SYLLABUS

B. A. FIRST YEAR (DSC I)

DSC-1A: HIST (A) 101

History of India from the Earliest Times up to c. 300 CE

1. a. Sources and interpretation

b. Changing interpretations of early Indian history

c. Survey of Palaeolithic, Mesolithic and Neolithic cultures

II. a. Harappan Civilization: origin, extent; urban features–town planning, economy, society and religion; decline, Chalcolithic culture

b. Vedic culture: polity, economy, society and religion

c. Beginning of the iron *age* and *Megalithic culture*

III. a. Emergence of *Mahajanapadas* (territorial states); *râjyas* and *gaGas*/*saGghas*

b. Magadha expansion

c. Buddhism and Jainism: doctrines; spread

IV. a. The Mauryan empire: state and administration, economy, Ashoka's *Dhamma*, art and architecture

b. Post Mauryan Age with special reference to Sunga, Satavahanas and Kushanas: polity, economy, society, art

c. Sangam Age: polity, economy and society

Essential Readings

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CHAPTER-1
THE SOURCES AND INTERPRETATIONS IN ANCIENT INDIAN HISTORY

Structure

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1.1 Introduction

History is the study of the deeds of human beings which brought the great changes to human life. It studies the various aspects of human life. To know about the history of human life there are various sources. The sources are divided in two parts, primary and secondary. Primary sources are which provide direct information of the past events as Arthsastra, Ashtadhyayi etc. secondary sources are those which are based on the primary sources. There are a large number of sources of ancient Indian history. But there careful use is important as they are filled with some unreliable things but along with this they are full of historical events also. The first chronological history of Indian subcontinent is Rajtarangini of Kalhana.In this unit we will discuss the different types of sources.

1.2 Objective

After reading this unit,you will be able to learn about:

To know about the various types of sources

To know about the various interpretation of ancient Indian history

1.3 Literary/written sources

The literary/written sources to reconstruct Ancient Indian history can be classified among three major categories, (i) Religious, (ii) Secular and (iii) Scientific. It also comprised of some different kinds of sources like (iv) Sangam literature and (v) travelogues of foreign travelers.

1.3.1 Religious sources

Religion was the backbone of society of Ancient World. India was not an exception. Hence, we find large amount of canonical/religious literature of various religions, prevalent in Ancient India. These throw light on the, along with religious, socio-economic aspects and political thought and ideology of the period under study. However, such sources should be used with caution. Because, first of all, most of the religious sources are retained through oral traditions and put into writing, hundreds of years after their actual creation. Besides, 'what-we-have-now' are the editions of actual writings. Secondly, religious literatures were mainly written to provide guidance with an idealist approach. Hence, whatever written is there, is 'dos and don'ts' kind of nature and not 'as-actual'. Sometimes, the body of works like Puranas, though written in 4th century AD onwards, written as if they were created 1000 years before and prophesying something about 1000 years after! Hence, with tools like internal and external criticism, a historian can make use of these sources and reconstruct the history of Ancient India. (a) Vedic/Hindu canonical literature It comprised of sources like four Vedas, Brahmans, Aranyakas, Upanishads, Shad-darshanas, Shad-angas, Sutras, Smritis and Puranas.

(a) Vedas:

The Aryans have created four Vedas; Rig, Yajus, Sam, Atharva. The Vedas (from Vid=to know) were basically compilation of prayers of Aryans for the Gods, which were mainly the powers in nature. According to Aryans, the Vedas were heard (and not created by men), hence these were called 'Shrutis' and 'a-paurusheya (not created by any man)'. The Vedas are also called as

'Samhita'. Rig-Veda: Rig-Veda is the earliest among four Vedas. It is comprised of 10 mandalas and 1028 suktas. These were prayers to the gods like Indra, Varuna, Agni, Parjanya, Vayu, Marut etc. It gives us information regarding socio-economic, religious, political condition of Early Aryans, located in the area of Sapta-Sindhus. For example, the 'Purushsukta' of Its 10th mandala depicts the origin of Varnasystem in India. Yajur-Veda: It comprised the prayers to be recited while performing sacrifices or yadnya. Actually, the major parts of the prayers are borrowed from the Rig-Veda, itself. It has two parts, Shukla and Krishna and six other samhitas. The Vajasaneyi Samhita of Yajurveda throws ample lights on various Vedic sacrifices. Sam-Veda: It comprised the prayers to teach how to recite the prayers while performing sacrifices. Again it comprised the prayers from Rig-Veda, and provided methods to recite them. Hence, it is considered as the origin of Indian classical music. Atharva-Veda: It comprised assorted subjects like magic, black-magic, superstitions etc. We find origins of medicines, botany, and surgery in this Veda. The fours Vedas throw light on life-ways of Vedic Aryans. We come to know that, when the Aryans, initially were settled in Saptasindhu region, their life-style was different. The second to ninth mandala of Rig-Veda tells us about this. But when they migrated to more eastern part of their actual location, and came into contact with other communities, we find drastic changes in their life-ways. The first and 10the mandala of Rig-Veda and other three Vedas inform such change. Hence, to understand Vedic Aryans, we have to think in two parts: Early Vedic and Later Vedic. After Vedas, some other important works were compiled by Vedic Aryans. These were basically created to explain the thoughts and laws in the Vedas: to make them more understandable. Hence, these work as appendices of Vedas and were mostly in prose. These were comprised of, Brahmanas, Aranyakas, Upanishads, Vedangas, Shad-darshanas.

(b) Brahmanas:

The Brahmanas were created to teach the procedure of sacrifices that were compiled in the Vedas. Hence, each Veda has its own Brhamana, e.g. of Rigveda Aitareya Brhamana, of Samveda-JaiminiyaBrahamana, Yajurveda-Shatapath and of Atharvaveda-Gopath. From these Brahmanas, we get information of Vedic Aryans' various institutions, like, four Varnas, four Ashramas, philosophy etc.

(c) Aranyakas

The Aranyakas were created to teach the learning of Vedic religion , especially sacrifices & mystic philosophy into seclusion. Aitareya Aranyaka is meant for RigVeda whereas TaiteriyaAranyaka is for Yajur-Veda.

(d) Upanishads

The word Upanishad means 'to learn, by sitting close to one's teacher'. These were tocreated to teach the learning of Vedic spiritualism , comprising the subject of, like, knowledge of one's self, knowledge of God, relations between self and God, creation of Universe, our place in such a vast Universe, etc. Traditionally there are 108 Upanishads, however, some of the important are, Ken, Kath, Prashna, Aiterya, Chandogya etc. As these come, chronologically, at the end of Vedas, hence, the Upanishads are also known as 'Vedanta'. The basic backbone of Indian religions were based, mostly, on Upanishads, hence, with the help of later, we can understand Indian religions more holistically.

(e) ***Vedanga***

These were created to make Vedas more understandable, as follows: • **Shiksha**: How to pronounce the Vedic prayers in proper manner • **Kalpa**: Rules to perform sacrifice in a proper manner • **Vyakaran:** To know the proper grammar of Sanskrit language • **Nirukta**: Etymology of words, mentioned in the Vedas. • **Chanda**: Various meters in which Vedic shlokas are structured to recite. It comprised of Gayatri meter (chanda), Anushtubha meter (chanda) etc. • **Jyotish** : It deals with proper time (Shakun) on which sacrifices should be performed. It also discusses the subjects of astronomy like Sun, Moon, and constellations and, on cycles of seasons etc.

(f) Shad-darshanas

These works deal with philosophical teaching or aspects in the Vedas. These are six, like, Vaisheshik (Kanad), Nyaya (Kanad), Sankhya (Kapil), Yog (Patanjali), Mimansa (Jaimini), Uttar-mimnsa (Badrayan). These cover topics like the theory, logic, unity of soul with God, atoms, Vedic rituals, structure of universe etc.

(g) Sutras

The 6th century BC was the milestone in the history of India. The period witnessed emergence of early states and growth in economy and coinage. In this period, India went through its second urbanization. This was the period where heterodox religions like Buddhism, Jainism, Ajivakas were grew and developed. They challenged Vedic religion and its shortcomings and provided a strong alternative. Besides, during that period, India was came into closer contacts with foreigners. Such was the period of constant churning and speedy processes. In response to such changes, the custodians of Vedic religion resorted to reconstruct and regulate their religion. Hence, Sutras were created to provide norms, rules and regulation to consolidated Vedic religion. Sutras were compiled around 6th c. BC. These were comprised of three sutras, viz. Dharmsutras, Shrautsutras and Grihyasutras; together they are called as Kalpasutras. They throw ample light on such processes, going through during 6th c. BC.

(h) The Smritis

During the last centuries of BC and first centuries of AD, India again witnessed the period of speedy changes. The economy was flourished, India had great relations with Roman world, Buddhism was at its peak, local dynasties were forming empires: thus no area, be it society or culture, was untouched by such changes. Such was the dynamic and vibrant scenario. Vedic religion, again, felt to reconstruct their religion and thus created the Smritis. The Smritis, like Sutra, are the books of norms, codes, rules, regulations to consolidate and reconstruct Vedic religion. These were written by various scholars, like, Manu, Narad, Parashar, Yadnyavalka etc. Hence, we find many smrities on their name, e.g. Manu-smriti, Narad-smriti etc.

(i) ***Puranas***

Up to 3-4th century AD, Buddhism was its peak. Under Mahayana, the idol of Buddha was started worshipping; and thus, it gained popularity. On the other side, Vedic religion was felt alienated and needed popularity among the masses. It was introspecting and experimenting in its thoughts. As

a result, Vedic religion, for common mass, created a certain kind of literature and, through it, opened the doors of religion to common mass. The genre of literature is called as 'Puranas'. The Puranas are mainly comprised of 18 Puranas and these were classified according to the devotional cults, prevailed in 3rd-4th c. India. For example, the Puranas of Shaiva consisted of Shaiv Puranas, Vayu Puranas, Skanda Puranas; whereas the Vaishnavas venerated Vishnu Purana, Garud Purana, Matsya Purana, Varaha Purana. The Shakti cult (devoted to mother goddesses) and Ganapatya cult also created their own Puranas. Such Puranas have common sections, like, origin of universe, stories regarding respective God and its Family, importance of pilgrim centres and pilgrimages, political dynasties and myths of lineages (vansha and vanshanucharit) etc. Subsequently, other related subjects were also touched in the Puranas, like, iconography, architecture (Vishnudharmottar Purana), medicines, geography, political history etc. In short, to understand India of 3rd to 6th century AD, the Puranas help historians in a large manner.

1.3.2 Buddhist Canonical Literature

Buddhism was the religion of masses; hence, their literature and the language of them were maintained as of the followers. Hence, these are in various languages, like, Prakrit (Pali), Tibetan, Chinese, Sinhali etc. To challenge Vedic religion, these were also written in Sanskrit language. The vast body of Buddhist literature comprised of, mainly, the Pitakas, the Jatakas, etc.

(a) Pitakas

The Pitakas comprised of three compilations, viz. Vinaya, Sutta, Abhidhamma and together they are known as 'Tri-Pitakas. The Vinay- Pitaka was compiled by Upali and comprised of five books. These were basically created to provide codes of conducts for Monasteries, Bhikus, Bhikkunis, their daily routine, ethics etc. It has parts like Sutta-vibhanga (origin of codes regarding Bhikkus), Khandaka (rules regarding entry into monastery and admissions etc) and Parivar.

The Sutta-pitaka compiled by Ananda. These were created to teach Buddha's teaching with examples, parables and lectures. This body of literature is oriented towards common people. The Sutta-Pitaka comprised of five books (nikayas), like Digha-nikay, Mazzim-nikaya, Sanyukta-nikaya, Anguttar-nikaya, Khuddak-nikaya. The Khuddak-nikaya was an important volume consisting of works like, Dhammapada, Suttanipata, Thergatha and Therigatha. Jatakas were also become part of Khuddak-nikaya. The same, i.e. Buddha's teaching is the main theme of Abhidhamma-Pitaka, however, it has a philosophical & scientific form. Obviously, these were meant for Buddhist scholars. It comprised of 'Kathavastu' an important Buddhist book. In, short, these books throw ample light on thoughts and codes-of-conducts of Buddhism.

(b) The Jatakas

The Jatakas are the compilation of the stories regarding previous births of Buddha. To solve the problems of his followers, Buddha devised a beautiful method to tell the stories from his own-experiences that of his previous births, and, the skeptic or problem follower drew answers from these stories. These were the Jatakaas who throw light on India during 6th c. BC.

(c) Dipvamsha and Mahavamsha

These Buddhist works are of Shri Lankan origin. They inform us about Ashokathe Mauryan Emperor and various Buddhist scholars.

(d) Divyavadan

This Buddhist work is of Napali origin. It tells Buddhist stories and throws light on northern dynasties, from Mauryan kings to Shunga period. The Buddhist literature also comprised of other important works, like, MilindPanha (discussion between BhikkuNagsen with Milind (Menander) Buddhist turned Greek king; Ashvaghosha's Buddha-Charit (biography of Buddha); Mahavastu, Lalitvistar, Manjushri Mulkalpa etc.

1.3.3 Jain Canonical Literature

Ancient Jain literature is in various languages, like, Prakrit (Ardhamagadhi, Shaurseni), Tamil, Sanskrit etc. The literature can mainly be classified into two parts, Anga (14) and Agamas (purva). Besides, Chedasutras (6) and Mulsutras (4) are alos important parts of it.

(a) Anga and Agam

These works throw light on the teaching of Mahavir. The Acharang Sutra reflects on codes-of-conducts of Jain monks'; whereas, Bhagavati Sutra throws light on Mahavir's biography and his exploits.

(b) Philosophical

These comprised of Samaysar, Pravachansar etc. These were mainly created by Acharya Kundakunda, reflected upon Jain spiritualism

(c) Puranas

The Jain Puranas were based on the framework of Vedic epics and Puranas; however, with the main content of Jain philosophy. These comprised of Harivamsha purana, Maha-purnana, Padmacharit etc.

(d) Biographies

These were comprised of Bhadrabahu-Charita, Jasahar-chariu, Naykumar-chariu etc. The Bhadrabhau -charita throws light on the events related to Mauryan Emperor Chandragupta and his teacher, Bhadrabhau-Jain Acharya. The Jain literature also comprised of Kathakosh of Harisen, Parishishta-parva of Hemchandra Suri, Dhananjay-mala (thesaurus), Alankar-chintamani (on literature), Mahavir-ganit-sarsamgraha (mathematics), Niti-vakya-mrita of Somdeva (Political Science) etc. (ii) following lines

1.3.4 Secular Literary Sources

India was not totally engulfed itself in religions, as half-learned people may think. It also created a large hoard of secular literature throughout thousand years of its history. A mere cursory glance through it may testify this.

(a) Histories India was not unaware of history-writing. We would understand some regional histories in following lines.

(a) Rajtarangini

This is perceived as the first-book of history of India, as per modern lines of historiography. It is the history of Kashmir, written by Kalhan (born in 1100 AD in Kashmir). He completed this book within two years, during the reign of King Jaysimha of Kashmir. It is in Sankrit, comprising eight Khandas (chapters/volumes) and 7826 sholkas (verses). It gives history of Kashmir from the period of Mahabharata-war up to 12th century AD; however, only from 9th century, a precise history can be seen. Kalhan was an unbiased historian who, for writing history, utilized large body and variety of sources. He undertook field-work and traveledthrough out Kashmir. During his travel, he, not only collected sources but also interviewed local people and collected oral traditions. Thus based on literary sources and oral tradition and through extensive field-work, he wrote 'Rajatrangani'. His work shows his love of Kashmir and respect of his patron king. However, as a historian, he also criticizes the negative-points of his king. The work shows his beautiful narrative-descriptive style, dramatic dialogues, sprinkled with good-advises here and there. Rajatrangini shows importance of sources and variety of them for writing of history. It also stresses the impartiality and unbiased nature of historian. According to Kalhana, ''...Such person (historian) should be praised whose writing abstained itself from any kind of anger-hatred and remained impartial while describing historical events..". Such was the urge of Kalhana and work like Rajtarangini. Hence, it is called as first book of History in India. Apart fromRajtarngini, the 'Rasmala' and 'Kirtikaumudi' (written by Someshvar) inform us about the history of Gujarat during the Chalukya (of Lata) period.

(b) Eulogies

The Eulogies are those works which are created to praise the patron king (and his deeds) by a charan/bhat/poet in the court. Such work, though one-sided, informs us about king, his dynasty and family, his deeds & policies etc.

Vikramank-deva-charit

This eulogy is written by Bilhan who praises the king Vikramaditya (of Chalukya dynasty) and his various deeds.

Gaudavaho

Vakpati wrote this eulogy in praise of Yashovarman's (of Malwa) victory over Bengal (Gaud region).

Harsha-chari

This eulogy was written by Banbhatta in praise of Harshavardhana. Besides, some other notable eulogies comprised of Kumarpala-charit (by Hemchandra), Hammir-mad-mardan (by Jaychand Suri) etc.

The literature comprised of dramas, poetry, epics etc. These are secular kind of literature hence we find factual information regarding society and economy, sometimes polity of specific period. However, these should be used with caution as their purpose was not-to-write-history but to entertain readers.

(c) Epics

Epics comprised of Mahabharata (by Vyasa) and Ramayana (by Valmiki). We get information from these epics of vast areas of interests, like, the movement of Aryans throughout Indian subcontinent, their relations with local or native communities and tribes, their political thoughts, institutions, society, social customs and traditions, forest tribes, economy etc. It also deals with long-term processes like Aryanization of India, inception of Urbanization, conflicts between two modes of economies (Pastoralism and agriculture) etc. In short, to understand India during 8th to 6th century BC, these epics proved to be important source.

