Chapter one

INTRODUCTION
INTRODUCTION

Brief Statement of the Physical and Historical Setting:
India has made a unique contribution in shaping our knowledge about the vestiges of our glorious past and rich urban heritage. A glance at the world map reveals that, geographically, India is situated almost midway between the countries of Arabia and Africa to the west, Malaya, Burma, Singapore, Indonesia, Somalia, Thailand to the east, Central Asia to the north, with the Indian Ocean forming a confluence with the Arabian Sea and the Bay of Bengal and stretching as far as Antarctica in the south. This has made India and the Indian Ocean region one of the earliest urban civilization.

Goa, a small state situated almost midway between the key economic areas of Gujarat and Malabar along the west coast of India, occupies a distinct place in the history of our country. (Map I) Throughout its history, Goa has undergone innumerable episodes of change involving political unification and fragmentation, cultural infusion and assimilation, religious tolerance, communal harmony, military conquest and integration.

There are various references to Goa in the ancient literary texts, such as the Vishnu Purana, Bhisma Parva of Mahabharata, Sahayadri Khand and the Konkanamahataya, as Goparastra, Gorashtra, Gomant, Gomachal, Gomantak, Gopakapattana and Govapuri. The prefix ‘go’, that means cow in Sanskrit, seeks to explain the meaning of the place-name Goa as a ‘land where cows abound’ or the ‘country of cowherds’ or the ‘city of cowherds’. Scholars such as A. R. S. Dhume trace it to goem-hah ‘the inclined ear of paddy’ and B.D. Santoskar to guwi or arecanut, representing the agricultural prosperity of the region of Goa. For the Kadamba kings, Goa was kalyan gude or ‘the abode of welfare’ whereas Leonardo Paes traces its origin to the Kadamba king, Guhalladeva. During the Portuguese period, chroniclers such as, Diogo de Couto, traced its origin to goem-oat which means a ‘fertile and refreshing land’, and Francisco D’Souza derives it from goubat who, according to him, was the chief local deity worshipped in Goa.
Goa is identified in travelogues and ancient writings of the Persians and Arabs as Kuwe, which corresponds to Kuwa as well as Sindubar, identified by writers such as Al-Masudi, El-Eidrisi, Rashid-ud-din, Al-Bufeda and Ibn Batuta. Besides the Greek works like the *Periplus of the Erythean Sea* and *Geographie of Ptolemy* and the records of Gudea mention Goa as Nelkinda, Larike, Ariake, Limurke, Anjidiv, Melinda, Kouba, Tyndis and as Gubi. (Map II) This fact provides information of its contacts with countries such as Aden, Jordan, Sumeria, Egypt and other important ports.

**Brief Historical Review:**

The history of Goa is divided into four phases: (1) Pre-historic which is further subdivided into the Palaeolithic, Mesolithic, Neolithic and Megalithic (2) Ancient and Early Medieval Goa. (3) Portuguese Goa (4) Post-Liberation Goa.

**Palaeolithic:** It was a cultural stage when human beings were mostly hunter-gatherers. Sali during his exploration in Goa testifies evidences of the presence of early man in Bombay, Konkan and Goa. The cultural evidences available in Goa for this period is shown in the chart provided below:

<table>
<thead>
<tr>
<th>Cultural division</th>
<th>Duration</th>
<th>Tool categories</th>
<th>Tool types</th>
<th>Evidence in Goa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower Palaeolithic</td>
<td>2.8 million years ago</td>
<td>Cleavers, hand axes, choppers, chopping tool, acheulian bifaces and cores</td>
<td>Pebble tools</td>
<td>Light stone implements from Mandovi and Zuari, Unifacial chopper from Shigao on river Dudhsagar and bifaces from Bimbal, Sonavli and Tambdi Surla.</td>
</tr>
<tr>
<td>Middle Palaeolithic</td>
<td>35,000 BC</td>
<td>Avis, points borers, notch and side scrapers</td>
<td>Flake tools</td>
<td>Arrowheads, Avis, scrapers of quartz found near Dabolim at Arali, Shigao and Fatpora</td>
</tr>
<tr>
<td>Upper Palaeolithic</td>
<td>10,000 BC</td>
<td>Knives, Burins, Blades</td>
<td>Blade tool and Bone tools</td>
<td>Blades made of siliceous material found at Velha Goa, Mopa, Molangunim, Sal, Anakhane and Kudne.</td>
</tr>
</tbody>
</table>
Mesolithic: This period is dated to around 8000 BC during which the environment changed. They lived in artificially erected structures giving more importance to riverine and maritime food resources. They made use of small stone blades called microliths. In Goa, Mesolithic tools are found at Rivona, in Quepem taluka and along the coastal regions.

Neolithic: This period is dated to around 6000 BC where human beings were involved in a production economy and special tools were designed to suit this economic behaviour. The tools were specially ground and polished stones worked into sharp axes and adzes mostly made to use for some agricultural activity. Evidences of such tools are found in Old Goa, Tamdi Surla, Sancorda, Chicalim and Arali.

