Indian Ocean Region

in History
Chapter I

INDIAN OCEAN REGION IN HISTORY

Halford J Mackinder (15 February 1861 - 6 March 1947), "one of the most influential [geopolitical] thinkers of modern times", aptly regarded the present century as post-Columbian age where further discoveries of unknown places was no longer possible, for "there is scarcely a region left for the pegging out of a claim of ownership" and the outline of the map of the world has been completed with fair accuracy; a closed political system world-wide in its scope has thus resulted, the unification of which had been brought about by technology (know-how and tools) and the great power that scientific knowledge and invention gave to man; in this unification—and now in its preservation and promotion—the contribution of technology was crucial and constant; shift has accordingly occurred in attention from territorial expansion to the struggle for relative efficiency particularly in regard to the exploration and management of the vital fuels and raw materials—the resources— which now constitute the basis of power. For comprehending the contemporary scenario it is imperative, under the circumstances, to view the world as a whole, a composite of regions rather than an aggregate of states.

The present study attempts analysis of a vital aspect of a region—the Indian Ocean—the significance and the impact of which on the world of today and tomorrow can just not be ignored or assumed.

Indian Ocean as a region

Let us start with what constitutes a region. "there is no complete region less than the whole world", said Mackinder in 1937, and in 1943 he held: "Regions cannot be accurately delimited, for their boundaries are inevitably zones of compromise as between limits based on different criteria"; in any case, regions by themselves make little sense unless set and studied in a global context.
Steeped in controversy, the concept of 'region' in geography, ironically, has suffered from vagueness, relative neglect, and lack of an agreed definition. "So much geography is written on a regional basis that the idea of the region and the regional method is most familiar and quite accepted... Yet as with so many other famailiar ideas which we use every day and take for granted, the concept of region floats away when one tries to grasp it, and disappears when one looks directly at it and tries to focus".

Evidence the work of physical geographers, which is full of rigorous and precise analyses of areas integrating a variety of data. Historically, the aim of geography has been to describe the world we live in, and "the regional method has been the means to this end".

Generally, region is an idea, and a method to study the world, and divisions on regional basis are mostly personal, somewhat arbitrary, with the boundaries of the region quite ad hoc. And this idea is often so nebulous, so personal and peculiar, that its expression and concretisation can take different shapes. Hence the variety in its definition: "A domain where many dissimilar beings, artificially brought together, have subsequently adapted themselves to a common existence" (P Vidal de la Blache); "An area whose physical conditions are homogeneous" (W L Joerg); "An area characterised throughout by similar surface features and which is contrasted with neighbouring areas" (N M Fenneman), and so on.

The idea of a region and of dividing the world on a regional basis thus being entirely personal, somewhat arbitrary and subjective, and the boundaries of the region quite ad hoc, it clearly becomes the prerogative of a geographer, analyst or any scholar for that matter, to define the region on its own merit, and highlight one or the other of its dimensions. A distinguished geographer, Richard Hartshorne, seems inclined to support this view: "any regional division is not a true picture of reality, but it is an arbitrary device of the student... depending on what elements appear to him as most significant".
Geographically, a region would seem to be a part of the earth's surface where human activity and physical conditions combine to form a pattern so distinctive that it marks off the area as different from any other part of the world. One does not, therefore, look for homogeneity in the sense of 'sameness' in the region, but instead tries to discern a unifying pattern, which in fact may owe its distinctive character to the contrasts that the region reveals; in other words, one seeks unity in diversity. What matters is that, in addition to similar features, its differing characteristics should be amenable to assimilation.

The utility of the term 'region' in world politics lies in the fact that policy-makers find within a given territorial area a number of interrelated problems that are distinct in form and concept. Thus, the relationships existing among a group of states in a given region would be more important than their relationships with states outside the region. Accordingly, the study of politics of a particular geographic region has long been in use, and one finds in the contemporary terminology of international politics regions being commonly referred to as 'Western Europe' or the 'Middle East', or 'Southeast Asia', and so on. The implication is that the states of the region are in many respects interdependent, largely because of their geographic relatedness; that this relatedness is a source of culture and other affinities between those states; that consciousness of area identity can motivate and move some or all of those states to deal collectively with "outside" powers; and that policies toward any state in the group should take account of the likely reactions of its neighbours.

Regions have been sought to be identified and their configuration determined through delineation of their boundaries on the basis of a vast amount of empirical data and using elaborate quantitative techniques. In doing so Bruce Russett identifies a region using the criteria of social and cultural homogeneity, political attitudes on external issues expressed in voting in the United Nations, political interdependence reflected in participation in intergovernmental organisations, economic interdependence seen in the correlation between intraregional trade and national income,
and, of course, the geographic proximity. But then one can arrive at widely divergent results because of the differences in the weights attached to these variables; problems of perception and judgement in the use of the aggregate data are also there. So much so that regions so defined may have as little substance as "the emperor's new clothes".9

Another method of defining a region is to identify a cluster of variables that form linked patterns within each international region. Here the configuration of the region is arrived at by mapping the basic attributes of the states in the area and their major patterns of relations. The stress here is on geography together with the insights of area specialists sensitive to factors such as consciousness of regional identity, felt cultural and other affinities, and perceived interdependencies.10

A distinguished political geographer, Saul B Cohen, prefaces his geopolitical approach by drawing attention to what geographers consider to be a geographical region, or the compage. Contrasted with a single-feature region (a climatic, or a physiographic, or a trading region), is the multi-featured, or composite 'geographical region', which is the organization of space, based on both quantitative and qualitative criteria, and expressing associations of various elements. The geographer considers the region to be merely a device for separating areal features: "a community of physical, biotic, and societal features that depict, or are functionally associated with man's occupance of an area". The geographical setting "provides us with a basis for understanding today's political map and for anticipating change", holds Cohen: "Therefore the geopolitical map is more closely attuned to reality than is the political map".11

The geopolitical approach, accordingly, makes a distinction between divisions that have global extent, and those that have regional extent. Thus, there are 'Geostrategic' and 'Geopolitical' regions. The former "must be large enough to possess certain global influencing characteristics and functions, because today's strategy can only be expressed in global terms".
A ‘Geopolitical region’ is a sub-division of the geostrategic and "expresses the unity of geographic features. Because it is derived directly from geographic regions, [it] can provide a framework for common political and economic actions. Contiguity of location and complementarity of resources are particularly distinguishing marks of the geopolitical region...".12

Resting his scheme of partitioning the earth into two geostrategic regions —viz., the trade-dependent maritime world (of Anglo-America, the Caribbean, maritime Europe, offshore Asia, Oceania, and South America), and the Eurasian Continental world (of Russian heartland, Eastern Europe and the East Asian mainland)— essentially upon the yardsticks of place (location of regional population, economic cores and great barrier zones) and movement (trade orientation and ideological cultural bonds), Cohen anticipated the eventual emergence of a third such region: the Indian Ocean.13

Others believe that the Indian Ocean and its littoral and island states constitute a geostrategic region, the strategic unity of which had been imposed by Europe largely from outside, and that has already emerged and the major powers, especially the superpowers, have for quite some time based their perceptions and policy on this fact; that the Indian Ocean region now possesses 'globe-influencing characteristics'.14

Scepticism has occasionally been expressed, however, in certain quarters about the acceptance of an Indian Ocean geopolitical region. In astonishing ambiguity, the Australian Parliament was informed in regard to the "Indian Ocean Region" in all solemnity:15

"...the Indian Ocean should not be regarded as a distinct political and economic unit. Evidence presented suggested that there are four main political/economic areas in the region: Southern and East Africa, the North-West Indian Ocean (from the Horn of Africa to the Persian Gulf), South Asia, and South-East Asia. Each of these areas has its own special political preoccupations, although all share a common interest in economic development."

