on history continue to prefer a landmass in the form of a country or a nation-state as the locational unit of the project, there are now emerging works that highlight

a maritime space as a zone of historical focus.¹ Such studies strongly argue for looking at the sea as an arena of human activities. Thus, one hears of the Pacific rim as a unit of historical work; similarly, the Atlantic Ocean and the Mediterranean Sea have received the sustained attention of historians, not merely as a theatre of naval encounters and naval treaties, but primarily as a zone marked by human interactions with profound historical consequences. The historian's gaze has shifted to the Black Sea from the protracted attention to the landmass known as Crimea, the Balkans, etc., inseparably associated with the study of the Eastern Question.

The challenges in writing maritime history are many. Interdisciplinarity is a precondition to engaging in the history of technology, particularly those of navigation and ship-building, both of which have protracted histories. The recovery of past methods of navigation and ship-building certainly demands familiarity with relevant source materials—textual, visual, field archaeological (including underwater archaeology)—and, in addition, with ethnographic/ethno-archaeological records of the currency of such 'traditional' technologies in present times. Here, the dialogue between the historian and the archaeologist and anthropologist assumes enormous significance. The inclusive methodology seems especially appropriate when we recognize the sea as a bridge and not as a barrier (in spite of the inherent dangers, real and perceived, of crossing the sea) among diverse human communities over dispersed areas. While human encounters with the sea largely involve interaction for material resources, maritime history has a strong component of engagements with the study of commercial transactions of past eras. Recent researches, however, highlight the immense possibilities of cultural transactions among communities along with exchanges of commercial commodities, which are seen not simply as economic needs, but as social and cultural (including ritual) requirements. The crucial question as to whether the sea was viewed as a political arena over a sustained period in the past, especially in pre-modern societies, also demands attention. This is a point that can be explored and examined through the combined efforts of historians, political theorists and cultural theorists. The political attitude to a given maritime space is often associated with notions and claims of sovereignty over water, along with the same over a territory. The roots of this are often traceable in the long-range political culture in a specific temporal and spatial context. That is why maritime history has come a long way from its initial thrusts on the study of naval encounters, naval diplomacy and naval treaties. Significantly enough, Christer Westerdahl suggests that a better appreciation of maritime history is in the offing, as and when it takes into account the 'maritime culture' of the people whom the historian studies.² The expression 'maritime culture' was coined by the Dutch social anthropologist Prins, who defined culture as a 'patterned set of recurrent events'.³ He formulated this concept on the basis of his study of the Lamu in Islamic East Africa, an area very much within the Indian Ocean zone.

The Indian Ocean has emerged as an important unit of historical study in recent decades. India in the Indian Ocean has especially emerged as an exciting field of research during pre-modern times, contesting the long-standing economic image of the subcontinent as exclusively agrarian, steeped in insularity and isolation. An active non-agrarian sector of the 'traditional' economy is being increasingly illuminated, although

the non-agrarian sector remains firmly rooted in the overarching agrarian material milieu. Sustained scholarly efforts have indeed provided considerable visibility to urbanization, crafts production and trade in early India. Tracing the long tradition of commerce in the subcontinent, economic historians have been underlining, roughly from the middle of the 1980s, the significance of the Indian Ocean in India's trading activities and linkages. The long-standing notion that early Indians were averse to seafaring with a view to retaining their ritual purity has been effectively negated, as such proclamations were available only in the normative Brahmanical treatises and at the most applicable perhaps only to the priestly community. This has resulted in the modification of the dominant historiographical perspective that traditional India was landlocked. Although the limitations of the efficacy of Brahmanical lawbooks on seafaring were exposed long ago by R.K. Mookerji, many scholars, mostly European, projected the image that whenever the subcontinent participated in Indian Ocean affairs, the entire initiative came from the West. This Eurocentric position and perspective in the historiography of the Indian Ocean have been strongly critiqued in recent decades. While Pierre Chaunu denied any intrinsic importance of the Indian Ocean, the general consensus has been that the Indian Ocean is the oldest sea in history as it has a history of nearly five millennia of seafaring, trade and travel. It has also been demonstrated that maritime activities in the Indian Ocean go back to a remoter antiquity than those in the Atlantic Ocean and the Mediterranean. Frank Broeze rightly argues that this long-range view would project Asia and not Europe as the leading maritime zone of the world. There is also little doubt that the Indian Ocean dominates the sea-face of Asia.⁴

One cannot also miss from the growing body of researches that the Indian Ocean before 1500 had already been a well-connected maritime zone, frequently traversed by peoples from South, Southeast, East and West Asia and from the east coast of Africa. Historians, not only in specialists' researches but also in the broad generalizations of Indian Ocean history, have recently been incorporating the situations during pre-1500 days, drawing upon new evidence and methods of researches. A major area of development has been the study of pre-modern maritime technologies, including ship-building technologies, combining textual, visual, field archaeological and ethno-archaeological data. Two recent broad sweeps of the Indian Ocean history by McPherson and Pearson illustrate this point. Pearson further argues cogently that the most studied phase of Indian Ocean history, the period of European/British domination, covers only 200 years out of the vast chronological span of nearly four millennia that witnessed contacts and communications in this maritime space. No less significant is the recognition of the importance of trade and maritime commerce in the making of pre-modern South Asia in recent overviews of the past of the subcontinent. 'The argument now made is that there was in pre-colonial times a commercial economy that incorporated many societies of Eurasia and Africa. The economic impact of this trade was not incidental.'⁵

The Indian Ocean, embracing about 20 per cent of the maritime space of the earth, is certainly smaller than the Atlantic and the Pacific Oceans. Both the Atlantic and the Pacific Oceans stretch from the North Pole to the South Pole in sharp contrast

to the Indian Ocean, which is the only embayed ocean in the world. In the compact Indian Ocean zone are also located as many as 37 countries (of Asia and Africa), where reside a third of the world's population. Although Pierre Chaunu has claimed that the Atlantic has the longest history of human activities, no maritime space other than the Indian Ocean has witnessed a longer tradition of human presence—over five millennia. Charles Verlinden aptly points out that the relative smallness, which facilitates communications, explains why the Indian Ocean has been, more than any other ocean, the vehicle of most varied human contacts, with very rich consequences.⁶

In addition to the obvious smallness of the Indian Ocean, there are two other notable features. The first is the more or less predictable alteration of the monsoon wind system in the northern sector of the Indian Ocean, heavily influencing the movements of ships, sailors, passengers and commodities across the sea before the advent of steam navigation. It also speaks of a historical Indian Ocean and a geographical Indian Ocean, as Pearson points out.⁷ While the southern limit of the Indian Ocean stretches to Australia, if not to the Antarctica, the monsoon-dependent seafaring in the Indian Ocean did not go beyond the 10-degree south latitude. It is only in the seventeenth century that the Dutch first utilized the wind system in the 40-degree south latitude to reach Australia. On the other hand, the China Sea geographically separates the Indian Ocean from the Pacific world; yet, major works on the maritime history of the Indian Ocean prefer to include China in them because of the sustained and intimate connections between China and many regions in the Indian Ocean. Being geographically outside the Indian Ocean zone, China nevertheless forms a part of the Indian Ocean history.

The second feature is the centrality of the Indian subcontinent in the Indian Ocean, with its two coasts—dotted with numerous and historically attestable ports—jutting out far into the Indian Ocean. As the present chapter deals with the subcontinent's maritime profile in the Indian Ocean, the importance of the monsoon wind system and the location of the two seaboard cannot be lost sight of. The two seaboard offer interesting geographical diversities. The western seaboard is more indented and broken than its eastern counterpart, facilitating the efflorescence of natural ports. The eastern seaboard, on the other hand, has its distinctiveness in the form of several deltas, from the Ganga delta in the north to the delta of the Tamraparni in the south. These deltas were ideally conducive to supporting dense sedentary settlements and estuarine ports, which were often linked up with the interior by fluvial routes. We thus would like to read the maritime profile of the subcontinent, with a thrust on its western seaboard, not in isolation, but looking for the connectivity between the sea and the adjacent lands, and also among different sectors of the ocean.

It is relevant to place here the reasons for the choice of the temporal span of this chapter, from c. 500 BCE to 1500 CE, a chronological range of two millennia. There is absolutely no doubt that the beginning of the maritime tradition in the subcontinent goes back to the third millennium BCE, when the Harappan civilization (c. 2600-1750 BCE) maintained brisk commercial and cultural contacts with Oman, Bahrein and Sumer (especially the Akkadian kingdom under Sargon). The recovery of this past is best done by qualified and specialist archaeologists. Besides, the subject has been dealt

with in detail in a previous volume dedicated to the study of this specific period. Therefore, there is little relevance in a repetition or a summary of the same here. The succeeding one millennium till c. 600 BCE offers very meagre, if any, images of the subcontinent's interactions with the sea. Occasional references to the term *samudra* (sea) notwithstanding, Vedic literature rarely portrays sustained seafaring activities as a regular component of the-then material culture.⁸ We have argued elsewhere that trade should be seen as a complex exchange-related activity which requires, among other things, the prevalence of a territorial polity distinct from the lineage-based polity. Exchange-related activities like trade and commerce, occurring usually at market places (including port sites and urban centres), are far more complex and assume a greater degree of impersonality than those associated with gift exchanges (*dana* and *dakshina* in the Vedic corpus), having reciprocity and redistribution as the latter's key components and standing in sharp contrast to the profit motive symptomatic of marketplace trade. The emergence of territorial polity, a metallic medium of exchange (that is, coins), and urban centres in the context of north India and, more specifically, the Ganga valley, gains visibility through both archaeological and textual materials from c. 600 BCE onwards. It is not surprising, therefore, that concrete information regarding the subcontinent's regular engagements with the Indian Ocean began to surface from the same time. This is why the present chapter opens with c. 600 BCE.

HISTORICAL GEOGRAPHY

At this juncture, it will be relevant to examine the lexicon that attempted to give a distinct identity to the maritime space in question. Ancient Indian literary texts were clearly aware of the sea (*samudra*, *sagara*, *jaladhi*, etc., in Sanskrit, and *samudda* in Pali) that washed the three sides of the vast landmass of the subcontinent. But these texts merely speak of the eastern (*purva/prak*) and the western (*paschima/apara*) sea without any further designations. The name Erythraean Sea seems to have denoted the Red Sea and the Arabian Sea of the present times, according to the first-century CE text *Periplus Maris Erythraei* (*Periplus of the Erythraean Sea*). The term Erythraean Sea, however, had denoted in the (now lost) second-century BCE text of Agarthachides the Red Sea.⁹ Pliny (late first-century CE) seems to have been the first author to have given the designation *mari Indicum* (the Indian Sea): 'Here begins the Indian race, bordering not only on the Eastern Sea, but on the Southern also, which we have designated the Indian Ocean (*Indorumque gens incipit, non Eoo tantum adiacens verum et meridiano quod Indicum appellavimus*).'¹⁰

This *mari Indicum* is certainly not equivalent to the modern maritime space labelled the Indian Ocean. It largely corresponds to the western sector of the Indian Ocean, particularly the Arabian Sea. But the designation could have hardly entered the vocabulary and gained currency had it not been for the familiarity of the Classical world with the said maritime space. How the coinage of this designation is intimately connected with the expanding commercial network between South Asia and the eastern Mediterranean will form a part of an elaborate and later discussion. To Claudius Ptolemy (c. AD 150) goes the credit of giving a distinct appellation to the eastern sector of the Indian Ocean, namely the Gangetic Gulf, corresponding to the modern Bay of

Bengal;¹¹ once again, it speaks of the growing familiarity of the Classical world not only with the western Indian Ocean, but its eastern sector too, in the space of seven or eight decades (from about c. 70 CE to 150 CE).

The rise and spread of Islam—with a pronounced orientation to commerce and urban life—resulted in a more intimate association with the Indian Ocean from the late eighth and early ninth century onwards. A perusal of the geographical texts and travel accounts of Arabic and Persian authors reveals the coinage of the expression *al bahr al Hindi*, the near equivalent of the later English expression the Indian Ocean. In the *al bahr al Hindi* was included *bahr Larvi* (the sea of Lata or Gujarat), corresponding to the Arabian Sea.¹² The Arab authors show a clear awareness of the *aghabab* or channel separating the southern part of the peninsula from Sri Lanka; this seems to be the same as the Palk Strait. Further to the east, the maritime space was designated *bahr Harkal* (or Harkand). Harkal is clearly the Arabicization of the name Harikela, identified with the present Chittagong, Noakhali, Comilla regions of Bangladesh (southeastern-most Bangladesh to the east of the river Meghna). The coinage of terms denoting the Indian Ocean or different segments of it, especially by Arabic and Persian authors, cannot but demonstrate their regular familiarity and acquaintance with the maritime space in question, obviously in the wake of the burgeoning commerce in the Indian Ocean.

It is evident that a term like *mari Indicum* was of much greater antiquity than the Arabic expression *al bahr al Hindi*. Therefore, it is difficult to agree with Pearson that the English name Indian Ocean had its base in the Arabic expression *al bahr al Hindi*. The Classical texts show considerable familiarity with at least parts of the Indian Ocean from the late centuries BCE. The *bahr al Hindi*, however (as mentioned earlier), has in it segments like the *bahr Larvi* (the sea of Lata or Gujarat, actually meaning the present Arabian Sea) and the *bahr Harkal* (the sea of Harikela; actually denoting the Bay of Bengal, since Harikela stands for the eastern-most part of the Bengal delta). The Chinese viewed the Indian Ocean as a western sea (*Hsi hai*), distinct from what they defined as the southern sea (*Nan hai*). If early Indian sources offer little in terms of the nomenclatures of the Indian Ocean, the diversity of names of the same in non-indigenous writings would show that the maritime space was frequented by seafarers from beyond the confines of the subcontinent.

Although the Buddhist and Jain literatures do not dwell much on maritime matters, they look at merchants in a more positive light than the orthodox Brahmanical treatises. Orthodox Brahmanical sastric norms, based on Vedic tradition, did not usually accord adequate honour and prestige to merchants. Coupled with the overtly negative assessments of and attitudes towards trade and traders in the Brahmanical treatises is the strong sastric tradition that believed that crossing the sea made one ritually impure. Manu therefore forbids a *brahmana*, who undertook a sea voyage, from being invited to the *sraddha* ceremony. Later Puranic texts with a more hardened attitude brand sea voyages as forbidden acts in the Kali age (*kalivarjya*), the worst of the four traditional *yugas* or time cycles in Indian tradition. All these leave a general impression that trade was marginal to the economy of early India and there was little initiative to trade, especially long-distance overseas commerce, in early India.

This sastric perception of trade and traders is in sharp contrast to the lively and positive images of merchants, including traders' journeys to distant lands, in the vast creative literature of early India. Jaina and Buddhist texts are also replete with accounts of mercantile activities, including long-distance journeys and voyages. Known for its great emphasis on non-violence, Jainism hails trade as the least violent of all occupations. Jainism is still popular among the Indian mercantile communities. Therefore, it is of little surprise that Jaina writers composed biographies of great merchants, who were also major patrons of Jainism.¹³

Buddhism strongly upholds commerce (*vanijja*), along with agriculture (*kasi*) and cattle-keeping (*go-rakkha*), as excellent professions (*ukkattha-kamma*). Contrary to orthodox Brahmanical notions against sea voyages, the Buddha himself is portrayed as a master mariner (*Supparaga*). There is little doubt that both Buddhism and Jainism received continuous and substantial patronage from the trading communities. The normative texts, however, generally encourage the activities of foreign merchants in India. Even the *Arthasastra*, famous for its draconian measures against unscrupulous traders, warmly welcomes the arrival of non-indigenous merchants. There is thus no uniform or standardized attitude to trade and traders in early India.¹⁴

THE BEGINNING C. 600–200 BCE

The land-locked north Indian plains have two outlets to the sea: the Indus delta and the Gujarat-Kathiawad coast in the west and the extensive Ganga delta in the east. Beginning our survey around the sixth century BCE, the lower Indus valley and the Indus delta appear to have been in close contact with West Asia from the sixth to the fourth century BCE as a result of the expansion of the Achaeminid rule from Persia. Achaeminid inscriptions and the *History* of Herodotus leave little room for doubt that this area (Hi[n]dush/India) became the twentieth and perhaps the richest *satrapy* (province) of the extensive Achaeminid realm. Herodotus also informs us that Darius I, even prior to the actual conquest of the area, had sent Scylax, a Caryandian, on an expedition to explore the navigability of the river Indus and then frequented the sea. Unmistakably, the Achaeminid ruler perceived the lower Indus valley as an outlet to the Arabian Sea and the Persian Gulf. This assumes special significance in the light of Darius I's attempt to dig a canal linking the Nile with the Red Sea. It is significant to note that the famous Sanskrit grammatical treatise, the *Ashtadhyayi* of Panini (about the fifth/fourth century BCE), marked by its familiarity with the Indus basin, was aware that a person could own a couple of watercrafts (*dvihnavapriya*). One is not sure whether the watercraft was a riverine or a sea-going vessel, but the ownership of a vessel as a mark of a person's identity is unmistakable. The point to note is that the Indus basin was regularly navigable, encouraging vessel-owners and a powerful conqueror alike to utilize this fluvial route, possibly right up to the end of the delta. This possibility gains further ground in the light of the accounts left behind by Alexander's historians. At the time of Alexander's return from north India in the late fourth century BCE, a segment of his army sailed down the Indus and then voyaged in the Persian Gulf to ultimately reach Babylon. The sailing was under the command of Nearchus, who was responsible for

the construction of many sea-going vessels with the help of locally available ship-builders.¹⁵

India's contacts with West Asia increased to some extent during the Maurya rule in India. The Maurya rulers established a nearly pan-Indian empire (ca. 324–187 BCE), stretching from Afghanistan in the north to Karnataka in the south and from Kathiawad in the west to Kalinga in the east. Asoka (272–33 BCE), the greatest of the Maurya rulers, sent out official missions to propagate the Law of Piety (Dhamma), both within his realm (*vijita/rajavishaya*) and beyond (*amta avijita*, literally meaning the unconquered frontiers). His Dhamma missions reached the distant kingdoms of five *Yavana rajas* (kings): Amtiyoka (Antiochus II Theos of Syria, 261–46 BCE), Amtekina (Antigonos Gonatus in Macedonia), Turamaya (Ptolemy Philadelphos in Egypt, 285–47 BCE), Alikasudara (Alexander of Epirus, 272–35 BCE), and Maga (Megas of Cyrene).¹⁶ There is little tangible evidence to suggest that this contact had any maritime orientation. However, the Ptolemaic rulers of Egypt and the Seleucids of West Asia, both contemporaries of the Mauryas, had interests respectively in the Red Sea and the Persian Gulf—a point we shall take up later for discussion. In the vast realm of the Mauryas were included the Baluchistan area (Gedrosia), the Gujarat-Kathiawad coast, the Konkan coast, and the coastal regions of Kalinga. Three sites, namely Girnar (Kathiawad), Dhauli and Jaugada (both in Orissa), not far away from the coastal tracts, have yielded Asoka's edicts. In Sopara, a northern suburb of present Mumbai and identified with the renowned port Surparaka (Supparaka), has been found a set of Asoka's major rock edicts. As the sites of Asokan edicts were consciously chosen, the edicts at Sopara may speak of Mauryan interest in this Konkan port. The Maurya occupation of the Kathiawad peninsula and the Makran coast in Baluchistan, when seen along with the Maurya presence in Konkan (Aparanta, literally the western end), may imply at least some awareness of the western Indian Ocean, especially the Arabian Sea and the Persian Gulf.

What is particularly significant is the distinct interest of the contemporary Seleucid rulers (in sustained diplomatic relation with the Mauryas) in the Persian Gulf, an image that is gaining increasing visibility through the excavations at Failaka (near Kuwait) and Qalat al Bahrain. Known as Ikaros during Seleucid times, Failaka has yielded a small fortress (40m x 40m), sanctuaries, and three coin hoards containing local silver coins. The settlement was founded by Seleucus. Salles, the excavator, views Failaka more as a military base than a commercial centre, more precisely as a base for the Seleucid navy protecting the head of the Gulf and the access to the fluvial routes to Mesopotamia. In view of the continuous diplomatic ties of the Seleucid rulers with three successive generations of Maurya rulers (Chandragupta, Bindusara and Asoka), the Persian Gulf network with the Arabian Sea and western Indian littorals assumes considerable significance. The Persian Gulf was possibly the main artery of India's trade with the Seleucidian ports.

To the Ptolemys of Egypt too reached Asoka's Dhamma missions. The Ptolemaic rulers maintained a definite orientation to the Red Sea. This is evident from the foundation of a port named after Berenike, the daughter of Ptolemy Philadelphos, in southern Egypt. The enormous importance of this port for the trade with India was particularly felt from the late first century BCE. Ptolemaic interests in the Red Sea were

rooted largely in their urge to procure Ethiopian elephants, coveted both as a war animal and also for ivory. The Ptolemaic explorations in the Red Sea went beyond Ethiopia and reached Aden and Socotra (close to the Horn of Africa) during the third and second centuries BCE. The appointment of an Epistrategos (governor-like administrator) of the Erythraean Sea fits into the Ptolemaic scheme for the Red Sea. In the anecdote of a drowned Indian sailor, who was saved and who later became the pilot for Eudoxus of Cyzic, one possibly finds an emblem of some maritime contacts of the Red Sea area (especially close to Aden) with the western Indian seaboard. It is in the context of the Persian Gulf as a seafaring zone and the emergence of the Red Sea route under the Ptolemaic rulers that the situation of Sopara as a port in Konkan needs to be appreciated. From this Konkan port, linkages both with the Persian Gulf and the southernmost area of the Red Sea are not entirely impossible.

The other areas which received Dhamma missions of Asoka, according to his edicts, are the Cholas (Kaveri delta), Pandyas (Vaigai delta), Satiyaputra (southern Karnataka), Keralaputra (Kerala) and Tamraparni (Sri Lanka), all lying beyond the frontiers (*anta/prachamta=pratyanta*) of his realm (*vijita/rajavishaya=conquered royal domain*). Of the five, two are distinctly coastal areas and the third, Sri Lanka, an island. That Asoka's propagation resulted in the spread of Buddhism in Sri Lanka is mentioned in the later Sri Lankan Buddhist chronicles, the *Mahavamsa* and the *Dipavamsa*. But even the third-century CE Sanskrit Buddhist text, *Divyavadana*, speaks of the voyage of a ship carrying the Mauryan prince Thera Mahinda from Tamralipta (a premier port in the Ganga delta) to Devanampiya Tissa in Sri Lanka. This speaks of an east coast network stretching all along the eastern seaboard from Bengal to Sri Lanka. It is likely that such a voyage in the third century BCE from Tamralipta to Sri Lanka went all along the east coast, instead of a high-sea sailing. Boppearchhi informs us that recent excavations at Anuradhapura, the premier city of ancient Sri Lanka, has yielded the Northern Black Polished Ware (c. 600–100 BCE), a de luxe pottery manufactured in the middle Ganga plains and distributed widely during Mauryan times. To this has to be coupled the find of punch-marked coins from Sri Lanka. The punch-marked coins, like the NBPW, are a diagnostic feature of north Indian material culture. The advent of punch-marked coins in Sri Lanka cannot but signify a trade network with north India.

The principal resource base of the Maurya empire was certainly agriculture. But there is a strong possibility that trade, including long-distance trade, further supplemented the agrarian resource base. Megasthenes, the Seleucidian envoy to Pataliputra, observed that the city commissioners (*astynomoi*), numbering 30 and looking after Pataliputra, were entrusted with the care and maintenance of ports and marts.¹⁷ The Greek accounts also speak of officers looking after the Mauryan fleet. Combining the recommendations of the *Arthashastra* for the director of shipping (*navadhyaksha*)¹⁸ with this observation of Megasthenes, a few historians consider that the Mauryas maintained a navy. This is difficult to accept and substantiate, as there is little to show that the Mauryas considered any maritime zone as an arena over which they exercised and expressed their sovereign political authority and hegemony. The *Arthashastra* clearly recommends effective curbing and suppression of piratical activities and pirate vessels (*himsrikas*). First, it is impossible to confirm that the *Arthashastra*

prescriptions were actually applied or applicable in the Maurya realm; second, even if the Mauryas tried to protect ships and vessels (including riverine crafts) from pirates, that does not amount to the organization and maintenance of a navy under a political power. The theoretical treatise in question at the most advises the *navadhyaksha* to supervise the mercantile marine—a function qualitatively and organizationally different from raising and maintaining a regular navy to establish and protect sovereign political authority over a given maritime space.

The *Arthasastra*, on the other hand, shows considerable interest in shipping methods and practices. The text distinguished a large vessel (*mahanau*) from a smaller one (*kshudrika*) in terms of their areas and nature of operations. While the smaller vessels were capable of plying only during the monsoons—in other words, seasonal—the larger ones were to be employed on large rivers (*mahanadis*) that would have enough water even during the summer and the autumn (*hemantagrishma-taryasu*).¹⁹ The *Arthasastra* highlights the revenue-bearing potential of riverine shipping networks. The large riverine vessel, according to the *Arthasastra*, should be manned by the following crew: the captain (*sasaka*), the navigator (*niryamaka*), the holder of the rope/string (*rashmigraphaka*, that is, one who controlled and adjusted the ropes attached to the mast), the sickle-holder (*datra-ghataka*, that is, one who would cut the ropes, if necessary, with a sickle during a storm), and the bailer (*utsechaka*, who bailed out the water accumulated in the hold of the craft).²⁰

***Maritime Network Between South Asia and the Eastern Mediterranean
(Late First Century BCE—Third Century CE)***

The period from roughly the late first century BCE to third century CE marks a defining moment in the linkages between South Asia and the eastern Mediterranean regions. Long-distance trade and contacts between these two regions figure prominently in both Indian and Classical literature, and in archaeological materials from the Roman world, the Indian subcontinent, and Central and West Asia. The eastern Mediterranean regions seem to have initially been in regular exchange networks with West, Central and East Asia; South Asia's participation in this international commerce, though of great importance, came to the limelight in a subsequent period. Closely tied to it is also the emergence of long-distance overseas trade between the South Asian subcontinent and the eastern Mediterranean, in addition to the lively and brisk overland network. These maritime contacts, on account of primarily geographical factors, brought the ports and marts of the western seaboard to considerable prominence. The complementarities between the overland and the overseas routes are crucial to the understanding of the immense expansion of South Asian commerce. The enormous expansion of trade on a truly international scale coincided with the existence of four major polities: the Han, the Arsacid, the Roman and the Kushan empires.