Megalithic: This period is dated to around 1300 BC to the 2nd century AD. It is a period when people made use of huge stones especially for burial of the dead. In Goa, we have evidences found in the form of a dolmen at Maina, along the Pirla road, a menhir at Khurpem, behind the Mahadeva temple at Tamdi Surla. At Pariem, in Sattari taluka, a stone resembling a megalith is found near the debris of a shrine with an inscription on it. Besides, a stone circle of about 4 meters in diameter with a big oval granite stone in the middle provides good evidence of burials dated to pre-historic times in Kajur village of Quepem taluka.

Petroglyphs: The discovery of rare stone age rock engravings in Kevan Dhadole, Pansaimol of Pirla village in Sanguem taluka as well as at Kajur village in Quepem taluka and at Mauxi, in Sattari, has provided us with new archaeological inputs about the prehistory of Goa and have placed Goa on the map of rock art in India. The unique feature in the engravings of Goa is that, it is carved on hard laterite platform as compared to the painted rock shelters of India. The early human beings have left behind a tremendous imprint of their artistic ability in the form of rock engravings centering on themes of environment, ecology, socio-religious and cultural aspects such as figures dealing with cosmology, tree-like motifs, animals such as zebu bull, bison, deer, gaur, scenes of mating animals, x-ray type animals, bison with wounds and religious symbols.
This brief introduction to early Goa is included in order to understand how it helped to shape the dynastic history of early and medieval Goa from the 4th to 15th century, the religious and commercial motive of the Portuguese colonization of Goa from 1510-1961, the liberation of Goa through the operation Vijay of the Indian Army and its post-liberation period.

The present study is an attempt to concentrate on the urban and maritime aspects of Goa’s ancient and medieval history. Hence, it is necessary to understand these basic concepts before we discuss them in the context of Goa and more specifically to the three ports under study.

**What is Urbanisation?**

Urbanisation is a world-wide process experienced by several major historical civilizations of China, Japan, South East Asia, Europe, Latin America and India. The term ‘urban’ has been derived in the Latin word *urbanus* from *urbs*, that is, a city/urban population. 24

The Social Sciences refer to urbanization as a “process” by which the increasing proportion of the country’s population is attracted to settle in cities which leads to a spatial connection of activities bringing about an effective change in the collective life of people as a result of the progressive development in the existing agricultural and industrial technology of the peasantry. 25

Urbanisation as a “change” in the nature of people’s activities and the morphological structure of the urban agglomeration and its development. 26

Urbanisation as a “movement of people” from small communities, concerned chiefly or solely with agriculture, to other communities, generally larger, where activities are primarily centred in management, manufacture, trade and allied interest. 27

Urbanisation as an “urban way of life”. 28
Demographically, urbanization is referred to “as redistribution of population between rural and urban areas” or “as an increasing proportion of the total population in the urban areas.”

Considering the above interdisciplinary definitions put forth by different scholars, urbanisation means a gradual complex process of movement of people from a rural settlement to an urban agglomeration and an effective change brought in its morphology and way of life as a result of its interdependent entities consisting of its ecological setting, technological advancement, economic development, political stability, social awareness and cultural growth.
It can be further observed as a “four dimensional process” consisting of **Time** which refers to the period of time during which urbanisation grew, whether ancient, medieval or modern. **Space** that is, its spatio-structural approach. **Form** which includes its demographic characteristics, architectural forms, settlement zones, internal structure of the urban centre, size, density, and its geography and **Function** which refers to its political, economic, educational, recreational and maritime functions.

“Urbanism” would mean a societal change in the “style of life” or “a condition” that result out of change in the social, political, economic and cultural processes at work in an urban setting. 30

**Scope of Urbanization**

Urbanisation would include within its scope the study of different inter-related components comprising of urban geography, morphology, land use, urban economy, society, culture, population, functions, centres, systems, traits, internal structures, polity administration, growth, features, city hinterland relations, urban locality, place agglomeration, settlement patterns, hierarchies, state formation, technology etc.

**Growth Dynamics**

Urban growth is the most important indicator for the development of the country and its region. It is difficult to say when the first city originated, developed and decayed. Oswald Spengler views urban growth as being cyclic in nature. He considers the city to be like a cancer which passes through all the stages of origin, growth development and decay.
Ernest Burgess, sociologist of the University of Chicago in his Concentric Zone Model envisaged city growth as a pattern of concentric circles moving out from the centre.  

The growth and development of cities would depend upon the following:

- Migration as a result of development in transport and communication, for the purpose of education, employment, business, trade, religious conversions, political reasons, invasions, administrative functions, city life and natural calamities resulting in expansion of the size and density of population, size of settlement and emergence of new settlement.
- Development in technology and economy.
- Inter-regional interaction.
- Intra-regional and overseas contacts and trade.

**Urban systems**

'System' is essentially a gestalt concepts in which relationship between the elements make it greater in sum than the mere addition of the constituents of which it is comprised.
or it is a set of objects together with the relationship between the objects and between their attributes. Urban systems consist of a city and its suburbs.

