INTRODUCTION

In recent years the focus of archaeological research has shifted from a study of cultures primarily in material terms (subsistence, technology, economy, etc.) or in ideological terms (religion, social relations, etc.) to a study of cultures as integrated systems. Trade offers one such approach to human activities in terms of both economic and social relations.

Trade has been defined as 'the mutually appropriative movement of goods between hands' (Polanyi, 1957:266). This movement may be within contiguous social units (internal trade) or between groups across cultural boundaries (external trade). It has been further categorised into gift trade, administered trade and market trade (ibid.:243-70). The first is based on a reciprocal relationship between parties, while the second type can take place only in the case of a formal treaty and necessitates the existence of a port of trade which offers varied facilities like those of anchorage and storage, civil and legal protection and agreement on the mode of payment. The third type - market trade - follows the lines traced out by the supply-demand-price mechanism. Each of these types of trade can be further broken down into a number of constituents such as personnel, goods and transportation. A study of these constituents is necessary to analyse the nature of trade.

The procurement of goods for trade crosses geographical and political barriers and it is difficult to draw boundary lines; hence by restricting ourselves to the western Deccan in this study we are concentrating on a core area which this region undoubtedly was under the early Sātavāhanas, though the lower Krishna valley in the eastern Deccan acquired considerable prominence under the later rulers of the dynasty; As we shall
see in chapter 1 the reasons for the importance of the western Deccan lay both in its geographical location as well as in historical factors. The latter can be identified only by a detailed study of early settlements in the region and by analysing changes in routes and shifts in habitation areas. Once spatial limits have been established it is necessary to study the political environment. Satavahana chronology has been the subject of considerable debate. In chapter 2 we shall analyse the data from different sources such as the Purānas, inscriptions, coins and excavation reports.

In the Historical period, archaeological and literary sources dated to the middle of the first millennium B.C. provide considerable data on travel and trade in the subcontinent, both internal and external. It would be difficult to explain the location of Mauryan inscriptions in peninsular India in regions rich in iron and gold reserves without ascribing it to commercial exploitation. Kauṭalya in his Arthasastra (VII.12.24) refers to the enormous mineral resources along the daksināpatha - the southern route - and extols the advantages of land routes over sea routes. In the western Deccan there is a radical transformation in the post-Mauryan period, the first century B.C. coinciding with the rise of the Satavāhanas. The scatter of Mauryan and post-Mauryan settlements gives rise to urban centres and there is a simultaneous proliferation of Buddhist monastic establishments. Together with internal trade, the external trade which had so far been marginal also increased.

Buddhist literature is replete with references to ocean-going vessels capable of accommodating a large number of passengers (Ramachandran, 1970: 71-81; Basham, 1949: 60-71). Material evidence for these contacts come in the form of Indian timber discovered in the ruins of Birs Nimrud and Ur in West Asia in structures dating to c. 604-538 B.C. (Hornell, 1918-23: 208).
The sea route from the mouth of the river Indus to Egypt was explored by a certain mariner Scylax under a commission from Darius (Raschke, 1978:656). Strabo in his *Geography* relates the story of Eudoxus, who, guided by a ship-wrecked Indian, led two officially sponsored expeditions from the Ptolemaic court in 118-116 B.C. to India (II.iii.4). Both the *Periplus of the Erythraean Sea* and Pliny's *Natural History* contain accounts of the discovery of the south-west monsoon but make no mention of Eudoxus. The *Periplus* (sec.57) states that Hippalus was the first pilot to steer a course straight across the Arabian Sea. Pliny (VI,26) distinguishes four stages in the development of navigation between the Red Sea and India and associates the name of Hippalus with only the second of the four stages, i.e., the straight voyage from the Arabian coast to India (Wheeler,1954:153-7). It has been suggested that the absence of the name of Eudoxus may be due to two factors: either Eudoxus was not the leader of the Ptolemaic expeditions or that Hippalus antedated him (Raschke,1978:661). A third possibility is that the sailor himself got his name from the monsoon winds as the writer Arrian in his *Indika* (xxi) mentions that the ships of Alexander sailed direct with the monsoon (Kennedy,1898:287). Similarly Hourani's view (1960:135-6) that Arab vessels were forced to travel along the coast as they could not use the south-west monsoon on account of their flimsy construction has been convincingly questioned by Van Beek (1960:136-9) on the basis of research carried out by Bowen (1952). It appears that the spurt in commerce in the first century B.C. was not due to the discovery of the monsoon, but that the discovery itself may have been spurred by the need to exploit favourable economic opportunities (Raschke,1978:662).