This vast international trade was largely prompted by the growing demand for Eastern products, mostly exotic, luxury and precious items, among the nouveau riche in the Roman Empire. One of the most precious and luxurious commodities was Chinese silk. A far-flung and complex network of overland routes connected China with eastern Mediterranean ports such as Antioch in Syria and Alexandria in Egypt. The importance

of Petra in the Nabatean kingdom and Palmyra in Syria can hardly be lost sight of. A reconstruction of the network of overland routes is possible on the basis of early Chinese and Classical accounts, as well as the profusion of archaeological materials. The overland route started from Loyang in China, then bifurcated into two branches from Dunhuang to the north and south of the Taklamakan desert respectively, and met again at Su-le or present Kashgarh, where the availability of excellent silk drew the attention of Strabo who knew it as Serike, clearly named after the availability of silk at this place. From Kashgarh, the overland route and its various branches reached Bactria in northeastern Afghanistan and continued thence through Iran to Merv or Margiana (Mulu of the Chinese texts), Hecatompylos, Ecbatana (Hamadan), and Seleucia. The route continued westward from Seleucia to Palmyra, a famous centre for the caravan trade, and then reached Antioch in Syria via a northern and northwestern route, touching Hatra, Batnae, and Zeugma. The geographical distribution of this network of roads, now celebrated as the Silk Road—an expression coined in the nineteenth century (Seidenstrasse in German)—shows that while the eastern and western termini were located respectively in China and the eastern Mediterranean, a considerable part of the overland network traversed through Iran under the formidable Imperial Parthian rulers (An-hsi of the Chinese texts and the Arsacid empire in the Classical accounts). The Arsacid empire assumed the role of an extremely significant intermediary in the movements of men and merchandise along these hazardous routes.

All three powers, the Han empire in China, the Arsacids in Iran, and the Roman empire in the west, had a consistent policy towards trade, and it was as a result of this exceptional state of affairs that the land Silk Road came into being.²¹

To this must be added the role of the Kushan realm, which had Bactria in northeastern Afghanistan as the springboard of its power since the late first century BCE. The Kushan empire, at its zenith during the reign of Kanishka I (c. 78–101 CE), embraced areas to the north of the Oxus, parts of the southern Silk Road, Kashmir, the Punjab of both Pakistan and India down to the Indus delta, the entire north Indian plains up to Champa (Bhagalpur, eastern Bihar), and the Gujarat-Kathiawad coast in western India. Mathura in the Ganga–Yamuna *doab* region stood as one of the premier political and commercial centres of the Kushan realm right from the first half of the first century CE to the end of the Kushan rule (c. middle of the third century CE). It is important to stress this political scenario because the emergence of the Kushans paved the way for the diversion of some Silk Road traffic into South Asia, which now became integrated into this commercial network.

The Chinese text *Hou Han shu* clearly appreciated the significance of the Kushan conquest of Shen du or the lower Indus valley (the Chinese toponym obviously derived from Sindhu or the lower Indus valley and the Indus delta), as it facilitated the establishment of trade between the Kushans and Ta-chin or the Roman empire, thereby deriving major economic mileage. The lower Indus valley and the Indus delta figure prominently in the *Periplus of the Erythraean Sea* (late first century CE) and the *Geographike Huphegesis* of Ptolemy (middle of the second century CE). It was called Scythia or Indo-Scythia and the Indus delta was named Patalene. The area looms large in Classical texts for its prosperous port, Barbaricum, located at the middle of the seven mouths of the river Indus. Such a port would have facilitated seafaring from the Indus delta

to the famous port of Spasinou Charax situated to the north of the head of the Persian Gulf. Spasinou Charax maintained regular linkages with both Seleucia and Babylon via fluvial routes on the Tigris and the Euphrates. Petra, the renowned Nabatean commercial centre that was conquered by the Romans in 106 CE, was well-connected with both Phoenicia and Gaza. Archaeological investigations amply demonstrate that the Petra-Gaza route was in continuous use during the whole of the first century CE and well into the Roman period.²² Ammianus Marcellinus was aware of the availability of products sent by Indians, and many items, according to him, were customarily brought here (that is, Batnae) by land and sea. Strabo (63 BCE–24 CE) informs us of the importance of Zeugma on the Euphrates for the Greek, Syrian and Jewish merchants of Antioch, who were eager to reach Mesopotamia to procure silk and exotic spices. It should be noted that in West Asia and the Roman empire, Jewish merchants played an important role, which somehow has not figured prominently in the historiography of the trade between the Roman empire and the subcontinent. This discussion will pay some attention to this aspect.

The commercial scenario presented above strongly underlines the position of West Asia, which was endowed with a number of important overland and fluvial routes connecting the eastern Mediterranean with the port of Charax. Palmyra, well-known as a place where Chinese silk was available, played a stellar role in this West Asian caravan trade. Now, attention may be focused on a particular Palmyrene merchant, Marcus Ulpius Iarhai, engaged in the caravan trade between Palmyra and Spasinou Charax. 'The merchants who have returned from Scythia on the ship of Honainu, son of Haddudan, son of ... in the year 468 (157 CE)' dedicated an honorific inscription to one 'son of Hairan, son of Abgar'. Only two years later, in the year 470 (159 CE), he was once again honoured in another inscription dedicated to him. This was, in fact, an expression of gratitude from caravan traders for all the help they received from the son of Marcus Ulpius Iarhai, and for the safe journey of the caravan 'which has come from Spasinou Charax'.²³ Since the honorific inscriptions introduce and address him in terms of his ancestry (clearly mentioning his father and grandfather), a typical Jewish socio-religious custom well-established in West Asia, one may be tempted to suggest that Marcus Ulpius was a Jewish merchant active in the Palmyrene caravan trade. His Semitic name may further strengthen the possibility that he was a Jew. In a similar manner was introduced one Honainu, who was clearly a ship-owning merchant. Epigraphic evidence also speaks of a Jewish Palmyrene ship-owner, Honainu, active in the Persian Gulf area. Garry Young suggests that there were many Palmyrene ship-owners and points to the regular depiction of ships in Palmyrene funerary sculptures.²⁴ Palmyra was in no way close to the sea, but the pull of maritime trade integrated this caravan centre to sea trade, encouraging Palmyrene merchants to take an interest and invest in maritime commerce. But more interesting is the fact that Honainu's ship(s) plied to Scythia. Scythia, as described in the *Periplus*, closely corresponds to Indo-Scythia in Ptolemy's *Geography*. Descriptions in the *Periplus* leave little room for doubt that Scythia was situated in the lower Indus valley, more precisely in the Indus delta. Honainu's ships probably sailed to the port of Barbaricum, situated at the middle of seven mouths of the Indus. So Scythia/Indo-Scythia was located in the western extremities of the subcontinent, and not in 'northern India', as Young suggested. Young,

on the other hand, must be credited with highlighting the importance of the Persian Gulf route for transporting silk to the port of Charax. From there, caravan traders distributed the commercial commodities to different parts of the Roman world, including the Provincia Arabia.

During the heyday of the sea trade between India and the Roman empire, the premier port was **Barygaza** (Broach) in Gujarat (see below). It seems that the great prominence of Barygaza somehow pushed Barbaricum to the background. If, however, one looks into the Persian Gulf network, one can see that the lively role of Barbaricum seems to have continued.

The Roman world became connected to South Asia via a more convenient and more regularly frequented route from the late first century BCE onwards. The crucial political factor here was the conquest and annexation of Egypt into the Roman empire, which from then on enjoyed an access to the Red Sea route. The famous Red Sea route brought Egypt and the great Mediterranean port of Alexandria into the orbit of Indian maritime commerce. Egypt almost functioned as a hinge between the Indian Ocean and the Mediterranean worlds. The *Periplus of the Erythraean Sea* and the *Naturalis Historia* by Pliny (d. c. 79 CE) inform us that the Graeco-Roman sailors' utilization of the Etasian or the **Hippalus Wind**, generally identified with the southwestern monsoon wind system (June to September), immensely benefited the sea-borne commerce in the Red Sea. A transformation from the looping coastal network to voyages across the sea was in the offing. This led to the development of a close commercial linkage between the Red Sea and the western littoral of India. Overland and riverine connections between Alexandria in the Nile delta and the two Red Sea ports, Myos Hormos and Berenike, were an integral part of this network. While staying with his friend Aellius Gallus, the Roman Prefect of Egypt, Strabo was struck that about 120 ships sailed from Myos Hormos to India, while during the time of the Ptolemies, scarcely one would venture on this voyage and commerce with the Indies.²⁵

Pliny graphically describes the development of maritime routes between India and the West in four stages, with each successive stage, according to him, offering shorter and safer voyages between India and the Red Sea ports. The fourth and the most developed stage of this overseas route is said to have enabled merchants to travel from **Ocelis** in the Red Sea to the port of **Muziris** (Pattanam, close to Cranganore in Kerala) in 40 days.²⁶ India was thus brought 'nearer' the Roman empire, to quote Pliny once again, 'through the love for gain'.²⁷ A perusal of Pliny's description of the progressive shortening of the sea voyage from a Red Sea port to the west coast of India deserves further analysis in the light of the readings of Lionel Casson. Casson rightly points out that it would have been impossible to cross the Arabian Sea at the height of the southwest monsoon. The voyage from the southern Red Sea area would have become easier and practicable with the lessening fury of the monsoon from late August. After a careful study of the traditional sailing patterns in the western Indian Ocean and navigational and shipping techniques, Casson argues that a blue-water voyage from Ocelis, taking advantage of the southwest monsoon winds, would have brought a ship to the Malabar coast in about 20 days. The figure of 40 days of sailing mentioned by Pliny is, according to him, either a wrong calculation, or a scribal error in the manuscripts (or copies of manuscripts). A voyage from Ocelis, starting around

September, would therefore reach a port like Muziris latest by late September. The waiting period for the ship with a return cargo could thus have ended around late October or early November, when full advantage could have been taken of the alteration of the monsoon wind from the southwestern to northeastern. This schedule would also lessen the waiting time for the sailing craft at an Indian port.

Indian textiles (especially muslin), spices (particularly pepper), exotic fragrances such as nard, precious gems and stones, and ivory figure very prominently in the list of Roman imports of eastern luxuries. The textual impressions of the thriving trade between India and the Roman world via the Red Sea find a remarkable corroboration in a mid-second century CE loan contract document on papyrus, now preserved in a museum in Vienna. This invaluable source, which throws immense light on maritime loans in Red Sea shipping, speaks of loading Indian luxury cargo on board the ship *Hermapollon*, which was lying at anchor at the port of Muziris. Unfortunately, the exact destination of the ship cannot be read, but it must have been either Berenike or Myos Hormos. The imported cargo was to be unloaded from the ship at Berenike or Myos Hormos, and then sent on the backs of camels to the great centre of trade, Coptos on the Nile. At Coptos, the cargo would be loaded onto the boats on the river Nile and then transported to Alexandria. The imported commodities were to be entered at the Roman imperial warehouse at Alexandria, subject to payment of a customs duty as high as 25 per cent.²⁸ The immense cost of the imported items, the sizeable transportation cost, and the payment of 25 per cent duty to the Roman imperial warehouse certainly necessitated a huge investment. With a view to lessening the immediate risk of this heavy investment, the credit instrument became relevant. Herein lies the significance of the loan contract document. The names of both the debtor and creditor are unfortunately lost; but there is a strong likelihood that one of them was probably an Indian. Seen from this perspective, one tends to recognize the active participation of Indian merchants in the Red Sea trade. Such a possibility gains further ground when we take into account the name *Chattan*, inscribed in the Tamil brahmi script of the first/second century CE on a potsherd that has been recovered from the Berenike excavations. In another Indian inscription, found in Egypt, Saloman has read the names *Nagadatta* and *Vishnupalita*, which suggests that these men hailed from western Deccan. All these point to the active participation of Indian merchants in this burgeoning sea trade and their voyaging to Western destinations. Moreover, the discovery of coconut remains, rice and mung beans from the Berenike excavations is a strong pointer to the presence of Indian merchants there, who seem to have consumed these items in preference to local dietary practices. The growing body of evidence concerning Indian participation in seafaring activities in distant destinations compels us to question and revise the stereotypical image of the insularity of Indians. A typical case in point is the following pronouncement of Warmington in the context of trade between India and the Roman empire:

The moving force from the first to the last came from the West, the little changing people of the East allowed the West to find them out. We have then, on one side, India of the Orient, then as now, a disjointed aggregate of countries, but without the uniting force of the British rule which she now

has, and while open to commerce, content generally to remain within her borders to engage in agriculture.²⁹

This loan contract highlights the role of the Red Sea ports and Coptos. The papyrus document amply illustrates that the caravan trade and Nile riverine traffic were inseparable and integral elements of the Roman trade in the western Indian Ocean. Recent archaeological excavations at Berenike, Abu Shaar and Quesir al Qadim (both sites sought to be identified with Myos Hormos, although there is preference for Quesir al Qadim as being the site) clearly reveal Roman imperial interests in providing adequate protection to the caravan route and trade traffic, and also in making drinking water facilities available. A Latin inscription from Coptos, datable to about 4 BCE, speaks of considerable construction along the Berenike-Coptos road from the time of Tiberius to that of Augustus.

A few words about Berenike itself will not be out of place here. The combined testimony of Agatharchides, Pliny, Diodorus, Julius Solinus, Strabo, as well as the Nikanor archives and the ongoing excavations, show that it was a desert town located in a most inhospitable area that virtually had no local food production or local raw material. Its northern counterpart, the port Myos Hormos, needed a shorter desert crossing of six to seven days, as against the 10/12 days' crossing of the desert from Berenike to Coptos. But being located 230 nautical miles south of Myos Hormos, it offered the returning Egypt-bound ships a somewhat less arduous journey against the consistently fouling winds blowing from the opposite direction. The monsoon rhythm made the summer months the busiest at the port. Berenike's role as a major destination of Egypt-bound ships from India is best indicated by the remains of commodities of Indian origin found from excavations. Although the famous Vienna papyrus does not speak of the shipment of black pepper from Muziris (the most coveted Indian spice imported to the Roman empire), Berenike has yielded a dolium of 7.5 kgs of peppercorn, which must have come from Malabar. The discovery of the peppercorn from a trash dump at Berenike demonstrates the enormity of the supply of this imported spice to Berenike. The price of 7.5 kgs of recovered peppercorn is calculated to have been enough to supply a Roman citizen with wheat continuously for two years. Further, an abundance of Indian gemstones at Berenike is impossible to miss. Emerald is found there in profusion; so also is diamond (adamas). The latter, according to Ptolemy, was found at Cosa (to the northeast of the Namados or Narmada river), identifiable with the Panna diamond fields in Madhya Pradesh. Agate, also found at Berenike, figures as an exportable item from the port of Barbaricum, according to the *Periplus*. The source of the aquamarine beryl is possibly the region around Coimbatore (Pounata of Ptolemy), from where it was possibly brought to a Malabar port for shipping to the Red Sea destinations. But Berenike was not merely receiving imported costly and exotic items. To Berenike came (i) basic provisions for the Berenike population; (ii) provisions for the sustenance of shipping crew; (iii) goods required by Romans stationed in coastal pockets in Africa and India (for example, fish oil, olive oil); and (iv) commercial commodities. The enormous importance of the Nikanor archives is connected with the transactions in the first two types of items.³⁰ Nikanor, a resident of Alexandria, had a number of agents to look after the transport business in the Red Sea area. The Nikanor

archives consist mainly of receipts given to Nikanor's transports for services rendered. Among the foremost customers of Nikanor's transport services was the firm owned by Marcus Julius Alexander, an immensely rich Jewish merchant at Alexandria.

We have already touched upon the great demand for Indian spices in the Roman world. Two spices, pepper and nard or spikenard, call for closer scrutiny. The Roman craze for Indian pepper as a spice, preservative, and medical ingredient looms large in the *Periplus*, *Naturalis Historia*, and the Tamil Sangam literature. This spice, grown and shipped from the Malabar coast of India, was truly the black gold, as Romila Thapar terms it, in the history of the spice trade from the late first century BCE to at least the seventeenth century. During the first three or four centuries CE, it was sought after by the Romans and the Jews, as testified to by at least 45 references to pepper in the Babylonian Talmud (second to sixth centuries CE). The possession of pepper was important enough to have been mentioned as a deceased Jew's estate when his sons were about to inherit their father's properties. The importance of the import of this coveted spice is to be situated in the context of the conspicuous consumption and demonstration of the consumption of luxuries in the cultural world of the Roman empire.

The other spice, nard or spikenard, which was actually a fragrance, was also a highly coveted exotic item. Moreover, it has a very important position in Jewish ritual and religious practices. The Talmud offers as many as 16 references to Indian nard which, along with myrrh, cassia, saffron and cinnamon, was indispensable for preparing the incense to be burnt before the altar. Therefore, a considerable part of the steady demand for nard as an import from India to the Roman world could have been generated by the Jews, among others. In addition to the *Periplus* account of the export of Gangetic nard (that is, available in the Ganga delta) from Muziris in Kerala, the mid-second century papyrus actually records the loading of 60 containers of Gangetic nard (each of the price of 4,500 silver drachmae) on board the ship Hermapollon. A close scrutiny of the papyrus shows that the shipment of 60 containers of Gangetic nard does not appear to have been charged any duties at all at the point of entry in Egypt by the *arabarch*. Why such an exception was made in the case of Gangetic nard, in sharp contrast to the levy imposed on ivory and textiles by the officer, is not clear. Perhaps the *arabarch* let it go without any duties because of its ritual and religious significance. Was this consignment meant for, at least in part, Jewish rituals?

The nard originates and grows in the mountainous regions of the Himalayas, at an altitude of about 17,000 feet. The *Periplus* speaks of three varieties of Indian nard exported from three different ports: from Barbaricum, the port in the Indus delta, from Barygaza, the premier port in western India at the mouth of the river Namados (Narmada), and Gangetic nard, shipped from Muziris in Kerala. Pliny gives the price of a pound of nard leaves as ranging from 45 to 70 *denarii* and the spike (the rootstock) at 100 *denarii* per pound, leaving little doubt that he considered the nard among the costliest imports from India. The nard transported from Barygaza seems to have reached the port through Ozene or Ujjaiyini (in Madhya Pradesh), a major commercial and urban centre in early historical India. Through this region is also brought down from the upper parts the nard that comes by way of Proklais, and the nard that comes through the adjacent part of Skythia. The nard was supplied to Barygaza from non-local sources; it will be reasonable to infer that some part of the nard available from the

lower Indus country was directed to Barygaza, which seems to have been preferred to Barbaricum in the Indus delta.

The *Periplus* provides an explicit reference to the Gangetic nard. The Gangetic area is located after (that is, to the north of) Masalia, identified with the coastal areas of Andhra and located in the deltas of the Krishna and the Godavari rivers. The text mentions the Ganges as the greatest river of India. On this river is a port, called Gange, through which are shipped out malabathron, Gangetic nard, pearls, and cotton garments of the very finest quality, the so-called Gangetic.³¹

Next, the author of the *Periplus* vaguely speaks of the shipping of some Chinese products 'via the Ganges River back to Limyrike'.³² In another section, he speaks of the shipping network between Limyrike/Damirica and the Ganges country (that is, the Ganga delta).³³ There is no known port in the region by the name of Ganga, as mentioned in the *Periplus*. However, two ports in the Bengal delta stole the limelight in the maritime scenario of early historical Bengal: first, the famous port of Tamralipta (Tamalites of Pliny and Taluctae of Ptolemy), and second, Chandraketugarh. The latter is not known from any literary/textual material, but it is a major excavated site in West Bengal. It is difficult to satisfactorily locate the port of Ganga, but it seems to have been different from Tamralipta/Tamalites/Taluctae (Tamluk, Midnapur district, West Bengal). That is why its preferred identification is sought with Chandraketugarh. Chandraketugarh has recently yielded a few unique inscribed (in 'mixed' Brahmi-Kharosti script) terracotta seals and sealings on which were depicted representations of sea-going vessels,³⁴ strongly suggesting, thereby, that it was a riverine port. The *Periplus* also clearly suggests that the Gangetic nard and the muslin were first taken to Limyrike/Damirica, that is, the Malabar country.³⁵ The harbours dotting the coastline from the northern part of Tamilnadu to the deltas of the Tamraparni and Vaigai rivers in the south were well-known to sailors, shippers and merchants of the Roman world. A close perusal of available field archaeological materials and the evidence of the Sangam texts indicates that commodities were carried from Tamilnadu westwards to the Malabar coast through Karur, the capital of the Cheras, the present Coimbatore region (Pounata of Ptolemy), and the Palghat pass to Kerala. One may logically visualize the transportation of the Gangetic nard from the Coromandel coastal tracts to Muziris through this overland linkage between the two littoral segments in far south India, after it had been brought from the Ganga delta to some Coromandel harbours. This, in turn, implies a coastal network along the entire eastern seaboard. It is also possible, as Casson argues, that from the Tamilnadu coast, goods could be taken to the Malabar coast by another segment of coastal shipping, this one by circumnavigating the island of Sri Lanka.

The lively maritime traffic along the east coast is particularly illuminated by the distribution of the findspots of a type of pottery, the Rouletted Ware (RW). The RW had originally come to scholarly recognition following the excavations at Arikamedu by Wheeler, who considered it a Roman import. Vimala Begley's extremely significant re-examination and reassessment of this pottery revised its chronology. It is now seen not as a Roman import, and therefore not ascribed to a period from late first century BCE to c. 300 CE. Begley situates it in the date bracket from c. second century BCE to about 200 CE. The RW seems to have been of an indigenous manufacturing process,

although the technique of rouletting could have been derived from Mediterranean sources of pre-Roman times. The RW has been found from a large number of sites along the entire length of the east coast: Tamralipta, Chandraketugarh (West Bengal), Mahasthangarh, Wari Bateswar (Bangladesh), Sisupalgarh, Manikpatnam (Orissa), Ghantasala, Dhanyakatak, Amaravati, Salihundam (Andhrapradesh), Kanchipuram, Vasavasamudram, Nattamedu, Arikamedu, Kaveripattinam and Alagankulam (Tamil Nadu). The impressive list of the findspots of RW cannot but point to its distinct association with the coastal regions, and indicate a coastal network going back to c. second century BCE. Gogte's recent analysis of the clay of the RW suggests that the main manufacturing zone of the RW was the Chandraketugarh-Tamluk area in coastal Bengal, as the clay required to produce the RW was peculiar to coastal/deltaic Bengal and was not locally available from elsewhere. Seen from this angle, the RW from the Bengal delta could have reached different sites along the eastern seaboard as regular coastal voyages spread from the Ganga delta to the Tamraparni-Vaigai delta; in other words, the coastal network provided opportunities for linkage and communication along the entire length of the eastern littorals.

One may at this juncture further look for the movement of vessels in this area. The inscribed Kharosti-Brahmi seals of early historical Bengal carry images of sea-going vessels visiting and/or starting their voyages from Chandraketugarh. Thanks to the deciphering of the mixed Kharosti-Brahmi script by B.N. Mukherjee, the names and/or categories of these ships have come to light. Thus, there were trappaga ships which also figure in the *Periplus* (in the context of the port of Barygaza) and the Jaina text *Angavijja*. The trappaga, in the light of the descriptions in the *Periplus*, appears to be a coastal craft. Two other ships are mentioned in the Chandraketugarh sealings as Jaladhisakra (literally, Indra of the ocean) and fit for Tridesayatra (literally, journeys to three directions, implying possibly long voyages). More or less contemporary Satavahana coins from the eastern Deccan depict figures of double-masted ships, distinct from the images of the ships that appear on the Chandraketugarh sealings. The presence of a *mahanavika* or master mariner in an inscription of c. first century CE from Ghantasala (Kontakosylla of the *Periplus* and Ptolemy's *Geography*) strongly suggests an active shipping network in this segment of the east coast. Giving his account of ports like Camara, Poduca and Sopatma in the ancient Tamilakam, the author of the *Periplus* notes the regular plying of the sangara and kolandiaphonta types of vessels.³⁶ The sangara, like the trappaga, is an indigenous craft identified with the sanghata figuring in the Jaina text *Angavijja*. The kolandiaphonta is explicitly described in the *Periplus* as a large ship plying between Limyrike and 'the Ganges region'. The entire eastern seaboard experienced a lively coastal shipping network in which participated a variety of ships and vessels, for example the trappaga, the jaladhisakra, the ship fit for *tridesayatra*, the double-masted ship displayed on a particular type of Satavahana coin, the sangara and the kolandiaphonta. These vessels could have operated in specific coastal segments on the eastern seaboard. Thus, the trappaga seems to have been common to the Ganga delta, the sangara and the kolandiaphonta associated with the Coromandel coast, and the double-masted ship associated principally with the Andhra-Kalinga coast. The author of the *Periplus* was certainly more aware of and familiar with

the western littoral than the eastern seaboard, about which he probably did not command first-hand information. Significantly enough, Ptolemy, in the mid-second century CE, gives us more information about the eastern seaboard and the eastern Indian Ocean than the author of the *Periplus*. This logically implies the increased participation and incorporation of the Bay of Bengal trade in the maritime commerce between India and the Roman empire, resulting in a considerable amount of information about and awareness of the significance of the eastern seaboard for someone like Claudius Ptolemy, who gathered his information from far away Alexandria.