(d) Dramas

The 'Sariputta-prakaran' was considered as the first drama, written by Ashvaghosha. Then, one scholar-Bharat wrote his famous 'Natyshastra' on dramatics. Some of the important drams are as follows:

Mudra-rakshas

This is a drama, written by one Vishakhadatta. The drama deals with one incident concerned with Chanakya (the prime minister of Chandragupta Maurya) and Rakshasa (Amatya of Dhanananda). The play gives information on Chankyas politics, espionage and the foundation of Mauryan Empire. His drama 'Devi-chandraguptam' deals with the life of Chandragupta II of Gupta dynasty.

Mrichcha-katika

This drama revolves around the love between one poor Charudatta and beautiful Ganika (prostitute) Vasantasena. It is written by Raja Shudrak which sheds light on economical affluence of ancient India, the prostitutes and respect to them in society, the social structure etc. It also gives passing reference on people's revolt against unjust king.

Malvika-agnimitra

This play was written by Kalidasa, great poet and dramatist during Gupta period. The subject of the drama is the love between one Malvika and Agnimitra, brave king of Shunga dynasty. Kalidasa also wrote beautiful dramas like Vikramorvashiya, Shakuntal etc.

Nanganada, Ratnavali, Priyadarshika

These plays were written by king Harshavardhana. These reflect upon socioeconomic condition and religious outlook during his reign.

Other dramas of importance comprised of Uttar-rama-charit and Malati-madhav of Bhavbhuti, Svapna-vasavdatta of Bhasa, etc.

(e) Poetry

After early centuries of Christian era, and especially during Gupta times, India witnessed growth of classical literature. The 'Raghu-vamsha', 'Kumar-sambhav', 'Riti-samhar' and 'Meghaduta' were the classic creation of Kalidasa. The last two are world-famous and the description of nature and cycles of seasons, written therein reflects, not only the classicality India received at that time, but, the contemporary ecology of that time. Other works of poetry consisted of Dashakumara-charit (Dandi), Kiratarjuniya (Bharavi), Ravan-vadha (Bhatti), Vasavadatta (Subandhu) etc.

(f) Compilations

Some compilations are of worth mentioning regarding secular sources;

Gatha-saptashati

'Haal' the Satavahana king was himself a great man of literature. He collected folk tales/ songs and compiled into 'Gatha-saptashati, a compilation of 700 shortpoems. It has a great literary merit. As a source, it is an impartial source which gives information of common folks during early historic Godavari-valley. It touches, mainly the human relations, various relationships and complexities, the cropping patterns, social structures etc. Then, some other compilations include Brihat-katha (of Gunadhya), Brihatkatha-manjari (of Kshemendra), Panchatantra (of Vishnusharma). These are basically universal stories, told to inculcate ethics and moral values in the hearts and minds of peoples and children, by using imaginary dialogues between trees and animals.

1.3.5 Scientific Treaties

Ancient India was not unaware of scientific attitude. Hence, considerable amount of scientific work were created during that period. The treaties mainly comprised of works on Political sciences and Grammar, however, after early centuries, many scientific works were started showing up on subjects like medical science, agro-irrigation science, mathematics, astrology-astronomy, art-architecture, iconography etc. Especially, Gupta period witnessed the emergence of various sciences.

(a) Arthashastra

This main subject matter of this book is 'Political Science', written by Chanakya/Kautilya, the prime minister in Chandragupta Maurya's court. He definesArthashastra as 'the science to teach how to be benefitted by the power and how to preserve it'. In short, it informs us about methods to acquire power and various types of administrative systems/policies to sustain it. This book is a firsthand document which informs us about the polity and administrative system of Mauryan Empire. As it is an administrative document and especially 'written-for-the-king, it is in courtlanguage, i.e. Sanskrit.

To write this book, Chanakya took review of, pervious researches of 18 scholars on the subjects. The Arthashstra comprised of 15 parts (pradhikaranas), 150 chapters (adhyayas), 180 headings (up-vibhagas) and 6000 verses (Shlokas). The Parts are as follows: 1. Vinaya-dhikar (appointments of ministers) 2. Adhyaksha-prachar (responsibilities of administrator: forts, taxes, weightsmeasure, espionage etc.) 3. Dharmasthiya (Laws regarding marriages) 4. Kantak-shodhan (punishments)5. Yogvritta (duties of servants) 6. Mandal-yoni (External Polices: who are friends and who are enemies) 7. Shada-guna (External Affairs) 8. Vyasana-dhikaraka (how to search for the origin/ cause of problems) 9. Abhiyasytkarma (Preparation before war) 10. Sangramic (war-strategies) 11. Sangha-vritta (how to divide and rule) 12. A-baliyas (how to defend weak state from more powerful enemy) 13. Durga-labhopay (how to capture forts) 14. Aushad-nishadak (various methods to defeat the enemy) 15. Tantra-yukti (the meaning of Arthashastra, i.e. political science) In short Arthashastra have touched upon various matters of state-concerns, like, the integral parts of state system (theory of Saptanga), relations among various states, duties of officers and servants, administrative divisions of Empire, taxation system, laws, foreign affairs etc. Other subjects are also dealt with, like, social conditions in various regions, medicinal plants, mines and the art of mining, cropping pattern, irrigation systems etc. Other political treaties comprised of Niti-sar (by Kamandak), Niti-vakya-mrit (by Somadevsuri).

(b) Ashtadhyayi and Mahabhashya

Ashtadhyayi deals with Grammar, written by Panini. It throws light on socialchurning of 6th century BC, i.e. the period of second urbanization in India. Similar work isMahabhashya, written by Patanjali, informs us about social condition during Early Historic period.

(c) Charak-samhita and Sushrut-samhita

These works inform us about medical sciences during Ancient India and considered as the basis of Ayurveda-branch of medicines.

(d) ***Brihat-samhita***

It is written by Varhamihir and of an encyclopedic nature. It touches various subjects like, crops, cropping pattern, agriculture technology, how to foresee earthquakes, astronomy, astrology etc. It testifies the scientific progress in India during Gupta period. He also has written 'Pancha-siddhantika', concerns with eclipses, path of planets and pace of constellation etc. Other works on astronomy and astrology comprised of Aryabahatiya (by Aryabhatta), Brhama-sphuta-siddhant (by Brahmagupta) etc.

(iv) Sangam Literature

The Sangam literature gives us information regarding early historic and historic Southern India. The Sangam means an assembly. The body of Sangam literature comprised of the poems, presented in three assemblies, by Tamil poets. These poems were actually collected by the poets, from various eco-regions in southern India. Thus, these are basically folk-lore, compiled by urban poets. The important works are Shilappadikaram, Manimekhalai, Pattupattu etc. There are five eco-regions in Tamil-land, called as 'Tinai' and these are five, hence, 'Ain-tinai'. Each 'tinai' has a specific kind of ecology and, naturally, specific kind of response (or mode of subsistence) to their surrounding ecology. Thus, the poems in hilly regions display different subject-matter or surroundings than those were of coastal region. However, these folk-songs were created of two basic themelines, i.e. Love (ekam) and War(puram). Thus, 'waiting on the coast for her lover who was not written from fishing' is a matter of tension in coastal region and 'fear of attacks of wild animals on her lover' is a concern of hilly regions. Such type of literature is mostly a secular one and reflects true nature of common men-women and their life-style. If we look deeply into that, vast hoard of information could come forward of utmost importance, like, ancient ecology, modes of subsistence and methods/techniques to acquire food, forest/sea/plain-products, cropping patterns and their cycle, methods of irrigation, social condition and tensions in social groups, independence of eco-regions and interdependence upon each other whereas on other sides, Tamil polity, kingship and duties of kinds, towns and townadministration, laws, judiciary, city-layouts, internal and external trade etc

(v) Foreign Accounts

After the invasion of Persians and Greeks, India was re-exposed to ancient world. The wars were some incidents; however the process of mobility of people between two counties became a sustainable phenomenon of Ancient India. Such travelers were foreigners hence they had no obligation to any king of the region. Hence, their accounts are impartial and; being 'eye-witness' gives us first hand information on the subjects they touched upon. However, it should be kept in mind that, as they were foreigners and not-rooted in India, it is not possible to expect from them a perfect knowledge of the socio-economic and political thoughts and institutions in India.

(a) The Greeks and Romans

(a) Herodotus

He is considered as first historian of the world. He, while describing the war between Persian and Greece, mention Indian soldiers, fighting along the side of Persians.

(b) Megasthenes

He was the ambassador of Seleucus Nicator, posted in the court of Chandrgupt Maurya. In his work, 'Indica', he gives description of the layout of Pataliputra, like, a big city, with an extent of 14 km x 2 km, fortified with 570 bastions and 67 gateways with one huge royal palace etc. He also touches upon social structure, caste-system, caste-relations etc. It should be noted that the original Indica is lost; hence, we can't use any information, actually written in there. However, thetravelers, who came into India after Megasthenes, have referred Indica and quoted it. Thus, through them i.e. indirectly, we can use 'Indica' as a source.

(c) Peryplus of the Erythraean Sea

This travelogue is an anonymous work, presumed to be written by one fisherman on Egypt coast. The work gives us impartial and objective information on the Indo-Roman trade during Early Historic period. It informs us about the ports on India's coast-line, trade-centres in India, the trade-routes-connecting trade centres and ports, distance between centres, the list of items-of-trade, the annual volume of trade, the rates, types of ships etc.

1.3.8 Chinese Sources

(a) Fa-Hien (Fa Xian) (337-422 AD)

This Chinesetraveler visited India during Gupta period. He was a Buddhist monk, visited India to seek knowledge from Dev-bhumi (i.e. India) and visit Buddhist pilgrimage centres. On the basis of his three years of travel, he has written, in his chronicle 'Records of Buddhistic Kingdoms', on society and culture of North India, besides, various factors in Gupta administration

(b) Hiuen-Tsiang (Xuan Zang) (602-664 AD)

This Chinese Buddhist monk, against all odds, visited India during Harshavardhana's reign. He started his journey in 629 AD, from Gansu, and then through, Gobi Desert-Kyrgyzstan-Uzbekistan-Samarkand-Balkh came to India in 630 AD. He visited Buddhist pilgrimage centres, stayed at Nalanda University and studied Buddhism, gone through original Buddhist works, collected original manuscripts and mementos, made copies, attended Harsha's assembly and after 15 years of travel throughout India, returned to China in 645 AD. In China he wrote his account as 'Si-Yu-Ki' (Great Tang Records on the Western Regions). This chronicle give vivid description of what he had witnessed in India. He gives information of kings especially Harsha and his generosity, people and customs of various regions in India, life-ways etc. He has written of habits and nature of Maharashtrian people. Other chronicles consists of Taranath's (Tibetan Buddhist monk) Kangyur and Tangyur, reflect upon early Medieval India.

1.4 Material /Archaeological sources

The Material/Archaeological sources comprised of (i) Inscriptions, (ii) Coins, (iii) Ancient Monuments, (iv) Sculptures & Paintings and (v) Archaeological Remains

(a) Inscriptions

After contact between Persian and India, India came to know the importance of 'art-in-stone. Being a stable material, stones were being used for engraving king's orders, policies, outlooks to public them and kept them for time immemorial. These were also used for issuing land-grants to the grantee. With same notion, court-poets also engraved eulogies by using such material to make it immortal. These are generally called inscriptions and written, either on rock or pillar. These are called Epigraphs or edicts. The earliest epigraphs in India are those of Ashoka, the Mauryan Empire. He, to propagate his dhamma and policies, issued 14 edicts. These were inscribed on rocks, e.g. Junagadh (Gujarat). Besides, he put up pillars in public places or places where people can gather easily; and, inscribed them. To help people to read these commands, he, categorically, inscribed them into the language and script of common people, i.e. Brahmi (script) and Parkrit (language). The edicts in North-western India had Kharoshtri script, known to local people of that area. These Ashokan epigraphs (rock-edicts and pillar-edicts) inform us, near about biography of Ashoka, like, his early days, his gruesome war with Kalinga and his remorse, his conversion to Buddhism, his dhamma, his compassionate attitude towards other religion and the same expectations from his subjects, his methods of propagation, stress on moralityethics-civic sense and universal values etc. Other inscriptions of importance comprised of • Naganika's inscription at Nangeghat which gives information of various sacrifices, performed by Satavahana King Satakarni I and his deeds • GautamiBalashri's and YadnyaSatkarani's inscription at Nasik caves which give information on the adventures of GautamiputraSatkarni, the great Satavahana king. • Kharvela's inscription at Hathigumpa tells his deeds. • Harisena's inscription (eulogy) on the pillar of Allahabad (called as 'Prayagprashasti), informing us about adventures and campaigns of Samudragupta, great Gupta emperor. • Ravikirti's eulogy at Aihole informs us about adventures of Pulkeshi II, the Chalukya king of Badami. So far the epigraphs for 'land-grants' are concerned; we find lots of information in there. Like, the king or issuing authority, his lineages, mythical origins of his dynasty, his kingdom and its extent, then; the origin/gotra of grantee; then; purpose of grant, the extents and limits of granted land, list of rights and privileges to the grantee, punishments to the trespassers or violators of the grant etc.Such epigraphs, along with the king's biographical sketch, as immovable, also inform us about the extent of the kingdom of the issuer.

(b) Copper-plates

Generally for 'land-grants' the copper-plates were engraved and issued to the grantee. These are basically three plates of copper, tied with each other through copper knot. The upper and last portions are left un-engraved as these can be blurred with ravages of time. Such copper-plate reveals the same information that is in the land-grants, engraved as epigraphs. Such copper-plates give information on socio-economic condition of that period. For example the 'Sauhagaura-copper plate' informs us about severed drau ght and the measures undertaken by authorities to tackle the problem of food-shortage.

(c) Coins

Since 6th century B.C, we receive information regarding coins in India. Basically the earliest were crude and of puch-marked silver coins.

Punch-Marked Coins

Then, after the stability of foreigners in India like Greek, Kushanas, Parthian, round, cast-coins with bust of kings-Deities, their titles etc. With their influence, Indian dynasties also came up with developed coins. However, those were the Guptas who came up with fully developed coins. We find such ancient coins, generally by accidents; or through gifts. Such coins help us to reconstruct our Ancient History through many ways, like, • Coins inform us about such dynasties and kings which missed place in literary sources. • The metal used in them informs us about ancient metallurgy. • The proportion of pure metal in the coins of 'claimed metal' informs us about economical condition of issuing dynasty. For example, the gold-coins of Kushanas and Guptas are true to their 'claim' and show higher proportion of gold in them; whereas, the proportion is minimal or more-or-less absent in later Gupta rulers. This shows the growth of Indian economy since Kushanas to Gupta period and dwindling during later Gupta period.

Coins inform us the economic relationship among people. For example, the discovery of northern punch-marked-coins in Deccan indicated relationships between north and south India. The same is true when we find Roman coins in Deccan during Satavahana period and Satavahana coins in Mediterranean world. • Religious symbols or figures of deities on coins inform us about religious outlook of issuing dynasties. For example, Krishna and Balarama in the coins of Agathocles' indicated compassionate attitude of that Greek king. The symbols related to Vishnu on Gupta coins like Garuda-dhvaja indicates their belief on Vaishnavism. The titles also tell us about their religious attitude, e.g. titles of Guptas like Param-vaishnava, param-bhagavat indicate their inclination towards Vaishnavism. Samudragupta withGarud-dhvaja • Coins also reflect king's personality, his interests etc. For example, the lionslayer image of Chandragupta II indicates his braveness; the harp-in-hand image of Samudragupta indicates his love for art. • Some coins also have years, engraved on them. It helps to date the issuers. • The coins also help for relative dating. For example, in archaeological excavations, if we find coins in one specific stratum then that stratum is relatively dated to the period of that coin.

(iii) Ancient Architecture/Monuments

Earlier, during Stone Age, people took shelters in caves. However, the invention of agriculture compelled them to reside on plains. Thus, the houses get started from Neolithic period. Initially, those were made from perishable materials like wood and grass, hence, except post-holes, we find nothing of that. The scenario changed when burnt-bricks were started utilizing for constructing houses or public architecture or so-called Ancient Monuments. This can be witnessed from Chalcolithic period. Since then, India witnessed developments and variations in material, as well as, types of construction, public/civic and individual. These, broadly, can be classified into Secular and Religious architecture. So, let us, at first, look at the secular architecture in Ancient India.

(a) Secular Architecture/monuments

So far the public and secular architecture is concerned; first instances were brought from western and north-western India that is of Harappan civilization of Chalcolithic period. During Harappan civilization, India went through its first urbanization. Hence, public/civic architecture of utmost importance was dotted these cities. These comprised of, long-wide roads, huge bathing places, tanks, religious places, granaries/warehouses, thrashing floors, dock-yards, man-made ports, sanitary arrangements like bathrooms and gutters, stadium, pavilion, palaces, fortification, bastion etc. The site of Inamgaon, during Chalcolithic period, also came up with a large bund and canal. Then, inMaurayan and post-Mauryan period, we find, large fortification (Pataliputra), palaces (Pataliputra), stadiums (Nagarjunkonda), flight of steps to the rivers (Nagarjunkonda) etc. The remains of houses also give information on the standard-of-life and livingcondition of that period. It also throws light on civic sense, personal hygiene of concerned people. Such sources give us information on socio-economic condition, the role of polity, defensive strategies, water-management, civic sense, life-style of the people of concern period.

(b) Religious Monuments

The religious monuments started showing up from Mauryan period. It started with the caves of Ajivakas (at Barabar and Nagarujuni hills: Bihar), then, we find large number of Buddhist monuments in India. Then, since Gupta period, we find the beginning, growth and classicality in Hindu monuments in India.

(c) Buddhist Stupas, Chaityas, Viharas

Since early historic period, India was dotted with Buddhist Stupas, Chaityas and Viharas. At the outset, the construction began in Northern India; then through Gujarat, percolated to Maharashtra; and through Orissa, came to Andhra Pradesh. The Stupas were created on the physical remains or used-equipments of Buddha or noteworthy Buddhist monks. These stupas were surrounded by beautifully decorative Gate-ways (torana), e.g. stupas at Sanchi, Barhut (Madhya Pradesh); Amaravati (Andhra Pradesh); Pauni, Kolhapur (Maharashtra); Sannati (Karnataka).