Interest in the study of Roman contacts with India goes back to the early years of the nineteenth century, to the publication of largely descriptive accounts based on ancient
texts. These include the works of Vincent and later of Kennedy, McCrindle, Priaulx, Reinaud and Schoff. These were followed by Rawlinson's monograph in 1916 and by that of Warmington in 1928. Charlesworth provided a fresh survey of the entire evidence in 1951, while three years later Wheeler published his analysis entitled *Rome Beyond the Imperial Frontiers*. These studies restricted themselves to a descriptive evaluation of the evidence available in ancient Roman writings. In contrast Moti Chandra's study of ancient Indian trade routes (1953 & 1957) takes into account Indian sources as well though the work limits its scope to an enumeration of routes and goods which travelled along them. The works of Miller (1969) and Raschke (1978) are in a different category as they are analytical and comprehensive and include the whole of South East Asia in their ambit.

Nationalist writings of the early twentieth century produced considerable literature on the antiquity of various institutions in this country, including monographs on varied subjects such as guilds, shipping, money-lending, banking, agriculture, irrigation, land systems and town planning (Sharma, 1974: 48-80). While these provided useful information their main aim was to extol the achievements of the ancient period and they remained isolated and somewhat glorified histories of various institutions.

The writing of economic history is a comparatively recent development in Indian historiography and dates to around the fifties. Some of the noteworthy works are those of Kosambi (1956), Adhya (1966), Chakraborty (1966) and Shrivastava (1968). Kosambi was the first to emphasise the location of the western Deccan caves along trade routes and to study the involvement of Buddhist monks in the economic development of the region. These were pioneering works but they gave incomplete answers to questions regarding the connection
between trade and urbanisation.

The definition of the word 'urban' is controversial. It is generally agreed that a city is a 'unit of settlement which performs specialised functions in relation to a broader hinterland' (Trigger, 1972:575-99). The growth of cities in pre-industrial societies has been attributed to several causal factors including administration, defence, religion, trade and education. Several studies have indicated the high correlation between long distance trade and the development of cities. The ancient cities of Arabia were located along flourishing trade routes. This made the re-investment of profits in elaborate systems for flash flood irrigation possible, thereby ensuring a steady supply of food for the inhabitants. The decline in trade led to the degeneration of these irrigation systems and the cities they supported were abandoned (ibid.).

Long distance trade influenced the growth of urban centres in another way. Expensive and specialised items of consumption could only be produced economically and efficiently at a few centres. A master craftsman would be able to produce a few selected items for export or elite consumption by delegating to apprentices the less specialised chores and by specialising on a narrow range of the work. This would not only result in a higher degree of excellence but in the reduction of costs as well since the work could be distributed among less skilled craftsmen. The coordination of production would, however, require an effective hierarchical organisation varying from an itinerant group of craftsmen to a guild capable of regulating production and of setting standards and prices.

We have stated above that trade is one of the principal factors linked with the growth of urban centres. This
correlation needs to be investigated for the period under study as there is increasing evidence, as outlined in the third chapter, for the development of cities in the western Deccan around this time.

There is a close connection between landed wealth and commercial capital and it is with a view to explaining this relationship that the next chapter takes up for study the expansion of agricultural settlements in the western Deccan. Land grants to Buddhists and brahmans are known from this period and the donors were not always of royal descent. Monasteries gradually increased their wealth and inscriptions record money donations by monks and nuns. There was an increase in handicraft production and craftsmen were organised into guilds. These economic manifestations of trade including items of import and export, means of transportation and the mode of payment call for a discussion in the fourth chapter. Social attitudes and institutions are, however, the most important factors in determining the type, quality and quantity of commercial activity in a given society. For an evaluation of the nature of the society in the last chapter, we would have to digress and trace its beginnings in the earlier Megalithic period.

Valuable information for our period comes from foreign literature. Several of these writings and notices about India have survived, though not in their entirety. Two early works are the History of Polybius written in the second century B.C. and the Geography of Artemidorus of Ephesus, who lived in c. 100 B.C. Many portions of the former are now lost (Majumdar, 1960:449), though a few extracts from the latter are preserved in the later work of Marcianus of Herakleia (McCrindle, 1971, reprint:xvii).