To understand urbanisation as a system one has to consider different aspects

- The set of object: city as an object in functional terms.
- The set of attributes: the cities must have some definable attributes which can measure and which will provide some indication of the performance of the object.
- The relationship between the elements: these are the connections between the object which make the system more than a collection of interdependent parts.
- Adduce the state of that particular conglomeration of values, attributes of the elements, which is obtained at some given time. 33

Urbanisation in India

The beginning of urbanisation in the Indian subcontinent can be dated back to the pre-ancient period with the Palaeolithic and Neolithic settlements in north, central and south India. Their main features included agriculture, domestication of animals, pottery, and production of tools of stone, copper, bronze and technological and cultural developments.

This brought about urbanisation, for example, the Harrappan civilization that was initially an agricultural settlement settled on fertile plains with natural irrigational facilities, grew a number of crops and domesticated animals. They used tools made of copper and bronze and the art of writing was known. Gold and silver jewellery, stone and bronze sculptures were produced and a system of weights and measures existed. Since the Harrappan civilization possessed all characteristics of a fully developed urban society, supported by villages it can be said to be an urban civilisation. 34

Yet another example of urbanisation is best seen existing at the mouth of the Gulf of Cambay. It probably started as a fishing village settlement and later
emerged as a major trading seaport. There are evidences that through this port of Lothal, the Harrappans established trade links with the outside world, in particular, Mesopotamia. 35

Around 600 BC, India experienced its second phase of urbanisation. The post-Vedic, Mauryan and Post-Mauryan periods experienced the early origins of urbanisation. There are literary evidences in the Rig Veda, Dharma Shastras, Arthashastra, Ramayana, Mahabharata, Kamasutra, Mahabhashya, Manusmriti and some of the Puranas which provide valuable information on urbanisation during the early historical period.36

The emergence of cities during the post-Vedic period played a very important role in ancient India that led to a transformation from an egalitarian society to an economy-based society.

Urbanisation during the Mauryan period can be analysed from the transition of the Janapadas to Mahajanapadas which encouraged urbanisation. The relationship between the city and countryside underwent important changes. During this period, urban settlements were identified by different names according to their functions. For example, pattana was a coastal trading town, nigama, kheta, rajdhaniya and dronamukha, an urban settlement located at the mouth of a river and served as a port city. 37

During the post-Mauryan period, in spite of possessing the advantages for urban growth there was a decline of cities due to natural calamities, political reasons, decline of crafts and industries, Buddhism and constant wars. This phase was mostly experienced in the north but in the south there was an independent emergence of urbanisation. 38

Urbanisation in South India began from 600 to 1300 AD. During the Mauryan period, it spread to the lower Ganga valley, Orissa, Gujarat and Maharashtra. Cities like Nasik, Puri, Cuttak, Broach, Ujjain and Masulipattana
served as a link between the north and the south. Urbanisation in south India is closely linked to the decline of kingdoms, influence of brahmanical religion, customs and rituals, role of Sanskrit language, beginning of the rule of Satavahanas, Chalukyas, Rashtrakutas, Pallavas and the presence of temples have produced a distinct urban morphology.

During the Mughal period, urbanisation in India reached its peak due to a high level of political stability and economic prosperity due to the growth of traditional industries, trade, mostly external where goods of Indian origin were traded as far as West Asia, Southeast Asia and in the European market.

India experienced an increase in urbanisation with the coming of the European powers, namely, the Portuguese, Dutch, French and English and specially when the Portuguese first established a number of factories and port towns in India and in particular at the port city of Goa.

All these phases led to the growth of a number of urban settlements which became places where the most powerful and visible section of the population were engaged in activities other than food production, representing a fine blend of rural-urban mix.

Causes of urbanisation in India

There is no one set of causes for urban growth as different regions during different points in time, space, form and function experienced different sets of causes. However, a more general view of what led to urbanisation is worth taking note of. Otis Dudley Duncan has viewed the origin and growth of urbanisation as an ecosystem of population growth, natural environment and technological improvement as favourable elements for the emergence of cities.

In the Indian context urbanisation was the result of the following factors:

- Ecology and environment: The geographical make-up of India in terms of its favourable climate, soil, mineral resources, flora, fauna, rivers, its
tributaries and distributaries was very conducive for the rise and growth of cities especially along the riverbanks and areas rich in natural resources.\textsuperscript{42} For example, the Cholas in South India used the Kaveri delta as their resource base and built up an irrigation network there to increase its potential to support an expanded population. The area lying between the Tamraparni and Gatana rivers had enormous agricultural potential. The area around Quilon was conducive for the growth of spices.\textsuperscript{43}

- **Agricultural expansion:** the ecology of the region in terms of natural irrigation, fertile soil and suitable climate was favourable for expansion in agriculture besides, advances in technology in terms of discoveries and inventions that helped people to develop their skills. The development of farming skills was a turning point that led to the founding of cities.\textsuperscript{44} For example, the Ganga valley served as an epicentre for the growth of early cities probably because the area enjoyed a natural environment conducive to agriculture and able to sustain a high concentration of population. The Malwa region provided an extensive agricultural base linking central and western India.\textsuperscript{45}

- **Transport and communication:** easy accessibility to different regions by land and sea routes established contacts with different regions. This enabled the surplus produce to be distributed and exchanged from the hinterland to the city markets and the ports.

