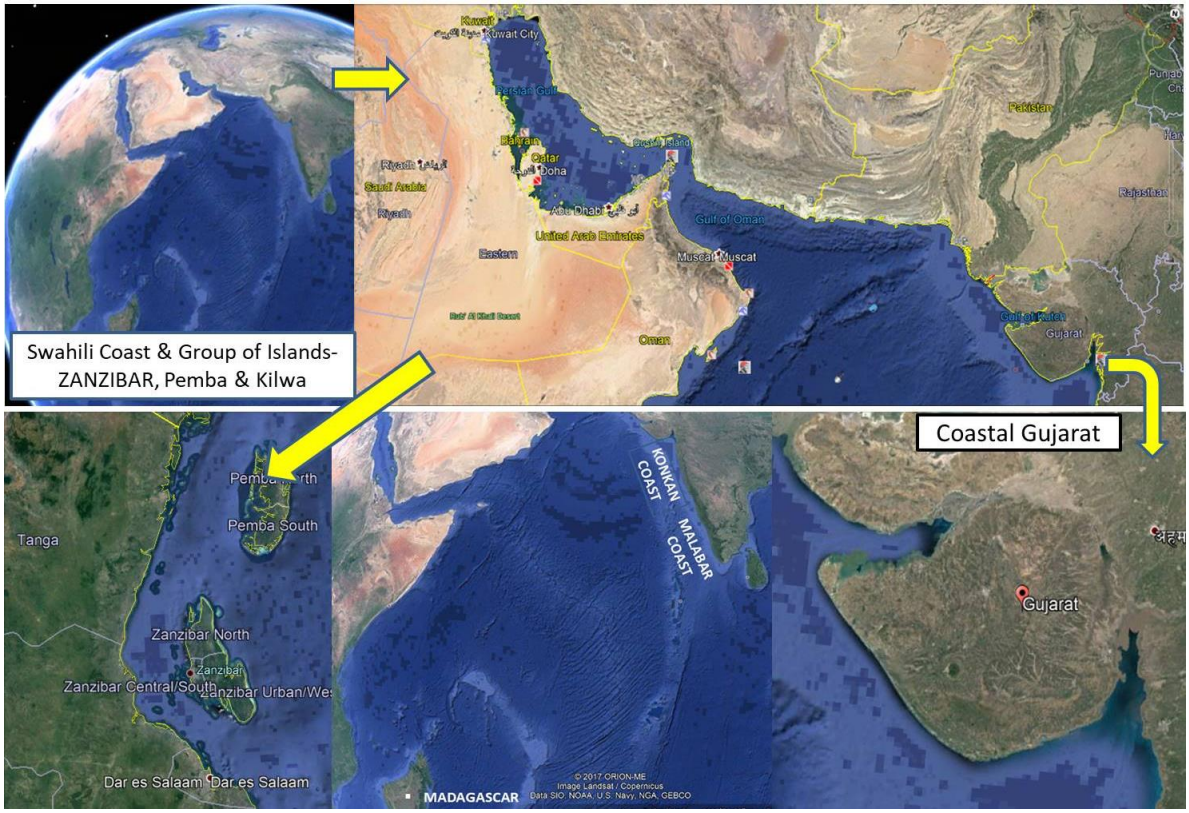
Chapter I

Western Indian Ocean and Its Setting

-Historiography
-Spatial and Temporal Parameters
-Monsoon & Navigation
-Trade Networks
-Seafaring Communities



A survey of the Indian Ocean Studies[1] suggests that the waters of the Indian Ocean have been traversed by variety of groups and individuals in the *longue durée* for variety of purposes. Historians, Geographers, Ethno-Historians and Anthropologists have studied Indian Ocean from political, economic, social and environmental perspectives intensely in time and space. Historiography of the Indian Ocean is rich and has largely been Eurocentric. It can be categorized as old and new (**my emphasis**). In the previous two decades young scholars have attempted new themes which surfaced in debates of the Indian Ocean scholars of the early generation which, however, remained empirically less explored. Today Indian Ocean studies have become increasingly an established subfield of the burgeoning fields of oceanic and global history. In this chapter, an attempt is made to review and

[1]Sinnapah Arasaratnam, "Recent Trends in the Historiography of the Indian Ocean, 1500 to 1800", *Journal of World History*, Vol. 1, No. 2 (Fall, 1990) pp. 225 -248; Erik Gilbert, "Coastal East Africa and the Western Indian Ocean Long-Distance Trade, Empire, Migration and Regional Unity, 1750-1970", *The History Teacher*, Vol. 36, No.1 (Nov. 2002), pp. 7-34; Sebastian R. Prange, "Scholars and the Sea: A Historiography of the Indian Ocean", *History Compass*, Vol. 6, No. 5, 2005, pp. 1382-1393; M. N. Pearson, "Littoral Society: The Concept and the Problems", *Journal of World History*, Vol. 17, No. 4, December, 2006, pp. 353-73 & Lecture on "Indian Ocean Studies: Problems & Possibilities", 11th December, 2012; Prof. S. C. Misra Seminar Hall, UGC DRS-I Department of History, MSU-Baroda (Audio Recording in Department of History Collection); Abdul Sheriff, "Maritime Culture and Globalization in the Indian Ocean" *ZIORI*, Indian Ocean Conference 15th-17th August 2008, pp. 3-26 (Monograph); Conor Reid, "Winds of Change on the Indian Ocean: the Historiography of the East India Company", *Craft of History*, Professor McGreevey Lecture, 11th December, 2013; Prasannan Pathasarathi & Giorgio Reillo, "The Indian Ocean in the Long Eighteenth Century", *Eighteenth-Century Studies*, Vol. 48, No. 1 (Fall, 2014), pp. 1-19; Lakshmi Subramanian, *The Sovereign and the Pirate Ordering Maritime Subjects in India's Western Littoral*, New Delhi, 2016, pp. 32-55 and Ranbir Chakravarti, "A Subcontinent in Enduring Ties with an Enclosed Ocean (1000-1500 C.E.): South Asia's Maritime Profile 'before European Hegemony' ", *Journal of Medieval Worlds*, Vol. I, Number 2, 2019, pp. 27-56.

comprehend these studies for the study period between c.1750 and c.1850 for Indian Ocean in general and its arms on the western side in particular in order to understand Western Indian Ocean (WIO) from geographical, navigational (seafaring skill) and networks' (trade and commerce) perspective.

Andre Wink[2] had attempted the historical geography of the Indian Ocean and made us comprehend the nature of connections between the mainland of Asia and Africa and between the arms of the Indian Ocean since antiquity between Mozambique Channel, Madagascar coast, Swahili coast, Horn of Africa, Red Sea, Gulf of Aden, Persian Gulf, Sind and Karachi coast, *Kachchhi* coast, Gulf of *Kachchh*, Saurashtra coast / *Kathiawad* peninsula, Gulf of Cambay, south Gujarat, Konkan & Malabar coast, coastal Sri Lanka, Gulf of Mannar, Coromandel coast, Bay of Bengal and western coast of South-East Asia by providing description of rivers and their tributaries, landscape, ports & mainland towns, island settlements and the maritime & adjoining mainland communities (Figure 1 & 2 Maps). Andre Wink emphasised in the interventions of rivers, river-plains, and deltas as these are the prominent feature of the entire geographic region on account of their extraordinary lengths. Alluvial river-plains and deltas provided the agricultural settings for the major Indian Ocean civilizations from early times. This provided Indian Ocean a highly differentiated but coherent

[2] Andre Wink, "From the Mediterranean to the Indian Ocean: Medieval History in Geographic Perspective", *CSSH*, Vol. 44, No. 3 (Jul., 2002), pp. 416-17 and *Al-Hind: The Making of the Indo-Islamic World*, Vol. 3, 2004, pp. 5-63.

political economy of exchange. The Indian Ocean was, for this reason, an area of environmentally disrupted human settlement, of 'lost' rivers, 'lost' civilizations, and 'lost' cities. The last section of the essay proposed that Indian Ocean cities were characteristically delicate, lacking in "continuity, and relatively undifferentiated from an overwhelmingly agrarian context". 'Labile r-urbanism' is another fact of historical geography that sets the Indian Ocean apart from the Mediterranean Sea and Europe. Therefore in case of Indian Ocean "ports and inland towns", either was of neither "a transmutative *deus ex machine"*, nor the privileged locus of advanced economic rationality.[3]

According to travellers [4] account, Indian Ocean waters remained frequented by merchants and traders,[5] seaborne raiders [pirates],[6] pilgrims[7], adventurers[8] and fishermen[9] as far as long and

[3]*ibid.,* p. 439.

[4]Mahdi Husain, (trans.), *The Rehla of Ibn Battuta(India, Maldives Islands and Ceylon),*1976, Preface, p.vii and H. A. R. Gibb (trans.), *Ibn Battuta: Travels in Asia and Africa 1325-1354*, reprint, 1992, p. 4; Henry E. J. Stanley (trans.), *Barbosa Duarte:A Description of the Coasts of East Africa and Malabar in the Beginning of Sixteenth Century*, 1995, pp. v-x; V. Ball and W. Crooke, (eds. & trans.), *Travels in India by Jean-Baptiste Tavernier*, Vol. I, 1977, pp. 1-52; Armando Cortesão, *The 'Suma Oriental' of Tomé Pires: An Account of the East, from Red Sea to China*, Vol. I reprint,1990, pp. 229-74 ; Manuel Komroff, *The Travels of Marco Polo*, 1953, pp. Introduction & 261-326; N. P. Gerald Randall Tibbetts, *Arab Navigation in the Indian Ocean Before the Coming of the Portuguese: Being a Translation of Kitāb Al-Fawāi̇d fī Usūl Al-Bahr Wa'l-Qawā'id of Ahmad B. Mājid Al-Najdī*, 1971, pp. 7-15; James Tod, *Travels in Western India: Embracing a Visit to the Sacred Mounts of the Jains and the Most Celebrated Shrines of the Hindu Faith between Rajpootana and the Indus*, 1839, pp. xvii-lx; and Alexander Burns, *Travels into Bokhara Being the Account of a Journey from India to Cabool, Tartary and Persia; Also Narrative of a Voyage on the Indus from the Sea to Lahore in Three Volumes*, Vol. I, 1834, pp. ix-xi.

[5]M. N. Pearson, *India Ocean*, 2003, p. 28; *Merchants and Rulers in Gujarat*, 1976, pp. 92-117 & K. N. Chaudhuri, *Trade and Civilisation in the Indian Ocean: An Economic History from the Rise of Islam to 1750*, 1985, pp. 98-111.

[6]Sebastian R. Prange, "A Trade of Dishonour: Piracy, Commerce, and Community in the Western Indian Ocean, Twelfth to Sixteenth Century", *The American Historical Review*,

short distance travel was concerned. Janet J. Edward[10] has also used the term for migrants as 'crossers of the sea' if they did not fall in the above mentioned categories as frequent travelers on sea and temporary settlers on coast and in hinterlands. It means that the hinterlands fulfilled the consumption and supply needs, port towns [*bandars* and *baras*] remained zone of 'central mobility' and 'passages' as mediums of transaction. Thus, in all ages of globalization Indian Ocean served as 'zone of encounters and contacts', traversed in all directions by the 'axes of circulation', remained centre for all types of exchanges and sensitive to the most diverse and distant influences, in other words the Indian Ocean have been more than many other oceans and seas, a 'privileged crossroad of culture'. It remained frequented by seafarers who could be merchants, sailors, Sufis, labour, slaves or independent individuals. For instance:

> Indian Ocean commerce was not confined to a single ethnic group. One group that played an active role was the Arabic-speaking Jewish community of Egypt, which served as an important intermediary in moving goods that originated in East and South Asia into the Mediterranean market. Those Jewish-Egyptian merchants who chose to deal directly with India sailed down the Red Sea, using Aden on the southern tip of Arabia as their midway point. From there they followed the trade winds to their Indian ports of call — usually the cities of the western coast. With luck, they returned home the next year, driven by the opposite trade winds. **At a minimum, the merchant was away**

Vol. 116, No. 5, 2011, p. 269; Patricia Risso, "Cross-Cultural Perceptions of Piracy: Maritime Violence in the Western Indian Ocean and Persian Gulf Region during a Long Eighteenth Century," *Journal of World History*, Vol. 12 (Fall, 2001), pp. 293-319; and Lakshmi Subramanian, *The Sovereign and The Pirate*, 2016, pp. 36-47.

[7]Uma Das Gupta, *The World of Indian Ocean Merchant: 1500-1800,* 2001, p. 34.

[8]M. N. Pearson, *Coastal Western India: Studies from the Portuguese Records,* 1981 p. 33.

[9]Alan Villiers, *The Indian Ocean,* 1952, p. 52 and M. N. Pearson, *India Ocean*, 2003, p. 30.

[10]Janet J. Edward, "Crossers of the Sea: Slaves, Freedmen, and other Migrants in the Northwestern Indian Ocean, c.1750-1914", *The American Historical Review*, Vol. 105, No.1 (Feb. 2000), p. 69.

from home for two years. Often circumstances could extend that absence for many more years.[11]

There were four Harbor Masters, each handled incoming and outgoing boats, collected duties, provided warehouses and landing docks for storage of goods and lodging for theiro wners.... One was concerned exclusively with ships coming from the Middle East, Persia, India and Ceylon, the second with ships from Sumatra and other points along the straits - the "local" trade. The third dealt with ships coming from the closer islands, such as Java, Borneo, and Makasser, and lf the final harbor master with traders from Siam, Cambodia, Brunei and China."

On port management-**Tome Pires in Abu-Lughod. 1989 p. 309**

Portuguese ships had guns that could sink enemy vessels at a distance of 100 yards or more.... [The Portuguese then seized] strategic points on land for the control of trade. The port of Goa on the western coast of India (captured in 1510) became their headquarters. Forts and naval stations at the mouth of the Persian Gulf (captured in 1515) and at Malacca (captured in 1511), made naval control of the whole Indian Ocean possible. **- William McNeill, 1973 p. 389**

This kingdom of Gujarat is very great and possess many town and cities both inland and seaport with much sea trade wherein dwell great merchant both Moor and Heathen… inlaid and turns articles bracelets, swords-hilts, dice, chessmen and chessboards for there are many skilful turners who make all these, also many ivory bedsteads very cunningly turned, beads of sundry kinds, black yellow blue and red and many other colours, which are carried hence to many other places. Here too are many workers in stones, and makers of false stones and pearls of diverse sorts which appear to be real; also very good goldsmiths who do very fine work. They also make here very beautiful quilts and testers of beds finely worked and painted, and quilted articles of dress.

Duarte Barbosa in Dames - 2002, pp. 108 & 142

K. N. Chaudhuri[12] has suggested three circuits of carring out trade and commerce, which are shown here in Illustration- I reflects upon 18th century Indian Ocean in world economic systems and various other intangible aspects of the dwellers along the coast and their connect with the inland regions and respective hinterlands:

[11] "Encounters and Exchanges in the Indian Ocean", letter from Geniza Documents. http://www.dentonisd.org/cms/lib/TX21000245/Centricity/Domain/999/Encounters%20and%20Exchanges%20in%20the%20Indian%20Ocean.doc

[12] K. N. Chaudhuri, *Trade and Civilisation in the Indian Ocean: An Economic History from the Rise of Islam to 1750,* 1985, p. 41.

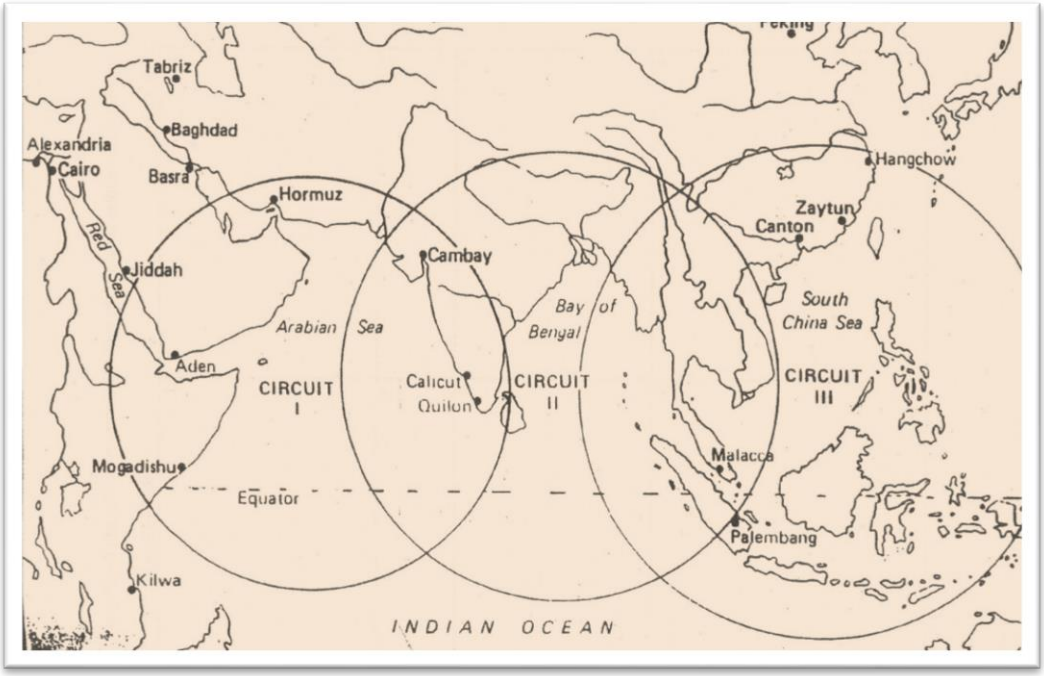


Illustration I[13]: Circuits of Trade

It must be noted that since antiquity Indian Ocean was primarily dominated by the Asians and African population before the advent of European Companies and enjoyed favourable mercantile economy. Asian hegemony remained unchallenged until 15th century in trade and commerce along with navigational skills, shipping technology and climate assessment acumen. K. M. Panikkar[14] opined that the Asians could monopolize trade and commerce because of rich hinterlands, commodity production techniques, knowledge on monsoon, invincible navigational skills and ship-building art. However, the presence of the Portuguese, the Dutch, the English and the French changed the trading pattern during the 16th and 17th centuries, constructed rivalry not only

[13]"Encounters and Exchanges in the Indian Ocean", Source:http://www.dentonisd.org/cms/lib/TX21000245/Centricity/Domain/999/Encounters%20and%20Exchanges%20in%20the%20Indian%20Ocean.doc

[14]K. M. Panikkar, *Asia Before Western Dominance: A Survey of the Vasco Da Gama Epoch of Asian History*, 1953, pp. 35-45.

among the Europeans but also led to occurrences of violence in waters and on land as frequent phenomenon extending in the 18th century for establishment of influences on ports, control of commodities and share in revenue on one hand and responses to all these from local potentates along the littorals on the other.

Charles Boxer[15] maps the trading pattern and underlines the zones of influence in both western and eastern sides of Indian Ocean waters where the process of cosmopolitanism remained activated as both Portuguese and Dutch recruited the mercenaries from Africa, Jews as pilots and Asian as sailors in their vessels. In fact the dynamism that evolved in Indian Ocean since 16th century can be coined as 'second globalization' as the European arrival and partnership of trade between the European companies and Indian merchants benefitted Oceanic trade and coastal regions remained charged with multifarious activities.

G. A. Ballard[16] documents the process of rivalry among the European Companies for establishment of trade monopoly and trajectory for expansion of territory under their control and influence. In this process one gets fare idea of morphology of Indian Ocean, networks that emerged under regional polities and their inter-connectedness (refer figures 3 to 12).

[15]Charles Boxer, *The Dutch Seaborne Empire 1600-1800*,1965, pp. 66-83 & *The Portuguese Seaborne Empire 1415-1825*, 1969, pp. Preface & Introduction.
Also refer FI Ribeiroda Silva, 2009, https://openaccess.leidenuniv.nl/bitstream/handle/1887/13867/Introduction_Ribeiro%20da%20Silva_PhD.pdf?sequence=10

[16]G. A. Ballard, *Ruler of the Indian Ocean*, 1984, pp. 39-58.

Based on mainly European sources scholars of the sea like K. N. Chaudhuri (1985)[17] Ashin Das Gupta & M. N. Pearson (1987)[18], Satish Chandra (1987)[19], M. N. Pearson (2003)[20], Om Prakash (2004)[21], Sugata Bose (2004)[22], Holden Furber (2004)[23], Kenneth McPherson (2004)[24], Edward Simpson (2006)[25], Thomas R. Metcalf (2007)[26], Pius Malekandathil (2010)[27], Yogesh Sharma (2010)[28], Chhaya Goswami (2011)[29], Clare Anderson (2012)[30], Rila Mukherjee (2013)[31], Abdul Sheriff (2014)[32], Gwyn Campbell (2016)[33], Hideaki Suzuki (2017)[34] and Sara Keller (2019)[35] further

[17]K. N. Chaudhuri, *Trade and Civilisation in the Indian Ocean: An Economic History from the Rise of Islam to 1750*, 1985, pp. 9-33.
[18]Ashin Das Gupta & M. N. Pearson, *India and Indian Ocean, 1500-1800*, 1987, pp. 1-20.
[19]Satish Chandra (ed.), *Indian Ocean Explorations in History, Commerce and Politics*, 1987, pp. 1-30.
[20]M. N. Pearson, *India Ocean*, 2003, pp. 19-36.
[21]Om Prakash, *Bullions for Goods: European and Indian Merchants in the Indian Ocean Trade, 1500-1800*, 2004, pp. 1-18.
[22]Sugata Bose, *Hundred Horizons: The Indian Ocean in the Age of Global Empire*, 2006, pp. 1- 35.
[23]Holden Furber, *Rivals Empire of the Orient 1600-1800*, 2004, pp. 1-30.
[24]Kenneth McPherson, *Indian Ocean: A People and Sea*, 2004, pp. 1-15.
[25]Edward Simpson, *Muslim Society and the Western Indian Ocean: The Seafarers of Kachchh*, 2006, pp. 1-18.
[26]Thomas R. Metcalf, *Imperial Connections: India and Indian Ocean Arena*, 1860 - 1920, 2007, pp. 16-45.
[27]Pius Malekandathil, *Maritime Indian: Trade, Religion and Polity in the Indian Ocean*, 2010, pp. 125-41.
[28] Yogesh Sharma, (ed.), *Coastal Histories: Society and Ecology in Pre-Modern India*, 2010, pp. xv-iiv.
[29]Chhaya Goswami, *The Call of the Sea: Kachchhi Traders in Muscat and Zanzibar, c.1800-1880*, 2011, pp. 1-10.
[30] Clare Anderson, *Subaltern Lives: Biographies of Colonialism in the Indian Ocean World, 1790-1920*, 2012, pp. 1-8.
[31]Rila Mukherjee, Ocean *Connect: Reflections on Water Worlds Across Time and Space*, 2013, pp.1-15.
[32]Abdul Sheriff & Engseng Ho (eds.), The *Indian Ocean: Oceanic Connections and the Creation of New Societies*, 2014, pp.1-8.
[33]Gwyn Campbell (ed.), *Early Exchange between Africa and the Wider Indian Ocean World*, 2016, pp. 1-18.
[34]Hideaki Suzuki, *Slave Trade Profiteers in the Western Indian Ocean: Suppression and Resistance in the Nineteenth Century*, 2017, pp. 1-20.

deepens this understanding by providing details on people living ashore in terms of time and space; their motives and movements, nature of exchange of goods, commercial acumen like banking & insurance, navigation expertise, understanding of ocean currents, climate, shipping technology, ecology, nomenclature of Indian Ocean, nature of Asian trade, reasons for maritime violence, partnership between Asian and European merchants, pattern of movement of indenture labour, laying foundation of new ports and trapping the new harbours for increased naval traffic, rules and regulations, agreements and treaties; all extracted and inferred on the basis of the primary sources available in Portuguese, Dutch, English and French languages from colonial archives respectively within established theoretical models of economy and sovereignty in world-systems.