Contemporary works of some significance are those of
Pliny, Ptolemy, Strabo, Porphyry and Stobaeus, as well as the Periplus of the Erythraean Sea.\(^1\) Of these, only the Periplus has a bearing on Satavahana chronology as it refers to contemporary rulers. Unfortunately a majority of the manuscripts of the work do not provide any evidence regarding the date or the author of the text. The Heidelberg manuscript of the early ninth century attributes the Periplus to Arrian and the same author is also mentioned in a fourteenth century British Museum manuscript. This may be because the author of the preceding treatise in the manuscripts, the Euxine Periplus was Arrian (Miller, 1969:18). This confusion has led to a range of assumptions regarding both the author and the date. Father Gervase Mathew (1975: 147-63) concluded on the basis of the language that the author must have been a Roman trade official. This has been discounted by Schoff (1974:7) and others (Huntingford, 1980:7) who argue that there is far too much information of purely maritime interest for it to have been the work of an official. They suggest that it was the work of a Greek living in Egypt, probably sailing out of the Egyptian Red Sea harbour of Berenike, because whenever distances or directions are mentioned, Berenike is always the reference point. A similar disharmony of views exists regarding the date of the work. McCrindle (1879:108) places it between A.D. 80 and 89, Kennedy (1918:12) assigns it to A.D. 70, while Majumdar (1962:95) dates it to the third century A.D.

Jacqueline Pirenne, following Reinaud, is of the opinion that the Periplus of the Erythraean Sea belongs to a period after A.D. 106 and that the ruler Malichus, king of the

\(^1\) The Erythraean Sea was an appellation given to the whole expanse of the ocean stretching from the coast of Africa to the utmost boundary of ancient knowledge on the east (McCrindle,1879:107).
Nabateans, mentioned therein should be taken as Malichus III. Since the Natural History of Pliny written in A.D. 77 makes no mention of the Periplus, the latter should be placed after the time of Pliny. Besides the Arabian state of Qataban is not mentioned in the Periplus and this state disappeared only in c. 250 A.D. This last argument is simply an indicator of the anomalies that mar the text and not much weight need be attached to it (Kirwan, 1981: 80-5). Other objections have been suitably countered by Dehejia (1972: 24) who has forcefully argued that the ruler Malichus of the text refers to Malichus II who ruled between A.D. 40 and 71. She holds that the superior practical knowledge of navigation displayed by the Periplus as contrasted to Pliny and the latter's ignorance regarding the former work, in no way affects the contemporaneity of the two. The discrepancy arises solely out of the specific nature of their purpose. Pliny was a nobleman on intimate terms with the Emperor Vespasian and a Prefect of the Roman fleet. His work is scholarly and carefully researched from earlier manuscripts and as such he was in no way obliged either to consult or to acknowledge the text written by an obscure sailor. The Periplus should hence be dated between A.D. 40 and 71.

Both the Periplus and the Natural History of Pliny contain useful references to the commerce between India and the west. The former provides an elaborate account of the advantages and disadvantages of the ports along the coasts of the subcontinent; the mechanism of exchange between traders from India and the west; and the provenance of goods transported to the ports for export. Pliny is more useful for information on the uses of the commodities imported into Rome and their comparative prices in the market (Bk. XII.ix-liv). The colossal Geography of Strabo written about A.D. 19 contains exhaustive and accurate information primarily about Egypt and is of much less
value for the Indian subcontinent. Strabo has based his account of India on earlier writers like Megasthenes and Nearchus and deals with diverse subjects like customs, division of castes and Alexander's campaign (15.1.24-15.2.14).

As compared to these, the Guide to Geography by Claudius Ptolemy, written in the middle of the second century A.D. has very little of narrative. It contains a series of tables of names and places followed by figures giving latitudes and longitudes. These are of little use to us as they are based on a distorted map of India which makes the west coast turn round a little below Bombay and run eastward, practically eliminating the peninsula (McCrindle, 1971, reprint:xviii).