- **Specialisation in craftsmanship** increased the demand of the rural people as various handicrafts were used for trade abroad, which in turn led to the emergence of guild system in order to ensure their cooperation and coordination as they expanded the urban economy.

- **Migrations** acted as a contributory factor in the growth of urbanisation in India as large number of migrations are a result of inventions of new methods and techniques, natural calamities, political decisions, political instability, religious conversion, cultural activities, better economic benefits, changes in lifestyle, business and trade.
- Educational institutions, such as brahmapuris, that sprang up since ancient times, became important urban centres as they attracted intellectuals from across the country thereby increasing the size of the urban settlement.

- Invasion, colonisation and establishment of new dynasties.

- Individual initiative taken by kings also led to the development of urban areas.

- Religion being the essence of the Indian people, cities began to emerge as a result of the construction of temples, which acted as sacred places of pilgrimage attracting large number of devotees from distant lands. The mobility of people to these centres led to craft production related to religion which enabled the people to earn a living as well as exchange urban ideas resulting in changing one's perspective of living. For example Dwarka in Gujarat, Puri in Orissa, Sringeri in Karnataka and Joshimath in the Himalayan region have emerged as urban places of great religious importance.

- Market and trade were the two vital components for urbanisation as specialisation in production of goods had to be distributed and exchanged leading to inter-regional interactions and contacts.

**Features of Urbanisation**

To qualify a settlement as an urban settlement it should consist of physical, economic, socio-cultural and politico-administrative features which may be produced by one single town.

**Physical features:** such as presence of well-planned streets, roads, highways, bridges and routes connecting the hinterland and foreland, transport facilities for the movement of goods and people, postal system for the purpose of communication, well-maintained public and private gardens, public works in the form of construction of tanks and other irrigation works, an excellent drainage system for the disposal of waste, electrification of the cities with oil lamps and torches.
Economic features: such as presence of non-food producing class, development of industries and trade and crafts guilds, existence of weights and measures, currency and banking system, knowledge of advanced script for record keeping and accounts, taxation system, existence of market centres, weekly and special trade fairs, products for export and import, inter-regional and foreign contacts, existence of ports, harbours and dockyards, workshops for ship-building and store houses for the storage of goods imported and exported.

Socio-Cultural features: such as large size of settlement with denser population, existence of brahmadeyas, mathas, brahmapuri, monasteries and maktabs, existence of temples, urban social life, social stratification in terms of family and marriage, social institutions in terms of caste, occupation and status., social systems, welfare centres and technological innovations in metallurgy, ceramics, carpentry, shipbuilding and masonry.

Politico-Administrative Features: such as presence of a ruling class, which conferred benefits upon their subjects as well as improved the overall image of the city to consolidate their own position in terms of planning and organization, construction of monumental buildings like palaces and administrative headquarters, fortification walls, ramparts, moats for the defence of the city and evidences of donations in the form of land grants given for religious or secular needs.

City and its classification:
In early Egyptian script, the word ‘city’ was represented by a circle and a cross. Circle indicating the wall or moat and the cross represent the convergence of roads, which bring in and redistribute people, merchandise and ideas.

A city is essentially a physical environment in which relatively large, dense and permanent settlements of heterogeneous individuals and their activities take place.
Cities can be classified as (a) mono-centric city which is a single centre performing a single function; and (b) a poly-centric city, consisting of a predetermined centre which handles multiple centres and functions. 48 Cities are broadly classified in terms of their location and function. On the basis of location and function three models were put forth to explain city formation:

- **Von Thuen's model**- agriculture-market model- the location of agricultural land use in relation to the market place where the farm products were sold. The value of agricultural land was directly related to its distance from the market.
- **Weber's model**- manufacture model - the relation of raw material to factory location and to the market place
- **Walter Christallers model**- central place model- He identifies city size variations in terms of their service role. It is based on the idea of the economic advantage of clustering. 49

**Location:**

Cities are classified in terms of its geo-physical setting which includes its location, physiographical aspects and its climate. For example, most of the ancient and medieval ports of India and Goa, during the period of study are located on the banks of the river with scenic beauty and favourable climatic conditions. For example, Broach at the mouth of the Narmada River, Chaul located on the banks of the river Kundalika in Alibagh taluka of Raigarh district of Maharashtra along with Cambay, Sanjan, Sopara and Thana. The geographic and strategic position of the port town made it a commercial port of the Konkan with a flourishing trade centre in the Roha creek. Somnath located on the confluence of the Saraswati River, Kharepattana/Balipattana/Valipattana located inland 40 kms. up the river of Vijayadurg in the Karakavali taluka in the district of Sindhudurg 50 and Surat at the confluence of the Tapi river. The geographical location of Gujarat on the western seaboard of India made it a centre of international trade. The strategic location of Kanauj on the right bank of Ganges made it serve as the highway of commerce and communication. 51
Function:
A city performs various functions and these functions are visible through its architectural and epigraphical evidences. Literary sources of the ancient and medieval period mention different terms for a city which indicate some hierarchical and functional variations among them. Such as *pura*, *durga*, *nigama*, *nagara*, *rajadhaniya nagara*, *kevala nagara*, *sthaniya nagara*, *kharvata*, *dronamukha* and *pattana*. From the point of view of the present study two of the above terms, that is, *pura* (city) and *pattana* (port city) are useful for classification. For example, Chandrapur and Gopakapattana.

