
UNIT 8 PATTERNS OF TRADE, URBANISATION AND LINKAGES : NORTH INDIA (C. 600 BC-300 AD)

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8.1 INTRODUCTION

As studies of the past are no longer limited only to enquiries about rulers and kings, the historian's attention has consequently shifted from 'episodic history' (to quote D.D. Kosambi) to the thorough understanding of social, economic and cultural situation. An in-depth enquiry of the economic life in the ancient times cannot be divorced from the social, cultural and political developments. With the availability of some new data and fresh insights into the previously known information during the last fifty years, it is now possible to trace certain stages in the economic life in early India. In other words, there is now the lesser compulsion to study the economic life in terms of the some prominent ruling dynasties. Historians have been able to discern certain significant changes in social and economic life and therefore have indicated a few phases in the economy. This, however, does not imply that there was no element of continuity; but early Indian economic life, contrary to earlier views, cannot be judged as static and repetitive. This shift in perspective helps realise the importance of trade and other related aspects of early Indian economy. Indian material life was certainly rooted in agriculture and rural life, but crafts and commerce did play a role in the overall agrarian milieu. Trade, along with crafts production, belongs to the non-agrarian sector of the economy the arena for which is towns and cities. Villages, where dwelt the bulk of India's population, were areas principally for cultivation and animal rearing.

The major difficulty of studying the non-agrarian sector of the economy lies in the lack of adequate evidence or source materials. Creative literature, religious texts, theoretical treatises or *sastras* and impressions left behind by foreigners offer only incidental notices of economic life in general and commercial activities in particular. These literary pieces are not primarily economic documents, but offer glimpses of economic life. Archaeological materials, in the form of inscriptions, coins, visual art and objects unearthed from explorations and excavations also bear significant information, though often incidental

and scattered in nature. Archaeological sources have one advantage over literary evidence. They are more securely dated and situated in a given area; they also offer material and visual evidence of certain condition of the past. However, neither in literary sources nor in the archaeological evidence is statistical data available, which is so important for understanding economic life.

The Harappan civilization (c. 2500-1750 BC), noted for its distinct urban society, marks the first stage of urbanism in India. It is characterised by a flourishing agrarian economy, various crafts including workmanship in copper and bronze, far-flung trade both within the subcontinent and with the Oman peninsula, Bahrein island and Sumerian civilization in Mesopotamia. The most remarkable feature of this civilization was a number of impressive cities. Although urbanism – and areas of craft specialisation which fed Harappan cities – declined, regions of Chalcolithic culture and of the early iron age show that varieties of crafts supplemented agricultural production, and expansive exchange networks were in existence.

A new movement toward the emergence of towns and cities thus had an extensive base in the cultures of the earlier period. The sixth-fifth centuries BC loom large in Indian history and at the same time reveal certain distinctive features in material, political, social and cultural life, especially in north India. The period from c. 325 to 185 BC is considered a landmark in Indian history as it saw for the first time a nearly pan-Indian Empire. The *mahajanapada* of Magadha gradually became the paramount power in the subcontinent during the Maurya rule, thanks to the efforts of two great rulers Chandragupta Maurya (c. 321-300 BC), the founder of the dynasty and his grandson Asoka (c. 272-233 BC). The distribution of Asoka's many edicts over greater parts of Indian subcontinent shows that his instructions were meant to have been followed in those areas. This suggests that the findspots of Asoka's edicts were part of the vast Mauryan realm. At the height of its power the Maurya Empire extended from Afghanistan in the north to Karnataka-Andhra in the south and from Kathiawad in the west to Orissa (if not Bengal) in the east (for details see Unit 7 of the present Block and Unit 18 of Block 5 of our Course EHI-02). This vast Empire was carved out by the military might of the Mauryas and it was maintained by an impressive number of royal functionaries. The maintenance of a standing army and a bureaucracy speaks of the availability of enormous resources to the Maurya rulers. This brings before us the question of economic conditions in general and commerce in particular during the Maurya period.

A great reliance of scholars on the *Arthashastra* and to some extent on the Greek account led to the portrayal of the Mauryan economy as state controlled and state regulated. The Maurya Empire was perceived as having a monolithic and highly centralised set up. It was argued that the enormous resources required maintaining the army and functionaries could be realised if the Maurya Empire itself participated in the process of production and distribution (i.e. trade) of commodities. Recent readings of different sources underline that the Maurya realm did not have a unitary character; though it was well organised, the Maurya Empire was not monolithic nor was it possible to impose a highly centralised system over the vast expanse of the Empire. The lack of adequate facilities of communication would have precluded the establishment of a uniform and centralised political system. The Maurya realm, according to Romila Thapar, had in it three distinct zones: a) the metropolitan area around Magadha, b) core area in the Ganga valley where Maurya authority was firmly entrenched at the expense of erstwhile *mahajanapadas*, and c) peripheral/outlying areas. The Maurya administrative and economic control was felt in the metropolitan and core areas, but not perhaps to a great degree in the peripheral zone like the Deccan. The long Maurya presence in the Deccan did not bring about any major economic change there as the Mauryas were probably interested to extract the

mineral resources of the Deccan to enrich the metropolitan area (i.e. Magadha). The Maurya realm was indeed sustained by its vast agricultural resources.

The rich diversity of sources, archaeological and literary, indicate that during these five centuries there was an unprecedented growth in trade and urbanism in the entire subcontinent. The period under review experienced a maturity of certain tendencies in economic life which had begun in the sixth century BC. This is particularly seen in the development of commerce and city life in the whole of India, though we are looking here specifically at the north Indian scenario. The changes in the non-agrarian sector of the economy and the rise of urban centre were primarily an experience of the Ganga valley during the age of the Buddha. The spread of Magadhan power to a nearly pan-Indian stature paved the way for the penetration of these traits in material life into disparate areas of north India and also to some parts of the Deccan. The chronological segment from 200 BC to AD 300 saw the spread of agricultural society, specialised crafts, organisation of crafts and professions, commerce and urbanism for the first time in peninsular part of India, including the far south. Though there was no power of a pan-Indian nature in the subcontinent since the fall of the Maurya Empire in c. 187 BC and though many foreign powers entered India through the northwestern frontier areas, these five centuries did not witness any crisis in social, economic and cultural life. The development in trade is particularly marked by brisk and intense contacts between India and the eastern Mediterranean areas under Roman Empire from c. late first century BC to third century AD. As India became involved in a vast international trade network, contacts and communications among diverse ethnic groups and disparate localities left their imprints in social and cultural fields too. The period under review is one of the most creative phases in Indian history.

The survey of commerce and urban centres of north and south India during the period of nine hundred years will be presented in three chronological segments: 600-320 BC, 320 BC to 187 BC and 187 BC –AD 300.

8.2 TRADE AND URBAN DEVELOPMENT

C. 600-300 BC

The earliest Buddhist canonical literature, some Jaina texts and the famous grammatical treatise, the *Ashtadhyayi* of Panini (c. fifth century BC) offer valuable glimpses of socio-economic, cultural and political life. It must be pointed out here that we shall use the evidence of the pre-4th century BC Buddhist texts only and not the *Jataka* texts which were never contemporary to the Buddha (c. 566-486 BC) and which were composed in c. 200 BC-AD 200. These canonical Buddhist texts are the *Vinaya Pitaka*, *Dighanikaya*, *Majjhimanikaya*, *Anguttaranikaya*, *Samyuttanikaya* and the *Suttanipata*. The literary evidence will be compared and supplemented with field archaeological evidence of pottery, bricks, and ringwells. To this will be added the evidences of actual coins, which as metallic medium of exchange appeared for the first time in Indian history.

In the light of these sources, the most apparent changes are seen in political and economic life, which was of course intimately linked with social and cultural atmosphere of the period. For the first time in Indian history, we encounter the emergence of territorial polities (*mahajanapada/janapada*), traditionally sixteen in number, according to a Buddhist canonical text. Buddhist texts were also clearly aware of cities and towns, generally described as *nagaras* and *puras*, distinct from villages (*gramas*). Though the term *nagara* appears for the first time in the *Taittiriya Aranyaka*, a later Vedic text, the

regular references to cities in the Buddhist canonical texts firmly point to the emergence of urban economy and life in and around the sixth century BC. This is also supported by archaeological evidence revealing the actual remains of urban centres. The evidence of coins, already stated before, cannot but prove considerable advancement in trade as coins primarily served as metallic medium of exchange. The very word *janapada* stands for a populated territory. The existence of several *mahajanapadas* or territorial polities, of both monarchical (*rajya*) and non-monarchical (*ganarajya*) types, shows the consolidation of a power structure. These polities not only had a monarch or an oligarchical set up, but also efficient administrative organisation and powerful armies. The maintenance of officers to administer the realms and of armies for offensive and defensive purposes required substantial resources. The principal resource base must have been the agricultural sector. The Buddhist texts and Panini's grammar alike speak of profuse amount of crops grown in north India, especially in the middle Ganga plains, (i.e. from Allahabad in the west to Bhagalpur in the east, located to the north and the south of the Ganga). It is significant to note that out of the sixteen major polities, seven prominent *mahajanapadas* were located in the middle Ganga plains. These polities must have prospered on the availability of the agricultural resources, which were profusely generated. As the rulers procured agricultural resources through revenue measures, it is evident that the agrarian sector yielded the vital excess crop, also called the surplus. Crops were produced in excess of the actual need of the producing peasantry. This not only speaks in volumes of the advancement in agriculture, but the availability of the vital surplus was crucial to the maintenance and flowering of the non-agrarian sector of the economy. A combined testimony of Buddhist texts, the *Ashtadhyayi* of Panini and archeological artefacts indicates the active presence of diverse types of craftsmen like the *vaddhaki* (carpenter), *kammara* (blacksmith), *kumbhakara* (potter), *kaulika* (textile worker), *rangakara* (dyer), *rajaka* (washerman), *suvarnakara* (goldsmith), and *manikara* (jeweller).

One of the salient features of crafts production – certainly indicating development of the non-agrarian sector of the economy – is their diversity and specialization. The most telling evidence of this comes from archaeology. We have already pointed to the growing presence of craftsmen in metals of which iron was certainly the most important. Ujjayini, Sambhar and Rairh, for example, have yielded massive quantities of iron slag, which were smelted and given the shape of required tools. This not only suggests the active role of the blacksmith in the urban life, but highlights the possibilities of impressive output of iron tools a considerable part of which are likely to have been manufactured for the market. From Atranjikheda have been discovered remains of blacksmiths' furnaces in workshops which were located within the residential area of the urban centre. That iron axes, chisels, knives and a few ploughshares began to occur regularly in archaeological contexts from c. 500 BC onwards is unmistakable. With the increasing use of iron implements, copper tools became relatively fewer, the latter's use, however, continued in the manufacture of ornaments and toiletries, obviously catering to the needs of the urbane population. Beads of precious and semi-precious stones (e.g. agate, amethyst, carnelian, chalcedony, onyx, quartz, jasper, coral and lapis lazuli) were widely used by the jeweller for ornament making. Impressive finds of these beads in finished, semi-finished and unfinished forms from Ujjayini and Sravasti cannot but point to the presence of jewellers in these cities. Champa (near Bhagalpur), the capital of Anga *mahajanapada* has yielded a unique set of jewellery-moulds. There is little doubt that urban centres of this period experienced regular use of bricks, both sun-dried and baked ones, for construction of monumental architecture (notably fortification and rampart at Kosambi, Ujjayini) and dwelling houses (for example, at Bhir mound, Taxila). The manufacture of burnt-bricks implies the construction of brick-kilns. One of the products for mass consumption must have been potteries of various types. The Northern Black Polished Ware, manufactured

mostly in sites from middle Ganga plains, was possibly a luxury ware. The Black and Red Ware outnumbers the NBPW, suggesting thereby that the latter was meant for mass consumption and also for daily use. The scenario of urban development has also to accommodate another aspect of the metalsmith's craft: this relates to the production of large number of coins, both punch marked coins (largely in silver) and cast coins (mostly copper).

A comparison with the information on economic life gleaned from the later Vedic texts strongly suggests that there was a noticeable growth in both agricultural and craft products. This in turn paved the way for regular transactions in exchangeable products. These preliminaries prepare our grounds for taking a close look at trade and commerce during the period from 600 to 300 BC.

8.2.1 Trade and Traders

Persons belonging to the *vaisya varna* were supposed to have followed the profession of merchants, according to the Vedic *varna* system; but the *vaisyas* were rarely accorded an honourable status in the Vedic norms. Trade was generally not held in high esteem in the Vedic tradition. In sharp contrast to the Vedic attitude to trade and merchants, the Buddha viewed trade (*vanijja*) as one of the excellent professions (*ukkatthakamma* = Sanskrit *utkrishtakarma*) along with agriculture (*kasi* = Sanskrit *krishi*) and cattle keeping (*go-rakkha* = Sanskrit *goraksha*). These professions were fit to be followed by persons of excellent pedigree (*ukkatthakula* = Sanskrit *utkrishtakula*, *Vinaya Pitaka*, IV.6). In an interesting dialogue the Buddha explains to his favourite disciple Sariputta the comparative advantages between agriculture and trade. As agricultural operations are full of uncertainties, they need constant care and supervision; handsome gain in agriculture is possible only when one is immensely successful in it. Trade, on the other hand is a less tiresome occupation with lesser responsibilities than agriculture, but it generates enormous profits. For a merchant (*vanijjapayutta* = Sanskrit *vanijyaprayukta*) there were four possible outcomes of his ventures: it could lead to a loss (*chedagamini*), the gain may not be as much as anticipated (*na yathabhippaya*), the gain may be as much as anticipated (*yathabhippaya*) and sometimes the gain could much exceed the expected profit (*parabhippaya*). One of the regular meeting points of merchants and Buddhist monks was the urban centre which figures prominently in the Pali canonical texts. The monk and merchant were both essentially itinerant. During the four months of monsoon the monks were allowed to remain at a fixed place (*vassavasa* = Sanskrit *varshavasa*) where also converged merchants. This may explain the intimate knowledge of the world of merchants in the Pali canonical texts.