Within Imperial History studies scholar on South Asia prefers to remain engaged with imperial and connected histories. For instance, Thomas Metcalfe's seminal study of the "imperial connections" delves on Indian Ocean in terms of understanding on military, policing and labour networks and unveils the 'sub-imperial' importance of British India and its resources.[36] Clare Anderson has presented the Indian Ocean as "a dynamic and porous space" in which individuals could construct networks of

[35]Sara Keller (ed.), *Knowledge and the Indian Ocean: Intangible Networks of Western India and Beyond*, 2019, pp. xiii-xxix.
[36]Thomas Metcalfe, *Imperial Connections*, 1860-1920, 2007 pp. Introduction & 16-45. See https://archive.org/stream/iB_in/3-4_djvu.txt

mobility and communication that crossed the borders of colonies and of the Dutch, French, British and Malagasy empires.[37]

Similarly, Sugata Bose's monograph on the Indian Ocean as an 'interregional space' of global interaction at the time when European imperial power was in its ascendency, uses both comparative and connected historical methods, and also draws on individual life-stories to illustrate the complexities of this period.[38] Although concerned with imperialism, Bose's work provides impression on Global history- like convergence of empires in Asia and historiographical possibilities for interaction between 'Imperial and Global' histories.

Beginning of 1990s evidenced scholarly work where the scholars attempted the studies about the arms of the Indian Ocean from variety of perspectives, which can be seen as move from macro to micro history writing. George F. Hourani (1995)[39] mapped the maritime routes, trading nodes, sailing vessels categories, geomorphology and methods for navigation during monsoon season from the Arab world to Africa and in South Asian peninsula. Roxani Eleni Margarati[40] highlighted the eminence of Aden by reconstructing its history based on *Geniza*[41] collection

[37]Clare Anderson, *Subaltern Lives: Biographies of Colonialism in the Indian Ocean World, 1790-1920*, 2012, pp. 1-22 &https://doi.org/10.1017/CBO9781139057554.
[38]Sugata Bose, *Hundred Horizons: The Indian Ocean in the Age of Global Empire,* 2006., pp. 1-35 & pp. 272-284.
[39]George F. Hourani, *Arab Seafaring in the Indian Ocean in Ancient and Early Medieval Times*, 1995, pp. 87-105.
[40]Roxani Eleni Margarati, *Aden and the Indian Ocean Trade: 150 Years in the Life of a Medieval Arabian Port*, 2007, pp. 1-21.
[41]Ranbir Chakravarti, "Indian Trade through Jewish Geniza Letters (1000-1300)", *Studies in People's History*, Vol. 2, No. 1, 2015, pp. 27-40 & "Vibrant Thalassographies of the

because it served as converging node for trade and commerce between the Mediterranean sea and Indian Ocean during the medieval centuries. James Onley[42] rediscovered nature of British domination in the Persian Gulf. For instance, British domination continued through appointment of native agents, who managed administration and helped in creating diplomatic ties for continuity of trade and commerce between Arabs and the English East India Company and later with British during the 19th century.

M. Reda Bhacker[43] (1992) in *Trade and Empire in Muscat and Zanzibar: Roots of British Domination* and Abdul Sheriff (1987 & 2009) through collection of essays and chapters in a chronological sequence provide details on the polity and economy of the Western Indian Ocean by tracing the rise of the Albusaidi Dynasty in East Africa, Omani links with India and East Africa, significance of commerce to earlier Albusaidi rulers, emergence of British policy towards Oman from 1798 to 1814, British

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Indian Ocean: Beyond Nation States", *Studies in History*, Vol. 31. No. 2, 2015, pp. 235-248.

[42] James Onley, *The Arabian Frontier of the British Raj: Merchants, Rulers and the British in the Nineteenth Century Gulf*, 2007, pp. 1-4.

[43] M. Reda Bhacker, *Trade and Empire in Muscat and Zanzibar: Roots of British Domination*, 1992, pp. 3-178; Abdul Sheriff, *Slaves, Spices and Ivory in Zanzibar: Integration of an East African Commercial Empire into the World Economy, 1770–1873*,1987, pp. Introduction & Chapter I, II & III and "The Persian Gulf and the Swahili Coast: A History of Acculturation over the Longue Durée', in L. G. Potter (eds.), *The Persian Gulf in History*, 2009, pp. 173-188. This theme further sees studies by Chhaya Goswami, *The Call of the Sea: Kachchhi Traders in Muscat and Zanzibar, c. 1800-1880*, 2011, pp. Introduction & 14-190; *Globalization before Its Time: The Gujarati Merchants from Kachchh*, 2016, pp. Introduction & 1-70 & Adhya B. Saxena in business history and tangible heritage; Adhya B. Saxena, "Ports of Gujarat Far and Near-Cultural Continuum: A Study in Urban Morphology, c. 1500-c. 1750" in Sara Keller and M. N. Pearson (eds.), *Port Towns of Gujarat*, 2015, pp. 231-57 and in Yogesh Sharma (ed.), "Mandvi and Mundra: Port Towns of Kachchh, Gujarat c. 1550 - c. 1900", *Cities in Medieval India*, 2014, pp. 575-644.

commercial expansion in Oman, Zanzibar, East Africa and India in the 19th century and connection of Persian Gulf with the Swahili coast.

To Abdul Sheriff the Indian Ocean has been:

> …covers one-fifth of the world's total water surface. The overall long coastline, with the Red Sea and the Persian Gulf that penetrate deep **into the Afro-Asian heartland**, the broad bays of the Arabian Sea and the Bay of Bengal, and the intricate network of islands and peninsulas along the rim of the Indian Ocean, **provide a comfortable maritime environment**… warm, tropical and bountiful. The people of the Indian Ocean rim thus have had the opportunity to exploit **the land and sea environments simultaneously to increase the abundance and variety of their livelihood**. **The ocean is surrounded by the most populous continents and civilizations, and its rim is today inhabited by one-third of the world's population**.
>
> **-Abdul Sheriff & Engseng Ho pp. 14-15**

> ...the Swahili Coast and the Persian Gulf are only a monsoon apart, and **the dhow provided a dependable vehicle for perennial two-way economic and socio-cultural interaction across the Indian Ocean for hundreds of years, creating the "largest cultural continuum in the world**." …On the one hand it represents an interface between the continental and marine environments; and on the other, for hundreds of years the littoral people have been interacting with each other across the ocean economically, socially, and culturally. These **littoral peoples are strategically located at the confluence of continental and maritime environments, able to exploit both economically, and to be fashioned by them socially and culturally…social interaction in the two littoral societies over the *longue durée* to highlight the social processes that produced cosmopolitan maritime communities**.
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> **-Abdul Sheriff, p. 173**

Abdul Sheriff[44] offered a larger perspective on Western Indian Ocean by concentrating on the socio-cultural history of the Indian Ocean. For instance, interaction among people from different destinations led to sharing of knowledge of their culture along with exchange of goods. He emphasized that Indian Ocean remained a 'meeting point' or laboratory between land and sea through the apparatus called as *dhow/ kotia/ padow/ baggala/ dingy / gallivat*

[44]Abdul Sheriff, *Dhow Cultures of the Indian Ocean: Cosmopolitanism, Commerce and Islam*, 2010, pp. 1-3.

/botella/ pattamar. Abdul Sheriff & Engseng Ho[45] later also focused on trade, social interaction and cultural dialogue. It is an established fact that monsoon remained significant tool in coastal and oceanic trade movements which in turn led to cultural interaction as there were pilgrim to Mecca (*hajj*) who on occasions settled at lesser known destinations. This further led to emergence of new social groups like *Hadramis* in South Arabia, *Swahilis* in East Africa and *Mappilas* in South India.

Pedro Machado[46] while concentrating on Western Indian Ocean and tracing connection between Gujarat and East Africa, documents commodities of exchange. For example, one Laxmichand Motichand, a *bania* merchant invested capital in cotton textile trade and remained beneficiary through holding of property in Mozambique, this space was used as storehouse for goods and slaves which in turn became instrumental for carrying out commerce in slaves and ivory. Like his European counterparts, appointed African agents to procure slaves and ivory. He had been successful in creating consumption structures of cotton textile in Africa and ivory in *Kathiawad* peninsula / Saurashtra mainland. Pedro Machado[47] also traced similar trajectory for the Eastern

[45]Abdul Sheriff & Engseng Ho (eds.), *The Indian Ocean: Oceanic Connections and the Creation of New Societies*, 2014, pp. 11-41.

[46]Pedro Machado, *Ocean of Trade: South Asian Merchants, Africa and the Indian Ocean, c.1750-1850*, 2014, pp. 1-29.

[47]Pedro Machado, Sarah Fee, Gwyn Campbell (eds.), *Textile Trades, Consumer Cultures, and the Material Worlds of the Indian Ocean: An Ocean of Cloth*, 2018, pp. 1-25, 55-77, 181-208, 313-318 & 385-396; 'Pearling in the Indian Ocean', Public Lecture visithttps://mesa.ucdavis.edu/events/pearling-in-the-indian-ocean-public-lecture-by-pedro-machadohttp://dhi.ucdavis.edu/featured-stories/pedro-machado-brings-the-ocean-into-history

Indian Ocean arms and is of the opinion that in the 18th century, European consumption of luxurious goods from the South Asia and China hiked the global economy.

Lotika Varadarajan [48] sketches a larger trajectory by documenting role played by Gujarati population in time and space as seafarers, traders and merchants, agents, brokers, money changers, bankers between the local and the European Companies; as potent contenders against aggressive policies and measures of Europeans within Coastal settlements of *Kachchh*, *Saurashtra* and coastal south Gujarat and *Konkan*. This book is a collection of 35 articles on varied themes circumnavigating around Gujarat and aims to project Gujarat 'perhaps the only State in the Indian union, which has a substantive tradition of seaborne trade in which local communities have actively participated in ships which have been locally made'.[49] Reference to the articles by A. S. Sundaresh, A.S. Gaur & Sila Tripathi; Somasiri Devendra, Patrice Pomey, Wei CAI, Nan SI, Weiguo WU, Longfei XI, Lotika Varadarajan, Rupal Mankad & Himanshu Ajabia; Jose Manuel Malhao Pereira, Paul Lunde and V. H. Sonawane in this volume is crucial [50] to understand navigational acumen of the *Kachchhi* seafarer, Portuguese and Chinese sailor who frequented as far as Swahili

[48]Lotika Varadarajan (ed.), *Gujarat and Sea*, *Darshak Itihas Nidhi*-Vadodara, 2010, pp.1-8.

[49]Articles by scholars A. S. Sundaresh, A. S. Gaur, Sila Tripathi, Somasiri Devendra, Patrice Pomey, Wei CAI, Nan SI, Weiguo WU, Longfei XI, Lotika Varadarajan, Rupal Mankad, Himanshu Ajabia, Jose Manuel Malhao Pereira, Paul Lunde and V. H. Sonawane in *Gujarat and Sea*, *Darshak Itihas Nidhi*- Baroda, 2010, pp. 63-78, 109-180, 181-220 & 499-508.

[50]H. P. Ray, "Review of *Gujarat & Sea*", *International Journal of Nautical Archaeology*, 42 *(1)*, 218–220, visit http://sci-hub.tw/https://doi.org/10.1111/1095-9270.12008_7

Coast and Madagascar on the vessels made by the natives. It is pertinent to mention that since 2008 one observes frequent seminars and appearance of theme based volumes wherein shift is recorded to carry out less explored areas on the basis of new sources. These studies explore seafaring communities acumen, migration of other labour and artisan groups in place of merchants and traders.

In second decade of 21st century Indian Ocean studies further records momentum and a new trend in history writing emerges where arena of enquiry of Indian Ocean scholars gets widened to understanding of indigenous navigation acumen, local competition for trade share, coastal community studies, negotiating potential of native ruler with the European companies, adoption and adjustments to changed circumstances, security and insurance, nature of naval warfare, piracy and piratical activity, life on sea/oceanic vessel and so on. A discussion in detail on these studies is pertinent at this juncture. For instance, Aaron Jaffer[51] documents native sailors' appointment in the English East India Company for carrying out shorter and longer journeys in the Indian Ocean extending as far as England, South Asia and Far East. He in fact opens up new theme on occupation variety that was born out of dynamics of 'cosmopolitanism and globalization'. According to their job in the company's ship the lascars were given wages, *Sarangs* and *Tindals* held significant status, work and rank was

[51]Aaron Jaffer, *Lascars and Indian Ocean Seafaring, 1780-1860*, 2015, pp. 1-30.

allotted on the basis of skills. He also traces reasons of maritime violence that occurred in the British ship probably due to wages, disease, discrimination, rumor and religious superstitions.

Similarly, Sara Keller and M. N. Pearson as editors brought out new research themes related to the activities in port and port-towns of the Indian Ocean on the basis of some twenty articles where detailed description of ports, their political history, hinterland relationships and overseas contacts are subjects of enquiry by several scholars.[52] The articles in this volume are subdivided into four sections: function and activities of port towns that describe trade, commercial policies, monetary mechanism, politico-economic contexts and shifts; communities and socio-cultural identities of trading groups that describe their social roles; architectural and urban structures of port towns that explore the urban and historical orientation of ports; and finally, the depiction of ports in art. These articles cover a comprehensive range, though the editors cite further areas awaiting research, such as women's role in trade, language and literature, folklore, ship-building and limitation in understanding on pirates and piracy.

Here, mention to Lakshmi Subramanian's article (Chapter 13)[53] on piracy is pertinent which outlines the debates on what became defined as 'northward' piracy in relation to *Kathiawad* and

[52]Lotika Varadarajan (pp. 9-18), Paul Lunde and Jennifer Craig (pp.19-39), Nishat Manzar (pp. 57-72, Marriam Dossal (pp. 73-90), Chhaya Goswami (pp. 91-108)), Edward Simpson (pp. 109-122) in Sara Keller and M. N. Pearson (eds.), *Port Towns of Gujarat*, 2015.

[53]Lakshmi Subrahmanian, "Piracy in Northward Coast: Problems of Definition", in Sara Keller and M. N. Pearson (eds.) *Port Towns of Gujarat*, 2015, pp. 163-182.

Kachchh in the colonial period. She discusses how a layered exploration of colonial and postcolonial narratives reveals the *Kachchh* to be a littoral corridor for mobile and coastal communities. It was produced as violent only within Bombay Marine narratives and colonial contexts embroiled with the enforcement of power within this region. Calling for an alternative historical reading of maritime piracy, she asks for it to be read as a 'history of protest and resistance by local coastal communities'. She also points to the blurred boundaries between piracy and privateering that reflect local maritime customs and the colonial inability to accept trading within environments of legal pluralism. At this juncture, reference to Gujarati literature produced in 19th century under the category of folklores needs mention which has now been profusely used by Anthropologists and Historians at greater length in the post-2008 piracy incidence in the Western Indian Ocean.

In her seminal essays[54] on northward piracy she brings in observation based on Walker of Bowland papers, National Library of Scotland, Edinburgh, Accession Number MS 13672:

> People of this coast have been **pirates for ages** but it is possible to restrain them. But with the Northern pirates known by the name ***Coolies*** and ***Sangarians*** who live in a looser state of society, the most solemn engagements have no influence. These pirates appear more enterprising, more ferocious and barbarous. Nothing probably would keep them within any bounds but a previous application of force and its constant presence…colonial ethnography on the littoral society of northwestern India, referred to generally as the

[54] *ibid*., p. 164 & Lakshmi Subrahmanian, "Piracy and Legality in the Northward: Colonial articulations of law, custom and policy in the late eighteenth and early nineteenth century Bombay Presidency, *Journal of Colonialism and Colonial History*, Volume 15, Number 1, Spring 2014, pp. 1-2. DOI: 10.1353/cch.2014.0014 and "Introduction: The Ocean and the Historian", *Journal of Indian Ocean World Studies* 2, No. 1 (2018), pp. 2-11.

> "Northward". While initially the use of the word Northward was shorthand **to designate the ports to the north of Bombay and the sub-regions of Sind, Kutch and Gujarat,** the term acquired over time a particular set of associations having to do with maritime predation and violence. The Northward was set off against the more benign south—**its pirates were seen as more rapacious and innovative and less susceptible to control**.

Similarly, maritime scholars remained engaged on the discourse of Piracy. Two names: Ruby Maloni and Pamela Nightangle need elaboration.

Ruby Maloni while revisiting Piracy in Indian waters for 17th century on western seaboard opines that European efforts at monopoly, increased piracy in Indian waters, as traders whom they dispossessed were forced to use this alternative. But only certain groups like the Malabaris put forward resistance, and that too, in particular form, while others structured a *modus vivendi* of indirect partnerships with Europeans officials or merchants. Piracy was also anatural outgrowth of European rivalries. Ships of one nation waylaid another, even if they were not in a state of war, or had an official commission. Further, she lays stress on vast improvement in naval and military techniques in the ships operating in the Indian Ocean which led to the act of piratical aggressions. This is supported by medieval historian Satish Chandra[55] and maritime scholar K. N. Chaudhuri[56] as well.

The first historical example on the pirate and maritime piracy comes from Marcus Tullius Cicero (106–63 BC) who coined the phrase *hostis humani generis*, 'enemy of all humankind', for a

[55]Satish Chandra (ed), *The Indian Ocean*, 1987, pp. 22-23.
[56]K. N. Chaudhuri, 'European Trade with India', in *The Cambridge Economic History of India*, Vol. I, 1982, pp. 383-84.

pirate. The Latin term was later taken into Admiralty Law, and acquired a wider meaning. For Cicero, 'pirates' were outlaws, and therefore not subject to the legal protection of any state. More widely, pirates operate on the high seas which are the property of all mankind, and are therefore, by definition, all mankind's enemies.

Findings by Subramanian are part of research emphasized by M. N. Pearson who raised two vital issues as early as in 1980s, on the one hand, the beginnings of a self-conscious engagement with the idea of a littoral region, its workings and dynamics; and on the other, a provisional framework for looking at heuristic categories and theoretical analyses. Lakshmi Subramanian's work on piracy in India's western littoral in the latter decades of the 18th and first quarter of the 19th century, preferred to focus on littoral enclaves with their immediate and larger political and moral economies, wherein, coastal groups negotiated complex relations with local bosses, temples and shrines, and small grey markets in order to eke out their livelihoods and articulate a very distinct form of raiding and even political expression. Regimes of predation and piracy in India's littoral were complex phenomena embedded in structures of authority, and were part of nested rights that had a more complex pre-history. If one were to detach the local realities from our understanding of predation and piracy, then we would face the peril of uncritically endorsing the archival representation of the

Europeans for whom Indian activity and defiance of the European pass was illicit and piratical.

In fact, the growing consensus in the field of Indian Ocean World piracy studies are the oratory of piracy was deployed to mark off 'licit and illicit' activity as the Europeans chose to define them, and that the articulation and deployment of maritime violence by littoral societies was embedded in a complex milieu of social and economic transactions. Concurrent definitions of piracy are necessary to grapple with the phenomenon of littoral and maritime violence, and its role, even if by default, in the construction of state power. It also appears important here to review the experiences of littoral society in relation to law. Given that the space was removed from established structures of political and juridical authority, it is tempting to look more closely at what law looked like for the littoral, and for the peoples traversing the seas. I partially agree to this but would demonstrate through narration for other arms of the WIO.

Alexander Hamilton (1745: pp.132-33 & 141-42) has opined on *Sanganian* pirates:

> Their seaport is called Bate, very commodious and secured. They admit of no trade but practice piracy. They give all protection to all criminals who deserve punishment and hand of justice. All villains in the country flock thither and become honest robber they are medley Criminals who flee their country for fear of condoning (?) punishment due to their crimes.

Similarly, Colonel James Tod has also observed on *Okhamandal* and the pirates in this pocket who had been operative for centuries together, they became pro-active in the 19th century as a result of

pressure from the East India Company and the Gaekwads of Baroda.[57]

> **…The piratical habits of ages have inflicted the vice of barrenness on their lands; yet we found the industrious Loharra Bhatti, who may be met with wherever money can be made, mixed with the Kharwa mariner, and the piratical Waghair or Macwahana, the latter being the most numerous class**. The Patel of Aramra, however, still vaunts his pure Rahtore blood, and if correct, he may indeed be vain of his descent. With several other sites, Aramra puts in its claim, and with good reason, to be considered as *mool* or 'ancient' Dwarica; its own appearance, and the many decayed shrines about it, furnishing strong evidence in favour of the boast. Here the pilgrim can receive the seal of Crishna, as well as at the greater shrine; but instead of the Brahmin, a Charun stamps the votary with the *chaup*: the fee is eleven rupees, from which not even the mendicant Byragi is exempted… Let us quit the graves of the giants of Aramra for its more interesting memorials, the *pallias* of the pirates, which speak in a language not to be misunderstood, albeit a species of hieroglyphic, though one which will not admit of a double interpretation; for amidst the mouldering cenotaphs and broken tomb-stones, there remain two, on which are sculptured in high relief "the ships of Trican-râe" engaged in combat. **One of these is a three-masted vessel, pierced for guns; the other is of a more antique form and character, having but one mast, and none of those modern inventions of war.** Both are represented in the act of boarding the chase. **One of the piratical sailors, with sword and shield, is depicted as spring from the shrouds; another from the bow of his ship; and it may be supposed they are the effigies of the heroes who lay here.** Another *pallia* was inscribed to the memory of "Rana Raemul, who, in c. 1628 (A. D. 1572), "performed the *saka*, when attacked by the king; twenty-one of his "kindered were slain with him, and the Jaitwânī became Suttee**". *Pallias* are erected to each of the twenty-one. There was another, and the latest in date, erected to the memory of these buccaneers of Aramra, and sufficiently laconic: "S. 1819, (A. D. 1763), Jadroo Kharwa was slain on the seas". Kharwa is the most common epithet of the Hindu sailor.**

According to Lakshmi Subramanian, "two striking trends characterise the political history of northward; one, the emergence of middling and small independent states with a maritime orientation that laid claims to the sea-space and *cartaz*

[57]James Tod, *Travels in Western India: Embracing a Visit to the Sacred Mounts of the Jains and the Most Celebrated Shrines of the Hindu Faith between Rajpootana and the Indus*, 1839, pp. 431-39.

politics,…*Okhamandal* that adopted predation as political resource and even offer services to inland rulers".