The Chaityas are Buddhist chapels/temples; where Buddha was worshipped in the symbolic form of Stupa at the end of Chaityas. Except one at Bairat, the Chaityas were created in the caves; e.g. Chaityas at Bhaje (the earliest of them), Bedasa, Karle. The Viharas are the residential place of Buddhist monks, where a large space is surrounded by rooms along all its three sides. Similar to Chaityas, these were also hewn in rock, e.g. Viharas at Kanheri, Nasik, Junnar etc. After some centuries and under the influence of Ma**h**ayana cult, the stupa in Chaitya replaced by idol of Buddha and Chaityas were combined with Viharas. This development can be witnessed in Ajanta. These Buddhist shrines give lot of information regarding various areas; like, the development of religious thought and ideology, its spread in various regions, influence from other religions, its influence on other cults, the monastery (Sangha), relations between monastery and traders, stylistic evolution and growth of art etc. Besides, the decorative motives on the gateways give us idea of public/individual architecture, flora-fauna, artistic styles of concerned period etc.

(d) Hindu Temples

Since Gupta period we witness beginning of separate temple architecture. Initially, drawing influence form Buddhist cave art, these were started in caves. However, to congregate large masses, these descended on plains. The first experiment in separate-temple architecture can be seen in modest temple No. 7, at Sanchi. It only comprises two parts, garbhagriha (sanctum) and mukhamandapa (frontal space). Then, through Tigava, Nachana and Devgadh (all in Madhya Pradesh), a complete temple with 'garbhagriha-enclosed path of pradakshina-mukhmandapa at three sides and pier' emerged; and that is with beautiful sculptures. The treatment to the Shikhara was to maintain it high, hence, it got narrower to the top. Hence, when a viewer looks at the temple his gaze goes straight, from base to top. Such style is called as 'Nagara style'. However, in Deccan and South India, the progress was different. At the outset, Chalukyas experimented in Temple architecture, from rock-cut temples (Badami) to separate temples (Pattadakal and Aihole). Near about same time, Pallavas, created temples in rock-cut fashion (the 'Ratha Temples at Mahabalipuram). Then, Cholas came up with huge temples. Drawing from these experiments, the Rashtrakutas undertook an experiment of beautiful temple; however, in rock-cut fashion. That is Kailasa temple of Ellora. These temples in Deccan and South India generally use stone-slabs; placing upon each other for the Shikharas. Hence, the Shikhara looks steps-like, presenting squat impression. Such, architectural style is known as 'Dravida style'. After such experimentation, large temples, beautified with sculptures started dotting whole of India. After 6th-7th century AD, growth of regionalism paved way of emergence of regional styles in temple architecture. Thus, within short period of time, India became abode of temples with beautiful sculptures on their walls and complex plan plus designs. Such Ancient monuments are the mute but objective source of Ancient Indian history. They help us to understand the growth of religion as well as ideology of religions. It also informs us about the exchange and influence of ideas among various belief systems. It also give us idea of changes, growth of artistic styles and influences they draw on them. It also tells us the nature of patronage and the role of temples in political economy of the concerned period.

(iv) Sculptures & Paintings

Sculptures:

Since Harappan period we find evidences of sculptures in India. These were made of various materials, like, stone, steatite, clay, terracotta, lime, bronze, ivory, wood etc. Some of them got place in shrine and became idol or icon. Some of them were made to beautify the walls of temples. Some of them were individual sculpture, made for various purposes, like as toys and for entertainments. The bronze statues of dancer (Harappan civilization) and toys (Diamabad) during Chalcolithic period show artistic merit, as well as expertise in metallurgy of India. Various other statues of the same periods indicate place of entertainment, hairstyles, ornaments and costume of Harappans. Same is true with terracotta toys, belonged to Shunga period. The Mauryan sculptures, like, the Yakshi of Didarganj indicate the contemporary affluence and aesthetic sense of people. The sculptural-reliefs on the gateways of stupas (Sanchi, Barhut), not only display growth of Buddhist ideology, but also of various other things like flora, fauna, civic architecture etc.

The statue of Kanishka indicates the foreign origin of the king and costume of foreign style, like, high shoes, overcoats etc. Bronze statue of Poseidon and relieves on plates/mirror-handles (Kolhapur) indicate trade relationship between Kolhapur and Rome during Satavahana period. The same is true by finding of ivory figure of Laxmi of Ter in the site of Pompeii (in Rome). Gupta sculptures indicate high artistic merit India achieved during that period. At this time, the science of sculptures had attained perfection and classicality. Hence, after Gupta period, the sculptures were made on the same models, that were determined during Gupta period. Whereas, the development of icon/idols (individual sculptures for worship) regarding their poses and weapons they carry, indicate, development of religious ideology and influence they draw from various sources. These also indicate synchronization of various cults. A separate branch as 'Iconography' studies such developments.

Paintings

Earliest instances of paintings can be found in the rock-shelters of Bhimbetaka (Madhya Pradesh). These were drawn by Mesolithic cave-dwellers by using colours and tools from his surrounding nature. Through these rock-paintings we can understand the life-style of Mesolithic people; like, his way of living, methods of hunting, the flora and fauna in his surrounding etc. Then, we find beautiful paintings, especially from Ajanta and then at Bagh. The world-famous paintings of Ajanta give us information about religious ideology, the spiritual serenity, the ornaments, the costumes, the foreign visitors etc. And of course, through these paintings, we can understand the artistic merit and great esthetic sense of concerned period. Whereas, the paintings of Chola king on the walls of temples at Tamil Nadu, display the concept of 'divine kingship' of Chola polity.

(v) Archaeological Remains

People settles-people live-create institutions and physical structure and in some unfavorable condition leave the place. The place gets abandoned with material remains that people have left behind-unintentionally. Then, by the environmental agents like wind, soil, rain, a heap of soil gets accumulated on that place. Then, again the nex t5rtrt group of people settles over there. Then, the same cycle continues. Thus, after sequence of repeated settlements and abandoning, a heap of soil forms over that place. Such heaps are called as 'archaeological mounds', hiding in its belly the history of mankind. Then some certain kind of historians, called as archeologists unearthed these mounds, called as an excavation. Through excavation, archaeologists exposed the hidden history of that specific settlement. The archaeological material they unearthed can be used as sources for the reconstruction of history of that particular settlement. The material helps us to reconstruct history of: those common people who were disregarded by the written source; those periods before the discovery of writing; to supplement the history, reconstructed by written sources. Following is a brief list of archaeological material that can be used as source:

(i) Pottery

During Protohistory up to Early Medieval period, the base equipment of the common people was the pottery. The Pottery or 'ceramic assemblage' comprised of various items, like, bowls, plates, pots, etc. It should be noted the pottery gets differentiated according to respective culture that created them. The difference lies in shapes, fabrics, surface-treatment (fabric, colour, designs, painting), pottery-makingtechnique etc. Thus, specific pottery-type is assigned to particular culture/period. With such logic, archaeologist can date the site relatively on the basis of these differences. Hence, pottery is considered as alphabet of that site.

(i) Beads

Since time-immemorial the bead-industry is one of the world-famous industries of India. These were made of various materials, like, stone, semi-precious stones (like Agate, Chalcedony, Crystal, Turquoise, Lapis-lazuli), glass, metals like gold, copper; terra cotta, ivory, shell etc. Besides, those were of different shapes like round, square, cylindrical, barrel-shaped etc. The technology was so higher that we have achieved the technique of making beads, inlaying other metal into them. These can be used as source to know the technological development &esthetic sense of specific period.

(i) Faunal Remains/Bones

Excavations reveal large amount of bones or faunal remains. These shed light on the surrounding historical ecology or ecosystem of that particular site. Besides, we can also understand the dietary habits of concerned people.

(i) Floral Remains

The floral remains are also give us information on the surrounding historical ecology and dietary habits of concerned people.

(ii) Foundations of architecture

During horizontal excavations, we come across foundation of architecture of related period. The architecture comprised of civic architecture like huts, houses, palaces, stadiums, assembly-halls, bath-rooms, ware-houses, activity areas like kitchen-bedrooms-hall-verandah-thrashing floors; roads, system of sanitation, watersource, etc. On these bases and the layout of sites we can know the standard-of-living of the people, besides, the spatial distribution in the area indicates the social division of particular period, if any. The structures like bunds/docks throw light on the economy and technological development, attained by these people. Whereas; defensive architectures, like fortification, bastion, moats indicate the affluence of that particular site and quantum of threat to that site.

(i) Domestic Material

The excavations reveal a hoard of domestic items, like, kitchen equipment (pots, hearth, spatula, querns etc.), ornaments, items of entertainment like toys; etc. These were made of various materials, like, stone, clays, terra-cotta, metal, shell, ivory etc.

(i) Occupational Material

The occupation material comprised of agricultural equipments (hoe, plough, fishing-equipments (hook, net), trade-equipments (weights & measures, seals and sealing, coins). These were also made of various material, like, stone, clay, terracotta, metal etc.

(i) Charcoal

The Excavation unearths burnt-organic material of any kind. These are called as 'Charcoal'. Such charcoal, in specific amount and through laboratory tastes, could be used for dating the period, called as 'Carbon-14'.

Historical Analysis And Interpretation

One of the most common problems in helping students to become thoughtful readers of historical narrative is the compulsion students feel to find the one right answer, the one essential fact, the one authoritative interpretation. "Am I on the right track?" "Is this what you want?" they ask. Or, worse yet, they rush to closure, reporting back as self-evident truths the facts or conclusions presented in the document or text. These problems are deeply rooted in the conventional ways in which textbooks have presented history: a succession of facts marching straight to a settled outcome. To overcome these problems requires the use of more than a single source: of history books other than textbooks and of a rich variety of historical documents and artifacts that present alternative voices, accounts, and interpretations or perspectives on the past. Students need to realize that historians may differ on the facts they incorporate in the development of their narratives and disagree as well on how those facts are to be interpreted. Thus, "history" is usually taken to mean what happened in the past; but written history is a dialogue among historians, not only about what happened but about why and how events unfolded. The study of history is not only remembering answers. It requires following and evaluating arguments and arriving at usable, even if tentative, conclusions based on the available evidence. To engage in historical analysis and interpretation students must draw upon their skills of historical comprehension. In fact, there is no sharp line separating the two categories. Certain of the skills involved in comprehension overlap the skills involved in analysis and are essential to it. For example, identifying the author or source of a historical document or narrative and assessing its credibility (comprehension) is prerequisite to comparing competing historical narratives (analysis). Analysis builds upon the skills of comprehension; it obliges the student to assess the evidence on which the historian has drawn and determine the soundness of interpretations created from that evidence. It goes without saying that in acquiring these analytical skills students must develop the ability to differentiate between expressions of opinion, no matter how passionately delivered, and informed hypotheses grounded in historical evidence. Well-written historical narrative has the power to promote students' analysis of historical causality–of how change occurs in society, of how human intentions matter, and how ends are influenced by the means of carrying them out, in what has been called the tangle of process and outcomes. Few challenges can be more fascinating to students than unraveling the often dramatic complications of cause. And nothing is more dangerous than a simple, monocausal explanation of past experiences and present problems. Finally, well-written historical narratives can also alert students to the traps of lineality and inevitability. Students must understand the relevance of the past to their own times, but they need also to avoid the trap of lineality, of drawing straight lines between past and present, as though earlier movements were being propelled teleologically toward some rendezvous with destiny in the late 20th century. A related trap is that of thinking that events have unfolded inevitably–that the way things are is the way they had to be, and thus that individuals lack free will and the capacity for making choices. Unless students can conceive that history could have turned out differently, they may unconsciously accept the notion that the future is also inevitable or predetermined, and that human agency and individual action count for nothing. No attitude is more likely to feed civic apathy, cynicism, and resignation–precisely what we hope the study of history will fend off. Whether in dealing with the main narrative or with a topic in depth, we must always try, in one historian's words, to "restore to the past the options it once had".

1.5 Changing Interpretations of early Indian History

Despite the stereotypes of 'unchanging India' and her 'unhistorical' religions and peoples, the historical writing on ancient India goes back for more than two centuries and exhibits an instructive series of changes in interpretation. The historical writings produced by European scholars, beginning in the eighteenth century, were formulated in terms of the ideological attitudes then dominant in Europe, and naturally these were significantly different from the indigenous tradition of ancient India. European ideologies entailed a set of attitudes toward India which were for the most part highly critical, though there were also some sympathetic historians. These ideologies continued to be influential even after Indian scholars began to write, since they often wrote in reply to earlier interpretations and were therefore still moulded by them. It has been only in recent years that the influence of ideologies on the interpretation of Indian history has been recognized; perhaps now for the first time a history of the changing interpretations of ancient India can be written. India was by no means a country unknown to Europe. In the post-Renaissance period knowledge of and familiarity with things Indian grew with the visits of merchants, ambassadors, and missionaries from various parts of Europe to the Indian sub-continent. The accounts written by some of these visitors-such as those of Sir Thomas Roe, the ambassador of James I to the Mughal court of the emperor Jahangir,1 or Francois Bernier who visited India in 1668 and was associated with the court of Louis XIV2-became the basic European source of information on India in the seventeenth and eighteenth centuries. Some of these accounts were fairly reliable; others were a mixture of observation and a large amount of fantasy.

Described as the Orientalists or Indologists.3 This study arose principally because the East India Company required that its officers, in order to administer properly the territories which it had acquired, become familiar with the laws, habits and history of the people they were governing. Thus William Jones as a judge in the Presidency of Bengal was able to devote time to the study of Sanskrit and philology of the Indo-European languages and to work on the pre-British legal systems. Nevertheless, scholars such as William Jones, Charles Wilkins, H.T. Colebrooke, and H.H. Wilson did also have a genuine interest in the culture of India and would probably have sustained this interest without the incentive of being administrators in India. Because of this their work took them beyond the codification of laws and into the realms of classical Sanskrit literature and the study of religion and philosophy. In order to encourage this research and provide a focus for it, the Asiatic Society was founded in 1784. By the middle of the nineteenth century Orientalists were no longer merely the people who had direct contact with India through the East India Company. Interest in the ancient past of India had by then spread to a number of universities in Europe, with scholars working on Sanskrit and related subjects. Some of the best known of such so-called Orientalists and Indologists had never even visited India, a case in point being Max Muller. For the Orientalists, the most significant discovery was that of the relationship between Sanskrit and certain European languages, which led to subsequent work on the common Indo-European heritage. The ancient Indian past was seen almost as a lost wing of early European culture, and the Aryans of India were regarded as the nearest intellectual relatives of the Europeans. There was an emphasis on the study of Sanskrit, since it was believed to belong to a period earlier than that of Greek and thus to be in a purer state of

preservation; it therefore provided a better understanding of all Indo-European languages. A sharp distinction was made between the speakers of Aryan and non-Aryan languages in the sub-continent, and a variety of noble virtues were attributed to the Aryans. This, incidentally, strengthened the indigenous tradition of acclaiming the Sanskritic traits of Indian culture, and not surprisingly the writings of the Orientalists are frequently quoted by members of various nineteenth century socio-religious reform movements such 3 as the Arya Samaj. The heritage of Sanskrit literature was the emphasis upon a totally different set of Values from those current in Europe. As Max Muller put it: 'not the active, combative and Acquisitive, but the passive, meditative and reflective.'