Politico-administrative functions:
Some cities are known for their administrative status as state or district capitals. This can be identified through past structures present at the site and through inscriptive evidences. Sri Sthanaka, modern Thane, in Maharashtra was the capital town of the northern Shilaharas. Redi or Revatidvipa mentioned in the Goa copper plate inscription of Satyasraya Dhruvaraja (610 A.D.) states that he was ruling over four provinces from Revatidvipa.

The rise of the Gujarati Solankis explains the rise of the Khambhat in the gulf of Cambay around the 10th century. Dabhol was an important port under Ahmednagar and Bijapur kings. The rise of Mahabalipuram around the Palar mouth can be associated with the rise of the Pallava kings and Nagapattinam rose with the Cholas around the 9th to 12th century.

In the inscriptions of Shilahara, Dammariya, the son of Sanaphulla, the founder of the Shilahara dynasty made Kharepattana his capital. In Goa, Chandrapur was the capital of Bhojas and Kadambas, Gopakapattana was the capital of the Shilaharas and Kadambas and Ella the capital of the Adil Shah dynasty and later the Portuguese.
Religious and Educational functions:

Cities are known for their religious and educational functions as pilgrimage centres and educational centres. The cult of bhakti led to the rise of religious institutions which attracted pilgrims from far and wide and to cater to their needs several markets and socio-economic groups emerged. For example, Tiruvidaimarudur, a centre of Saivism in South India that developed into a supra local-centre of exchange,\textsuperscript{56} Somnath, in Gujarat famous as a pilgrimage centre since ancient times, ports of Bassein, Sangamesvara, Chaul, Sopara were not only commercial centres but also sacred places, Sopara, a holy place where the Pandavas halted on their way to Prabhasa.\textsuperscript{57} In Goa, Shivapur (Shiroda) during the time of the Mauryas, Chandrapur during the time of the Bhojas and Kadambas, Gopakapattana during the Kadamba rule and Ella during the Bahamani and Adil Shah rule were religious as well as commercial centres.

The need for education led to the migration of scholars to brahmapuri, and mathas in different parts of the country offering education and accommodation which helped in initiating urban activity. For example, a temple college at Tirumukudal in Chingleput district, Salotgi in Kaladgi district, Anandapura, Valabhi, Vikramasila, Nalanda, Odantapuri and Jagadalla.\textsuperscript{58} Ella village in Goa (presently Old Goa) during the time of the Kadambas was a famous educational centre which probably led to the rise of an urban centre.\textsuperscript{59}

Economic:

Cities may be classified on the basis of the types of economic activity as port cities, trade and commerce centres, transport activities, manufacturing centres, production centres, and market centres. For example, Kanauj served as the highway of commerce and communication, Ports in Kerala attracted traders from Europe, Arabia and Egypt for spices of Malabar.\textsuperscript{60} the ports of Chaul, Kalyana, Sopara, Thane, Vijayadurg, Devgad, Malvan and Ella (Old Goa) were famous for ship building.\textsuperscript{61} Mahad was a big market for the production of textile,\textsuperscript{62} teak and timber, an important export of the Rashtrakuta kingdom. Bengal as a chief centre for cotton cloth,\textsuperscript{63} Mandagora or Mandad situated on the Rajpuri creek near Kude,
a great centre of trade in teak, blackwood and shipbuilding. Hippokura or Goregaon in the Kolaba district famous as a horse port, Redi or Revatidivipa is an important port exporting manganese ore. Kalyan or Calliene, a famous market town and the chief port for the exports of Northern Konkan. Both Sopara and Kalyan exported rice, sesamum oil, fine cloth and cane sugar.

Chaul/Symulla/Timulla/Champavati/Cemulla was the chief port of the Konkan with a flourishing trade centre in the Roha creek. The trade of Chaul was carried on through the openings of the Sahayadri mountains by the Bhor, Naneghat and Devasthali, Kumbha and Sevlya passes. Kharepattana/Balipattana/Valipattana (today Suka Nadi) was navigable in the past and the sailing ships coming over from the open sea through Vijayadurga could land at Kharepattan. It was connected to Kolhapur, a famous emporium and centre of trade through the Bavda ghat.

Urban structures:

- Physical structures: In the form of streets, roads, highways, bridges, gardens, drainage, wells and tanks
- Political and military: In the form of palaces, administrative buildings, fortresses and moat
- Socio-cultural: In the form of huts: small and large, temples, mosques, sacred tanks, cemetery, educational institutions like brahmapuri
- Economic: In the form of production centre, market, port, dockyards, mint house,

For example, Sri Sthanaka, modern Thane, had several landing places and probably provided with wharf. It had broad streets, two and three storied tiled houses, beautiful lakes with parks around, huge decorative temples and hinterland inhabited by coppersmiths, goldsmiths, ironsmiths, carpenters and weavers.
Sopara was a city with 18 gates and a temple of Buddha. Chaul had 360 tanks, 360 temples and 16,000 public buildings and private mansions and 16 ports. Kalyana was a planned city with the palaces, residences of royal officers, administrative buildings in the centre, residences of nobleman, merchants, foreign representatives, sacred ponds and temples. Broach is a town having mud rampart with a deep ditch on the outer side.70

Ports like Dabhol, Jayagad, Rajapur, Kharepatan, and Sangameshvar are single long street towns having the length of 1 km to 4 or 5 km. It had shops and stores of merchants near landing places and also the offices of agents. The residential area is spread on both sides of streets parallel to the navigable channel.71

The port capitals of Goa do possess most of the above urban structures in the form of royal road, streets, wells, tanks, fortification wall, houses mentioned in travel accounts, gates, palace sites with few architectural remains, ports, mosque, temples and brahmapuri.