We pick up the discussion on the Gangetic nard once again. The export of the Gangetic nard also speaks of the very extensive hinterland of the port of Muziris. This consignment of nard must have started its onward journey from somewhere remote in the northeastern part of the subcontinent; from where it reached the Gangetic delta for a coastal voyage to the Coromandel coast; from coastal Tamilnadu the nard was brought to Muziris possibly by an overland journey, and finally shipped out from Muziris. Commanding such an extensive hinterland/supply zone and exporting its precious local spice (that is, pepper), Muziris stole the limelight as the premier port of Malabar.³⁷ That its foreland spread up to the Red Sea port of Berenike and/or Myos Hormos further contributed to its outstanding importance. The Gangetic nard on board the *Hermapollon* fetched a price of 4,500 silver drachmae for each of the 60 containers, an enormous price. The total value of the entire imported consignments, according to this loan contract papyrus, was a staggering 1,154 talent 2,852 drachmae. Estimates of late of the total budget of the Roman imperial economy are put at around 800 million sesterces, and about one-eighth of the total budget of the early empire has been suggested to have been siphoned off to the Red Sea area, for the importation of eastern luxuries.³⁸ The papyrus under review offers an image of the import of Indian luxuries on a more or less comparable scale. The importance of the trade in Gangetic nard in the import of Indian luxuries to the Roman world can hardly be overlooked. Pliny's famous lamentation on the drain of Rome's wealth for purchasing Eastern luxuries naturally comes to mind in this context. One may justifiably be suspicious that Pliny's figures of the drainage of 50 million sesterces for purchasing Eastern luxuries could have been an exaggeration, and that it was more a moral statement than an economic one. But in the light of the present papyrus document, the total value of the commodities on a single ship, the *Hermapollon*, stands at an enormous 7 million sesterces. One tends to agree with Parker that Pliny's numbers amounting to 50 million sesterces 'are still within the bounds of the possible'.³⁹ The importance of the trade in various luxury items in the commerce between the Roman empire and India has indeed been effectively highlighted by a large number of scholars. The export trade of exotic spices from South Asia to the eastern Mediterranean looms large in the historiography of luxury trade of this period. As the typical instance of this, pepper from Malabar invariably steals the limelight. To this should now be added the nard, especially the Gangetic nard—the best among all varieties of Indian nard—as one of the most sought after plant products. The loan contract document certainly furthers our understanding of the port of Muziris, which was simultaneously exporting a local plant product (pepper) and another plant product (the Gangetic nard) grown in northeastern India.

No less significant is the message conveyed by the papyrus that the Bay of Bengal network holds a crucial key to the outstanding rise of Muziris in the western Indian Ocean trade.

Coming back to the western seaboard, the principal thrust area of this chapter, Muziris was indeed the premier port on the Malabar coast. Excavations at Pattanam further enlighten us on the importance of this port. In the northern part of the western seaboard, Barygaza certainly stole the limelight. Figuring quite prominently in indigenous texts (especially Buddhist) as Bhrigukachha or Bharugachha, it finds considerable mention in the *Periplus*. While Barygaza was regularly visited by ships from the Red Sea area, the *Periplus* informs us of its contacts with the Oman peninsula, Dioscorides or Socotra island and there Kane (famous for its frankincense). The significant point here is that the maritime trade was mostly in daily necessity items in bulk, and not solely in exotic, small quantity, high-value luxury goods. Thus, ports on the Arabian shore of the Red Sea are said to have received wheat and ordinary cotton cloth from Barygaza. The Oman peninsula received teak wood, sisoo and ebony woods, and wooden beams from Barygaza, while Oman shipped out an inferior quality of pearls, purple cloth, wine and dates. The author of the *Periplus* shows considerable familiarity with the port of Barygaza, especially the difficulty of ingress and egress to the port on account of the shoals. For this reason, local fishermen in the king's service come out with crews and long ships, the kind called trappaga and kotymba, to the entrance of the port and as far as Syrastrane to meet vessels and guide them up to Barygaza.⁴⁰

The description leaves little room for doubt about the importance accorded to Barygaza by the local ruler Mambanus, identified with the Saka ruler of western India, Nahapana. Nahapana figures elsewhere in the *Periplus* as having placed a blockade at the port of Kalliene (Kalyan near Mumbai), situated in the neighbouring and rival kingdom of the Satavahanas. Greek ships that by chance came into these places were brought under guard to Barygaza. We have discussed elsewhere how the protracted Saka-Satavahana hostilities in the Deccan had a strong orientation towards taking advantage of long-distance trade. That Barygaza outshone other ports of western India and the Konkan coast is beyond any doubt. We have already pointed out the impressive foreland of Barygaza. The port had an equally impressive hinterland, as commodities from Proclais (Pushkalavati, near Peshawar), Taxila (near Rawalpindi) and Ozene reached this celebrated harbour. The *Periplus* further speaks of

... Paithana, twenty days travel to the south from Barygaza; and from Paithana, about ten days to the east, another very large city, Tagara. From these there is brought to Barygaza, by conveyance in wagons over very great roadless stretches, from Paithana large quantities of onyx, and from Tagara large quantities of cloth of ordinary quality, all kinds of garments, garments of molochinon...⁴¹

The above quote leaves a clear impression of Barygaza being served as far inland as Paithana (Pratishthana), the capital of the Satavahanas, and Tagara (Ter, district Osmanabad, Maharashtra), which offers attestable evidence of dyeing vats for textile production. Once again, the extensive hinterland of Barygaza impresses us. These are

the factors that contributed to the pre-eminence of Barygaza. Kalliena, Suppara and Semylla (Chaul, to the south of Mumbai) in the Konkan coast appear to have supported Barygaza as feeder ports.

The principal thrust of this rapid overview of maritime trade in the subcontinent relates to areas that experienced a complex state society, usually a monarchical polity. One prominent region had not yet come under full-fledged polity, namely the Tamilakam located in the deep south of India. It is in the order of things that one searches for the impressions of trade, especially external trade, in this area. We have already seen the immense prosperity of Muziris in the Chera area, which did not experience a monarchical set-up. The earliest Tamil literature, the Sangam anthology of heroic poetry, does not acquaint us with a well-developed monarchical polity, but introduces to us several chieftaincies, the most prominent being the Cholas of the Kaveri delta, the Pandyas near Madurai, and the Cheras in the western part of Tamil Nadu. The Sangam literature also speaks of five *tinai*s or ecological zones, the most prominent of which were the fertile agrarian tracts (*marudam*) and coastal tracts (*neidal*). In these two zones, we come across three powerful chieftaincies (*vendar*), already stated above. These polities experienced the impacts of long-distance and maritime commerce. There were other eco-zones like the *mullai* (grassland), *kuringi* (hilly area) and *palai* (grazing area), which experienced a simpler material culture than that encountered in the *marudam* and *neidal* zones. The agricultural and coastal tracts accommodated agriculturists, craftsmen and merchants on the one hand, and salt-manufacturers, pearl-divers, fisherfolk and sailors on the other. Exchange-related activities seem to have ranged from barter (*notuttal*) and loan of goods in local exchanges (*kurietirppai*) to larger exchange networks involving transactions in commodities and maritime exchange networks. Chamapkalakshmi's studies enable us to understand that in the larger exchange network entered items like pepper, pearls, precious stones, aromatic wood, very fine cotton textiles (*tuhil*), and locally grown bulk items like paddy and salt. Needless to explain, paddy and salt were products typical of the *marudam* and *neithal* zones.

Tamil Sangam texts acquaint us with diverse types of merchants beyond the blanket category of trader (*vanikar*). In this list of merchants figure the *vilainar* (seller), *pakarnar* (hawker), *vambalar* (itinerant newcomer), and the *paratavar*. The last category was the most distinctive of merchants in the coastal tract, since they were primarily associated, as a coastal community, with salt-making, fishing and pearl fisheries. As fisherfolk, they appear to have entered the local exchange network of the selling of fish. As manufacturers of salt, their participation in the salt trade is also to be considered, since salt production has a direct bearing on the coastal region and maritime life. They must have worked in close cooperation with the regular salt-dealer (*uppu-vanikan*) and the merchants of the interior, who exchanged salt for grain (*umanachchattu*). No less significant is the literary account of their engagements in pearl fisheries. The pearl figures, significantly enough, in the *Periplus* and Ptolemy's *Geography* as one of the most coveted and precious gems imported from India to the Roman empire. Both accounts are unanimous that the outstanding pearl fisheries stood at Colchi, identified with the excavated site of Korkai. Colchi or Korkai belonged to the Pandyas, close to the present Tutikorin coast, and excavations at Korkai have

revealed remains of pearl shells, thereby demonstrating this site as an active pearl-fishing area. The importance of this tract in the Tamraparni-Vaigai delta in the context of the overseas commerce finds strong confirmation in the discovery of the coastal site of Alagankulam. It is possible to infer that the *paratavar* could have had linkages with dealers in gems (*maniy-vanikam*). Little surprising, therefore, is the portrayal of the streets of Madurai (the principal urban centre in the Pandya country) as a busy inland trading centre with all kinds of shops, including those selling gems.

The outstanding port town on the Coromandel coast was indeed Kaveripattinam/Kaveripumapattinam, located in the Chola region and in the **delta of the Kaveri**. Identified with the **Khaberos emporium** of Ptolemy and the excavated site of Puhar, Kaveripattinam had a wharf, clearly indicative of its commercial character. Its residential area (*maruvurppakkam*) was clearly distinct from the port area (*pattinamppakkam*). Puhar seems to have received a variety of commodities from the western Indian Ocean and Southeast Asia alike, and also acted as a major outlet of goods in demand in the Mediterranean world.

To the north of Kaveripattinam stands the key site of Arikamedu (close to Pondicherry), identified with Poduka, figuring in both the *Periplus* and Ptolemy's *Geography*. Wheeler's excavations in 1948 yielded distinctly Roman artefacts like the amphora and arretine pottery (*terra sigillata*), largely on the basis of which Wheeler viewed it as a Roman trading station during the first three centuries CE. Re-excavation of the same site by Vimala Begley in the 1980s and her re-examination of a particular pottery, namely the Rouletted Ware (RW), showed that the settlement had been in existence even prior to the advent of Roman trade. The clinching evidence in this connection is the Rouletted Ware, which is now seen not as a Roman import, but arriving in India around the second century BCE and in use till 200 CE. Begley rightly discerned that the manufacturing technique of rouletting could have come from the Mediterranean prior to the Roman trade with India, but that the pottery was largely manufactured in India, especially on the east coast sites. What is particularly significant is the distribution of the RW right from Bangladesh to the southernmost area of the east coast (with sites in West Bengal, Orissa, Andhra Pradesh and Tamilnadu). The ware has also been found in Sri Lanka and even in mainland and maritime Southeast Asia (for example, in Sembiran in Bali). There is little room for doubt from the distribution of the RW that the entire east coast experienced a lively maritime network. That is why Ptolemy (150 CE) mentioned many more east coast ports, situated in the context of the Gangetic Gulf (the Bay of Bengal), than the author of the *Periplus*. It is now also possible to better appreciate the significance of the earliest epigraphic reference to a master mariner (*mahanavika*) from Ghantasala (Andhra Pradesh), which as a port figures as Kontakosylla in the *Periplus* and the *Geography*. Adjacent to this port stood an *aphaterion* (a point of departure for ships) bound for Chryse Chora and Chryse Chersonesys, corresponding respectively to Suvarnabhumi and Suvarnadvipa in ancient Indian texts. These two areas are generally located in mainland and maritime Southeast Asia.

What is important is that the Bay of Bengal network remained lively even after the decline of India's trade with the Roman empire during the post-300 CE days. When

the famous Chinese pilgrim Fa Xian left India in 414 CE for his return journey to China, he boarded a vessel from Tamralipta, the premier port in the Ganga delta, and reached Sri Lanka. The description of the voyage highlights two salient points: first, it was a direct overseas voyage between Tamralipta and Sri Lanka and not a coastal sailing; second, the voyage was undertaken during winter, obviously taking advantage of the direction of the northeastern monsoon. Fa Xian then boarded another vessel from Sri Lanka and voyaged to Java, from where he sailed once again for his ultimate destination, the east coast of China. The account captures the essence of the lively maritime tradition in the eastern Indian Ocean in the fifth century CE, implying thereby that this network did not depend entirely on external stimulus like the connections with the Mediterranean world. We have also tried to underline here that the prominence of the western seaboard in the Greek and Latin literature cannot be divorced from the role of the east coast in the Indian Ocean network.

To recapitulate some of the formulations we have made so far, the existing historiography of India's position in the Indian Ocean seafaring shows three broad strands of academic interests: (a) the maritime linkages of the Harappan civilization (c. 2500–1750 BCE) with Sumer and Akkad through the Persian Gulf; (b) India's flourishing sea-borne commerce with the Roman empire largely through the Red Sea (c. late first century BCE to 250 CE); and (c) the sea-change in India's maritime situation with the arrival and consolidation of Europeans in the trade and politics of the Indian Ocean (1500–1800 CE). Needless to say, the last aspect has received maximum scholarly attention, as the historian of these centuries has the advantage of accessing the massive quantitative data of the Portuguese empire, and that of the English, French and Dutch East India companies. The study of these three crucial centuries highlights how India and the Indian Ocean became gradually incorporated into the capitalist world economy, and ultimately succumbed to the colonial expansion of North Atlantic powers. These preliminaries will help situate better a particular aspect of Indian socio-economic life, namely India's role in the maritime network of the Indian Ocean in the pre-1500 CE period.

In the long-term historiography of India's role in the Indian Ocean network, one can easily see a gap of nearly a millennium, ranging from c. fifth to the fifteenth centuries CE. It is precisely at this chronological phase that we would like to take a close look at the following section. Apart from the long-standing but erroneous notion that the sea became of marginal importance to the subcontinent's history, there are other historiographical reasons for this relative lack of attention. The phase between 300 and 1200 CE in Indian history is often, though not uniformly, labelled as 'early medieval'. In at least one genre of historical research, the early medieval phase of Indian history is portrayed as one that experienced crises in social, economic and political spheres, ushering in feudalism in India from 300 to 1200 CE. One of the salient markers of economic formation under Indian feudalism is the emergence and consolidation of a self-sufficient, enclosed and stagnant village economy, which is supposed to have been hardly conducive to trade, especially long-distance overseas trade, devoid of the use of metallic currency. Historians of Indian feudalism, however, suggest some revival of trade, including maritime trade, in India from 1000 CE onwards.

The above portrayal of a sharp decline in overseas commerce in India during the early medieval times came about in the 1960s, 1970s and 1980s, which were marked by the much cherished perception of a relatively languishing role of India in the affairs of the Indian Ocean. The above formulation, however, has been effectively contested, both on conceptual and empirical grounds. K.N. Chaudhuri, in his two monographs, presents the patterns of commerce in the Indian Ocean from the rise of Islam till 1750, after which the situation changed vastly because of the domination of the English East India Company and the subsequent British empire. Chaudhuri's contribution, along with those of some other leading scholars, leaves little room for doubt that the rise and spread of Islam gave a major fillip to the Indian Ocean commerce. Yet, the long millennium from 500 to 1500 is often relegated to the background in India's maritime economic history.

The Maritime Situation in the Western Indian Ocean, 400–600 CE

The Indian Ocean, especially its western sector, came into great prominence during the first three centuries CE on account of India's brisk trade with the Roman empire. Through the Red Sea, the maritime network of the western seaboard of India played an important role in bringing India closer to Mediterranean commerce. This far-flung commerce, however, experienced a slump after c. 250 CE as the demand for Indian products lessened in the Roman world in the wake of the gradual decline of the Roman empire. The rise of the Sasanid empire in Iran and the Eastern Roman empire with its capital in Byzantium again brought the western Indian Ocean to prominence after 400 CE. The maritime commerce of the Eastern Roman empire with India is evident in the coin hoards, largely from south India, which yielded many coins of the Byzantine rulers. This was maintained largely through the Persian Gulf, which now began to overshadow the Red Sea network. The rise of the Sasanids of Iran coincided with their distinct interest in the commerce of the Persian Gulf. In fact, one may discern some rivalry between the Byzantine and the Sasanid powers over the Persian Gulf trade with India. The Indus delta was witnessing the rise of a new port, Debal, mentioned as Daibul in early Arab accounts. Early Arab accounts narrating raids on this port in c. 627 CE attest to its importance. The descriptions of the first Arab invasion of Sind in the early eighth century, narrated in a later source—the *Chachnama*—point to the direct voyages between Daibul and Sri Lanka.⁴²

One is not sure how long the great port of Broach at the mouth of the Narmada continued to flourish, although Xuan Zang spoke of its commercial importance in the early seventh century. If one looks at the distribution of sites yielding Red Ware, stretching from Gujarat to the Kirman coast in southern Iran, it speaks of a distinct communication network that supported a coastal commerce from Gujarat to the opening of the Persian Gulf.⁴³ It has been argued that Chandragupta II (375–414) conquered Gujarat and Kathiawad in and around 410 CE on account of the commercial prosperity there. The beginning of the minting of Gupta silver coins, modelled after the erstwhile Saka rulers, further underlines the commercial significance of this zone. In Kathiawad emerged a port in or near Lohatagrama (under the Maitraka rulers of Valabhi), if one

takes into account an inscription from 592 CE.⁴⁴ This inscription graphically records the terms and conditions of creating a settlement (*acharasthitipatra*) for a group of merchants (*vaniggrama*). The term *vaniggrama* is not to be taken in its literal sense as a village of merchants, as K.V. Ramesh has erroneously rendered it. Kosambi's incisive analysis of this charter clearly establishes that *vaniggrama* (*grama* in the sense of a collection, a body, a group, and not as a rural settlement) stood for a professional body of merchants. That the *vaniggrama* had comprised both local (*vastavya*) and non-local (*vaidesya*) merchants as early as 503 CE is now known from another record from Sanjeli in Gujarat.⁴⁵ The record of 592 lays down that the 'frontier customs duty' on sailing crafts (*vahitra*) carrying merchandise (*bhanda*) would be 12 *rupika* (silver coin). First, this logically suggests the existence of a port close to Lohatagrama; second, the term *vahitra* may denote vessels for overseas travel when compared and contrasted with *pravahana*, which essentially denoted a coaster. The record further exempts merchants (possibly from elsewhere) from import duty and 'immigration tax' if they came only for shelter during the rainy season. The same merchants, however, were required to pay an export duty when leaving the area. This clause throws an interesting light on Lohatagrama. It had been a common custom in the western seaboard of India to close down the traditional ports at the height of the monsoon (the southwestern monsoon); ports would resume their functions as and when the fury of the monsoon died down around late September, or early October. It is in this context that one may read the significance of the arrangement for sheltering the ship(s) of a visiting merchant(s) from elsewhere. This clearly implies port activities/facilities at Lohatagrama, although it was not a premier port.

The Konkan coast seems to have witnessed the revival of the port of Kalliena (Kalyan, a suburb of present-day Mumbai) to some prominence, as Cosmas Indicopleustes, the Syrian Christian monk, reported in the late sixth century. Kalliena seems to have suffered a decline in the late first and/or early second century CE. The same author was also aware of another port of Konkan, Sibor, which is identified with Chaul in southern Konkan.⁴⁶ The port had already come to notice in the Classical sources as Semylla. In a famous Sanskrit inscription of 642, the powerful Chalukya king of Vatapi (near Bijapur), Pulakesin II, is credited, among other things, with the conquest of Puri, identified generally with the island Elephanta, close to Mumbai. The island figures in the record as the goddess of fortune in the western sea (*aparajaladherlakshmi*), which was conquered by a fleet of boats. The reasons for this conquest are not clear from the inscription itself. However, if one takes into account the capture and incorporation of southern Gujarat (Lata) by the same ruler, his distinct interests in establishing authority over the coastal strip from southern Gujarat to Karnataka are clearly understandable. The capture of the Elephanta island may therefore have some relevance in this scheme. To this must be added the diplomatic-cum-political linkages between Chalukya Pulakesi II and his Sasanid counterpart, Khusrau I, as the later historian al Tabari, who knew the Chalukya ruler as Premsa (based on the Sanskrit title, Paramesvara), narrates. The commercial and cultural contacts between the west coast of India and Sasanid Iran must have been made through the Persian Gulf.

In the far south, the Malabar coast seems to have continued to draw maritime merchants to its ports, especially Muziris, as evident from the impressive number of coins and coin hoards that have been found from this area and the southwestern parts of Tamilnadu, which yielded coins of Byzantine rulers (for example, the recent findings from the excavations at Pattanam in Kerala). As Sri Lanka began looming large in sea-borne commerce in the western Indian Ocean from this period, it is likely that its geographical proximity to the Malabar coast proved advantageous to the Malabar ports.

Ports and the Western Indian Ocean, 600–1500 CE

The above survey, though synoptic and hurried, does not suggest a sharp decline in India's maritime trade in the centuries immediately succeeding its commerce with the Roman empire. It is, however, true that it does not match in scale with the commerce between the eastern Mediterranean and India during the first three centuries of the Christian era. One cannot also deny that around the eighth century, premier ports of the previous epoch, like Broach, Kaveripattinam and Tamralipta, gradually faded out. Significantly enough, in the historiography of Indian feudalism the voluminous evidence of India's sea-borne trade with West Asia, available in the Arabic and Persian texts (several of them being composed prior to 1000 CE), has been consistently ignored and sidelined. Besides the Arabic and Persian authors already mentioned above, Ibn al-Mujawir (d. 1291) and ibn Jubayr (late twelfth century), neither of whom visited India, spoke eloquently of India's maritime trade with Aden and Aidhab in the Red Sea. To this can easily be added the evidence of Chau ju Kua (1225) who, as an officer supervising foreign trade under the Sung dynasty of China, wrote a valuable account of the commodities and ports of India. Towards the end of the thirteenth century, Marco Polo also informs us of India's role in the commerce of the Indian Ocean. We shall also utilize here the evidence of the Jewish business letters, known as the 'documentary *genizah*', belonging to the period 1000–1250 CE. Labelled as 'India traders' by Goitein, these Jewish merchants' commercial ventures ranged from Tunisia and Levant to Egypt, and then from Egypt to Aden, from where they regularly sailed to ports on the west coast of India. It is also important to note that some of the Jewish India traders were also active in the Mediterranean world, especially in Andalusia or southern Spain. For their Indian Ocean network from Egypt (Misr/Masr) and their commerce with India, the Jewish merchants had two strong hubs in the Red Sea: Aidhab and Aden.⁴⁷ The ports on the west coast of India and those in the Red Sea and the Persian Gulf were the points of convergence of exchangeable commodities, their carriers—the ships—and their handlers, the merchants. To Ibn al-Mujawir, the scene at the port of Aden seemed reminiscent of the place of congregation on Judgement Day.⁴⁸

The establishment of the Abbasid Caliphate in Baghdad was conducive to the growth of trade in the Persian Gulf, where stood the premier port of Siraf on its northern shore (the Darya-i-akhzar), celebrated for its widespread commercial linkages with South Asia, Southeast Asia, China, and the east African coast. The prosperity of this port city figures prominently in the accounts of Ishtakhri, dating to just before 950 CE,

who noted the lavish lifestyles of the merchants of Siraf. Excavations at Siraf by David Whitehouse further establish the flourishing condition of this great centre of maritime trade.⁴⁹ According to Whitehouse, the port began to experience a steady rise from c. 800 CE onwards, although its beginnings as a commercial centre may go back to the eighth century, evidenced by a 'steady trickle of pre-Islamic finds' that has prompted Whitehouse to assign its earliest occupation to Sasanian times. Siraf has yielded Chinese ceramics, coins and a decorated bronze mirror, the last one certainly emblematic of the demand for exotic luxury items among the fabulously rich merchants of Siraf. Archaeologists have unearthed that Egyptian glass, east African ivory, Mesopotamian pottery, and Badakhshani lapis lazuli reached Siraf. Along with this must be mentioned Indian textiles and spices, figuring in the Arab accounts. There is a distinct possibility, as Whitehouse argues, that timber, a bulk item—in sharp contrast to the luxuries listed above—was imported to this great Persian Gulf port. One of the most regular areas from which timber was shipped to the Persian Gulf was the west coast of India, especially the seaboard of Gujarat and the Konkan. Timber was essential as a raw material for ship-building, and it was not available in the Persian Gulf or the Red Sea areas. The immense prosperity of Siraf gains distinct visibility through the excavated remains of the Great Mosque (the largest public building), the residential quarter and the bazaar, including its warehouse and shops. From an archaeological perspective, the primary function of Siraf as an entrepôt is unmistakable—especially in view of its prosperity, generated through income from external sources, despite the port being located in an inhospitable region with meagre local resources. Muqaddasi informs us of a devastating earthquake in the late tenth century from which, according to the author, Siraf could never recover. A further challenge to Siraf's prosperity and preeminence surfaced in the form of the island of Kish or Qays, which began to grow from 1010 CE as a major centre of maritime trade in the Gulf. After 1055, Siraf was a mere shadow of its former self, and was consequently relegated to the background in the Indian Ocean scenario post-1100. This was also amply borne out by an obvious shrinkage of the settlement: from an expansive site of 110 ha. to only 40 ha. by the late twelfth century.