The Indian past was seen as an unchanging society where the village community was the idyllic centre of Indian life and was, in fact, the natural background for the qualities of gentleness, passivity, truthfulness, and other worldliness qualities associated by Westerners with Indians. If the Orientalists tended to exaggerate the virtues they saw in Indian society, it was in part because they were searching for a distant Utopia to escape from the bewildering changes taking place in nineteenth century Europe, and in part to counteract the highly critical attitudes current among Utilitarian thinkers in Britain, from whose ranks came more influential writing on India. No sustained attempt was made to place the source material in the context of its contemporary background. The sources, particularly those in Sanskrit, were in the main the works of the brahmans, as keepers of the ancient classical tradition, and expressed the brahmanical Weltanschauung. The fact that these were texts emanating from and relating to a particular segment of society was often overlooked, though in fairness to the Orientalists it must be said that the critical and analytical study of literature from other classical cultures was still in its infancy. The reliance on 'pandits', those learned in Sanskrit and supposedly the guardians of the ancient tradition, was not the most reliable—although undoubtedly the most convenient—access to ancient history. Many of the contemporary ideological prejudices of the pandits were often incorporated into what was believed to be the iparticularly the section of it which was concerned with the law-books and legal codes, the dharmasastras. It was largely due to the enthusiasm of the Orientalists that translations of Indian literature and of philosophical works became popular with intellectuals in Europe and even America. As early as 1791 Thomas Jefferson, who had known William Jones in Paris, sent a copy of Kalidasa's play Shakuntala (which had been recently translated into English by Jones) to his daughter, to introduce her to classical Indian literature which he so greatly admired in what was available in translation at the time. The admiration of 4 the poets of the German Romantic movement was even greater, as is evident from the remarks of Frederick Schlegel. Goethe's eulogy on Shakuntala can hardly bear quoting again, it is quoted so often. Schopenhauer's interest in the philosophy of the Upanisads is equally well known. Much of this enthusiasm was, however, limited to literary circles and did not make the required impact on historians. Philosophers of history such as Hegel took little j notice of this literature. The first important history of India did not come from the Orientalists, but from a totally different source. In 1817, James Mill published his History of British India, a lengthy work divided into three major sections: Hindu civilization, Muslim civilization and the British period. For Mill the principal value of a culture was the degree to which it contributed to the furtherance of rationalism and individualism. He saw neither of these two values in Hindu civilization and therefore condemned it severely. He

was unwilling to make any of the concessions which the Orientalists had made and continued to make. He also maintained that Indian society had remained substantially unchanged from the period of its origin, the coming of the Aryans, until the arrival of the British. Furthermore, Indian civilization showed no great concern for political values, for the Indian people had been ruled by a series of despotic and tyrannical rulers until the coming of the British. His division of Indian history into three periods—the Hindu, the Muslim and the British—became the accepted periodization of Indian history and has remained so, with marginal modification, to the present day.6 Mill was a firm believer in the Utilitarian principle that legislation can improve society. In the Indian context this belief implied that British administrators in applying legislation could change India from a traditional, unchanging society to a progressive and dynamic society, 'tradition' and 'progress' being defined in Utilitarian terms. That the new legislation was totally without roots in the Indian social system and would be regarded as an imposition; did not unduly disturb Mill. Mill's history became the standard work tm India and remained so for many decades. Even H.H. Wilson, who was generally much more sympathetic to the early period of Indian history, was content? to add a critical commentary in the form of footnotes to a later edition of Mill's History and did not think it necessary to write a fresh work contradicting some of Mill's out-of-date statements. Mill was a radical in the British context, and, as was the case with quite a few other radicals of this period, he tended to exaggerate the conservatism and backwardness of India in order to accentuate his own radicalism. The Utilitarians were not the only group who saw pre-British Indian history as being almost totally without virtue. A similar position had been taken by the Evangelicals, as for example in the writings of Charles Grant, although their motives for this position were different from those of the Utilitarians. Whereas Mill was concerned with changing India through legislation, the Evangelicals wished to do it through conversion to Christianity. Not unexpectedly, the Evangelicals concentrated on trying to prove that the essential backwardness of India, as they saw it, was due to the Hindu religion. Mill's assertion that the Indian past had been that of an unchanging, static society dominated by despotic rulers was reflected in various philosophies of history current in the nineteenth century. The most influential of these with respect to Indian history were the works of Hegel.8 For Hegel, of course, true history involved dialectical change and development. Indian history remained stationary and fixed and therefore outside the stream of world history. The basis of Indian society was the immutable pattern of the Indian village, inhabited by a people totally unconcerned with political relationships. This permitted not only despotic rulers but also frequent conquests and continual subjugation. The static character of Indian society with its concomitant despotic rulers became an accepted truth of Indian history. The concept of Oriental Despotism began to take shape. This concept was not new to European thinking on Asia. Its roots can perhaps be traced to the writings of Herodotus, to the Greco-Persian antagonism in the ancient world, and to the pronouncements Aristotle on the nature of kingship and political systems in Asia. It was taken up and developed into a political theory by Montesquieu in L'Esprit des lois, and this theory was debated y the French physiocrats and by Voltaire, who found it unacceptable. But the concept became established in the nineteenth century when it was introduced into various philosophies of history and was thus given intellectual legitimacy. In the case of India the primary reason given for the rise of Oriental Despotism was the belief that there was no private property in land in pre-British

India. This belief was based on a misunderstanding of the agrarian system of the Mughal empire by both Thomas Roe and Francois Bernier.' Hegel's philosophy of history influenced yet another interpretation of Indian history. Christian Lassen, writing in the mid-nineteenth century, applied the dialectic of thesis, antithesis, and synthesis—applied by Hegel to the phases of Greek, Roman and Christian civilization in Europe—to India, where the three phases became Hindu, Muslim and Christian civilization. Lassen tried in this way to connect Indian history with the general stream of world history in the common synthesis of Christian civilization. In addition, this idea further strengthened Mill's original periodization. In spite of applying the Hegelian dialectic to his interpretation of Indian history, Lassen was unable to refute Hegel's assumption concerning the unchanging nature of India's past. This assumption was taken up by Marx and worked into the thesis on the Asiatic Mode of Production: Marx used as sources the information supplied by administrators and other officers employed by the British Indian government and the Parliamentary Reports. Unfortunately neither he nor Engels worked on this theory in great detail; the Asiatic Mode of Production was marginal to their main concern, which was the dialectic of European history. The sources were not only scanty but also not altogether reliable, since many of the administrators had preconceived ideas about the Indian past based on the writings of James Mill, Richard Jones, and others which were prescribed texts at Haileybury College and other such institutions where these administrators were trained. The characteristics of the Asiatic Mode of Production were: the absence of privately owned land, since all land was state-owned; the predominantly village economy, the occasional town functioning more as a military camp than as a commercial centre; the nearly self-sufficient nature of this village economy with each isolated village meeting its agricultural needs and manufacturing essentail goods; the lack of much surplus for exchange after the collection of a large percentage of the surplus by the State; the complete subjugation of the village communities to the State, made possible by state control of major public works, most importantly irrigation. The extraction of a maximum percentage of the surplus from the village communities enabled the despotic ruler to live in considerable luxury. The emphasis on village communities and despotic rulers continued to haunt the writing of Indian history in the late nineteenth and early twentieth centuries. Many of the historians of this period were administrators who were convinced that the pattern of British administration was acting as a catalyst in changing Indian society for the better.Source material pertaining to the ancient period of Indian history was now interpreted to fit these preconceptions, as, for example, in the writings of Henry Maine on ancient law and on early village communities in India. In analyzing the reasons for the static quality of Indian society, historians generally criticized the. institution of caste. The theoretical ideal of the caste system as a rigid social system, as implied in the ancient law-books, dharmasastras, was accepted as an actual description of a caste society, in spite of the fact that many of these writers were intimately concerned with rural administration, where discrepancies between the theoretical description of the caste system and its actual working were obvious. The disinclination to look for change in the Indian past was also strengthened by the thinking of social and cultural evolutionists, for whom unfamiliar societies were rejects of the linear movement toward progress. Attempts were therefore made to fit Indian society into the uniform scheme of evolution which .was current in the late nineteenth century. Obviously, it would be easier to fit an atypical society into such a scheme if it could be assumed

that such a society had always been static. An interesting contrast to British historiography of India can be seen in German and French writing on India. These scholars were not writing under the shadow of administrative duties and governmental policy, and their comprehension of the Indian past was significantly different. The keynote to this understanding was struck by Auguste Comte, who was generally sympathetic to the early Indian tradition partially due to the influence of the Orientalists but also due to the interest of French and German sociological thought in the nature of industrialization and its relation to social organization. One expression of this interest was the study of societies with an ideological base believed to be totally different from that of contemporary Europe, exemplified by Max Weber's work on India.16 The culmination of this avenue of thought can be seen in the presuppositions of a recent French study of Indian society and culture, Louis Dumont's Homo Hierarchicus. Dumont maintains that the basic misunderstanding of Indian culture arose from the fact that an essentially hierarchically ordered culture was studied by persons committed to an egalitarian ordering of society, who were consequently unable to comprehend the society they were studying. Dumont's contention is open to question. What is interesting, however, is that this kind of conceptual framework for the study of Indian culture and history did not emerge from British writing on early India. Not only was British sociological thinking different, but in the specific case of India the exigencies of administration impinged on historical understanding. What the French made of the history of their own colonies is quite another story. The idea that the British administration brought to an end the tradition of oppressive despots is a basic belief in the writings of perhaps the best known of the administrator historians, Vincent Smith.18 He devoted himself especially to the study of ancient India and combined in his scholarship both more advanced techniques of historical reconstruction and a clearly defined interpretation, Smith's historical training was in European classical scholarship. He was enthusiastic about the activities of the ancient Greeks and took their achievements to be the yardstick by which to measure all civilizations. His proGreek bias is shown in attempts to suggest that the finer qualities of Indian civilization were derived from Greece.19 He was equally impressed by the grand sweep of Roman history as presented by Gibbon. Heroes and empires were the subject matter of history; and, furthermore, only those who had survived successfully were worth consideration. Thus Asoka's Chandragupta II, and Akbar became his heroes and their reigns the glorious periods of Indian history. The intervening periods of small kingdoms he saw as periods of anarchy and misrule, since they failed to produce emperors; and in his interpretation of Indian history, these became the dark ages. Smith's depiction of the rise and fall of empires and the intervening dark ages did weaken the idea of a totally unchanging society, even if the change was largely limited to the upper sections of society. Vincent Smith and his contemporaries writing on India were in a sense reflecting the main trend of British historical writing of the time. It is perhaps as well to remember that in the late 9 nineteenth century British historians studying Britain also were sing attention on 'great men'. As has been recently observed: history was more conveniently interpreted as the interaction between great men and the institutions they created, modified or restored.'Charles Kingsley in his inaugural lecture as professor of history at Cambridge in 1861 had stated that: 'the new science of little men can be no science at all; because the average man is not the normal man, and never yet has been; because the great man is rather the normal man, as approaching more nearly than his fellows to the true

"norma" and standard of a complete human character to turn to the mob for your theory of humanity is (I think) about as wise as to ignore the Apollo and the These us and to determine the proportions of the human figure from a crowd of dwarfs and cripples.' This sentiment was pre-eminent for many decades in British historical writing. Smith's studies of ancient Indian history present, nevertheless, a considerable advance over earlier writings on the same subject, because a significant new body of evidence was available. Apart from the work on the literary sources, there developed in the later nineteenth century an interest in the antiquities of India. The objects and the information collected constituted the beginnings of archaeology in India. James Prinsep had deciphered the brahmi script in 1837, thus opening up the epigraphical sources. Alexander Cunningham began a systematic study of monuments, which became the nucleus of art-history. The exploration of archaeological sites laid the foundation not only for archaeological work but also for an interest in historical geography, which in turn encouraged local history. The study of numismatics, originally inspired by the extension of the study of Greek coins to those in India, became a source of fresh evidence. Surveys of local castes, customs, religious practices, and languages served to advance the cause of antiquarian interests. By the early twentieth century, there was a sizeable amount of non-literary evidence to complement the written sources. But the former tradition of antiquarian writing continued, and these new sources were used largely to increase the quantum of evidence, with few attempts at analyzing the material. The main concern of historians writing on ancient India was still with political and dynastic history for which fresh information was available from the epigraphic and numismatic evidence. It was also about this time that Indian historians first began writing on ancient Indian history, the most eminent among them being R.G. Bhandarkar. At this stage they did not have any new perspective on Indian history, but followed the models set by British historians. Historical writing was mainly a narrative of dynastic and political history or else work of a largely antiquarian interest in fact-finding. Bhandarkar, though recognizing the deficiencies of the sources as historical material, was also aware of the more obvious prejudices of contemporary historians writing on the Indian past. Incidentally, it is interesting to observe that many of the early writers came from brahman and kayastha families, largely because they were the ones who had the quickest access to a knowledge of the required classical language. The cultural background of Indian historians' tended to inhibit a critical or analytical study of the sources. However, their hesitation to question the model put forward by British historians is linked with the larger question of sociology of education in modern India. Subsequently the challenge arose out of nationalism and gradually acquired intellectual formulations within the discipline of history. The following generation of Indian historians, however, differed from their elders in one fundamental assumption. Historians writing in the 1920s and 1930s felt the impact of the national movement, and this was reflected in their historical thinking. Historians such as H.C. Raychaudhuri, K.P.Jayaswal, R.C. Majumdar, R.K. Mookerjee and H.C, Ojha, among others, continued to write political and dynastic history in the main, but their interpretations were based on a clearly nationalistic point of view. There was an unashamed glorification of the ancient Indian past. This was in part a reaction to the criticism of Mill and other writers and in part a necessary step in the building of national self-respect. The glorious past was also a compensation for the humiliating present. To some extent the glorification of the past represented a revival of interest in the writings of the more

sympathetic Orientalists; and, not surprisingly, eulogistic quotations from Max Muller, for instance, were given as proof of disinterested European opinion of India's past. Ancient Indian society was visualized by these writers as comparatively unchanging society over the period from 1000 B.C to A.D. 1000 with a uniformly high quality of achievement; the 11 basis of this stability was the ancient Aryan culture. It was felt hat nineteenth-century historians had belittled the achievements of ancient India by, among other things, denying its antiquity and by suggesting that its achievements were borrowed mainly from Greece. There was an attempt, therefore, to place literary sources as early in time as was reasonably feasible and to prove that the more worthwhile aspects of Indian culture were entirely indigenous.24 To counter the argument that the Indian tradition lacked a concern for the rational and the pragmatic, it was maintained that Indian culture had an essentially spiritual quality which was totally opposed to that of the essentially materialistic Western civilization. It followed that in essence Indian culture was superior. Another characteristic of historical interpretation influenced by nationalism was the desire to stress the political unity of the country from earliest times. Thus the rise of the Mauryan empire in the third century B.C. and its extension over almost the entire subcontinent was seen as an expression of an all-India consciousness. The earlier emphasis of Smith on empires as the relevant periods of study was therefore continued, but for different reasons. References to imperial glory gave rise to a sense of pride in the past and strengthened the ideology of nationhood. The term 'empire' continued to be applied to the large north Indian kingdoms, and the geographical perspective was that of the Ganges heartland. In spite of this geographical focus there was no lack of generalization embracing the entire sub-continent. Some of the generalizations now appear to be self-contradictory, but clearly they were not so regarded at the time. For example, whereas on the one hand non-violence was regarded as a distinguishing feature of Indian culture, there was at the same time a glorification of military power. For some, Asoka's policy of non-violence was his greatest achievement; other historians found this the major criticism of him, arguing that he so weakened the defence of India that the northwestern part of the sub-continent was conquered with ease by foreign invaders. The adulation of Chandragupta maurya or the flattering comparisons of Samudragupta with Napoleon all based on pride in the military prowess of these rulers. Historians such as Vincent Smith, W. W. Tarn and others came under attack because of their theories concerning the widespread influence of Greek culture on Indian culture. A determined attempt was made to prove that Indian civilization did not lack any of the laudable qualities ascribed to the Greeks. Thus Jayaswal maintained that the political life of the ancient Indian republics had been based on the concepts of democracy and representative government to the same degree as had the political life of the Greek city-states. Alternatively, A.K.Coomaraswami argued against the aesthetic superiority of Greek art, since the Greeks were obsessed with physical beauty whereas the Indian artists sought to express higher spiritual values in their work.29 It was this quality in Indian art which made it aesthetically unappealing to the Western viewers. The nationalist historians were writing at a time when the leaders of the national movement were demanding political rights and political representation in the government. Understandably, therefore, the political life and institutions of the past were probably the most sensitive areas of disagreement with earlier historians. The discovery and interpretation of the Arthasastra, a work on political economy, was, for instance, a form of

exoneration from the charge that Indian society was unconcerned with political relationships. Hence the frequent comparisons of the text with the writings of Machiavelli and the ideas of Bismarck, or, for that matter, the comparison of the mantriparisad as described by Kautalya with the Privy Council of Britain,31 and the suggestion that the Kautalyan monarch was similar to the constitutional monarch of Britain.32 It would seem that in matters relating to political history and institutions the values current in European thought were accepted and their equivalents sought in the Indian past. In spite of such weaknesses the nationalist historians played a very significant role in the interpretation of ancient Indian history. Because they wrote in conscious opposition to the earlier writing, they forced historians to take a fresh look at the sources. They raised controversies, and a debate began. The recognition of an historian's conceptual framework became meaningful. The interpretation of Indian history was no longer based on a monolithic ideology deriving authority from the concept of Oriental Despotism. Furthermore, the study of the ancient past began to have relevance for the present, and historical writing had to be more than the antiquarian's collection of facts. Although most of the historical writing was still confined to dynastic history, the debate on ancient political and cultural life necessitated the study of social and economic 13 history 33 Interestingly enough, although a fair amount of work had been done by this time on, for example, caste and religious croups historians rarely integrated the results of this work into their histories; thus bibliographies of sections entitled 'Society' in most standard histories would refer to Altekar's book The Position of Women in Ancient India or N.K. Dutta's Origin and Growth of Caste in India, both merely compilations of references to the subject from the literary source material, but would rarely mention any of the standard works on the study of caste or social institutions. (That the system of placing various facets of history in watertight compartments neatly labelled Political History, Economic History, Society, Religion and Philosophy, Language and Literature, the Arts, etc., continues to this day can be seen in the most standard of all standard histories, the series entitled, 'The History and Culture of the Indian People'.) There was a tendency to regard the ancient period as one of considerable prosperity and general contentment, in fact a period of which the Indian people could justifiably be proud. This was legitimate for its purposes except on occasions when there was a reluctance to admit to blemishes on the culture. Mill's periodization was accepted without much questioning, and a very sharp distinction was drawn between the Hindu/Ancient and the Muslim/Medieval periods. This distinction was emphasized by the rather arbitrary association of the most acceptable achievements of the Indian past with Hindu culture. Not surprisingly, nationalism was replaced by a form of militant Hinduism, and the communal atmosphere in Indian politics in the late 1930s and the 1940s tended to vitiate the study of ancient and medieval history. The Gupta period became the 'Golden Age' largely because it was the period of renascent Hinduism. Many of the ills of India were ascribed to 'the Muslim invasions and rule'. It was maintained that Hinduism in its Sanskritic form was the essential culture of India, and other forces were in a sense an intrusion. The identification of ancient India with Hindu culture became so marked that even the Buddhists were regarded with some suspicion. Earlier attempts at proving the indigenous origin of all things Indian were accentuated, a trend which continues to be supported by certain historians to this day. At another level, it was believed that the dynamics of many Asian cultures, particularly those of Southeast Asia, arose from Hindu culture, and