In other words, on the one hand the committee submitted an elaborate presentation on the Indian Ocean Region, on the other hand
refused to recognise it as a "unit" because "it consists of countries which have a great diversity of race, politics, strengths and opportunities".

Be that as it may, we in this essay build our argument on the fairly well established premise that the Indian Ocean, since antiquity, has constituted a geopolitical region and after a brief colonial interregnum is once again well on its way to asserting itself as one.

Geologically, the Indian Ocean basin forms a contiguous mass since the Palaeozoic era, which on the map is depicted in the physical unity and symmetry of its area that contrasts with the 'shapeless vastness of the Pacific and the corridor-like form of the Atlantic'. In the words of a well-known student of the area:

"For the most part its area is walled off on three sides by land, with the southern side of Asia forming a roof over it. The continent of Africa constitutes the western wall, while Burma, Malaya and the insular continuations protect the eastern side.

The vital feature which differentiates the Indian Ocean from the Pacific and the Atlantic is not the two sides but the subcontinent of India which juts out far into the sea for a thousand miles to its tapering end at Cape Comorin...

... Considered geographically the Indian Ocean in its main area ... has some of the features of a landlocked sea."

The relatively distinct geographical entity of the Indian Ocean is by no means entirely homogeneous and closed as, for instance, is that of the Mediterranean. Indeed, this ocean encompasses many a diverse areas, and is rather open in contrast to the Mediterranean. The peoples of its littoral range from the primitive to the most sophisticated, and profess all the great religions of the world. The climate of the Indian Ocean region varies from tropical to mild subtropical, and its geography from desert to lush paddies.

And yet, a vital aspect of geography—viz., a climatic factor—it is which provides the Indian Ocean its unique unity, that in turn buttresses the other unifying strands and structures. This is the aspect of the monsoon winds, which link very closely practically all parts of the Indian Ocean thus giving it the popular description of "Monsoon Ocean". For millennia
have these winds been blowing in quite predictable and set pattern in
certain directions at certain times of the year. They blow from southwest
to northeast during the months of June to September, and reverse their
direction from northeast to southwest November to April; these are the
winds that bring heavy rains to south Asia and some other parts of the
region, summer and winter, to water the agriculture and economy there.

Along with these winds is the feature of surface currents in the
Indian Ocean that describe a set pattern in the year; like the winds these
currents too reverse semi-annually. "The periodical reversal of the wind
and of the surface circulation over such an extended area is outstanding
when compared to that of the Atlantic... or the Pacific Ocean(s). The
large-scale circulation in the northern part of the Indian Ocean (north of
20°S) has an essentially non-stationary character, whereas the large-scale
circulation in the great Atlantic and Pacific gyres shows an essentially
stationary behaviour".\footnote{\textsuperscript{18}} The roofing of Indian Ocean by land in the north
has resulted in a north-south asymmetry of its physical oceanographic
structure and circulation. This asymmetry is at the root of the seasonally
reversing monsoonal gyre leading to important sedimentological
consequences.\footnote{\textsuperscript{19}}

As compared to the Atlantic and the Pacific oceans, it is said,\footnote{\textsuperscript{20}}
"the Indian Ocean is fairly safe for navigation throughout the year", though
in some months the strength of the winds, occasional tropical and cyclonic
storms, and other sudden occurrences do pose hazards that seasoned sea
farers learn to avoid.

However, the unique combination of winds and surface currents
since the prehistoric times is what formed the basis of circulation in the
Indian Ocean from ancient times on. This combination fostered the growth
of vegetation, the flow of navigation, and cultural exchanges particularly
in the northern Indian Ocean. "The Peculiar phenomenon of the monsoon,
alternating according to the seasons of the year, made deep-sea navigation, in the time of sailing ships, a relatively simple 'sailing with the wind' operation'.

Thus, the Indian Ocean region is characterised by unique geology, relief and climate not experienced in the other two world oceans. More pertinently, the Atlantic is the creation of people from one part of its coasts. The Pacific as a concept is entirely the creation of people from far away. But, by contrast and significantly, the notion of an Indian Ocean existed in men's minds long before the Europeans entered these waters with Vasco da Gama (1497-8). It may thus be said that while the Atlantic and the Pacific have existed as the earth's features since the planet congealed perhaps, the Indian Ocean is the one which has a formidably rich history the like of which other two do not have. Now, the question is, which Indian Ocean it is that we are talking of here, or what exactly are the limits of the Indian Ocean we have under consideration?

The measure of the region

The waters, the currents and the winds really know no boundaries and yet arbitrary demarcations and artificial barriers have been sought to be created. A great deal of controversy has attended the defining of the geographical limits of the Indian Ocean; the question is complicated and for many it still remains unsettled. The customary view of this ocean has been restricted to the waters spanning the area roughly from 20°E to 120°W longitude, and from 30°N to 40°S latitude for a variety of reasons. But since such a view warps our perception of the geopolitical realities of the area, we are inclined, for the purposes of our study, to accept the limit of the Indian Ocean that extends in the south to the Antarctica and from Cape Leeuwin (on the south western tip of Australia) following the coastline up northeast to Cape York, goes along the south coast of New Guinea, and thence along the equator to the southeast extremity of the Malay peninsula. (See map on p. 5/5.)
The total surface area of approximately 74,610,000 sq. kms of the Indian Ocean lends itself to sub-divisions into various sub-regions. Thus one speaks of the northern, the southern, the western and the eastern Indian Ocean. The dividing line between the northern and the southern parts is the one drawn roughly from Cape Agulhas (on 20°E meridian, the southernmost point of Africa) to southeast of the Cape of Good Hope to Cape Leeuwin on the southwestern Australia. Accordingly, the Arabian Sea and the Bay of Bengal feature prominently in the northern part, the African-Antarctic Basin in the west and the Australian-Antarctic Basin in the east characterise the southern Indian Ocean. The waters framed by the east coast of Africa (down to the Delagoa Bay), the Red Sea, the Persian-Arabic Gulf and the west coast of India form the western Indian Ocean, while those of the Bay of Bengal (down to Cape Leeuwin) constitute the eastern.