Writing almost a century after the rise of Kish (1010), ibn al Balkhi narrates in 1110 that the ancestors of the then Amir of Kish gained power. 'Consequently, the revenue formerly taken by Siraf was cut off and fell into the hands of the Amir of Kish.'⁵⁰ Less than 50 years later, al Idrisi (1154) was considerably impressed by the great prosperity of the island, now receiving diverse coveted commodities from different parts of the Indian Ocean. Al Idrisi also spoke of its pearl fisheries, which contributed to the growing importance of Kish. Visiting Kish in 1170, Benjamin of Tudela found it

... a considerable market, being the place to which the Indian merchants and those of the islands bring their commodities; while the traders of Iraq, Yemen and Fars import all sorts of furs and purple cloths, flax, cotton, hemp, mash, wheat, barley, millet, rye ...; those from India import great quantities of spices and the inhabitants of islands live by what they gain in their capacity as brokers for both parties.⁵¹

Yaqut further describes Kish as belonging to the ruler of Oman and as the stopping place for ships voyaging between India and Fars. This speaks of the maritime and political linkages between the Oman Sea and the northern part of the Persian Gulf. Another port of some prominence in the Oman Sea was Suhar, which also figures regularly in Arab accounts for its close maritime linkages with the ports on the Gujarat and Konkan coasts. Excavations at this site show that during its heyday, it spread over an impressive area of 73 ha., although the preference for Kish as a port and centre of trade since the middle of the twelfth century led to its gradual shrinkage, both in terms of its commerce and the size of its settlement. The settlement was reduced to only 18 ha. by the thirteenth century, one-fourth of its size during its boom period. Kish, which waxed as Suhar and Siraf waned, covered an area of 50 ha. during its heyday. Kish therefore is to be situated, in light of its size, below Siraf and Suhar (during their prime time) in the settlement hierarchy of port towns.

It is from the thirteenth century that one notes the rise of Hormuz as a port of immense significance in western Indian Ocean commerce, which the Ilkhanid rulers of Persia were aware of. Celebrated in the accounts of Marco Polo, Ibn Battuta and Ma huan, Hormuz was indeed the premier port of the Persian Gulf, and seems to have competed with Aden. Whitehouse estimates that Hormuz attained the size of 80 ha. during the fourteenth and fifteenth centuries, thus occupying an area larger than both Suhar and Kish, but smaller than Siraf. Both Marco Polo and Ibn Battuta were aware of its regular commercial linkages with the ports of Gujarat and Malabar, a point which also corroborates the impression of Indian sources presented below. The strategic location of the port at the opening of the Persian Gulf seems to have been realized by Zheng He, the famous Ming admiral of the fifteenth century, whose fleet visited both Aden and Hormuz. Pearson rightly underlines the significance of Hormuz as a 'choke point' in the Indian Ocean, although that strategic advantage seems to have been effectively realized only by the Portuguese in the sixteenth century.

We can now turn our attention to the Red Sea, the *bahr-i-kulzum* of the Arab accounts. The Red Sea network seems to have taken a backseat during the period from c. seventh to the tenth century CE. The rise of the Fatimid Caliphate in Egypt in 965 CE once again swung the pendulum in favour of the Red Sea. The Red Sea network further offered linkages with the vibrant Mediterranean maritime trade through Egypt, which acted as a hinge between the Indian Ocean and the Mediterranean, with momentous consequences. One therefore notes a pendulum-like swing in the waxing and waning of the commercial importance of the two sea-lanes in the western Indian Ocean; the periodic importance of the Persian Gulf and the Red Sea often depended on their respective dynastic hinterlands. The northernmost outreach of the Red Sea network was of course Alexandria, which was, however, more oriented to the eastern Mediterranean. The premier port in this sea lane was the Yemeni port of Aden, which played a stellar role in the Indian Ocean trade with its overseas linkages with Gujarati and Malabari ports across the Arabian Sea. Aden looms large not only in the Arabic and Persian texts, but in the documentary *genizah* too. Aden, like Old Cairo under the Fatimid, served as a major hub for Jewish merchants engaged in Indian Ocean trade, who plied either between Masr (Egypt) and Yemen or between Aden and the western Indian seaboard, or from Masr to India via Aden. This required the regular presence

of a representative of Jewish merchants (*wakil ul tujjar*) in Aden, who figures very prominently and regularly in the documentary *genizah*. Apart from Aden, there were two other notable ports on the western shore of the Red Sea, namely Aidhab and Qus, both of which actively participated in the maritime trade of the western Indian Ocean.⁵² These were also regular points of stoppages for voyagers between Alexandria and Aden. Aidhab was further important for being the port through which one reached then Mecca and Madina, the holiest of Islamic centres, especially for the hajj pilgrims, the 'pious passengers', according to Pearson. Aidhab was later replaced by the great port of Jiddah.

The outstanding port in the Red Sea was undoubtedly Aden, which attracted the sustained attention of political authorities, both local (like the Ayubids and the Rasulids) and non-local (the Fatimid and Mameluk rulers of Egypt). A lively account of thirteenth-century Aden is available in the *Tarikh al Mustabsir* of Ibn al-Mujawir (d. c. 1291).⁵³ The text informs us that port authorities expected the arrival of 70–80 ships in a year of usual maritime trade, and made elaborate arrangements to ensure their ingress and egress and facilitate smooth exchanges. An official (*natur*) was appointed to look out for voyaging ships twice a day from a strategically located mountain-top, at dawn and during sunset, since these were the only times when a vessel could be sighted at a distance. Once a ship was spotted by the *natur*, there followed a systematic passing of this information through various administrative tiers right up to the governor (*wali*) of the port town. The same news was also passed on to the customs officials (*masayih al-furdah*). The accuracy of this information was an important event from which began the proceedings; this is evident from the system of rewarding the onlooker on his successful spotting of the ship. An accurate sighting of the vessel resulted in the reward of a *maliki dinar* (gold coin) to the *natur* for each correct sighting, while a wrong sighting was punished by caning. The news of an approaching ship to the port of Aden brought officials to the port area. They then boarded the port-boats (*sanabiq*) and met the incoming ship. Boarding the merchant vessel, the officials met and greeted the ship-owner (*nakhuda*), who was duly informed of the prevailing situation at Aden, including commercial information like the prices of commodities. Then began the paperwork, requiring the recording of the names of the *nakhuda* and other voyaging merchants, and a complete list of the cargo held in the hold (*batn*). After this the officers left the boat to pass on the information to the governor. As the ship dropped anchor, the Sultan's deputy (*naib*) and inspectors (*muffatis*) boarded the ship for a thorough body search of each and every passenger to prevent any goods from evading the customs house. The following day, the merchants disembarked with their personal belongings (*dabas*) and went to the city. After three days, clothes and other consignments were brought down from the ship and taken to the customs house. There it was counted cloth by cloth (*tawban tawban*) and unbound bundle by bundle (*saddatan saddatan*). Commodities like spices were meticulously weighed. The customs official then prepared the estimated taxes and duties to be collected on the commodities under the following five heads: (a) *asur* (old customs tax); (b) *asur al-sawani* (the galley tax); (c) *wakalh* (agency tax); (d) *zakah* (charity); and (e) *dilalah* (brokerage fee).⁵⁴ The diverse types of taxes and duties payable at Aden can also be seen in the documentary *genizah*. It is in the fitness of things that Ibn Battuta was much impressed by the overseas trade

of Aden, 'to which come great vessels from Kinbayat, Tanah, Kawlam, Qailiqut, Fandarina, al-Shaliyat, Manjrur, Fakanur, Hinawar, Sindabur and other places'.⁵⁵

The impressive network of Aden with the preeminent ports of Gujarat, and the Konkan and Malabar coasts in the western seaboard of India can hardly be overemphasized. If one couples this with the account of Marco Polo towards the end of the thirteenth century, then Aden's importance is further underlined. Marco Polo, like Ibn Battuta, also noted the arrival of ships at Aden from ports afar. Moreover, he reports how merchants transferred their goods onto smaller vessels. This statement probably hints at the custom of shifting commodities to smaller ships suitable for sailing in the Red Sea, which had many reefs.

The immense volume of the trade at Aden and the enormity of the customs it generated will be evident from the fact that, in 1411, the port dues of Aden stood at 1,470,000 dinars, as per the calculations of Sergeant. That Indian merchants (*baniyans* in Arabic texts) regularly frequented this port becomes evident from the mention of a specific quarter in Aden for Indian merchants.

This brings us to a survey of the ports on the western seaboard of India, active during the period from c. ninth to the thirteenth century. A word on the early Indian ports may be relevant here. There has been some discussion on the terminology of ports in ancient India. It has been suggested, for example, that in the ancient period, no specific terminology for 'port' was in evidence, or for that matter required. Among others, the term *pattana* was used for both a market centre and a riverine settlement.⁵⁶ On the other hand, we do have references to *pattanam/pattinam* (different from *pattana*) in Sanskrit and Tamil sources, and also to *velakulas* in Sanskrit sources. As Hall demonstrated long ago, *pattanam/pattinam*—distinct from *erivirapattanam*—in Tamil designated ports in or near the sea coast. For instance, Tamralipta (near modern Tamluk, West Bengal), the well-known ancient port in the Ganga delta, figures in the *Dasakumaracarita* of Dandin (c. seventh century CE) as a *velakula*. At this *velakula* came *vahitras* (a type of sea-going craft) of the yavanas, as Dandin narrates. Similarly, the port of Ghogha in Gujarat carried the suffix *velakula* in its nomenclature; this *velakula* was regularly visited by ships from Hormuz in the Persian Gulf (*Hurmujivahana*). The association of ships (*vahana/vahitra*) with the term *velakula* cannot but demonstrate that the term *velakula* stood for a port. The *Lekhapaddhati*, usually situated in the cultural context of western India (especially Gujarat) during the period between the thirteenth to the fifteenth century, devotes a chapter specifically to the administrative department looking after ports (*velakulakarana*).⁵⁷ Many Tamil inscriptions, especially those eulogistically describing the activities of the merchants' body—the 500 *svamis* of Ayyavole—regularly speak of their visits to *velapurams* (ports). Impressing upon the distant voyages undertaken by merchants belonging to the 500 *svamis* of Ayyavole, these inscriptions describe in a standardized manner their reaching 32 *velapurams* (ports). It is therefore impossible to lose sight of the vocabulary regarding ports in Classical Indian languages like Sanskrit and Tamil.

In the Indus delta, the port of Daibul certainly prospered. It seems to have been well-connected with Multan and Mansura on the one hand, and with the Makran coast on the other. Its remains have been found in the excavations at Banbhore. Although

Daybul was past its heyday after the twelfth century, Ibn al-Mujawir undertook a voyage from this port to Aden in 1222 via the island of Socotra.

On the Gujarat coast, Broach was replaced with Stambhatirtha/Stambhaka, which is the same as the famous port of Cambay. It figures prominently in Arab accounts under the name Kanbaya and Kambaya. The rise of the Chaulukyas as a regional power in Gujarat paved the way for the integration of the coast with the extensive interior through a number of overland routes. Early medieval Gujarat also experienced remarkable agricultural growth. In western India, especially in Gujarat, Rajasthan, Malwa, and the western part of UP, emerged a new type of exchange centre in the early medieval period. These are known as *mandapikas* (modern *mandis*), which provided vital linkages between rural market centres (*hatta/hattika*) and larger markets at urban centres and ports (*pattana/velakula*). These were instrumental in the efflorescence of the ports of Gujarat, particularly Cambay. The port maintained coastal linkages with those in the Konkan and Malabar littorals, as is evident from the accounts of Arab writers. Two early medieval Indian texts, *Vastupalamahatmayam* and *Jagaducaritam*, bear clear impressions of the contacts between Cambay and Ardrapura, which stands for Hormuz in the Persian Gulf. Cambay maintained a brisk commerce with Aden and Southeast Asia too. Cambay's extensive foreland helped it to steal the limelight among the Gujarati ports. It is no surprise that Tome Pires in the early sixteenth century found that Cambay's two arms stretched as far as Aden and Melaka respectively. The availability of an extensive hinterland and the agricultural prosperity of Gujarat since 1000 CE certainly contributed to the sustenance of Cambay; it was also well-served by a few smaller ports in Gujarat and northern Konkan. These relatively smaller ports acted as feeder ports for the premier Gujarati port. One may enlist in this context Mangalapura (Mangrol on the Kathiawad coast), Diu, Somnath and Ghogha. One of the earliest mentions of Diu is available in a twelfth-century Jewish business letter, which speaks of a voyage from al Manjrur (Mangalore) to al Divi (Diu) in Gujarat, from where the ship sailed to Aden.⁵⁸ Diu was thus connected with both the Kanara coast and Aden. Although Somnath is principally celebrated in Indian history as a great Saiva sacred centre, it was also a port of some prominence, located at the confluence of the Sarasvati with the sea (*Sarasvatisagarasamprayogavibhushita*).⁵⁹ Al Biruni, in the first half of the eleventh century, was one of the earliest authors to have appreciated the importance of Somnath as a port; he states that it was a vantage point of departure for Zanz or Zanzibar in east Africa.⁶⁰ We have, however, no further corroborative evidence in support of al Biruni's mention of the voyage from Somnath to the east African coast. That Somnath did receive ships from Hormuz is proved beyond doubt by a remarkable bi-lingual (in Arabic and Sanskrit) inscription of 1264 from Somnath.⁶¹ *Hurmuji-vahana* or ships from Hormuz also reached the port of Ghogha (*Ghogha velakula*) in Gujarat.

To the south of the Gujarat coast was situated the narrow strip of Konkan, repeatedly figuring in Arab accounts as Kunkan, Kamkam and Makamkam. At the northernmost fringe of Konkan, almost touching southern Gujarat, was the port of Samyana, Arabicized as Sanjan/Sindan. A port to the south of Sanjan was Srasthanaka or Thana. Thana seems to have come to prominence later than Sanjan. A Jewish business letter of 1145

narrates a coastal voyage from al Manjrur (Mangalore) to Thana, from where the ship proceeded further northwards to Barus (Broach). It appears in greater prominence under the name Tana in the accounts of Marco Polo in the late thirteenth century. During that period, Thana seems to have served as the major port of north Konkan under the Yadavas of Devagiri. Cemulya or Chaul, situated to the south of present Mumbai, was a significant port of Konkan. Already known as Sibor in the sixth-century accounts of Cosmas Indicopleustes, Chaul appears as Saimur in the Arab accounts. Three ports in the southern part of Konkan rose to some prominence in the early centuries of the second millennium. These are Balipattana (modern Kharepatan), Chandrapura (Sindabur in Arabic texts) and Gopakapattana (Old Goa). While Balipattana was located in the kingdom of the Silaharas of southern Konkan, Chandrapura (Chandore) and Gopakapattana belonged to the realm of the Kadambas of Goa.

A close perusal of Sanskrit inscriptions, Arab texts and Jewish business letters brings out a few features of the Konkan ports. Although the Konkan coast offers excellent geographical conditions for the development of natural ports and anchorage, the Konkan ports were less prosperous and prominent than their counterparts in Malabar and Gujarat. These ports in Konkan neither had a rich agricultural hinterland nor commanded regular linkages with the interior because of the geographical barrier of the Sahyadri range between the coast and the mainland. The ports of Konkan witnessed regular settlements of Arab merchants, who figure in Sanskrit inscriptions under the category of *Tajjikas*. Al Masudi noted the presence of a large number of Omani, Sirafi and Baghdadi merchants at the port of Saimur or Chaul. The sustained presence of these Arab merchants explains how and why their names sometimes appeared in Sankritized forms in inscriptions of the tenth and eleventh centuries: for example, Mahumata/Madhumati (Muhammad), Alliya (Ali), Shariyarahara (Shahriyar), etc. A close study of two inscriptions of the Silaharas of south Konkan, one of 1008 and the other of 1094, strongly suggests that ports of Konkan were engaged in looping coastal commerce, touching the ports of Balipattana, Chemulya (Chaul), Nagapura (Nagav), Surparaka (Sopara) and Srasthanaka (Thane). This coastal linkage further connected Konkan with Gujarat and Malabar. Impressions of long coastal voyages from around Goa to Somnath on the Kathiawad coast are clearly available from the inscriptions of the Kadamba rulers of Goa. From the eleventh century, two ports on the southern Konkan coast seem to have grown in prominence. These are Sindabur and Balipattana. In a twelfth-century Jewish business letter is described a voyage from Aden to Sindabur, indicating thereby that Sindabur had been added to the list of ports with which Aden had direct overseas linkages. This importance probably resulted in the inclusion of Juwa-Sindabur (the hyphenated name is itself interesting) in the list of ports on the west coast in the fifteenth-century sailing manual of ibn Majid. Another Jewish business letter tells us about a voyage from Aden to Baribatan, which has a clear phonetic affinity with Balipattana.⁶² To the south of Goa, the most important port on the Kanara coast was al Manjrur or Mangalore, sometimes mentioned in the Arab texts, but repeatedly figuring in the business letters addressed to Abraham ben Yiju/Yishu, a Jewish merchant of al Mahdiyya or Tunisia who lived in this port town for more than 17 years (1132–49).⁶³ Jewish business letters inform us about coastal voyages from al Manjrur

or Mangalore to Thane, and even further north up to Baruch or Broach (in Gujarat).⁶⁴ In spite of the active presence of several ports in Konkan, ibn Majid's account of the Konkan coast and its ports in the fifteenth century provides a rather hazy image of this coast vis-à-vis the Gujarat and Malabar coasts.

The southernmost segment of the western seaboard is famous as Malabar, known as Malibar, Manibar, al Mulaybar in the Arabic texts and Jewish business letters. Numerous creeks and backwaters helped the spawning of many ports in this coastal segment. Three ports deserve special mention: Kulam Mali (Quilon), Panatalayani Kollam (Fandarina) and Calicut. The Malabar ports could be reached from both the Persian Gulf and the Red Sea ports by utilizing the southwestern monsoon in around 30 days. These ports earned their celebrity status for handling the invaluable cargo of spices, especially the pepper of Kerala. Calicut does not seem to have attained its great glory prior to the early fourteenth century. Ibn Battuta is one of the first authors to have described its immense importance. He noted that the huge Chinese junks did not sail further west of Calicut, and that Calicut provided excellent transshipment facilities for Chinese and Arab vessels. Calicut reached its zenith in the fourteenth and fifteenth centuries. The famous Chinese voyages under Admiral Zheng He (from 1404–33) touched Calicut as many as eight times.⁶⁵

Exchangeable Commodities, c. 600–1500 CE

These ports on the western seaboard of India were involved in a lively exchange of commodities. The sources mentioned above throw considerable light on the items of export and import. Among the perennial export items of India were various types of textiles, for which India had attained legendary fame. The textiles of Gujarat, Malwa and Bengal deserve particular mention in this context. Textile products ranged from the famous and expensive muslins of Bengal to ordinary cotton cloth meant for daily use. There was also the expected craze for precious gems and stones in areas abroad. The pearl fisheries of the Tuticorin coast in the Pandyan realm and the diamond mines in Andhra under the Kakatiyas figure prominently in the accounts of Marco Polo. Among spices, the pepper of Malabar was highly prized. The genizah papers of Jewish merchants are replete with references to the regular shipping of pepper in large quantities from Malabar to Aden, and from there through the Red Sea to Egypt.⁶⁶ From Egypt, pepper finally reached Italian ports through voyages across the Mediterranean. At the port of Aydhab on the western shore of the Red Sea, ibn Jubayr, an Andalusian traveller, saw huge heaps of Indian pepper (1184).⁶⁷ Pepper was a forest product procured in Kerala, but assumed the character of a luxury item as it reached the markets of the Red Sea and then the Mediterranean, fetching very high prices and profits. Two other forest products were in wide demand in West Asia, according to the Arabic and Persian texts: aloes wood and teak. The two best varieties of aloes were Multani (from Multan) and Kamaruni (from Kamarupa or upper Assam). Indian teak was regularly exported to the Persian Gulf and Red Sea ports as the basic raw material for building sea-going vessels for Arab merchants, who did not have a local source of durable wood for boat-building.

Along with the high-value, portable, small quantity luxuries were shipped daily necessities in bulk quantities. The genizah letters repeatedly tell us about the regular shipment of various types of iron from al Manjrur and other ports of Malabar to Aden during the eleventh to the thirteenth centuries. There appears to have been a steady demand for Indian iron in the 'west', possibly for making weapons like swords.⁶⁸ A combined testimony of Ibn Battuta and Ma huan would reveal that Bengal shipped rice to the Maldives, which in return sent out cowry shells to Bengal. Cowry shells functioned as a major currency not only in eastern India, but also in the East African port in Kilwa and the West African kingdom of Dahomey. Huge quantities of cowry shells certainly functioned as small exchanges, and also as ballast in the maritime network of the Indian Ocean. This clearly negates the widely held notion that the use of cowry currency in early medieval Bengal was symptomatic of languishing trade, and signified only local-level transactions. Cowry currency was part and parcel of, and well-integrated within, the Indian Ocean commercial economy of pre-modern times. There is a distinct possibility of a regular supply of coconut coir (mentioned as *qinbar* in Arab accounts) from the west coast of India to the ports of the Red Sea and the Persian Gulf. Coconut coir was an indispensable ingredient in the manufacture of wooden ships of the Indian Ocean, which did not use iron nails to fasten the planks. The west coast of India, noted for the regular plantations of coconut since at least the first century CE, exported this item in bulk to the ship-building centres of the Islamic world. The regular importing of coconut (*narajil*, clearly derived from the Indian term *narikela*) to Dhofar in the Hadrami coast and Socotra (near the Horn of Africa) figures in the accounts of ibn al-Mujawir. We have already pointed to the demand for Indian cotton textiles in the Persian Gulf and the Red Sea ports. To this was also closely linked the regular export of Indian indigo to the 'west'. The genizah documents inform us of an eleventh-century Jewish merchant, ibn 'Awkal, who maintained meticulous details of correspondence with his agents. While his seat of business was at Fustat (Old Cairo), his agents spread as far as al Mahdiyya (Tunisia) and the Levant. His correspondence speaks of his dealings in Sanjani indigo; this is certainly the indigo produced in western India and shipped from the port of Sanjan in north Konkan. That the Sanjani indigo competed well with indigo from 'Amta (in Palestine) and Kirman (southwestern Iran) is clearly visible in the correspondence of ibn 'Awkal. One is therefore not surprised to come across another merchant involved in the 'India trade', specifically dealing in indigo; hence, he is named Sheikh Ali b. Muhammad Nili (*nil*=indigo), once again in the genizah documents of Jewish merchants.⁶⁹ This is another instance of the importance of bulk items in the maritime trade of India. It effectively rejects the stereotyped portrayal of India's export of merely high-value, small quantity, exotic, luxury/prestige goods.

Among the agrarian products that figure as exchangeable commodities, the betel/areca nut looms large in various textual and epigraphic sources of the Deccan and south India. In the Jewish genizah letters, one comes across a merchant named Ali b. Mansur al Fawfali, the suffix Fawfali showing that he dealt in areca/betel nuts. Ibn al-Mujawir enlightens us on the shipping of betel nuts (*fawfal*, *fufal*) from India to the Hadrami port of Dhofar and the island of Socotra.⁷⁰ Another observation of the same author on

certain items entering Aden deserves our attention. These are *kafur* or camphor (clearly derived from the Sanskrit word *karpura*), *tabashir* (sugar of bamboo, derived from the Sanskrit word *tvakshira*, which was used for medicinal purposes), and *khichri* (the well-known Indian dish, anglicized as kedgree—a mishmash of rice, lentil/pulses and vegetables). While the first two products were dutiable commodities at Aden, fetching respectively 25 *dinars* per *farasilah* and 20 *dinars* per *buhar*, *khichri* was exempted from tax.⁷¹ Camphor was brought to India from either China or Barus in Indonesia, as indicated in south Indian inscriptions, and some amount of imported camphor could therefore have been re-exported to Aden. Camphor was much sought after as a fragrance, an unguent in rituals, for medicinal purposes and also as a coolant.

The growing demand for Chinese pottery in the ‘West’ is best attested to by the profuse archaeological evidence from Indian and East African coastal sites, and from the Red Sea and Persian Gulf sites. This has prompted historians of the Indian Ocean trade to stress the importance of the ceramic route vis-a-vis the overland Silk Road. The overseas transportation of a sizable cargo of Chinese Changsa ware (of late Tang times) on a ship, possibly of Indian or Arab origin, to an Indian or West Asian or Red Sea port gains distinct visibility through the discovery of a ninth-century shipwreck off Belitung island, Indonesia.