the theory of Greater India derived sustenance from Pan-Hinduism. A curious pride was taken in the supposed imperialist past of India, as expressed in sentiments such as these: 'The art of Java and Kambuja was no doubt derived from India and fostered by the Indian rulers of these colonies.'34 (Italics mine.) This form of historical interpretation, which can perhaps best be described as being inspired by Hindu nationalism, remains an influential school of thinking in present historical writings. From the historical point of view a more valuable offshoot of the nationalist school was the growth of interest in regional and local histories. Studies of regional histories of smaller geographical areas and states—such as histories of Bengal, Maharashtra and! various parts of the peninsula—became more common. This was a useful departure because it corrected the tendency to generalize about the entire Indian sub-continent on the basis of the history of the Ganges heartland. It led to the discovery of new source material in local archives and to greater archaeological work in the region. The results of these studies not only filled many lacunae in historical knowledge of the early period but also acted as a corrective to some of the earlier generalizations. It also led to the recognition of the fact that an area as large as the Indian sub-continent will show evidence of regional variations in the cultural pattern and this historical change in the sub-continent need not be identical nor occur simultaneously. NilakanthaSastri's work on south Indian history created a new awareness of the history of the sub-continent by bringing the history of the south into perspective.37 Another trend which was also rooted in the writings of the nationalist school, but which developed more extensively in the post-independence period, began in a marginal way with an interest in the systematic study of social organization and political and economic institutions. Some writers came to it through an interest in Marxism, as is exemplified in the work of D.D. Kosambi. For others it resulted from a recognition that history, and particularly ancient history, can best be studied within the framework of al social science discipline. The Marxists did not accept the scheme implicit in the theory of the Asiatic Mode of Production; their interpretations derived more from the understanding of the principles of dialectical materialism and the historical philosophy of Marx, as has frequently been the case with. Asian Marxists writing their own history.38 This trend has led to the study of the relationship between social and economic organization and its effect on historical events, and the development of the idea that it is the interrelation of a variety of forces which determines historical events. Kosambi stated in the Introduction to the Study of Indian History that he saw the means of production as the key to historical events, and his analysis of ancient Indian history is based on this. For him dynastic history had no meaning, because, apart from everything else, our information on it is of such an uncertain character. It was more important, therefore, to investigate the workings of social and economic forces. The importance of his work, however, lies not so much in the historical totality which he presented, but in the fact that it raised a number of new ideas and revealed new questions to be put to the sources, such as: To what extent can archaeological evidence provide a background to developments in historical times? Can archaeology and literary sources give us the clues to technological change? Was the economy in fact the base to the super-structure of other forces in Indian society? Can religious activities in India be studied in either Marxist or Weberian terms, or, for that matter, on the basis of any other model? Most important of all, what are the variables in the Indian tradition which distinguish it from other traditions? Kosambi's writings became a focus and

served to emphasize the validity of such questions and the need for further questions and the answers to them. This does not require a search for new evidence so much as a re-reading of the sources, with a different set of questions in mind. It also requires fresh annotations of existing texts, particularly the law-books, dharmasastras. It requires not merely a familiarity with existing models but, even more important, an awareness and understanding of analytical methods. To this extent the problems in the interpretation of ancient Indian history are not totally dissimilar to problems faced by contemporary historians of other ancient cultures. These ideas coincided with the realization that the major part of the dynastic history of ancient India had already been written and that other aspects of the historical past would now have to be investigated, not merely by compilation of more information, but also by analysis of the facts with a view to establishing causal relationships. The paucity of fresh literary source material would inevitably have led to a shift from the antiquarian interest in the ancient past to a more analytical comprehension of it. The increasing relevance of the methodology of the social sciences facilitated this shift. Not surprisingly, the intensification of work in archaeology and anthropology has coincided with this new emphasis in ancient history. Archaeology is now the major source of fresh evidence, since it is unlikely that large numbers of literary sources still remain to be discovered. It not only provides new evidence in the form of the material remains of past culture, but, precisely because this evidence is tangible, it allows of a more accurate reconstruction of the past. From the results of investigation into pre-history and proto-history a picture of the evolution of cultures in India is emerging. It is now possible to trace the successive phases of cultures relating to the Palaeolithic, the Neolithic, and the Chalcolithic types. The work on the Neolithic has enabled us to map the major areas of early agriculture in the last three millennia B.C. and to trace communication links. Work on the Chalcolithic in the northern half of India has been somewhat concentrated on extensive excavations relating to the Harappa culture or the Indus Valley Civilization, as it was called until recently. The discovery of new towns and fresh evidence about the chronology and the decline of the Harappa culture necessitates a reconsideration of Mortimer Wheeler's theory that the invading Aryans destroyed the cities of the Harappans. In the Deccan, Chalcolithic traces have provided evidence of trade routes and contact between the Ganges valley and the northwest Deccan and the routes across the Deccan in the beginning of the first millennium B.C. The continued use of these routes well into the historical period opens up new possibilities of historical analyses of the early history of the Deccan. Detailed studies on the Iron Age and iron technology from various sites in the sub-continent provide interesting insights into the use and expansion of this technology. Recent carbon-14 analyses have suggested c. 1100 B.C.as the date for the use of iron, which is 300 years earlier than previous dates. For the far south of India there is now archaeological evidence for the period from c. 500 B.C.to A.D.150, beginning with the Megalithic culture and continuing with a fairly highly developed Roman trade with south India. In both cases the contact with the western end of what has been described as the 'Indian Ocean Arc'. The economics of the Roman trade which is now being studied on the basis of archaeological remains, coins, and literary source in Greek, Latin, and Tamil are likely to provide some useful information on the growth of the south Indian kingdoms. The material evidence from the excavations of urban centres can corroborate or act as a corrective to literary evidence. Epigraphical evidence has illuminated many areas of post-

Gupta history from the fifth century A.D. onward, particularly in the Deccan and south India. Material remains can also provide statistical evidence. Thus the quantity and distribution of the characteristic pottery of the period—the northern-black polished ware—very relevant to the study of communication and trade in the pre-Mauryan and Mauryan periods, the fifth to third centuries B.C. Studies in economic and social history in recent years have attempted to determine not only the periods of change but the nature of change. In economic history this has resulted in an intensive study of the agrarian system. It can now be said that not only is there evidence to prove the existence of private property in land but also that the rule of property changed significantly over the centuries. This disproves the basic premise of the argument in support of the theory of Oriental Despotism as applied to India. The major contribution in this area has been the study of land grants reconstructed from epigraphical sources, on the basis of which it has been suggested that a gradual change took place in the agrarian system from the fourth century A.D. onward, resulting in what has been called a feudal society by about the seventh to the eighth century A.D. Related to this is the question of the changing forms of land-ownership and the varieties of private property. Various aspects of the revenue system have also been reconsidered in the light of new interpretations of forms of ownership. These studies have a bearing on the nature of the bureaucracy. Epigraphical material is frequently used as a means of checking the evidence from literary sources. The use of inscriptions for such studies is comparatively new, since earlier historians tended to use inscriptions largely for information on dynastic history. Archaeology provides evidence for the study of trade and the growth 18 of towns in the context of a well-developed commercial economy, and here again the material remains have been used effectively in correlation with literary, sources. This is an area of study for which there is immense scope with fresh excavations of trade centres and town sites. Indian social history at the moment has one basic preoccupation: an inquiry into the precise nature of social relationships in the I structure of early Indian society. Such an inquiry meets with obvious problems because of the nature of the literary source material. Attempts are being made at reexamining the texts in the light of our contemporary understanding of theoretical model of the caste system, varna. These inquiries have taken the form of investigating a particular social group, for example the studies on the Sudras on the Vratyas, or the interrelationships of groups in a particular period, or the nature of an institution known to other societies as well, for example, slavery. The social and economic underpinnings of religious institutions provide yet another avenue of related interest, the studies of the Chola temples being a case in point. The nationalist phase also saw considerable interest in the study of ancient Indian political theory. The dominant themes were the status and role of the king, the channels of political representation, the function of the bureaucracy, and the distribution of power. The understanding of the theory of kingship in ancient India had been coloured in the nineteenth century by the concept of the divinity of kingship, based on the evidence from the Ancient Near East. This concept was rather arbitrarily extended to Indian kingship in together with the political corollary of a lack of representative institutions and the concentration of power with the king. Although the nationalist historians did attempt to refute the latter, they rather overlooked the question of the divinity of the king. This theme has come into prominence in recent work on the nature of kingship and the distribution of political power and status in early Indian society.41 The question of the distribution of

political power is being re-examined in the framework of the functioning of a caste society, and with reference to the existing evidence on institutions of local control, such as village councils. The work on the land-grants, particularly from the sixth century onward, suggests a different type of power structure for the bureaucracy than was previously assumed on the basis of the theory of despotism. The exclusion of straight political history is not for all time. There are indications of a more meaningful return to political history now that the background of social and economic history is being gradually filled in. The nationalist phase of historical interpretation led for obvious reasons to the overwhelming participation of Indian historians in writing their own history. This seemed to coincide with an appreciable decline of interest in ancient Indian history by European Indologists, except in France. The pore recent interpretations of ancient Indian history have suggested methods of analysis which can be used by historians of any nationality and can circumvent national and ideological bias, and by the use of which a greater degree of objectivity in interpretation can be achieved. Even if history is based on selected data, the data selected need not be entirely arbitrary. These methods work within the framework of certain hypotheses. They assume that all societies change and that in a period stretching from 2500 B.C. to A.D.1000 Indian society and its institutions must have undergone change; it is the work of the historian to study the nature of this change. The idea of a static society is clearly no longer tenable.43 This raises the crucial question of periodization in Indian history. Clearly there is a need to redefine the various periods of Indian history, if periodization is necessary, or else to dispense with such divisions altogether. The earliest pattern of periodization, that of the Hindu-Muslim-British periods of Indian history, gives undue importance to ruling dynasties and foreign invasions and is based, presumably, on the professed religions of the dynasties of northern India. In many cases it was merely the dynasty which changed, for the major historical characteristics of one period continued into the next. The change in terminology to Ancient-Medieval-Modern does not clarify the problem if the basis for the division remains the same. The Ancient/Hindu period is traditionally accepted as terminating with the Muslim conquest. Yet 'the Muslims' conquered various parts of India at different periods in time. The Arabs conquered Sind in the eighth century; the Turks and Afghans conquered the Punjab at the end of the tenth, northern India in the thirteenth, and the Deccan in the fourteenth century. The history of the area further south, with its alternating Hindu and Muslim dynasties, does not fit this pattern of periodization in any case. The arbitrary choice of A.D. 1000 seeks to impose a pattern which the evident does not permit. If the basis of periodization were to be significant social and economic changes, then the ancient period would end roughly in the eighth century A.D., or possibly a little earlier, since the more significant changes did not coincide with dynastic changes and the conquests of 'the Muslims'. Although an improvement on the earlier pattern in historical terms, even this pattern m periodization could not be applied to every part of the sub-continent. Perhaps the most significant result of the work done on ancient Indian history so far is the realization that well-defined phases of historical development are not uniformly applicable to the history of every society, and that the historian's interpretation should be the outcome of a search for the phases of historical development within a given society, which can then be analytically compared with other phases in other societies. This is not to deny the legitimacy of historical generalizations, but to recognize the variable factors and to demand a more precise definition of historical formulations.

1.6 Self Check Exercise

1. Who wrote the Mricchkatikam ?

2. On which subject Charak and Susruta is based?

3. From which harappan site the evidences of lipstick have been reported?

1.7 Summary

India has a rich cultural heritage and Ancient India is a glorious epoch in Indian history. However, as we go back in time, we suffered great lack of written sources to reconstruct its history. Thus, very few written sources are there at our disposal. They were mostly of religious nature and, should be used with caution, either for they were written by a small group of people or, for, they were basically the guidelines for the society and don't depict actual facts. However, we also find written sources of great literary merit, like, epics, anthology, dramas, etc. There were also treaties on science like politics, astrology, astronomy, medicines, irrigations, architecture etc. The architectural and evidences of art also help us to understand Ancient India. Another grou of source is archaeological sources. For understanding India before the beginning of literacy and to understand life-ways of common man, and to date scientifically, such archaeological remains help us a lot.

1.8 Glossary

Jatak	:	The stories of the early births of mahatama Buddha.
Veda	:	Veda means to know, there are four vedas; Rigveda, Yajurveda, Samveda, Atharva veda
Fa-hien	:	A Chinese traveler who came to India in 5th cen. A.D.
Chaitya	:	The buddhist place of worship
Rajtarangini	:	The first chronological history in India by kalhana.

1.9 Answers to Self Check Exercise

1. Ans. Shudrak
2. Ans. Medical
3. Ans. Chahundaro

1.10 Suggested Reading

Altekr, A.S., The Position of Women in Hindu Civilization, Delhi,1959.

Basham, A.L., The Wonder that was India, New Delhi,1967.

Ghosha, A., An Encyclopedia of Indian Archaeology, New Delhi, 1989.

Kosambi, D.D., Myth and Reality, New Deihi,2001.

Sharma, R. S. Indian Feudalism, New Delhi, 1965.

Thapar, Romila, The Penguin History of Early India, New Delhi, 2015.

1.11 Terminal Questions

1. Throw a light on the religious sources of Ancient Indian History.
2. Discuss on the importance of archaeological sources of ancient Indian history.
3. Write down the importance of ancient Indian histor
4. Elaborate the various interpretations of ancient Indian history.

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CHAPTER- 2
INDIAN STONE AGE

Structure

2.1 Objectives

2.2 Introduction

2.3 Paleolithic Age

2.3.1 Paleolithic Cultures in India

2.3.2 The Lower paleolithic

a. The Sohnian culture

b. Achulian Culture

2.3.3 Middle paleolithic Cultures of India

2.3.4 Upper paleolithic Culture in India

2.4 Mesolithic Age

2.4.1 Meaning and significance of Mesolithic

2.4.2 Meaning and Significance of Microlith

2.4.3 Discovery and Function of Microlith

2.4.4 Nature of Archaeological sites

a) Teri sites

b) langhnaj

c) Bagore

d) Bhimbetka

2.5 Neolithic

2.5.1 What is Neolithic Revolution?

2.5.2 Tools and technologies of Neolithic period

2.5.3 Origin of food production and pratices

a) Back ground for origins

b) West Asia

c) Expansion of Neolithic to Other sites

2.5.4 Neolithic remains of india

2.5.5 Neolithic sites regional pattern

2.5.6 Vidhayan

a) Advanced Neolithic/ proto Neolithic

b) Early Neolithic

c) late Neolithic

2.5.7 Neolithic culture of Kashmir valley

2.5.8 Neolithic culture of deccan

2.5.9 Neolithic Culture of India

2.6 Self Check Exercise

2.7 Summary

2.8 Glossary

2.9 Answers to Self Check Exercise

2.10 Suggested Readings.

2.11 Terminal Question.

2.1 Introduction

Human Past or History is divided into three main periods, namely, 1) Stone Age, 2) Bonze Age, and 3) Iron Age. These are not simply technological stages implying that tools and weapons were made of stone during the Stone Age, of bronze during the Bronze Age, and of iron during the Iron Age. These Ages imply much more than technology. They imply subsistence economy or ways of acquiring food, social organisation, including caring for the weak, sick and old, mode of disposing of the dead, art, and other aspects of life.

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1) Palaeolithic or Old StoneAge,

2) Mesolithic or Middle Stone Age, and

3) Neolithic or New Stone Age.

word lithic is derived from the Greek lithos, meaning stone. Palaeolithic means Old Stone Age, Mesolithic means Middle Stone Age, and Neolithic means new Stone age.

2.2 Objectives

After reading this unit, you will be able to know about:

The early stages of human development.

To draw the outline of the various stages of human life as paleolithic age and Mesolithic age in which man was a hunter and gatherer and in Neolithic period agriculture was introduced and man started to live a settled life.

2.3 Paleolithic Age

Palaeolithic Cultures of India The term prehistory refers to the period when there was no written record. Understanding and reconstruction of the life ways of ancient men during that period is based on the analysis of the material remains of their activities, such as tool making, animal hunting, food gathering etc., through archaeological explorations and excavations. The prehistoric period has been mainly divided into three ages, namely the Stone, Bronze and Iron ages based on the changes in technology and social and cultural developments. The Stone Age is divided into three periods, namely Palaeolithic, Mesolithic and Neolithic, based on technological developments and gradual evolution of culture. The people living during that period made tools and implements on stones which were easily available in the surroundings. Besides, they also used wood, bamboo, bones etc. for making tools. However, as these are perishable materials and disintegrate fast, we do not get much evidence of these tools in archaeological contexts.

2.3.1 Palaeolithic culture in India

Robert Bruce Foote, a British geologist discovered and identified the first Palaeolithic tool in the Indian Subcontinent in 1863, at the village of Pallavaram, near Madras (now Chennai) and laid the foundations of the Prehistory in India. Since then, prehistoric archaeologists have located hundreds of prehistoric sites in different parts of India and are attempting to understand the life ways of prehistoric people. The Palaeolithic sites are found throughout the Indian subcontinent in a variety of ecological contexts, including montane regions, hill slopes, alluvial settings, coastal plains, and in rock shelters. The archaeological record clearly indicates that Acheulian was the earliest stage of hominin occupation of the subcontinent.. The Acheulian site of Isampur has been dated to 1.2 million years by ESR (Electron Spin Resonance) dating method.