For M. N. Pearson, whose concerns were grounded in his understanding of the Portuguese interventions, the question of *mare closum* or free sea and the ramifications of the *cartaz-cafila-armada* system was foremost. His work identified the gaps in the legal-military system and stressed how its efficacy was compromised, enabling local groups to carry on with business as usual. His focus was not on customary legal practices among merchants and seafarers in the littoral; he acknowledged the ubiquity of Islam as a shared set of beliefs for littoral peoples, and instead preferred to look at the *Hajj* and its social interactions over a *longue durée* in the Indian Ocean World. Pearson, however in 2010 delved into problems of definition on piracy in the Asian waters. He observed that uniform definition of piracy is difficult and various acts of seizure by individuals/groups can be brought under the act of aggression. In his article in edited volume *Pirates, Ports, and Coasts in Asia: Historical and Contemporary Perspectives* by John Kleinen and Manon Osseweijer observed that pirate, privateer and *corsair* are interchangeable.[58] A key distinction seems to be that piracy is undertaken for private ends, while a privateer claims sanction from some state. In a European context a privateer would have a letter of *marque* authorizing action against the seaborne property of an enemy of that state. He

[58]John Kleinen and Manon Osseweijer, *Pirates, Ports, and Coasts in Asia: Historical and Contemporary Perspectives*, 2010, p. 15.

bases his formulation on the study of *Mappilas*, *Harmads* & *Qawasim* who encountered with Europeans in their respective locations.

Work of the following scholars also needs mention: Enseng Ho, "Empire through Diasporic Eyes: A View from the Other Boat", *Comparative Studies in Society and History*, 46, No. 2, (2004), pp. 210-46; Sunil Amrith, *Crossing the Bay of Bengal: The Furies of Nature and the Fortunes of Migrants* (Harvard University Press, Cambridge & Massachusetts, 2013); Fahad Bishara, *A Sea of Debt: Law and Economic life in the Western Indian Ocean 1780-1950* (Cambridge University Press, Cambridge, 2017); Johan Mathew, *Margins of the Market: Trafficking and Capitalism across the Arabian Sea* (California: University of California Press, 2016); Peter Reeves, Frank Broeze & Kenneth McPherson, "The Maritime Peoples of the Indian Ocean Region Since 1800", *The Mariner's Mirror,* 74, no. 3 (2013), pp. 241-54; and Jennifer Gaynor, *Intertidal History in Island Southeast Asia: Submerged Genealogy and the Legacy of Coastal Capture* (Cornell University Press, Ithaca and London, 2016).

A Sea of Debt: Law and Economic life in the Western Indian Ocean 1780-1950 by Bishara delves into the evolving economic conditions that had a transformational impact on East Africa in the late 18th and early 19th centuries. Among these were the emergence and decline of the Gujarati textile industry; the creation of the

shamba—essentially an East African farm producing copra and then especially cloves; the growing demand for slaves to work the plantations; the later development of both an ivory trade and the Uganda Railway that produced economic linkages between coast and interior; and, much later, date exports from Oman. The economic transformation prompted the migration of Gujarati merchants to Zanzibar and Muscat, where successive generations gradually moved beyond trade into money lending. The consequence was the creation of a web of commercial interactions enduring over decades and spanning the western Indian Ocean.[59] In analyzing these networks, the author focuses on the *waraqa*, the simple contract of that was usually made between Arabs or Africans on one hand and Indian lenders on the other. Originally, the *waraqa* was a short attestation of a loan secured by land and agreed for a specific duration, written up by a scribe and honoured throughout the region. With economic prosperity and growing land ownership around the turn of the 19th century, the *waraqa* became a convenient way of accessing credit. It was the key instrument in a culture of debt marked by long-term relationships between lender and debtor through several generations. Over time, the *waraqa* underwent major changes. It was utilized increasingly for *khiyar* transactions, which "functioned as a form of pawnship: a planter or commercial aspirant would 'sell' their property to a lender for an

[59]Review by Pedro Machado (2018), *Fahad Ahmad Bishara, A Sea of Debt: Law and Economic Life in the Western Indian Ocean, 1780–1950, The American Historical Review, 123*(3), pp. 915–16. Doi:10.1093/ahr/123.3.915. sci-hub.tw/10.1093/ahr/123.3.915

agreed-upon price (that is, the loan amount) that they would have to repay within a specified time frame in order to reclaim the property and render the initial 'sale' void". In addition, its legal status was transformed from essentially informal acceptance on various shores of the Indian Ocean as an instrument based on Islamic law into a court document. British judges came to interpret it through a mixture of Islamic and Anglo-Indian law, with the aid of *qadis*, traditional Islamic judges, and increasingly classified the *waraqa* as a mortgage. As boom turned to bust in East Africa, merchants there looked for new opportunities, particularly in Oman. The legal atmosphere was additionally influenced by a renaissance within the *Ibadi* sect of Islam in Oman as well as Zanzibar. But Oman's economic prosperity was short-lived, and settling *waraqa* disputes there and in East Africa gradually became more contentious and more ubiquitous in court cases. Zanzibar serves as the primary geographical focus of Bishara's attention and research, although the Omani presence is also key because of Al Bu Sa'id dominion over Zanzibar and the East African coast for much of the 19th century and because *Ibadi* jurists in Oman provided much of the interpretation of Islamic law that underpinned the commercial exchanges.

Intertidal History in Island Southeast Asia: Submerged Genealogy and the Legacy of Coastal Capture by Jennifer L. Gaynor, an ethno-historian, fills the vacuum by documenting the peoples of Southeast Asia (the largest archipelago in the world)

who live upon its seas and emphasizes on Sama population in Tiworo, an area off the southeast peninsula of the orchid-shaped island of Sulawesi in modern Indonesia. The littoral community utilized their acquaintance of the straits, shoals, reefs, and seas and became valuable allies of early modern polities, which echoes into their modern-day social relations and understandings of the region. Gaynor has provided an insightful consideration of the dynamics of power, trade, and social relations that direct historians to new understandings of societies and ecosystems by focusing on peoples who move easily between the coasts and the open ocean. Tiworo was located along the northern branches of a vast trade network linking Java and the spice islands of Maluku. Knowledge of boat building, navigation, and exploitation of littoral resources made the *Sama* an important ally of anyone hoping to prosper in the eastern archipelago. The Sama received valuable trade goods, partook in marriage alliances, and held important offices, such as harbour-master and military commander in various ports, in order to cement their relationships with various ethnic groups based on the land. This system came under stress following the arrival of European powers in the sixteenth and seventeenth centuries. Originally linked to the leaders of *Makassar*, the Sama transferred their loyalty to high *Bugis* officials in the neighboring state of Bone´ in the 1660s, after some captured Sama women participated in negotiated marriages with the Bone´ elite. Using those marriage alliances, combined with an incorporation of littoral war vessels

into their military force, the Bugis were able to defeat Makassar and gain a central role in the valuable spice trade to the east of *Tiworo,* making them the dominant political and economic power in the region. Gaynor employs a wide array of sources in her exploration of these shifting power relationships and their links to created genealogies. European archival and travel accounts, not surprisingly, describe *Tiworo* as a dangerous region and its inhabitants as ungovernable pirates, reflecting the difficulty trade companies had in understanding and controlling the littoral. Traditional *Bugis* court texts, however, depict a developing social, economic, and political relationship that is rooted in tales that ascribe the heritage of the Bone´ leader Arung Palakka to a *Sama* lineage, thus justifying the transfer of loyalties. By blending her intimate understanding of the peoples and cultures of Tiworo with the archives of trading companies and court texts of local polities, Gaynor weaves a complex depiction of histories and peoples that enlightens the reader not only on this complex ecological land and seascape, but also on social dynamics that usually fall outside traditional categories of the state and economics in world history. The capture of Lawi, which both begins and ends the book, thus reflects the continuing importance of lineage-based elites and knowledge of maritime environments in the archipelago, as her forced marriage was an attempt among rebels to access *Sama* knowledge of the littoral, and even resulted in her brother participating in the conflict against the central government.

Navigational acumen of the seafaring individuals and groups of the Indian Ocean also remained subject of enquiry both by anthropologists and archaeologists along with historians. Edward Simpson (2006 & 2008) studied *Bhadela* & *Kharwas* in the *Kachchh* region who had been notable seafarers in terms of being sailors and ship-buiders in *Kachchh* and *Kathiawad*.[60] This trend continued in the studies by David Parkin and Ruth Barnes (2002)[61] where eleven scholars described the fundamental role of shipping communities and the technologies crafted and shared by them, this book explores the types of ships, methods of navigation and modes of water-borne trade in the Indian Ocean region and the way they affected the development of distinctive settlements against a changing but strong sense of regional consciousness and identity.[62]

Similarly, Abdul Sheriff's work *Dhow Cultures of the Indian Ocean* (2010*)* is a story of Western Indian Ocean from the side of East Africa in the pre-Portuguese period which helps us understand skills of the medieval seafarer. A brief but comprehensive description on Littoral society, peddler's trade, piracy, monsoons, monsoon trade, ship-building, sewn boats, types of *dhows* in Western Indian Ocean, people on board, navigational methods and

[60] Edward Simpson, *Muslim Society and the Western Indian Ocean the Seafarers of Kachchh*, 2006, pp. 26-86 & Edward Simpson & Kai Kresse (eds), *Struggling with History: Islam & Cosmopolitanism in Western Indian Ocean*, 2008, pp. 1-42 & 167-188.

[61] David Parkin and Ruth Barnes (eds.), *Ships and the Development of Maritime Technology in the Indian Ocean*, 2002, pp. xv-xvii & 291-314.

[62] Abdul Sheriff, *Dhow Cultures of the Indian Ocean: Cosmopolitanism, Commerce and Islam*, 2010, pp. Introduction & Conclusion. See Erik Gilbert, (2011), *Journal of the Economic and Social History of the Orient*, 54(2), 278 280.doi:10.1163/156852011x586840

maritime cultures sets the background to understand trade networks, mechanism of control and belongingness by the indigenous lot.

Gwyn Campbell and Edward Alpers (2013)[63] through their study on Anti-Slavery mechanism and British domination respectively help us understand the maritime control in the waters of the Indian Ocean. It is an established fact that the states and islands of the Western Indian Ocean have both used and trafficked in slaves since at least the ninth century. At the very time when the slave trade in the Atlantic was declining, the slave trade in the Indian Ocean was growing. That situation changed when the British Navy's anti-slavery squadron moved into the Indian Ocean in the 19th century. The studies in this volume provide a nuanced and sometimes intimate portrait of slavery and the slave trade in the western Indian Ocean in the age of abolition. They reveal the dynamic interactions between slaveholders, slaves, and anti-slavery forces. The analyses and stories presented here illuminate key themes in the history of East Africa and the Indian Ocean in the 19th century. Although they may seem new or different to scholars and readers who focus on slavery and the slave trade in the Atlantic World, they will not be completely unfamiliar. In both

[63]Gwyn Campbell, "Servitude and the Changing Face of the Demand for Labor in the Indian Ocean World, c. 1800–1900" (pp. 23-44) and Edward Alpers, "On Becoming a British Lake: Piracy, Slaving, and British Imperialism in the Indian Ocean during the First Half of the Nineteenth Century" (pp. 45-58) in Robert Harms, Bernard K Freamon (eds.), *Indian Ocean Slavery in the Age of Abolition*, 2013. Also see Gwyn Campbell (ed.), *Early Exchange between Africa & the Wider Indian Ocean World*, 2016, pp. 1-24, 25-50 & 275-304.

cases, it is a story of epic social and cultural upheaval in the context of massive economic transformation in an increasingly globalized world.

Alpers sketches how the Indian Ocean became a "British Lake" and how that imperial transformation affected trade and geo-politics, particularly piracy and slave trading. It describes competing imperial entities in the region, making it a contested maritime space and involving Europeans as well as indigenous actors. The British initially showed no interest in the East African coast and the Persian Gulf. Two factors changed this: (1) development of an Anglo-Omani alliance and (2) British determination to abolish piracy and slave trading. This chapter details the importance of Gujarati merchant activity and capital in developing the Anglo-Omani alliance. It also focuses on the role of localized trading networks, characterized by familial, ethnic and religious ties and the rise of Islam throughout the region. The chapter asserts that anti-slavery, anti-slave trading, and anti-piracy policies were at the core of British imperial efforts in the first half of the 19th century.

Both Edward A. Alpers & Chhaya Goswami (2019)[64] through a collection of 15 essays highlight the coastal Gujarat and its connectivity to its hinterlands and adjoining areas as far extra-continental interactions;which had numerous safe harbours, accessible ports, and a rich hinterland. Chronologically, the volume

[64]Edward A. Alpers and Chhaya Goswami, *Trans-regional Trade and Traders: Situating Gujarat in the Indian Ocean from early Times to 1900*, 2019, pp. Chapter 1, 2 and 15.

spans two millennia, and geographically, it ranges from the Red Sea to Southeast Asia. The book focuses on specific groups of Gujarati traders and their accessibility and trading activities with maritime merchants from Africa, Arabia, Southeast Asia, China, and Europe. It not only analyses the complex process of commodity circulation, involving a host of players, huge investments, and numerous commercial operations, but also engages with questions of migration and diaspora. Paying close attention to current historiographical debates, the contributors make serious efforts to challenge the neat regional boundaries that are often drawn around the trading history of Gujarat.

The works mentioned so far give us a wider understanding to comprehend Indian Ocean from mercantile perspective. However, the published primary sources written in contemporary times provide narration which spell on the people, their lives and action while voyaging or on coast. This chapter attempts to understand Indian Ocean and its arms on the western side. Western Indian Ocean is abbreviated as WIO and Eastern as EIO.

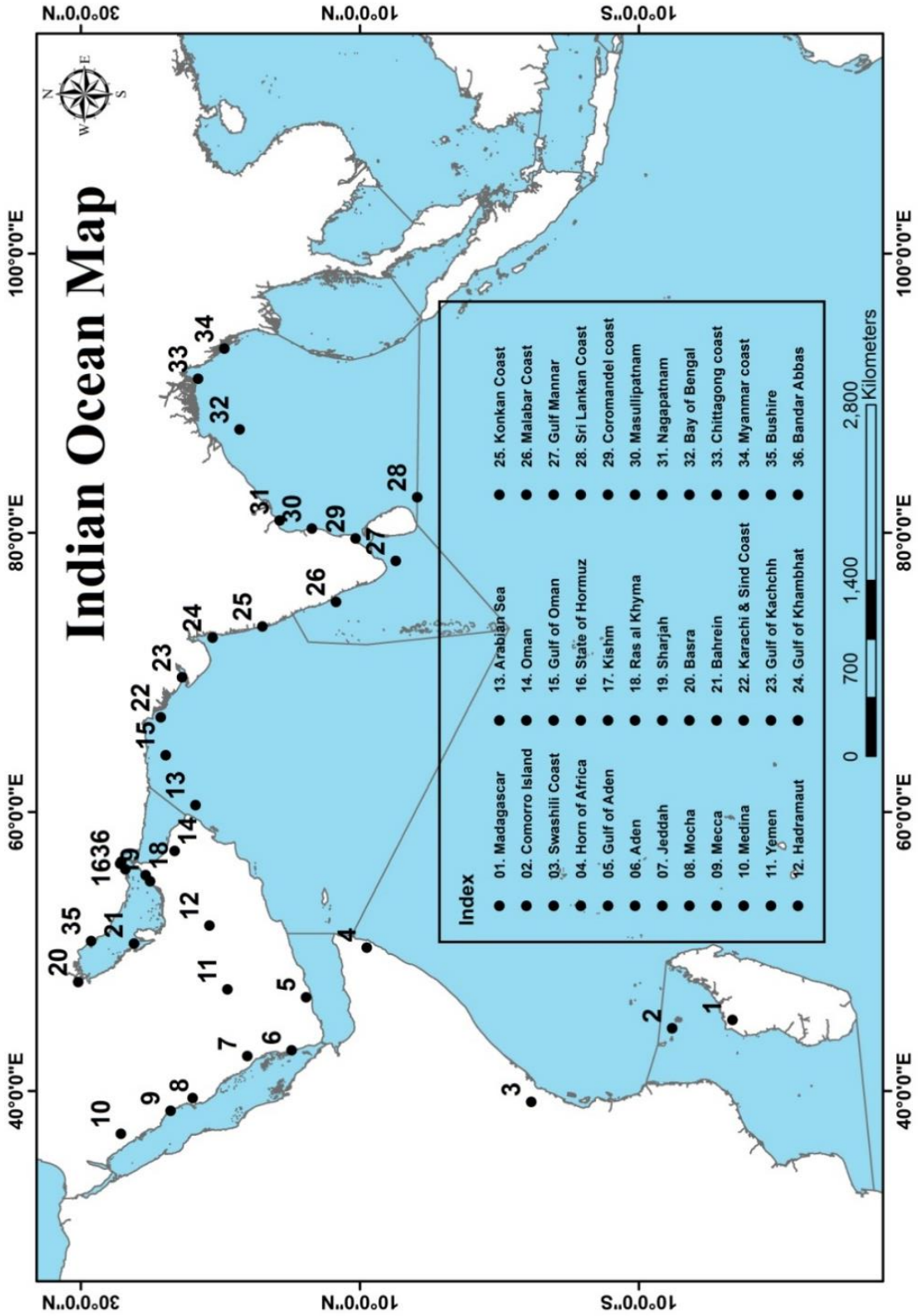


Figure 1: Map Showing: Expanse of Indian Ocean

Drawn by Mr. Sukanta Kumar Saha, Department of Geography, Faculty of Science
The Maharaja Sayajirao University of Baroda, Vadodara

Geographical: Indian Ocean-Space, Monsoon and Sail

Indian Ocean is named after India (*Oceanus Orientalis Indicus*) since at least 1515.[65] It has been identified with different names: *Erythrean Sea, Sindhu Mahasagara,* Hindu Ocean, *al bahr al hind* and Eastern Ocean in time and space by mankind for over 5,000 years; is the third largest ocean in the world after the Atlantic and the Pacific oceans and falls in Eastern Hemisphere.

It constitutes of some 27%[66] of the maritime space of the world and extends in 70, 560, 000 Square Kilometers between East African coast, Red Sea, Persian Gulf, Sind coast, Gulf of *Kachchh*, Gulf of Khambhat, Konkan coast, Malabar coast, Sri Lankan coast, Bay of Bengal (Puducherry, coast of Andhra Pradesh, Odisha, West Bengal, Chittagong, coastal Myanmar) and the Archipelago of Indonesia & East Timor. Among other physical aspects are its volume (264,000,000 Square Kilometers), average depth (3,741 Meters), maximum depth (7, 906 Meters) and narrow continental shelves (average: 200 Kilometers width).

As continental shelves of Indian Ocean are narrow, it has several choke points, which had provided it a special feature in becoming a prosperous zone for carving out maritime activities. Major choke points[67] include Mozambique Channel, Bab el

[65] Greek/Roman name India as "region of the Indus River".

[66] Om Prakash, "The Trading World of the Indian Ocean: Some Defining Features", in (ed.), *Trading World of the Indian Ocean, 1500-1800,* Vol. III, Part 7, 2012, p. 3.

[67] Choke point is a narrow passage in sea which restricted the movement of a large vessel or ship due to topographical condition. It was here that skilled seafarer manned the craft and flow with plunder to unknown destinations. The settlements around them served as safe-havens.

Mandeb, Strait of Hormuz, the Lombok Strait, Arabian Sea, the Gulf of Aden, the Red Sea, the Persian Gulf, the Gulf of Oman, the Gulf of Mannar, the Palk Strait, the Strait of Malacca, Andaman Sea, Bay of Bengal, Great Australian Bight, and Laccadive Sea. As Indian Ocean has been focus of the global maritime dynamics, in 19th century (1869) it was connected artificially to meet Europe by construction of Suez Canal[68] which provided accelerated mobility and competitive environment for the colonizers to control resources and global polity. This can be best understood in the words of Ranbir Chakravarti[69]:

> … unmistakable geographical feature is that at the central position in the Indian Ocean is situated the subcontinent **(India & Pakistan)** with its two long coasts and the island of Sri Lanka. The western seaboard is marked by numerous **estuaries, creeks, inlets, and channels, and with two deltas, the Indus and the Narmada**. These contributed immensely to the formation **of natural ports in the estuaries, creeks, and inlets, including the famous backwaters on the Malabar Coast in Kerala.** The east coast, in contrast, offers a number of riverine deltas, starting from the Ganga delta (the largest delta in the world) in the north to the deltas of the Vaigai and Tamraparni in the southernmost parts of Tamil Nadu. Between these two extremes of the eastern seaboard stand the deltas of the Mahanadi, Godavari, and Krishna in the Odisha-Andhra coastal segment, while the Coromandel thrived on the Kaveri delta. The deltas are conducive to agricultural and artisanal pursuits and noted for fluvial linkages with the interior. Both the seaboards experienced the formation of ports**, both premier and subsidiary/feeder ports**. These ports were rarely situated exactly on the seafront like in modern Mumbaior Chennai, but were located slightly inland and therefore well protected from thefuries of the monsoons. It is only with the availability of **engineering techniques and skills since the 19th century that harbor structures** could be constructed on the seashore. Another factor of commonality in the greater parts of the Indian Ocean was the presenceof the ubiquitous **vessels made of wooden planks**. These were held together by the stitchingof the planks with coconut coir (hence the description of **"sewn boats"** in European documentation from the 16th century onwards),

[68]Barbara Harlow & Mia Carter (eds.), *Archives of Empire: From the East India Company to the Suez Canal*, 2003, pp. 575-76.