India received exotic spices and gems from Sri Lanka and Southeast Asia as imports, many of which were further shipped to the ‘western’ destinations. This suggests the involvement of Indian ports in transit trade. A case in point is the importation of cinnamon, cardamom and sandal; the same can be said of the import of rubies from Sri Lanka. Indian imports definitely included precious metals, especially gold and silver, although the actual quantum cannot be ascertained. In at least one genizah letter, merchants preparing for a sailing to India from the Red Sea port of Aidhab are said to have preferred silver to gold as the form of payment to purchase Indian commodities. In another letter of 1139, the import of silk instead of gold from Aden to al Manjrur is clearly mentioned.⁷² That copper was brought to India from West Asia is amply borne out in a few Jewish letters.⁷³

Among India’s imports, a particular commodity demands our attention. This is the horse from Arabia and Fars. India did not have indigenous war horses of the best variety; there was therefore a constant demand for imported war horses. This demand seems to have greatly increased in the early Middle Ages, when there were numerous regional and local powers engaged in endemic warfare. One of the regular sources of good quality war horses was the central Asian steppe regions; these horses were called Tatars horses in medieval sources. These were brought to India by overland routes through the northwestern borderlands of the subcontinent. With the onset of the second millennium, excellent horses from Arabia and Fars began to be sent to India, not, however, by overland routes but by overseas transportation. These horses were therefore labelled ‘*bahri*’ (sea-borne) in Arabic and Persian sources and these fetched the maximum price. Marco Polo speaks of the shipping of 10,000 horses per year to the Pandyan realm alone from ports like Shihr, Kish, Hormuz and Aden. Marco Polo’s accounts, when read along with those of Ibn Battuta, Barani and Abdulla Wassaf, impress upon the enormous price of these horses, each fetching a price of 220 gold

coins. The most significant point of disembarkation of these *bahri* horses was the Malabar coast. This coastal zone, significantly enough, was the arena of great activities of Tamil horse-dealers, called *kudiraichettis* of Malainadu (*kudir*=horse, *cetti*=merchant). With their primary area of operation in Malainadu or Malabar, where the consignment of imported horses disembarked, they were possibly engaged in the distribution of the imported horses to political powers inland, for instance the Pandyas of Madurai and the Kakatiya rulers of Warangal. No less interesting is the observation of Marco Polo that the king around the port of Tana (Thana) colluded with the pirates, on condition that he would receive all the horses from the pirated ship, while the rest of the cargo would remain with the pirates. Polo impresses upon the desperate act of a coastal authority in order to capture by force and fraud the shipload of imported horses, which apparently were too costly for him to afford. Ibn al-Mujawir confirms the immense demand for the imported horse from Aden, where the highest customs duty of 50 dinar per horse was imposed. One of the most eloquent accounts of the overseas transportation of horses from Hormuz to Malabar is available in the description of Abdur Razzak.⁷⁴ This was a pattern that continued well into the sixteenth and seventeenth centuries. The Vijayanagar rulers contracted alliances with Portuguese rulers in Goa with a view to facilitating the shipping of horses from the western shores of the Arabian Sea, to ensure a regular supply of this indispensable war-animal for the Vijayanagar army. Deloche shows that the memory of this shipping of horses from Arabia and Fars to Indian ports figured in a seventeenth-century painting in a temple in Tirunelveli district, Tamilnadu, showing the transportation of horses by ships, in one of which are also depicted figures of voyaging Arab merchants.

Merchantmen, c. 500–1500 CE

It is a difficult job to classify the merchantmen, Indian and non-Indian, plying in the western Indian Ocean during the period under review, carrying commodities and passengers. Apart from the celebrated manual of shipping by ibn Majid, the sources used for the present study were not primarily intended for a discussion of the types and nature of water crafts. Mentions of boats and ships occur therein, sometimes in a casual manner, sometimes as a metaphor in religious/philosophical discourses, and also in the form of incidental notices. The common term to denote a vessel in Indian sources is *nau*, which stands for a riverine vessel, a coaster, and sea-going ship alike. The same sense is more or less carried by the term *vahana*, literally meaning a carriage, but also speaking of a ship/vessel/water craft (cf. the term *Hurmujivahana* to mean a ship from the port of Hormuz). Two other terms in Sanskrit are used to denote ships: *pravahana* and *vahitra*. Our reading of two eleventh-century inscriptions from Konkan suggests that the *pravahana* was employed for coastal voyages, while the *vahitra* was used for long-distance journeys across the sea. The arrival of non-Indian (*yavana*) merchants at the port of Tamralipta (Tamluk in the Ganga delta) by *vahitras* figures in the seventh-century prose romance, *Dasakumaracharita* of Dandin. Occasionally, the term *yanapatra* has been used as a synonym for a sea-going vessel in Sanskrit lexicons and other texts. The *Yuktikalpataru* of Bhoja (c. eleventh century), which has been widely

used to classify early Indian ships, differentiates between a riverine vessel (*samanya*) and a sea-voyaging one (*visesha*). The *visesha* or the sea-going vessel has two further classifications: long (*dirgha*) and tall (*unnata*); the former, according to Bhoja, has 10 subtypes and the latter five. The main problem with using this text is that it is impossible to corroborate whether the prescribed classification of ships and crafts at all referred to actual and existing practices of seafaring. The sub-types of ships mentioned in the *Yuktikalpataru* rarely occurs in any other source.

The most frequently occurring term for a ship in Arabic texts is *markab*. At least in one twelfth-century Jewish letter occurs the Arabic term *jahaj*, which, however, relates to the preparations of fitting out a ship for a long voyage. Three types of ships, *burrama*, *shaffara* and *jashujyat*, were employed by the rapacious king of Kish during an abortive raid against Aden in the early twelfth century, according to a Jewish genizah letter.⁷⁵ The *jilab* was in frequent use in the Red Sea area; ibn Jubayar noted with strong disapproval how the *jilaba* were always overloaded with passengers in the port of Aydhab. The *jilab*, however, seems to have been restricted to the Red Sea area. To a major traveller like Ibn Battuta ships were of little interest, and even when he mentioned 20 different types of ships, he did so in a rather confusing manner. The Chinese vessels, perhaps the most developed in terms of shipping technology prior to the arrival of European ships in the Indian Ocean, were best-known as junk. Ibn Battuta knew them by the same name, spelt as *jnk* (plural *junuk*). The memory of the visit of the great Ming junks to Aden under Zheng He figures prominently in an anonymous Rasulid account of 1419. It describes the arrival of the *marakib al znk* at the 'protected port' (that is, Aden). The same term, *znk*, also figures in the context of the visit of the Ming fleet during its seventh voyage in 1432. The term *znk* is surely the same as the *jnk* of Ibn Battuta, and refers to the Chinese junk.

Among the men who manned merchantmen in the western Indian Ocean, the most important figure on board the Arab ship was the *muallim*, navigator or captain, who occupied the centre-stage in the shipping manual of ibn Majid, himself a great navigator. Ibn Majid was also a literate *muallim* who not only took great pride in his literacy and poetic abilities, but also differentiated himself from the *rubban* or the captain of smaller ships plying the Red Sea. Right from the beginning of the preparation of a voyage till it reached its ultimate destination, the *muallim*, according to ibn Majid, was the final authority in the running and maintenance of the ship. Two subordinates under him were the *kardar*⁷⁶ and the *tandel*. The *muallim* of ibn Majid closely corresponds to the *sasaka/mahanavika* of Sanskrit sources. Interestingly enough, the Buddha appears as a master mariner with great expertise in bringing in and taking out the ship from harbour (*aharana* and *apaharana*), according to the *Jatakamala* of Aryasura. Fascinating tales of sailing, surviving shipwrecks, and great dangers of the sea voyage are narrated in the *Kitab Ajaib ul Hind* of Buzurg ibn Shahriyar (c. 955), who himself was a famous ship-captain. The helmsman figures under the category *karnadhara*. The men who put in enormous physical labour to keep the ship afloat came under the category of *navikakarmakara* (literally servants or *karmakaras* engaged in sailing). Apart from rowing with the oars (*aritra/kenipata* in Sanskrit) and furling/unfurling the sails as and when required, these sailors also had to bail out excess water from the hold of the ship with

bucket-like vessels (*sekapatra* in Sanskrit). A twelfth-century painting of a sea-going Arab vessel graphically depicts this scene of bailing out water. The sailors in India belonged to the lower stratum of the *varna-jati* divided society, and did not command respect in the Brahmanical treatises. The term *navikakarmakara* corresponds to *al askar* in Arabic, meaning a sailor in general.

If the dependence on the alteration of the monsoon wind was a perennial feature of shipping across the Indian Ocean, the other fact of unity in the Indian Ocean sailing tradition lies in the construction of ships with the help of wooden planks (*phalaka* in Sanskrit), held together by rope (*rajju* or *sutra*) made of coconut coir. These crafts did not have any iron nails, hence the expression *nilloham* in Sanskrit texts as an epithet of the traditional ship. This explains why early European accounts of Asian ships in the western Indian Ocean labelled vessels such as these stitched or sewn vessels. Perhaps the earliest European author to notice this peculiarity in the construction of Indian Ocean ships was Procopius. Ships used in the Indian seas, he noted, 'are not covered with pitch or any other substance, and the planks are fastened together, not with nails, but with cords'.⁷⁷ The widespread practice of this method is clearly represented in the visual depictions of sea-going vessels in sculptures and paintings, which show planks held together by cords. Particularly important in this respect are the eleventh and twelfth-century stone sculptures of ships, now in the Goa museum, and also in a cave in Borivli (a suburb of Mumbai).

To this must now be added a recently discovered evidence, something much sought after but until recently non-existent: this is the evidence of an ancient shipwreck, noticed and brought to light by marine archaeologists. The matter deserves close attention. In 1998–99, underwater excavations revealed, for the first time, the remains of an ancient sea-going ship off the island of Belitung between Sumatra and Borneo. The ill-fated ship carried as its cargo, among other items, a large number of Chinese ceramics, which have been identified as the Changsa Ware (so named because they were manufactured in the Changsa kilns in the Hunan province), datable to the later years of the Tang dynasty of China (618–906 CE). Therefore, the wares and their maritime carrier have been logically dated to the ninth century. As a considerable part of the hull of this ship survived in anaerobic conditions beneath the ceramic cargo, it could be minutely examined. The most significant point that emerges from the archaeologists' probings is that the hull planks were stitched together without any use of wooden dowelling or iron fastenings. Thus, the ship can immediately be seen as having originated in the western sector of the Indian Ocean. One cannot determine precisely whether it was an Indian ship or an Arab vessel. But the use of sewn planks for the hull of the ship relates it distinctly to the Arabian Sea, Persian Gulf and Red Sea zones. The keel, 15.3 m. in length, has survived intact. A strong keelson supplemented the light keel by providing longitudinal stiffness to the vessel. The longitudinal placement of the ceiling timbers across the keelson stringers and frames provided a supportive bed for the ballast and cargo.

The hull planks were sawn and were stitched edge-to-edge with the rope passing right through the planks; wadding material was placed under the stitching both inside and outside the hull. Frames were notched where they passed over plank edge-joints

to allow for the stitching and wadding, and two holes were provided between each notch for fastening the frame to the hull planks, the rope running through the plank and outside the hull.

Assuming the ship was a double-ended one, the overall length of the vessel has been estimated at 20 to 22 m with a moulded depth of approximately 3.5 m. As the shipwreck suggests the original ship to have been a shallow-drafted ship, it has been compared with a *batil qarib*, still in vogue in the Oman region. The design of the ship very closely resembles what Deloche has reconstructed on the basis of the evidence of visual representations.⁷⁸ If this was a ship from the Arab world, it was most likely made of Indian teak and Indian coconut coir. The ship in that case appears to have been on its way from some Chinese harbours with a predominant cargo of Chinese ware to a destination in the western Indian Ocean, although the intended ports of call cannot be ascertained. But the capability of such ships of sailing across a considerable part of the northern Indian Ocean is unmistakable.

Most iconographic evidence shows the ships as single-masted, the word for mast in Sanskrit variously being *kupastamba*, *kupadanda* and *gunavriksha*. The representation of a three-masted ship, indeed a rarity in early Indian art, figures in a painting from Ajanta. Although the term *sitapatra* (*siyapata* in Prakrit) stands for the sail of the ship, and there are textual descriptions of the unfurled sail resembling a blossoming flower (*mukulayat sitapata*), visual representations of early Indian ships rarely display sails. One notable exception to this pattern is the famous painting of the ship with unfurled sails in the Ajanta painting mentioned above. There are few available accounts of the facilities for passengers, many of whom had to undertake the journey on open deck. Nahray b. Allan, a prominent Jewish merchant of the twelfth century, wrote about his being satisfied with a *bilij* or cabin on a ship bound for India.⁷⁹ Ibn Battuta was mostly very critical of the arrangements for living on the ships of his time; however, he spoke in approving terms of Chinese junks, where there were separate cabins for aristocrats like himself. Could such 'cabins' correspond to the covered living areas (*mandira*) of the ship meant for voyaging passengers (*samyatrika*) in Sanskrit texts? The two paintings of Arab ships mentioned above also show grapnel anchors made of some metal. A striking confirmation of the use of this kind of anchor is now available from the iron grapnel with a wooden shank recovered from the underwater excavation of the Belitung shipwreck noted above. The Sanskrit word *nangarasila* also suggests the use of anchor stones, which could be an alternative practice to the use of the iron grapnel.

The most systematic and elaborate instructions for safe sailings across the Indian Ocean by following the more or less predictable alterations of the monsoon wind system are available in the celebrated manual of shipping and navigation by ibn Majid. Without going into the details and intricacies of the art of haven-finding by the captain, navigator and sailors, it may be highlighted that ibn Majid lays down specific dates for leaving a particular port with a view to ensuring safe passage. He also enjoins that sailing after a particular deadline would invariably have disastrous consequences in the form of the fury of the monsoon at its height and other terrible storms. It is only natural that shipwrecks were common in the Indian Ocean, accounts of which regularly appear in travel literature.

Maritime Merchants

We now propose to take a close look at the merchants engaged in the maritime trade network of the Indian Ocean. It is true that individual merchants and their activities rarely find place in contemporary Indian literature. Merchants do figure in creative Sanskrit literature (distinct from the normative) as being fabulously rich, as patrons of art and religious activities, and on occasions a romantic hero like Charudatta in Sudraka's *Mrichchhakatikam*. Such characters in literature could have been based on existing experiences and/or on the standardized perception of a merchant, but there are virtually no life-stories of actual merchants, save the *Vastupalamahatmyam* and *Jagaducharita* (discussed below). These constraints of sources notwithstanding, glimpses of merchants' activities, their aspirations and anxieties, the social and cultural life surrounding them are occasionally available in early Indian texts. From the port of Surparaka (modern Sopara), a son of a wealthy merchant, according to the *Kuvalayamala* of Udyotanasuri, decided to undertake a voyage to a distant land. His father, aware of the risks of an overseas journey, tried to dissuade his son by telling him about the hazards of journeying to a distant land (*dura desa visama pantha*), where abound numerous crooks (*bahue dujjana*) and where honest people were rare (*viralasajjana*). The son, according to the Jaina tale, went on ahead, ignoring the grim paternal anticipations. As the day of the voyage approached, the *Kuvalayamala* narrates that the ship was decked up (*sajjikrita yanapatra*), varied commodities brought on board, sails fitted on the mast; amidst a large number of onlookers and audience, musical instruments played lovely tunes to mark the auspicious occasion. The arrangement of a voyage and the voyage itself was a spectacle, colourful and throbbing with life. Continuing with Surparaka, the same eighth-century Jaina text portrays a merchants' colloquium (*vanik-meli*), where merchants converged from different places and exchanged among themselves their experiences and impressions of diverse commodities, different places, their profits and losses.

A congregation of merchants at Kandiyyur in Kerala, described in the *Unniyaticharitam*, closely resembles the scene of *vanik-meli* at Surparaka. The author is aware of the diverse areas the merchants hailed from (including *paradesa* or abroad), but also offers the image of diverse speeches being used, thereby suggesting the possibility of multilinguality among merchants. Apart from gold merchants (*ponvaniyar*), wholesale dealers (*nira chettikal*) and ship-owners (*marikkar*), there assembled at Kandiyyur Kannadar (people from Kanara), Malavar (Malava), Kunjarar (people from Gurjara), Tulingar (people from Telugu), Ottiyar (people from Orissa), Konkanar (people from Konkan), Chonakar (Yavana), Chinar (people from China), Turikkar (Turks?), and many others. They were sitting cross-legged in the centre of black carpets with huge masses of coins in front of them.

A senior merchant among them tried to impress his juniors in a bragging tone:⁸⁰

If I sell a *jonakuttira* (Arab horse) in the Cola country, I will immediately get two thousand *anayaccu* (elephant *kasu*) in cash. For my elephant I will get eight thousand If I go to Kollam (Quilon) and Kollapuram (Kolhapur)

I can sell quickly all the good *karpuram* (camphor). I have to get a hundred thousand *accu* by way of interest on the loan I gave to Vallabha.

The merchant here clearly tries to impress upon his audience the fact that he dealt in very high-value commodities, especially Arab horses (*jonakuttira*, that is, *yavanakuttira*; *kuttira/kudir*=horse) and elephants—which were mostly meant for the political and military elite—and camphor. Except for the elephant, both the horse and camphor loom large in India's maritime trade in the Indian Ocean. As we have discussed earlier, the horse was shipped from ports in the Persian Gulf and Red Sea areas to ports on the western seaboard of India. Camphor was brought to the subcontinent from China and/or maritime Southeast Asia; a part of the camphor was further sent out across the Arabian Sea to Aden from the Malabar ports. The merchant, by dint of his dealing in commodities coveted by rulers and the elite, seems to have been so close to a certain ruler (*vallabha*) as to have lent him money on interest. The author of the text provides a hint of the possible access an influential merchant had to the corridors of power.

The most important figure in this context is the ship-owning merchant, the 'maritime merchant' of the Indian Ocean, in Ashin Das Gupta's vocabulary. It is from around 1000 CE that ship-owners stole the limelight in the ports on the west coast of India. Sanskrit inscriptions coined the term *nauvittaka* to denote a person whose wealth (*vitta*) was rooted to his ships (*nau*). This corresponds exactly to the Arabic and Persian word *nakhuda* (*nau*=ship and *khuda*=lord), denoting ship-owning merchant. In some Sanskrit inscriptions the two terms were also abbreviated respectively as *nau* or *nakhu*; sometimes the two terms were also used synonymously. All these strongly suggest a considerable familiarity of the coastal society with the ship-owners.⁸¹ A Tamil inscription from Barus in Indonesia (dated 1088 CE, previously studied by K.A. Nilakantha Sastri and more recently re-examined by Subbarayalu) records the presence of *marakkalam* (ships), owners of *marakkalam*, and *marakkala-nayan* (ship-captains).⁸² The inscription proves beyond doubt the presence of Tamil ship-owning merchants, distinct from the captain of the ship, in Indonesia. There is a distinct possibility that the *marakkala-nayan* later evolved into the famous Maraikkayan(r) or Maraikkar group of merchants, especially active on the Malabar coast in the sixteenth century.

The largest number of such ship-owners come to our notice in the Jewish genizah letters. The itinerant spirit of the Jewish merchants is reflected in the documentary genizah thus: 'One who is present sees what one who is not present cannot see'.⁸³ A leading Jewish merchant, Madmun b. Hassan (the Representative of Merchants / *wakil ul tujjar* at Aden and a close friend of Abraham ben Yiju, the Tunisian Jewish merchant residing in Mangalore), wrote in 1130 of a ship ordered by him for carrying commodities and passengers from Aden to Sri Lanka. This is probably the same craft mentioned as 'the ship of Elder Madmun', in which Nahray b. Allan, another prominent Jewish merchant, sent his goods in 1141. In 1149 ben Yiju informed his brother in Fustat that he had sent some presents for him in Madmun's ship. These letters, taken together, indicate that Madmun's ship was operational between Aden and the southwestern seaboard of India (and also with Sri Lanka) for nearly two decades. Although Madmun was not primarily a ship-owner, he seems to have been successful in his shipping

business venture. That is why, in a letter to ben Yiju (around 1140), he expressed his desire to launch another ship in Aden in collaboration with four Indian merchants, viz., Sus siti, Kinbati, Isha and Isaq. Rich and exhaustive data on shipping and ship-owning merchants prompt us to take a close look at a letter of 1139. Khalaf b. Isaac b. Bundar, a cousin and close business associate of Madmun, acknowledged receipt of two *bahars* and one-third of 'refurbished iron' sent by Abrahamben Yiju to Aden in the ship of *nakhuda* Ibn Abi'l Kataib. Madmun also informed him of the arrival of *nakhuda* Joseph at Aden from Dahabattan or Vallarapatnam (in Malabar) in the ship of Ibn al Muqaddam.

While so far we have encountered Jewish and Muslim *nakhudas* in this letter, two ships of an Indian ship-owner, Fatanswami (=Sanskrit *pattanasvami*), also figure prominently in Khalaf's letter. Khalaf informs of the safe arrival of Fatanswami's smaller ship to Aden, but announces the terrible news of disaster striking the bigger ship. The pepper in that ship was completely lost, but a portion of the iron was salvaged by employing professional divers of the port of Aden. Khalaf continues his letter, informing that he had sent some presents for ben Yiju in the ship of Fadiyar who, according to Goitein, was another Indian ship-owner. In another letter from Madmun, ben Yiju was informed of the shipment of a bag of 23 pieces of copper sent in the ship of Ramisht of Siraf, the merchant millionaire of the port of Siraf, as well as separate consignments of copper in the ships of al Muqaddam and Nambiyar respectively, the last being certainly an Indian merchant from Malabar. These letters are replete with reliable images of close interactions and linkages among Jewish, Muslim and Indian merchants. Abraham ben Yiju seems to have used the ships of Ramisht on several occasions, although ill-luck occasionally struck both ben Yiju and Ramisht in the form of shipwrecks. In a letter dated the late 1130s, Joseph b. Abraham broke the news of shipwrecks of two ships of *nakhuda* Ramisht; ben Yiju had sent some consignments to Aden in those ill-fated ships. Joseph consoled ben Yiju: 'Do not ask me, my master, how much I was affected by the loss of the cargo belonging to you.'⁸⁴ To this list of ship-owners is to be added Ali b. Mansur al Fawfali, another Indian ship-owner, who must have originally been a dealer in betel nuts (*fawfal*), or been born in a family that dealt in this plant product. It is evident that success in the trade in betel nuts was quite substantial, prompting al Fawfali to invest a part of his/his family's resources in the shipping business.

That the Jewish merchants also figured in the coastal network along the western seaboard of India is visible from a letter of 1145. Mahruz b. Jacob, a *nakhuda* often plying between Aden and Malabar, wrote to his brother-in-law (sister's husband) Judah b. Joseph ha-Kohen, who was the representative of merchants at the Egyptian capital. The letter was sent through ben Yiju. Mahruz was greatly disturbed to learn that Judah had been attacked by pirates during his coastal voyage from al Manjrur to Tana (=Thana near Mumbai). The letter was originally sent to Thana, but Judah had already left that port for Baruz or Broach at the mouth of the river Narmada. Mahruz wrote:

The boats start presently from your place, from Kambayat and Tana; please set out immediately so that you reach Mangalore with vessels which God willing will soon be arriving in Malibarat, Kayakannur and Mangalore.⁸⁵

The *genizah* letters thus shower a flood of light on the stellar role of Jewish 'India traders' in the trade with India, especially the sea-borne commerce. From the thirteenth century onwards, Jewish merchants and *nakhudas* gradually faded out from the shipping scenario in the western Indian Ocean in the face of stiff competition from the Islamic *karimi* merchants, who seem to have had a stronger mercantile organization. Goitein attributes the gradual lessening of Jewish seafaring mainly to the ever stricter interpretation and observation of the precepts of the Jewish religion. The desecration of the Sabbath was unavoidable for sailors on voyage. Their employers were held responsible for all religious transgressions arising out of their employment. For the scrupulously religious Jews, shipping became an increasingly less attractive option. The merchants in the *genizah* letters were certainly well-off, some of them very rich; but contemporary long-distance trade and shipping in the West was largely financed by the Islamic ruling groups, which had far greater resources. To this was added the organized business ventures of *al Karim* from the thirteenth century onwards. The prominent role of the Jews in India trade had to give way to other, more enterprising and resourceful competitors. Goitein's masterly study of the *karimi* merchants shows that it was not a company or guild of merchants handling goods, but a convoy or group of ship-owners in whose ships other merchants travelled and had their commodities transported to different destinations. He further infers that the word *karim* was possibly derived from the Sanskrit/Tamil word *karyam*, which denoted, among other things, professional organization or grouping. The term *karyam* in fact occurs regularly in Tamil and Kanarese inscriptions (c. AD 800–1300) eulogistically recording the activities of south Indian mercantile groups (for example, the 500 *svamis* of Ayyavole, the *manigramam* and the *nanadesi*, etc). Although the *al Karim* organization blossomed during Ayyubid and Rasulid times, the genesis of this organization probably goes back to the Fatimid period. Sergeant suggests that one of the earliest *karimi* merchants to have come to Yemen was Abdullah al-Umawi al Uthmani, who was primarily a cloth merchant (*al tadjir al bazzaz al Karimi*) based in Alexandria. Another *karimi* merchant of the late thirteenth century bears the name Abd al_Aziz b. Mansur al Kulami al Karimi. He was born in Aleppo and later migrated to Baghdad. He then reached India via Kish and Hormuz. The Indian connection is clearly reflected in his epithet Kulami, which associates him with Kulam (or Kulam Mali), present Quilon, the premier port in Malabar prior to the rise of Calicut. He was famous for his success in the maritime trade with China. After his successful commercial venture with China, he seems to have started his return voyage from Kulam to Aden in 1303–04, and from there he went back to Egypt. His fabulous wealth, especially his exotic Chinese pottery, silk, musk and jade vessels inlaid with gold, became a part of folklore and legend.