Trade and merchants appear prominently in Jaina canons also, though these were later compositions. The excessive importance given to nonviolence (*ahimsa*) in Jainism led to the belief that agricultural operations resulted in the killing of many plants and animals. Trade was seen in Jainism as the least violent profession and it was therefore lauded in the Jaina texts too.

That the merchants were involved in buying and selling of commodities (*krayavikraya*) is clearly evident from the *Ashtadhyayi*. The common term for a merchant is *vanij/vanik*. But a close look at Buddhist texts, the *Ashtadhyayi* and the Jaina literature suggests the presence of a greater variety of merchants than is covered by the general term *vanik*. There were *sarthavahas* or leaders of caravan traders, usually undertaking journeys to distant destinations. The richest merchant generally figures in our sources as *sreshthi* or *setthi*. The term *sresthi* occurs for the first time in later Vedic literature but was only infrequently used. Literally meaning one having the best, the term *sreshthi* in

the period under review appears more frequently in our sources and denote a fabulously rich merchant. He is described to have possessed eighty crores of wealth (*asitikotivibhava*) which is certainly a stereotyped figure and not an actual description of his riches. Panini was aware of merchants of Madra and Gandhara areas (*Madra-vanija* and *Gandhari vanija*), respectively in the Sialkot region of Punjab and Peshawar-Rawalpindi areas of Pakistan. The grammarian also informs us about merchants dealing in cattle (*go-vanija*) and horses (*asva-vanija*). This shows the importance of merchants engaged in the trade in animals which were prized in the-then society. It is likely that textiles of Varanasi reached faraway trade centres. The discovery of lapis lazuli from the excavation at Sravasti (in Uttar Pradesh), a precious gem found only in the Badakhshan area of Afghanistan, points to the availability of this exotic stone in the Ganga valley by an overland long-distance network. Though merchants could have earned great profit in the trade in luxury items, catering to the needs of the affluent section of city dwellers, there were certainly transactions in daily necessities. When the Buddha, for instance, is said to have met Belattha Kachchana, a merchant, the latter was moving with his caravan of five hundred wagons carrying molasses (*guda*). It may logically be assumed that some merchants dealt in the transportation of food and salt from villages to cities, though such movements of edible items did not probably cover great distances.

One is not sure to what extent the external trade of India was important during this period. Textual sources are not explicit on this point. The north-western part of the subcontinent, including the lower Indus valley and the Indus delta, was linked up with the vast Achaeminid Empire in Iran due to Darius I's (c. 522-486 BC) conquests of these areas. It appears on the basis of the Persipolis and Hamadan inscription of Darius I that Hi(n)dush or the lower Indus valley up to the Indus delta became a province of his Empire sometimes around 518 and 515 BC. His Empire also included Gandhara region. Darius I's military success in this region is also corroborated by Herodotus in his *History*. Herodotus informs that Darius engaged Scylax of Caryanda to ensure the navigability of the river Indus and then frequented the 'southern sea'. The southern sea certainly denotes the Arabian Sea. It will be reasonable to infer that Darius I was keen to ascertain the importance of the Indus delta as an outlet to the sea. This could have been done with a view to voyaging down the Arabian Sea and reaching the Persian Gulf. Herodotus explicitly says that India, i.e., the lower Indus valley was the twentieth and richest 'satrapy' (province) of the Achaeminid Empire, yielding 360 talents in gold dust as revenue. The importance of the lower Indus valley was possibly due to its proximity to the sea which could facilitate maritime trade in the Persian Gulf zone.

FROM CENTRAL DECCAN TO NORTHERN INDIA

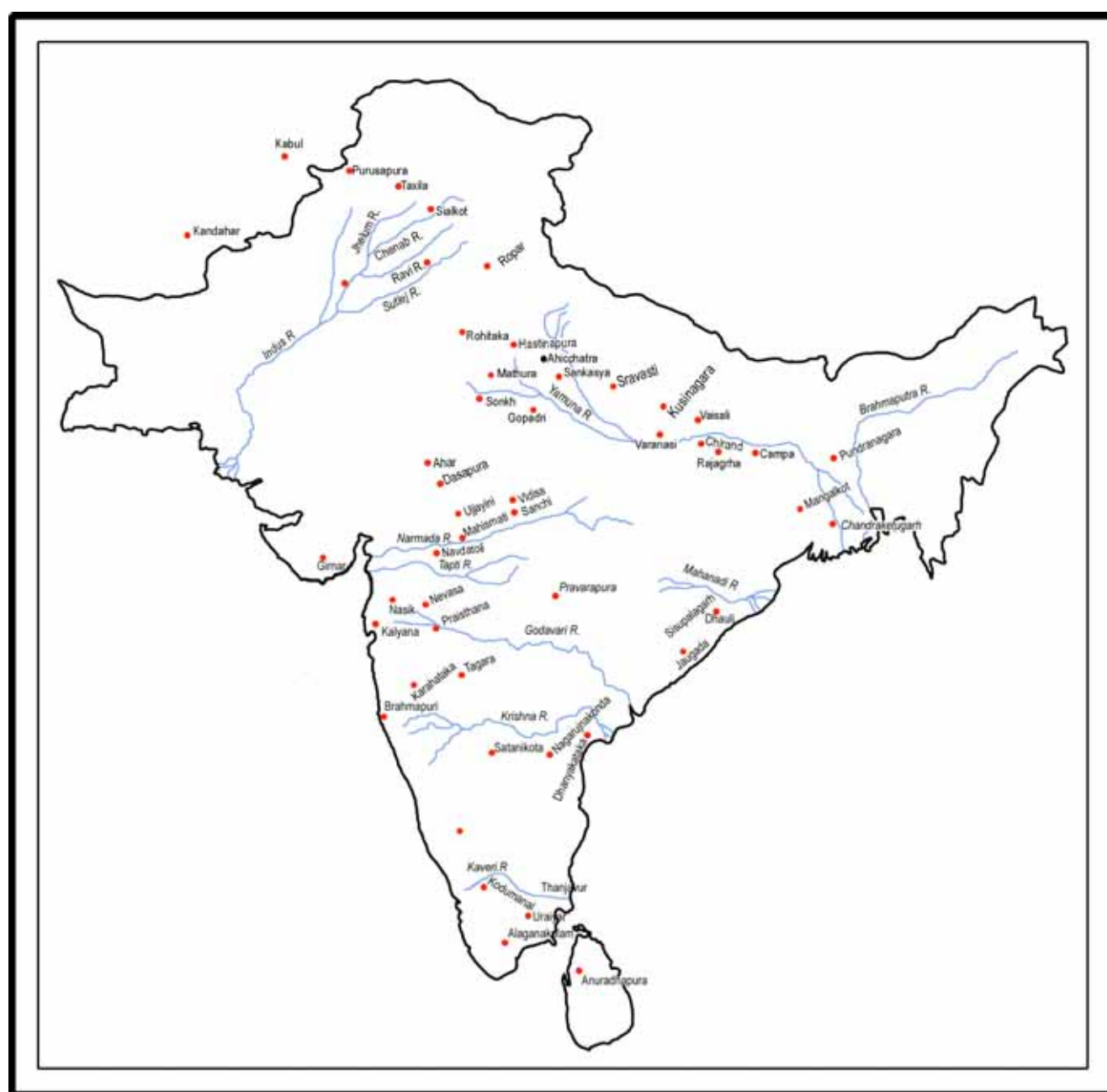
"Patithana of Alaka first, then to Mahissati and also to Ujjeni, Gonaddha, Vedisa, Vanasavhaya, and also to Kosambi, Saketa, Savatthi, the most excellent of cities, to Setavya, Kapilavatthu and the city of Kusinara, and to Pava, the city of wealth, to Vesali, the city of Magadha..."

Suttanipata, Vatthugatha, verses 36-38, trs. V. Fausboll, Sacred Book of the East, Vol. 10, pt. 2, p.188

8.2.2 Trade Routes

It will be logical to discuss here the possible routes of communications linking various parts of northern India. The itinerant monks and merchants must have used well established routes during their journeys. Baveru, according to the *Suttanipata* started on an extensive

overland journey from Pratisthana (modern Paithan in the Osmanabad district, Maharashtra) to Sravasti (the capital of Kosala *mahajanapada*), identified with the excavated sites of Sahet-Mahet. He passed during the journey Mahissati (Mahishmati, modern Mandahata, Nimar district, Madhya Pradesh), Ujeni (Ujjaiyini, Madhya Pradesh), Vedisa (near Bhopal, Madhya Pradesh), Tumbavana (Tumain, eastern Madhya Pradesh), and Kausambi (near Allahabad, Uttar Pradesh). This has been rightly described as the north-south trunk road of great antiquity. Jivaka, the greatest physician of this period, hailed from Rajagriha, the capital of Magadha (in Bihar) and undertook his training in medicine in far off Takshasila (Taxila near Rawalpindi in Pakistan). He moved from Takshasila to Bhadramkara (Sialkot), Udumbara (Pathankot), and Rohitaka (Rohtak); this is possibly the same as the northern route (*Uttarapatha*), mentioned in the *Ashtadhyayi*. His frequent movements in major cities in the middle Ganga plains for treating his patients also point to overland communications in this area. The Buddha on his last journey, according to the *Mahaparinibbanasuttanta*, started from Rajagriha and passed through Ambalaththika, Nalanda, Pataligama, Kotigama, Vaisali, Pava, and Kusinara where he attained his *Parinirvana*.



Map 1 : Centres of Trade/Exchange and Urban Centres C. 600 BC - AD 600
[After Ranabir Chakravarti (ed.), *Trade in Early India*, OUP, Delhi, 2001, facing page 1]

This speaks of his overland journey from south Bihar to north-eastern UP through north Bihar. These literary impressions of communications seem to have been corroborated by the archaeological evidence of the Northern Black Polished Ware (NBPW). The NBPW was a pottery tradition of a very high technological excellence, mainly produced in eastern Uttar Pradesh and Bihar. Unmistakable for its unique mirror-like black polish, the NBPW was in fact a deluxe pottery, not meant for daily use. This is proved by the small percentage of NBPW among the entire assemblage of pottery and pottery sherds in archaeological sites. The NBPW, manufactured in the middle Ganga valley, has been reported from Charsadda (near Peshawar in Pakistan), Taxila (near Rawalpindi), Ludhiana, Hissar, Ambala, Rohtak, Kurukshetra, Amritsar, Gurudaspur (sites in Punjab and Haryana), Mathura, Agra, Aligarh, Meerut, Bulandshahr, Etawah, Etah, Lucknow, Gorakhpur, Basti, Varanasi, Allahabad, Fatehpur, Mirzapur, Azamgarh (sites in Uttar Pradesh), Gaya, Patna, Saran, Monghyr and Purnea (sites in Bihar) during the 600-300 BC period. In other words, the distribution of NBPW sites clearly suggests a network of exchange. Though the movements were mostly overland, the Ganga and its tributaries could have also facilitated riverine traffic. Buddhist legends narrate riverine journeys on the Ganga from Campa, the capital of Anga (near Bhaglpur in eastern Bihar) to the Ganga delta.

8.2.3 Coins and Currency System

The most emphatic evidence of burgeoning trade comes from coinage which appeared for the first time in Indian history. A coin is a metallic piece used as a medium of exchange having a definite metallic purity and weight standard. A coin could be manufactured in a metal of common use like copper or a precious metal like gold or silver. The principal metal is generally mixed with a smaller percentage of alloys for facilitating the hardening of the molten lump of metal. The metallic purity or the more or less fixed content of the principal metal should be maintained for its widespread acceptance. Similarly the coin must have a definite weight. A coin is usually struck with certain devices, symbols, labels and designs to authenticate the metallic purity and weight standard of the metallic piece. This authentication is usually, but not uniformly, done by a politico-administrative authority. A coin with improper metallic purity and weight standard is not accepted generally at its face value, and the coin lacking in its intrinsic value is considered debased. Certain terms like *nishka*, *satamana*, *krishnala*, etc. appear in the Vedic literature to denote either a piece or a lump of metal or a weight standard. But there is no archaeological proof to corroborate the circulation of coins in the Vedic times. Coins appeared in India around sixth-fifth centuries BC. The use of metallic money for transactions definitely suggests a more advanced and complex exchange system than that involved in barter.

Excavations at the Bhir mound in the famous city of Taxila, the capital of Gandhara *mahajanapada*, reveal that the city had already come into existence by about fifth century BC. From the excavations were discovered a hoard containing 1171 silver coins. A few of these were issued by Alexander the Great and Philip, his governor in Gandhara. These Greek coins were in mint fresh condition, implying that these were the latest coins buried in the hoard. These coins must have been issued in the late fourth century BC when these were buried under the earth along with other coins. The bulk of the other coins (1134) belong to a different type and were in a worn out condition. It can safely be presumed that those silver coins of worn out look were manufactured earlier than the mint-fresh coins of Alexander. These coins therefore can be dated at least to a century ago, i.e. fifth century BC. These coins have no inscriptions recording the names of their issuers. A few symbols were punched only one side (obverse) of the coins. These silver coins from Taxila, distinct from those of Alexander, on an average weigh 54 or 55 grains. The Pali texts are replete with references to a particular coin, *karshapana*, made of silver or copper (mostly silver). Panini too knew silver coins under the name *rupya*. Alexander's historians narrate that when Omphis (Ambhi), the ruler of Gandhara submitted to Alexander, he gave the Greek

conqueror many silver pieces (*signati argenti*). These literary data, coupled with the visual evidence of silver coins, from Taxila hoard, leave little room for doubt about the circulation of Indian silver coins in north India. According to Indian tradition of metrology, the *karshapana* coins were issued on the weight standard of 32 *ratis*. 1 *rati* or *krishnala* was equal to 1.8 grains; so the 32 *ratis* would correspond to $1.8 \times 32 = 57.6$ grains. We have already mentioned that the bulk of the silver coins of the Taxila hoard weighed 54-55 grains. In other words they were possibly struck on the *karshapana* weight standard of 57.6 grains. It should be borne in mind that in so remote times the manufacturing of coins with precise maintenance of a weight standard and an exact shape was not achieved. But these approximated to a particular standard.