[69]Ranbir Chakravarti, "A Subcontinent in Enduring Ties with an Enclosed Ocean, (c. 1000–1500 C.E.) South Asia's Maritime Profile 'Before European Hegemony", *Journal of Medieval Worlds*, Vol. 1, No. 2, pp. 29-30. *Kachchh* Mandvi or Bilimora are the sites of Gujarat where traditional ship building still survives. I visited Mandvi *bandar* and have interacted with *Kharwa* Buda Fofindi to understand boat-building process.

but **without the use of any iron nails** (***nilloham* in Sanskrit**). Both the raw materials for "traditional" shipbuilding were/are abundantly available in the subcontinent, especially in its coastal tracts. The subcontinent has, therefore, a special position in the history of ship-building technologies in the Indian Ocean prior to the **introduction of steam navigation**. The capability of such "sewn boats" to undertake **long overseas journeys is writ large in the underwater salvaging** of a 9th century vessel that sank close to Belitung near the Java Sea. The ship, having structural affinities with the vessels plying on the Indian Ocean, was returning to its destination (s) somewhere in the western Indian Ocean from a Chinese harbor, carrying with it a large cargo of Chinese Changsha pottery…

In order to understand its terrain a discussion on its limit is essential which is illustrated through maps and indices. This exercise of understanding the limits also helps us comprehend that why certain locations were used by pirates for forcing the vessel under seize and those location as safe heavens:

- on the West and the North: From Cape Agulhas (34°50'S - 20°00'E), the southern extremity of Africa, northward and eastward, along the eastern coast of Africa and the southern coast of Asia, to Lem (Cape) Phra Chao (7°46'N -98°19'E), on the western coast of Thailand.
- on the Northeast and East: From Lem Phra Chao south-westward, a line to Tanjung (Cape point) Jamboaye (5°15'N - 97°30'E), on the north western coast of Sumatera, (the common limit with the South China and Eastern Archipelagic Seas).
- on the East and South East: From the mouth of the Torassi River south-eastward, a line to Slade Point (10°59'S - 142°08'E), on the northern coast of Australia.
- on the South: From position 60°00'S - 146°49'E westward, along the parallel of 60°S, to position 60°00'S - 20°00'E (the meridian of Cape Agulhas) (the common limit with the Southern Ocean).
- on the South West: From position 60°00'S - 20°00'E northward, along the meridian of 20°E, to Cape Agulhas (34°50'S - 20°00'E), the point of commencement (the common limit with the South Atlantic Ocean).

Sr. No.	Index	Sr. No.	Index
	Indian Ocean	**5.11**	**Gulf of Mannar**
5.1	**Mozambique Channel**	**5.12**	**Palk Strait and Palk Bay**
5.2	**Gulf of Suez**	**5.13**	**Bay of Bengal**
5.3	**Gulf of Aqaba**	**5.14**	**Andaman Sea**
5.4	**Red Sea**	**5.15**	**Timor Sea**
5.5	**Gulf of Aden**	**5.15.1**	**Joseph Bonaparte Gulf**
5.6	**Persian Gulf**	**5.16**	**Arafura Sea**
5.7	**Strait of Hormuz**	**5.16.1**	**Gulf of Carpentaria**
5.8	**Gulf of Oman**	**5.17**	**Great Australian Bight**
5.9	**Arabian Sea**		
5.10	**Lakshadweep Sea**		

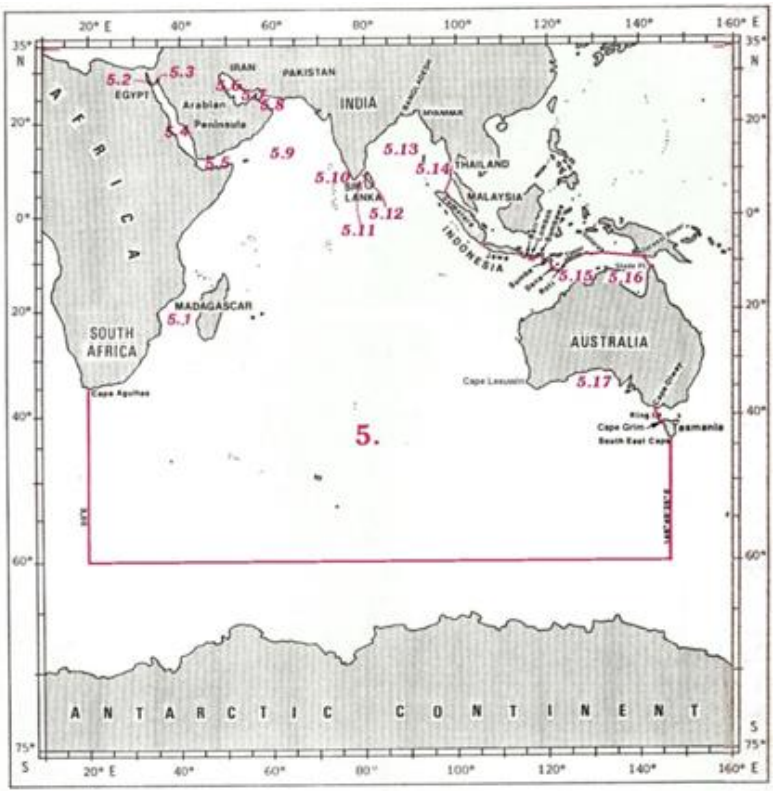


Figure 2: Map Showing Expanse of Indian Ocean
Based on Chartlet Index from International Hydrographic Organisation, Special Publication, 2002.[70]

It can be inferred from index of figure 2 that the consecutive and open space provide ample possibilities for voyage, exchange of commmodities and humans in time and space in the Indian Ocean rim.

According to Ranbir Chakravarti, seafaring in the Indian Ocean has been mainly monsoon wind system driven before the advent of steam navigation. Hence, maritime trade and commerce happened in a selected space. In order to understand piracy in Western Indian Ocean both geographical and cartographical outlines are sketched. It is also noteworthy that Indian Ocean has three prominent sea-straits, i.e., the Strait of Hormuz, the Strait of

[70]**Website:** https://en.wikipedia.org./wiki/Indian Ocean

Bab-el-Mandeb (the first two in the western sector), and the Malacca Straits (eastern sector), while the fourth—the Palk Strait (the closest to the subcontinent)—is virtually unsuitable for maritime operations. The relative paucity of sea-straits in the Indian Ocean arena turned coastal tracts, deltas, and islands into coveted and strategic assets for commercial and political aspirants alike.

Further description of coordinates of selected arms of the western and eastern Indian Ocean are discussed here as these remained active zones for piracy and piratical aggressions and find narration in subsequent chapters II and III of themonograph.

Western Indian Ocean (WIO)

Mozambique Channel, Gulf of Suez & Aqaba, Red Sea & Gulf of Aden:

The limits of the Mozambique Channel, the wide passage situated on the eastern coast of Africa between the coasts of Mozambique and Madagascar, are given below, infact considerable amount of piracy and pirates' settlements have been spotted in the description of Political, Foreign and Miscellaneous Department files of the consulted archives which are indexed in table I of Chapter III.

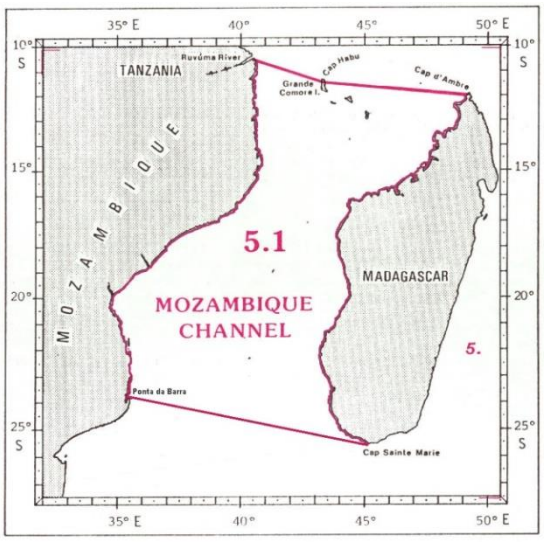


Figure 3: Map Showing Mozambique Channel

- on the North: A line joining the mouth of Ruvúma River (10°28'S - 40°26'E), the frontier between Tanzania and Mozambique, south-eastward to Cap (Cape) Habu (11°22'S - 43°23'E), on the northern coast of Grande Comore Island; and thence from Cap Habu eastward, a line to Cap d'Ambre (11°57'S - 49°16'E), the northern extremity of Madagascar.
- on the East: From Cap d'Ambre southward, along the western coast of Madagascar, to Cap Sainte Marie (25°36'S - 45°09'E), the southern extremity of this island.
- on the South: A line joining Cap Sainte Marie westward to Ponta (Point) da Barra (23°47'S - 35°32'E), in Mozambique.
- on the West: From Ponta da Barra northward, along the coast of Mozambique, to the mouth of Ruvúma River (10°28'S - 40°26'E).

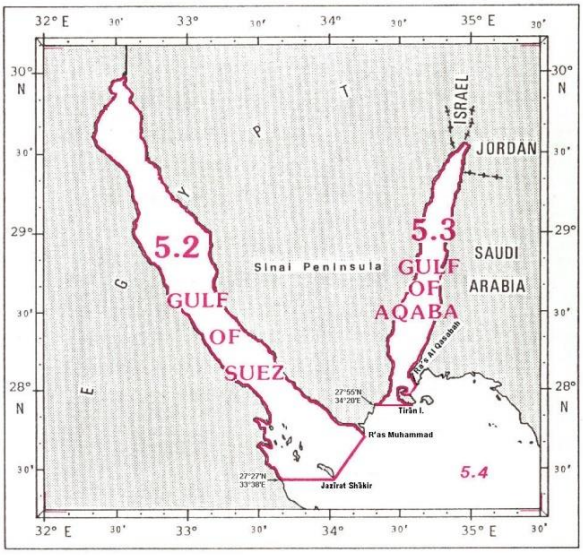


Figure 4: Map Showing Gulfof Suez andGulf ofAqaba

- The Gulf of Suez is situated north-westward and adjacent to the Red Sea, bounded by the coasts of Africa and Sinai Peninsula (Egypt). Its southern limit with the Red Sea (in the Strait of Gûbal) is as following: A line joining R'as (Cape) Muhammad (27°44'N -

34°15’E), the southern extremity of the Sinai Peninsula, south-westward to the southern point of Jazīrat Shākir (27°27’N - 34°02’E); and thence from the southern point of Jazīrat Shākir westward, along the parallel of 27°27’N, to the coast of Africa, in Egypt at position 27°27'N - 33°38'E.

- The Gulf of Aqaba is situated north-eastward and adjacent to the Red Sea, bounded by the coasts of Sinai Peninsula and Arabian Peninsula. Its southern limit with the Red Sea (in the Strait of Tírán) is the following: A line joining Ra's al Qaşabah (28°02’N - 34°37’E), in Saudi Arabia, south-westward to position 27°58’N - 34°35’E on the coast of Tirān Island; thence from this position, generally westward and south-eastward, along the northern, western and southern coasts of Tirān Island, to its south-western extremity (27°55’N - 34°33’E); and thence from the south-western extremity of Tirān Island westward, along the parallel of 27°55’N, to the coast of Sinai Peninsula, in Egypt, at position 27°55' - 34°20'E.

The limits of the Red Sea, situated between the coasts of Africa and the Arabian Peninsula, are as following:

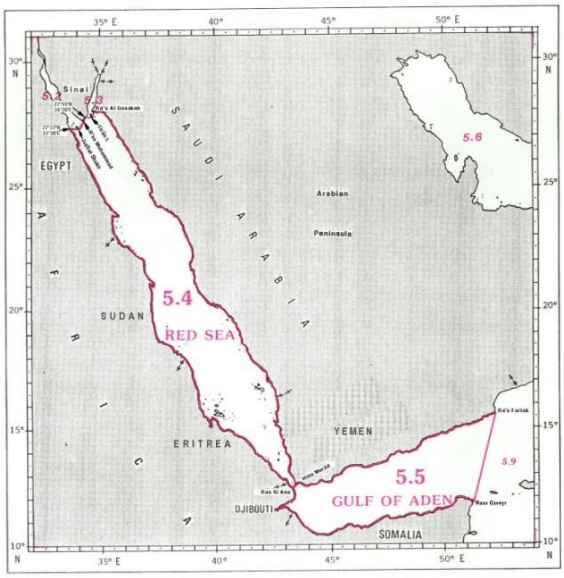


Figure 5: Map Showing Red Sea and Gulf of Aden

- on the North: A line joining position 27°27'N - 33°38'E on the coast of Africa, in Egypt, eastward, along the parallel of 27°27’N, to the southern extremity of Jazīrat Shākir (27°27’N - 34°02’E); thence from the southern extremity of Jazīrat Shākir north-eastward, a line to Ras[71] Muhammad (27°44’N - 34°15’E), the southern extremity of the Sinai Peninsula (the common limit with the Gulf of Suez*)*;thence from Ras Muhammad north-eastward, along the southern coast of the Sinai Peninsula, to position 27°55’N - 34°20'E; thence from this position eastward, along the parallel of 27°55’N, to the south-western extremity of Tirān Island (27°55’N - 34°33’E); thence from the south-western extremity of Tírān Island, generally north-westward, along the eastern coast of this island, to position 27°58’N - 34°35’E, on the north-eastern coast thereof; and thence a

[71] *Ras* (Arabic)=Cape

line joining this position north-eastward to Ra's al Qaşabah (28°02'N - 34°37'E), in Saudi Arabia (the common limit with the Gulf of Aqaba).

- on the East: From Ra's al Qaşabah south-eastward, along the coast of the Arabian Peninsula, to Hisn[72] Murád (12°40'N - 43°30'E), on the southern coast of Yemen.
- on the South:A line joining Hisn Murád south-westward to Ras Si Ane (12°29'N - 43°19'E), in Djibouti (the common limit with the Gulf of Aden).
- on the West:From Ras Si Ane north-westward, along the coast of Africa, to position 27°27'N - 33°38'E, in Egypt.

The limits of the Gulf of Aden, a wide strait linking the Red Sea and the Arabian Sea, are as following:

- on the North:From Hisn (Fort) Murad (12°40'N - 43°30'E) eastward, along the southern coast of Yemen, to Ras (Cape) Fartak (15°38'N - 52°14'E).
- on the East:A line joining Ras Fartak southwestward to Ras Caseyr (11°50'N - 51°17'E), in Somalia (the common limit with the Arabian Sea).
- on the South and the West: From Ras Caseyr westward and northward, along the coasts of Somalia and Djibouti, to Ras (Cape) Si Ane (12°29'N - 43°19'E), in Djibouti.
- on the Northwest:A line joining Ras Si Ane north-eastward to Hisn Murad (12°40'N - 43°30'E), in Yemen (the common limit with the Red Sea).

The coordinates suggest narrow passages delicate turns and show navigability which required acumen. This navigational acumen was restricted to regional sailor only.

Persian Gulf, Strait of Hormuz, Gulf of Oman & Arabian Sea:

The Persian Gulf is bounded by the coasts of Oman, United Arab Emirates, Qatar, Saudi Arabia, Kuwait, Iraq and Iran. Its south-eastern limit with the Strait of Hormuz is as following:

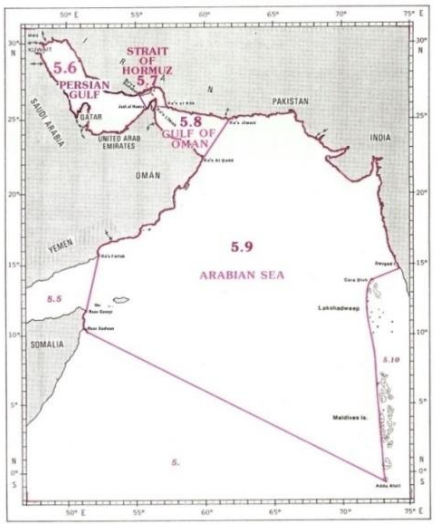


Figure 6: Map Showing Persian Gulf, Strait of Hormuz, Gulf of Oman and Arabian Sea

[72] *Hisn* (Arabic)= Fort

A line joining Ra's (Cape)-e Dastakan (26°33'N – 55°17'E) in Iran, southward to Jaztal Hamra lighthouse (25°44'N – 55°48'E), in the United Arab Emirates (the common limit with the Strait of Hormuz).The Strait of Hormuz links the Persian Gulf with the Gulf of Oman, lying between Iran and Oman. It has the following limits:

- Limit on the West:A line joining Ra's-e Dastakan (26°33'N - 55°17'E) in Iran, southward to Jaztal Hamra lighthouse (25°44'N - 55°48'E), in the United Arab Emirates (the common limit with the Persian Gulf).
- Limit on the East:A line joining Ra's Līmah (25°27'N - 56°28'E), in Oman, eastward to Ra's al Kūh (25°48'N - 57°18'E), in Iran (the common limit with the Arabian Sea).

The limits of the Gulf of Oman, a wide strait linking the Persian Gulf and the Arabian Sea, are as following:

- Limit on the North:A line joining Ra's Līmah (25°57'N - 56°28'E), in Oman, eastward to Ra's al Kūh (25°48'N - 57°18'E), in Iran (the common limit with the Strait of Hormuz) and thence from Ra's al Kūh eastward, along the coasts of Iran and Pakistan, to Ra's Jíwani (25°01'N - 61°44'E), in Pakistan.
- Limit on the East:A line joining Ra's Jíwani south-westward to Ra's al Ḥadd (22°32'N – 59°48'E), in Oman (the common limit with the Arabian Sea).
- Limit on the South and the West: From Ra's al Ḥadd north-westward, along the coasts of Oman and the United Arab Emirates, to Ra's Līmah (25°57'N - 56°28'E), in Oman.

The limits of the Arabian Sea, situated in the northern part of the Indian Ocean, are as following:

- Limit on the North and the East: From Ra's Jíwani (25°01'N - 61°44'E), in Pakistan, eastward and southward, along the coasts of Pakistan and India, to Devgad Island (14°49'N - 74°04'E), off the western coast of India; thence from Devgad Island south-westward, a line to Cora Divh (13°42'N - 72°10'E); and thence from Cora Divh southward, along the western side of the Lakshadweep and Maldives Islands, to the southern extremity of Addu Atoll (0°42'S - 73°10'E) (the common limit with the Lakshadweep Sea).
- Limit on the South: A line joining the southern extremity of Addu Atoll, in the Maldives Islands, north-westward to Raas Xaafuun (10°26'N - 51°25'E), in Somalia.
- Limit on the West: From Raas Xaafuun northward, along the coast of Somalia, to Raas Caseyr (11°50'N - 51°17'E); thence from Raas Caseyr north-eastward, a line to Ra's Fartak (15°38'N - 52°14'E), in Yemen (the common limit with the Gulf of Aden);thence from Ra's Fartak north-eastward, along the coasts of Yemen and Oman, to Ra's al Ḥadd (22°32'N - 59°48'E), in Oman; and thence from Ra's al Ḥadd, north-eastward, a line to Ra's Jíwani (25°01'N - 61°44'E), in Pakistan (the common limit with the Gulf of Oman).

Lakshadweep Sea, Gulf of Mannar, Palk Strait and Palk Bay:

The limits of the Lakshadweep Sea, bounded by the Lakshadweep and Maldives Islands on the West, and by the south-western coasts of India and Sri Lanka on the East, are as following:

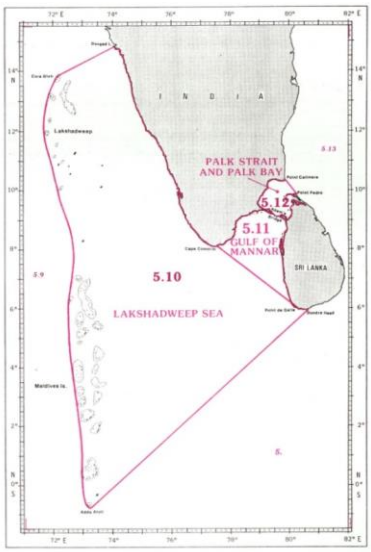


Figure7: Map Showing Lakshadweep Sea, Gulf ofMannar, Palk Strait and Palk Bay

- Limit on the West*:* A line joining Devgad Island (14°49'N - 74°04'E), off the western coast of India, south-westward to Cora Divh (13°42'N - 72°10'E); and thence from Cora Divh southward, along the western side of Lakshadweep and Maldives Islands, to the southern extremity of Addu Atoll (0°42'S - 73°10'E) (the common limit with the Arabian Sea).
- Limit on the South*:* A line joining the southern extremity of Addu Atoll north-eastward to Dondra Head (5°55'N - 80°35'E), the southern extremity of Sri Lanka.
- Limit on the East*:* From Dondra Head north-westward, along the south-western coast of Sri Lanka, to Point de Galle (6°02'N - 80°13'E); thence from Point de Galle north-westward, a line to Cape Comorin (8°05'N - 77°33'E), the southern extremity of India (the common limit with the Gulf of Mannar); and thence from Cape Comorin north-westward, along the western coast of India, to Devgad Island (14°49'N - 74°04'E).

The Gulf of Mannar is situated eastward and adjacent to the Lakshadweep Sea and is bounded by the coast of India on the northwest and by the coast of Sri Lanka on the East. It has the following limit:

- Limit on the North*:* From Cape Comorin (8°05'N - 77°33'E), the southern point of India, north-eastward, along the coast of India, to the westward end of Adam's Bridge (9°10' N - 79°26'E).
- Limit on the East*:* From the westward end of Adam's Bridge, along the southern side of the Bridge to position 9°06'N - 79°42'E, on the northwest coast of Sri Lanka;and thence

from this position southward, along the western coast of Sri Lanka, to Point de Galle (6°02'N - 80°13'E) (the common limit with Palk Strait and Palk Bay*)*.

- Limit on the West: From Point de Galle, in Sri Lanka, north-westward to Cape Comorin (8°05'N - 77°33'E), in India (the common limit with the Lakshadweep Sea).

The Palk Strait and Palk Bay are situated south-westward and adjacent to the Bay of Bengal and are bounded by the coast of India on the northwest and by the north-western coast of Sri Lanka on the southeast. It has the following limits:

- Limit on the South*:* From Point Pedro (9°50'N - 80°15'E), the northern extremity of Sri Lanka, generally south-westward, along the northern coast of Sri Lanka, to position 9°06'N - 79°42'E; and thence from this position, along the northern side of Adam's Bridge, to position 9°10'N - 79°26'E, the westward end thereof (the common limit with the Gulf of Mannar).
- Limit on the North*:* From the westward end of Adam's Bridge north-eastward, along the coast of India, to Point Calimere (10°18'N - 79°53'E); and thence from Point Calimere south-eastward, a line to Point Pedro (9°50'N - 80°15'E), the northern extremity of Sri Lanka (the common limit with the Bay of Bengal.