Climatically, the Ocean can be subdivided broadly into four basic latitudinal zones in accordance with the special characteristics of atmospheric circulation: the monsoon zone extending north from 10°S featured prominently in which are the Arabian Sea and the Bay of Bengal, the trade wind zone between 10° and 30°S where steady southeasterly trade winds prevail in the tropical and subtropical latitudes and the temperatures range between 16 to 25 degree celsius; the third subtropical and temperate zone of the Southern Hemisphere between 30° and 45°S; and the subantarctic and Antarctic zone occupying the wide belt between 45°S and Antarctica.

On the bases of their ethnic, socio-economic and cultural heterogeneity, the coastal, hinterland and island states of the Indian Ocean region can, very roughly and quite arbitrarily, be sub-divided into the following 8 sub-regions: Southern and Eastern Africa, islands and archipelagos in the Western Indian Ocean, the Horn of Africa and the Red Sea, the Persian-Arabic Gulf, South Asia, Southeast Asia, Australia, and Antarctica. Clearly, for the purposes of our study, such a division of the land areas around the water, howsoever arbitrary, is far more meaningful and relevant than the division of the ocean itself. And it has also to be borne in mind
constantly that these divisions overlap and interact with each other, thereby adding to the complexity of the total environment of the Indian Ocean, and can neither be precisely drawn nor is isolated to the point of exclusivity. In any case, we are taking Indian Ocean as an area interrelated by natural and societal features relevant to the specific considerations of our study.

Among these eight sub-regions, the one constituted by the islands and archipelagos of the Western Indian Ocean is the most amorphous, extensive (in terms of the area over which these are scattered) and inchoate (as far as their regional and global role is concerned). Their exact number has never been determined, nor perhaps it is necessary also to do so. Most of them are seen constituting three distinct chains: (a) that forming a 700-mile (1,120 km) circle from Diego Suarez, the northern tip of Malagasy and includes Agalega, the Amirante and Seychelles group, Cargados group, and the bunch of Mauritius, Reunion and Rodrigues—the Comoros of this division command the northern entrance to the Mozambique channel; (b) the second of coral atolls spreads evenly across the equator for 1,500 miles (2,400 km), north-south and includes in it besides the Laccadives and the Maldives the Chagos Archipelago with its now well-known U S 'naval facility' of Diego Garcia; and (c) the third chain stretching from Burma to Sumatra and includes the 219 Indian Andaman and Nicobar islands. In addition to these chains are a set of islands off—or close to the mainland, notable among which are those of Socotra, Zanzibar, the Kerguelens, Christmas and Cocos to name only a few. Needless to say that both Madagascar and Sri Lanka are also islands, though rather large ones. Finally, there are five groups of islands spread out between 38°S and 50°S latitude in the north of Antarctica.

The vast majority of these islands have small size and population, located away from the main traffic lanes, and are mostly mere features of the ocean. Till very recently they have remained nothing more than passive spots in the ocean that may one day attract some tourists, adventurers or importance because of changed technological environment. But for the six among them—viz., Sri Lanka, Maldives, Seychelles, Mauritius, Madagascar
and the Comoros—which are self-governing, all the others are either dependencies or constitute territories of neighbouring sovereign states. Thus, Mayotte, Tromelin, Reunion, Crozet, Kerguelen, Amsterdam and St Paul are considered to be French; Prince Edward island South African; McDonald, Christmas and Cocos are claimed to be Australian; and the Andaman and Nicobar islands along with the Laccadives are recognised as parts of the neighbouring India.

In contrast, all the 28 littoral states of the Indian Ocean listed in appendix A (in which, going by the quite literal meaning of the word littoral, we include Israel and Jordan also) are sovereign and self-governing. But the more pertinent fact is that even though these states display tremendous socio-economic, ethnic, cultural and other kinds of heterogeneity, the Ocean has bound them through the ages while affecting their historical developments in a decisive fashion. That is to say, the geographical and physical characteristics of the Indian Ocean itself do offer convincing explanation of much of the history and happenings in these and its island states. This shall become evident as we proceed along in our study.

The measure of heterogeneity and differentials of various kinds among the states and peoples of the different sub-regions of the Indian Ocean will, of course, get elaborated in the pages that follow. Suffice it to point out at this place that the diversity and variations in the geography, social organisation, culture, economy, historical experience, political development and structure of these peoples and places is so stark as to be easily magnified to the point of contestation of the unity of the Indian Ocean region we are strongly mooting in our essay.

Take, for instance, the place of India in this Ocean. The country is so large and has such a varied and rich geography that it easily dwarfs all the states—and even some of the sub-regions—individually; has the most crucial location so as to introduce differential characteristics in the ocean; has one of the most ancient civilizations and thus perhaps the richest national heritage in the region; has diversities and consequent complexities the like of which are not to be found anywhere else in the
region; has political and administrative system which, with all its imperfections and tardiness, is the envy of the entire Third World; has scientific and technological base as well as achievements unrivalled not only by the countries of the Indian Ocean region but many others elsewhere; has attained a level of economic development, which though not very high is impressive enough to be looked up to as a model of sorts; and continues to be beset with problems and pressures which are so pervasive and permanent as to seem depressingly intractable. Quite simply, India manifestly dominates the entire Indian Ocean region in virtually every respect, and more. Let alone matching it, there is not a country in the region that bears any comparison with India.

Under the circumstances, the proposition that the Indian Ocean region is unmistakably characterised by unity may seem difficult to sustain on the ground that the presence of such a disproportionately large component renders the very concept of unity meaningless. But unity in this context simply means interactive linking of the various peoples and places of the region to such an extent that the area thus bound acts and is acknowledged as a distinctive and incomparable entity, rather than integration or absorption of the constituting units.

Besides the geological contiguity and geographic compactness already mentioned, the Indian Ocean region is bound by a number of strands of unity going back virtually to the beginning of the Christian era, if not earlier. Of considerable significance among these is the one provided by ethnic movements and migrations in the region.

**Evolution as a geopolitical region**

Some five to six millennia ago notable core areas of cultural expression evolved on the shores of the Indian Ocean: East Africa, the Middle East, the Indian subcontinent, Southeast Asia, the Malay world and Australia. These areas constituted links in the giant chain of human
activity which pulsated along the littoral of the Ocean. The Ocean provided
the surface ideal for enriching means of communication between the core
areas of civilization along its shores. As a keen student of the subject
puts it: the Ocean was the "route of the Astronesians, the Malays who
settled in Madagascar, the Indo-Aryans and Dravidians who occupied Sri
Lanka and Maldives, the aboriginals who occupied the Andamans, Nicobars
and Australia; and later groups such as Arabs, Indians, Africans and
Europeans". Thus, migratory links subsisted between southern Indian
peninsula and all parts of the Ocean, east and west, as did the enormous
movements of Indians to the islands and coastal areas—the latter becoming
progressively prolific and pervasive in the recent past under imperial
auspices. Between 400 and 1000 A.D. the Malay peoples moved across
the Ocean to Madagascar and eastern shores of Africa; the 'Shirazi'
colonisation of the East African coast occurred in the period causing a
splurge of slaves from Africa for the Middle East and connected lands.
The process picked up momentum with the discovery of the secrets of
the Ocean (the monsoon winds, in particular), advances in ship-building
techniques, and as settled civilization developed and prompted the growth
of trade within the Indian Ocean region.