Silver Bent Bar and Punch Marked Coins



Bent Bar Coin

Seven Symbols

Five Symbols

Five Symbols

RBI Monetary Museum Gallery-Ancient India Coinage

Indian tradition right from the later Vedic times speaks of another weight standard, *satamana*, literally meaning 100 standard. The primary unit of this *mana* or standard was possibly 1 *krishnala* which was equal to the weight of 1.8 grains. The *satamana* weight standard would therefore refer to a metallic piece weighing 180 grain ($1.8 \text{ grain} \times 100$). Another hoard of coins is known from Chaman-i Huzuri near Kabul. In a container were found many Greek coins issued in c. fifth century BC; this implies that coins buried in the hoard cannot be later than the fifth century BC. Apart from the Greek coins, a few bent bar coins of silver were also discovered from the same hoard. These bent bar coins are without any inscription; they are different from both Greek coins and the *karshapana* coins in shape, size and weight. These coins weigh either around 90 grains and 45 grains. These coins were probably based on the 180 grain *satamana* standard and can be identified as half *satamana* (90 grains) and quarter *satamana* (45 grains) pieces. So far, no early coin of full 180 grains weight has been found. The major purpose of this elaborate description of these coins is to underline the fact that by fifth century BC north India certainly witnessed silver coins struck on two types of Indian weight standards, the *karshapana* standard of 57.6 grains and the *satamana* standard of 180 grains. The former was much more prevalent than the *satamana* pieces. Profuse number of punch marked coins struck on the 57.6 grain standard have been discovered from various parts of north India. These are uninscribed and stamped with a few symbols only one side of the coins. It is unlikely that these were initially issued by any ruler. The symbols were punched on them (hence the expression 'punch-marked') probably by merchants as marks of authentication of their weight standard and metallic purity. That the use of coins for transactions was well established during the time of the Buddha may also be inferred from a well known story of Anathapindika, the fabulously rich devotee of the Buddha. Anathapindika is said to have purchased Jetavana,

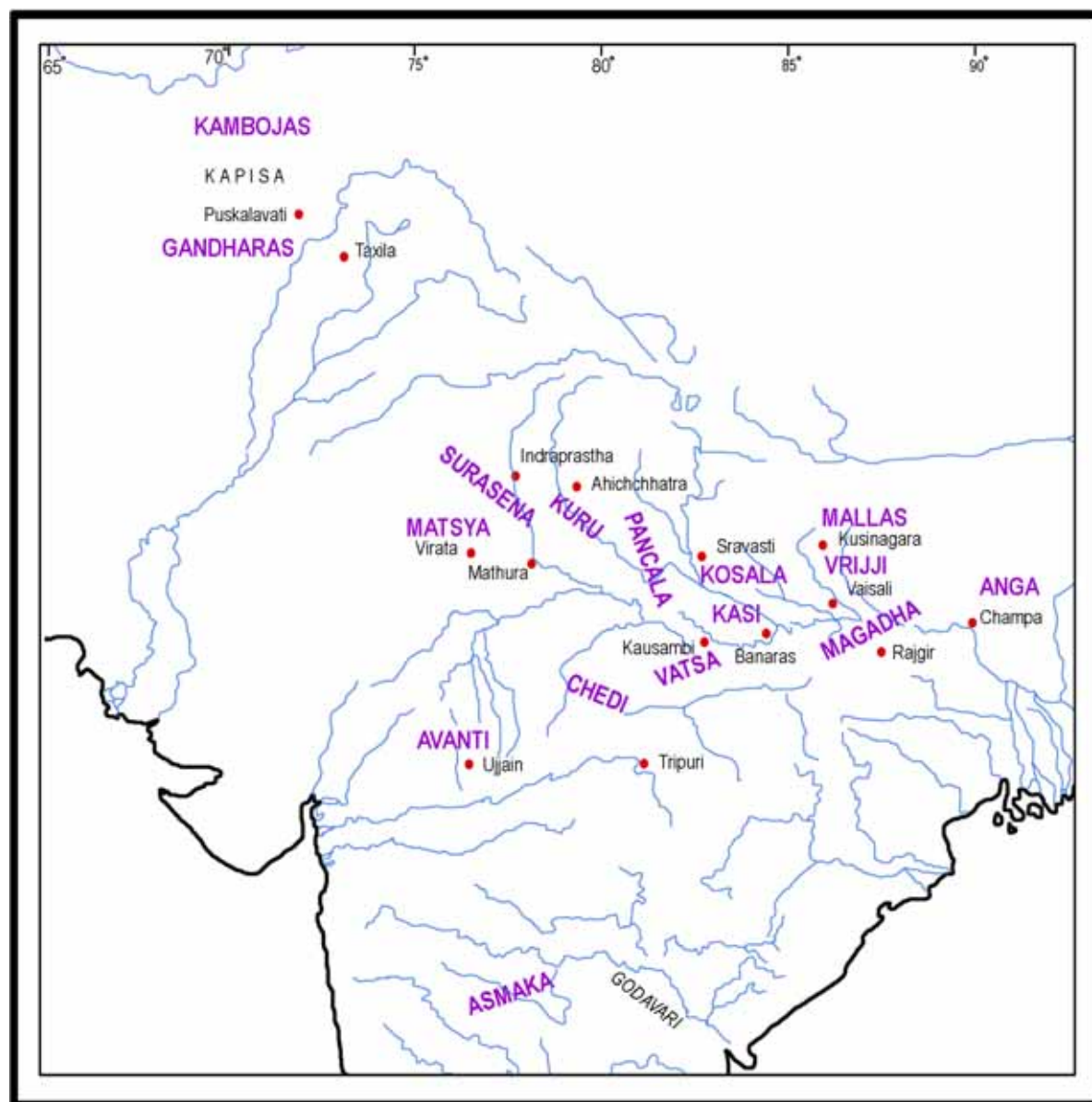
a pleasure garden in the city of Sravasti, which he later donated to the Buddha. The price of Jetavana was the number of coins (*karshapanas*) that would be required to cover the entire area of the pleasure garden. The memory of this is immortalised in a later sculpture from Bharhut showing the covering of the ground of Jetavana by coins. All these would demonstrate the development of money economy to some extent in north India which, we have already mentioned, experienced a marked improvement of commerce.

Trade and availability of metallic money may also imply a credit system, which is badly needed to sustain commercial transactions. The Buddhist texts mention *ina* or *rina*, i.e. loan, which was viewed as essential for launching any enterprise (*kammante payojeyya*). From any business (*yena kenachi kammattthanena*), a person could start by earning as little as half a *kahapana* (Pali for *karshapana*), then he could earn 50 *kahapanas* daily. He becomes well off when he earns 100 *kahapanas* a day and a rich person when he gains more than 1000 *kahapanas* (*Anguttaranikaya*). The *Dighanikaya* also lays down that a borrower should be able to earn so much that he is able to pay off his debt and maintain his family too. The above texts impress upon us the distinct possibility of the circulation of money for credit and commercial purposes. We would like to take into account here the frequent references to *setthi-gahapatis* in the Pali canonical texts. The *setthi-gahapati* does not figure in any previous literary sources. The *gahapatis* were very rich persons, usually landholders, who used the epithet *gahapati* as a status symbol to mark them out from their extended kin-group. The *setthi* was a prominent and wealthy merchant. The *setthi-gahapati* was neither identifiable with the *setthi* nor with the *gahapati*, since the Pali sources never use the three terms as interchangeable ones. It has been suggested that some of the *gahapatis* probably invested apart of wealth in trade; in this way they were associated with the world of trade without being themselves *setthis*. The relevance of the *setthi-gahapati* lies in the urban economy of this age witnessing the minting of coins.

8.2.4 Urban Centres

The most significant change visible in the material life during the period 600-320 BC is the emergence of towns and cities. The Vedic literature is steeped in rural culture and the city is virtually absent in the Vedic texts. The Buddhist texts, on the other hand, are replete with references to and descriptions of cities and towns (*nagara*). As many as sixty cities figure in the Pali canonical texts. Of these six cities stood out: Champa (near Bhagalpur, Bihar), Rajagriha (Rajgir in Bihar), Varanasi (Benares, Uttar Pradesh), Kausambi (Kosam near Allahabad, Uttar Pradesh), Sravasti (Sahet-Mahet, Uttar Pradesh), and Kusinagara (Kasia in eastern Uttar Pradesh). All these cities were located in the middle Ganga valley. Cities also emerged in the Ganga-Yamuna doab and the upper Ganga valley, e.g. Hastinapura, Mathura, Kampilya, and Ahicchhtra. Outside the Ganga valley city life is clearly visible in Ujjaini, the capital of Avanti *mahajanapada*; in Takshasila (Taxila), the capital of Gandhara *mahajanapada*. It is true that there was a concentration of large cities in the middle Ganga valley, the principal theatre for changes of far reaching consequences during the period under review. Panini, residing in Salatura (close to present Sialkot in the Punjab), impresses upon us that cities were numerous in the eastern (*prachya*) direction; he seems to have been aware of the cities flourishing in the middle Ganga basin. Historians have been aware of the textual descriptions of cities in the Buddhist texts. These texts give graphic and lively accounts of cities with imposing fortification wall (*prakara*) and moat (*parikha*) around them, well laid out streets, fine houses and large palatial structures, teeming population especially merchants and courtesans and other entertainers. The descriptions, however valuable, also indicate that these were stereotyped and were applied uniformly to all cities. This has raised the logical doubt to what extent these texts gave realistic impressions of city life. From the

1950s onwards archaeological data are increasingly being utilised, along with literary impressions, for understanding the urban layout. Excavations and explorations throw immense light on the actual remains of fortification, layout of roads, dwelling houses and other structures, use of bricks and drainage systems. Archaeology also reveals very clearly that all urban areas were not of the same size and dimensions and there were large cities and smaller towns. Field archaeological materials help us determine the beginning and end of an urban settlement. The present survey of urban centres in north India during c. 600-320 BC will therefore draw from both archaeological and literary data. Many of the cities figuring in textual sources have been identified on the basis of archaeological excavations; there are some urban centres the remains of which have been found but these could not be identified with cities appearing in literature.



Map 2 : Mahajanapadas (After F. R. Allchin et. al., *The Archaeology of Early Historic South Asia : The Emergence of Cities and States*, Cambridge, 1995, p.116)

Before the survey of urban centres is taken up one has to confront the crucial question, what is a city. The definition of a city or the features by which a city is distinguished from a rural area have caused major controversies among historians, sociologists, political scientists, demographers, geographers and anthropologists. It is also neither correct nor

expected that the features of a modern city can be applied to a city of pre-industrial revolution days. There is however a general consensus among specialists that the two primary types of human settlements are villages and cities. A city or town is usually larger in size and area than a village; the population in a city is more numerous and the density of population is higher in cities than those found in villages. The most distinctive character of the two types of settlements lies in their economic life. While the village is essentially associated with agriculture and some handicrafts, the city is peopled by those who are not direct growers of food. The non-food producing community of the city consists of specialist craftsmen, merchants, administrators, rulers and sometimes religious leaders/preachers. It is therefore also clear that the city is sustained by a secure supply of food which is not grown in urban areas but is to be brought to the city from elsewhere. This naturally brings in complex operation and organisation. The city usually has much diverse population than in rural areas, as people from different areas and belonging to diverse ethnic and religious groups often tend to converge at cities. The social and cultural life in a city is therefore more complex and also more open than that in rural areas. (for further details see our Course EHI-03, Block-1, Unit 2).

V. Gordon Childe, the noted archaeologist, suggested ten typical features of an early city. These are:

1. The city is more extensive and with denser population than that in villages.
2. The main population of the city is essentially a non-food producing community.
3. Surplus from agricultural sector is extracted to city where it is concentrated for the sustenance of the city dwellers.
4. Construction of monumental structures is a distinctive mark of city life; it is also an indication of the concentration of social wealth.
5. Priests, military and civil officers enjoy a position of pre-eminence among the residents of the city. By claiming and enjoying considerable parts of the concentrated surplus, these gradually form into the ruling elite group.
- 6/7. Invention of writing, emergence of a group of clerks are inseparably associated with the formation of cities. Maturation in three exact and predictive sciences, arithmetic, astronomy and geometry is linked up with the emergence of cities.
8. The presence of skilled artists, sculptors, painters, seal-cutters is noticeable in cities; the artist generally practised his craft according to conceptualised and sophisticated styles.
9. Trade and market place, especially long-distance trade, are major features of city life.
10. The city dwellers generally enjoy security in a state organization based on common residence than kinship ties.

Scholars are however not unanimous whether Childe's criteria can be uniformly applied to all cities of pre-industrial age.

Atranjikheda in western Uttar Pradesh is one of the most important archaeological sites yielding remains of an impressive city. It has not, however, been identified with an ancient city known from literary texts. The Painted Grey Ware level (c. 900-500 BC) at Atranjikheda spreads over 650 square meters; but the succeeding NBPW layer measures 850m x 550m. The site in c. sixth century BC assumes an urban dimension; there is clear growth in the size of the site which also suggests a demographic increase. One of the most significant archaeological trait of an ancient city is the fortification around it. Rajghat, representing the ruins of the famous city of Varanasi, the capital of Kasi *mahajanapada*, yields the remains of fortification which was constructed before the arrival of NBPW.