The Greek historian and philosopher Arrian lived in the second century A.D. and was the author of several works including the Anabasis of Alexander and the Indika (Majumdar, 1960:5). Hardly anything is known of the personal history of Curtius Rufus, Quintus, though his work The History of Alexander the Great has survived in fragments (ibid.:103). Another account of Alexander's campaign is to be found in the Bibliotheca historica of Diodorus Siculus who lived in the first century B.C. (ibid.:162). Pompeius Trogus' volumes on Macedonian history of about the same date survive in the work of Justin (ibid.:182). Philostratus in his biography of Apollonius Tyanensis has given an account of the philosopher's visit to India in the first century A.D., while Claudius Aelianus wrote On the Peculiarities of Animals in which he deals with a large number of birds and animals of India (ibid.:413). Only a few fragments of the works of Dion Chrysostom and Dion Cassius are now preserved (ibid.:451).

Dioscorides, an army physician, who wrote his Materia Medica
around 65 A.D. provides considerable information of relevance on spices used in pharmacology. Porphyry and Stobaeus have preserved from Bardesanes who lived in the latter half of the second century A.D. interesting particulars regarding brāhmaṇa and Buddhist ascetics. Other works include the Compendium of Geography by Pomponius Mela, another Compendium by Solinus and the Periplus of the Outer Sea by Marcianus of Herakleia. Mela wrote around A.D. 42, but his knowledge of India was vague. Solinus (A.D. 238) derived nearly all his material from Pliny. Marcianus writing in A.D. 400 followed Ptolemy and in his work gives no new information about India (McCrindle, 1971, reprint: xix).

A perusal of these accounts shows that the first embassy from the subcontinent reached Rome only during the time of Emperor Augustus (29 B.C.-A.D. 14). Strabo (15.1.4) writes that Nikalaos Damaskeuos, a personal friend of the Emperor, met the Indian ambassadors at Antioch. These had been sent by Poros and the gifts included a sophist from Barygaza (modern Bharuch) who in fanatical fervour burnt himself at Athens. Poros promised to grant passage through his dominions to Augustus Caesar and to assist him in any good enterprise. There seems to be a difference of opinion among scholars regarding the number of embassies sent from India to Augustus in Rome. Warmington (1974:36-7) is of the view that four embassies were sent: from north-west India; Bharuch; the Chera kingdom; and the Pandya ruler. Saletore (1958:230) accepts the authenticity of one embassy only, sent in 21-20 B.C. by the Indo-Parthian king Azes II.

In the first century A.D. Emperor Claudius received an embassy from a Pandya king and in A.D. 107 another was sent to Emperor Trajan, possibly from Kadphises II. It has been suggested that the embassy received by the Emperor Hadrian was probably sent by Kaniska (ibid.:249). The account
attributed to Bardesanes indicates that an embassy headed
by Dandamis or Sandanes was received by Marcus Aurelius
in A.D. 219. A good deal of controversy exists regarding
the identification of the Indian ruler and various names
such as those of the Kṣatrapas and the Sātavāhanas have
been proposed. Thus there is evidence of contact between
the Indian rulers and the Roman Emperors from the time of
Augustus, though it is difficult to precisely identify the
kings.

The Purāṇas head the list of literary works considered useful
in working out the chronology of the Sātavāhanas. Apart from
these, there exists a mass of literature of little 'historical'
value, but if used with caution, of great significance for
studying the social and economic conditions of the period.
We shall not consider the epics here as both the Rāmāyana
and the Mahābhārata cover a time span of several centuries.
They are not representative of any one period but are the
works of several successive generations.

Of the Smṛtis or Dharmasastras which were produced at this
time, the most important is the Manusmṛti. According to
Max Mueller's view, now accepted, it is a recast of the
Dharmasūtra of the Maitrāyaniya school which adheres to the
Kṛṣṇa Yajurveda. It was formulated between 200 B.C. and
A.D. 200 and the text was revised several times later. The
other Smṛtis placed between A.D. 100 and 300 are the Visnu
Smṛti, Vaiñavalkya Smṛti and the Nārada Smṛti (Kane,1941,II:1,11)
Other scholars disagree with this and place the last three
much later (Mehendale,1968:257). In view of the controversy,
we are justified in using the Manusmṛti only.