It is also not difficult to visualize the active presence of several *nakhudas* on the Gujarat coast, especially around Cambay, as revealed by epitaphs. Most of them were Iraqi/Iranian by birth, but had settled in and breathed their last in the port towns of Gujarat in the fourteenth and fifteenth centuries. Eminently successful and possessing enough wealth, they were praised as leading (*sultan*) among merchants and ship-owners and great patrons of the *hajj*.⁸⁶

The point to take particular note of is the presence of Indian ship-owners, whose ships sailed across the Arabian Sea along with those of the Jewish and Muslim ship-

owning merchants. The general perception that Indian ship-owners did not participate in the overseas voyages but plied on coastal routes now needs a revision. Jagadu, a well-known merchant of Gujarat, figures in the *Jagaducarita* as having sent his ships to Ardrapura or Hormuz from Cambay. He is not described as a *nauvittaka* merchant, and appears to have invested a part of his fabulous wealth in the shipping business. There were also Indian ship-owning merchants in the west coast of India, whose ships mainly operated in coastal voyages. At the port of Balipattana (Kharepatan in the southern Konkan littorals) in 1084 CE were active members of a *sreshthi* (very rich merchant) family over three generations, whose vessels operated in the Konkan sector, touching the ports of Cemulya, Nagapura, Candrapura and Srithanka. They are not categorically described as *nauvittakas* or *nakhudas* in the eleventh-century inscription from Balipattana. It is quite evident that this *sreshthi* family, residing in the port town of Balipattana, was interested in the coastal shipping business, in which it invested a part of its wealth. Apart from these *sreshthis* owning ships, there was another merchant, Vasaida, who has been specifically given the epithet *nauvitaka* (obviously meaning the *nauvittaka*). He also held the position of a *mahamatya* or an administrator of a high rank. His wealth and prestige as a successful ship-owner seems to have helped his appointment as an administrative officer connected with the port of Balipattana. In 1145 one comes across *nakhuda* Tinbu, whose ships plied between al Manjrur and Thana. His constant interactions with Jewish India traders are writ large in a business letter of 1145, already discussed.

One is not exactly sure how many of these ship-owners did actually take to the sea; many of them could have been merchants ashore rather than afloat in their own ships. But many other Indian merchants did undertake overseas voyages, lured by the prospect of gain. This brief and hurried survey of voyages undertaken by Indian merchants both in the Arabian Sea and the Bay of Bengal exposes the hollowness of the notion that Indians rarely took to the sea, because crossing the sea was forbidden in the *sastras* and brought under the category of *kalivarjya* (proscribed activities during the Kali age, the worst of the four ages according to Brahmanical perception). While the sastric injunctions may at the most speak of Brahmanical ideals and norms, these were not insurmountable, and in fact were often transgressed. The ship-owning merchants were undoubtedly the key players in the maritime network in the Indian Ocean. The traditional trade of India did not merely revolve around the ubiquitous pedlars, as van Leur argued so strongly. In the *nakhudas*, *nauvittakas* and *marakkalanayans*, one may find the forerunners of Mulla Abdul Ghafur of Surat, the greatest ship-owning merchant of the eighteenth century, immortalized by Ashin Das Gupta.

The *genizah* documents are quite exceptional, in the sense that they are a repository of our knowledge of communication and exchange of information among merchants, many of whom (unlike ibn 'Awkal of Old Cairo) were often itinerant. Their trading itineraries and ventures could hardly succeed in an information vacuum. These letters underline the importance of the exchange of information bearing on their whereabouts, the commodities handled, the market scenario, demand for certain commodities, their fluctuating prices, and ports, marts and cities. Names of merchants in the *genizah* papers are often commentaries on their respective areas/bases of

operation and the commodities they dealt in. The name Joseph al Adani al Mamsawi is a marker of the merchant's native place, Aden, and his residence at Mamsa in Morocco—the very name is suggestive of a wide spatial connectivity. The representative of Jewish merchants at Fustat (Old Cairo) was Abu Zikri Cohen, whose suffix Sijilmasi immediately points to the fact that he originally hailed from Sijilmasa in southern Morocco, from where he came to Fustat. Similarly, the name of another merchant, Hima al Hamwi, conveys the message that he was connected with Hama in Syria. The suffix Nili in the name of Ahmad, a prominent India trader in the *genizah* papers, leaves little room for doubt that he dealt in indigo (*nil*). We have already encountered the ship-owner Ali b. Mansur al Fawfali, whose last name carries the unmistakable signal that he was originally a betel-nut merchant.

The *genizah* papers are replete with correspondence among many merchants. Much of this correspondence is formal in nature, recording and informing about partnerships struck among certain merchants. Partnership was an essential feature of maritime trade, especially in view of the long journeys across lands and seas, the volatility of the market, and the very high investment costs with attendant and matching risks (particularly the overseas trade). Entering into a partnership considerably helped participating merchants to apportion and/or share the risk, investment and future profit. There are several instances where such partnership information was passed on to other business compatriots in formal letters, with a view to keeping them abreast of the developments in the activities of some merchants in [a] specific business venture(s). What is striking in the documentary *genizah* is an occasional combination of very formal with remarkably informal information. In this regard, Avrom Udovitch finds an amalgam of formalism and informalism in the commercial network of Jewish India traders.⁸⁷ A twelfth-century letter from Amram b. Joseph (a noted merchant of Alexandria) to Nahray b. Nissim (a learned banker at Fustat) offers a typical case in point. Amram's sister's husband, Abul Faraj, sent from India a sizable amount of camphor to Aden through Hasan b. Bundar. Abul Faraj also sent, once again to Aden, an impressive consignment of Indian products (lac, fine textiles, spikenard), with the express instruction to forward these commodities, distributed in eight shares, to some merchants in Fustat. It was indeed a complex operation to forward Indian commodities to Fustat via Aden, involving at least two Adani middlemen. The letter carried all this information, addressed formally in manner and content, to the *wakil ul tujjar* (representative of the merchants) at Fustat. But there is also another layer of information of a personal nature. Abul Faraj probably ran into rough weather, resulting in his being sued by his partners in a court of law. This disconcerting news and development reached Amram, whose sister was married to Abul Faraj. A frantic search for Faraj in various ports on the west coast of India followed, but all efforts to track him down drew a blank. This was a major embarrassment for the family; this sentiment and concern were voiced by Amram in an intensely personal manner to the banker, Nahray b. Nissim, who also received the business information contained in the letter.⁸⁸

When Madmun b. Hassan, the representative of Jewish merchants, wrote (in the 1120s) to his very close friend Abraham ben Yiju in India about his forming a partnership

with the local Muslim governor of Aden, he seems to have tried to impress upon his friend the fact that he had access to the governor, and that he belonged to the elite society of the port town.⁸⁹ In 1141 Nahray b. Allan, a front-ranking India trader, wrote a detailed letter to Arus, his uncle and father-in-law, regarding his several successful crossings of the Arabian Sea between Aden and Malabar and his profitable business ventures. Along with this business report, he barely hid his frustration and anger at a frivolous junior merchant who enjoyed prostitutes' company and the association of a wine-serving boy at Lakhaba (close to Aden).⁹⁰ Once again, we encounter a fascinating combination of informal-formal, personal-impersonal information that was doing the rounds in the expansive Malabar-Aden-Fustat business network.

Another India trader came from Fustat to India via Aden and regularly travelled along the Aden-Malabar route. But he was perhaps not particularly successful, and hence could not return home with rather meagre profits. This seems to have compounded his problems, which were not limited to his business fortunes; it also badly affected his family life. As two years elapsed and uncertainty continued to prevail over his return to Fustat, his wife, in utter frustration, probably contemplated divorce. The wife's letters, carrying such wishes and admonitions, have not reached us so far. But the husband's letter of 1204 speaks in no uncertain terms of tension in the family, perhaps an inescapable aspect of such voyaging merchants' lives. The merchant wrote to his wife:

Now if this is your wish, I cannot blame you. For the waiting has been long. And, I do not know whether the Creator will grant relief so that I can come home, or whether matters will take time, for I cannot come home with nothing.... Now the matter is in your hand. If you wish separation from me, accept the bill of repudiation and you are free. But if this is not your decision and not your desire, do not lose these long years of waiting: perhaps, relief is at hand and you will regret at a time when regret will be of no avail.⁹¹

In this moving letter, the merchant also bared his heart to his wife by confessing that he had to consume a lot of alcohol to ease his loneliness and tension, but also said: 'I conducted myself in an exemplary way'. He clearly assures his wife that he never kept slave-girls nor visited whorehouses during the years of his absence from home. 'All day long I have a lonely heart,' he laments, 'and I am pained by our separation. I feel that pain while writing these lines.'

Cultural Plurality and the Prescription of a Naval Blockade

We have already highlighted two major points of unity in the world of the Indian Ocean, viz., the influence of the alterations of the monsoon winds on shipping networks and hence on the transactional activities in ports and their respective hinterlands; and the widespread use of ships made of wooden planks held together by coconut coir without the use of iron nails. A third point of commonality lies in the fact that both the sea and maritime merchants acted as bridges between diverse communities in widely dispersed

territories. Merchants and their ships were not merely carriers of commodities, but purveyors of their cultural traditions too. This explains the spread of Buddhism, and later the popularity of Vaishnavism and Saivism in many countries in Southeast Asia; the same is applicable in the use of Sanskrit and Tamil in Southeast Asian inscriptions. Islam, too, spread to many parts of South and Southeast Asia with the expansion in the maritime network from the Persian Gulf and the Red Sea areas. The most eloquent examples are found in the Jewish business letters. These are replete with accounts of rivalries, court cases and complaints against merchants involved in the 'India trade'. But nowhere in the entire range of *genizah* documents does one come across religious intolerance among the Indian, Jewish and Islamic merchants active in the maritime trade of the western Indian Ocean. In a letter of 1145, the Jewish trader Judah ha Kohen assured his brother-in-law Mahruz, who suffered a pirate attack near Thana, that he could seek any financial assistance from the Hindu ship-owner Tinbu, because between Kohen and Tinbu were 'inseparable bonds of friendship and brotherhood'.⁹² Similarly, there was little difficulty in ben Yiju marrying a local woman from the Kanara coastal society during his 17-year stay at Mangalore.

Al Masudi praised the Balhara rulers or the Rashtrakutas for encouraging Muslim merchants to settle in Konkan, and allowing the practice of their religion. The result was that Al Masudi noted in the early tenth century that Muslim merchants in the Konkan coast were given excellent support by the Rashtrakuta rulers (Balhara kings in the Arab accounts, so named after the Sanskrit term *Vallabharaja*) are credited with the construction of mosques in the port towns of Konkan. No less interesting is the information that Muslim Arab merchants were present as witnesses and as important members of the coastal community during grants of land to a Durga temple in Sanjan by the Rashtrakuta and Silahara rulers. The most celebrated instance in this regard, however, comes from Somnath in Gujarat. A bilingual inscription (Sanskrit and Arabic, the Sanskrit version more elaborate and the Arabic synoptic) of 1264 tells us of the arrival of a pious Muslim *nakhuda*, Nuruddin Firuz, from Hormuz to Somnath. The texts of both versions leave a clear impression that Firuz had probably made several previous voyages to Somnath, and had thereby become well-acquainted with the port town and its mercantile population, largely Hindus. With the active support of his Hindu merchant friends, he arranged for the construction of a *mijigiti* (masjid/mosque) in Somnath, where a number of Islamic festivals (*visesapujamahotsava*) typically associated with *nakhudas*, *nauvittakas* (ship-owners) and *navikakarmakaras* (sailors) were regularly observed. These were the Baratisabi (Sabe-barat) and Khatamrati (the recitation of the Quran in a single night). The town council of Somnath, headed by a Saiva Pasupatacharya, approved of the procurement of land, on which stood the mosque described in Sanskrit as a *dharmasthanam*. This was then endorsed by the provincial authority Maladeva and finally approved by Baghela Arjunadeva, the king of Gujarat. The Sanskrit inscription recording the construction of the mosque begins with a salutation to Allah (*Om Namastute*), who is given four epithets, *Visvarupa* (Universal), *Visvanatha* (Lord of the Universe), *Sunyarupa* (Formless/Aniconic) and *Lakshyalaksha* (Visible and being aniconic, also Invisible). This is truly emblematic of the role the merchant communities in the Indian Ocean played as bridges among different ethnic groups and religious faiths.

The foregoing discussion helps us recognize the fact that the Indian Ocean had become a regularly frequented maritime zone much before the advent of the Portuguese in the late fifteenth century. Vasco da Gama's voyage from Malindi to Calicut cannot, therefore, be judged as a marker of the 'age of discoveries' in the Indian Ocean. Such a notion expresses an obvious Eurocentricism, and justifies the European claim to inherent supremacy in matters maritime. One also cannot miss that prior to 1500, the Indian Ocean was a theatre of merchants, sailors, voyagers, and even of pirates. But only on very rare occasions did a political power consider the vast maritime space or a part thereof an arena for establishing, or even showing, their political and military prowess. The famous Chinese voyages during the Ming period under Admiral Zheng He (1404–33) spanned the greater parts of the Indian Ocean at least six decades before the arrival of the Portuguese in the Indian Ocean. But no territorial gains were made, no naval stations established, and no claim made that the ocean belonged to the Chinese crown. Although the official Chinese annals described Zheng He as collecting 'tributes' from the countries and ports he visited, a careful reading of the accounts cannot but suggest that the Chinese official missions were sent with a view to promoting China's sea-borne commerce. A major exception to this pattern occurred in south India under Rajaraja I (985–1014) and Rajendra (1012–44). The Cholas sent several maritime expeditions to conquer and annex Sri Lanka, by conquering which Rajaraja and Rajendra were eulogized as heroes greater than Rama. The Chola fleet also conquered '12000 islands in the open sea', which are usually identified with the Laccadives in the Arabian Sea. In 1025–26, the most daring of Chola maritime campaigns, the Kadaram campaign, took place. As many as 12 important ports and centres of maritime trade were conquered by the Cholas in the Bay of Bengal and maritime Southeast Asia. But none of the conquered areas were turned into a Chola territory like Sri Lanka, which was reduced to a Chola province. The Chola maritime victories, however spectacular and daring, did not last long. Rulers of Asia and Africa usually did not consider the maritime space an arena for political contestation. This is not symptomatic of any apathy to the sea, but it certainly demonstrates an attitude to the sea different from that associated with the Europeans.

We come to know of the Indian Ocean scenario in the early fourteenth century through an unusual source material, namely Crusade propaganda literature. One remembers that with the conquest of Jerusalem in 1291 by the Mameluk ruler, the control of Latin Christendom over the Holy Land was finally over. But the Crusade mentality was by no means terminated and lingered on for quite some time, when many propaganda texts were written by both clergy and lay people with a view to urging another round of Crusades and hoping for ultimate Christian victory and recovery. The papal authority too encouraged the submission of such texts and tracts.⁹³ To this genre belongs a tractate that demands close scrutiny. The tractate, *De Modo Sarracenos Extirpandi*, was written by Bishop Guillaume (William) Adam, possibly French, in the first half of the fourteenth century.⁹⁴ His primary aim was of course to suggest practicable means to win a victorious war against the Egyptian sultan, and to finally recover/re-establish Christian control over the Holy Land which Latin Christendom had lost in 1291. He, however, brings the Indian Ocean scenario into his scheme of

things, giving his advice a distinct stamp of individuality among other similar propagandist texts, as the Indian Ocean had no direct bearing on the question of Crusade.

However, before we take up the recommendations of this Bishop for an analysis, a general discussion of the text and its author should be in order. The tract was edited by Kohler and included in the French collection of Crusade texts, but classified under the category of Belle Letters.⁹⁵ It is a bit strange that the text is anthologized in the Armenian documents on the Crusade, although it has little to do both in its contents and context with Armenia. Bishop Guillaume Adam was born in Antivari in c. 1275 CE and subsequently became a Dominican Friar. He was assigned to various places in the East, for example Smyrna (a major port in the Aegean Sea), Constantinople, Syria and Sultanieh (in Persia under Ilkhanid rule). At the last mentioned place he once was a Bishop, and later became the Archbishop. He travelled from Iran to India and then across the Arabian Sea to Ethiopia. He was also assigned to visit Armenia, but whether the visit materialized is not clear. He probably died in Avignon in France in 1341, where he spent a considerable amount of time during the last phase of his life.

This brief biographical sketch of Guillaume Adam provides the background for the composition of his tractate, its most significant aspect being his understanding and perception of the East. It is difficult to pinpoint the exact date of the tractate, which seems to have been written between 1318 and 1328. The fundamental proposition the Bishop made is the ways and means to recover Jerusalem from Mameluk occupation. This required the defeat and subjugation of Egypt at the hands of the Latin Christendom. His tractate is devoted to ways to exterminate the Muslim Mameluk sultanate, which he considered an uphill task for the Latin Christendom in the early fourteenth century in the light of the relatively weaker situation in the Christendom. The unique feature of his argument is his thrust on impoverishing Egypt before inflicting a military defeat upon it. The author is fully aware of the immense importance of Egypt in the maritime trade network of both the Mediterranean and the Indian Ocean. Ever since the advent of the Fatimid caliphate in 969 with its capital at Fustat (Old Cairo), Egypt or Masr emerged as the western terminus of the Indian Ocean maritime trade. Needless to say, Egypt's geography provided it with the crucial integration with the Mediterranean Sea too. There is a well-known and voluminous literature on the seemingly imperishable commercial linkages between Egypt and the Italian city states in the middle ages, especially during the Crusades. Without going into the details of this profusely documented history of Mediterranean commerce between the Italian cities and Egypt, it will suffice to say that Guillaume Adam was fully conscious of this trade. He categorically accuses the Christian merchants—the Catalans, Venetians, Pisans, and especially the Genoese—of systematically flouting all sanctions of the maritime blockade imposed by the Latin Christendom on trade with the Islamic ruler of Egypt. He also highlights the insatiable profit motive of these Italian merchants who, because of their love for gain, had hardly any fear of excommunication. Therefore, Guillaume strongly advocates the employment of a fleet in the Mediterranean to block all maritime trade with Egypt, so that the merchants could be prevented from supplying the Mameluk ruler with food, weapons and materials of all sorts.

The second part of his advice seeks to forbid all pilgrims to go to the Holy Land, as the Sultan was extracting substantial resources in the form of pilgrimage tax. His

third advice is to capture, if necessary, Constantinople and bring it under the control of Latin Christendom, because Constantinople had been, among other things, too friendly with the Sultan of Egypt and supplied Egypt with provisions and slaves. He further follows it up with the recommendation to reach an alliance with the Ilkhanid rulers of Persia, who (perhaps for having overthrown the Abbasid Caliphate in 1258) were perceived as willing collaborators of the Latin Christendom in the design to bring about the doom of the Mameluk Sultanate. The establishment of a 'see' at Sultanieh in Ilkhanid Persia in the early fourteenth century and the presence of Guillaume Adam there assume special significance in this context. The fifth and last part of his recommendations concerns the Indian Ocean scenario, located far away from the Mediterranean.⁹⁶ This last section is perhaps the most original and significant aspect of his advice, and has a direct bearing on the topic of our discussion. An elaborate statement and analysis will be in order here.

Unlike other Christian authors of similar propagandist literature directed against the Mameluk Sultan of Egypt, Guillaume very strongly argues that Egypt's commercial pre-eminence could not be curbed by merely policing the Mediterranean and the Genoese merchants in particular. He underlines the importance of the Indian Ocean trade as contributing to the prosperity and pre-eminence of Egypt and speaks of the shipping of many coveted commodities from India to Egypt, from where these were further exported to Italian cities, their preferred destination. According to him, everything that was sold in Egypt—pepper, ginger, spices, precious stones, silk and dyed cloth—came from India. Guillaume compared the export of Indian commodities to Egypt with the transfer of food from the head (*capita*; literally head, but actually meaning the mouth) to the throat (*guttur*), from where it reaches the stomach (*stomachum*), which provides nourishment to the whole body. He graphically compares the Indian Sea with the head/mouth (*mari Indico quasi a capite*). By *capite* or head, he seems to have actually implied mouth, through which food enters the human body. From the Indian Sea, the victuals of commerce, as it were, would then enter the Gulf of Eden, which to him functioned as the throat (*Gulfum Eden quasi per guttur*), and which facilitated the transportation of commodities to Egypt. Egypt, in its turn, carries the metaphor of *stomachum* (*Egiptum quasi in stomachum*) that helps nourish the entire body. He further proceeds to say that the head, that is, the Indian Sea, should be severed from the stomach or Egypt by interrupting or cutting off the maritime supply line—the throat-like Gulf of Eden. He then presents an image of a withering stomach unable to nourish other limbs. Thus decayed, Egypt's economy would be in ruins and its military superiority would logically collapse. That, in the argument of the Bishop, would be the opportune moment to strike Egypt with the final blow from the Latin Christendom.

This demonstration of the causality of the Indian Ocean commerce for the prosperity of Mameluk Egypt is an outstanding feature of the arguments of the propagandist author, emerging from his first-hand experiences in this part of the world. This is particularly borne out in his specific prescription of the way to cut off the *capita* from the *guttur*. The *capita* or the head/mouth, according to Adam, is the *Mari Indico*, an expression that had first surfaced in the *Naturalis Historia* of Pliny in late first century CE. This Indian Sea certainly refers to the Arabian Sea and has a close correspondence

with the *al bahr al Hindi* (the Sea of India) that figures frequently in the works of travel and geography by Muslim authors. The striking expression is of course the Gulf of Eden, the *guttur* in Adam's perception. Its role as a passage between the Indian Sea and Egypt makes the Gulf of Aden and/or the Red Sea (the *bahr al Qulzum* of thirteenth-century Arab texts) the ideal candidate for identification. The expression Gulf of Eden, based obviously on a slight but significant change of the name Aden—the premier port on the southern end of the Red Sea—is intended to provide a distinct Biblical hue to this famous port in the Islamic world. Our author proposes to impose a naval blockade on the ingress and egress into the port of Aden by maintaining a fleet of galleys at Socotra, an island 500 miles southeast of Aden and at a distance of 300 miles from al Mukalla, the principal port on the Hadhrami coast. The name Socotra is derived from the Sanskrit Dvipa Sukhadhara (Isle of the Abode of Bliss), clearly suggesting its commercial and cultural linkages with mainland South Asia.

That this island was incorporated in the maritime network between India and the eastern Mediterranean will be evident from the earliest reference to Socotra in the *Periplus of the Erythraean Sea* (c. late first century CE). Cosmas Indicopleustes suggests that by late sixth century CE, Nestorian Christians had reached and settled on this island. The importance of this island looms large in the celebrated fifteenth-century navigational manual of ibn Majid, who knew it as Suqutra. As it was impossible for the Papal authority to ensure a direct blockade of Egyptian ports like Alexandria, Qus or Aidhab by controlling the northern part of the Red Sea, the author suggests an alternative means of blockading the outstanding port, Aden, and an entry point in the southern extreme of the same sea-lane, that is, the island of Socotra. He therefore presents Socotra as a choke point. The blockade would be exercised by bringing a fleet of galleys from Hormuz, the premier port at the opening of the Persian Gulf; Hormuz, therefore, would emerge as another choke point in his scheme. With this end in view, Guillaume Adam strongly advocates an alliance between Latin Christendom and Ilkhanid Persia, based on his assumption that Mameluk Egypt would be the common enemy for both. Did he favour Socotra as the area of blockade because it had a Christian population in a predominantly Islamic world?

Guillaume Adam also spoke of three Indian ports, all on the western seaboard of India. These are Collam, Tana and Cambayet. The first is undoubtedly Quilon in present-day Kerala (southwestern India), repeatedly figuring in Arab accounts and the Jewish documentary *genizah* as Kulam Mali. Mali signifies Malibar or Malabar, the name of the coastal strip of Kerala. Tana can easily be identified with Srasthanaka or Thana, a suburb of and to the north of present Mumbai. Cambayet is undoubtedly the same as the great port of Cambay (Stambhatirtha in Indian sources) in Gujarat. Cambay's strength lay in its commanding a very rich agricultural hinterland in Gujarat, and also in possessing an extensive foreland. Adam also speaks of '*dive insulide*', which could denote the Maldivian islands, figuring prominently in the fifteenth-century navigational manual of ibn Majid. An alternative identification may also be sought in Diu in Gujarat (the name derived from Sanskrit Dvipa or island), which rose to great prominence under the Portuguese. Interestingly enough, a shipping network between al Div or Diu and Aden is recorded in a Jewish business letter of the twelfth century. One tends therefore to identify '*dive insulide*' with Diu on the Gujarat coast.

First, Adam strikes us with his singular clarity and certitude about premier Indian ports on the western seaboard of India, something unmatched in any contemporary Christian literature. This is obviously due to his received information during the course of his travels in the western Indian Ocean. Second, his choice of Indian ports is impeccable as the four Indian ports in his accounts were particularly noted for sustained commercial linkages, both with the Red Sea port of Aden and the Persian Gulf port of Hormuz. This was a crucial matter, as Adam was proposing to blockade the shipping of Indian commodities through Aden, with which these ports maintained a thriving maritime commerce. Adam's idea was that the blockade would force a diversion of India's maritime commerce, oriented towards Aden and the Red Sea, to Hormuz in Persia. This would result in the revival of maritime commerce through the Persian Gulf, but more importantly, ensure the importation of coveted Indian commodities to the eastern Mediterranean through Ilkhanid Iran and the Levant. In other words, Adam saw it as a viable alternative conduit to the Red Sea passage dominated by Mameluk Egypt, which would suffer serious impoverishment, eventually contributing to its military/political decay. The third significant point is that Adam never confused India with Ethiopia—a common error of perception of many Christian authors looking for Prester John.