**Historiographical Review**

In India urban studies started in the first half of the 19th century. Some of the contributions in this field of urban studies include V. K. Thakur, *Urbanisation in Ancient India*, in which he discusses the causes for urban growth, urban economy, society, culture, administration and urban decay. His focus on the subject was more general and literary than archaeological and specific.

A Ghosh, *The city in Early Historic India* gives a deep insight into the various issues linked to the growth of early historic Indian cities, a detailed and region by region discussion of archaeological data was not within its scope of study. R. Ramachandran in *Urbanisation and Urban Systems in India* analyses the geographical approaches to the study of urbanisation, its processes and history.
R. Champakkalakhimi presents an overview of the various phases of urbanisation with special reference to South India in *Trade, Ideology and Urbanisation in South India. The City in Modern Africa* by Horace Miner discusses urbanisation from a political point of view. Edwin James, Judith Granich and others in *Anthropology of the City* present an interdisciplinary approach to understand city life. A critical evaluation of urban problems from a geographical point of view is analysed by K. S. Yadav in his work, *Comparative Urbanisation*. R. S. Sharma in his *Urban Decay in India* tried to argue that the early historic cities of the country declined along with the decline of trade economy. K. Davies a modern sociologist has asserted that the earliest urban centres are called cities mainly by the courtesy of the architect. In relation to their modern counterpart they were comparably small with a maximum of a few thousand inhabitants, “mere urban island in a vast sea of rurality”.

V. Gordon Childe in his book *Man makes himself* coined the term urban revolution to emphasise its importance and formulated a theoretical scheme to account for its occurrence. He suggests 10 traits of an urban revolution. B. B Dutt in his classic work *Town Planning in ancient India* focuses on the morphological and internal structure of city planning as revealed in ancient literary text but does not mention how cities were formed. B. N Puri in his *Cities in Ancient India* did not deal with the causes for the growth of cities but made used of both literary and archaeological evidences.

V. D'Souza in *Urban studies in India* has given an appraisal of urban studies from a sociological point of view and highlights the areas, which deserves in depth research. D.K. Chakraborti in his book *The Archaeology of Ancient Indian Cities* made an in-depth examination of urban centres of ancient India. He emphasises on the continuity of urban traits from the Indus valley times to underline the cultural transition and re-emergence of cities in early historical period.
Besides, Portuguese scholars who worked and emphasised on the religious, politico-administrative, commercial and maritime aspects of towns, include, K.S. Mathew in his works *Portuguese Trade with India in the 16th century*, *Trade in the Indian Ocean and the Portuguese System of Expansion*, *European and Maritime Trade in Malabar Coast*, *Migrations in South India*, *Ship building and Navigation in the Indian Ocean Region*.

Yet another fascinating historical account is provided by M. D David Shackle, *History of Bombay, 1661-1708* who based his work on the political history of Bombay, just before it was ceded by the Portuguese to the English till it was made an independent presidency of the East India Company. Also Sanjay Subramanyam has 11 books to his credit one of which is the *Portuguese Empire in Asia, 1500-1700* its historiographical context, *Sinners and Saints*, *The Succession of Vasco da Gama*, *Career and Legend of Vasco da Gama* and many recent publications stressing on the Colonial history which provides useful clues to study maritime history of the past.

Theories put forth by Robert Redfield and John Freidman provides new meaning to urban history. The concept of ‘Great Tradition’ that includes cities or civilizations and ‘Little Traditions’ that deals with the countryside is used to interpret urbanisation as a transition from little villages, which are rural, folk, isolated, to great cities which are elite, literate and cultured.

The study of urbanisation in the field of historical studies is invaluable, especially in the context of maritime history, as it provides information on the nature of urban centres, their functions, physical features, social institutions, political scenario, religious and cultural trends, spatial patterns, morphology, and location of monumental and public work buildings, trade routes, and size of the maritime urban centre. It also helps in understanding the way of life of an urban maritime population.
What is Maritime History?

“Our maritime history is not a matter of chance or of casual growth, but it is a heritage that must be guarded jealously and studied carefully in all its phases”.72

The term maritime has been derived from the Latin word, *maritimis*, that is, *maritim* refers more specifically to the sea as a field of human action.73 In other words, it refers to the use of the sea by man for some human interest connected with the sea. It denotes coastal, commercial, and naval activities undertaken by traders and merchants on the high seas.