2.3 .2 The Lower Paleolithic

Traditionally, the lower Palaeolithic evidence in India has been divided into two groups, i.e., the Sohanian or Soanian (Mode 1) and the Acheulian (Mode 2), based on distinct typological and technological ground of both the industries. H.L. Movius suggested that the Soanian is a part of the so-called 'Asian Chopper Chopping Tool Complex', along with the Anyathian in Burma, Choukoutienian in China, Tampanian in Malaya and Patjitanian in Java, and forms a separate entity from the contemporary Acheulian Lower Palaeolithic traditions. However, recent studies show that most of the Mode 1 evidences postdate the Mode 2 assemblages in India.

a. The Sohanian Culture

The Sohanianculture, termed after the river Sohan (or Soan), a tributary of the Indus, came into limelight through the Yale-Cambridge Expedition led by H. de Terra and T.T. Paterson in 1939. The evidence of this culture is found at a number of sites in the Siwalik hills in northwest India and Pakistan. The members of Yale-Cambridge Expedition have distinguished three developmental stages of the Sohanian culture on the basis of the artefacts found in river terraces and correlated with the phases of the four-fold Pleistocene glaciations identified by them in the Himalayas and the Siwaliks. The earlySohan, the earliest stage of the sequence, on Terrace 1 (T1) was found in the boulder conglomerate of the second glacial age in the Potwar plateau. In the same deposit, though at discrete localities,

Acheulian artefacts were also located. The T1 was dated to the second interglacial age and the faunal remains from this deposit included horse, buffalo, straight-tusked elephant and hippopotamus which suggest an environment characterized by perennial water sources, tree vegetation and grass steppes. The T2, with gravel at the base and loess on top, dated to the third glacial period, yielded Acheulian and Late Sohan A industries from the basal gravels, which are comprised refined pebble choppers and Levallois flakes. The Levallois is the name of a technique of making stone tools and the name is after a French place where stone tools made by this technique were first found. The Late Sohan B industry characterized by Levallois flakes and blades with complete absence of Acheulian elements was found overlying the level of loess and the fauna (horse, bovids, camel and wolf) of this horizon (Wadia 1928). The divisions of Sohanian, i.e. Early Sohan, Late Sohan A and Late Sohan B and their correlations with the climatic situation were found invalid during the subsequent research carried out by the British Archaeological Mission to Pakistan led by R.W. Dennell and H.N. Rendell. V.N. Misra (1989) has argued that the Sohan terraces are the erosional features rather than depositional terraces and cannot be associated with any specific deposits and can not be dated. The Mission members did not find evidence of an independent Sohanian tradition although they found artefacts of Acheulian and other traditions. However, investigations in the Indian Siwaliks appear to conform to observations of de Terra and Paterson in Pakistan. Five terraces comparable to those of the Indus- Sohan in the Potwar region have been recognized in the valleys of the Sutlej, Beas and Banganga rivers in the Punjab-Himachal Pradesh region. Pebble tools of Sohanian style have been collected by B.B. Lal and B.S. Karir on these terraces. G.C. Mohapatra (1976), who discovered both Sohanian and Acheulian sites in the Hoshiarpur-Chandigarh sector of the Siwaliks, has argued that the Acheulian and Sohanian populations inhabited distinct environments; the former occupying the flat surfaces of the Siwalik frontal range and the latter occupied the duns or valleys of the Himalayan flank. Using magnetic polarity data from the Upper Siwalik beds, Mohapatra has dated the Sohanian tradition from the Mindel-Riss interglacial (300400,000 B.P.) to the end of the Pleistocene. However, according to him the Acheulian tradition cannot be older than 200,000 B.P., because it is only around this time that the range (Siwalik range or hills) became sufficiently stable to support human population.

b) The Acheulian Culture

The Acheulian culture is named after the site of St. Acheul in France. Evidence of this culture have been found extensively in India from the Siwalik hills in the north to the areas near Chennai in the south, however, there are some areas which are devoid of Acheulian occupation such as the Western Ghats and the coastal region running parallel to them, northeast India and the Ganga plains. The Siwalik outcrops in Pakistan, India and Nepal have also yielded Acheulian material. Acheulian sites are particularly densely concentrated and are richer in central India and southern part of the Eastern Ghats.

V.N. Mishra (1978) has divided the excavated Acheulian assemblages into two stages of development, early and late on the basis of typo-technology of the various Acheulian artefacts found across the country. This appears to relate to chronological differences although stratigraphy and dating are not available to confirm the stages. The first and chronologically earlier stage is characterized primarily by such core tools as choppers, polyhedrons, spheroids, handaxes, a low proportion of crudely

made cleavers and flake tools, predominant use of stone hammer technique, and absence of Levallois technique. This stage is represented at sites like SingiTalav near Didwana in Rajasthan, ChirkiNevasa in Maharashtra, Hunsgi-Baichbal valleys, Anagwadi in Karnataka, and Kortallayar valley in Tamil Nadu. The second and later stage is marked by low proportions of bifaces, high ratio of cleavers to handaxes, very high proportion of flake tools like scrapers, and extensive use of soft hammer, Levallois and discoid core techniques. This stage is best represented in the rock shelters at Bhimbetka and open air sites in Raisen district of Madhya Pradesh, Tirupati valley in Andhra Pradesh and Hunsgi-Baichbal valleys in Karnataka. The raw material used for tool making varied regionally according to the geology of the area. Various raw materials have been utilised by the Acheulian cultural people, such as dyke basalt or dolerite in western Maharashtra, quartzite and occasionally quartz in most of the sites, limestone and occasionally basalt and granite in Hunsgi valley in Karnataka, coarse grained granite in northern Bundelkhand.

2.3.3 The Middle Palaeolithic Culture of India

The Middle Palaeolithic sites are also found extensively at different regions of India. This culture developed during the Upper Pleistocene geological period which was characterised by intense cold and glaciations in the northern latitudes and the areas bordering glaciated regions experienced strong aridity, which might have affected the Middle Palaeolithic population. The less frequency of Middle Palaeolithic sites may be explained through the climatic situation. Middle Palaeolithic artefacts have been found in the Luni valley, around Didwana, and at Budha Pushkar, all in western Rajasthan; at numerous sites in the valleys of the Belan; at Son and Narmada and their tributaries in central India, in the Chota Nagpur plateau, the Deccan plateau and the Eastern Ghats. As in the case of the Acheulian, the Middle Palaeolithic occupations are also located at open-air sites along perennial as well as seasonal streams and on hill slopes in most parts of the country, on dune surfaces in western Rajasthan and in the rock shelters in central India. The Middle Palaeolithic tools are primarily made on flakes and blades and comprised side scrapers of various types, end scrapers, denticulates, notches, points and borers. These artefacts are made by finely trimming the edges of flakes and blades. However, not much is known about the use of these artefacts. In this stage, as compared to the preceding Acheulian phase, tools became smaller, thinner and lighter. In terms of technology, improvements in the techniques of removing flakes from cores such as Levallois and discoid core can be seen. Significant changes in the choice of raw material for making tools also occurred in this period as the Middle Palaeolithic population started using fine-grained siliceous rocks like chert and jasper, besides continuing with quartzite, quartz and basalt. Some of the stratified Middle Palaeolithic sites studies by various scholars are Samnapur in Madhya Pradesh by V.N. Misra and others, and the evidence from the Kortallayar Basin in Tamil Nadu by Shanti Pappu and others. Parth Chauhan (2006) suggests four features that distinguish Middle Palaeolithic assemblages from the Lower Palaeolithic types: i) a decrease in size of the artefacts, ii) a noticeable shift from large Acheulian bifaces to more smaller, specialized tools, iii) an increase in the prepared-core technique, and iv) a preference for finegrained raw material (such as chert, jasper, chalcedony, flint, cryptocrystalline silica, and so forth). Some of the new types within Middle Palaeolithic tool-kits are cores, discoids, flakes, flake-scrapers, borers, awls, blades, and points. These features are similar to other Middle Palaeolithic assemblages in the Old World, but, the Indian evidence is typo-

morphologically and technologically distinct. This uniqueness compelled the earlier workers to attribute a formal name to some distinct assemblages from the type-site of Nevasa, Maharashtra as the 'Nevasian' industry. However, later on, Sheila Mishra (1995) found the 'Nevasian' industry to be a part of the Late Acheulian assemblages in the region. We shall discuss the 'Nevasian' industry in the separate paper on Middle Palaeolithic in India in details. The available chronometric data shows that the Middle Palaeolithic assemblages persisted over a long period of time from the terminal middle Pleistocene to the greater part of the Upper Pleistocene.

2.3.4 Upper Palaeolithic Culture of India

The Upper Palaeolithic culture developed during the later part of the Upper Pleistocene. Archaeological evidence of this period comes from the Belan and Son valleys in the northern Vindhyas, Chota Nagpur plateau in Bihar, Upland Maharashtra, Orissa and from the Eastern Ghats in Andhra Pradesh. The sites of these areas bear upper Palaeolithic tool assemblages which are essentially characterized by blade and burin tools and show a marked regional diversity with respect to the refinement of techniques and standardization of finished tool forms. The principal artefact forms are scrapers (side, convex, notch, end, steep, round, convergent, etc.,), flake-blades, blades and cores; backed blade variants (straight back, curved back, backed knives, points, lunates, triangles and trapezes); burins, unifacial, bifacial and tanged points and choppers. The scraper made on flakes, which is a Middle Palaeolithic tradition, continues to occur. Parallel-sided blades struck from standardized prismatic cores are common in the Thar desert, Belan and Son valleys, Bhimbetka rock shelters, Maharashtra plateau and the Eastern Ghats. Considerable regional diversity in tool forms and in the proportion of flakes and blades are noticed during this period. In the hinterland riverine ecosystems of the Eastern Ghats, the backed blade component among finished tools is conspicuous.

On the basis of ethnoarchaeological research among the tribal populations central India and the Eastern Ghats on the food procurement technologies and behaviour it can of argued that that prototype of traps, snares and nets must have been used during the Upper Palaeolithic period. The various types of scrapers were probably used for wood and bamboo work. Simple blades and backed blades could have been used as inserts for spear points, arrow points, fishing arrows, barbed fish-hooks, thrusting spears, slicer knives and daggers. M.L.K. Murty (1981) suggests that the large crescentic backed blades with blunted arc and straight and damaged cord, common in the Eastern Ghats, were probably used for wood work. Bored stones, similar to the Upper Palaeolithic ones, are being used by the Yanadi (Andhra Pradesh) fishermen as net sinkers in riverine fishing and the heavier ones are used by the VodaBalije (Andhra Pradesh) and other groups for marine fishing. The Upper Palaeolithic occupations in the Eastern Ghats are invariably associated with permanent water bodies which suggest that acquatic foods must have been an important resource during this period. Discovery of the grinding stones is interesting as these must have been used for processing plant foods like wild rice. In this period, several examples of the development of art and religious activities came to limelight. Another interesting aspect of this period is the discovery of ostrich egg shell pieces engraved with cross-hatched designs at Patne by S.A. Sali (1989) can be considered as one of the earliest evidence of art in India. The rich fossil records from the Belan and Son valleys, southern part of Allahabad, the Mahanadi valley in central

India and Manjra, Godavari, Ghod and Krishna valleys in the Deccan include Bubalusbubalis, Bos namadicus, Hexaprotodonpalaeindiucs, Cervus sp. and Canis sp. This fauna suggests the existence of grassland environment with pockets of forests and swamps. The discovery of ostrich egg shells at over 40 sites in Rajasthan, Madhya Pradesh and Maharashtra, several of them dated by C14, shows that ostrich, a bird adapted to arid climate, was widely distributed in western India during the later part of the Upper Pleistocene

2.4 Mesolithic Age

2.4.1 Meaning and Significance of Mesolithic

Mesolithic or Middle Stone Age was a much shorter period than Palaeolithic, having lasted from over thirty thousand years in Sri Lanka and parts of Africa to only about ten thousand years in India and West Asia. Mesolithic period has enormous culture-historical importance in Old World prehistory. The technological hall mark of this period are tiny stone tools or 'microliths'. In addition, the Mesolithic people also used non-microlithic tools made of flakes and blades. Mesolithic people made a number of technological innovations like bow and arrow for hunting; querns, grinders and hammer stones for grinding and pulverising plant foods like roots, tubers and seeds; and regular use of fire for roasting meat, tubers, etc. They created a large volume of art in the form of several thousand paintings and engravings, which not only tell us about their aesthetic taste but also about their capability for innovating new technological elements, modes of subsistence economy, items of material culture, social organisation and religion.

2.4 .2 Meaning and Types of Microlith

The term 'microlith' is strictly to be applied only to tools made on micro blades or bladelets (having a maximum length of 50 mm and a width of 12 mm) or occasionally on small flakes, by blunting one or more margins by steep retouch. Microliths comprise non-geometric forms like rectangular blunted back blades and points, and geometric forms like crescents or lunates, triangles and trapezes. Microliths were too small to be used as tools individually; instead, they were used as components of tools and weapons by being hafted in bone, wood or reed handles and shafts. A groove was cut in the handle or shaft, and a number of microliths were arranged serially into it and were glued together by a natural adhesive like gum or resin. Microblades were intentionally blunted on one edgeto prevent the cutting of the haft and thereby loosening of the microliths duringuse of the tool or weapon. Function of microliths were used as tips and barbs of arrowheads and spearheads, for forming the cutting edge of knives, sickles, daggers and harpoons. Discoveries of hafted microliths from many excavated sites in Europe, the Near East, Africa, Australia and India, as also their depiction in central Indian rockshelters, testifies to theuse of microliths in this manner. Other Tool Types of the Mesolithic Period, in addition to microliths, Mesolithic people used a variety of non-microlithictools made on flakes, cores and blades. These comprised choppers, scrapers, notched flakes, borers and points, made on cores, flakes and blades.

2.4.3 Discovery and Function of Microliths

Microliths were used as tips and barbs of arrowheads and spearheads, for forming the cutting edge of knives, sickles, daggers and harpoons. Discoveries of hafted microliths from many excavated sites in Europe, the Near East, Africa, Australia and India, as also their depiction in central Indian rockshelters, testifies to the use of microliths in this manner.In addition to microliths, Mesolithic people used a variety of non-microlithic tools made on flakes, cores and blades. These comprised choppers, scrapers, notched flakes, borers and points, made on cores, flakes and blades.

The earliest discovery of microliths and other Mesolithic tools was made by A.C.L. Carlleyle, an Assistant to Alexander Cunningham, founder Director General of the Archaeological Survey of India (ASI).Carlleyle was the first person to discover microliths, rock paintings, pigment pieces with marks of grinding, human skeletons, animal bones, ash, and charcoal pieces in rockshelters in Mirzapur District of the Northwestern Provinces of Agra or Oudh (present Uttar Pradesh). He also discovered paintings depicting scenes of wild animals being hunted with spears, bows and arrows and hatchets, and living floors containing hearths with ash, charred animal bones. This was the first discovery of the paintings portraying the Mesolithic way of life.

Subsequently, discoveries of microliths and bone tools were made by J.C. Cockburn and Rivett-Carnac in rockshelters as well as at open-air sites. Robert Bruce Foote, Father of Indian prehistory discovered microliths in Kurnool caves and several other sites in South India as well as at sites on the Sabarmati river and away from it in Baroda, Sabarkantha and Mehsana Districts of Gujarat.

Thus Mesolithic sites are found almost all over India, except the northeast but including the Indo-Gangetic plains where stone, the raw material for making tools and weapons is scarce. This shows that Mesolithic hunter-gatherers had colonised the whole country. This had happened for the first time during the entire prehistoric period of two million years.

2.4.4 Nature of Archaeological Sites

Archaeological sites are of two types**: primary and secondary**. Primary sites are those where cultural material is found in its original context and relatively undisturbed condition. In such a context organic material is relatively better preserved. Secondary sites are those where cultural material from spatially, culturally and chronologically unrelated contexts is found buried in geological deposits after being transported by fluvial agency. However, as most Mesolithic sites belong to Holocene or Recent period and are only a few thousand years old, archaeological material on them is found in a primary context either on the surface or buried in open air or cave/rock shelter habitation deposits. At such sites biological and dating materials are better preserved. For the reconstruction of life ways, environment and dating, habitation sites are ideal.

State-wise names of sites excavated in India:

Rajasthan: Tilwara; Bagor ;Ganeshwar

Gujarat: Langhnaj; Akhaj; Valasana; Hirpura; Amrapur;. Devnimori;Dhekvadlo; Tarsang

Maharashtra: Patne; Pachad; Hatkhamba

Uttar Pradesh: Morhana; Lekhahia; Baghai Khor; Sarai Nahar Rai ; Mahadaha; Damdama; Chopani Mando; BaidhaPutpurihwa

Madhya Pradesh: Pachmarhi; Adamgarh ;PutliKarar; Bhimbetka; BaghorII;Baghor III; Ghagharia Bihar: Paisra Orissa: Kuchai West Bengal :. Birbhanpur Andhra Pradesh: MuchatlaChintamanu Gavi; Gauri Gundam Karnataka: SangankalluKerala :Tenmala The above excavated sites have provided us a vast amount of information regarding technology, material remains, burial systems, anatomical remains, customs associated with burial, art, and charcoal for dating of the sites.

The diet of the Mesolithic people consisted of leaves, flowers, fruits, seeds, roots, and tubers, flesh of wild land and water animals, and birds.

Indian Mesolithic Cultures: We have nearly sixty radiocarbon and eight Thermoluminescence (TL) dates from over twenty sites. These show that the Mesolithic people lived between 10,000 and 2000 B. P. In the later part of their history they came into contact with rural and urban people. As a result of this contact the nomadic and hunting gathering way of life underwent modification. The majority of the hunter-gatherers got settled, took up agriculture and other sedentary occupations and were assimilated into caste-based Hindu society.

Brief Descriptions of Major Mesolithic sites of India

(a) Teri

Teri sites are located on red-coloured dunes, along the eastern coast of Tamil Nadu. They were first discovered by Robert Bruce Foote, Father of Indian Prehistory, towards the esnd of the nineteenth century. These dunes were formed during the Terminal Phase of the Last Ice Age or Upper Pleistocene, when sea level had fallen several metres lower than the present one. Because of lowered sea level large areas were exposed along the coast, and sand from exposed beaches was blown by wind and deposited along the coast. Hunter-gatherer groups occupied the surfaces of the dunes to exploit the marine resources of the shallow sea and vegetable resources of the trees and plants growing in the vicinity of the beach. During the post-glacial period when temperatures started rising and rainfall increased, dunes became consolidated and were weathered to a reddish colour. Archaeologists call them teri because they are known by that name in the local Tamil language. While the biological material on dune surfaces has decayed due to weathering, large quantities of stone artifactsand their manufacturing debris have survived.