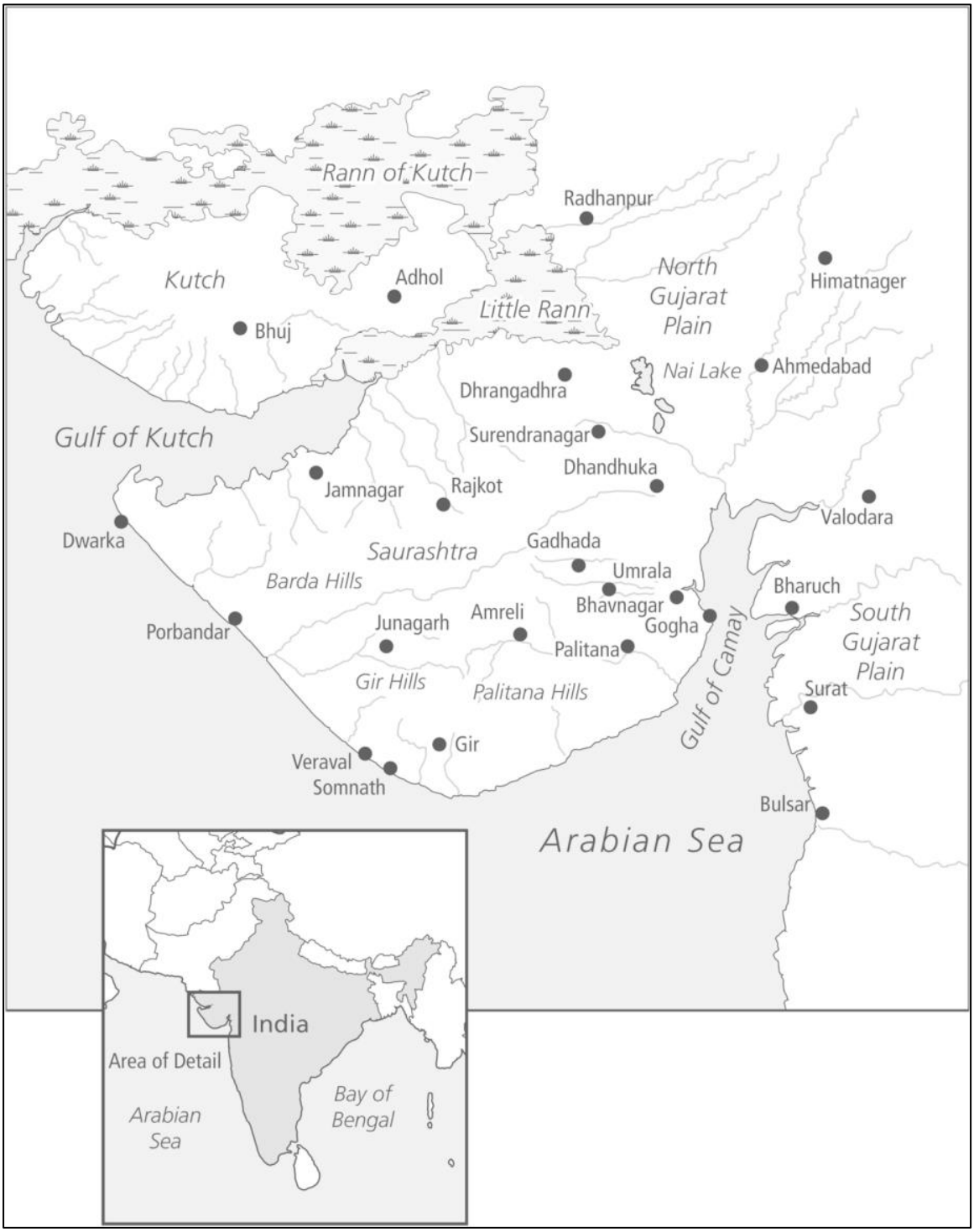


Illustration II: Zones / Pockets that largely remained inflicted by Pirates and Piratal / Piratical Aggressions in WIO: Gujarat and Malabar

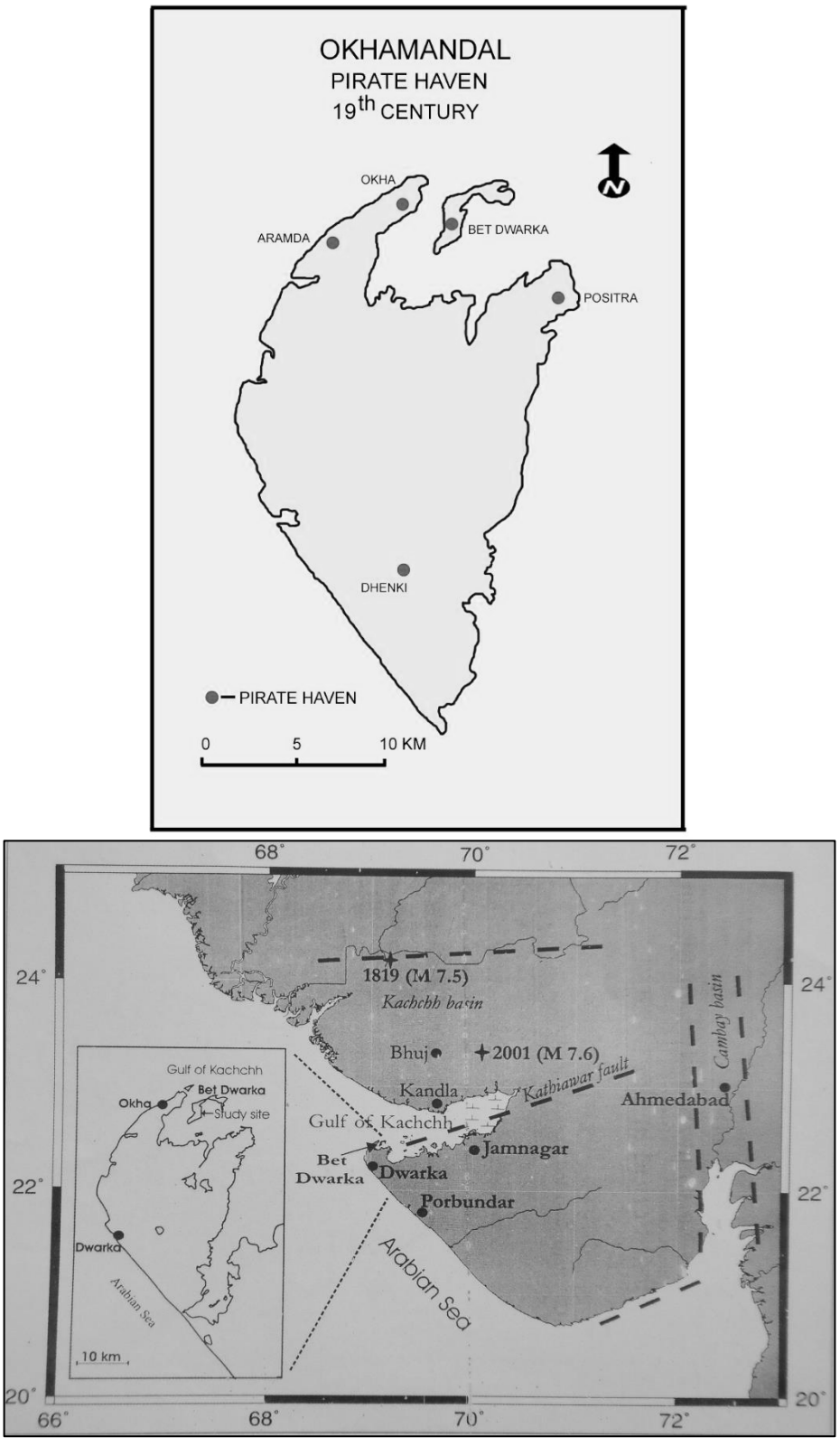
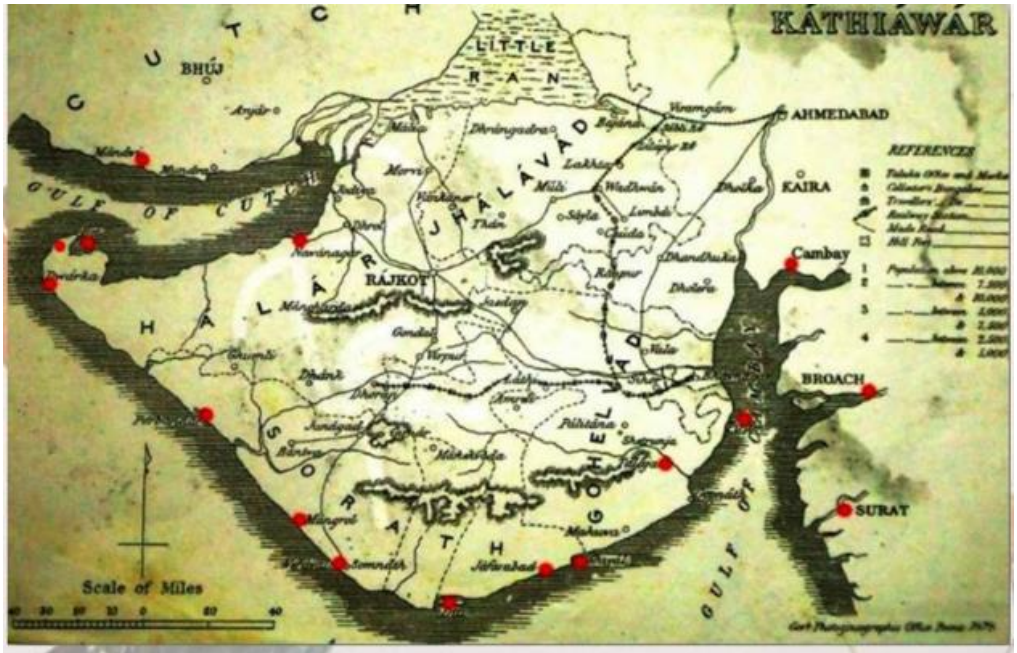
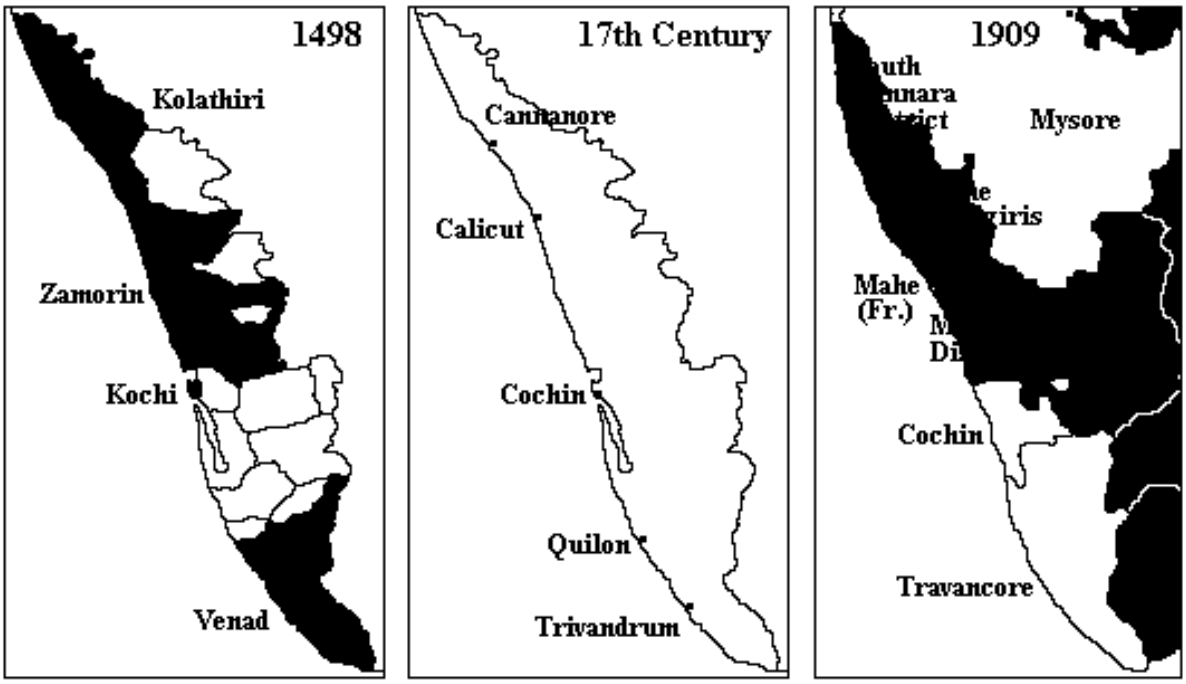


Illustration III: *Okhamandal*



1.	**Community**	*Kharvas, Kolis, Mianas, Sanjanians* and *Waghers*
2.	**Name of Pirates**	Dewa Chubanee, Beejs, Dewo, Patail, Sews & Bodh Singh (Tandal of the boat)
3.	**Pirates Location**	Kachchh Mandvi, Navanagar, Poshitra, Beyt, Okha, Aramda, Dwarka, Porbandar, Mangrol, Veraval, Diu, Jafarabad, Shiyal, Talaja, Piram Island, Cambay, Broach and Surat.
4.	**Activity Zone**	Gulf of Kachchh and Gulf of Cambay

Illustration IV: Malabar Coast



Eastern Indian Ocean (EIO)

Om Prakash[73] has identified the boundaries of EIO, which comprises Bay of Bengal which in turn encompasses the north-eastern Indian Ocean. It means EIO is bounded by India (west), Bangladesh & Myanmar (north) and the Andaman Sea (east). Within Indian territory it has the coastal line of Tamil Nadu, Puducherry, Andhra Pradesh, Odisha and West Bengal. It occupies about 2,173,000 Sq. Kms and 1,600 Kms in width with an average depth exceeding 8,500 ft. and share borders with Sri Lanka, India, Bangladesh, Myanmar, &archipelago of Indonesia, East Timor and the northern Malaya Peninsula.

The region, like WIO remains governed by monsoon winds and irrigated by outflow from major river systems both on the Indian side as well as South-East Asia. Andaman and Nicobar islands-the Bay's only islands, separate it from the Andaman Sea to the southeast. The maritime transactions before the European dominance of EIO suggest that it remained historically significant as observed by Kenneth McPherson with special reference to Bay of Bengal and Indian Ocean in general as the home of the world's 'first urban civilization' and 'sophisticated' commercial centre and maritime activities which served as a great highway of food and raw materials for many societies along the shores and the coast. One finds reference in description of Chinese merchants travelling towards Persian Gulf and East Africa through *junk* in 13th and 14th

[73] Om Prakash foreword in Lipi Ghosh (ed.), *Eastern Indian Ocean: Historical Links to Contemporary Convergences*, 2011, p. xv.

centuries; similarly Gujarati merchants travelled towards Indonesia and Sumatra in order to obtain spices and pepper through exchange of textile goods.

Holden Furber (2004) [74] opined that by 17th and 18th centuries, European Companies virtually or wholly controlled factories such as Nagapatnam, Pondicherry, Karikal, Madras, Pulicat, Colombo, Jaffna, Calcutta, Chandernagore, Chinsura, Serampore and Chittagong. Burma (Arakan, Pegu and Ava) remained beyond control of the European Companies till 1785. European Companies established factories in South-east Asia. Malaya archipelago had number of islands and wereknown as Spice Islands. Amboina one of the island in the region was chief source of cloves and other island produced nutmeg and mace. Arabs, Persian, Gujarati and Chinese had trade in the Eastern Indian Ocean before the arrival of European companies.

Surendra Gopal opined that Gujarati goods were exchanged for cloves and pepper with Malacca. The Portuguese (*Estado da India*), the Dutch (*VOC*) and the English East India Company (EIC) attempted trade monopoly in the Eastern Indian Ocean during the 17th and early 18th centuries. The Dutch had three factories in Burma (Myanmar) but trade in that country discontinued because the ruler showed little interest towards the Dutch. However, Dutch continued to carry trade in Malaya with

[74]Holden Furber, *Rival Empire of Trade in the Orient* 1600-1800, 2004, pp.13-17.

Indian goods. The English East India Company also had trade relation with Burma (Myanmar) and Malaya.

George Windsor[75] narrated the geomorphology of Malaya Peninsula, Java and Siam. He started his Journey in 1832 by Dutch schooner *Monkey* and reached strait of Bali and from there moved towards Java where the closeness of Java coast was experienced through the colour of water and disappearance of flying fish. There, he entered a small creek to reach a village and found that the village was having low houses built of bamboo. Fishing and selling of fish was the main occupation of the villagers. They sold fish to the passerby in the Strait of Sunda. In the travelogue one comes across information on Bantam (1619) port which was replaced by the Dutch East India Company (*VOC*) and was named Batavia. It had many small islets which were easily crossed by small boats and fishing was the main occupation of the population. This site observed varieties of vessels anchored along cluster of ports belonging to the Dutch, American and English merchants.

Nicholas Tarling[76] has observed on the British imperialism in the Malaya archipelago. Oceanic trade was main source of wealth for Malay population and it was also known for tin mining in the 19th century. District chiefs of Malaya got fewer shares of revenues because most of the revenue was passed to the ruler. Europeans intrusion in the Eastern Indian Ocean led to emergence of new

[75]George Windsor, *Eastern Seas or Voyages and Adventures in the Indian Archipelago in 1832, 1833, 1834,* and 1837, pp. 1-27.
[76]Nicholas Tarling, *Piracy and Politics in the Malay World: A Study of British Imperialism in the Nineteenth Century South-East Asia*, 1963, pp. 1-19.

ports like Penang and Singapore but these ports restricted the trade earlier enjoyed by Malaya. Piracy became a profession to recover the loss and the population of Malay considered them as patriot. It was difficult task for the English East India Company to suppress piracy because the pirates used boats which can travel with high speed and pirate used smoke to sail away in shallow waters. It was a complex situation for the prosecution of pirates because the company needed to provide evidence before the trial of pirates.

Henry E. J. Stanley[77] provides account on Barbosa's journey to Burma, Ava, Martaban, Pegu, Malacca, Java, Timor, Celebe, Solor, Borneo, Champa, Annam and China. He narrated about the trade in goods like cotton, silk clothes, ornament of gold and silver, opium, copper, scarlet cloth, coral in string, vermillion, rose water, drugs, rubies, copper and saffron. Trade also existed in armaments such as lances, daggers, knives and swords loaded on different types of vessels like *jungos* used by merchants of Malacca and Sumatra. According to Barbosa, south-east Asia had islands scattered in the Eastern Indian Ocean which were inhabited by Hindu, Muslim, Persian and Arabs alike.

James Francis Warren (1981)[78] considered the Sulu zone of Philippines as intersection of geography, culture and history. It was connected between the Eastern Indian Ocean and Western Indian Ocean through trade and commerce. It became an important trade

[77]Henry E. Stanley, (tr.), *A Description of the Coasts of East Africa and Malabar in the beginning of Sixteenth Century by Duarte Barbosa*, 1866, pp. 181-199.
[78]James Francis Warren, *The Sulu Zone, 1768-1898: Dynamics of External Trade, Slavery and Ethnicity in the Transformation of a Southeast Asian Maritime State*, 1981, pp. xiii-xv.

centre during the late 18th and 19th centuries. Marine and forest products were immensely available which required slaves in order to export the exploits. The important centre for the trade was Jolo and it was also the capital of Sulu Sultan. Slaves were caught by *Iranun* and *Balagingi*. They aided the coast of Philippines, Borneo, Celebes and Malaya Peninsula. Slaves were exchanged for opium, guns and other goods at Taosug. Sultan of Sulu imported guns and gunpowder to strengthen its control in the Sulu zone. The defiance against the European dominance of the Eastern Indian Ocean and developed a new pattern of trade in the Sulu zone. European considered Sulu zone a centre of piracy and slavery. Slaves were dependent on Sulu elites and in some cases they were successful in raising their status due to economic prosperity and assimilated with Taosug and Sama in hierarchy.

G. R. Tibbetts[79] vividly describes Ibn Majid's journey in South-East Asia with reference to Sumatra coast,South China Sea, Malaya Peninsula, Siam and west coast from Tenasserim (Burma) to Singapore. He apprises of the salient features of coast, port-towns and settlers and piratical aggressions.

Dian H. Murray[80] discusses socio-economic aspect of Giang Binh which is located between Vietnam and China. Fishing remained the main occupation and fishing community was known by Vietnamese as *Tanka* or egg families. Due to geographical

[79]Gerald Randall Tibbetts, *Arab Navigation in the Indian Ocean Before the Coming of the Portuguese: Being a Translation of Kitāb Al-Fawā'id fī Usūl Al-Bahr Wa'l-Qawā'id of Ahmad B. Mājid Al-Najdī*, 1981, pp. 477-86.
[80]Dian H.Murray, *Pirates of the South China Coast 1790-1810*, 1987, pp. 1-20.

reasons Giang Binh became an important place for sailors, freebooters, robbers and fugitives. In late 18th century, Giang Binh emerged as the principal pirate headquarters for the entire South China coast. Pirates of this locality offered threat to trade and commerce of Cantonese. Fishermen turned pirates formed small groups and also threatened the ruling dynasty of Giang Binh. They also took part in dynastic politics by siding one dynasty against another and piracy spread to central and western regions of Giang Binh. For instance, Tayson another contender of Vietnamese throne was supported by pirates and Tayson protected these pirates.

Robert J. Antony[81] examined the Gulf of Tonkin in north-western corner of the South China Sea bordering between Vietnam in the west and China in the north and east. Tonkin was important maritime region for trade in fish, pearl and salt. Piracy and smuggling were widely prevalent in the Gulf of Tonkin. Both Vietnamese and Chinese involved in piracy or smuggling. The Gulf of Tonkin was a contested zone for Vietnamese and Chinese but people living in the gulf area were fishermen, sailors, pirates and smugglers who lived on water. Laws and taxes were unnatural to them and negligence of military presence possible for the people to carry their activities as usual. Geographical features like long coast, bays, creeks, mangrove swamps, lagoons and island provided safe haven for pirates of this locality.

[81]Robert J. Antony, "Violence and Predation on the Sino-Vietnamese Maritime Frontier, 1450-1850", *Asia Major*, Vol. xxii, Part 2, 2004, pp. 87-114.

A peep into the geographical description of Eastern Indian Ocean is significant at this juncture.