In recent years, with the revolution in the methods and contents of historical writing, academicians have taken a lot of interest in maritime research due to the change in perspective from narrative, political, descriptive, elitist history to a more scientific, interdisciplinary, critical history of the common man in order to reconstruct the total history of humankind within the framework of ‘New History’. The advances made in the field of Marine Archaeology have further contributed to the growing interest in maritime studies in recent years.

Various attempts have been made to come to a precise definition of the term maritime history. It is defined as the study of oceans, its role in the growth and development of a civilization, transmission of goods, people, ideas, modes of behaviour and cultures of various maritime nations of the world.74

Scope of Maritime History
It includes within its scope the study of various related aspects such as seaborne trade and commerce, development of port and port cities, coastal societies, port-hinterland relations, maritime transportation, riverine transport system, navigation, ocean currents, banking and credit system, primary and secondary activities, international politics, maritime law, shipping and seafaring activities as well as the service sectors.75
Archaeological studies, especially marine, nautical and underwater archaeology, has contributed tremendously to achieve the goal of reconstructing maritime history more scientifically through its various techniques like vertical sonar, echo sounder, metal detectors, side scan sonar magnetometer, sub-bottom profiler, underwater camera, TV and radio system and diving to unearth the material remains of seafaring activity. Besides new techniques such as satellite mapping, aerial photography, landforms, wetlands as well as maps of shoreline changes, study of the morphology, cityscape as well as various subjects such as archaeology, archaeological sciences and social sciences will help to arrive at an interdisciplinary approach in order to reconstruct the ancient urban maritime history of a given place.  

Features for the study of Maritime History:

- Geographical configuration of a region, which includes seasonal monsoon, tropical climate, winds, ocean currents, patterns of rainfall provides a favourable environment and shapes its agricultural and maritime activity.

- Natural products of the region which includes the wealth of the sea such as corals, pearls and hinterland in the form of minerals cotton, spices, sugar, timber, gold, silver, iron ore. Availability of raw material attracted the neighbouring countries which played an important role in shaping our history.

- Economic linkages between various countries provide a highway for exchange of ideas and goods.

- Social linkages in the form of traditions, folklore, dances, art and architectural influence.

- Religious linkages such as emergence of Buddhism, Jainism and Brahmanism.

- Origin of maritime skills in the form of shipbuilding techniques, navigational techniques, which were the knowledge of the local seafaring community
The existence of markets, trade routes both land and sea routes encourages trade both local and overseas leading to a change in the morphology of the place. Thus location and other characteristics of an urban maritime settlement encouraged the study of maritime history.

**Brief Outline of Maritime Activity in India**

India has a rich maritime heritage. Since time immemorial the primary motivation of early humans was survival, trade, cultural and religious interaction, which enabled them to engage in various activities whether it is for survival or for gaining wealth and prestige.

The earliest traces of maritime activity are discernible since prehistoric times when *homo sapiens* first set up their settlements along banks of rivers and lakes and began to utilize the sea as a source of food for survival. A close relationship with the sea was established which becomes an important highway for transport and cultural diffusion.

India’s first maritime contacts with the outside world are best evinced in the excavation reports of Mohenjodaro and Harrappa dated to 3000-2000 BC. These reports provide a lot of information of its maritime character based on various archaeological findings in the form of shell bangles, ornaments, cowries, evidence on pottery with designs of fish and boats as well as seals which were found as far as Egypt, Mesopotamia, Sumer, Crete thus linking the Indian Ocean region to the world’s earliest urban civilisation. Besides there were references to the ports of Prabhas, Jamnagar, Kundarkhera, Lothal which according to B. B. Lal served as a warehouse where exchanges took place.

The ancient literary texts also provide a lot of scattered information on ancient maritime activity, which contains several references to sea voyages undertaken for commercial and other purposes.
To cite one such reference, in the *Rig Veda* there are hymns dedicated to Lord Varuna, the God of the sea, who is propitiated with the following words: "Be auspicious unto us, oh Varuna." 78

There are other references in the Epics and *Puranas*, such as the battle of ten kings fought on the banks of the river Indus. Even today people worship the ocean gods and goddesses. This thought process has been deeply embedded in them that they name their off springs after the great ancient rivers such as Sindhu, Saraswati, Ganga and Yamuna. They also associate Brahma as the giver of life and Vishnu as one who relaxes in the cosmic ocean to be the sole cause for the prosperity of the oceans.

Oceanic and riverine activity also flourished during Mauryan times during which the main motive was freedom from the seas as mentioned in the *Arthashastra* of Kautilya, the Ashokan edicts and in the works of Greek and Roman ambassadors who stayed at the Mauryan court and made observations on India.

Later by 200 BC to 300 BC, India’s sea borne trade reached great heights due to the Roman trade with India as seen through various Roman coins and pottery found in South India. Some important works, including Pliny’s *Natural History*, *Periplus of the Erythean Sea* and Ptolemy’s *Geographie*, provide a mine of information on India’s commerce, shipping, ports, products and its maritime contacts.