The fortification was thus raised there perhaps before 600 BC. The capital of Magadha, namely Rajagriha (Rajgir), was famous for its stone fortification over a circuit of 40 kms. Rajagriha had around it as many as five hills which provided it with further natural protection. Two important urban centres in Madhyapradesh—outside the Ganga valley proper—were Ujjaiyini in western Malwa and Eran in eastern Malwa. Fortifications were constructed around these two cities as early as 700 BC, that is before the advent of NBPW. Habitational areas and dwelling houses have been discovered in the Bhir mound representing the earliest phase of the city of Taxila, the capital of Gandhara *mahajanapada*. F. R. Allchin suggests that archaeologically speaking the earliest site which could claim the features of a city in South Asia was Kandahar in south eastern Afghanistan. Archaeology also suggests that the city of Mathura on the banks of the Yamuna had already come into existence in what was known as Surasena *mahajanapada*, though the archaeological wealth is not as impressive as that in Atranjikheda. In fact the *Anguttaranikaya* scornfully describes Mathura as a city full of dust, with bad roads, poor economy where alms were difficult to procure for the Buddhist monks. A city hallowed by the memory of the Buddha is Sravasti, a major city of the Kosala *mahajanapada*. Excavations at Sravasti clearly impress upon its urban character by 600 BC though it was not fortified at that time. That Sravasti was a major centre of various crafts, especially bead making, is clearly demonstrated by archaeology. The capital of Vatsa *mahajanapada* was Kausambi parts of which have been excavated. An enormous mudbrick fortification was raised around Kausambi. The excavator G.R. Sharma assigned it to c. 1000 BC which is considered too high an overdating by most archaeologists. The huge fortification was constructed in Kausambi, however, before the advent of NBPW, i.e. prior to 600 BC. Recent in-depth investigations by George Erdosy show that Kausambi spread over an area of 60 hectares. It was undoubtedly the largest site in this area. But it did not stand in isolation. Closely located were two more towns the remains of which are found at Kara and Sringaverapura, both measuring 12 hectares. Between Kara and Sringaverapura stood another site measuring 6.12 hectares. Similarly, a site was located between Kausambi and Sringaverapura and it measured 6.75 hectares. Around Kausambi have been discovered as many sixteen sites, but much smaller in size, ranging from .42 hectare to 2.0 hectares. A large and premier city like Kausambi thus stood in relation to smaller and subsidiary urban sites which formed a clear graded scale in terms of their sizes. The smallest settlements around Kausambi were almost rural, combining some agricultural and crafts activities. The bigger sites like Kara and Sringaverapura indicate production of daily necessity items and luxury products. Kausambi stood above them as the premier centre of trade and was the apex political centre of the region. On the other hand, archaeology also proves beyond doubt that Kusingara where Buddha attained his *Parinirvana* could hardly match Kausambi, Sravasti, Varanasi or Ujjaiyini in dimension and wealth.

TWO CONTRASTING DESCRIPTIONS OF MATHURA

"It appears from the tradition recorded in the *Anguttara Nikaya* that is the area of Mathura the ground was uneven and dusty, the locality was infested with fierce dogs. These were bestial yakkha (Yakshas), Alms were locality obtainable from people" B. N. Mukherjee, *Mathura and its Society*, Calcutta. 1981, p 101."

The city of Mathura... "is prosperous and large and beneficial, and (a place where) alms are easily obtainable and which is abounding in men" Description of Mathura in the *Lalitavistara*, quoted by B.N. Mukherjee, *Mathura and its Society*, Calcutta, 1981, p. 132.

Literary and archaeological data thus offer unmistakable images of urban development in north India with a concentration of major urban centres in the Ganga valley. This certainly signalled a significant change in material life. What factors did lead to the formation of cities have been assessed from different points of view by various scholars. We have already mentioned that a major pre-condition of the emergence of cities would be the availability of food crops for the non-food producing people residing in the city. This implies the generation of crucial surplus agricultural products which after meeting needs of villagers could feed the city dwellers. D.D. Kosambi and R.S. Sharma explain that cultivation of the very fertile but thick heavy soil in the Ganga valley (especially the middle Ganga plains) with iron ploughshare hold the clue to the generation of surplus. The more advanced technology of iron ploughshare helped deep ploughing of the soil which yielded profuse crops. Iron implements like axes and adzes also helped clear the dense forest and made available large tracts for cultivation. Numerous literary descriptions of the manufacture of the iron ploughshare and actual ploughing of the arable tract have been cited in the Buddhist literature. Iron ploughshares belonging to the sixth century BC have been discovered from the excavations at Ropar (Haryana), Jakheda (western Uttar Pradesh), Kausambi and Vaisali (north Bihar). D. D. Kosambi and R. S. Sharma thus lay emphasis on the technological change in the shape of iron tools as the principal agent of ensuring surplus production which in its turn helped the emergence and growth of cities. Kosambi and Sharma seem to have followed V. Gordon Childe's formulation that technological changes led to social and economic changes. This intelligent explanation has, however, not gone unchallenged.

Whether iron technology was the prime factor towards urban formation has been questioned. It has been pointed out that the-then trans-Vindhyan India was also acquainted with iron tools which are associated with the Megalithic burial culture in central India, the Deccan and the far south. But no city figures in trans-Vindhyan India either in literary tradition or in archaeological context during the period from 600-320 BC. It then follows that the mere presence of iron technology could not necessarily generate urban formation. Dilip K. Chakrabarti, A Ghosh and George Erdosy, on the other hand, opine that surplus was not simply a technological product, but an outcome of the socio-political demand. It is the pressure from the coercive political authority which demands the agricultural surplus from the peasantry that ensures the generation of the surplus; this surplus is necessary for the maintenance of the non-food producing craftsmen, merchants, political elite and administrators at a certain centre which assume the character of a city. Craftsmen may need certain raw materials which are not locally available; this implies some exchange related activities at that centre. On the other hand, the ruler and his important administrators may feel the urge to procure exotic, luxury and precious prestige goods from non-local and distant sources. This will also encourage commercial exchange at an important centre which could assume urban features in due course. The importance of the formation of state power in the making of a city cannot be lost sight of. One cannot miss that major cities of early historic north India were also political centres of different *mahajanapadas*. Urban centres are not found in areas which did not experience the emergence and consolidation of territorial polities. Thus in the Deccan and the far south we encounter neither *mahajanapadas* nor urban centres. The easternmost *mahajanapada* of Anga was also the easternmost limit of urban development during the time of the Buddha. There was no territorial polity in the Ganga delta and correspondingly no urban centre in this region prior to fifth-fourth century BC. The urban centres in the age of the Buddha combined the role of political and market centres, like Ujjayini and Taxila. Some urban centres earned prominence for being simultaneously political, commercial and cultural centres: the best illustrations of this combination can be seen in the cases of Varanasi and Sravasti. Significantly enough, the new religious ideas of Buddhism and Jainism were

more popular in urban centres than in rural areas. The orthodox Vedic culture, on the other hand, was steeped in ruralism. Buddhism as a monastic religion depended largely on patronage which took the form of *dana* or gift-giving of movable and immovable objects. Such *dana* in cash or kind was more suitable in an urban milieu than in rural society. This is contrasted by the Vedic practice of *dakshina* or sacrificial fee (gold, slaves and cattle) given to the officiating priest. The new socio-religious movements like, Buddhism Jainism, Ajivikism, and Lokayata engaged in active debates for which the city provided a more suitable environment than the traditional village society.

Trade was certainly a contributing factor to urban development, but was perhaps not the most significant agent of change. It is interesting to note that in the list of cities given by the Pali canonical texts, the name of Pataliputra, the greatest city and premier political centre of north India does not appear. The *Mahaparinibbanasuttanta* knew it as Pataligama on the junction of the Ganga and the Sona. It has been described not as a *nagara* or *pura*, but as a *putabhedana*. The *putabhedana* literally denotes a place where the lids (*puta*) of boxes of merchandise were broken or unsealed (*bhedana*). In other words, *putabhedana* stands for a market centre which functioned like a stockade. When the Buddha passed through it he is said to have noted the fortification being constructed around it to safeguard it from invasions from the Vajji *mahajanapada*. The Buddha did not fail to appreciate the importance of Pataligama as a trade centre and its strategic location. He, therefore, prophesied the future greatness of the *putabhedana* as the greatest city (*agganagara*) of future. It was in the reign of Udayin, also called Udayibhadra, that the Magadhan political centre was finally shifted from Rajagriha to Pataligama which came to be celebrated as Pataliputra. Pataliputra became the greatest city of north India and the political citadel of the entire subcontinent from the fourth century BC as in it combined commercial, political and strategic advantages.

8.3 TRADE AND URBAN DEVELOPMENT

C. 320 TO 187 BC

An enquiry into the commercial activities from the fourth to early second century BC is possible for there is valuable data available. The Seleucid envoy to the Maurya capital Pataliputra (Palimbothra), Megasthenes left his impressions about India in his Greek text *Indika*. Megasthenes' impressions are therefore eye-witness accounts though his understanding of Indian situation was not always flawless. This text is now lost and known only through summaries, quotations and excerpts in later accounts like those of Diodorus, Arrian and Strabo. It is important to note that these summaries and excerpts of Megasthenes are not identical and the later writers differ among themselves. Another contemporary source is the inscriptions of Asoka which are strewn over a vast area. To this should be added the evidence of punch-marked coins and other field archaeological materials. The last but not the least is the famous *Kautiliya Arthashastra*. There is a strong tradition that it was composed by Kautilya/Chanakya, the chief minister of Chandragupta Maurya, though the text itself does not prove it. It was perhaps not the product of a single author and may have assumed its present shape around first or second century AD. The *Arthashastra* may not have been composed during the Maurya period and was later in date. But Trautmann who has done a statistical analysis of the text also points out that the earliest portion of the text, the section called *Adhyakshaprachara* (Concerning the Heads of Departments), goes back to the third century BC which is contemporary to the Maurya period. This section offers valuable data on administrative measures in different sectors of the economy, including trade. There is also some correspondence between the *Arthashastra* data and those contained in the Greek accounts and Asoka's edicts. Contrary to earlier historical researches,

recent studies of the Maurya economy does not solely depend on or orient to the *Arthashastra* evidence. The *Arthashastra* certainly attaches considerable importance to economic activities. But the text mainly lays down recommendations, the validity and practicability of which must be attested in the light of other sources.

8.3.1 Trade, Market Places, and Trade Routes

Available sources clearly suggest that agriculture was the most important sector of the economy. The Maurya period however also witnessed continuity of trade from the previous period. Megasthenes' impressions about the seven-fold divisions of the population of India include dealers and artisans in the fourth group. Megasthenes also reports about the municipal administration of the Maurya capital. According to him, six boards—each consisting of five members (in all 30 members, called *astynomoi*)—were entrusted with the administration of the Maurya capital, Pataliputra, which, we have noted earlier, was a famous trade centre. One board was entrusted with the supervision of items brought to the market, so that no mixture between the old and new items could take place. No person was allowed to deal in more than one commodity without paying a double tax. It is possible to infer therefore that along with agriculture, trade generated some revenue for the Maurya realm. This becomes clearer when Megasthenes speaks of the obligatory payment of one-tenth of the sale proceeds; failure to pay this tax was punishable with death. The revenue yielding potential of trade seems to have attracted the attention of the Maurya ruler. The *astynomoi* (city officials) were also jointly responsible for the maintenance of marts and harbours. Megasthenes also mentions about another class of Maurya officers, called *agoranomoi*. One of their functions was to maintain roads in good condition and erect direction-giving and distance-marking signals (like mile posts) on highways after a specific distance. Eratosthenes, a younger contemporary of Asoka, informs us of a 'royal road' between the Maurya capital Palibothra (Pataliputra) and Susa in Iran. The Greek accounts have been strikingly corroborated by two inscriptions of Asoka discovered from Laghman in north-eastern Afghanistan. These two edicts, written in Aramaic (a West Asiatic script and language), record the existence of a royal road (*karapathi*; *kar/kara* an Iranian word meaning lord/king; *pathi* = *patha* or road; i.e. a royal road or highway). These unique edicts of Asoka also enlist certain places and mention their respective distance. These are actual road registers, the like of which figures in the account of Megasthenes. It is quite evident that the Mauryas took some care of the communication system in the Empire. B.N. Mukherjee argues that a close perusal of Asoka's edicts suggests that the central draft of the edicts was prepared at the Maurya capital Pataliputra from where they were disseminated to different parts of the realm. This speaks of the presence of some communication system within the realm, though it was probably not of a high standard. That Asoka himself was on tours for over 256 nights also points to his movements along the established routes of communication. Our knowledge about official tours undertaken by Maurya functionaries after specific periods further points to the possibility of a network communication, however inadequate, in the realm.

Before delving into the external trade of Mauryan India, it will be worthwhile to take a close look at the recommendations of the *Arthashastra* on trade. The *Arthashastra* upholds the importance of trade (*vanijya*) by considering it as an ingredient of *varttasashtra* (the science dealing with *vritti* or occupation). The theoretician strongly favours royal intervention into economic activities and recommends the participation of the government in commercial life. Kautilya is openly suspicious of merchants whom he brands as dangerous of thorns (*kantaka*); so Kautilya recommends their *sodhana*, literally meaning purification, but actually implying suppression. That merchants took to many fraudulent practices is discussed by the theoretician. He recommends the appointment of a high

ranking Director of Trade (*panyadhyaksha*). He should be aware of different types of commodities, their places of origin, whether brought to the market place by overland or riverine routes, the changing patterns of their demand and the change in their prices. In the event of glut of a commodity and the falling price of that commodity, the *panyadhyaksha* should purchase that commodity, so that the falling price is arrested and a substantial stock is created by the state. Here the *panyadhyaksha* acts in the interests of the producer of that commodity. If, however, on the other hand, a shortage in the supply of the commodity takes place, this will lead to spiralling of prices. The *panyadhyaksha* should intervene in this situation and release the stock previously created. This will arrest the soaring prices and increase the supply. The *panyadhyaksha* here acts in the interests of the consumer. Thus the *Kautiliya Arthashastra* views the *panyadhyaksha* as one striking a balance between the interest of the producer and the consumer. Kautilya strongly recommends that the rate of profit should be stipulated: five percent on indigenous commodities and ten percent on foreign commodities. The *panyadhyaksha* is entrusted with the sale of goods produced in royal farms and manufactories (*rajapanyam*) which would be distributed through a single centralised channel (*ekamukham*). He is to look after trade not only within the realm of the king (*svavishaya*), but also trade abroad (*paravishaya*). Kautilya recommends sending out of trade missions to countries abroad to assess the potentialities of long-distance trade. The *panyadhyaksha* is advised to go wherever there is profit and avoid the absence of profit.