Bay of Bengal: The limits of the Bay of Bengal, situated in the northern part of the Indian Ocean, between the coasts of Sri Lanka, India, Bangladesh, Myanmar and the western side of Andaman and Nicobar Islands, are as following:

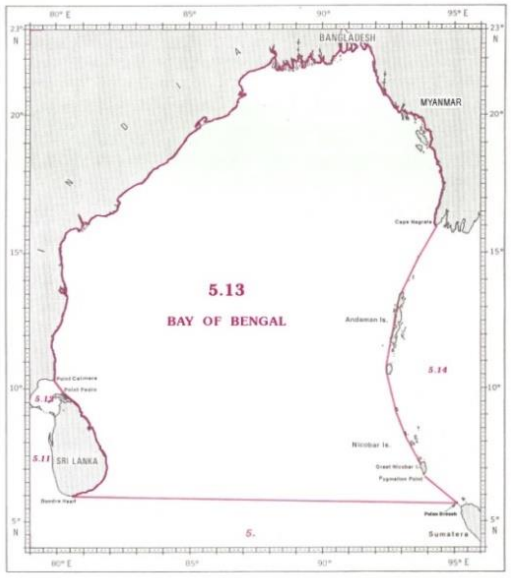


Figure 8: Map Showing Bay of Bengal

Limit on the West and the North

- From Dondra Head (5°55'N - 80°35'E), the southern extremity of Sri Lanka, northward, along the eastern coast of this island, to Point Pedro (9°50'N - 80°15'E), the northern extremity thereof;thence from Point Pedro northwestward, a line to Point Calimere (10°18'N - 79°53'E), on the coast of India (the common limit with the Palk Strait and Palk Bay, see 5.12); and thence from Point Calimere, in India, along the coasts of India, Bangladesh and Myanmar, to Cape Negrais (16°03'N - 94°12'E), in Myanmar.

Limit on the East

- A line joining Cape Negrais, in Myanmar, southward, along the western coasts of the Andaman and Nicobar Island, to Pygmalion Point (6°45'N - 93°50'E), the southern extremity of Great Nicobar Island - in such a way that all the narrow waters between these islands lie to the eastward and are therefore excluded from the Bay of Bengal;
- and thence from Pygmalion Point southeastward, a line to the northern extremity of Pulau[82] Breueh (5°45'N - 95°02'E), off the northwestern extremity of Sumatera (the common limit with the Andaman Sea, see 5.14 in Figure 2).

Limit on the South:

- A line joining the northern extremity of Pulau Breueh westward to Dondra Head (5°55'N - 80°35'E), the southern extremity of Sri Lanka.

[82] *Pulau* (Indonesian) = Island

Andaman Sea: The limits of the Andaman Sea, situated between the Andaman and Nicobar Islands and the coasts of Myanmar and Thailand, are as following:

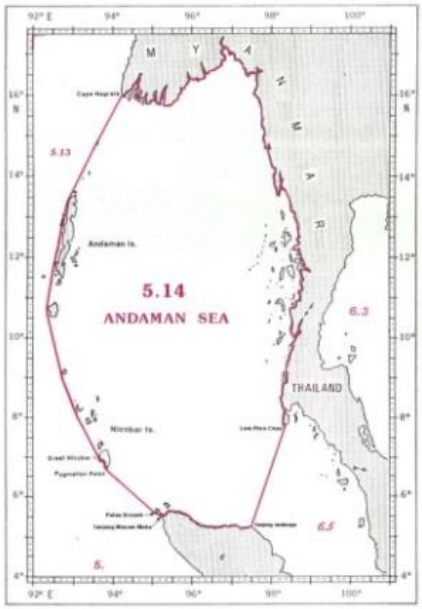


Figure 9: Map Showing Andaman Sea

Limit on the North and the East

- From Cape Negrais (16°03'N - 94°12'E), in Myanmar, eastward and southward, along the coasts of Myanmar and Thailand, to Lem[83] Phra Chao (7°46'N - 98°19'E), on the western coast of Thailand.

Limit on the South

- A line joining Lem Phra Chao southwestward to Tanjung[84] Jamboaye (5°15'W - 97°30'E) on the north eastern coast of Sumatera (the common limit with the Malacca Strait, see 6.5); thence from Tanjung Jamboaye northwestward, along the northern coast of Sumatera, to Tanjung Masam Muka (5°35'N - 95°14'E); and thence from Tanjung Masam Muka northwestward, a line to the northern extremity of Pulau[85] Breueh (5°45'N - 95°02'E), off the northwestern coast of Sumatera.
- Limit on the West

  A line joining the northern extremity of Pulau Breueh northwestward to Pygmalion Point (6°45'N - 93°50'E), the southern extremity of Great Nicobar Island;and thence from Pygmalion Point northward, along the western coasts of the Nicobar and Andaman Islands, to Cape Negrais (16°03' N - 94°12' E), on the coast of Myanmar - in such a way that all the narrow waters between these islands are included in the Andaman Sea (the common limit with the Bay of Bengal, see 5.13).

Timor Sea and Joseph Bonaparte Gulf: The limits of the Timor Sea, a component of the Indian Ocean situated between the north west coast of Australia and Timor, are as follows:

[83]*Lem* (Thai) = Cap
[84]*Tanjung* (Indonesian) = Point, Cape
[85]*Pulau* (Indonesian) = Island

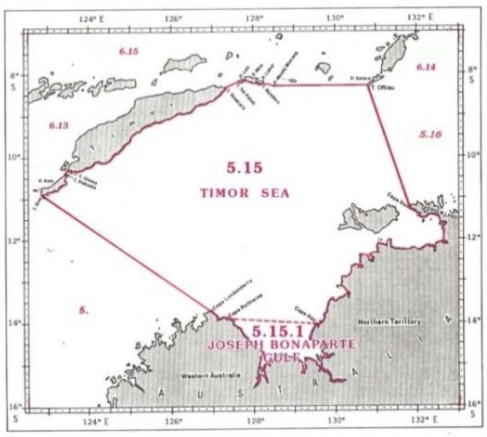


Figure 10: Map Showing Timor Sea & Joseph Bonaparte Gulf

Limit on the West

- From the north east part of Cape Londonderry (13° 44'S - 126° 57'E) on the northwestern coast of Australia, a line northwestward to Tanjung[86] Boa (10°56'S - 122°51'E), the southwestern extremity of Pulau[87] Roti;

Limit on the North

- From Tanjung Boa northeastward, along the southeastern coast of Roti, to Tanjung Pukuatu (10° 25'S - 123° 22'E), the northern extremity of this island;thence from Tanjung Pukuatu northeastward, a line to Tanjung Oisina (10° 21'S - 123° 27'E), the western extremity of Timor (the common limit with the Sawu Sea, see 6.13)*;* thence from Tanjung Oisina northeastward, along the southern coast of Timor, to Tanjung Sewirara (8° 23'S - 127°17'E), the eastern extremity of this island;thence from Tanjung Sewirara northeastward, a line to Tanjung Tut Pateh (8° 13'S - 127° 36'E), the western extremity of Pulau Leti;thence from Tanjung Tut Pateh eastward, along the northern coast of Leti, to Tanjung Supurmela (8° 12'S - 127°45'E), the eastern extremity of this island;thence from Tanjung Supurmela northward, a line to Tanjung Yaulu (8° 07'S - 127° 46'E), the western extremity of Pulau Moa;thence from Tanjung Yaulu eastward, along the northern and eastern coasts of Moa, to Moanga (8° 12'S - 128° 04'E), the northeastern extremity of this island;thence from Moanga eastward, a line to the northwestern extremity of Pulau Lakor (8° 12'S - 128° 06'E);thence from the northwestern extremity of Lakor eastward, along the northern coast of this island, to Tanjung Nyadora (8° 16'S - 128° 14'E), the southeastern extremity thereof;thence from Tanjung Nyadora eastward, a line to the southern extremity of Pulau Meatij Miarang (8°20'S - 128°30'E);and thence from the southern extremity of Meatij Miarang eastward, a line to Tanjung Oftiau (8°21'S - 130°47'E), the southern extremity of Pulau Selaru (the common limit with the Banda Sea, see 6.15 in Figure 2).

Limit on the East

- From Tanjung Oftiausouthward, a line to Cape Don (11° 18'S - 131° 45'E) on the northern coast of Australia, the western extremity of the Arnhem Land coast of north Australia.

Limit on the South

[86] *Tanjung* (Indonesian) = Cape, Point
[87] *Pulau* (Indonesian) = Island

- From Cape Don generally southwestward, along part of the northern coast of Australia, to Cape Hay (14° 03'S - 129° 28'E);thence from Cape Hay northwestward, a line to Cape Rulhieres (13° 55'S - 127° 81'E) (the common limit with Joseph Bonaparte Gulf, see 5.15.1); and thence from Cape Rulhieres northwestward, along the northwest coast of Australia, to Cape Londonderry (13° 44'S - 126° 57'E).

Joseph Bonaparte Gulf: The limits of Joseph Bonaparte Gulf, an indentation of the Timor Sea into the north western coast of Australia, are as follows:

Limit on the North

- From Cape Rulhieres (13° 55'S - 127° 21'E) southeastward, a line to Cape Hay (14° 03'S - 129° 29'E).

Limit on the South

- From Cape Hay southwestward, westward and northwestward, along the coast of Australia, including the estuarine waters of Victoria River, other rivers and Cambridge Gulf, to Cape Rulhieres (13° 55'S - 127° 21'E).

Gulf of Carpentaria and Arafura Sea: The limits of the Arafura Sea, a component of the Indian Ocean lying between the south western part of New Guinea and the northern coast of Australia, are as follows:

Figure 11:Map Showing Gulf of Carpentaria & Arafura Sea

Limit on the West

- From Cape Don (11° 18'S - 131° 45'E), the western extremity of the Arnhem Land coast of north Australia, a line northwestward to Tanjung[88] Oftiau (8° 21'S - 130° 47'E), the southern extremity of Pulau Selaru.

[88] *Tanjung* (Indonesian) = Cape

Limit on the North

- from Tanjung Oftiau southeastward, a line to the mouth of the Torassi River (9° 08'S - 141° 01'E), the frontier between Irian Jaya (Indonesia) and Papua New Guinea, on the southern coast of New Guinea.

Limit on the East

- From the mouth of the Torassi River, on the south coast of New Guinea, a line southeastward to Slade Point (10° 59'S - 142° 08'E), on the coast of Australia (the common limits with the South Pacific Ocean, see 8.)

Limit on the South

- From Slade Point southwestward, a line to Cape Arnhem (12° 21'S - 136° 59'E), the eastern extremity of Arnhem Land coast of north Australia;and thence from Cape Arnhem, along the northern coast of Australia, to Cape Don (11° 18'S - 131° 45'E).
- Gulf of Carpentaria: The limits of the Gulf of Carpentaria, a large indentation of the Arafura Sea into the northern coast of Australia are as follows:

Limit on the North

- From Cape Arnhem (12° 20'S - 136° 58'E), the eastern extremity of Arnhem Land, a line northeastward to Slade Point (10° 58'S - 142° 07'E), adjacent to the northern extremity of Australia.

Limit on the South

- From Slade Point southward, northwestward and northward, along the north coast of Australia, to Cape Arnhem (12° 20'S - 136° 58'E).

Great Australian Bight: The limits of the Great Australian Bight, a component of the Indian Ocean and situated on the southern coast of Australia, are:

Figure 12:Map Showing Great Australian Bight

Limit on the South

- From Cape Pasley (33° 56'S – 123° 30'E), on the eastern part of the southwestern coast of Australia, eastward, along the southern coast of Australia, to West Point (35° 00'S – 135° 56'E), the southeastern extremity of the Eyre Peninsula.

Limit on the North

- From West Point northwestward, a line to Cape Pasley (33° 56'S – 123° 30'E).

A study of co-ordinates of both WIO nd EIO suggests that the narrow passages and choke points remainedsites of piratical aggressions and served the purpose of being safe havens. The investigating reports of the colonisers speak of these choke points and coastal villages along them.

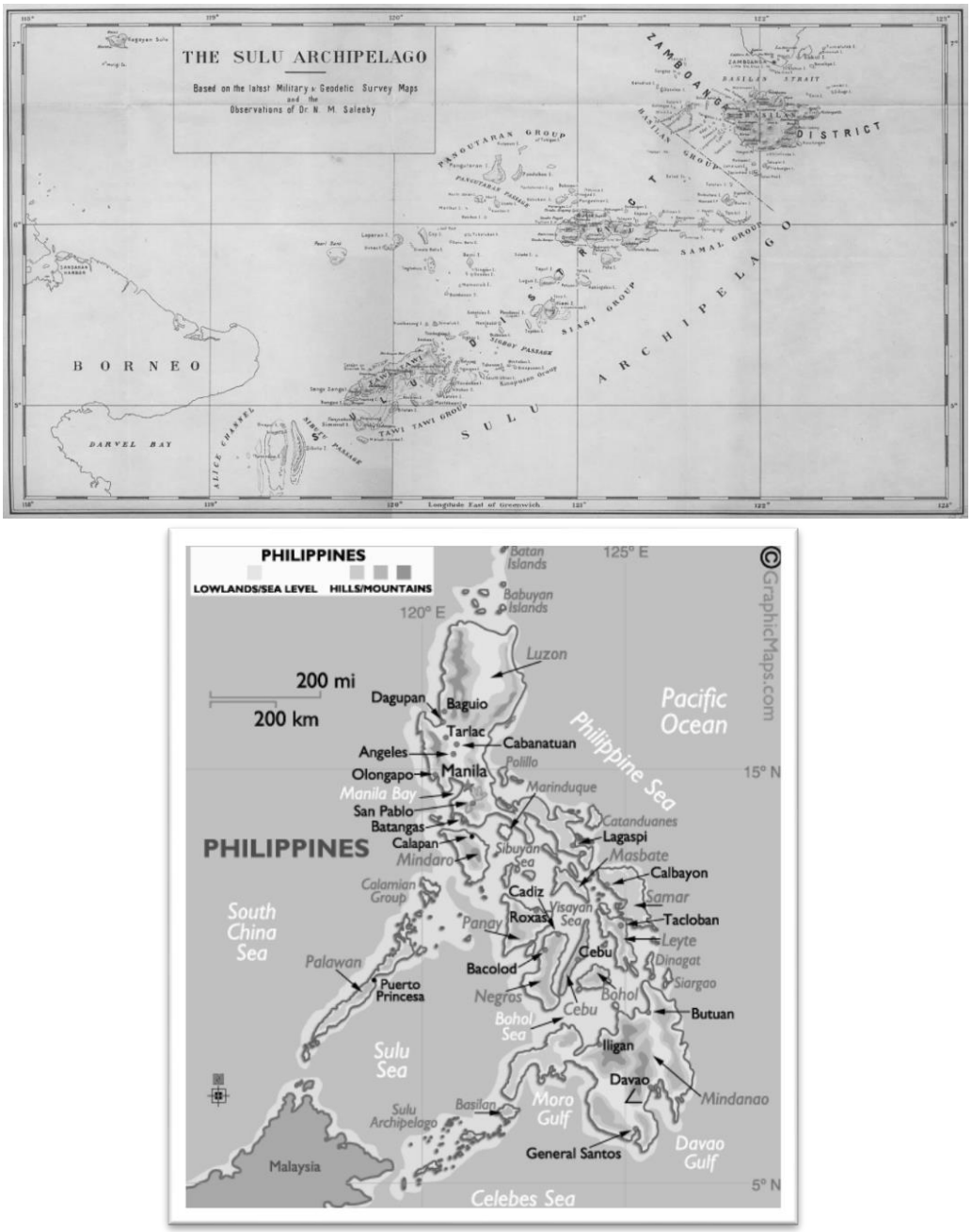


Illustration V: Zones/ Pockets that largely remained inflicted by Pirates and Piratal/Piratical Aggressions in EIO.[89]

[89] Source: https://suluonlinelibrary.wordpress.com/gallery/sulu-maps/

Western Indian Ocean: Monsoon & Navigation

Monsoon not only makes difference in the life of a farmer but also to the traders, merchants, pilgrims to *hajj* and the seafaring communities.[90] It played an important role in carrying out maritime trade and commerce as sailing in the Indian Ocean has always been dependent on the fact that the winds occur in an annual sequence and occur with great regularity. Advantage was taken of the fact that in the open ocean seasonal winds blow in one direction for about six months and in the opposite direction for the rest of the year. Thus, one can rely on a favourable wind at the same time every year to take one from Arabia to India or from Coromandel to Sumatra knowing for sure that in six months time the wind will change and blow one home. It helped the sailors to sail their vessels from one season to another and possible merchants to reach their destination safely. People waited favourable season to travel religious *hajj* in Mecca in medieval centuries.

Before the advent of steam navigation shipping and navigation in the Indian Ocean zone were largely shaped by more or less predictable alterations of the southwest monsoon (approximately from June to September) and the north-east (approximately from October/November to January) monsoon. Thus, along with agrarian communities, fortunes of ports and seafarers largely depended on the two categories mentioned above not only in the

[90] K. N. Chaudhuri, *Trade and Civilisation in the Indian Ocean: An Economic History from the Rise of Islam to 1750*, 1985, pp. 121-36.

subcontinent but also in Indian Ocean countries.[91] The most basic requirement of sailing in the Indian Ocean that every navigator was expected to master was of course knowledge of winds, in particular monsoon. The coastal communities stopped their fishing during monsoon season. Pirates moved according to the season and its movement corresponded with the mercantile vessel.[92] According to Ibn Majid, the word "monsoon" comes from the Arabic *mawsim*, meaning 'season'.[93] In Arabic, *mawsim* refers the period of time in which ships could safely depart from port, as in *mawsim 'adani*, "the season of Aden." Collectively, these times were called *mawasim al-asfar*, "sailing seasons." The regular periods of northeast and southwest winds that we call the monsoon are called by the Arabs *rih al-azyab* and *rih al-kaws*, respectively. While there are monsoon systems that affect parts of North America, Central America and northern Australia, the largest is found in the area of the Earth's largest landmass: the Indian subcontinent and eastern Asia.

Generally speaking, monsoon systems are powered by the seasonal warming and cooling of very large continental air masses, and depend on the fact that temperatures over land change faster than temperatures over oceans. From the spring equinox through

[91]Ranabir Chakravarti, "Seafaring, Ship and Ship Owners: India and Indian Ocean (A. D. 700-1500)" in David Parkinson & Ruth Barnes (eds.), *Ships and the Development of Maritime Technology in the Indian Ocean,* 2002, p. 31.
[92] M. N. Pearson, *The Indian Ocean*, 2003, p. 22.
[93] Gerald Randall Tibbetts, *Arab Navigation in the Indian Ocean Before the Coming of the Portuguese: Being a Translation of Kitāb Al-Fawāi̇d fī Usūl Al-Bahr Wa'l-Qawā'id of Ahmad B. Mājid Al-Najdī*, 1971, pp. 360-61.

summer, warm air over southern Asia rises, drawing in towards land, the relatively cooler and more humid ocean air. This creates southwest winds heavy with moisture. As the ocean air warms and rises in turn, the moisture condenses, resulting in the torrential monsoon rains. From the fall equinox through winter, the system reverses as relatively warmer ocean air rises, drawing after it the relatively cooler dry air above the land. This creates northeast winds with cool, sunny and rains. From the fall equinox through winter, the system reverses as relatively warmer ocean air rises, drawing after it the relatively cooler dry air above the land. This creates northeast winds with cool, sunny and dry weather. From mid-March, traders knew, the prevailing wind blew from the southwest, and the last ships left Yemen east bound for India by mid-September, so they could complete their voyage before the northeast monsoon began. Westbound, the first ships left western India for Yemen on October 16, arriving—if all went well—a mere 18 days later. If departure and arrival dates were carefully calculated, the turnaround times could be very short. Each sailing season was divided into two major periods, one at the beginning, called *awwal al-zaman*, "first of the season," and one at the end, called *akhir al-zaman*, "last of the season." Each offered an advantage: the convoys that left during the first of the season found the readiest markets, and those that left at the last had the shortest turnaround time. Of the two monsoons, the southwest was the

more dangerous.[94] In June and July, heavy swells and the famous torrential rains closed the ports of western India. The northeast monsoon, on the other hand, beginning in August in western India, meant clear sailing with steady winds and few squalls. Because it arose on the mainland, it carried little or no rain, and could be sailed with ease throughout its season.

The Monsoons of South Asia which is commonly known as the Indian blow from the Arabian Sea and the Bay of Bengal bring heavy rainfall to the land. The Indian monsoon winds can be classified into two: South-west monsoon and North-east monsoon. The south-west monsoon, also known as the Summer monsoon blows from the south-west direction to the Indian peninsula during June-September. It carries a huge amount of water vapour from the sea and causes heavy rainfall, especially on the places which are on the western side of the Western Ghats like Kerala, Karnataka, Goa etc. and also over the north-eastern regions. Similarly, the North-East monsoon wind which is also known as the winter monsoon blows from the North-east direction during October to November. This wind brings rainfall to the eastern coast of India. The average rainfall in the Indian region is mostly dependant on the Summer Monsoon, so it has more impact on agriculture and economy of India as well. Illustrations provided herewith in figure 13 which indicate the wind movement and possibility of sailing.

[94]Ghulam A. Nadri, "Sailing in the Hazardous Waters: Maritime Merchants of Gujarat in the Second Half of the Eighteenth Century", in Om Prakash (ed)., *The Trading World of the Indian Ocean, 1500–1800,* 2012, pp. 255-84.