The Teri sites, particularly Sawyerpuram, one of the largest, were explored by anthropologist, A. Aiyappan in the early 1940s. Later, in 1949, F.E. Zeuner, Professor of Environmental Archaeology at the Institute of Archaeology, London University examined the dunes, studied the red weathering, and collected stone artifacts from them. Zeuner took the artifacts with him to England where they were studied by archaeologist, Bridget Allchin. Together they published a comprehensive article on them, along with a reasoned interpretation of the climate during and after the formation of the dunes and their occupation by man. Their interpretation continues to be valid to this day.

Sarai Nahar Rai

The site of Sarai Nahar Rai is located in the plain of the Sai river, a tributary of the Gomati, in Pratapgarh district of Uttar Pradesh. The flat ground outside the village was used by the farmers for threshing of harvested crop by trampling under oxen hooves. Because of this activity over many years, stone artifacts, animal bones, and human skeletons buried below the surface got exposed and came to the notice of the village people. The news spread by word of mouth and people of surrounding villages started visiting the place out of curiosity. The news reached the ears of Dr. Ojha, a lecturer in the Department of Ancient Indian History, Culture &Archeology, Allahabad University and Acting Director of U.P. State Archaeology Department. Through Dr. Ojha, it came to the notice of G.R Sharma, Head, of Archaeology department, Allahabad University, who carried out an excavation at the site and discovered a large quantity of stone artefacts, clay-coated fresh water shells, animal bones, and 14 human skeletons in excellent state of preservation. The skeletons have been scientifically studied by Prof. Kenneth A.R. Kennedy of the Cornell University, Ithaca, New York, U.S.A., and his colleagues and students.

Prof. Sharma organised a systematic exploration in Pratapgarh and neighbouring districts for locating more sites similar to Sarai Nahar Rai. In the course of the next few years more than 200 sites were brought to light. The most important of these are Mahadaha and Damdama in the same district, Chopani Mando in Allahabad district, and Baghor II, Baghor III, and Ghagharia in the neighbouring Sidhi district of Madhya Pradesh. All these sites have been excavated by the Allahabad University, those in Sidhi district, jointly with the University of California, Berkeley, U.S.A. The excavations have thrown a flood of light on the earliest human colonisation of the Ganga plains. Human skeletal material from these sites has been studied by Prof. KenethA.R.Kennedy and his colleagues and students like J.R. Lukacs, J. Chiment, T. Disotell, D. Meyers, and N.C. Lovell, and animal remains by P.K. Thomas and P.P. Joglekar of the Deccan College, Pune.

(b) Langhnaj

The site of Langhnaj is located on one of the numerous sand dunes in Mehsana district of Gujarat. These dunes were formed during the hyper-arid climate of the Upper Pleistocene and were stabilised after the monsoon revived during the Terminal Pleistocene. The dunes form a rolling topography, and are clustered around a depression which gets filled by runoff from the dunes during the monsoon and retains till the next monsoon. It is a source of water for humans to wash their clothes and for livestock to drink and be bathed. As the dunes have a thick layer of soil formed during the sub-humid climate, they support a thick vegetation of thorny plants, bushes and grass which provides food for grazing animals. Leaves and fruits of trees and bushes like ker (Capparis decidua), kumat (Acacia senegal), khejri (Prosopis spicigera), kheenp (Leptadeniapyrotechnica) provide food for humans. Because of the pressure of human population wildlife has considerably declined but until nilgai is still seen and herds of blackbuck (Antilope cervicapra), chital (Axis axis), and gazelle as well as wild boar, jackal, fox, mongoose, porcupine, hedgehog were quite common until a few decades ago. Their flesh was a rich source of protein-rich and their skins were probably used for clothig and covering musical instruments like drums of various sizes and shapes. With assured source of food and water, Mesolithic human groups occupied almost all the dunes as testified by the presence of stone artifacts, their manufacturing debris, querns, grinders, hammerstones, and bones of wild animals.

Langhnaj was excavated by the eminent archaeologist H.D. Sankalia on several occasions between 1941 and 1949. He invited his colleague, IrawatiKarve, Professor of Anthroplogy, and G.M. Kurulkar, Professor of Human Anatomy at the Govardhandas Medical College, Mumbai, to join him in the excavation to excavate the fragile human skeletons carefully. Besides the stone tool industry of microliths and non-microlithic stone tools, the excavation yielded fragments of querns and grinders, at least one perforated disc, small sherds of hand-made pottery, bone and dentallium shell beads, a copper knife in the middle level of the deposit, fragments of wheel-made pottery, an iron arrowhead and pieces of iron, and charred animal bones, including a scapula or shoulder blade of a rhinoceros.

(c) Bagor

a) Environmental Setting

Bagor is a large village on the left bank of the Kothari river, a tributary of the Banas, 25 km west of the town of Bhilwara in Rajasthan. The prehistoric site lies on a large and prominent sand dune, locally known as Mahasati, on the left bank of the Kothari, a non perennial river, about 1 km east of the village. Bagor is located in the centre of the undulating rocky plateau Mewar east of the Aravalli hills. Much of the

plateau is covered by an open woodland of khejri (Prosopis spicigera), babul (Acacia arabica), dhak (Butea frondosa), and khajur (Phoenix sylvestris), and bushes of kair (Capparis decidua) and ber (Zizyphusjujuba). Annual rainfall of 60-70 cm occurs mostly during July-September. Extensive tracts of rocky land - what Kipling called the 'stony pastures of Mewar' provide adequate pasture for cattle, sheep, goats and camels. Pastoralism is an important part of the rural economy. Wild life comprising blackbuck, nilgai, wild boar, jackal, fox, monitor lisard, partridge and sand grouse was plentiful fifty years ago used s common even today.

b) Site and Excavation

The site, which covers an area of about 10,000 Sq. m., was excavated by V.N. Misra from 1973 to 1977. The dune rising to a height of six metres above the level plain, provides a commanding view of the surrounding countryside. This must have favoured its selection for occupation by prehistoric man. Our estimates, based on the excavated area, show that an area of at least 80 x 80 m or well over 6,000 sq. m. was occupied from the beginning of the settlement.

The habitation material occurs throughout within the sand, thus attesting that the dune was under active formation when prehistoric man occupied it. Five layers were recognised in the 1.5 m habitation deposit. Cultural material was found in the top three of them.

c) Cultural Sequence

The excavated deposit reveals an occupation of over a period of five millennia. During this period a culture based on stone technology and hunting-pastoral economy underwent continuous evolution as evidenced by the appearance of new material traits and the decline and disappearance of older ones. The most abundant material which continued all through the occupation was the microlithic industry. No stratigraphical and cultural break is seen in the occupation. On the basis of changes in material culture three phases of occupation or can be recognised.

In Phase I (c. 5000 – 2800 B.C.) microliths and animal remains were most profuse, and economy was based on a combination of hunting-gathering and herding. People lived in huts with stone-paved floors and wattle walls, or sheltered behind wind breaks. The dead were buried within the settlement in an extended position laid out east-west.

In Phase II (c. 2800 – 600 B.C.) stone artefacts and animal bones begin to decline in quantity, but copper tools and pottery make their appearance. Pottery is hand-made with incised decoration. The dead were still buried in the habitation area but in a flexed position and oriented east-west. The graves were furnished with clay pots, metal tools, ornaments and food offerings. Increased material Cultures prosperity implies a more secure and stable economy and greater reliance on animal domestication.

In Phase III (c. 600 B.C. – 200 A.D.) occupation was restricted to the central part of the mound. Microlithic industry declined greatly and the animal bones were scarce and highly fragmented. Iron tools come into use, and pottery was more plentiful and entirely wheel made. Glass beads were added to the repertoire of ornaments; kiln-fired bricks and tiles were used alongside stone in structures.

d) Microlithic Industry

The flaked stone industry is unusually rich, with several hundred thousand worked pieces, and comprises the most common material at Bagor. No other site in India has yielded microliths in comparable

numbers. The finished tools and their manufacturing debris are distributed more or less uniformly all over the inhabited area showing that the tools were manufactured within the settlement and that every family or social unit may have produced them for its requirement. The highest density is found in Phase I, which contains 45 to 55 %, of the material. It declines progressively in phases II and III. No marked typological or technological change has been noticed from lower to upper levels. Quartz and chert were the most common raw materials used. Although quartz predominates in the waste material, majority of the finished tools are made of chert. The greater use of quartz was no doubt due to its ready availability in the nearby quartz veins in schistose rocks.

The lithic industry is truly microlithic in that it is based on the mass production of micro blades and their conversion into various microlithic forms. Non microlithic tools, such as scrapers and burins, made on cores and flakes, are rare. More than forty types have been recognised of which the most common are: 01. Blade with flat retouch; 02. Blunted back blade; 03. Obliquely truncated blade; 04. Obliquely truncated and blunted back blade; 05.Triangle, mainly scalene and isosceles, 06.Trapeze; 07.Transverse arrowhead ;08.Rhomboid 09.Crescent; 10. Point

Besides these there are also some tools made on flakes and cores such as side, end, and round scrapers, and burins.

The microlithic industry is essentially geometric and appears to be most suitable for hunting. Technologically, a distinctive feature of the industry is rarity of the use of crested guiding ridge technique for removal of blades. Although occasional tools measure 40 mm or more in length, the majority are between 15 and 20 mm, and some measure between 5 and 10 mm only. Most microliths, particularly crescents, triangles are very carefully and retouched perfectly symmetric in form. It is indeed a puzzle how such tiny pieces measuring less than 10 mm could have been hafted and used. Another notable feature of the industry is the presence of petit tranchet or transverse arrowheads in good numbers. This type is rare in other Indian microlithic industries. The Bagor industry is characterised by a very high standard of craftsmanship. The only microlithic industries which can compare with it in typology and technology are those of the MorhanaPahar group of rockshelters in Mirzapur district of U.P.

e) Copper Objects

Apart from fragments, five well-defined objects were found among offerings with the two burials of Phase II. These include one spearhead, one thin rod, and three arrowheads. The spearhead is broken at the basal end. Both faces have a distinct mid rib and the sides taper gently towards the tip. The rod is 10.3 cm long, has a diameter of 2 mm., and is thicker near its lower tip, and the upper tip is folded to form a loop. It could have been used as an awl or to apply kohl as eye decoration.

The arrowheads are 22-25 mm long, 19-24 mm broad and 1.5 –2 mm thick. Two of these have a concave crescentic base and the third has a barbed base. All three are provided with two holes near, and parallel to the base. These must have been meant to secure the arrowhead to the shaft with the help of a string, metal wire or rivets.

The arrowheads are of considerable typological and cultural interest. Similar specimens but without holes are known from a number of Harappan sites in north Rajasthan, Sind, Punjab and Baluchistan, and from the Chalcolithic site of Azad Nagar in Indore city in M.P. There is no evidence to show that the people of Bagor knew metallurgy and had themselves produced the arrowheads. Most probably they obtained them and other metal objects from itinerant metal smiths who also catered to the metal requirements of the Harappan and Chalcolithic people.

f) Iron Tools

Besides many amorphous bits of iron, two well-preserved arrowheads came from the deposit of Phase III. One of them is socketed and the other tanged.

g) Pottery

Isolated bits of pottery - 1 to 2 cm in size – appear almost down to the bottom of the deposit but they are too small to indicate any shape, and are certainly derived from upper levels by infiltration. Thus Phase I is best regarded as devoid of pottery. However, as this level is richest in microlithic industry and animal remains, absence of pottery in Phase I does not indicate a lower intensity of occupation. It is only in Phase III that pottery appears in reasonable quantity.

Two main fabrics, named A and B, can be recognised; fabric A is characteristic of Phase II while fabric B is predominant in Phase III. A Ware is made of gritty and micaceous clay. Both surfaces of the pot are treated with a slip of fine clay, and in many vessels the slipped surface is burnished. Bright red slip has faded away in most cases and survives as dull brown colour. Firing has been done at a low temperature, rendering the pots highly fragile. There are no clear striations, and most pots seem to have been made entirely by hand.

Over a dozen complete pots were found which, with one exception, were associated with three burials. They include broad-mouthed jars, small lota-like pots, large shallow basins, smaller and deeper basins, and bowls in a range of sizes. There are also a few miniature vessels types which might have been used for ritual purposes. Two large, deep bowls have a pair of holes on the sides, suggesting either that they were suspended by strings for carrying food, for protecting it from pests within the home or for tying on a lid. Though none of the complete pots is decorated, many sherds bear designs which are all incised and include groups of parallel bands, chevrons, herring bone patterns, criss-crosses, groups of short strokes, and finger nail incisions.

Mesolithic Cultures Although absence of the use of potter's wheel and inadequate preparation of clay and low temperature firing, show a simple ceramic technology, the surface treatment and forms are quite sophisticated. Indeed, several carinated forms suggest copying in clay of shapes natural to metal, and it is clear that Bagor pottery belongs to a mature tradition with a long evolution elsewhere.

Phase III pottery or B ware is very different from Phase II pottery and does not develop from the latter. It is entirely wheel made. Firing in this ware has been done at a higher temperature and pots are thinner, lighter and stronger than those of the A ware. They have a brick red surface and a reddish or bluish core. The common shapes are large jars and small cylindrical pots, and bowls. Decoration in this ware is rare and the few designs present consist of simple incisions. In general the pottery of Phase III is utilitarian and lacks any aesthetic appeal. The pear-shaped vessel and the bowl with flat base are typical forms of ShungaKushana period. They are very common in the early historic pottery from Balathal in Udaipur District. Therefore Phase III can be described as Early Historic.

h) Structures

In Phases I and II the only structures are large floors made of schist slabs and pebbles. In some places the stones appear to be aligned in a circular fashion with diameters of 3 to 5m., which may represent the outer periphery of circular huts or windbreaks. At several places small areas, 40 to 70 cm across, were paved with tightly packed stones, and were associated with concentrations of animal bones. These features might represent butchering floors for although there were plenty of charred bones, no hearths or fire places. In Phase III kiln-baked brickbats and tiles were also used in construction.

i) Disposal of the Dead

Five burials were found; one in Phase I, three in Phase II, and one in Phase III. All of them were within the settlement, a practice now well known to have been in vogue at Mesolithic sites in western and central India, and the Ganga plains, and in the Neolithic cultures of Kashmir and south India, and the Chalcolithic cultures of Maharashtra. In Phase I the body was laid in an extended position with lower left arm resting over the trunk and with its head towards the west. No grave goods were offered although a few animal bones found in the vicinity might be associated with the burial. In the three burials of Phase II the body was laid in a flexed position, with arms and legs folded as in a sleeping pose, and with the head to the east. How far this change in the burial practice signifies a change in the ethnic composition of the community is not possible to say as the skeletons of both phases I and II are too poorly preserved to draw any meaningful conclusions about their physical features. According to Kenneth A.R. Kennedy and John R. Lukacs, who examined the Bagor skeletons for their morphology and dentition, the only skeleton from Phase I (Mesolithic) is an adult female while of the three skeletons from Phase II (Chalcolithic) one is a child, one is an adult female, and one is an adult male. The only skeleton from Phase III is an adult female. However, subsequent examination of a small square object found on the neck of this skeleton showed the object to be a Muslim period coin. For this reason this skeleton appears to be a very late interment and cannot be associated with the cultural material of this phase.

The burials were provided with many of ferings in the form of pottery vessels (originally no doubt containing food and water), ornaments, metal objects, and cuts of meat. In one case as many as eight pots were arranged near the head and on the left side of the body; two copper arrowheads were placed on the left side, one of them right on the lower left arm, and a large animal femur lay close to the body. In case of another burial four pots were placed near the feet and on the left side, a spearhead and an arrowhead lay near the head, and an awl or antimony rod (all made of copper) was placed below the abdomen. A broken terracotta spindle whorl was kept near the feet. In addition, thirty-six beads, mostly of banded agate and carnelian but some also of bone were found strewn on the chest and around the neck. The beads, from their position, almost certainly were part of a necklace which was worn by the dead person. With the third burial, that of an 8 to 10 year old child, only a single pot was kept near the head. The teeth of the Mesolithic specimen were free from any dental pathology. Of the two Chalcolithic specimens for which information is available the adult one had suffered from caries while the child was free from any dental disease.

j) Stone and Terracotta Objects

Numerous hammerstones occurred all through the deposit but were more common in Phases I and II. All these bear tell-tale bruising marks in one or more places. They were no doubt used in the manufacture of stone tools and for breaking and splitting open animal bones. Some of the stones are of perfectly spherical shape and bear pecking marks. These were probably used as sling stones. Fragments of shallow stone querns and a number of flat rubbing or upper grinding stones were also found in all levels. The small size of these querns and shallow depressions on them contrast sharply with the large and deep quern so common on Neolithic and Chalcolithic sites. This and their small number preclude a significant role for them in food preparation. In Phase II were also found two perforated stones of the type common at Neolithic and Chalcolithic sites and referred to in the archaeological literature as mace heads, or as weights of digging sticks. The only terracotta object found is a broken plano-convex spindle whorl with its flat surface decorated with a frieze of punctured triangles. It was found associated with a burial of Phase II.

k) Ornaments

In Phase I only a few stone beads were found. These are similar to those of Phase II and are likely to have been derived from that level in which beads were very common. They are mostly of banded agate, carnelian and garnet, and are of short tubular and barrel shape. A few tiny bone beads are also present. Reference has already been made to a necklace of stone and bone beads found on one of the Phase II burials. In Phase III glass beads were also used and there were several kinds of stone pendants. Pieces of geru or ochre were found throughout the deposit. In the absence of painted decoration on pottery, pigment from these pieces may have been used for decorating the human body.

l) Food and Economy

The only direct evidence for reconstructing the subsistence basis of earlyBagor are animal bones. These are most common in Phase I, begin to decline in Phase II, and are scarce in Phase III. Most of them are charred and fragmentary showing that meat was roasted on open fires and the bones broken and split open for the extraction of marrow. The abundance of bones in Phases I and II suggests that animal food was more important in the earlier stages of the settlement. The remarkable correspondence in the distribution of animal bones and microlithic industry confirms that hunting was an important activity in Phase I and to a lesser extent in Phase II as well.