ARTHASASTRA ON SULKADHYAKSHA

20 For the trader taking out a commodity for which duty has not been paid along with one for which duty has been paid, or carrying off a second (commodity) under one stamp after breaking open the package, forfeiture of the same and an equal amount as fine (shall be the punishment). 21 For the (trader) carrying off (goods of high value) from the customs house after securing acceptance of cowdung (cakes) or straw as the basis (for calculating duty), the highest fine for violence (shall be the punishment).

22 For the (trader) taking out any one of the unexportable articles, viz., weapons, armours, coats of mail, metals, chariots, jewels, grains and cattle, there shall be a fine as proclaimed as well as loss of the goods. 23 In case any one of these is brought in, its sale (shall be effected) duty-free outside (the city-gate) itself.

24 The frontier officer should charge a road cess of one *pana* and a quarter for a cart-load of goods, of one *pana* for a one-hoofed animal, of half a *pana* for cattle, of a quarter *pana* for small animals, of one *masaka* for a shoulder-load. 25 And he shall make good what is lost or stolen (on the way). 26 He should send on to the Superintendent a caravan from a foreign land after making an investigation as to goods of high and low value and giving them an identity-pass and stamp (on the goods).

27 Or, a secret agent appearing as a trader should communicate to the king the size of the caravan. 28 In accordance with that information, the king should tell the Collector of Customs about the size of the caravan, in order to make his omniscience known. 29 Then the Collector, on meeting the caravan, should say, 'These are goods of high and low value belonging to such and such a merchant. It should not be concealed. This is the king's power.' 30 For one concealing goods of low value the fine shall be eight times the duty, (for concealing) goods of high value, confiscation of everything (shall be the punishment) .

31 He should cut out goods that are harmful to the country and that are worthless. He should make goods that are highly beneficial duty-free, also seeds that are rare.

R. P. Kangle, *The Kautiliya Arthashastra*, Part 2, 2nd edition Bombay, 1972, Chapter 21, Section 39 (2.21.23, 2.21.24), The Collector of Customs and Tolls, pp. 143-144

Two other officers were entrusted with some official supervision and invigilation of trade in the *Arthashastra*: they are the *samsthadhyaksha* (officer in charge of the market place) and the *sulkadhyaksha* (officer in charge of collection of tolls and customs). The *Arthashastra*, by prescribing the office for the collection of tolls and customs (*sulka*), clearly recognises the revenue bearing potential of trade. Though taxes from the agricultural sector must have been the most important resources for the Maurya administration, the imperial treasury seems to have been further replenished by tolls and customs imposed on commercial traffic. One has to take note that Kautilya includes trade routes (*vanikpatha*) as one of the seven heads of revenue. We have earlier encountered a particular type of trade centre called *putabhedana*. It also figures in the *Arthashastra* under a slightly different nomenclature: *panyaputabhedana*. By using the prefix *panya* (commodity), Kautilya strongly underlines the commercial character of *putabhedana*. While Pataligama in the days of the Buddha was a *putabhedana* but without being located in an urban area, the *panyaputabhedana* of the *Arthashastra* has a more pronounced urban character. The theoretician prefers the location of a *panyaputabhedana* within the fortified urban centre (*durga*). It should be established within a *sthaniya* (an administrative headquarters) over eight hundred villages. An ideal *panyaputabhedana*, according to the *Arthashastra*, should be easily approachable by overland (*amsapatha*) and water (*varipatha*) routes alike. The spread of the Maurya power over greater parts of the subcontinent seems to have facilitated trade and communication. This is also evident in the growing use of silver punch-marked coins.

The spread of the Maurya power over greater parts of the subcontinent seems to have facilitated trade and communication. This is also evident in the growing use of silver punch-marked coins. The punch-marked silver *karshapana* coins appeared in the economic scene around the fifth century BC; the Maurya period witnessed their considerable proliferation. Profuse number of silver punch-marked coins are found from Uttar Pradesh and Bihar. Though these coins are still uninscribed, the regular use of certain symbols on these coins suggest that these were issued by a particular authority. The widespread use of these symbols on punch-marked coins, assignable to the Maurya times, has led scholars to logically infer that these coins were indeed minted by a major political authority which could ensure uniformity in minting standard. Such a strong political authority can logically be identified with the Mauryas. The *Arthashastra* entrusts the responsibility of minting coins to a high ranking officer called *rupadarsaka* (the Mintmaster). The *Arthashastra* recommends the payment of salary for royal officers in cash. The text lays down several grades of salaried officials, ranging from 48000 *panas* to 60 *panas* per year (*pana* is a particular coin term). All these suggest the growth in the use of coinage which in its turn implies expansion of trade network in Mauryan times than that seen during the previous times, c. 600-320 BC.

To what extent long distance contacts developed with areas abroad during the period under review may now be briefly discussed. We have already mentioned about a royal road figuring in Greek sources and also in two Asokan edicts. Asoka in his Rock Edicts II and XIII clearly informs that he sent out *Dhamma* missions not only within his realm but to areas which lay outside his jurisdiction (*amta avijita*, literally meaning an unconquered frontier). His edicts explicitly mention contacts with five Yavana kings and with Tambapamni (=Tamraparni or Sri Lanka). These Yavana kings are: Amtiyoka (Antiochus II Theos of Syria), Amtekina (Antigonos Gonatas in Macedonia), Turamaya (Ptolemy Philadelphos in Egypt), Alikasudara (Alexander of Epirus) and Maga (Megas of Cyrene). There is little doubt about growing contacts with contemporary West Asia, the contacts being maintained largely through the northwestern border land of India through which passed the royal road. The *Dhamma* mission to Sri Lanka must have reached the island by a maritime route. Buddhist tradition narrates that the voyage to Sri

Lanka started from the port of Tamralipta in Bengal. That the Mauryas were alive to the importance of seaborne commerce may be indicated by the Greek accounts. Megasthenes notes that the city commissioners (*astynomoi*) looked after harbours. The Greek ambassador to Pataliputra also suggests that ship-building was a state monopoly in the Maurya realm. It is difficult to assess the accuracy of such a statement. However, the *Arthashastra* recommends the appointment of the *navadhyaksha* (Director of Shipping). The discovery of Asokan inscriptions at Sopara (ancient Surparaka), a noted port (in the Konkan coast) close to modern Mumbai, and Amaravati in Andhra may reflect upon the Maurya interests in the west and east coasts. The Maurya political control over Gedrosia or Baluchistan could have also paved the way for maritime trade in the west coast of India and the Persian Gulf region. Recent archaeological discoveries at Failaka near Bahrein in the Persian Gulf point to the active trade in this sea-lane during the rule of Seleucid kings with whom the Mauryas maintained regular contacts.

8.3.2 Urban Centres

The ability of the Mauryas to extract enormous resources from agrarian and non-agrarian sectors and the establishment of a number of administrative headquarters in different areas of the vast Empire provided vital impetus to the development of urban centres. The *Arthashastra* drives home the significance of urban centres (*durga*) by including *durga* in the list of seven elements of the state (*saptaprakriti*) and also in the seven heads of revenue.

The most outstanding city of the Maurya Empire was certainly Pataliputra, the Maurya capital. Greek authors eloquently praised this city as the greatest urban centre of India. Eighty stadia in length and fifteen in breadth, Pali(m)bothra (=Pataliputra) had the shape of a parallelogram; it was surrounded by a wooden wall and a moat. Excavations at Kumrahar, near Patna, have revealed the remains of a vast pillared hall of third century BC. The columns were polished monolithic pieces, their height and diameter at the base being respectively 20 feet and 3 feet 6 inches. A remarkable series of long wooden platforms have also been unearthed from close to the pillared hall. All these could have formed parts of Maurya palace complex. The *Arthashastra* does not mention Pataliputra, but provides the first systematic description of an ideal urban lay out. The term *durga* in the *Arthashastra* is not literally a fort, but a major fortified urban settlement. In his recommendations for layout of the city (*durganivesa*) Kautilya earmarks different areas of the city for habitation, administrative and commercial purposes. Maintenance of the civic amenities of the urban centre is entrusted with the *samahartta*, a high ranking officer who was also in charge of collection of revenues. Asoka's inscriptions inform us about several administrative centres and provincial headquarters located at important cities. These were Ujjayini, Takshasila, Tosali (near Bhuvaneshwar in Orissa), Samapa (in Ganjam, Orissa), and Suvarnagiri (in Kurnool district, Andhra Pradesh). Girinagara or present Girnar in Kathiawad was also another possible seat of provincial government. It is evident that some of the major cities of the previous period continued to flourish, while a few new centres of administration in Orissa and the Deccan also emerged for the first time.

The epigraphic and literary data on urban centres in the Maurya realm seem to have been corroborated by archaeology. The Bhir mound at Taxila reveals stone houses and a road in this major city of the northwest. The city of Pushkalavati to the west of the river Indus is seen in the ruins of Charsadda. Ahichchhtra and Sravasti, known since the times of the Buddha, witnessed their first fortifications during this phase. A metalled road datable to the second half of the fourth century BC is found at the famous urban centre of Kausambi near Allahabad. Mathura, which was despised as an urban centre in the

Anguttaranikaya, probably experienced improvement in its urban life. Mud fortification was raised around this city in the period 400-200 BC; its excellent textile began to attract the attention of a theoretician like Kautilya. At the vicinity of Mathura stands the archaeological site of Sonkh which offers the evidence of a flourishing bead making industry in and around Mathura. The diversity of the ground-plan of secular houses – square, oblong and circular – at Sonkh is a significant feature of urban layout in this city. Patanjali who belonged to the early second century BC remarks in his *Mahabhashya* (a commentary on the grammatical treatise of Panini) that the inhabitants of Mathura were more cultured (*abhirupatara*) than the residents of Pataliputra and Sankasya. All these point to the development of Mathura as a major urban centre in the Ganga valley. An inscription of c. third century BC, possibly of the Maurya period, was found from Mahasthan in present Bangladesh. It records the name of Pundranagara, which was prosperous and well laid out; a granary (*koshthagara*) and a treasury (*kosa*) also stood within this city. Pundranagara, identified with Mahasthan-itself an extensive archaeological site-was the earliest urban centre of Bengal. In the Maurya period north Bengal had another urban centre the remains of which were found at Bangarh (South Dinajpur district, West Bengal). Epigraphic and excavated materials, therefore, clearly demonstrate the beginning of an urban tradition in Bengal from the third century BC onwards. There was neither a *mahajanapada* nor an urban centre in Bengal during the time of the Buddha. Urbansim seems to have reached Bengal from the middle Ganga valley to the northern part of Bengal as an impact of the spread of Maurya political control over this region. That Bengal was coming into the orbit of north Indian material culture will be evident from the availability of NBPW and punch marked coins from archaeological sites. The recent discovery of an impressive hoard of silver punch-marked coins from Wari Bateswar, near Dhaka in Bangladesh, is a strong pointer to the spread of trade and urbanism in the Ganga delta from the third century BC onwards. Most of the urban sites of this period, widely distributed over the vast area of north India, have yielded NBPW, punch-marked coins and terracotta ringwells (for the disposing of waste water). It appears that the typical features of urban settlements of middle Ganga valley were reaching disparate areas of north India in course of the spread of Maurya political authority over these areas. This, however, does not imply that urban centres were of uniform size and pattern. Excavated urban sites offer us information about their varying sizes. The list below gives rough estimate of sites of different urban centres:

Pataliputra	2200 hectares
Rajagriha, Kausambi, Vidisa	181-240 hectares
Ahichhatra, Sravasti, Tosali, Mahasthan	121-180 hectares
Ujjayini, Samapa	61-120 hectares
Kandahar, Taxila, Balirajgarh	31- 60 hectares
Kapilavastu, Pushkalavati	16- 30 hectares

It is interesting to note that while the *Arthashastra*, which upholds the Brahmanical social ideology, shows a positive attitude to urban society, the *Baudhayana Dharmasutra* (c. fourth century BC) representing an orthodox position, considers the city to be a place of permanent *anadhyaya* (absence of Vedic studies). The *Dharmasutra* text lays down that visiting a city led to defilement which could be cleansed by expiation (*prayaschitta*). The relatively open and less rigorous urban society was a definite attraction to merchants, Buddhist and Jaina monks and rulers in general, but it was considered as a negation of Vedic ideals in the orthodox priestly tradition.

8.4 TRADE AND URBAN DEVELOPMENT

C. 200 BC- AD 300

Patterns of Trade :
North India

The age under consideration produced diverse literature in India. Two premier theoretical treatises, namely the *Dharmasastras* of Manu and Yajnavalkya were composed between c. 200 BC-AD 200. The age also witnessed composition of the greater portions of two epics, the *Ramayana* and the *Mahabharata*. The Buddhist *Jataka* tales, though dealing with much earlier traditions, also belong to this period. The same is true about the Buddhist *Avadana* literature and the *Gathasaptasati* of the Satavahana ruler Hala, a Prakrit collection of poems. Immense light is thrown on Indian material life and long-distance contacts by the Classical texts: the *Bibliothekes Historikes* by Diodorus Siculus (c. BC 90-21), the *Geographikon* of Strabo (c. AD 96-180), the *Indika* by Arrian (c. BC 63-AD 21), the *Periplus Mari Erythraei* commonly known as *Periplus of the Erythrean Sea* by an anonymous Greek sailor/merchant, the *Naturalis Historia* by Pliny (AD 23-79) and the *Geographike Huphegesis* by Claudius Ptolemy (c. AD 87-150). The period is noted for the availability of many inscriptions, mostly composed in Prakrit language. A bulk of the inscriptions are donative records, informing the donations to Buddhist and Jaina religious establishments by people from different walks of life including merchants. Some evidence of commerce is furnished by seals and sealings. A major source of our knowledge of trade are coins, struck by both indigenous and foreign ruling houses in gold, silver, copper and billon. One of the surest proofs of the spurt of urban centres in north India is available from field archaeological materials. The period is famous for its sculptural art which offer many visual representations of commercial contacts and urban centres.