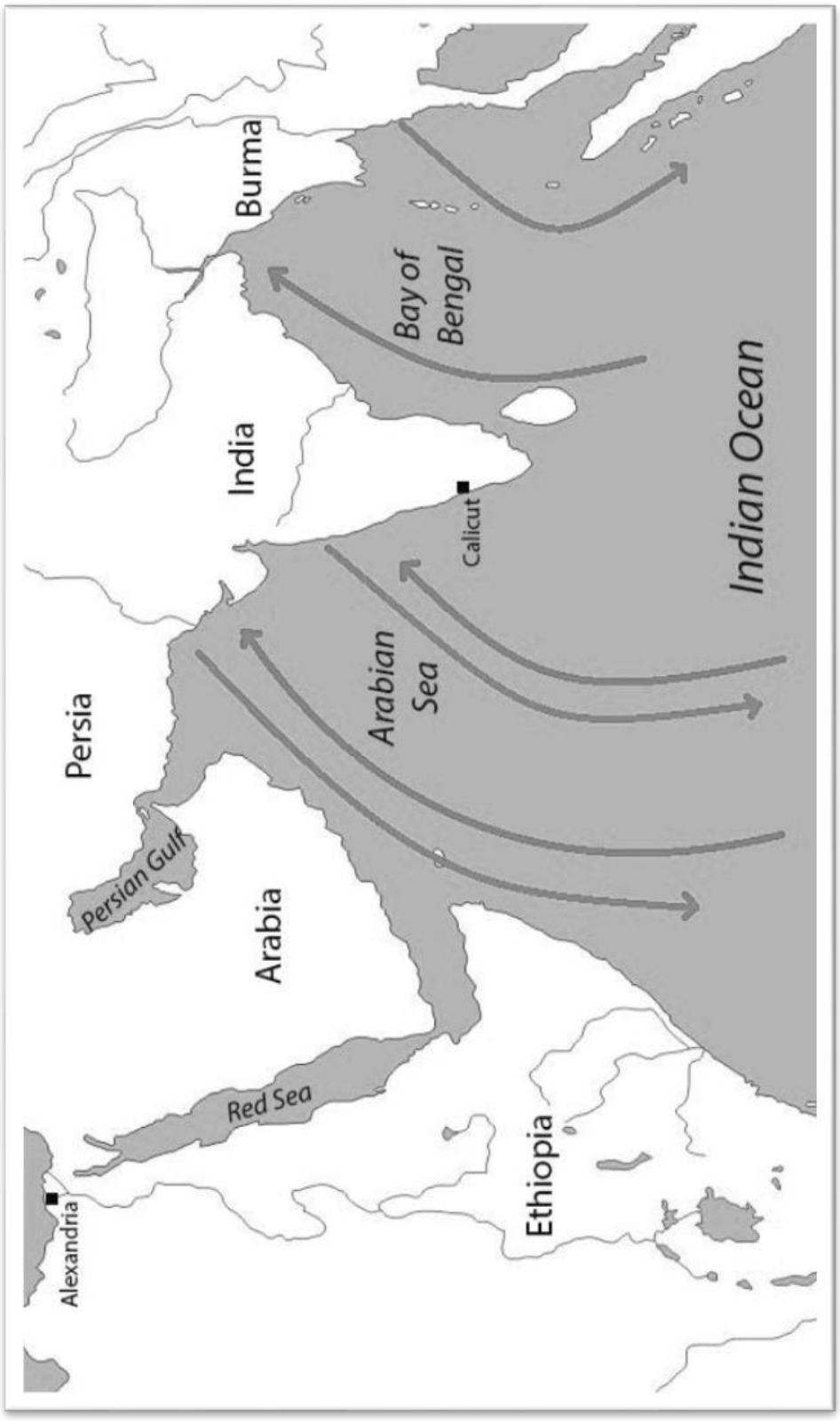


Illustration VI: Map Showing Monsoon Direction[95]

[95]Source: https://byzantinemporia.com/monsoon-trade-system/ http://moocs.southampton.ac.uk/shipwrecks/2014/10/02/maritime-rhythms-indian-ocean-monsoon/

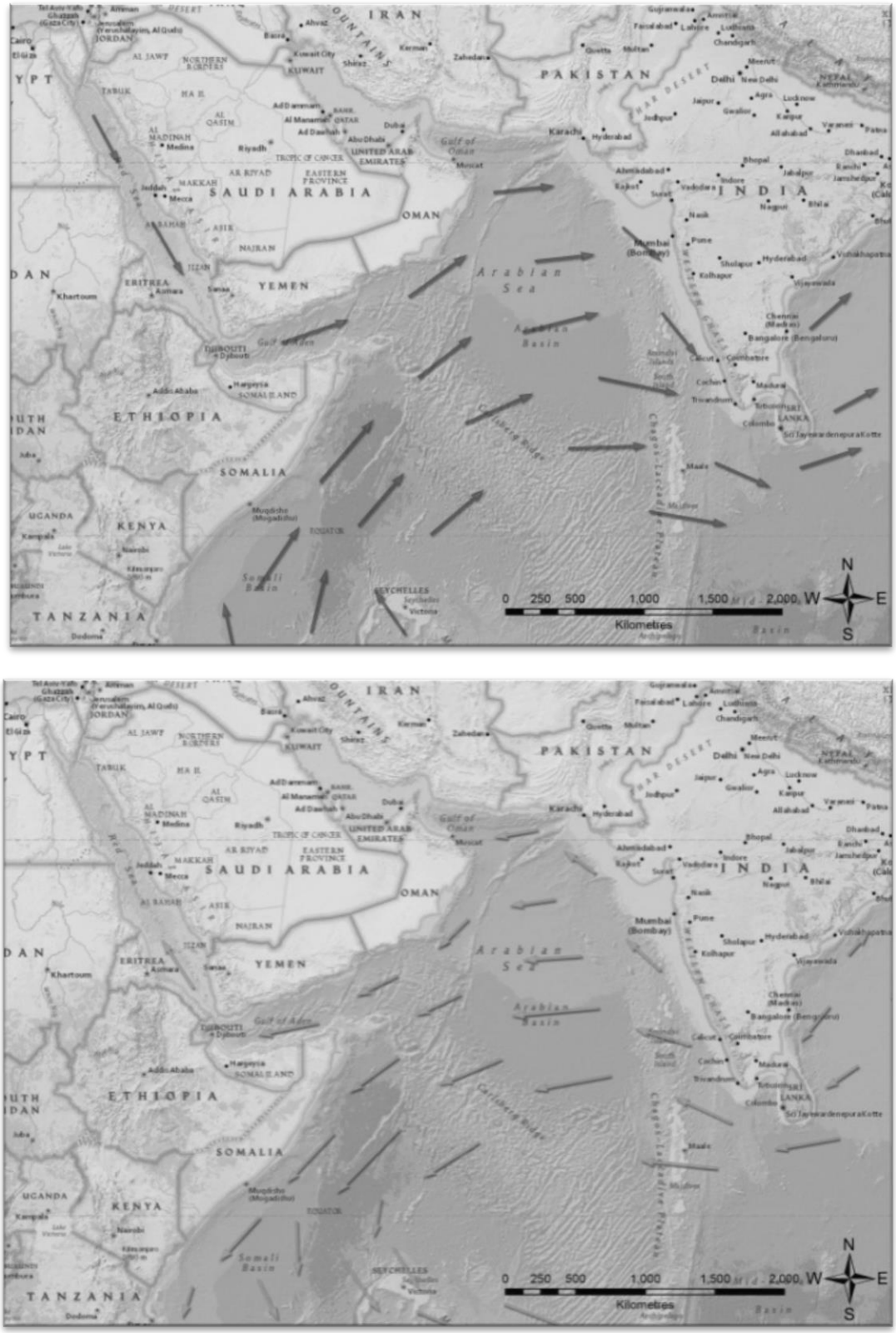


Illustration VII: Maps Showing the Direction of Monsoon Winds.

Survey of primary sources[96] and secondary readings[97] on monsoon and navigation before the advent of steam engine suggests pattern of sailing routes in the western Indian Ocean. A discussion on the same is relevant here. Ibn Majid's work derived from his father's and his own expeience is an encyclopaedia of navigational lore for the fifteenth century. It reflects on the "history and basic principles of Arab navigation, lunar mansions, rhumb lines, the difference between coastal and open-sea sailing, the locations of ports from East Africa to Indonesia, star positions, accounts of the monsoon and other seasonal winds, typhoons and other topics for professional navigators". Based on his work several scholars comprehended Arab navigation and inferred that Arab navigation influenced navigational knowledge of several other sailors in the western Indian seaboard: the Malabar, Konkan,

[96]Gerald Randall Tibbetts, *Arab Navigation in the Indian Ocean Before the Coming of the Portuguese: Being a Translation of Kitāb Al-Fawāi̇d fī Usūl Al-Bahr Wa'l-Qawā'id of Ahmad B. Mājid Al-Najdī*, 1971, pp. 269-392 and Alexender George Findlay, *A Directory for the Navigation of the Indian Ocean; With Descriptions of Its Coasts, Islands, Etc., from the Cape of Good Hope to the Strait of Sunda and Western Australia, Including also the Red Sea and the Persian Gulf: The Winds, Monsoons, and Currents and the Passages from Europe to its Various Ports*, 3rd edition, 1876, pp. i-xxxvi & 115-199, 2-76, 77-134, 202-1001; James Hornell, *The Origins and Ethnological Significance of Indian Boat Designs*, 1920, pp. 1-73 & Jean Deloche (James Walker, Trans.), *Transport and Communication in India Prior to Steam Locomotion*: *Water Transport*, Vol. 2, 1994, pp. 1-305.

[97]B. Arunachalam, "Technology of Indian Sea Navigation (c. 1200-c. 1800)", *The Medieval History Journal*, Vol. 11, 2008, pp. 187-227. DOI: 10.1177/097194580801100202; and Ranabir Chakravarti, "Seafaring, Ship and Ship Owners: India and Indian Ocean (A. D. 700-1500)" in David Parkinson & Ruth Barnes (eds.), *Ships and the Development of Maritime Technology in the Indian Ocean*, London, 2002, pp. 28-61; *"Nakhudas* and *Nauvittakas*: Ship-Owning Merchants in the West Coast of India (A. D. 1000-1500)" *Journal of the Economic and Social History of the Orient*, Vol. 43, No. 1 (2000), pp. 34-64; Clive Dewey, *Steamboats on the Indus: The Limits of Western Technological Superiority in South Asia*, 2014, pp. 30-194; Pierre-Yves Manguin, " Asian Ship-building Traditions in the Indian Ocean at the Dawn of European Expansion" in Om Prakash (ed.), *The Trading World of the Indian Ocean, 1500–1800*, 2012, pp. 597-632; and see Robert Gardiner, *Stream, Steel & Shellfire: The Steam Warship 1815-1905*, 1992.

Gujarat, *Kathiawad* and *Kachchh* coast, however the latterhave distinct acumen and remained identified throughout subsequent centuries. Sailing along the monsoon driven system in the age of steam navigation was a challenge which still survives in the several pockets and is referred as traditional navigation.[98]

Another important manual on Indian Ocean is by geographer Alexander George Findlay (1876), which provides us intense information for the 18th and 19th century passages used by sailors, monsoonal winds direction, currents based on the observation of oriental sailors and description of coast and islands. This Directory manual also contains port regulation manuals which help us understand processes of controlling oceanic waters and regulations for violators.This directory emerged for helping steam navigators. B. Arunachalam[99] another geographer opines of the situation in the Indian Ocean waters:

> Advances in maritime knowledge during the period 1200–1800 in the seas around India are relatively **better recorded** than in the earlier period… 1200, the naval power of the **Imperial Cholas** who had sent cultural emissaries to China by sea and who had organised **naval expeditions to South-east Asian areas** was definitely on a decline, and there were no other coastal rulers on the Indian coasts… In the **Arabian Sea, the Arab and Omani shipping interests were gaining predominance in prosperous and peaceful sea trade with the seaports along the west coast of India**. Islamic missions were spreading fast… in the islands of the central Indian Ocean and had entered the Coromandel coast and Sri Lanka… were well set to enter the South-east Asian realm. The Chinese and Malaysian sea interests were also growing in the Bay of Bengal with the recession of Indian sea interests…Till about **A.D. 1500, when the European sea power entered directly into the north Indian Ocean**, there was considerable peace in the sea trade of Indian ports, with sea-crafts from South-west and South-east Asia freely mingling. Marco Polo have

[98]Lotika Varadarajan, Rupal Mankad & Himanshu Ajabia, "Windows on Gujarat: An Ethno-Technological Reconstruction" in Lotika Varadarajan (ed.), *Gujarat and Sea*, Darshak Itihas Nidhi- Vadodara, 2010, pp. 155-78.

[99] B. Arunachalam, "Technology of Indian Sea Navigation (c. 1200 - c. 1800)", *The Medieval History Journal*, 2008; 11; pp. 187-88.

> much to say about the prosperity and intense maritime activity of their periods in the coastal areas they visited. However, the landing of the Portuguese on the Kerala coast …**witnessed the drawing of firstblood in coastal waters. Aggression with the use of ships mounted withon-board artillery was able to suppress the local as well as the Arab–Omani trade, but not without stiff resistance by these hitherto peaceful tradingcommunities, leading to coastal skirmishes with the Kunjali Marakayars of the Malabar coast and with the Turkish, Egyptian and Gujarati maritimetrade interests off Saurashtra, and around Chaul**. …The coming in of other maritime colonial European interests like the Dutch, Danish, French and British all along the Indian coasts and elsewhere in the coastal areas of the Indian Ocean brought **a sweeping change on the sea scene with a rapid rise intheoverall sea trade and growing rivalries among the competing trade interests accompanied by privateering, buccaneering and piracies**. There was also a magical transformation in maritime technologies of the sailing vessels that were ultimately superseded by steam vessel technology in the early nineteenth century and the associated emergence of modern port systems.

Description of sea vessels in the Western Indian Ocean is desired. Based on primary and secondary sources, profile of navigational acumen and maritime vessel building is provided herewith. Maritime vessel technologies of the study period can be classified as: a) between 1200 and 1500 during which indigenous skills dominated the north Indian Ocean and b) between 1500 and 1800 when European navigation and ship-building technologies left behind the indigenous methods of construction. Increased use of the later led to lesser use on long journeys and in the mid-twentieth century one finds them frequenting in coastal trade and confined to the minor ports only. However, the vessel/ship building continued and adaption were made as these were by now steam engine driven.

Maritime / Shipping technology in the Indian Ocean can be traced from the accounts of Al-Idrisi, Ibn-Jubayr (12th century), Ibn-Battuta (14th century), Ahmad Ibn-Majid and Sulayman al

Mahri and the European travellers of the the 13th and 14th centuries such as Macro Polo, Duarte Barbosa, John Montecorvino, etc. After the coming of Portuguese in Indian Ocean shipping technology changed.

Hourani[100] argued on outstanding features of medieval ship of the Indian Ocean such as plank of the hull were sewn together in ship, no nail was used but modern ship differ in two aspect like use of nailed and its stern is often square. Further Hourani informed us those modern types of Arab ships / vessels name after the shape of the hull. *Baghalah, Ganja, Sanbūq / Sanbook, Jihāzi have* square transom stern with different shape and design. Older types of vessels such as *būm, zārūq and badan* which have double ended. The hull or the frame of the ship were made of teakwood or coconut and Arab and Persian known teakwood as *saj* or *sag* (from Prakrit *Saka*) but European used teak which is derived from *teka* (from Dravidian). It is considered as most durable and it do not spilt, crack, shrink or change its shape. Teakwood was

[100]George F. Hourani, *Arab Seafaring in the Indian Ocean in Ancient and early Medieval Times*, 1995, p. 87. Also see Hasmukh Aboti, "*Sagarna Susvata*", 2012; Zaverchand Meghani, "*Dariyapaar na Baharvatiya*" 2012; and "Architecture for the sea the shipbuilding craft of Mandvi, Gujarat", May 16, 2017 [Architecture for the sea : A photographic documentation of the hard work, patience and the intricacy of the craft that involves in the age old shipbulding industry of Mandvi, Gujarat. Photographed, compiled and edited by Amlanjyoti Bora for his Design Project 01, Photography Design (2016), Semester 02, NID Gandhinagar. This work was partly funded by the Living Waters Museum, a project supported by Water Aid India. https://issuu.com/amlanjyotibora/docs/architecture_for_the_sea_-_the_ship] . Visit:https://architexturez.net/doc/az-cf-21717;https://caravanmagazine.in/photo-essay/far-shore; https://m.economictimes.com/industry/transportation/shipping-/-transport/arabs-place-orders-for-vessels-with-gujarat-shipping-industry/articleshow/2719319.cmsand https://www.bbc.com/news/av/world-asia-39285879/shipbuilding-the-traditional-way-in-gujarat

abundantly found in Gujarat, Malabar, Burma, Siam and Indonesia. The hulls were put together in the simplest manner possible. First the *keel* was laid on the ground, and then horizontal planks on each side were fastened to it and to each other by means of stitches (sing. ***khayt***) of fiber. There is no mention in the sources of ribs or any framework, nor are these found in the two Greenwich Museum models of traditional Arab vessels, constructed by a boatman at Masqat late in the 19th century. He further informs us on construction in the Red Sea, along the East African coast, in 'Umān, the Persian Gulf, the Malabar and Coromandel coasts of India, the Maldive and Laccadive Islands. In fact, it is fairly clear that this was the only method indigenous to the western half of the Indian Ocean before the fifteenth century.[101] Soon after 1500, the ships of Malabar were already being built with many iron nails, according to European observers; this may be due to a desperate attempt to imitate the new Portuguese enemy, or to the example of the Chinese junks which had long been visiting Calicut. Since the coming of European ships the sewn vessels have been gradually

[101]Sources from sewn ships: (a) Indian: see R. Mookerji, *A History of Indian Shipping and Maritime Activity*, 1912; J. Marshall and F. Foucher, *The Monuments of Sanchi*, Vol. II, p. 51(b) Greek: Periplus, pp. 15-16, 36, 60; Procopius, Persian Wars, bk. t, ch. 19. (c) Arabic: Ya'qūb i, p. 360, Abu-Zayd, pp. 87-88, 130-31: Mas'ūdi, Muruj, Vol. I, p. 365; Idrisi, fols. 191, 341, 841; Ibn-Jubayr, pp. 70-71 (quoted); Ibn-Bassusah, Vol. IV, p.121, Hariri ship, see Plate 7 and comments. (d) European: *Jordanus, Mirabilia Descripta*, Eng. Tr. H. Yule (London, 1863), Hakluyt 1st Series, Vol. XXXI, p. 53; John of Montecorvino in Yule, *Cathay and the Way Thither* (London, 1915, 2nd ed.,), Pt. III, p. 67; Marco Polo, Eng. Tr. H. Yule, 3rd ed. (London, 1903), vol. t. p. 111; Friar Odoric, in M. Komroff, *Contemporaries of Marco Polo* (London, 1928), p. 217; G. Carreri, quoted by A.W. Stiffe, "Former Trading Centres of the Persian Gulf", in *Geographical Journal*, Vol. XII, p. 294. See W. H. Moreland, "The Ships of the Arabian Sea about A. D. 1500", *Journal of Asiatic Society*, Part II, April, 1939, pp. 173-192; and George F. Hourani, *Arab Seafaring in the Indian Ocean in Ancient and early Medieval Times*, 1995, pp. 93 -99 .

driven out of most waters by iron-fastened vessels. But they still survive in humble forms – fishing boats and canoes – on coasts remote from modern economic influences; South and East Arabia, South India and the adjacent isles; until recently Lamu in Kenya.[102] Another pocket where native craft which can hold considerable hold continued till late were from *Kachchh*, Mandvi and Mundra. These were equivalent of Arab *dhows* plying in the East African water along the Swahili coast. Trade between *Kachchh*, Oman and Zanzibar has several stories revolving around them. A peep into National Archives of Zanzibar reveals of the identity of shipowners, the *nakhudas* and other crew members and traveller on board and who lended on different port towns.

According to James Hornell[103] sailing along the Makran coast, past the mouths of the Indus and thence past *Kachchh* and *Kathiawad* to the Gulf of Cambay, one finds the coast a continuation and outlier of arid sandy zone and presence of the following in waters:

> …whether it is the great ***kotia,*** the Indian sea-going sister of the handsome **matron**, the Red Sea and Persian Gulf ***baggala***, or in the humbler ***machwa*** of the fisherman and in the coasters known as ***nauris*** and ***dhangis***, all hoist the Arab lateen; all lift to the long swell of their seas the great forereaching grab

[102]Moreland in *J. R. A. S.* (April 1939), pp. 179 ff., discuss the Portuguese and Italian observations of nails in Arab ships of this period. Present-day survivals of sewn ships: Villiers, pp. 54, 131; B. Thomas, Arabia Felix (London, 1932), p. 2; Hornell, "Indian boat designs," and "The Sea-Going Mtepe and Dau of the Lamu Archipelago" in *Mariner's Mirror*, Vol. XXVII (January, 1941), pp. 54-68. I shall not attempt to name the many references in Western writings since the Renaissance; some are mentioned by J. Hornell, *Water Transport; Origin and Early Evolution*, 1946, p. 235. See George F. Hourani, *Arab Seafaring in the Indian Ocean in Ancient and Early Medieval Times*, 1995, p. 93

[103]James Hornell, 'The Origins and Ethnological Significance: Indian Boat Design', *Memoirs of the Asiatic Society of Bengal*, Calcutta, 1920, pp.148-52. Also see George F. Hourani, *Arab Seafaring in the Indian Ocean in Ancient and early Medieval Times*, 1995, pp. 100-105.

bow; all have a deep forefoot and a raking stern. The *machwa* is entirely open and undecked whereas the *kotia* and the *baggala* have a high castellated decked poop and a properly laid main deck. …The *baggalas*, *kotias*, *nauris*, *dhangis*, and some of the larger *machwas* have both main and mizzen masts; the former is a stout heavy spar stepped nearly amidships with a great rake forward to enable it to carry the weight of the heavily yarded sail in the right place. … **To see a great *kotia* foaming through the water with a fair wind, the sun lighting the great spread of white sail and red carved poop, is one of the prettiest sights in Eastern seas and one that instinctively heightens our respect for the race that has evolved the type, powerful and admirably fitted for deep-sea service. At several of the larger ports of the North-West coast the building of *kotias* and *machwas* is an important industry, in spite of the fact that nearly all the timber has to be imported from the Malabar coast. Here are built the fine *kotias*, running from 50 to 80 feet in length and up to 150 tons in size, which trade with Cochin and Calicut to the south and as far as Zanzibar on the west. Constant and intimate traffic is carried on with the Persian Gulf and many of the vessels built in India are constructed to the order of gulf Arabs or are sold eventually to them. …**

The main source of trouble is that boats of essentially the same build are given different names dependent primarily on the race of the owner and signalized by divergence in small detail, usually of ornament. **Thus the *baggala* and *gunjo* are the Arab forms of the Indian *batel* represents the Arab *sambuk***. The *baggala* is usually built by Arabs in their own lands; is two and even occasionally three-masted, fully decked, with a high poop, truncate stern with counter, rudder trunk and ornamented quarters. In size commonly between 300-400 tons, rarely reaching 500 tons' register.**The *kotia* is built in India for Indian owners; in great measure it is the native craft of the coast of Kutch and** Kathiawad**.** In appearance it approaches closely to the *baggala* type, being two-masted, with poop, carved square stern and quarters; usually with a rudder trunk.In size it runs generally under 200 tons, but in spite of its smaller size it makes equally long voyages as its great relative, **the *baggala*, often making round voyages from Kutch- Mandvi to Bombay, thence to Madagascar or the African coast, back to Bombay and on home.***Kotias* are the oceanic tramps of Indian craft, willing to go wherever remunerative freight offers, be it Chittagong or Jeddah, Nossi Bé or Colombo**. Often the better found are copper bottomed; if not, they have the usual *chunam* and grease mixture applied to the under-water parts. They are built chiefly at Kutch Mandvi, and on the Kathiawad coast, but a fair number are built at Mangalore and Calicut…The *gunja* or *gunjo* is an Arab-owned *kotia*, built for or transferred to an Arab port.** The only recognisable difference is usually the form of the stem ornament; the "Parrot's head…Last of all the square-sterned traders commonly seen on the North-West and Bombay coasts is the Arab *sambuk*, a roughly built two-masted decked coaster with low poop and plain stem-head. …The *batel*, a still more primitive coaster of the *baggala* and *sambuk* type, from which it differs in being undecked except at the extreme ends and being without poop. …An altogether different from of Arab trade is the *boom* or *dhangi* , a cheap and older form of a small sized *baggala*, from which it differs chiefly in the form of the stem terminal and in having a sharp, raked stern in place of the counter and highly ornamental broad stern. …*Dhangis* run to 200 tons, are rigged similarly to two – masted *buggalas* and are said to be exceptionally fast sailors. They are generally owned by Arabs,

> but are built chiefly on the Indian coast between Karachi and Calicut. The *nauri* is very much like the *dhangi* in essential details but has a characteristic "Parrot's head" stem ornament, bespeaking Hindu influence in place of Arab. …**They are generally built on the Kathiawad coast**. The boom or *dhangi* and the *nauri* are the least changed of the Arab type of trading vessel bespoken by their plain double-ended form. The others, *baggalas*, *gunjos*, and *sambuks* is well as *kotias* and *batels*, respectively Arab and Indian, show distinct Portuguese influence,... The *machwas* used for fishing and minor coast traffic are of two varieties one having the typical transom stern the other lean in the quarters and terminating sharply in a greatly raked stern post. The latter type is by far the more common and is the fishing boat design *par excellence* on the coast and indeed as far south as Bombay.