The movement, linkages and continuous multi-faceted activity
on the Indian Ocean and interaction of peoples across it in the pre-
Christian era, which underlines the fact of the region's unity, need not
detain us, for it is well documented in the available historical accounts of
the region.

The leitmotif in all this activity on and around the Indian Ocean
in pre-Christian as well as the Christian era was primarily trade and
commerce among the peoples of the region, rather than mere adventure
or political expansion.

Without doubt, trade was the very life blood of all civilizations
in the region of Indian Ocean. The structure, pattern and network of
trade and commerce in the region had developed over a period of centuries
—long before the Europeans entered the region in a significant measure
from the early sixteenth century on—and was duly sanctified by tradition. Even after the European entry, their trade in the Indian Ocean remained for over 200 years a part of the traditional commercial structure and network. The loosely-jointed traditional structure, 'enriched and strengthened through European skill and enterprise', held sway for about 300 years obliging the Europeans to adjust and adapt themselves to it rather than imposing on the system and the region a regimen of their own. The European merchants far from dominating the Indian Ocean markets—though they some times did, for a particular commodity without affecting in any meaningful way the prevailing commercial outlook or ethos—had to adjust and operate within the established system, notwithstanding the fact that they were better organised and better financed compared to the local merchants.

The trade in the Indian Ocean, by and large, remained firmly in the hands of the Indian shipowning merchants with only an occasional flutter such as the one caused briefly by the European attempt in the early 16th and early 17th centuries to cut in. Indian Ocean scene during the 16th century altered considerably by the establishment of the formidable Ottoman, Safavid and the Mughal empires in its western sector, by the growth of the Portuguese maritime empire, and by the virtual disappearance of the Ming imperial presence in the eastern part of the Ocean.30

All this trade and commercial activity, naturally, promoted mobility among the peoples of the region. Thus, for instance, Indian merchants traded and settled more or less freely in Arab territories, while the Arab merchants were welcomed all along the west coast of India, as indeed elsewhere in Malaya, Indonesia and so on. Trade across the Ocean thus got enmeshed with culture and spread of religion would not lag much behind in this. And so was forged a powerful factor and force which automatically contributed to and buttressed the unity and distinctiveness of the Indian Ocean region.

Indian Ocean region has massive centres of different faiths: Islam, Hinduism, Buddhism and also Christian. Not exclusive by any means,
these centres radiated waves of influence and impulses for creating new centres as well as ethnic-religious diasporas of many shades. Further strands of unity were thus created by religious activities among the peoples of the region. Movements of Parsis from Iran to Gujarat (India), Buddhists to southeast and east Asia, and Hindus from India to various parts of Indian Ocean lands, and maintenance of links so established through centuries is too common a knowledge to merit much discussion here. The main and frequent travellers in this category have always been Muslims for whom making the hajj to Mecca once during their life time is obligatory. Besides disseminating Islamic knowledge, the hajj also served to increase Muslim consciousness, solidarity and at the same time exacerbating difference with surrounding non-Muslim populations occasionally. The hajj naturally fostered a great trade network too. Subsequently, in the more recently past centuries, Catholicism—the Catholic clergy and converts—created one more element of unity in Asian littoral society, as did the language (Persian and Portuguese) and the presence of the Portuguese with their string of forts all along the littoral in the 16th and 17th centuries.31

This unity, however, started disintegrating as European imperial conquest led to the founding of great, landward-facing empires from the component parts of the Indian Ocean. The dissolution of these empires in the wake of the World War II fractured the regional unity still further. But this could not—in fact, cannot—wipe out the history of this Ocean which was a region and, in many—and some of them new—aspects, continues to be a region; it is to that history that we now turn.

The historical perspective

Known in antiquity as Erythrean sea, the Indian Ocean got its present name perhaps from the Arabs when they began their memorable voyages and established themselves in the remote corners of the Far East.32 In 2000 BC, the Egyptian and Persian empires also extended their influence seawards in the West, thus giving way to Romans and Arabs, while in the East, from about the commencement of the Christian era, it
was the Indians the Malays and the Chinese who travelled the sea. In this sector, "the Chinese junks proved the most seaworthy vessels, yet even before the arrival of Vasco da Gama around 1500 A.D. – the most significant turning point in the history of the whole Indian Ocean region – the Chinese had already retreated." From the times immemorial, this Ocean was the scene of extensive commercial activity, for its littoral lands produced raw materials that were apparently in great demand. Spices were the major attraction in Roman times, and the Indian vessels plied from about the 4th century B.C. onwards. The Indonesians crossed the Ocean for eastern Africa and Madagascar. Arab and Persian navies became predominant by the 9th century A.D. These were followed by the Chinese, with enormous fleets, between the 13th and 15th centuries.  

In the 9th century A.D., sizeable settlement of Muslim merchants at least on the Malabar coast of India, and in several cities on the coast as far up north as the Indus, finds mention in the chronicles of the time. Mohammad-bin-Qasim’s conquest of Sind in north India in early 8th century and consequent conversion to Islam there is a fact known to every school boy studying history. Similarly Muslims spread in these centuries to Sri Lanka, Maldives and Laccadive islands close to Indian subcontinent. Indian dynasties ruled the waves of the Indian Ocean from the 5th to the 14th centuries and the period saw them in conflict many a time with the Muslim maritime power, the latter being essentially Arab. The Arabs freely navigated the Ocean, traded with Indian ports and even carried their cargoes as far east as China; the trade of the Ocean eventually passed almost exclusively in the hands of Arabs at the collapse of the Hindu supremacy in the Ocean. Trade flowed between Europe and India, in which the Arabs were the great intermediaries. The Venetians, controlling the Mediterranean, shopped in the markets on the Red Sea coast and carried the goods to those of the west; the Venetian monopoly of the Indian trade eventually made the Genoese and the Iberians jealous enough to fuel the search for a direct passage and access to the Indian and eastern markets. Thus was the great maritime activity in the second half of the 15th century motivated and excited leading eventually to the rounding
of the Cape, the discovery of America and the voyage of Vasco da Gama to India.

Indian Ocean history up to the end of the Second World War has traditionally been divided into two broad periods; "pre-Gaman" and "post-Gaman", with Vasco da Gama's rounding the southern tip of southern Africa in December 1497 and eventual arrival at the port of Calicut in India on 27 May 1498 serving as the cutting point between the two periods.

The pre-Gaman period might be described as essentially one of exploration by the ancient people of the Indian Ocean region—notably the Phoenicians, Arabs, and Persians. The four hundred and fifty years (Vasco da Gama's arrival in Calicut in 1498 to the withdrawal of British forces from India in 1947 and of the European navies from China in 1949) of the clearly marked post-Gaman epoch, in the words of Panikkar,

"may have passed through many stages, undergone different developments, appeared in different periods under different leadership...as a whole...had certain well-marked characteristics which differentiated it as a separate epoch in history. Its motivations underwent changes...