8.4.1 Traders and Trade Centres

Buddhist *Jatakas* not only speak eloquently of merchants but indicate their diverse categories. The term *vanik* stands for a merchant in general. The *sarthavaha* was the same as the leader of caravan merchants. The *apanika* means the shop keeper who must have been engaged in retail trading. However, the most important type of merchant was the *setthi* or *sresthi* whom we have already encountered in section 9.4. Numerous references to the *setthi* in the Buddhist *Jatakas* cannot but suggest that the *setthi* was prominent in economic life than in the previous ages. The *Jatakas* invariably describe the *setthi* as a fabulously rich merchant whose wealth amounted to eighty crore (*asitikotivibhava*, obviously a standardized figure). The immense wealth of the *setthi* is clearly hinted in a *Jataka* story which tells us that the king took possession of the vast estate of the *setthi* when he died without an heir. His sons usually followed their father's profession, implying thereby that the occupation of the *setthi* assumed a hereditary character. The term *setthiputta*, literally meaning a son of a *setthi*, actually denotes a *setthi*. The office of the *setthi* was known as *setthithana* (*sresthithana*). The *setthi* was certainly a merchant of great prominence and prestige; one of the avenues of his prosperity was his role as an investor of money in other people's business. Some *Jataka* stories bear impressions of the *setthi* investing money in the trade of smaller merchants and craftsmen. He thus played the vital role of a financier and probably became richer by charging interest on loans to other merchants. Interestingly enough the *setthi* regularly figures in the Buddhist texts as having visited the royal court thrice a day; some *Jataka* stories also suggest friendly relation between the ruler and the *setthi*. Though the *setthi* goes to the royal court daily he does not belong to the list of salaried officers (*rajabhogga*) of the realm. The *setthi* paid regular visits to the king not merely as a rich merchant prince, but probably in the more significant capacity as a representative of the mercantile community. This suggests that the *setthi* probably had an official role to play, in addition

to his function as an individual merchant of great prosperity. The official status of the *setthi* as the representative of merchants to the ruler undoubtedly enhanced his prominence. This is indicated by the formation of an exclusive group of *setthis* (*setthikula*) who in the *Jataka* texts often claimed an exalted position.

JATAKA ON SETTHIS

"There lived a *setthi* in the country (or in a border district) who was a business friend of Anathapindika, but they had never met or seen each other. Once upon a time this *setthi* loaded five hundred carts with country produce and gave orders to the men in charge to go to Savatthi, and barter the wares in the shop of the great *setthi* Anathapindika for their value, and bring the merchandise received in exchange. After they agreed to do this they came to Savatthi and met Anathapindika. First presenting him a passport they told him their business. 'You are welcome', said the great *setthi* and ordered them to be lodged and provided them with money for their needs. After kindly enquiries about his friends' well being he sold the merchandise and gave them the goods in exchange"

Jataka No.377 translated by E B. Cowell (ed.), *The Jataka or Stories of Buddha's Former Births*, Cambridge

Along with *vanik*, *vaidehaka*, *sarthavaha* and *setthi* were present *naigama* type of merchants. They are particularly seen in several donative records from Bandhogarh (in eastern Madhya Pradesh), datable to the early centuries of the Christian era. The term *nigama* stands for a market town and also for a professional group. The *naigama* type of merchants therefore could have denoted a trader belonging to a guild-like professional group. The itinerant nature of a large number of merchants can be easily guessed from regular references to their presence at cultural and trade centres which they reached from diverse places. A close perusal of donative records at Sanchi (nearly 625 small inscriptions), Bharhut, Mathura and Bandhogarh shows that these were convenient points of convergence of merchants and travellers.

CONVERGENCE OF DONARS (MERCHANTS AND TRAVELLERS) AT SANCHI

Tope I, No. 46= C. 107 "The gift of Samika, inhabitant of Navagama (*Navagrama*) from the district of Ujjain." p.102

No. 47= C.108 "The gift of the merchant Siriguta (*Srigupta*)." (p.102)

No.81= C. 162 "The gift of Saghadeva (*Samghadeva*), a trader, inhabitant of Virohakata." (p. 106)

No. 91 "The gift of the merchant Isiguta (*Rishigupta*) from Asvavati (*Asvavati*)." (p. 107)

No. 99 "The gift of the Sheth Siha (*Simha*), inhabitant of Kuraghara." (p.108)

No. 109 "(the gift) of Mahida (*Mahendra*), inhabitant of Bhogavardhana (*Bhogavardhana*)." (p.109)

G. Buhler, 'Votive Inscriptions from the Sanchi Stupas', *Epigraphia Indica*, Vol. II, p.109

"The gift of Nagadata (*Nagadatta*) from Paithana (*Pratisthana*)." (p.360)

"The gift of Namdutar (*Nandottara*), an inhabitant of Tuba (*van*) [Sagaur district Madhya Pradesh] (p. 378)

N.G. Majumdar, *Inscriptions of Sanchi*, in John Marshall (ed.), *The Monuments of Sanchi*, Delhi, Reprint, 1983

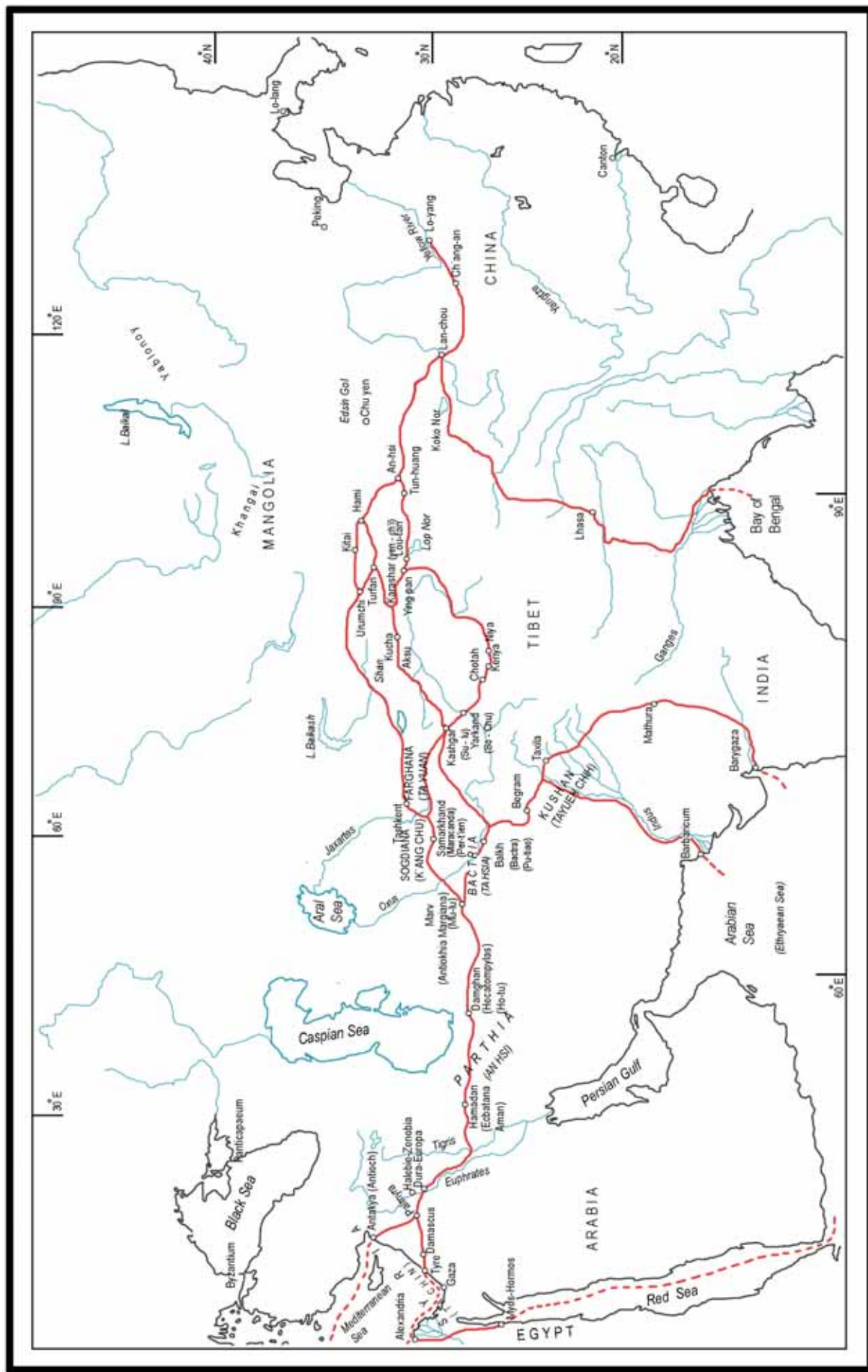
8.4.2 Long Distance Trade

The most spectacular development of trade is seen in the long-distance commerce of India. We have seen that already by the time of the Maurya Empire there had been ample scope and opportunity to establish contacts between West and South Asia through the north-western borderland of the subcontinent. Such contacts ramified and prospered to an unprecedented degree during these five centuries. As early as the second century BC it was possible for Heliodoros (Greek ambassador), who became a devout Vaisnava, to reach Vidisa in central India from Taxila in the north-western part of India.

In Sialkot area of Punjab, where the great grammarian Panini had lived in the fifth century BC, emerged a city of prominence. This is Sagala, identified with Sialkot. During the late second century BC it figures as the capital of Milinda or Menander, the Indo-Greek ruler. The well known Buddhist text, *Milindapanho* (Questions of Milinda), deals with the conversion of the Greek ruler to Buddhism. It also describes his capital as a major trade centre. Sagala, according to the *Milindapanho*, is a *nanapanyaputabhedana*. We have already explained that the *putabhedana* was a type of trade centre where probably bulk was broken. The prefix *nana* certainly underlines that various types of commodities were brought to this place by merchants from different places. It had a store house (*kotthagara*) which must have had arrangements of warehousing. Sagala was noted for its gate (*gopura*), archways (*torana*), rampart (*pakara*), moat (*parikha*), royal palace (*antepura*), streets (*vithi*), squares (*caccara*), crossroads (*catukka*) and shops (*apana*). One has to admit that the rich descriptions of Sagala as a centre of trade, however, are not matched by archaeological evidence.

For a proper appreciation of the contacts of north India with distant areas in West and Central Asia a broader background of Central and Western Asian situation is necessary. Movements of men and merchandise over long distances took a spectacular turn by the late second century BC. Certain changes in the political and economic scenario in Central Asia, West Asia and the eastern Mediterranean paved the way for increasing linkages with South Asia. There was a growing demand for silk and other luxury and exotic products of Han China in the Roman Empire. The celebrated overland route, designated 'Silk Road' by a nineteenth century German scholar, started from Lou Lan in China, then from Tun Huang the route bifurcated to the north and south of the Taklamakan desert. This led to the prominence of what is later known as the northern and the southern silk routes which converged at Kashgarh, called Su-le in Chinese texts. The same area was also called Seres/ Serice in Classical sources, because of the Greeks' knowledge of the availability of silk there. The overland route then passed through Bactra (modern Mazar-i-Shariff in Afghanistan), Merv (Mu-lu of Chinese texts), Hecatompylos, Ecbatana (Hamadan) and Seleucia. From Seleucia it went westwards to Palmyra, a celebrated centre for caravan trade, which was connected to the well known port of Antioch (in Syria) on the eastern Mediterranean littorals. There was another major centre of caravan trade, namely Petra in modern Jordan which was also connected with eastern Mediterranean ports. Areas located to the north of the river Oxus were also well integrated to this widespread network of over land routes. The route thus has a strong Central and West Asian orientation in which South Asia's role was not initially very significant.

There were, however, a few important changes at the beginning of the first millennium which led to intense South Asian participation in this network. By the first century AD the Kushanas, originally a Central Asian nomadic tribe, established a huge Empire with Bactria as its principal seat of power and embracing extensive areas of north India up to Campa or Bhagalpur in the east, the lower Indus valley and Gujarat in the west, Chinese Turkistan and areas to the north of the river Oxus. The rise of the Kushana power thus



Map 3 : Silk Route from China to the Roman Orient (After *Cambridge History of Iran*, Vol.III (i), Cambridge, 1983, p.544-45

politically integrated major arteries of north Indian commerce with the northwestern borderlands of the subcontinent and also with Central Asian and West Asian network. More or less at the same time, according to the *Periplus of the Erythraean Sea* (c. late first century AD), Pliny's *Naturalis Historia* (about 79 AD) and Strabo's *Geographikon*, the shippers and sailors of the Red Sea and the eastern Mediterranean began to make use of the monsoon wind system to reach the west coast of India by a maritime route. The more or less predictable alteration of the monsoon wind system became intelligible to the sailors and shippers from the West and they began to frequent western Indian ports regularly. A ship sailing from the Red Sea port of Berenike or Myos Hormos or Leukos Limen could reach the western seaboard of India in less than forty days, if not in twenty days. This provided an alternative and quicker communication between India and the eastern Mediterranean areas. It provided an opportunity to avoid the Parthian empire in Iran which was an unavoidable geographical and commercial intermediary on the overland route between the Roman Empire and the Han Empire in China. The establishment of the Kushana power resulted in the movement of commodities through the northwestern borderland of the subcontinent to the western coast of India. It also linked up the movements of men and merchandise of the entire Ganga valley with the overland Silk Road trade.