The vision and plan of a naval blockade to cut off Indian commerce with Egypt via the Red Sea combines the Christian aspiration for a renewed Crusade against the Mameluks with a rare understanding of the Indian Ocean maritime commerce. In spite of the novelty of his ideas, this was never put to practice, and remained a blueprint. The project of forming a strong alliance between Latin Christendom and the Ilkhanid empire in Persia did not materialize. It raises, on the other hand, a more fundamental question regarding the perception of the Indian Ocean situation in the attitude of a Bishop from the Mediterranean world. The Mediterranean Sea is not merely a theatre of commerce, but has a long tradition of being considered a maritime space which, like the landmass, could be brought under the politico-military superiority of a power or powers. It is in the fitness of things that the Romans called the Mediterranean *mare nostrum*, our sea. The sea in the Mediterranean tradition and outlook was an arena fit for exercising military power with a view to establishing political mastery over the sea. The Fatimid and Mameluk realms in Egypt, like the Byzantine empire and the Ottoman empire of subsequent centuries, maintained their respective naval fleets in the Mediterranean, especially the eastern Mediterranean.

In sharp contrast to this, the Indian Ocean offers rare instances of a major political power maintaining a regular navy to establish its maritime superiority over the Ocean, or parts thereof. Major political masters of the countries of the Indian Ocean region viewed the vast landmass of South Asia, West Asia, Central and East Asia as an arena fit for campaign, conquest and political expansion. The Indian Ocean was almost never seen by these political authorities as a political theatre over which control and power needed to be exercised and demonstrated. The Indian Ocean was an arena for merchants, sailors, pirates and fisher-folk, but not for rulers. It was only during the days of the mighty Chola rulers (c. 985–1120 CE) that one encounters the distinct Chola political orientation towards the Bay of Bengal. In 1134 or 1136 the

rapacious ruler of Kish, an island kingdom in the Persian Gulf, launched a naval campaign against Aden with *burmas* (large pot-like round-hull ships), *shaffaras* (smaller but faster ships) and *jashujiyats* (small vessels meant for actual raiding). A Jewish merchant wrote a letter to inform another Jewish merchant settled in al Manjrur in Mangalore of this event. The business letter leaves no room for doubt that the raid met with little success; it hardly affected the thriving commerce of Aden, although Ramisht, a fabulously rich ship-owner from Siraf (in the Persian Gulf), lost two ships during those troubled times. There are some indications that the local rulers of Aden, according to Ibn al-Mujawir (d. 1291), maintained *sawani* type of vessels to protect the visiting mercantile marine from pirates. These could have been vessels meant to ward off pirates in the area around Aden, but can hardly be considered to form a regular navy. One of Bishop Adam's illustrious contemporaries, ibn Battuta, also speaks of the occasional use of vessels by a port authority for punitive actions against pirates in the western Indian Ocean. These vessels, in his account, belonged to the class of *jafn/ajfan/jifan/jufun* and *ukayri*; he used these terms indiscriminately to denote both merchant marines and combat vessels. He seems to suggest that there were no specific ships constructed for fighting in the Western Indian Ocean. Also conspicuous by its absence in his account is the *ghurab* type of vessels, which were typical war galleys active in the Mediterranean, reported by ibn Mammati (1209) and al Makrizi (1441). In his voluminous manual of shipping and navigation in the Indian Ocean, ibn Majid stresses on *siyasat* (manner of sailing the ship) and *isharat* (signs like aquatic life, waves, currents, sky and constellation, certain landmarks) for a safe and successful voyage, which should have been prompted by profit or gain (*faida*). But nowhere in the text does the author prescribe the nautical technology for sea battles, nor view the maritime space as an arena fit for establishing political power. The Indian Ocean world had neither the ideological platform nor the war machinery that could render the Bishop's blueprint of a naval blockade of the Red Sea trade through Socotra and Aden in the early fourteenth century into a practicable application.

The Indian Ocean experienced armed trade for the first time with the advent and rise of the Portuguese almost at the turn of the sixteenth century. The intense desire of the Portuguese crown to thwart Egypt's trade with the Red Sea and ultimately South Asia for the monopoly over the spice trade is well-known. By 1510, the Portuguese did capture Hormuz, the ideal chokepoint in the Persian Gulf, but never managed to capture and control Calicut in Malabar and Aden. On 6 March 1506 Conquistador Afonso de Albuquerque ordered captain Tristan da Cunha to capture Socotra. Socotra was duly captured. For the Portuguese, it was meant to be of vital consequence as they viewed Socotra as the ideal point at which to establish a blockade of the Red Sea on the one hand to prevent shipping from Calicut to Aden, and to oppose the Egyptian-Venetian naval confederacy in the Red Sea on the other. Although the Portuguese could not capture Aden, they did proceed to capture Hormuz and Oman in the Persian Gulf after conquering Socotra. The Bishop's blueprint was nearly realized by the Portuguese after almost two centuries had elapsed. In this way, the fourteenth-century tractate offers a pre-history (at least at a conceptual level) of European designs of armed trade, commercial and colonial expansion in the Indian Ocean from the sixteenth century

onwards. This involved, in other words, attempts to destroy the freedom of merchants through violence unleashed by the state on the sea. The Portuguese, Dutch, French and English merchants arrived in the Indian Ocean scenario in the post-1500 phase, initially for the lure of profit from trade in spices and textiles, which they sought to import to Europe from the Indian Ocean countries. On the other hand, the principal export of pre-industrial Europe to the world—including the Indian Ocean world—was violence, as Ashin Das Gupta, Niels Steensgaard and Om Prakash effectively demonstrate.⁹⁷ It is possibly on this ground that 1500 CE is considered a watershed in the history of the Indian Ocean, marking the beginning of the early modern period which lasted until 1800, the period that has so far attracted the maximum attention of Indian Ocean historians.

NOTES AND REFERENCES

1. Critiquing the hackneyed, if not the outlived, perspective of historical analysis from the premise of the nation-state, Jerry H. Bentley, 1999, 'Sea and Ocean Basins as Frameworks for Historical Analysis', *Geographical Review*, 89 (2), pp. 215–24, strongly favours the approaches transcending the boundaries of nation-states, and therefore urges one to take up both the temporal and spatial boundaries of various oceans and seas. In this thought-provoking essay, Bentley admits that ocean basins may not provide absolute or definitive categories for historical analyses, but will nevertheless be useful in bringing the process of commercial, biological and cultural exchanges in better visibility. His main thrust is on the Atlantic and the Pacific Oceans, although the Indian Ocean too has occasionally figured in his essay. I am thankful to Digvijay Kumar Singh for drawing my attention to this essay.
2. Christer Westerdahl, 1994, 'Maritime Cultures and Ship Types: Brief Comments on the Significance of Maritime Archaeology', *The International Journal of Nautical Archaeology*, 23 (4), pp. 265–70.
3. A.H.J. Prins, 1965, *Sailing from Lamu: A Study of Maritime Culture in Islamic East Africa*, Assen, p. 3.
4. Frank Broeze (ed.), 1989, *Brides of the Sea*, Honolulu, p. 8.
5. Romila Thapar, 2002, 'The Great Eastern Trade, Other Places and Other Times', Vasant J. Sheth Memorial Lecture, Mumbai, p. 2.
6. Charles Verlinden, 1987, 'The Indian Ocean: Ancient Period and the Middle Ages', in Satish Chandra (ed.), *The Indian Ocean: Explorations in History, Commerce and Politics*, New Delhi, p. 27.
7. M.N. Pearson, 2004, *The Indian Ocean*, New York.
8. For a study of the references to *samudra*, see A.A. McDonnell and A.B. Keith, 1974, *The Vedic Index of Names and Subjects*, II, New Delhi. In recent times, many self-styled experts on Vedic texts who, however, do not possess the required linguistic mastery and critical acumen, and several archaeologists have been harping on the Rigvedic description of vessels with 100 oars (*sataritra nau*). These scholars are convinced that such poetic accounts speak of actual ships of immense size, and thereby argue for regular seafaring in Vedic times. They have maintained a convenient silence on the commonsense issue of locating at least one port that would have been large enough to have accommodated a ship with 100 oars in Vedic times. Archaeologists who have taken this Rigvedic description literally have also not come up with the archaeological remains of a port which such a large watercraft could visit.
9. Lionel Casson (ed. and trans.), 1989, *Periplus Maris Erythraei* (hereinafter *PME*), Princeton; G.W.B. Huntingford (trans.), 1988, *The Periplus of the Erythraean Sea*, London.

10. Pliny, *Naturalis Historia*, trans. H. Rackham, Loeb Classical Series, Cambridge (Mass.), 1942; the quotation is on p. 381. I am grateful to Professor B.N. Mukherjee for having drawn my attention to this passage.
11. Claudius Ptolemy, *Geographike Huphegesis*, trans. E.L. Stevenson, New York, 1932
12. For an explanation of *al bahr al Hindi* and *bahr Larvi*, see the famous treatise on geography, *Hudud al Alam*, written by an anonymous author in c. 982 CE; trans. H. Minorsky, London, 1937.
13. J.C. Jain, 1974, *Life in Ancient India as Depicted in Jaina Canonical Texts and Commentaries*, Delhi. Two Jaina merchants, Vastupala and Jagadu, are known from their life stories. See B.J. Sandesara, 1953, *The Literary Circle of Mahamatya Vastupala*, Bombay; G. Buhler (ed.), 1892, *Jagaducarita of Sarvananda*, Wien.
14. The *Arthasastra* considers merchants to be as dangerous as thorns (*kantaka*) and who needed purification (*sodhana*, actually implying suppression); in other words, a very suspect element. These measures are prescribed in the section on *Kantakasodhana* (*Kautiliya Arthasastra*, ed. and trans. R.P. Kangle in three parts, Bombay, 1966–72), which lays down criminal laws (IV.2). The same text, however, while discussing the functions of the Director of Trade (*Panyadhyaksha*, II. 12), welcomes the arrival of non-indigenous merchants. In Brahmanical orthodox treatises, the merchant is described as one who is simultaneously engaged in truth and falsity (*satyanrita*).
15. J.W. McCrindle, 1921, *Ancient India as Described by Megasthenes and Arrian*, Calcutta, 1921.
16. These contemporaries are explicitly mentioned in the Rock Edict XIII of Asoka; his Rock Edict II also mentions, without naming these five kings, that Asoka sent Dhamma missions to *yavana* kings. For a translation, see R.G. Basak, 1959, *Asokan Edicts*, Calcutta, 1959.
17. McCrindle, *Megasthenes and Arrian*, pp. 53–54.
18. KAS, II.28 for the *Navadhyaksha*.
19. KAS, II.28.13.
20. KAS, II.28.13.
21. L. Bulnois, 1966, *The Silk Road*, London, p. 60.
22. Strabo, *Geographikon* (XVI.4.24), trans. H.L. Jones, London and Cambridge, Mass., Loeb Classical Series, 1942. Strabo was aware of the importance of the road connecting Petra with the Red Sea port of Leuke Kome, although by this time Myos Hormos had already outshone Leuke Kome.
23. The prominence of Marcus Ulpius as a Palmyrene caravan merchant is illuminated through as many as 10 inscriptions referring to him. See *Corpus Inscriptionum Semiticarum*, II, Paris, 1926, p. 76, inscription nos 86–90, p. 107; Vol. III, p. 30, inscription nos 8–9. The English translations of the two inscriptions cited above are taken from Young, *Rome's Eastern Trade*, pp. 142, 153. Such a leader of caravan merchants closely corresponds to the *sarthavahas*, who figure prominently in the near contemporary Buddhist texts and many donative records in India.
24. Garry K. Young, 2001, *Rome's Eastern Trade*, London; also see R. Stoneman, *Palmyra and Its Empire*, Fig. 17, for the sculpture of a Palmyrene merchant with a ship.
25. Strabo, *Geographikon*, II.5.12.
26. Pliny, *Naturalis Historia*, VI.26.104, trans. H. Rackham, London and Cambridge (Mass.), Loeb Classical Series, 1942. He was also the first classical author to coin the term *mari Indicum* (or the Indian Ocean, p. 381). A masterly study by Casson shows that ships could have reached Muziris in the Malabar littoral from Ocelis in as little as 20 days, instead of Pliny's calculation of 40 days. The ships would start their return journey to the Red Sea ports with the onset of the northeast monsoon from late October to early November. Lionel Casson, 1992, 'Ancient Naval Technology and the Route to India', in Vimala Begley and Richard Daniel de Puma (eds), *Rome and India: The Ancient Sea Trade*, New Delhi, pp. 8–11.
27. Pliny, *Naturalis Historia*, p. 96.
28. Lionel Casson, 2001, 'New Lights on Maritime Loans: P. Vindob G. 40826', in Ranabir Chakravarti (ed.), *Trade in Early India*, New Delhi.

29. E.H. Warmington, 1974, *Commerce Between the Roman Empire and India*, London, p. 1.
30. A. Fuks, 1951, 'Notes on the Archives of Nikanor', *Journal of Juristic Papyrology*, V, pp. 207–16; also see Viktor A. Tcherikover and A. Fuks, 1960, *Corpus Papyrorum Judaicarum*, Cambridge (Mass.), pp. 197–200; ostraka nos 419 a–e.
31. Casson, *Periplus Maris Erythraei*, section 39.
32. Casson, *Periplus Maris Erythraei*, section 64.
33. Casson, *Periplus Maris Erythraei*, section 60.
34. B.N. Mukherjee, 1990, 'Kharoshti and Kharoshti-Brahmi Inscriptions from West Bengal, India', *Indian Museum Bulletin*, XXV; vide especially the catalogue of inscriptions prepared by Mukherjee and the accompanying photographs for an understanding of the figures of vessels represented in these inscribed seals and sealings.
35. Casson, *Periplus Maris Erythraei*, section 60.
36. *Periplus Maris Erythraei*, section 60; also see the commentary on this passage by L. Casson.
37. Muziris, figuring in the *Sangam* literature as Muchiri or Muchiripattanam, is often identified with Cranganore/Kodugannalur in Kerala. However, recent excavations at Pattanam, not far away from Cranganore/Kodugannalur, strongly suggest that Pattanam should be identified with Muziris. Pattanam has yielded—among other materials—sherds of Roman pottery, for the first time from Kerala.
38. Grant Parker, 2001, 'Ex Oriente Luxuria', *Journal of the Economic and Social History of the Orient*, XLIII, p. 75.
39. Parker, 'Ex Oriente Luxuria', p. 75. He also points out that Pliny's statistics could have been suspect because he was probably using them to 'reinforce points motivated by concerns with morality' (p. 78).
40. Casson, *Periplus Maris Erythraei*, section 45.
41. Casson, *Periplus Maris Erythraei*, section 51.
42. *Chachnama* of Kuli Ibn Hamid, trn. by Mirza Kalichbeg Fredunbeg, Karachi, 1900-02; the text is generally dated to the thirteenth century.
43. Vimala Begley and Richard Daniel de Puma (eds), *Rome and India: The Ancient Sea Trade*, Delhi.
44. The record was first edited by D.C. Sircar, 1955, 'The Charter of Vishnushena, AD 592', *Epigraphia Indica* (hereinafter *EI*), XXX, pp. 163–81; D.D. Kosambi offered new interpretations of the record in 'Indian Feudal Trade Charters', *Journal of the Economic and Social History of the Orient*, II, 1958; subsequently incorporated in Ranabir Chakravarti (ed.), *Trade in Early India*, New Delhi, pp. 244–56.
45. R.N. Mehta and A.M. Thakkar first translated the inscription, 1978, *The MS University Copper Plates of the Time of Toramana*, Vadodara; a fresh editing and translation was done by K.V. Ramesh, 1986, 'The Three Early Charters from Sanjeli in Gujarat', *EI*, XL, pp. 175–86.
46. For Kalliena and Sibor, see Cosmas Indicopleustes, *Christian Topography*, trans. J.W. McCrindle, 1898, London, pp. 160–62.
47. S.D. Goitein, 1967–93, *A Mediterranean Society*, 6 vols (especially relevant here is the first volume on economic foundation), Berkeley and Los Angeles.
48. My attention was drawn to Ibn al-Mujawir's account by Roxani Elleni Margriti of Emory University. I am most grateful to her for having allowed me to use her unpublished Ph.D. dissertation, 'Like the Place of Congregation on the Judgement Day: Maritime Trade and Urban Civilization in Medieval Aden (AD1083–1229)'.
49. David Whitehouse, 1970, 'Siraf: A Medieval Port on the Persian Gulf', *World Archaeology*, II, pp. 141–58.
50. Cited by David Whitehouse, 1983, 'Maritime Trade in the Gulf: The Eleventh and Twelfth Centuries', *World Archaeology*, XIV, p. 328.
51. The translation of Tudela is cited by A.T. Wilson, 1959, *The Persian Gulf*, London, pp. 98–99.

52. On the importance of Qus and Aidhab in the Red Sea trade, see Goitein, *A Mediterranean Society*, I. In some letters of India traders, Aidhab figures as Adhab; this could be a spelling/scrabble error, but it could also be a play on the word, according to Goitein, to indicate the extremely inhospitable surroundings in the port.
53. Samuel Barrett Miles, 1993, 'Extract from an Arabic Work Relating to Aden (Ibn al Mugawir: *Tarih al Mustabsir*)', collected and reprinted by Fuat Sezgin, *Islamic Geography*, Vol. 92, Frankfurt, pp. 183–96.
54. G. Rex Smith, 1997, *Studies in the Medieval History of the Yemen and South Arabia*, Aldershot; see especially therein the essay, 'Have You Anything to Declare? Maritime Trade and Commerce in Ayyubid Aden: Practices and Taxes'.
55. Cited by Dionysius Albert Agius, 2002, 'Classifying Vessel-Types in Ibn Battuta's Rihala', in David Parkins and Ruth Barnes (eds), *Ships and the Development of Maritime Technology in the Indian Ocean*, London, p. 178.
56. Himanshu Prabha Ray, 1999, 'Preamble', in her *Archaeology of Seafaring, the Indian Ocean in the Ancient Period*, New Delhi, p. 16; Ray, 2002, 'Seafaring in Peninsular India in the Ancient Period', in Parkin and Barnes (eds), *Ships and Development of Maritime Technology*, p. 67; and Ray, 2003, *The Archaeology of Seafaring in Ancient South Asia*, Cambridge, p. 22. However, on p. 289 of *The Archaeology of Seafaring*, Ray takes a contradictory position by citing a Rashtrakuta inscription from northern Konkan narrating the conquest of chiefs of 'all harbours (*velakulas*)' in the neighbourhood of Sanjan, thus accepting the term *velakula* for a harbour.
57. *Lekhapaddhati*, ed. C.D. Dalal and G.K. Shrigondekar, Baroda, 1925; also see the recent English translation of the text by Pushpa Prasad, New Delhi, 2006.
58. S.D. Goitein, 1980, 'From Aden to India: Specimens of Correspondence of India Traders of the Twelfth Century', *Journal of the Economic and Social History of the Orient*, XXI, pp. 43–66; also included in Chakravarti (ed.), *Trade in Early India*.
59. G. Buhler, 1892, 'The Cintra Prasasti of Sarangadeva of AD 1287', *E I*, I, pp. 271–87.
60. Al Biruni, *Kitab ul Hind*, trans, E. Sachau, Vol. II, Ch. 58, p. 105.
61. The Sanskrit version of this inscription was first edited by E. Hultzsch, 1882, 'A Grant of Arjunadeva of Gujarat, dated AD 1264', *Indian Antiquary*, XI, pp. 241–45; the same was later studied by Sircar, 1983, *Select Inscriptions Bearing on Indian History and Civilization*, II, New Delhi, pp. 402–09. The Arabic version, shorter and synoptic, was edited by Z.A. Desai, 1961–62, 'Arabic Inscriptions of the Rajput Period from Gujarat', *EI, Arabic and Persian Supplement*, pp. 17–24. English translations of both versions are also extensively quoted in Niharranjan Ray, B.D. Chattopadhyaya, Ranabir Chakravarti and V.R. Mani, 2000, *A Sourcebook of Indian Civilization*, Hyderabad, pp. 644–48.
62. I am thankful to Dr Roxani Elleni Margariti of the Institute for Advanced Study, Princeton, for drawing my attention to the reference to Baribatan in a genizah letter.
63. See Amitav Ghosh, 1990, *In an Antique Land*, New Delhi, for a fascinating life-story of Abraham ben Yiju and his Indian slave agent, Bama.
64. See S.D. Goitein, 1973, *Letters of Medieval Jewish Traders*, Princeton, pp. 62–65, for this letter of 1145.
65. K.A. Nilakantha Sastri, 1939, *Foreign Notices of South India from Megasthenes to Ma huan*, Madras.
66. Among many such letters, a letter of 1139 (Goitein, *Letters*, pp. 185–92) is particularly interesting for information on the shipping of pepper from Malabar to Aden. Export of pepper also figures prominently in another letter of the twelfth century; see Goitein, 'From Aden to India: Specimens of Correspondence of India Traders', in Chakravarti (ed.), *Trade in Early India*.
67. Ibn Jubayr was impressed by the sight of profuse quantities of Indian pepper at Aydhhab: 'so numerous as to seem to our fancy to equal in quantity only the dust'; see the translation of Jubayr in R.J.C. Broadhurst, 1954 (trans.), *The Travels of Ibn Jubayr*, London, p. 61.

68. See, especially, S.D. Goitein, *Letters*, pp. 185–92, and ‘From Aden to India’, for the shipment of various types of Indian iron. Some of the letters also show the urgency of Jewish merchants to bring Indian iron to Aden as quickly as possible, as there was a steady demand for Indian iron at Aden and it fetched a good price.
69. Goitein, *Letters*, p. 190.
70. Smith, *Medieval History of the Yemen*, pp. 79–92.
71. Smith, *Medieval History of the Yemen*, pp. 132–33; Smith significantly suggests that the term *buhar* (equivalent to 300 *ratls*) was derived from the Sanskrit *bhara* (lit. weight), p. 136.
72. Goitein, *Letters*.
73. In this brief overview of exchangeable commodities, one clearly sees that a considerable amount was agrarian/plant products and/or manufactured items based on agrarian products. It is impossible to miss the sustained and close linkages between agrarian life and the non-agrarian sectors of the economy like textile-making and trade in agro-based commodities, including precious spices. One therefore finds it extremely difficult to comprehend the claim that ‘trade and exchanges are by no means by-products of agricultural expansion as is often accepted by historians, but are activities integral to all societies’ (Himanshu Prabha Ray, *Archaeology of Seafaring*, pp. 188–89).
74. R.H. Major, 1857, *India in the Fifteenth Century*, London.
75. S.D. Goitein, 1954, ‘Two Eye Witness Reports on the Invasion of Aden by Kais in the Twelfth Century’, *Bulletin of the School of Oriental and African Studies*, XVI, pp. 247–57.
76. A *kardal* (*kardar*) figures in a Jewish trade letter of the 1130s; Goitein, *Letters*, p. 193.
77. Procopius, quoted in Michael Flecker, 2001, ‘A Ninth Century AD Arab or Indian Shipwreck in Indonesia: First Evidence for Direct Trade with China’, *World Archaeology*, XXXII, pp. 335–54; quotation on p. 346.
78. Flecker, ‘A Ninth Century AD Arab or Indian Shipwreck’.
79. Goitein, *Letters*, p. 197.
80. Damodar, 1971, *Unniaticharitam*, M.G.S. Narayanan (trans.), Trivandrum, pp. 68–69.
81. This is not to suggest that there were no ship-owning merchants in India prior to AD 1000. Sanskrit texts, including the famous lexicon the *Amarakosa* of c. fifth–sixth century AD, spoke of the *potavanik*, in the sense of a merchant (*vanik*) owning a vessel (*pota*). However, the considerable prominence of ship-owning merchants in various sources, including inscriptions, from AD 1000 onwards is unmistakable.
82. Karashima (ed.), 2002, *Ancient and Medieval Commercial Activities in the Indian Ocean, Evidence of Inscriptions and Ceramic Sherds*, Tokyo, pp. 235–36, for the text and English summary of the inscription prepared by Y. Subbarayalu and P. Shanmugam. Also see N. Karashima, 2002, ‘Tamil Inscriptions in Southeast Asia and China’, in *Ancient and Medieval Commercial Activities*, pp. 23–24.
83. Goitein, *A Mediterranean Society*, I, p. 274.
84. Goitein, *Letters*, p. 193; S.M. Stern, 1967, ‘Ramisht of Siraf: A Merchant Millionaire of the Twelfth Century’, *Journal of the Royal Asiatic Society*, pp. 10–14.
85. Goitein, *Letters*, p. 63.
86. Z.A. Desai, 1957–58, ‘Inscriptions from the Prince of Wales Museum, Bombay’, *EI, Arabic and Persian Supplement*, pp. 12–13; and 1963, ‘Inscriptions of the Gujarat Sultanate’, *EI, Arabic and Persian Supplement*.
87. ‘A.L. Udovitch, 1977, ‘Formalism and Informalism in the Social and Economic Institutions of the Medieval Islamic World’, in A. Banani and S. Vryonis Jr. (eds), *Individualism and Conformity in Classical Islam*, Wiesbaden, pp. 61–71.
88. S.D. Goitein, *India Book* (unpublished), Ch. II, letter no. 2. My citations here are from the unpublished version. However, this has recently been published as S.D. Goitein and Mordechai A. Friedman, 2008, *India Traders of the Middle Ages: Documents from the Cairo Geniza India Book*, Leiden and Boston. After having sent my contribution to the editor, I have very recently come across the publication of the *India Book*. S.D. Goitein and Mordechai A. Friedman, 2008, *India*

Traders of the Middle Ages: Documents from the Cairo Geniza 'India Book' Leiden and Boston. This long-awaited book is of inestimable value for the researchers on the Indian Ocean maritime trade during the first half of the second millennium. I wish I could have used this work, but it would have hugely delayed the production of the book.