The original desire for the monopoly of the spice trade changed in a hundred years to the import into Europe of textiles, tea and other goods, which again changed after the Industrial Revolution in Britain into an urge to find markets for European manufactured goods and finally for investment of capital.

Originally confined to trade, European interests became in the 19th century predominantly political over many areas.

The leadership of European peoples in this period also underwent change. From Portugal the supremacy in trade was wrested by the Dutch. In the middle of the 18th century Britain and France contested for it for a short time. Since then, the authority of Britain was never seriously challenged till the beginning of the Second World War.

"In spite of these changes and developments", continues Panikkar,

"it is none the less true that the da Gama epoch presents a singular unity in its fundamental aspects [namely]: the dominance of maritime power over the land masses of Asia; the imposition of a commercial economy over communities whose economic life in the past had been based not on international trade, but mainly on agricultural production and internal trade; and thirdly the domination of the peoples of Europe, who held the mastery of the seas, over the affairs of Asia. It was an age of maritime power, of authority based on the control of the seas..."
The complicated and often colourful story of the chronology, cut-throat competition, rivalries and manifold activities of the various European powers that followed the Portuguese vanguard into the Indian Ocean from the 16th century onwards is available at various places, and need not detain us here. For, our essay focuses primarily on science and technology implications of the European presence in the Ocean, and takes note of the politico-economic aspects of that presence indirectly and marginally, and only when these have a direct bearing on the former. While local causes and provocations to promote competition and often precipitate open conflict among the foreign maritime powers were undoubtedly there, it is equally true that basically it was their quarrels, jealousies and rivalries in Europe itself which spilled over into the Indian ocean.

We may digress here a little to quickly offer a very broad view of the impulses that caused Western European activity outside its geographic confines.

By the end of the 13th century the world described as medieval in Europe had begun to fade; soon after 1300 the majority of the characteristic institutions and ideals of the Feudal Age had begun to decay. New institutions and ways of thinking characterizing a changed civilization gradually emerged: this civilization extending from 1300 to about 1650 is traditionally known as the Renaissance, which broadly signifies intellectual revival, renewed interest in the classical literature and art and in secular learning. The Renaissance—sometime also referred to as 'rebirth of the European mind'—swept out a number of old ideas and swept in a multitude of new ones. By the 15th century, Italy became the most important centre of scientific discovery in Renaissance Europe: the foundations of nearly every major discovery of the 15th and 16th centuries, notably in the fields of astronomy, mathematics, physics and medicine, were laid in Italy, from where they spread and were perfected elsewhere too in Europe.
Virtually simultaneous with this, expansion of commerce and voyages of discovery made merchants more wealthy than feudal lords with far reaching social and economic consequences. These changes, marking the transition from the semi-static, localised, non-profit economy of the late Middle Ages to the dynamic, world-wide, capitalistic regime of the 15th and succeeding centuries is known as the "Commercial Revolution", distinctly in evidence and operation till about 1700.

In its later stages the Renaissance was accompanied by the growth of another movement, the Reformation (1517), which somewhat more accurately foreshadowed the modern age. Indeed, closely related as the two movements were, they totally transformed the personality, prowess and potential of Europe to enable it acquire the dominance it eventually did.

In the 15th century the Europeans escaped from their medieval "prison"—that Christian Europe was in the Middle Ages, according to Mackinder—by adventuring out upon the trackless oceans, and in doing so they changed the course of world history. The surface of the Earth is seven-tenths water, and the nations of western Europe, with their superior ships and guns, found they had a world to win; they opened the new "Oceanic Age" by their daring and ingenuity. This achievement is more remarkable in view of the fact that the land surface of all Europe measures less than 2% of the surface of the globe. "The revolutionary Western invention", holds Arnold J. Toynbee, "was the substitution of the Ocean for the Steppe as the principal means of world-communication". By 1660, in two centuries of exploration, European ships had traversed practically all the oceans of the world.

These explorations were part of the Renaissance, part of the general effervescence and stirring of Europe, of an era of adventure and the energetic pursuit of new things. The magnetic compass, in use by about 1250 A.D. by Arabs, Europeans, the Scandanavians and the Chinese helped make ocean voyages possible. Better instruments and better methods of determining a ship's position at sea were also fully in hand by the
late 15th century. Remarkable advances in ship-building and allied maritime technology had been accomplished, and technologically at least the stage had been set for great explorations.41

Growth of technology

Seventeenth and 18th century science was a description of a mechanistic universe that was believed to be strictly static, that had been created in the beginning and remained much as it had been for all time. This changed in the 19th century, but not before the preceding three or four centuries, constituting the 'age of reason', had enabled firm foundations of scientific enquiry and technological pursuit to be laid in Europe.

Be it noted that through all this ferment of thought and discovery there was constant stimulus and interplay between science and technology, often increased by economic pressures from industry and finance.

Technology, broadly signifying the total knowledge and skills available to any human society for industry, art, science, etc., in a somewhat narrower sense means the application of practical or mechanical sciences to industry and commerce. It may also be defined as the systematic study of techniques for making and doing things; in that sense its history is the history of man. Science, in the classical world belonged to the aristocratic philosophers and embodied all of knowledge, while technology was the possession of the working craftsmen. The two were thus deemed distinct and divorced from each other. But the "Commercial Revolution" through ensuing lively socio-economic interchange drew science and technology closer together. The robust growth of technology, involving improvements in sailing ships, firearms, among many other things in many areas, steadily attracted the interest and involvement of a growing number of educated men. This fairly long drawn out process, particularly in Europe from the 15th century or so, eventually wedded science to technology, so that during the course of the 19th century, technology became based on science —21 October 1879, according to the ENCYCLOPAEDIA BRITANNICA,42 may be taken as the birthday of modern technological research.
Renaissance, accompanied as it was with the scientific revolution, clearly had a manifest technological content. Technology provided the scientific revolution with instruments and the tools which augmented its sweep and powers. The period from 1500 to 1750 witnessed the emergence of Western technology in the sense that the superior techniques of Western civilization enabled the nations that comprised it to expand their influence over the whole known world. And the 'Industrial Revolution', 1750 to 1900, went a long way to congeal and consolidate that influence, facilitating the Western hold over the world. The most obvious fashion in which this happened was through the European imperial expansion, and acquisition of territories in Afro-Asia which, on the one hand, furnished the raw materials to fuel the growing industries, and provided captive markets for the resulting products, on the other. "The resources for development of science and technology and its linkage with manufacturing", says a perceptive scholar of the subject,\textsuperscript{43} were provided by the Asian countries, which became colonies or semi-colonics. The greater the resources provided, the greater the development of industry which led to demands for new knowledge. This meant progress in science and technology and the greater this progress, the greater the exploitation of the semi-colonics and colonies.\textsuperscript{43}