The Nāṭyasastra of Bharata is the earliest extant work on
dramaturgy and has been assigned various dates between the
second century B.C. and the third century A.D. (ibid.:269).
The traditional view places Kauṭalya, the author of the Arthaśāstra in the fourth century B.C. Scholars are, however, not unanimous in this regard. Kangle (1963:106) regards the Arthaśāstra as the work of Kauṭalya who helped Candragupta to ascend the Mauryan throne, while Trautmann (1971:174) has shown that the Arthaśāstra has not one author but several, Books II, III, VII belonging to different periods, some preceding the age of compilation of the text. On the whole, the evidence converges on the middle of the second century A.D. Another important work of the period is the Kāmasūtra of Vātsyāyana, which elaborates on the attainments of a city bred man. Here too Books I, III, IV and V are attributed to Vātsyāyana, Books II, VI and VII being marked by a different style (Trautmann, 1971:171). Bhandarkar (1920:23) would like to place Vātsyāyana in the first century A.D. while Jolly (1923) places him in the fourth century.

Apart from the religious and specialised literature, several poetical and dramatistical works also date from the early centuries of the Christian era. Aśvaghosa writing in the second century A.D. is credited with the authorship of three plays and two kāvyas (Winternitz, 1977, reprint, III:45). Bhāsa is accepted as the author of thirteen plays. His date is closely linked to that of Kālidāsa as the latter makes a reverential reference to him. Traditionally Kālidāsa is said to have lived in the first century B.C., though other scholars place him in the fourth century A.D. Bhāsa probably lived a century earlier than him (ibid.:229).

Buddhist literature in Sanskrit also survives from this period. Prominent in this regard is the Jātakamālā of Ārya Śūra written probably in the second or third century A.D. (ibid.:45). Among contemporary literature mention may be made of the Avadānaśataka and the Divyāvadāna.
The Gathásattasai consisting of 700 gāthās or verses is regarded as the oldest anthology in Maharashtri Prakrit. Traditionally it is ascribed to the Sātavāhana king Hāla. A comparison of the seven recensions of the work available shows that only 430 gāthās are common to all and as many as 384 poets are mentioned as contributors. It is believed that regular additions were made to the Sattasai almost up to the eighth century A.D. (Mirashi, 1960a:76–9).

Together with Sanskrit and Prakrit literature, several works were produced in Pali and in Tamil. Pali literature may be divided into two categories, canonical and non-canonical. The former was largely produced between the fifth and the first centuries B.C., while the latter belongs to the early centuries of the Christian era. The canonical literature comprises the Vinaya Pitaka, Sutta Pitaka and the Abhidhamma Pitaka. Of these the Sutta Pitaka together with its five Nikāyas is important for our study. Among the different texts included in the Khuddaka Nikāya are the Jātakas which are more than five hundred in number. An analysis of Aśokan inscriptions and the sculptures at Bharhut and Sanchi shows that at some time prior to the second century B.C., probably as early as the time of Aśoka, there was a Buddhist canon which, if not entirely identical with our Pali canon, resembled it very closely (Winternitz, 1972, reprint, II:18). That some of the Jātakas as regards the contents of the prose belonged to Buddhist tradition in the second or third century B.C. is proved by the reliefs on the stone walls around the stūpas of Bharhut and Sanchi. Much of the prose, however, belongs to the Christian era.

Of the non-canonical literature mention may be made of the Milindapañha which was written about the beginning of the Christian era. The original text is now lost and the present work is a Pali translation of the original made at a very
early date in Ceylon (ibid.:409). Contemporaneous with the Milindapanha are two other texts, the Kettipakarana, a treatise on textual and exegetical methodology and the Petakopadesa.

It would be best to exclude Sangam literature in Tamil from our study, on account of its vast time span. According to the Śvetāmbara Jainas, the authority of their texts do not go beyond the fifth century A.D., even though their oral tradition may be traced back to the times of Mahāvīra. Even more problematic is the literature of the Digambaras, about which little is known (ibid.:473-5).

We are aware of the inherent drawbacks in the data. No detailed records relating to the economy are available for the period under study and references to economic organisation in literary texts are only incidental. Fortunately inscriptions do not suffer from this disadvantage and even though they are limited to records of gifts and donations, they provide useful information regarding the donees. Finds from archaeological excavations could have been an invaluable source, but the Early Historical period has been largely neglected. Summary digs at Nasik, Nevasa, Prakash, Maheshwar, Paithan, Bhokardhan and Ter provide the only available data.

In spite of these difficulties in quantification, an enquiry of this nature may help understand the complexities of commercial and social interaction and may provide parameters for future archaeological investigation.