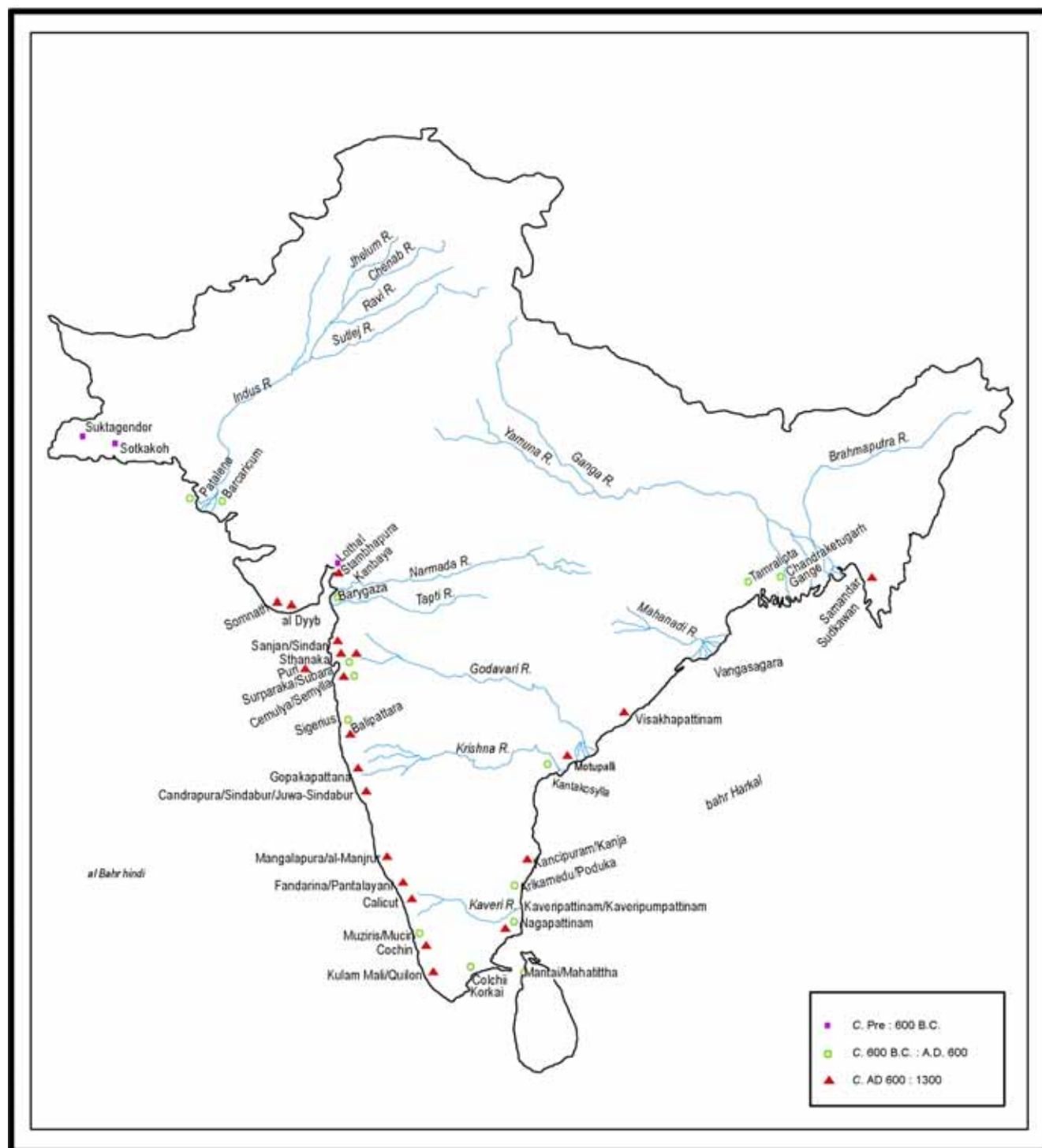
The *Periplus of the Erythraean Sea* and Ptolemy's *Geography* (c. AD150) eloquently speak of two major ports of north India, namely Barbaricum at the mouth of the river Indus and Barygaza (Bhrgukaccha) on the mouth of the river Narmada in Gujarat. The *Periplus* offers excellent accounts of how commodities, including Chinese silk, was brought to Barbaricum and Barygaza from Kabul, Puskalavati and Taxila. While the overland route linking the northwest with the Indus delta must have passed through the plains of Punjab, the route to Barygaza passed through Mathura in the Ganga-Yamuna doab. From Mathura the overland route touched Ujjayini which in its turn was closely connected with Barygaza. Barygaza also received regular consignment of textiles from two centres in central Deccan, viz. Paithan and Ter. The above accounts clearly impress upon the extensive hinterland of the two ports. Inscriptions of mid-second century AD from West Asia show that Scythia, which was the lower Indus valley and which included the port of Barbaricum, maintained overseas network with Charax, the premier port at the head of the Persian Gulf. Charax in its turn was closely connected with major West Asiatic cities by overland and riverine routes. The port of Barygaza, also prominently figuring in the *Jataka* stories, was perhaps the greatest port of western India. According to the *Periplus*, Nambanus (Saka Kshatrapa ruler Nahapana, c. AD 105-125) arranged for the safe piloting of foreign ships to this port as the access to the port was not easy.

Recent archaeological discoveries in the Karakorum highway speaks of the presence of non-Indian merchants, Chinese, Sogdian, and Iranian, in this region. Inscriptions in Chinese, Sogdian, Prakrit (written in Kharoshti script) in the Karakorum highway demonstrate regular presence of merchants of diverse places in this area. This speaks of a shorter, but perhaps more dangerous, route to reach north India from Central Asian region. The Chinese texts knew this route as Chi-pin or Kashmir route. There is a strong possibility that excellent Central Asian horses, in great demand among north Indian powers, reached north Indian plains through this Karakorum route. Fine representations of horses with men wearing non-indigenous dress are clearly visible in painting and etchings on rock in this region. The cities of Taxila and Puskalavati acted as gateways of overland access to Central and West Asia. In this context must be mentioned the discovery of many Indian objects, including ivory products, from Begram near Kabul. The famous city of Mathura, a major political centre of the Kusanas, reaped great advantages out of this international commerce. Mathura was well connected in the east with areas in the middle Ganga valley; it was also linked up with the northwest through what is known as



the Uttarapatha route. Mathura was important for its communication through Rajasthan to Ujjayini, a great centre of trade and commerce in Malwa. Ujjayini in its turn had regular overland communications with Barygaza, the premier port of this region. Sculptures of the Gandhara and the Mathura school leave little room for doubt about the rich fusion of diverse cultural traits which came along with commercial transactions. The opulence of urban life, thriving on brisk trade, is also faithfully portrayed in contemporary sculptures.

At the eastern fringe of the vast north Indian plains is situated the Ganga delta. Bengal in the early centuries of the Christian era experienced a flourishing agriculture. Moreover, the Bengal delta provided the only outlet for the land-locked middle Ganga plains to the sea. The Bengal delta had two major ports, known from a large number of archaeological and literary evidences: these were Tamralipta (Tamalites and Taluctae in Classical sources)



Map 5 : Ports of Early India [After Ranabir Chakravarti (ed.),
Trade in Early India, OUP, Delhi, 2001, facing page 1]

and Chandraketurgarh (an impressive archaeological site to the north of Calcutta, often identified with the port of Gange of the *Periplus* and Ptolemy's *Geography*). The *Periplus* speaks very highly of the Gangetic nard and Gangetic muslin as major export items from this area. The nard was probably grown in the north-eastern regions from where it was brought to coastal Bengal for shipment. A recently discovered mid-second century AD loan contract document on a papyrus unambiguously states the loading of Gangetic nard on board the ship Hermopollon which stood at the port of Muziris in Kerala. A masterly study of this document by Casson strongly corroborates the account in the *Periplus* about this product from the Bengal coast. The *Periplus* also suggests that Chinese silk could have reached Bengal through the north-eastern borderlands. From the Bengal coast Chinese silk was then transported by coastal voyages to Damirica or Limyrike, i.e. the Coromandel Coast. Attention may be drawn here to a particular type of pottery named Rouletted Ware (RW). The RW was earlier thought to have been an imported pottery from the Roman world. Recent researches by Vimala Begley suggest that these were in use from c. 200 BC to AD 200 and these were not imports from Rome. No less significant is the fact that Rouletted Ware is found on a large number of sites along the entire east coast from Bengal to Tamilnadu. This possibly suggests a distinct network of coastal communication, just like the distribution of NBPW speaks of commercial contacts. Chemical and x-ray analysis of the soil of the RW has led V.D. Ghogte to suggest that Chandraketurgarh-Tamluk zone in the Ganga delta was the principal manufacturing and distribution area of this pottery. Thus Bengal assumes a special position in the overland and coastal commerce of this period.

Such a possibility gains further ground by the discovery and decipherment of the Kharoshti-Brahmi documents, known mainly from coastal Bengal, by B.N. Mukherjee. Chandraketurgarh has yielded unique inscribed images of sea-going vessels on several seals. These include the figures of a *trapyaga* ship (cf. *trappaga* type of coastal vessel in the *Periplus*), a ship fit for long oceanic journeys (*tridesayatra*) and a ship called the Indra of the Ocean (*jaladhisakra*). Chandraketurgarh has also yielded the earliest known visual representation (c. third century AD) of the transportation of horses by ship from an Indian harbour. Tamralipta was undoubtedly the most famous port of Bengal. It is known more from literary sources than from archaeological evidence. The recent discoveries of Kharoshti script in mainland and maritime Southeast Asia (Dvaravati in Burma, Beikthano, Lopburi, Oc-eo in Thailand and Sembiran in Bali) highlight the importance of the ports in the Bengal delta for the commercial and cultural contacts across the Bay of Bengal. It is true that north India's long distance trade is more oriented towards overland commerce of the Silk Road than the maritime trade which is more frequent in both the seaboards of peninsular India.

The *Periplus*, Pliny's *Natural History* and Ptolemy's *Geography* impress upon us that textiles, spices, gems and stone, and ivory were major items of export from India to the Mediterranean world. The *Periplus* suggests the export of some food grain from Barygaza. That paddy was regularly transported from Bengal by ships will be evident from the frequent depiction of stylised stalks of grain on a sea going vessel figuring in inscribed terracotta seals/sealings from coastal Bengal. A combined testimony of Ptolemy's *Geography* and inscriptions of the Satavahanas and the Sakas may indicate that diamond of eastern Malwa was a highly prized export commodity. On the other hand, precious metals (including gold and silver), silk, various types of wine, wine-storing vessels (amphora) and horses were brought from distant sources. The intense interactions with areas abroad led among other things to remarkable cultural exchanges, including the growing popularity of Buddhism in Central Asia and China.



**Terracotta seal from
Chandraketugarh showing
a ship**



**Terracotta seal from Bengal
depicting stylized stalks of
grain on a seagoing vessel**

One of the surest proofs of thriving trade in north India lies in the profusion of coinage. North India had already been well accustomed to the *karshapana* type of silver coinage (of 32 rati or 57.6 grains weight standard) during the second half of the first millennium BC. The numismatic tradition was indeed enriched with the silver coins of the Bactrian Greeks and Indo-Greeks. While these coins were initially engraved only with Greek legend, they were subsequently inscribed with both Greek and Prakrit legends, clearly showing that they were meant for circulation among Indians. To the Kushana ruler Vima Kadphises (first half of the first century AD) goes the credit of issuing the first gold coins in India. The Kushana gold coinage was based on the gold species of the Imperial Parthian ruler Gotarzes I (c. BC 95-90). The immense variety of devices in gold coinage of Kanishka (generally but not unanimously assigned from AD 78-101) and Huvishka (c. AD 105-145) suggests their wide circulation. The importance of the Kushana coins in international transactions is borne out by the discovery of Kushana coins in Ethiopia. The Kshatrapa rulers of Ujjayini who had probably served the Kushanas before 150 AD also struck high quality silver coins. The find of Roman coins in north India (though these are more numerous in the peninsular part) illustrates its commercial linkages with the eastern Mediterranean region. It is, however, not certain whether the Roman pieces were used as regular coins or bullion in India. Less spectacular than coins of precious metals, but no less significant is the presence of copper coins in profuse numbers in greater parts of north India.

Indo-Greek coins



Kushana Gold coins



Copper coins and coin moulds are found in large numbers in areas associated with several non-monarchical clans in Madhya Pradesh and Rajasthan (Malavas, Arjunayanas, Yaudheyas etc.). Punch marked and cast copper coins along with copper coins struck as imitation of Kushana coinage are available from Bengal and Orissa. These coins were minted on the *karshapana* 57.6 standard and not on the Attic tetradrachm standard. The regular striking of copper coins cannot but point to the use of metallic currency for local level transactions.

8.4.3 Urban Centres

Literary and archaeological sources are replete with information on cities which proliferated to a great extent. The five centuries from 200 BC to AD 300 saw the peak of urbanism in north India, a process which had begun since the sixth century BC. While earlier cities continued to flourish, new cities also appeared; this is known particularly from archaeological evidence. The frequent portrayal of urban life in the sculptures of Gandhara and Mathura schools and Sanchi, and Bharhut also speak of the spread of urban experience over the whole of north India. Urban development is also noticeable in the Deccan and the far south, which will be dealt with in the next Unit.