Thus, as we see it, the sequence in the history of Europe seems to have been that the mutually supportive scientific and technological revolution brought forth by Renaissance was sustained by the spirit of the times touched by the tide of reformation, which concomitantly inaugurated the "Commercial Revolution" that opened the new "Oceanic Age" of exploration and discovery, eventually resulting in the imperial era of Western supremacy and domination of the rest of the world. Undoubtedly, control over technology became a major instrument of domination. By nature technology tends to be cumulative, accelerative, and irreversible. And it diffuses widely and quite rapidly from the country of origin. But in the interaction between Europe and Afro-Asia, however, the quick and widespread diffusion of European technology was not allowed to occur deliberately, systematically and in fulfilment of the elaborate imperialist design.
Advent of Europeans

The European entry into the Indian Ocean and the subsequent interaction with the lands of the region did not immediately reveal any appreciable technological differential in regard to the later. Indeed, the incomers and the natives seemed to be at comparable levels of technological attainment and competence, with the latter perhaps having an edge over the former in so far as the outsiders had to adjust and adapt themselves to the established regime. The differentials developed from about the middle of the 18th century and widened very quickly in the decades following so that in the 19th century the gap had become quite stupendous. The British emerged, practically with the dawn of the 19th century, the unchallenged masters of the Indian Ocean, with actual possession or effective politico-military control over the entire terrestrial frame of the Ocean; this became total and tight as the century advanced.44

European—Portuguese, in essence—entry in the region, initially, might have started as a crusade against Islam and a strategic outflanking of Muslim power, but once there, they gradually got enmeshed in the lucrative trade network flourishing in the Indian Ocean region enough to establish themselves there on a permanent basis. Over time, the Portuguese were followed by the Dutch, the British, the French and others, all entering the bountiful Indian Ocean trade network. Trade, enforced by a naval supremacy, was the simple policy of Portuguese. Shipping of huge quantities of spices to Europe led to the creation of a world market. The economy of the coastal and island portions of the region producing these commodities consequently changed; the bigger land powers there remained quite unaffected. The arrival of the Dutch and the British subsequently, however, changed the picture.

The British trade with India, Panikkar tells us,45 was not to any large extent in spices, but in cotton textiles, luxury goods, indigo and saltpetre necessary for the manufacture of gun-powder. The demand for these was so great that during the eighteenth century India’s economy
became substantially dependent upon her sea borne trade while, simultaneously ushering in some other significant politico-economic developments that are of no direct or immediate interest to us in this essay. The point to note here is that vast quantities of manufactured goods were exported from India by the Portuguese and Dutch, by Arab and British merchants in the seventeenth and eighteenth centuries.\textsuperscript{46}

However, the advent of other European powers naturally generated acute competition among them for greater gains and monopolies; to protect their trade the respective power equipped itself militarily and augmented its capability. In time they discovered that involvement in local politics helped in promotion and expansion of their trade and commercial interests. In the process, the ensuing acquisition or occupation of territories was not only beneficial but in fact imperative. Thus it came about that empires extending over territories many times the size of the imperial power itself came to be founded. In the effective control and administration of these territories the congealed consequences of Renaissance, and Commercial and Industrial revolutions in the form of superior technology came in handy, especially when the local resistance to the new challenge of the foreigner hardly amounted to much.

The second phase of the industrial revolution—also known as the Second Industrial Revolution—about the middle of the nineteenth century, marked by ever greater application of science to industry, accelerated the technological advance and capability of the European powers exponentially. Together with the advances in the chemical and metallurgical industries, electricity and gasoline began to compete with steam as basic sources of power; extensive development of railway and steamship revolutionised transportation just as telegraph, cable, telephone and wireless did the same to communication. By the close of the nineteenth century, Afro-Asia and the Indian Ocean region was left way behind while inventions and activity added to Europe's scientific and technological superiority by the day.

Along with the native cultural constraints, inertia, hide-bound traditions and a host of other factors permeating Afro-Asia and Indian
Ocean region, the vested interests of Europeans in these parts were responsible for actually retarding or preventing indigenous technological effort and advancement of these lands. Their attitudes and policy towards their possessions in the region were conditioned by two obvious motives: preserve the existing condition of these parts as it favoured them in their commercial and other pursuits; and it could at the same time be developed as a captive, bountiful market for essentially consumer manufactures resulting from the industries of the metropolitan power. Under the circumstances, the European masters in the region would allow only such implantation of science and technology as would serve the imperial purpose and strengthen the imperial design vis-a-vis the other imperial competitors.

Accordingly, the Europeans were determined to ensure uninterrupted supply of almost free raw materials required by the growing industries at home from the Indian Ocean lands; towards that end any encouragement, or even tolerance, of scientific and technological orientation was to be carefully avoided. More than that, a long-range ruthless policy to destroy the native technological capability had to be followed so as to firmly establish the dominance of the emerging European technology. The example of Indian textiles, for instance, illustrates the point indisputably.

Response in the region

In the eighteenth century, India was a great manufacturing as well as a great agricultural country. The products of the Indian loom supplied the markets of Asia and Europe. No sooner had the British established themselves on the Indian soil in the last decades of the eighteenth and first decades of the nineteenth century, they decided upon a fixed policy of making India subservient to the industries of Great Britain so that their rising manufactures get the requisite filip; the Indian people should grow raw produce only for the British looms and factories. Indian artisans were forced to work in the British East India Company; commercial residents in the company's pay were legally vested with extensive powers over villages and communities of Indian weavers; prohibitive tariffs
excluded Indian silk and cotton goods from England; English goods were admitted into India free of duty or on payment of a nominal duty. The invention and introduction of power-loom in Europe (1785-86) completed the decline of the Indian industries. Even when in the closing years of the nineteenth century power-loom was set up in India, its manufactures were severely discriminated against. Apart from imposing a hefty excise duty on the production of cotton fabrics in India, the Indian cotton goods imported into England paid a duty of 10%, Indian silks of 20% and Indian woolen imports were subjected to a duty of 30%, while the corresponding figures for these very imports into India from British industries were just 3.5% and 2%! As a result, the import of cotton goods from India into England died out, but that of raw cotton increased.47 Thus was India's dependence on British manufactures in the area of textiles brought about through the displacement and destruction of Indian manufactures. The same approach was followed in other areas of Indian industry, be it ship-building or any other, over the years with unwavering resolution, with same results.

When Queen Victoria ascended the throne in 1837, agriculture was left the only vocation of the people, and virtually the only remaining source of national wealth in India; even agriculture was not widened during the British rule of the country in which nearly four-fifth of the population depended upon it. Precious little was done to foster industries after the crown assumed the administration of India in 1858.48 So, long before that date, India had ceased to be a great manufacturing country; agriculture had become virtually the only remaining source of the nation's subsistence. And how even in that area from 1813 on the hard core of extreme poverty was craftily shaped and firmly founded has been convincingly argued elsewhere.49 The great imperial design in regard to India, in short, was to reduce India to a country of raw produce, and to make her subservient to the manufacturing industries of Britain.