During the 19th century on the various ports of *Kachchh* the vessels[104] frequented were *Kotia* which were made at the Malabar coast and the rest frequenting *Kachchh* waters were built in *Kachchh*, Mandvi, Mundra, Tuna and Jakhau by Muslim *vadhas'* and Hindu *suthars'*. These vessels were made out of timber exported from Konkan, Kanara region and the Malabar Coast. The harbours of *Kachchh* housed canoes/*hodis*, jolly boats, fishing boats, ferry boats and six kinds of deep sea trading vessels locally named as *padav, navdi, kotia, ganjo, bagala*, and *batela*. *Hodi* was cut out of a single tree trunk from 12 to 22 ½ feet long and from ¼ to 3 feetbroad with 12 ½ *khandis* burden and amounted between Rs. 50/- to 125/-. It could be rowed by paddles generally by a crew of three or four men, and was used chiefly for fishing and carrying passengers to and from ships. *Kachchh* built jolly boats were 10 ½ to 19 ½ feet long and 3 3/8 to 4 ½ broad, weighed between 2-4 *khandis* and amounted to Rs. 200/- to 400/-. Besides four oars, they had a mast with one sail and a crew of four to seven men. They

[104]*The Gazetteer of Bombay Presidency: Cutch, Palanpur and Mahi Kantha*, Vol. V, pp. 114-15.

were chiefly used in harbours to take sailors from one ship to another. The ferry boat, *tara*, built in *Kachchh* was from 9 to 12 feet long and 4 ½ to 6 feet broad, between 4-6 *khandis* burden and amounted to Rs. 200/- to 300/-, it had paddles worked by one or two sailors. The fishing boat / *machchva* was of two kinds: small *machchva* was about 9-18 feet long, 3 ¾ to 6 ¾ feet broad and 2-6 *khandis* witha mast, one sail, four oars and crew between 2-4 men whereas large *machchva* was about 27 feet long and 10 ½ broad, 80 *khandis* and costed between Rs. 200-600, had one mast and two sails and a crew of 4-5 men. These cruised between the *Kachchh* and Sind *bandars* during late 18th and 19th centuries and were largely used to bring mangrove and other sea growing timber. Of deep sea trading boats there were the *padavs*, from 27 to 37 ½ feet long by 10 ½ to 15 feet broad, 80-175 *khandis* in burden thuscosting Rs. 5000-9,500. *Padav* had two masts and three sails and a crew from 5-7 men. These traded with *Kathiawad*, Konkan, and Malabar ports. *Navdi* were from 27 to 40 ½ feet long by 10 ½ to 12 ½ feet broad, 80-225 *khandis*, Rs. 5000/- to 16,000/- with three masts, two sails and crew between 4-12 men. These traded with Basra, Zanzibar and Muscat. *Kotia* was between 27 to 40 ½ feet long and 10 ½ to 16 ½ feet broad, 80-225 *khandis* and could be purchased for Rs. 5000/- to 16,500/-; had three masts, two sails and crew from 4-12 men. Their trading potentialities extended up to Zanzibar, Muscat and other ports. The chief trading vessel of *Kachchh* was *ganjo*, from 37 ½ to 48 feet long and 15 to 19 ½

feet broad, 175-350 *khandis* and costed Rs. 10,000-28,000 with three masts, three sails and crew between 8-15 men. They traded with Zanzibar, Muscat and other ports. *Batela* was between 42 to 45 feet long by 10 ½ to 18 feet broad, weighing 80-350 *khandis* and costed between Rs. 5000/- to 24,000/- with two masts, three sails and crew between 4-12 men. Like others, frequented till Zanzibar, Muscat and other distant ports. *Bagla* was from 42 to 57 feet long by 16 ½ to 19 ½ feet broad, 250-800 *khandis*, costed between Rs. 17,000/- to 38,000/- had three masts, three sails and crew of 10-24 men who carried it up to Zanzibar, Muscat and other distant ports. Thus East Africa was the main hub of activities for *Kachchh* seafarers and traders.

Observation of Hourani on anchors is noteworthy: Anchors (sing. *anjar, angar*) were crude. Gemelli Carreri in the last decade of the seventeenth century saw them of stone in the Persian Gulf, with a hole through the middle for the ropes Varthema found them of marble at Calicut. But metal anchors were perhaps known, as they had been in the Mediterranean for a long time. The Hariri ship appears to have a metal anchor of grapnel shape, such as is still commonly found on the sailing ships of these parts. An oceangoing ship in the tenth century might have as many as six anchors.[98]

Edward Alpers has observed for the maritime vessels traversing on the eastern board of Africa, that generally *dhow* took

[98] Ar. *angar* or *anjar*, from Pers. *langar* (the l becoming part of the Ar. article): or possibly from Gk. *angkura*? Carreri, quoted by A.W. Stiffe in *GeographicJournal*, Vol. XII, p. 194. Varthema, p. 152, Buzurg p. 87 in See George F. Hourani, *Arab Seafaring in the Indian Ocean in Ancient and early Medieval Times*, 1995, p. 99.

35-42 days to sail from Zanzibar into to the Persian Gulf depending on winds, currents, storms, interruption from pirates, supply of provisions and illness aboard ship.[105] Mortality rate was higher for long distance journey. More than 20 crews were carried in *dhows* and one or two carpenters, and armed guard onboard to protect from pirates. *Muallim/Malum* or 'navigator' took to the central part of the Red Sea, while the routes along the coasts remained the domain of the *rubbàn*, who were in charge of all types of local boats, including fishing boats and coasters, the large flat bottomed craft tied together with ropes which were called *jilbas*, and other small vessels termed as *Jaboots* or *Sambuks*.

Abdul Sheriff [106] in his seminal work on *dhows* records historical overview of the ecosystems of the Indian Ocean featuring three vast littoral regions: the East African Swahili coast; the arid landscapes from the Horn of Africa to the Indus Valley and the region encompassing the west coast of India; development of interregional trade based on fleets of ocean-going ships referred to as *dhows;* their construction which relied on trade goods and materials, such as wood, rope, sails, and metal obtained from the three regions; descriptions of shipbuilding and life on board and at the ports, where a diverse mix of peoples ate, traded, married, played, and worshipped; specifically- the exchange of slaves,

[105] Gwyn Campbell (ed.), *Early Exchange between Africa and the Wider Indian Ocean World*, 2016, p. 294.

[106] Abdul Sheriff, *Dhow Cultures of the Indian Ocean: Cosmopolitanism, Commerce and Islam*, 2010, pp. 79-130. Also see Ghulam A. Nadri (review), "Dhow Cultures of the Indian Ocean: Cosmopolitanism, Commerce, and Islam" *Journal of World History*, Vol. 23 No. 1, 2012, pp. 167-170, Project MUSE, doi:10.1353/jwh.2012.0031

ivory, spices, mangrove wood, dates, metal weapons, textiles, pearls, red coral, Arabian stallions, cowrie shells, fish, and grains unique to these regions by Jews, Muslims, Hindus, and Christians.

The vessels referred above were mainly constructed by natives and based on traditional technology. Pirates under study used these vessels. They preferred light ones for attacking the merchant ships. These operated in group and their *modus operandi* depended in closing the sail quarters and then reaching on seaboard. These merchants were threatened and ships were sailed to unknown destinations.

Traders, Trade Networks & Western Indian Ocean

Illustration VIII:
Source:- Map by E. H Seland, p. 369[107].

[107]https://www.researchgate.net/publication/265604657_Archaeology_of_Trade_in_the_Western_Indian_Ocean_300_BC-AD_700

Studies on Western Indian Ocean trade establish 'continuity and change' in exchange of goods and commodities since antiquity[108] with its warm waters and its sailor friendly monsoon system. Since c. 1500, given its scale and depth, the Indian Ocean economy was synonymous with the world economy. [109] India, both geographically and economically, was at the centre of this world economy. [110] One comes across several mercantile communities which remained in operation in Indian Ocean. Reference to Indian merchant operating in WIO is offered here based on Dutch papers by Om Prakash with the reference of *Bania* of Bengal[111]:

> The merchants ... are exceptionally quick and experienced. When they are still very young and in the laps of their parents and hardly able to walk, they already begin to be trained as merchants. They are made to pretend to engage in trade while playing, first buying cauris, followed by silver and gold. In this training as moneychangers, they acquire the capability of engaging in large-scale trade. They are always sober, modest, thrifty, and cunning in identifying the source of their profit, which they are always at pain to maximize. They have an exceptional capacity of discovering the humour of those who are in a position to help or hurt them. They flatter those they know they need to be in the good books of. In case of loss, they console themselves easily and can hide their sorrow wonderfully ... In general, they are a people with whom one could get along well so long as one is on one's guard.

Similarly with reference to coastal and high-seas trade he observes[112]:

> …the involvement of the Hindu *Bania* merchants was at two levels. In Mughal India, ship owning merchants actively engaged in coastal and high-seas trade

[108] E. H. Seland, "Archaeology of Trade in the Western Indian Ocean 300BC-AD_700", *Journal of Archaeology Research,* 2014, Vol. 22, pp. 367–402. DOI 10.1007/s10814-014-9075-7.

[109] See K. N. Chaudhuri, *Trade and Civilisation in the Indian Ocean: An Economic History from the Rise of Islam to 1750,* 1985.

[110] A. G. Frank, " India in the World Economy, 1400-1750", *Economic and Political Weekly,* Vol. 31, No. 30, 27 July, 1996, pp. PE 50-64

[111] Om Prakash, "The Indian Maritime Merchant, 1500-1800", *Journal of the Economic and Social History of the Orient,* Vol. 47, No. 3, (2004), p. 436. https://www.jstor.org/stable/25165056

[112] *ibid.*, p. 437.

from ports in both Bengal as well as Gujarat included several major *Bania* merchants. The names that stand out at the port of Balasore in the seventeenth century include those of Khem Chand Shah and Chintamani Shah. The *Bania* high-seas merchants of Surat even maintained an extensive network of agents and correspondents (mostly again *Banias*) all over the Persian Gulf and the Red Sea region who lived in the region for extended periods of time. But perhaps an even **more critical role the *Bania* merchants played in Indian maritime trade was as facilitators performing the role of being suppliers of export goods to ship owners and other merchants actively engaged in coastal and overseas trade and generally acting as their agents and brokers.** All groups of merchants engaged in maritime trade needed the services of these merchants. But the two groups that depended upon them more than the others were (a) nobles and officials of the Mughal empire engaged in maritime trade on the side who played an essentially passive role in the conduct of their business operations leaving the decision making in most areas to their agents and brokers, and (b) the European corporate enterprises and private European traders engaged in both Euro-Asian and intra-Asian trade. …the latter …depended upon their services both for the procurement of the export goods and the sale of the import goods generally to a much greater extent than the Indian merchants engaged in coastal and overseas trade were obliged to do.

…The Indian maritime merchant often also carried on a variety of associated mercantile activities. In Surat, at the top of the pyramid was a man like Mulla Abdul Ghafur who concentrated largely on being a major ship owning merchant and was specialized, like many of his fellow Bohra ship owning merchants, on trade with the Red Sea. The Turkish merchants also concentrated mainly on the same route while the principal domain of the Mughal merchants was the Persian Gulf. Merchants like **Abdul Ghafur** who owned several ships **almost never travelled on their own ships and left the management of the voyage and the sale of the goods carried as well as the purchase of the return cargo at the partner ports in the hands of their captains called the *nakhudd***.

The ***nakhudds* were of course assisted in the carrying out of the business at the partner ports by the agents of the principal stationed at these ports** often on a permanent or a semi-permanent basis. However, the **smaller maritime merchants** who owned no more than one or two shipsand these accounted for the overwhelming majority of the maritime merchants, almost always traveled on their ships looking after the entrepreneurial part of the venture. The same was true of the **maritime merchants who did not own ships butfreighted space for their goods** (and themselves) from the ship owning merchants. Indeed, **an important part of the total profit made by a ship owning merchant on a given voyage was accounted for by the freight charges earned on the outgoing and incoming trips.** On particular routes, such as that between Surat and Mocha, there was an intense competition for freight cargo not only among the Indian ship owning merchants but also between these merchants and the European merchants, both corporate enterprises such as the English and the Dutch East India Companies as well as private English ship owning merchants. …

…A merchant engaged in coastal and high-seas trade would, of course, need the services of brokers and intermediary merchants both to acquire the export cargo as well as to dispose of the cargo brought in by the returning ships.

> Since, the bulk of the return cargo from areas such as the Middle East was precious metals, both coined and uncoined, **another major group that figured prominently in the maritime merchants' scheme of things was the *sarraf*, the merchant specializing in money**. …

In this seminal article Om Prakash sketches profile of hindu merchants- *Marwaris*, *Jains*, *Bhatias*; Muslim-*Khojas* & *Bhoras*; and *Parsis* who remained engaged in mercantile activity. These can be broadly categorised as the maritime merchant engaged in coastal and high-seas trade, the broker and the intermediary merchant providing goods to and buying goods from the maritime merchant, and the money merchant. Besides these categories the mercantile merchants came from different pockets of Bengal, Odisha and south India. It was mainly the Gujarati merchant who dominated the scene during the study period despite interventions from European companies, private merchant and traders.The entry of Europeans in the Indian Ocean during the early modern period (c. 1500-c.1800 A. D.) wedged India and the Indian Ocean in many ways.[113] The networks since then created can be characterized as:

- very large market with a network of Asian traders operating between East Africa and India, and from Eastern India to Indonesia;
- to the East of the straits of Malacca, trade was dominated by China;
- Indian (indigenous vessels) ships were not sturdy enough to withstand the typhoons of the China sea, and also not

[113]K. N. Chaudhuri, Trade *and Civilisation in the Indian Ocean: An Economic History from the Rise of Islam to 1750,* 1985, pp. 98-118 & 182-220.

adequately armed to deal with pirate activity off the China coast which remained copious and frequent;

- Portuguese displaced Asian traders who had supplied spices to Red Sea and Persian Gulf ports for onward sale to Venetian, Genoese and Catalan traders;
- trade within Asian waters continued in textiles, porcelain, precious metals, carpets, perfume, jewelry, horses, timber, salt, raw silk, gold, silver, medicinal herbs and many other commodities;
- spice trade was not the only trading opportunity for the Portuguese, or for the other later European traders-Dutch, British, French and others, they attempted trade in other commodities either independently or through agents;
- Silk and porcelain played an increased role, and during the 17th and 18th centuries cotton textile acquired prominence, which in turn provided opportunity in intra-Asian trade (for instance, trade between China and Japan remained governed by Portuguese; similarly trade from East Africa to Malacca on the narrow straits between Sumatra and Malayawas handled by both- Portuguese and Dutch respectively);
- Asian trade was conducted by merchant communities which operated without armed vessels or significant interference from governments[114];

[114]Although Southern India, where the Portuguese started their Asian trade, was ruled by the Empire of Vijayanagar, conditions in coastal trade were set by rulers of much smaller political units, who derived income by offering protection and marketing opportunities to traders (local potentates: Nayaks). The income of the rulers of Vijayanagar and later the

- Asian merchants operated in 'mutually interactive community networks' with ethnic, religious, family or linguistic ties and an opportunistic concentration on profit.
- In Western Asia and the Middle East merchants were generally Arabs and Muslims, but further east they included "*Gujarati Banias*, Tamiland Telugu *Chettis*, Syrian Christians from South-western India, Chinesefrom Fukien and neighbouring provinces. If they paid for protection and market access, they found that they were 'free to trade', When this protection became too expensive they usually had some leeway for moving elsewhere.

In the 19th century few significant changes are also recorded due to interrelated global changes industrialization, imperialism, and advances in transportation and communication in Europe. However, a discussion is offered here in order to understand their impact on seafaring communities:

- Industrialization, production of goods in factories using machineswas the first major change. For instance-
  - Britain was the first country where water or steam-powered machines replaced the work of handsby manufacturing goods in factories. Spinning and weaving machines speeded up production. Cloth was the first factory product exported by British merchants.

Moghul Empire was derived from land taxes, and they had no significant financial interest in foreign trade activities. In China and Japan the situation was different.

- By the mid-19th century, Britain was selling cheap, colorful, printed cotton cloth in Britain, India and the Middle East. For more productionof cotton cloth, Britain had to import raw cotton from India, the United States and later Egypt.
- The steel industry grew with the invention of the steam engine, which was used to power both steamships and steam locomotives.
- In the late 19th century, chemical and electrical industries developed.
- Cities grew in Europe, as rural people migrated as labourers to work in urban factories.

➢ Thus, industrialization weakened the traditional craft manufacturing in the Indian Ocean region.

- Many artisans slipped into poverty, as handicraft industries disappeared. For example, British and French manufacturers imported Indian fabrics, and the new factories copied styles and techniques for manufacturing from Indian artisans which led to a downfall of the Indian textile industry.

Industrialization resulted in countries of the Indian Ocean region becoming suppliers of raw materials for European industries.

- Plantations of cash crops like tea, rubber, cotton and coffee were setup.

- Mines to extract gold, silver, lead, coal and ironwere dug. Forests were cut for timber. These ordinary, bulk products were low-pricedto the producer than the earlier luxury goods produced in the region.
- These countries became buyers of European manufactured goods worth shifting the balance of trade towardsthe industrializing European nations.

➢ Transport and Communication:

Transportation was the second major change.

- Beginning in 1807, steam was used to power ships. By the 1840s, the screw propeller and better engines were developed, and steamship hulls were made from steel instead of wood.
- Steamships did not depend on the wind, cutting journeys from months to weeks or days. Industrializednations built battleship fleets armed with powerful guns. Soldiers could be moved and supplied over great distances quickly. Travel for officials and their families was made easier as regular steamship routes were established.
- Railways carried people and heavy goods to port cities and thus important to the Ocean. Colonial powers built railway systems to aid in governing colonized countries and extracting resources. It is important to note that the map for the Industrial and Imperial era does not show transportation routes on the ocean connected to those on lands; the

enormous growth in overland roads and the construction of railroads makes it impractical. Roads continued bringing things to port cities and carrying goods into the continent.

- Postal systems were developed and the telegraph sped the pace of communication, allowing messages sent in code to travel quickly along telegraph wires. The Indo-European Telegraph Line was completed in 1870, linking London, Tehran, Karachi and Calcutta. By the end of the 19th century, radio technology made wireless communication possible which was a boon for ships at sea.
- The Suez Canal, completed in 1869, linked the Mediterranean and the Red Sea, making communication and trade between Europe, the Middle East and the Indian Ocean much faster by sea.

➢ Imperialism and Colonization in the Indian Ocean; the takeover of governments by European powers happened gradually but forcefully after 1800.

- In India, after a rebellion of Indian troops against British officers in 1857, the extraordinary powers of the Dutch and British East India Companies were taken away and replaced by direct rule from British Crown.
- In Africa, French and Dutch controlled the colonies of Southeast Asia and on the islands of Indonesia,. China was forced to give up territory and trade and other rights after the Opium Wars.

- European powers competed in the "scramble for Africa" after 1880. They were aided by weapons like quick-loading rifles, and medicines that saved them from tropical diseases. The colonized people resisted with arms and with words.
- The key to the European colonial economy was the rules that gave advantages to European manufactured goods and made favourable conditions to buy raw materials. Britain became the largest colonial power in the 19th century. Millions of people in the world began to migrate to other lands due to imperialism and transportation which changes mercantile markets, occupational categories and search for innovations.

Seafaring Community: *Kathiawad* and *Kachchh*

People who work on sea vessels / ships and who regularly travel on the sea are seafarers.[115] These could be maritime merchants, traders, peddlers, ship crew, assistants to ship crew, travellers, pilgrims, fishermen, sailors etc. For the study period under consideration emphasis is on the seafaring community and is not on those who were necessarily maritime merchants. This was the lot which under circumstances carried out various occupation simultaneously depending upon the circumstances in water or on land. Lakshmi Subramanian in her seminal work *Medieval Seafarers of India* and R. N. Saletore in *Indian Pirates* attempts

[115] Lakshmi Subramanian, *Medieval Seafarers in India*, pp. 9-38, 39-66 & 101-127.

the survey of seafarers with the respect to Western Indian Ocean. In this section a survey of the pirate community is offered which was having base in western seaboard of India but remained active in the entire WIO.

In context to western seaboard of Gujarat in Indian Ocean for the study period c. 1500 - c. 1750, eight are identified as leading ones during the 19th century surveys made by trading companies and Bombay Presidency surveyors. These are: *MACHHIS, KHARWAS, BHOIS, BHADELAS, VAGHERS, SANGHARS, MIANAS,* and *DHEBRAS or DHIMARS*. Table given below provides an insight on the seafaring community in terms of their occupational and caste categories in general. A review of political department and Foreign Department files have termed them as 'pirates'. I am also considering the categories in table as pirates. However, they continue to have other roles to play which fall in the category of fishermen, sailors and peddlers.

Therefore, brief profile of seafarers community gives us an idea about how the Western Indian Ocean was situated and catered the needs of everyone. Chapter II will give insight on further seafaring ventures and beholders of seafaring. As my concentration is on pirates and 'piratical' aggressions. I submit limitation in the chapter I of not being able to provide long details of the seafaring community along the Persian Gulf/Red Sea and Swahili coast and the Madagascar coast. These are discussed at length in chapter II and chapter IV wih reference to piratical aggressions.