89. Goitein, *Letters*, pp. 183, 200.
90. Goitein, *India Book*, Ch. 5, letter no. 11. The mention of the wine-serving boy probably carries a hint of the homosexual tendencies of the merchant, although Goitein does not think so.
91. Goitein, *Letters*, pp. 220–26; quotation on p. 225.
92. Goitein, *Letters*, p. 64.
93. A.S. Atiya, 1938, *The Crusade in the Later Middle Ages*, London; Carole Hillebrand, 2000, *The Crusades: Islamic Perspectives*, London.
94. My most grateful thanks go to Professor Dietmar Rothermund, who first drew my attention to this tractate. I wish to record my indebtedness to Professor Avrom Udovitch of Princeton University and Professor Giles Constable of the Institute for Advanced Study, Princeton, for their valuable help in my study of this text. Professor Constable has been exceedingly generous in giving me a draft English translation of the Latin text. The text, *De Modo Sarracenos Extirpandi*, has been edited and translated into English by Giles Constable with annotations by Ranabir Chakravarti, Olivia Remie Constable, Tia Colbaba and Janet M. Martin. The work will be published in the Dumberton Oaks Medieval Humanities Series, Harvard University.
95. Edited with a long introduction by C. Kohler, 1906, *Recueil des Historiens des croisades, documents arméniens*, Vol. II, Paris, pp. 521–55.
96. *De Modo*, pp. 548–53.
97. Om Prakash, 1998, 'European Corporate Enterprises and the Politics of Trade in India 1600–1800', in Rudrangshu Mukherjee and Lakshmi Subramanian (eds), *Politics and Trade in the Indian Ocean World, Essays in Honour of Ashin Das Gupta*, New Delhi, pp. 165–82; Ashin Das Gupta, 2001, *The World of the Indian Ocean Merchants 1500–1800*, New Delhi.

BIBLIOGRAPHICAL NOTE

This bibliographical note presents a list of the works cited and used in the chapter along with comments on these works as and where necessary. The intention behind preparing this note is to present historiographical comments on the state of the subject. It does not refer to primary sources, which appear in the form of notes/references incorporated in the main text.

Scholarly interest in Indian Ocean history is of relatively recent origin and draws upon the conceptual categories and methodological tools established in the protracted historiography of the Mediterranean Sea and the Atlantic Ocean. This, however, does not imply that the Indian Ocean studies are Eurocentric; in fact, the historiography of Indian Ocean studies offers a strong critique to Eurocentricism. The maritime history of the Indian Ocean owes a profound epistemological debt to Fernand Braudel, 1972, *The Mediterranean and the Mediterranean World in the Age of Philip II*, trans. S. Reynolds, 2 vols, London, more for working out the Braudelian unity between the land and the sea than for applying the Braudelian ideas of structure, conjuncture, and the event. The Atlantic Ocean maritime history has a vast bibliography which cannot be discussed here. Pierre Chaunu's claim that the Atlantic Ocean has the longest history in terms of human interactions is available in *European Expansion in the Later Middle Ages*, trans. Katherine Bertram, Amsterdam, 1979; his position is countered in Ashin Das Gupta and M.N. Pearson (eds), 1987, *India and the Indian Ocean 1500–1800*, Calcutta, particularly Pearson's introduction therein. The European maritime scenario is further lit up by Charles King, 1994, *The Black Sea: A History*, New York. The point to note here is that European maritime history does not remain confined to the Mediterranean and the Atlantic, but highlights the maritime perspective of a region that mostly figures in history as the 'Eastern Question'. An influential methodological contribution comes in the form of history in the sea and history of the

sea from Peregrine Horden and Nicholas Purcell, 2000, *The Corrupting Sea, a Study of the Mediterranean History*, Oxford; also see a review article on the basis of this work: Edward Peters, 2003, 'Quid nobis cum pelago? The New Thalassology and the Economic History of Europe', *Journal of Interdisciplinary Studies*, XXXIV, pp. 49–61.

From the mid-1980s onward, broad overviews of the Indian Ocean maritime history have come up. Ashin Dasgupta and M.N. Pearson (eds), 1987, *India and the Indian Ocean 1500-1800*, Calcutta, and Satish Chandra (ed.), 1987, *The Indian Ocean: Explorations in History, Commerce and Politics*, New Delhi, deserve special mention. K.N. Chaudhuri's two famous works, *Trade and Civilization in the Indian Ocean from the Rise of Islam to 1750*, Cambridge, 1985, and *Asia before Europe*, Cambridge, 1990, attempt to apply the Braudel concepts of structure and conjuncture in the Indian Ocean context. Chaudhuri has, however, been criticized for virtually obliterating the African perspective from the long-term history of the Indian Ocean, as he emphasized the four civilizational matrices in Islamic West Asia and the Middle East, the Indic scenario, the Southeast Asian zone and China, especially the Sung and the Ming periods of the Chinese past. All these works had an understandable thrust on the three centuries from 1500 to 1800, although Chaudhuri engaged in a much longer chronological frame spanning the seventh to the seventeenth centuries. Just how much the Indian Ocean historiography has changed since the mid-1980s will be evident from Genevieve Buchon and Denys Lombard, 1987, 'India and the Indian Ocean in the Fifteenth Century', in Ashin Das Gupta and M.N. Pearson (eds), *India and the Indian Ocean 1500–1800*. The authors' cautious view in this essay was that it was not easy to write an overview of this subject for the fifteenth century, and with progress in research, one could hope to write the history of the Indian Ocean of the fourteenth and even the thirteenth century. Two recent overviews respectively by Kenneth McPherson (1994, *The Indian Ocean*, New Delhi) and M.N. Pearson (2003, *The Indian Ocean*, New York) take into account the very long range of the history of the Indian Ocean. Pearson particularly reminds us that the most studied phase, namely the 1500–1800 period, occupies only a small fragment of the history of the Indian Ocean, which spans over four and a half millennia.

Our principal survey begins with the period c. 600 BCE to 325 BCE. The seafaring traditions of this period have been situated in the material milieu of early historic India, which gained considerable visibility in the following works highlighting the advent of territorial polities, urban centres and money economy: R.S. Sharma, 1983, *Material Culture and Social Formation in Ancient India*, New Delhi; Romila Thapar, 1984, *From Lineage to State*, Bombay; 1995, 'North India in the First Millennium BC', in Romila Thapar (ed.), *Recent Perspectives of Early Indian History*, Bombay; and 2002, *Early India* (chapter 'States and Cities of the Indo-Gangetic Plains c. 600–300 BC'), London; and F.R. Allchin et al., 1995, *The Archaeology of Early Historic South Asia*, Cambridge. Explorations into the navigability of the Indus by Scylax on the eve of Darius I's conquest of the lower Indus valley figures in R.N. Frye, 1984, *The History of Ancient Iran*, Munchen; also Ranabir Chakravarti, 1986, *Warfare for Wealth: Early Indian Perspective*, Calcutta (particularly Ch. III). For the extensive contacts of the Maurya empire beyond the subcontinent (overland and sea-borne), see Romila Thapar, 1996, *Asoka and the Decline of the Mauryas*, New Delhi (second edition). See Romila Thapar, 1987, 'Epigraphic Evidence and Some Indo-Hellenistic Contacts During the Maurya Period', in S.K. Maity and Upendra Thakur (eds), *Indological Studies, Professor D.C. Sircar Commemoration Volume*, Delhi, pp. 15–19, for how these rulers maintained diplomatic linkages through dynastic marriages; J. F. Salles, 1996, 'Hellenistic Seafaring in the Indian Ocean: An archaeological Perspective from Arabia', in Himanshu Prabha Ray and J.F. Salles (eds), *Tradition and Archaeology: Contacts in the Indian Ocean*, New Delhi; Marie-Francoise Boussac and J.F. Salles (eds), 2005, *A Gateway from the Eastern Mediterranean to India: The Red Sea in Antiquity*, New Delhi and Lyon, especially S.M. Burstein, 'Ivory and Ptolemaic Explorations in the Red Sea: The Missing Factor', pp. 149–57, therein. For a review by Ranabir Chakravarti, see *Studies in History*, 23 (1), 2007, pp. 162–64; Osmund Boppearachchi, 1996, 'Seafaring in the Indian Ocean: Archaeological Evidence from Sri Lanka', in Ray and Salles (eds), *Tradition and Archaeology*.

The far-flung commercial and cultural contacts of the subcontinent during the period c. 200 BCE to 300 CE have received sustained scholarly attention, with a thrust on the study of the trade between India and the Roman empire (especially the eastern Mediterranean). One cannot lose sight of the fact that the burgeoning Indian Ocean commerce during this period would not have materialized but for the integration of the sea routes with overland communications, especially the Silk Road network. There is a voluminous literature on the Silk Road trade. Only a few recent and outstanding works are mentioned here: M.G. Raschke, 1978, 'New Studies in the Roman Commerce with the East', in *Aufstieg und Niedergang in der Römischen Welt*, 9, Berlin, pp. 604–1361; Xin Ri Liu, 1986, *Ancient India and Ancient China AD 1-600*, New Delhi; A.G. Frank, 1992, 'The Centrality of Central Asia', *Studies in History*, VIII, pp. 43–98; R.N. Frye and Boris Litvinsky, 1996, 'The Oasis States of Central Asia', in *History of Humanity*, 3, pp. 461–64; Irene M. Frank and David M. Brownstone, 1986, *The Silk Road: A History*, New York and Oxford; *Cambridge History of Iran*, III (chapter on economic history); Garry K. Young, 2001, *Rome's Eastern Trade, International Commerce and Imperial Policy 31 BC-AD 305*, London and New York; Richard Stoneman, 1992, *Palmyra and its Empire*, Ann Arbor; G.W. Bowersock, 1983, *Roman Arabia*, Cambridge (Mass.). For a historiographical overview with an orientation to South Asia, see Ranabir Chakravarti (ed.), 2005, *Trade in Early India* (especially Introduction and the Annotated Bibliography), New Delhi (paperback edition). The significance of the northern part of Kashmir in providing connections with the southern Silk Road and thereby offering a short-cut, albeit a hazardous one, to South Asia, is illustrated by the archaeological records in the Karakorum Highway. See Karl Jettmar (ed.), 1989, *Antiquities from Northern Pakistan*, I, in two parts, Munchen; also A.H. Dani, 1988, *Chilas, a City of the Nanga Parvat*, Islamabad.

The historiography of the Roman trade with India shows a sustained tendency to study the subject in the light of Greek and Latin texts, most notably the *Periplus Maris Erythraei*, Strabo's *Geographikon*, Pliny's *Naturalis Historia*, Ptolemy's *Geographike Huphegesis*, and, to some extent, the evidence provided by the availability of Roman coins in the subcontinent. Classic examples of such studies are E.H. Warmington, 1928, *Commerce between the Roman Empire and India*, London; and Mortimer Wheeler, 1954, *Rome beyond the Imperial Frontiers*, London. Wheeler's excavations at Arikamedu, (1948, 'Arikamedu: An Indo-Roman Trading Station in the East Coast of India', *Ancient India*, II) gave a distinct archaeological turn to the essentially text-based studies. From the 1990s, field archaeological materials become increasingly available, and the indispensability of field archaeological materials was firmly established. See various essays in Vimala Begley and Richard Daniel de Puma (eds), 1992, *Rome and India: The Ancient Sea Trade*, New Delhi; also J.F. Salles (ed.), 1995, *Athens, Aden, Arikamedu*, New Delhi. How the archaeological perspective from the Red Sea area enriches the understanding of this trade looms large in Steven G. Sidebotham, 1992, 'Ports of the Red Sea and the Arabia-India Trade', in Begley and de Puma (eds), *Rome and India*, pp. 12–38; and 2005, 'An Overview of Archaeological Work in the Eastern Desert and along the Red Sea Coast by the University of Delaware-Leiden University 1987–1995', in Mary Boussac and J.F. Salles (eds), *A Gateway from the Eastern Mediterranean to India*, New Delhi. Of considerable significance is the overview of the archaeological evidence from the Red Sea port at Berenike in W.Z. Wendrich, R.S. Tomber, S.E. Sidebotham, J.A. Harrell, R.T.J. Cappers and R.S. Bagnall, 2003, 'Berenike Crossroads: The Integration of Information', *Journal of the Economic and Social History of the Orient*, XLVI, pp. 46–87; Berenike is also discussed in Mary Boussac and J.F. Salles (eds), *A Gateway from the Eastern Mediterranean to India*.

Contrary to the notion that Indians rarely journeyed across the sea, Richard Saloman, 1991, 'Indian Merchants in Egypt: Epigraphic Evidence', *JAOS*, demonstrates the presence of Indian merchants in Egypt during the days of the Roman trade with India. The Berenike excavations, cited above, have yielded potsherds with the Tamil name Chattan inscribed on them. One of the most crucial excavations has been at Pattanam, close to Cranganore (northern Kerala), now securely identified with the celebrated port of Muziris, figuring in the Classical accounts. See, in this context,

Rajan Gurukkal and C.R. Whittaker, 2001, 'In Search of Muziris', *Journal of Roman Archaeology*, 14, pp. 335–50. A recent statement on the archaeological perspective of Roman trade with India is available in Sunil Gupta, 2005, 'A Historiographical Survey of Indo-Roman Sea Trade and Indian Ocean Trade', *IHR*, XXXII, pp. 140–64. Lionel Casson, 1992, 'Ancient Naval Technology and the Route to India', in Vimala Begley and Richard Daniel de Puma (eds), *Rome and India: the Ancient Sea Trade*, pp. 8–11, shows how Muziris could be reached in about 20 days from Ocelis in the Red Sea. Muziris' premier position in the shipping network with the Red Sea ports stands on very firm ground in light of the famous Vienna papyrus, masterfully studied by Lionel Casson, 'New Lights on Maritime Loans: P Vindob G40896', in Chakravarti (ed.), *Trade in Early India*. Muziris' extensive contacts with ancient Tamilakam figures prominently in R. Champakalakshmi, 1996, *Trade, Ideology, Urbanization: South India 300 BC–AD 1300*, New Delhi. The importance of the maritime trade in nard through Muziris is the subject matter of Ranabir Chakravarti, 2006, 'On Board the Hermopollon: Transporting Gangetic Nard from Muziris', in Martin Brandtner and Shishir Kumar Panda (eds), *Interrogating History: Essays in Honour of Professor Hermann Kulke*, New Delhi, pp. 119–37. That the nard was also coveted by the Jewish population in the Roman world and West Asia figures in Brian Weinstein, 2000, 'Biblical Evidence of Spice Trade between India and the Land of Israel: A Historical Analysis', *IHR*, XXVII (1). How an incisive analysis of textual materials continues to be of great help in understanding the maritime linkages of India with the Roman world is well illustrated in Federico de Romanis, 1997, 'Rome and the Notia of India: Relations between Rome and Southern India from 30 BC to Flavian Period', in Federico de Romanis and A. Tchernia (eds), *Crossings, Early Mediterranean Contacts with India*, New Delhi, pp. 80–160; S. Mazzarino, 1997, 'On the Name of the Hipalus (Hippalus) Wind in Pliny', in Federico de Romanis and A. Tchernia (eds), *Crossings, Early Mediterranean Contacts with India*, New Delhi, pp. 72–79; Romila Thapar, 1992, 'The Black Gold: South Asia and Roman Maritime Trade', *South Asia*, XV, pp. 1–28. The mutual interdependence between ports on the west and the east coasts of India figures in R. Chamapakalakshmi, *Trade, Ideology and Urbanization*; and Vimala Begley, 'Ceramic Evidence of Pre-Periplus Trade on the Indian Coast', in Begley and de Puma (eds), *Rome and India*, pp. 157–96. V. Ghogte, 1997, 'The Chandraketurgarh-Tamluk Region of Bengal: Source of the Early Historic Rouletted Ware from India and South-east Asia', *Man and Environment*, XXII, pp. 69–85, argues that the Rouletted Ware was manufactured in the Bengal delta and then sent out from there to different coastal regions along the eastern seaboard. Frequent coastal networks along the eastern seaboard figures in Ranabir Chakravarti, 2007, *Trade and Traders in Early Indian Society*, New Delhi (second edition).

A reliable index of the continuity of maritime trade on the Gujarat coast (mainly with the Persian Gulf) during the 400–600 CE days is the Red Polished Ware, which figures prominently in Begley and De Puma (eds), *Rome and India*. The lively maritime tradition on the Gujarat coast becomes further visible from the large number of seals that have been unearthed at the recently excavated site of Hatab (ancient Hastakavapra under the Maitraka rulers of Valabhi; personal communications from Dr Krishnendu Ray). The circulation of silver currency in this area, first during the Kshatrapa rule and then during the Gupta period, is a marker of the commercial role played by the Gujarat coast. See P.L. Gupta, 1977, *The Imperial Guptas*, 2 vols, Varanasi. For the availability of Byzantine coins in India, see A.K. Jha (ed.), 1985, *Trade and Coinage*, Nashik. R.A.L.H. Gunawardana, 'Changing Patterns of Navigation in the Indian Ocean and Their Impacts on Pre-Colonial Sri Lanka', in Satish Chandra (ed.), *The Indian Ocean*, pp. 54–89, enlightens us on the growing importance of Sri Lanka in the maritime commerce of the western Indian Ocean, as well as in coastal trade with both coasts of India.

A major historiographical shift in the study of the 600–1500 period can be traced from the late 1980s. Trade, especially long-distance trade across the Indian Ocean, was rendered virtually invisible and relegated to a marginal position in the historiography of Indian feudalism. See R.S. Sharma, 1980, *Indian Feudalism*, New Delhi (2nd edn); 1987, *Urban Decay in India AD 300-1000*, New Delhi; and 2001, *Early Medieval Indian Society*, Kolkata; D.N. Jha (ed.), 2000, *The Feudal Order*, New Delhi; B.N.S. Yadava, 1974, *Society and Culture in North India in the Twelfth Century*, Allahabad. A sharp critique of this position is available in D.C. Sircar, 1982, *The Emperor and His Subordinate*

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For the brisk seafaring tradition in the Persian Gulf and the Red Sea networks, see G.F. Hourani, 1995, *Arab Seafaring in the Indian Ocean During the Ancient and Early Medieval Times*, revised and expanded by John Carswell, Princeton; A.T. Wilson, 1959, *The Persian Gulf*, London; Touraj Daryaee, 2003, 'The Persian Gulf Trade in Late Antiquity', *Journal of World History*, XIX, pp. 1–17. An archeological perspective of ports is available in David Whitehouse, 1970, 'Siraf: A Medieval Port on the Persian Gulf', *World Archaeology*, II, pp. 141–58; and 1983, 'Maritime Trade in the Gulf: The Eleventh and Twelfth Centuries', *World Archaeology*, XIV; David Whitehouse and Andrew Williamson, 1973, 'Sasanian Maritime Trade', *Iran*, XI, pp. 24–49; J.C. Wilkinson, 1977, 'Suhar (Sohar) in the Early Islamic Period: the Written Evidence', in M. Taddei (ed.), *South Asian Archaeology*, II, pp. 808 ff. The Red Sea network with the East African coast is discussed by M.D.D. Newitt in 'East Africa and the Indian Ocean Trade: 1500–1800', in Ashin Das Gupta and M.N. Pearson (eds), *India and the Indian Ocean*; G. Rex Smith, 1997, *Studies in the Medieval History of the Yemen and South Arabia*, Aldershot; R.B. Sergeant, 2000, 'Yemeni Merchants and Trade in Yemen', in Denys Lombard and Jean Aubin (eds), *Asian Merchants and Businessmen in the Indian Ocean and the China Sea*, New Delhi, pp. 53–78. The importance of Aden, both as a great port and as a major hub of the Jewish merchants sailing between Egypt and India, is discussed in S.D. Goitein, 1958, 'New Lights on the Beginning of Karimi Merchants', *JESHO*, I, pp. 175–84; 1964, *Studies in Islamic History and Institutions*, Leiden; and 1967–93, *A Mediterranean Society*, 6 vols, Berkeley and Los Angeles (especially Vol. I on the economic foundations). The importance of Jewish trade with India, especially maritime contacts, finds elaborate treatment in Ranabir Chakravarti, 2007, 'Reaching out to the Distant Shores: Indo-Judaic Trade Contacts up to AD 1300', in Nathan Katz, Ranabir Chakravarti, Braj M. Sinha and Shalva Weil (eds), *Indo-Judaic Studies in the Twenty First Century: A View from the Margins*, New York and Basingstoke, pp. 16–41.

For an understanding of the geographical factors in the making of early Indian ports, see Jean Deloche, 'Geographical Considerations in the Localization of Ancient Indian Ports', in Chakravarti (ed.), *Trade in Early India*. The general overview of India's maritime trade, including merchandise, ports, merchants and trade routes (700–1300 CE) is available in Lallanji Gopal, 1965, *Economic Condition in Northern India 750–1200*, New Delhi; Jean Deloche, 1994, *Transport and Communication in India Prior to Steam Navigation*, II, New Delhi; A. Appadurai, 1936, *Economic Condition in Southern India 1000–1500*, 2 vols (particularly Vol. II), Madras (this is very rich in empirical data). Maritime trade on the Gujarat coast is discussed in the empirically rich work by V.K. Jain, 1989, *Trade and Traders in Western India AD 1000–1300*, New Delhi; for the maritime scenario in the Konkan littorals, see Ranabir Chakravarti, 1986, 'Merchants of Konkan', *IJESHR*, XXIII, pp. 177–85; 'Monarchs, Merchants and a Matha in North Konkan (c. 900–1050)', in Chakravarti (ed.), *Trade in Early India*; and 1996, 'The Export of Sindani Indigo from India to the "West" in the Eleventh Century', *IHR*, 18, pp. 18–30. For the far south, especially for the understanding of the maritime orientation of mercantile groups, see Meera Abraham, 1988, *Two Medieval Merchant Guilds of South India*, New Delhi. The steady import of horses by ship to India figures in Simon Digby, 1971, *Warhorses and Elephants in the Delhi Sultanate*, Oxford; Ranabir Chakravarti, 1991, 'Horse Trade and Piracy at Tana (Thana, Maharashtra, India): Gleanings from Marco Polo', *JESHO*, 34, pp. 189–208; and 1999, 'Early Medieval Bengal and the Trade in Horses: A Note', *JESHO*, 42, pp. 194–211.

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Sanskrit Sources and the Muslims, New Delhi; Romila Thapar, 2004, *Somanatha, the Many Voices of a History*, New Delhi. Monique Kervan, 'Multiple Ports in the Mouths of the River Indus: Barbarike, Deb, Daybul, Lahori Bundar, Diul Sinde', in Himanshu Prabha Ray (ed.), *Archaeology of Seafaring*, pp. 70–153, enlightens us on the continuous importance of the Indus delta for the growth of ports and its contacts with the western Indian Ocean.

This chapter has drawn on the following readings for ship-building and navigational technologies: R.K. Mookerji, 1957 [1912], *Indian Shipping, a History of the Sea-borne Trade and Maritime Activity of the Indians from the Earliest Times*, Calcutta; Dionisius Albert Agius, 2002, 'Classifying Vessel-Types in Ibn Battuata's Rihala', in David Parkins and Ruth Barnes (eds), *Ships and the Development of Maritime Technology in the Indian Ocean*, London; Himanshu Prabha Ray, 'Seafaring in Peninsular India in the Ancient Period', in David Parkin and Ruth Barnes (eds), *Ships and Development of Maritime Technology*; and 2003, *The Archaeology of Seafaring in Ancient South Asia*, Cambridge; D. Schlingloff, 1988, *Studies in the Ajanta Paintings*, New Delhi, for a superb analysis of the textual data on ancient Indian shipping technology and its correspondence to the visual representations of ships in the Ajanta paintings; Jean Deloche, 1996, 'Iconographic Evidence on the Development of Boat and Ship Structures in India (c. second cent. BC–fifteenth cent. AD): A New Approach', in Himanshu Prabha Ray and J.F. Salles (eds), *Tradition and Archaeology, Early Maritime Contacts in the Indian Ocean*, New Delhi, pp. 199–224, for the gleaning of art-historical data in the understanding of traditional Indian ship-building technologies.

The Latin crusade tractate, used here as a primary source, is contextualized on the basis of the following readings: J. Abu-Lughod, 1989, *Before European Hegemony: The World System 1250–1350*, London; A.S. Atiya, 1938, *The Crusade in the Later Middle Ages*, London; and 1962, *Crusade, Commerce and Culture*, Bloomington; Norman Daniel, 1989, 'Crusade Proapaganda', in Harry W. Hazard and Norman P. Zacour (eds), *A History of the Crusades*, VI (General editor Kenneth M. Setton), Wisconsin, pp. 39–97; Brian Doe, 1992, *Socotra, Island of Tranquility* (with contributions from R.B. Sergeant, A. Radcliffe-Smith and K.M Guichard), London, pp. 21–24; Carol Hillebrand, 2000, *The Crusades: Islamic Perspectives*, New York; Elizabeth A. Zachariadou, 1983, *Trade and Crusade*, Venice. C. Beckingham, 1995, 'In Search of Prester John', in Felipe Fernandez Armesto (ed.), *The Global Opportunity* (Vol. II of *An Expanding World*), Ashgate, pp. 175–93, analysed this text, but mainly from the crusade point of view, and with relatively lesser attention to the novelty of the proposal of a blockade in the western Indian Ocean.