India's was by no means an isolated or solitary case. Her experience was in common with and virtually duplicated in all the peoples and lands
of the Indian Ocean region. As long as colonialism lasted, the same pattern of relationship between the foreigner and the native obtained with, at best, some local peculiarities. All countries of Europe did not attain the same level of scientific and technological competence and capability, certainly not at the same time, of course; nonetheless, every European imperial power based its attitudes and policies vis-à-vis its possessions in the Indian Ocean region, as indeed elsewhere, on the same basic principle of retaining technological superiority geared to serving its political, economic and strategic objectives. Local technologies, such as they were, were deliberately made the first casualty concomitantly with a conscious policy of denying implantation of emerging technologies of Europe. As the relationship became multi-dimensional, multifaceted (political, cultural, strategic, etc., rather than merely commercial) and complex, the European masters harnessed and employed technological capability to sustain their superiority in all spheres.

Almost everywhere in the Indian Ocean region, the traditional systems of learning, values and conduct were overwhelmed and supplanted in the name of modernisation by what would serve the interest of the particular European power. Only such segments of science and technology were allowed to be implanted as would strengthen the imperial hold. A new culture, incorporating such carefully selected components of contemporary European civilisation that would promote consumerism and native dependence, was sought to be introduced in these lands through the economic, legal, administrative, social and occasionally even political systems. The occupied lands were surveyed —topographical, hydrographical, geodetic, geological surveys and so on— only to map resources or augment advantage and strengthen the political, military, administrative and economic control of the metropolitan power rather than serve or stimulate the native intellectual resonance in these fields for eventual self-reliance and original contribution.

Accordingly, all that these lands got by way of the fruits of the technological revolution in Europe was the transportation networks of rail and roadways, telegraph and wireless, a particular type of education, a certain kind of machinery and techniques on a limited scale to work in
select areas like mines, forests, drilling for subterranean resources, and so on. In short, foreign technology was employed in the creation and maintenance of the military, administrative and commercial infrastructure in the occupied lands to facilitate rule and economic exploitation there. It served the needs of these societies incidentally, marginally, not primarily or fully, for in all honesty, it was never for these peoples in the first instance.

Communication and transportation networks designed strictly to meet the imperial needs, and developed never fully or in accordance with their full potential, thus provided the means to move men, materials and messages for civil and military purposes defined by the foreign rulers. The educational system touching a limited section of the society and devised by them in light of their needs and objectives furnished the masters with the literate, semi-skilled manpower to fill the lower rungs in the administration, commercial enterprises, manufacturing units and the soldiery. The unlettered, ignorant, destitute mass of populace provided the virtually free workforce for plantations, agricultural operations, and other enterprises for exploiting the mineral and other subterranean resources.

Under the circumstances, there was no question of the foreigners initiating, encouraging or establishing institutions of modern learning, research and training in the possessions in the Indian Ocean region. With the possible exception of India, nowhere else in the region were proper, modern educational and research institutions established by the European powers till about the end of the Second World War, and even later. Talented or loyalist favourites from these countries had to go to the metropolitan country for university and research-level modern education and training; and this perforce had to be a small minuscule minority of the native elite. In their own country, consequently, it was impossible for this tiny elite to forge or foster the tools of technology from indigenous means or effort even if they were to be allowed to do so. And to design and develop indigenous technology in these conditions, which would contest or compete with the foreign one was so obviously out of question.
The case of India too is the exception that proves the rule in this regard. Nearly a century after the British had established themselves on the sub-continent of India were the first four universities founded there in 1857. Till 1947, when independence came to the subcontinent, India had 21 universities, 459 arts and science colleges (1947-48), 132 professional colleges and about 14 engineering and technological institutions. The estimated percentage of literacy at the time 1947 was 16.7%, while the population of the country stood at 356,829,485 according to 1951 census. With the founding of the Indian Science Congress association in 1913, modest beginnings in the realm of science and technology had been made. The award of the Nobel Prize in Physics to C V Raman in 1930, followed by noticeable distinguished work in the other fields of science that a small galaxy of Indians produced, pointed to the potential the Indians had for advancing science in the country and developing technology for the needs of the society. But all this hardly touched the Indian people or society whose enslavement kept the country subservient and dependent upon the British and other foreign technology. India remained overwhelmingly an agricultural country. It still was in no position to develop indigenous science and technology that could be an answer to—let alone compete with, replace or surmount—the British or other foreign technology.

Elsewhere in the Indian Ocean region, the position in this regard was totally dismal. As long as the Dutch held Indonesia, not a single university existed there; the first to be founded was the National University in 1949, after the Dutch had been ousted from Indonesia. The first university to be established in Sri Lanka (Ceylon) was in 1942, almost 150 years after the British take over of the island. Malaysia had its first university in 1962, University of Khartoum in Sudan came up in 1951, Asmara University in Ethiopia was founded in 1958, the Somalia National University at Mogadiscio in 1954, Tanzania had its first university in 1970, and Mozambique in 1962. South Africa, before it took shape as autonomous component of the British Empire called the Union of South Africa in 1910, did have eight universities till then: those of Cape Town (1829), the Orange Free State (1855), Stellenbosch (1866), South Africa (1873),
Witwatersrand (1896), Rhodes (1904), Pretoria (1908), and Natal (1909). But given the nature of South African state and system these were exclusively White (emigre Europeans) centres of higher education that did not touch the mass of that country's population. As for the institutions of technical training or research, but for an odd one or two —and that too in the field of education turning out school teachers rather than skilled technicians or scientists— here and there, there was none in the entire region till well after the middle of the twentieth century, after the dissolution of colonialism.

As a consequence, virtually the entire region of Indian Ocean peoples had abysmally low literacy rates and levels, a factor which made for the hold of the ritual of religion, myth, superstition and supine subservience rather than reason, rationality, curiosity, enquiry, questioning —in short, what may be called, the 'scientific temper'. Combined with the nature of social system; economic deprivation and ruthless exploitation; alien and selfish foreign politico-administrative regimes bolstered by overwhelming military in the region, the conditions could hardly be considered conducive to the attempt or emergence of indigenous technology of any kind. The overpowering superiority of the European technologies was thus quite permanently assured.

The richness of Indian Ocean lands in the raw materials and services required by the industrialising European powers in occupation of these lands made the latter prize possessions enough to be kept strictly at that level. Reducing them to be exclusively agricultural societies, further helped the foreigners in their designs.

Historically, agricultural society tends to be rigidly traditional. Rural in its organisation, its expanse and exposure automatically keeps it closer to nature than an urbanised social organisation ever can get. Constant touch with nature makes the agricultural peoples depend totally on the phenomena and forces of nature. The mystery of these overawes, induces contemplation, or encourages philosophical attitudes, and resignation or surrender to them. Curiosity is curbed and questioning and enquiry
have to be sacrificed at the altar of superstition and blind faith. The spark that ignites the spirit of science and kindles the systemic tools of technology just does not arise.

The agricultural operations in these societies can be fulfilled by biological energy in the form of human exertion, or by natural sources like the sun, wind and other phenomena of nature. Produce can be had from earth without applying other forms of energy: the role of electricity and steam as energy inputs in agriculture is somewhat limited, certainly not inevitable. This automatically obviates the need or role of technology of the kind industrial societies and operations find indispensable.