Arikamedu, known in the *Periplus* as Poduke, through its excavation reports provides a lot of information related to commercial activities and its contacts with Malaya, China and Rome. Muziris, Cranganore, Amravati and Nagarjunakonda flourished as important port towns of call. Even after the decline of the Roman Empire the seaborne trade flourished and India established commercial relations with the Mediterranean, West Asia and the eastern coast of Africa.
The Pallavas of South India also controlled trade at their dockyards at Mahabalipuram and Nagapattinam. By then the Arab merchants established themselves on the western coast. Later from the 11th to the 15th century, some Persian works provide us with information regarding maritime enterprise and activity in the Indian Ocean. After the 15th century maritime trade and history was mostly concentrated on achieving political control over the Indian Ocean by European powers such as Portuguese, Dutch, French and English. 79 (Map III)

**Pioneering Contributions in the field of Maritime History**

This long history of maritime activity attracted the attention of eminent scholars who have written much about the maritime activity in the Indian Ocean region during the period from the 15th century to the 20th century.

Some of the important contributions made in the field of maritime studies of the Indian Ocean, include Indu Banga's *Ports and their hinterland* study port and port complexes and their hinterlands; stresses on the study of morphology, economy, society, political organization of port cities and functions of ports. Sinnappa Arasaratnam's *Maritime India in the Seventeenth Century* which attempts a synthesized analysis of maritime trade by dividing the entire Indian Ocean region into four zones, namely, Gujarat, Malabar, Cannanore and Bengal and looks at the ports, seas and commerce of each region and other general themes relating to maritime region as a whole. *The Indian Ocean Explorations in History, Commerce and Politics* edited by Satish Chandra provides an integrated approach to the Indian Ocean from antiquity to modern times.

In the same publication, Charles Verlinden, in his article, "The Indian Ocean" gives an account of the growth of navigation in the Indian Ocean stressing upon the growth of naval techniques, ocean currents, trade and commerce in India from beginning to the 15th century. *Indian Ocean and Cultural Interaction* edited by K. S. Mathew contains a number of essays on the various dynamics of the interaction among nations of the Indian Ocean and European powers dealing mostly with shipbuilding, navigation and intercultural
relations. This includes article of K. R. Singh entitled, "Patterns of Political and Maritime Interaction between Indian, Arabs and Europeans in the Arabian regions". The author was of the view that the traders in the Indian Ocean enjoyed full freedom to navigate and trade. He is of the opinion that except for a few naval incursions there were no great aims at domination of the high seas. K. S. Mathew's edited work on Studies in Maritime History critically analyses the Indian Ocean by using foreign sources to understand maritime trade, its impact on hinterland, society and political economy.

Mariners, Merchants and Oceans also edited by K. S. Mathew provides a critical approach towards maritime history such as exchange of commodities, indigenous patterns of trade, role of Indian merchants and development of a national maritime policy. Essays in Maritime Studies, edited by B. Arunachalam, approaches maritime history from a seaward point of view rather than landward. Kenneth McPherson's the Indian Ocean: A History of the People and the Seas analyses the evolution of the relationship between people and the Indian Ocean and argues for the existence of a distinct Indian Ocean world constituted by trade links and commercial network.

M. N. Pearson and Ashin Das Gupta in India and the Indian Ocean discuss a close relationship that exists between the people and the sea that live by exploiting the resources of the sea coast. Trade and Traders in Western India by V. K. Jain analyses different aspects of foreign trade, trade routes, specially concentrating on the Arab settlements on the western coast.

These pioneering contributions provide a lot of information for the study of the ancient and medieval ports and harbours, early maritime trade contacts in the Indian Ocean, its relationship with the hinterlands, shipping, role of the Indian merchants and inland water transport.

The statement of the problem, aims and objectives and methodology is provided in the succeeding chapter of the thesis.
Notes and References:


15. *Geographie Ptolomies*, liv. vii, cap1, tab.x,1608. as quoted in HASC, p.117.


37. Ibid., p. 39.

38. Ibid., pp. 42-43.

39. Ibid., p. 49.

40. Ibid., p. 52.

41. Ibid., p. 59.


44. V. K. Thakur, *op.cit.*, p.50.


47. Ibid., pp.19-20.


49. N. Jayapalan, *op.cit.*, pp. 58,65.


52. Sharad Hebalkar, op.cit., p.73.

53. Ibid., pp.74-75.

54. Ibid., p.143.


57. Sharad Hebalkar, op.cit., p.74.


59. Field visit to Ella, Brahmapuri, Gorakshak matha and site of the Jain matha on 26th January 2005.

60. Renu Thakur, op.cit., p.191.

61. Sharad Hebalkar, op.cit., p.82.

62. Ibid., p.76.

63. Renu Thakur, op.cit., p.190


66. B.K. Apte, op.cit., p.36.

68. Sharad Hebalkar, op.cit., p.140.


72. Quotation by Sumati Moraji


76. Personal Communication with A. G. Gaur, NIO, Marine Archaeology Department, DonaPaula, personal experience in using the techniques during my M.Phil course 2000.


78. Jawaharlal Nehru, Sanskrit Sayings, (Mysore: INS,1958)

Map I: Location of Goa along the West Coast of India
Map II: India as known by *Periplus*

Ancient names thus: BALITA
Modern names thus: Nosik
Regional names thus: ARIAKE

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Trade route

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