The most important city in the northwest was Taxila, closely linked with the contiguous city of Pushkalavati (identified with the site of Charsadda). Excavations at Sirkap mound at Taxila highlight the most prosperous phase in the history of the city. It was extended and fortified by masonry wall by Indo-Parthian rulers. It was a planned city with main highways running north-south and smaller lanes going east-west; this provided a grid pattern layout of the city. In contrast to the haphazard construction of dwelling houses of Bhir mound, residential structures were laid out in a well-defined manner. In the planning of this city, the influence of Hellenistic model is evident. A. Ghosh, the noted archaeologist, remarked, 'foreign in origin and conception, Sirkap was not a representative Indian city'. Excavations at Ahichhatra yielded remains of a concrete road in a layer assignable to c. 200 AD. Literary and archaeological evidences point to the continuous prosperity of already established cities like Sravasti, Kausambi, Varanasi and Pataliputra. Remains of a large urban centre have been found out at Khairadih in Uttar Pradesh though its exact identification with an ancient city is yet to be made. A remarkable growth can be marked in the case of Mathura and its nearby site at Sonkh. The area around Mathura enjoyed considerable prominence under the Scytho-Parthian and Kushana rule, especially in the rule of the latter when it served as one of the major centres of the vast Kushana realm. Archaeological materials from layers 23 and 24 at Sonkh (assignable to the Kshtrapa age (1st to 4th century AD) reveal that houses were irregularly placed and streets looked crooked in comparison to earlier periods. Pieces of stones were projected from buildings at street corners probably as a protection from damages by moving vehicle. This may be reasonably interpreted as a sign of greater movements of vehicular traffic. Under the Kushan occupation, regular use of burnt bricks for construction cannot be missed. New fortifications were also raised in Mathura. In sharp contrast to the derogatory remarks about Mathura in the *Anguttaranikaya* (see above), the *Lalitavistara* lauds Mathura as prosperous, extensive, beneficial, for easy availability of alms and teeming population. The *Ramayana* and the *Mahabharata* graphically describe the cities of Ayodhya in Kosala and Indraprastha, the newly founded capital of the Pandavas by burning the Khandava forest tract. In North Bihar, Vaisali (Muzaffarpur) witnessed three successive fortifications between second century BC and second century AD. Urban development can also be noted in Bengal. While the two earlier urban centres at Mahasthan and Bangarh continued to flourish, new urban centres sprang up in the early centuries of the Christian era. The most prominent of these were Mangalkot, Chandraketugarh and Tamluk. Of these Tamluk was the same as the ancient port of

Tamralipta, while Chandraketugarh, a huge archaeological site, is often identified with the port of Gange in the *Periplus* and Ptolemy's *Geography*. Orissa also experienced the growth of a major urban centre in the form of Sisupalgarh, located close to Bhuvaneswar. A massive mud rampart was raised around 200-100 BC and this was further reinforced by brick rivetments. The most important feature of Sisupalgarh was its magnificent gateway complex.

Urban settlements of north India generally share certain common features, as revealed by archaeology. These are usually fortified, occasionally with a rampart or a moat. Several streets are noticeable in urban areas which also bear increasing use of burnt bricks. Seal cutting and bead making industries are abundant in urban areas. The urban centres of north India generally had characteristics which were typical of 'primary' urban centres of the sixth-fifth century BC during the age of *mahajanapadas*. Seen from this angle, the spread of urban centres was modelled more or less on the urban experience in the middle Ganga valley. Hence these had their epicentre in the middle Ganga plains; the later urban centers, therefore, are sometimes regarded as 'secondary' ones, influenced by the formation of 'primary' cities. Most of the urban centres commanded a rich and strong agricultural hinterland from where came the major food supply to the city. Most of the products manufactured and transacted in the city were rooted to agriculture and animal rearing (e.g. textile production, and sugar making craft). H. Sarkar in a masterly study of contemporary cities in Andhra considered urban centres as 'agro cities'. Long distance trade, including trade with the eastern Mediterranean region, was an additional factor to urban growth. But it was not the prime factor for urban proliferation in north India. The city of Mathura was possibly an exception to that. Mathura was not situated in a very flourishing and fertile part. It did not grow profuse paddy. Mathura had actually one outstanding product of its own, i.e. *satika* (a garment, from which the term *sari* is derived). Mathura's prominence as an urban centre cannot be explained in terms of its agrarian hinterland or its diverse crafts. But its location at the convergence of several important overland routes enormously increased its importance. Its role as a nodal point in long-distance trade paved the way for its prosperity as an urban centre. The *Avasyakacurnni* and the *Brihatkalpabhashya* clearly recognise that Mathura's prosperity was rooted not to agriculture but to trade. Many of the urban centres also functioned as major political centres. A recent survey of urban centres of ancient India suggests that several urban areas derived their prominence from being major religious centres. Those urban centres where converged many functions, i.e. political, economic, cultural, were more prominent than the centres which were known for a single function, for example long-distance trade or their administrative importance. The relatively less orthodox social and cultural life in urban centres cannot be missed. In the sculptures of the Gandhara and Mathura school a rich assemblage of diverse dress, decoration, ornaments, hairstyles can be seen. Bacchanalian scenes and depictions of drinking bouts were also not uncommon. Donors at the time of recording their gifts to Buddhist and Jaina monasteries rarely referred to their *varna* status, though *varna* assumes enormous importance in the *Dharmasastras* of Manu and Yajnavalkya. The donors usually recorded their respective occupations. The urban culture, thus, considered occupation as a more important determinant of social status than the orthodox criterion of birth. A marriage between the families of a jeweller and an ironmonger was hardly frowned upon in the urban context of Mathura. In the same city a courtesan could record her lavish donations to the Jaina establishment and also inform that her mother too was a courtesan. In this atmosphere of burgeoning cities it was possible for Caraka, the master physician, to declare that the physician's wealth did not consist merely of the goodwill generated by the relief to his patients, but also by the material wealth and patronage secured by him from kings (*isvara*) and wealthy persons (*vasumantah*).

8.5 SUMMARY

The period spanning from c. 600 BC to AD 300, covering nearly nine centuries, appears to have witnessed considerable commercial activities which often occurred at major urban centres. As towns and cities generally figure as centres of commerce, the study of early trade is connected with that of urban centres. These nine centuries certainly marked brisk trade both within the subcontinent and also beyond. Commercial ventures of merchants are known not only in north India, but also between north India and southern part of India. To this must be added the evidence of external contacts of north India from c. third century BC onwards and especially during the first three centuries of the Christian era. The external contacts of north India usually took place through the northwestern frontier areas, which was well connected by overland routes with Central and West Asia. During the first three centuries of the Christian era there was brisk trade between India and the Roman Empire; north India seems to have derived considerable advantage out of this trade. The deltas of the rivers Indus and the Ganga, respectively on western and eastern flanks of north India, provided important outlets to the sea. The flat plain of north India and the extensive Ganga valley, virtually without any natural barriers, were conducive to movement and communication both by overland and riverine routes. During the first three centuries AD one can observe unmistakable growth both in commercial activities and spurt of urban centres. Urbanisation, as the term suggests, is not merely listing or identifying cities and towns; but it looks into the process of how and why cities grew or declined. In our survey of urban centres from c. 600 BC to AD 300 we have taken into account the growing number of cities in north India and also offered explanations of the reason of the increase of urban centres, especially during the period from 200 BC to AD 300. From c. 600 BC onwards, north India and then gradually the greater parts of India experienced widespread sedentary settlements, territorial polities (mostly monarchical, some non-monarchical), writing of documents, coinage and prosperous city life, new enquiries in religion and philosophy. It signalled a new kind of society and culture which is termed as early historical. The early historical phase followed, but was different from, the pre and proto-historic phases of Indian history.

8.6 GLOSSARY

Achaeminid Empire

Achaeminid or Persian empire, founded by Cyrus the Great in 559 BC, was vastly expanded by Darius I, the greatest ruler of the Achaeminids. The Achaeminid empire covered modern Iran, Iraq, Turkey, Armenia, Israel, Egypt, Turkmenistan and Uzbekistan, and parts of the lower Indus valley. Persepolis, the capital of the empire, was founded by Darius I and destroyed by Alexander the Great.

Attic Tetradrachm

It is a Greek weight standard of 17.06g used by Indo-Greek rulers for issuing silver coins.

Avadana

In Buddhist tradition *Avadana* is a type of literature consisting of stories of the deeds of Buddhist personalities from the past. It is also known as *Apadana*.

Avasyakachurnni

A Jaina text

Bent Bar Coins	A bar like punch marked coin with its two ends bent-up (see illustration on page 89).	Patterns of Trade : North India
<i>Brihatkalpabhasya</i>	A Jaina text	
Coin Hoard	A deposit of old coins buried beneath the soil, when discovered, is called a coin hoard.	
Eastern Mediterranean Areas	The area broadly encompasses Egypt, Greece, Turkey, Israel, and Jordan.	
Han China	The Hans were the contemporaries of the Romans. During the Han period China officially became the Confucian state. The Han ruling line was interrupted by Wan mang during the period from AD 9-23 and known as Hsien dynasty. On account of this interregnum the Han dynasty is divided into two parts Early (Western) Hans with capital at Ch'ang-an (present Xi'an) and Later (Eastern) Han with capital at Loyang. The Western Han rule lasted from BC 202-AD 9. The Eastern Han ruled from AD 25-220.	
Herodotus	He was a Greek by birth. He is accredited with the distinction of being world's first historian. He wrote <i>The Histories</i> . In the book he has described the expansion of the Achaemenid empire under its kings Cyrus the Great, Cambyes and Darius I. It also contains excellent ethnographic descriptions of the people that the Persians had conquered.	
<i>Jatakas</i>	A Pali text about the Buddha in his former births.	
Karakoram	The Karakoram mountain ranges marked the Western end of the Greater Himalayas mountain chain and contain the greatest concentration of high peaks on earth as well as the largest expanse of glacial ice outside the polar regions. The winter snows from these mountains provide the meltwater for the mighty river Indus that cuts through the Karakoram from its source in Tibet. Karakoram pass lies on one of the highest trade routes in the world for Yarkand in Central Asia. The route begins from the Nurbra Valley in Ladakh over the Tulimpati La, and Siser La leading to the pass. The Karakoram Highway in Gilgit, Chilas, etc. have yielded considerable antiquities.	
Kshatrapa	A Saka ruling house having two branches, one ruling from Mathura for sometime and the other ruling in western India till the 4th century AD.	

States flourished during the 6th century BC in north India. *Mahajanapadas* were traditionally 16 in number. Most *mahajanapadas* were monarchical, a few were non-monarchical (*ganarajyas*).

Mesopotamia

Here world's first civilization flourished. Mesopotamia means "the land between two rivers". The name was appropriated because ancient Mesopotamia was located between the Tigris and Euphrates rivers in the present day Middle Eastern country of Iraq.

Oman Peninsula

Surrounded by the Gulf of Oman, the area is 320 km wide. The Gulf of Oman connects Arabian Sea with the Persian Gulf. The north coast is flanked by Iran while the south coast is touched by Oman and in the west is United Arab Emirates.

Parthian Empire

The Parthians defeated Alexander the Great's successors, the Seleucids, conquered most of the Middle East and South-west Asia, and controlled the silk route. The Parthians at one time controlled the areas now in Iran, Iraq, Turkey, Armenia, Georgia, Azerbaidzhan, Turkmenistan, Afghanistan, Tajikistan, Pakistan, Syria, Lebanon, Jordan, Palestine, and Israel.

Rouletted Ware

A wheel turned pottery so named because of concentric rouletting in the middle of the dish/pot found in large numbers of sites close to the east coast of India.

Roman Empire

The mythical founder of Rome was Romulus who founded the city in BC 753. In the beginning the Roman empire was a republic. Julius Caesar (BC 44 d.) was one of the most important military commander of the republican era. Octavian Augustus' (BC 27) rule marks the end of the Roman republic. The Roman empire lasted till AD 312 when their last emperor Constantine got converted to Christianity. Then onwards the empire is known as Holy Roman Empire with Constantinople as its capital.

Scylax of Caryanda

Scylax was an ancient Greek explorer who was a pioneer in geography and the first European observer to give an account of India. Scylax of Caryanda (in Caria, the South West of Modern Turkey incorporated in c 545 B.C. in the ancient Archaeminid Empire as the Satrapy Karka) lived in the time of Darius Hystaspis (521-485 B.C.) who

commissioned him to explore the course of the Indus. He sailed West through the Indian Ocean to the Red Sea. Scylax wrote an account of his exploration referred to by Aristotle in his *Politics*.

Seleucus and Seleucid Empire	Seleucus was the founder of the Seleucid empire (BC 312-65) who ruled over Asia Minor and Syria from BC 312-280. Seleucus accompanied Alexander the Great in his Eastern Campaigns. After Alexander's death he got the Babylonian Satrapy (modern Afghanistan, Iran, Iraq, Syria, Lebanon, and parts of Turkey, Armenia, Turkmenistan, Uzbekistan and Tajikistan) as his share. In 64 BC the Roman general Pompey the Great brought the Seleucid empire to an end.
Silk Road	Traditionally a famous overland route stretching from China in the east to the eastern Mediterranean in the west though Asia and west Asia (see map3).
Stadia	Ancient Greek units of length ranging in value from 607 to 738 feet.
Sumerian Civilisation	The civilization flourished between BC 4000-3000 on the rivers Tigris and Euphrates. It is also known as Mesopotamian civilization. Ancient Sumerians invented wheel and created mathematical symbols. Sumerian civilization was the first to bring writing to the world called 'cuneiform'.

8.7 EXERCISES

- 1) On the basis of the Ashokan edicts and the information provided in the Buddhist sources try to map-out the trading activities during the Mauryan period.
- 2) Compare the ruins of Ataranjikhara with the description of the city of Mathura given in *Anguttara Nikaya*. In your view which city appeared more urban and why?
- 3) Enumerate the importance of the silk route during c. BC 600 to AD 300.
- 4) On the basis of the Sanchi/ Bharahut inscriptions examine the trading activities of the contemporary period.
- 5) Assess the economy of the contemporary period on the basis of the study of the coinage with special reference to the role of the state.

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