The growth of population in these lands seemed to be regulated by natural processes elaborated by Thomas Robert Malthus (1766-1834) in his "An Essay on the Principle of Population", published anonymously in 1798. In the essay, Malthus sought to prove that population increase depended upon the presence of warmth and food; it could be checked by the lack of these, or by decimation caused by disease, pestilence, epidemics, plagues or wars. In such processes and procedures, the place of, or need for, scientific attitudes or technological means and methods would seem to be rather limited—if not quite unnecessary—to man in these (agricultural, pastoral) societies.

The point being made here quite simply is that the make up, orientation and thinking in the societies of the Indian Ocean region, by virtue of their being agricultural-pastoral, was such that they were innately incapacitated from providing impulses that would produce a renaissance or social dynamism conducive to a science-technological revolution in these parts.

So, it was inevitable under the circumstances that with the "second" industrial revolution in Europe setting in, the differential in the technological capabilities and levels of the European powers in the Indian Ocean region and the natives should widen. And widen it did, especially in the sphere of military technology, which made possible the firm grip the Europeans acquired over the region. That this differential favoured
the Europeans is reflected in the fact that at the time of the independence from colonial yoke of these lands, the latter suffered not only from the deprivation and denial of the modernising upsurges, they also suffered from the perversions of modernisation inherent in the phenomenon.

We now define in our next chapter the profile of the region and discuss the states representative of it.

NOTES

1 "Most people who know of him, do so as the geopolitician responsible for (his concept of the 'Heartland' in the 'World Island'), yet he did not see himself as a geopolitician, a word which, along with 'geopolitics', he disliked'. Parker, W H: MACKINDER, Geography as an Aid to Statecraft (Oxford) 1982, p.147.

2 "Man in society forms local communities and the natural environment may be marked off into natural regions: natural regions influence the development of the communities inhabiting them; communities modify the regions they inhabit; the regions, so modified, influence the communities differently than before; and so the interaction continues". Ibid., pp. 115, 125-30, also p. 58.


3 Parker, op.cit., pp. 127, 131-32.


5 Ibid., p. 14.

6 Ibid., p. 18.


9 Ibid., p. 4.

10 Ibid., pp. 3-4.

11 Cohen, Saul B: GEOGRAPHY AND POLITICS IN A WORLD DIVIDED (London) 1975, pp. 63-64.

12 Ibid., pp. 64-65.
13 Ibid., p. 66.


15 *Report from the Joint Committee on Foreign Affairs on the Indian Ocean Region* (Canberra) 1972, Paras 13 and 89, pp. 10, 24.


"The atmospheric circulation in summer between May and October, moving from the east to the west, is due to the low cyclonic pressure of Southern Asia and, in winter between October and April, from west to east, by the anticyclone or the high pressure zone of Asia. During the summer months there are strong winds from the south-west, while in winter there are less strong ones from the north and the north-east.

Under the influence of the monsoons, the sea currents change from season to season to the north of 10° S. The complementary and contradictory movements of winds and sea currents define patterns of circulation unique to this ocean and having profound implications to which the history of the region is a witness". Chandra, Satish (ed): *THE INDIAN OCEAN, Explorations in History, Commerce and Politics* (New Delhi) 1987, pp. 26-29.


23 "There seems to be considerable merit in the views of the two distinguished geographers, O Kummel and G Schott, who, among others, view the related portion of the so-called 'Southern Waters' as integral to the Indian Ocean. With the advent of the age of technology in the wake of the Second World War, enlightened scientific interest focused on the 'forlorn' Indian Ocean, and the Pan-Indian Ocean Science Association decided in the early 1950s to extend the southern limits of the Ocean to Antarctica on valid scientific grounds. This was followed by the International Indian Ocean Expedition of scientific exploration and discovery begun in late 1959 and carried on down to 1965...". So runs the argument, which analyses the reasons for the conventional 'blinking' view of the ocean, and offers justification for its extended limits. See, Madan Mohan Puri, "Geopolitics in the Indian Ocean: The Antarctic Dimension", *International Studies*, April-June 1986, pp. 156-58.

24 Collated from the data taken from *BRITANNICA ATLAS* (London) 1980, p. 6


26 *BRITANNICA, op. cit.*, pp. 310-11.
Another classification divides the Ocean into five sub-regions: (i) the Southwest including southern and East Africa along with the islands east of the African coast, (ii) the Horn of Africa and Red Sea countries (iii) the Persian Gulf countries (iv) the Indian subcontinent and neighbours, and (v) the southeast, including Australia. Vali, op. cit., p. 28.

An Indian scholar divides the region into four "pivotal areas": (i) South Africa, (ii) Southwest Asia, (iii) India and Pakistan, and (iv) Southeast Asia and Australia. R.C. Sharma, "The Indian Ocean and its Community, A geographical appraisal", in Poulouse, T T (ed): INDIAN OCEAN POWER RIVALRY (New Delhi) 1974, p. 209.

Finally, the Australian Foreign Affairs department has suggested these four divisions of the Indian Ocean area: (i) East Africa and the ocean region east of it, (ii) the northwest, from Somalia around to Iran including the Red Sea, the Gulf of Aden, and the Persian Gulf, (iii) the Asian subcontinent and the sea southward, and (iv) Southeast Asia and Australia. Cited in Vali, op. cit., p. 28.


For actual items of trade, commodity structure, ebb and flow of trade, and its transactional aspects, see, Lotika Vardarajan, "Commodity Structure and Indian Participation in the Trade of the Southern Seas, circa Ninth to Thirteenth Centuries", ibid., pp. 90-108; Vali, op. cit., pp. 31-32.


NamBIar, D K: OUR SEAFARING IN THE INDIAN OCEAN (Bangalore) 1975, p. 9.

Braun, op. cit., p. 4.


Ibid., pp. 11-42.

Cited in Ferguson, W K and Bruun, G: A SURVEY OF EUROPEAN CIVILIZATION since 1500 (Boston) 1958, p. 495.


In the five years ending in 1813, the cotton wool annually imported from India had been 9,368,000 lbs on the average. The annual average of the five years ending in 1838 was 48,329,660 lbs. (p.101).

"The peculiar kind of silky cotton formerly grown in Bengal from which the fine Dacca muslin used to be made, is hardly ever seen; the population of the town Dacca was fallen from 150,000 to 30,000 or 40,000, and jungle and malaria are fast encroaching upon the town. The only cotton manufactures which stand their ground in India are of the very coarse kinds and the English cotton manufactures are generally consumed by all above the very poorest throughout India... Dacca which was the Manchester of India, has fallen off from a very flourishing town to a very poor and small one; the distress there has been very great indeed". (p. 105).


49 See, for instance, Tapan Raychaudhuri, "Historical Roots of Mass Poverty in South Asia, A Hypothesis", *Economic and Political Weekly* (Bombay) 4 May 1985, pp. 801-06.

50 See, *India 1953, A Reference Annual* (Delhi) 1953, pp. 275-76 and 281.