A study of the animal remains by P.K. Thomas (1975) shows the presence of both wild and domesticated species from the very beginning. Domesticated species include cattle (Bos indicus), buffalo (Bubalusbubalis), sheep (Ovisaries), goat (Capra hircusaegagrus) and pig (Sus scrofacristatus), and wild ones comprise fox (Vulpes bengalensis), mongoose (Herpestesedwardsi), nilgai (Boselaphustragocamelus), blackbuck (Antilope cervicapra), chinkara (Gazelladorcas), chital (Axis axis), and hare (Lepus nigricollis). D. R. Shah and K.R. Alur, who had examined a part of the faunal collection before Thomas, have also noted the presence of barasingha (Cervus duvauceli), hog deer (Axis porcinus), wild boar (Sus scrofacristatus, Wagner), jackal (Canis aureus), rat (Rattus rattus), monitor lisard (Varanus flavescens, Gray), river turtle (Lissemyspunctata, Bonnaterre), and fish.

Thus the subsistence economy of the Bagor people during Phase I was based on a combination of hunting and herding. In phase II a decline in the quantity of animal bones and stone tools would suggest a reduced role for hunting and by implication a greater reliance on food production. Other evidence also points in the same direction. First, the introduction of pottery, metal tools, and ornaments, and richly furnished graves all reflect greater prosperity and a more stable and secure economic basis. It should be noted that constellation of traits is otherwise known only from sites where agriculture is established as a certainty. Secondly, perforated stones found in this phase are often interpreted in the archaeological literature as weights of digging sticks used in primitive agriculture.

In Phase III animal bones are scarce and more fragmentary, thereby restricting their amenability to zoological identification. A corresponding decline in microlithic industry would indicate a further decline in the role of hunting. Iron tools, wheel made pottery, and use of kiln-baked bricks, tiles and dressed stones in structures all suggest that agriculture must have been well established by this time.

m) Chronology

Five radiocarbon dates based on bone carbonate samples have been processed by the Tata Institute of Fundamental Research, Mumbai. They suggest that the chronology of the occupation of the site by early men varies from 4,480 B.C. to 2, 110 B.C.

d) Bhimbetka

a) Location and Associated Sites

Bhimbetka is a name of a large hill, located near the tribal village of Bhiyanpur, by the side of the Mumbai-Delhi line of the Central Railway, 30 km north of Hoshangabadand 45 km south of Bhopal. The hill is a part of the deciduous woodland-covered Vindhyan Hills of Central India. The hill, with an area of one sq. km. is topped by disjointed monolithic rocks, which contain at their bases and sides as also of many other rocks on the hill a complex of nearly 800, Indian Mesolithic Culturesprehistoric rock shelters and caves, the lar gest concentration at one site in the world, in Sehore district of Madhya Pradesh. While Bhimbeka is the largest hill in the area, several other hills, like Bhaunrewali, Kari Talai, Vinayaka and Jondra, in its vicinity, also contain shelters of varying sizes. The shelters have been formed by natural erosion of the Vindhyan sandstone of which the hill and the rocks surmounting it as well as away from it are formed. While almost all the shelters contain paintings of prehistoric to medieval periods, a few of them also contain evidence of human occupation in the form of stone tools, pottery, copper and iron tools, beads of stone, steatite, faience and terracotta, other objects, animal remains, and human burials. Evidence of occupation in a few shelters goes back to a few hundred thousand years. Because of the quantitative and qualitative richness of its archaeological wealth, Bhimbetka has been granted the status of a World Heritage Site by the UNESCO.

"Bhimbetka, discovered by V.S. Wakankar of Ujjain University in 1957, is a complex of nearly 1000 caves and rock shelters in the forested Vindhya hills, 45 km. South of Bhopal and 35 km. North of Hoshangabad in Madhya Pradesh. Over 500 shelters contain paintings of Stone Age to Late Medieval Period, and some of them also contain habitation deposits of Lower Palaeolithic to Early Historic period. A number of the shelters were excavated by V.S.Wakankar and V.N.Misra, from 1973 to 1977. The excavations yielded rich cultural evidence of the Lower Palaeolithic to Early Historical periods and biological evidence of the Mesolithic period."

b) Environmental Setting

What is the explanation of the richness of this archaeological wealth? Bhimbetka and its surroundings receive annual rainfall of about 1000 mm. Because of this the hills are covered with dense vegetation. The forest in the valley as well as on the slopes and tops of the hills contains numerous trees, plants and creepers which have edible leaves, flowers, fruits, seeds, roots and tubers. The hills also harbour many herbivores which are a large source of meat. There are a number of perennial springs and seasonal streams which are a source of assured water supply for animal and human populations of the area. Numerous caves and shelters provide ready-made protection against the elements. The hills have an inexhaustible supply of fine-grained quartzite for making tools. A few kilometres south of Bhimbetka there are exposures of Deccan lavas which contain veins of quartz and siliceous minerals from which Mesolithic people made their tools and weapons. Blessed with such abundance of all essential resources, Bhimbetka was indeed a prehistoric paradise, and it is therefore no surprise that the inhabitants of the shelters had enough leisure to produce one of the richest and most beautiful corpus of prehistoric art in the world. The site was jointly excavated by Dr.Wakankar and V.N. Misra..

c) Wakankar's Excavation

V.S. Wakankar excavated seven shelters and V.N. Misra excavated three. In one shelter, IIIF-24 or Auditorium Cave, Wakankar found evidence of Early Acheulian culture and Pre-Acheulian chopper-chopping tools. In another shelter, IIIA-28, he found a boundary wall made of large boulders to enclose the Acheulian habitation area. In several other shelters, he came across evidence of Middle Palaeolithic, Upper Palaeolithic, Mesolithic, Early Historic and Medieval period occupations. In some shelters he found human bones which he believed were fossilised.

V.N. Misra's Excavation

V.N. Misra excavated three shelters: IIIF-15, IIIF-23, and IIB-33. Of these, IIIF23 is the most Mesolithic. The Mesolithic habitation area was partitioned into two by a wall of stone slabs and boulders. While Pre-Mesolithic industries were all made of quartzite. Mesolithic assemblage was made entirely of cryptocrystalline siliceous material. Bones collected from a secondary burial were placed on the floor of the shelter. Shelter IIIF-13 produced a lot of ash from a fireplace, small pieces of wheel-made pottery and microliths and other stone tools.

Shelter IIB-33 had the thickest habitation deposit of 1.5 m, and it belonged exclusively to the Mesolithic. The deposit yielded a highly developed geometric microlithic industry, many upper grinding stones, a few ground bone and antler pieces, and some pieces of ground red ochre. All these were associated with several primary burials found one above the other. The deposit also produced plenty of charcoal which was used for dating by PRL and BSIP laboratories. A number of dates ranging from 2000 to 8000 B.P. were obtained from this charcoal.

e) Contact between Mesolithic Hunter-gatherers and Chalcolithic Farmers

All the shelters yielded evidence of contact of Mesolithic hunter-gatherers with settled farmers. This evidence consists of copper tools, painted pottery, stone, steatite, faience, terracotta, agate and carnelian beads, and bangles of shell, porcelain and glass.

f) Rock Paintings

In addition to its rich and varied evidence of human occupation during the Mesolithic period, Bhimbetka is justly famous for its spectacular wealth of rock paintings. Almost every shelter on Bhimbetka hill contains some paintings. The same is broadly true of shelters on the other hills. A few shelters like the Zoo Rock, Wild Boar and Crab, IIIC-9, and Rangmahal are particularly rich in paintings.

The paintings occur on the walls and ceilings and in the niches or hollows in rock walls. They are made in red, white, yellow, green, and, rarely, black colours. These colours were produced by grinding naturally occurring pigment nodules into powder. The powder was mixed with plant sap or animal blood to form the pigment for creating the paintings.

g) Subject Matter of Paintings

The paintings depict a large variety of wild animals which comprise oxen, gaur, buffalo, antelopes like nilgai, blackbuck, deer like barasingha, sambhar, chital, hog deer, and barking deer, elephant, rhinoceros, tiger, leopard, hyena, wolf, jackal, fox, porcupine, monkey and rat. They are portrayed as sitting, standing, walking and running individually or in groups. The animals are realistically drawn and are characterised by

vitality and dynamism. Next to them are scenes of hunting of animals by using spears, sticks, bows and arrows, traps and snares as also of fishing and digging of rats, tubers and roots, and collection of honey. Small animals are collected in bags or baskets, and carried to camps with the bag slung over the shoulder or back. There are also scenes of sanctified animals like the wild boar which is depicted in several shelters.

h) Importance of Bhimbetka

Bhimbetka is thus an archaeological site of exceptional importance in terms of the record of prehistoric technology, economy, biology, and art. When V.N. Misra and his team conducted excavation at the site in the 1970s, access to it was very difficult. The team had to walk over uneven and steep rocks and boulders, and close to deep ravines. Misra'steam had to transport their camp and digging equipment on labourers' heads and in bullock carts for which track had to be made every time by dislodging boulders, breaking rocks, and filling depressions with rubble and mud.

Because of its artistic treasure the site received wide publicity through national and international news channels, news on radio and TV, articles which Wakankar and Misra wrote for English, Hindi, and Marathi newspapers and magazines, hundreds of visitors from Bhopal and nearby towns, and visits of a large number of Indian and foreign archaeologists to our excavations. The visit of the charismatic Prime Minister Rajiv Gandhi and Smt. Sonia Gandhi to Bhimbetka in 1984 further boosted its image. Following this visit the Madhya Pradesh Government built a road connecting the site to Itarsi-Bhopal highway, right up to the top of the Bhimbetka hill, a guest house and essential facilities for tourists. In 1978 V.N.Misra organised an international symposium on Indo-Pacific Prehistory at Pune. Nearly a hundred archaeologists from India and over 25 foreign countries who participated in the excavation also visited Bhimbetka. This visit further boosted the national and international image of the site.

The central and M.P. Govt. have all along been very supportive of our research and our efforts to bring Bhimbetka to the notice of the national and international archaeological communities and the public. Even while V.N. Misra's team were excavating at the site, the Archaeological Survey of India (ASI) had declared Bhimbetka a site of national importance. The building of infrastructural facilities has boosted tourist traffic to the site.

2.5 Neolithic Culture

It is known that man has evolved since the last two million years. The two million years long history of man, is divided within three main technological stages —Stone, Copper/Bronze and Iron. Stone Age itself is classified into three, two of which — the Palaeolithic and Mesolithic have already been covered earlier. In this Unit, the final stage of Stone Age, the Neolithic shall be discussed. Beginning of food production and related technologies were important events in human history. India also contributed to this venture. The Neolithic cultures in close succession gave rise to the metal using cultures. Use of metal, the copper of the Chalcolithic cultures, in India developed from rural to urban stage. In this unit, 'Neolithic Revolution' shall be discussed with particular reference to the 'Nucleus Areas and Salient Features of Neolithic Cultures in India'. The term 'Neolithic' has been explained. Also reasons for calling it a 'Revolution', included. The main characteristics of Neolithic period, the incipient farming and pastoral practices, are mentioned with a brief outline of the tools and equipment, nature of dwellings and settlements, there after.The factors responsible for the initiation of food production are essential to know. A brief outline of West Asia, where the origin of food

producing practices is well documented is very significant for history of Neolithic culture of India. The new technologies originated in this region, and spread to the other parts of the world including India. Neolithic Stage is known from the archaeological findings. In India, remains of this period are found from a number of areas. The nature of Neolithic findings, along with the main diagnostic features too is important for better understanding. The main regions of Neolithic occupation are also identified. The regions of Neolithic spread in India can be identified as — Nucleus and peripheral areas. Kashmir Valley, Vindhya-Ganga region, and Deccan, are markedas Nucleus areas of Neolithic occupation. Salient features of each have beendiscussed. The findings of the other areas like Ganga plain of Bihar and Bengal,Chhotanagpur plateau and Assam, Neolithic have been discussed under the headPeripheral regions of Neolithic in India.

2.5.1 *What Is 'Neolithic Revolution'?*

The literal meaning of 'Neolithic' is New Stone Age. It is the last phase of Stone Age. It is marked by a number of new cultural traits. Like use of new technology for making stone tools, new subsistence, new dwelling tendency etc.All the three distinct stages of Stone Age are characterised by stone tool-making. In the oldest, the Palaeolithic stage, the first efforts of tool making can be seen in very primitive forms of chopping and cutting implements. In Palaeolithic period, the development of stone technology was in the form of decrease in the size andincrease in the efficiency of the working edges. As a result, in the succeeding stage, the Mesolithic, large quantities of micro/ pigmy tools were being made. This category marked the culmination of Palaeolithic technology. From the use of the individual tools, the change was to the use of small tools in composite forms. Tools like sickle, harpoon etc., could be made by hafting some triangle son one base. This long practice of development suddenly reversed during the Neolithic time. Large and heavy tools made on hard stones were produced and used. This was a new technological stage. Neolithic tools are also named as — 'Polished stone axes', 'Ground stone axes'etc. Two new features came to be in practice. One was making of axes and the other was, grinding of the surfaces of tools. Grinding often resulted in polishing of the surface. Because of these features the new stone tool making tradition was named as above. During the Palaeolithic and the Mesolithic stages the mode of subsistence was hunting and gathering jungle products. Animal and plant food available in natural form was collected and consumed. Contrary to this in Neolithic stage, man for the first time started producing food by artificial means. Two practices were initiated at this time, — agriculture and domestication of animals. There were some wild species of animals, such as — goat, sheep and cattle, which were tamed. Similarly, wild variety of barley, wheat and paddy, were cropped at the initial stage. Since this was the first stage, both these practices were in incipientor primitive form. But, these were new and important innovations in the history of man. Agriculture was such an important invention that a small section of the society was able to produce food for the entire community. It was thus, termed as'Green Revolution' by archaeologists. V. Gordon Childe coined the term Neolithic revolution in 1920 when he was describing the first agricultural revolution. He considered the beginning of food production as a revolution because food production ushered important and significant changes in the subsistence economy and life of the communities who started this. Surplus food production by the farmers made it possible for large section of the society to master skills of arts, crafts and technologies. A natural outcome of which was a rapid growth of trade and commerce and, economic affluence. The new subsistence also changed the dwelling pattern. The nomadic tendency of hunting-gathering changed into 'sedentary' or settled life. Wandering from one to other place in search of edibles was not required now. Instead, man's dwelling was governed by the

preparation and use of cultivated fields. Construction of durable structures, villages near the farming fields were inevitable.Domesticated animals too required a shelter, which formed part of human dwellingcomplex.All the above new beginnings and a number of other cultural traits justify theterm 'New Stone Age' for the Neolithic. The term 'Revolution' is attached to itdue to the unique innovation of food production strategies, particularly agriculture.It is therefore addressed as 'Neolithic Revolution'.

2.5.2 *Tools and Technologies of Neolithic Period*

The diagnostic feature of Neolithic period is 'Ground stone axes' or the 'Polished stone axes'. The most common type of a Neolithic tool-kit is axe or celt. Shaped almost like the present day iron axe, this was the form having one sharp cutting edge, and a butt. The type is found in small to large sizes. Variation in shape of the butt in the form of English alphabets V, U and with shoulders can be found. Similar to present day, a Neolithic axe was hafted to a stick with its cutting edge parallel to the haft (Fig.1.1 A). The other common type is adze. Almost similar in look the edge of this tool is so that it is used by hafting it in a way that its cutting edge is placed perpendicular to the haft/ handle (Fig.1.1 B). This is a carpenter's tool. The other forms are ring-stones, chisels, hoe, pick etc. All these types are agriculture and carpentry tools. A Neolithic tool-kit is made from locally available fine grained, but hard rocklike basalt, dolerite, schist etc. After selection of the basic lump of suitable stone, the main form of the tool is produced by knocking off extra mass of stone by a stone hammer (Fig. 1.2. A). This procedure is known as flaking. The initial flaking leaves prominent ridges and depression on the surface of the tool. In the second stage the undulation of the surface is flattened by removing very small chips(Fig. 1.2. B). Remember, metal was not known at this stage, so this flaking too was performed by stone or antler. The fine flaking of the second stage is named' pecking'. Though pecking flattens the surface of tool considerably, it still leaves surface full of minute undulations. Thus the surfaces of the tool in the final stage were rubbed over a block of stone covered with sand layer (Fig. 1.2.C). Such agrinding operation made the surface completely smooth and also made it shiningat times.

2.5.3 Origins of Food Production Practices

a) Background For Origins

Archaeological records for the earliest food production practices come from West Asia. In around ninth/eighth millennium BCE (Before Common Era), agricultural and pastoral practices were innovated. Wild animal species like sheep, goat, and pig were tamed. Also wild varieties of wheat and barley were the first crops which were cultivated. The question is why this innovation happened in West Asia? A number of factors worked together prompting the initiation of food production practices, here. Mesolithic, the preceding stage of Neolithic, was very wide spread in Levant Valley of West Asia. The Savanna climatic condition which prevailed in the early Holocene period, were marked by large stretches of grass land and small patches of jungles. In this ecological niche wild variety of cereals like wheat and barley were plenty. Also the population of grazing animals like sheep, goat, cattle, deer etc., was high. Mesolithic man, who had acquired all the physical capabilities of Homo Sapiens Sapiens, had a much milder and congenial climatic conditions than his ancestors. Though hunter-gatherer, he became familiar with the nature and behaviour of edible plants, seeds, animals etc. He got well adapted in Savanna landscape of the post-Pleistocene arid conditions. It is a known fact that when species get adapted within an ecological niche, their population increases. The increase of Mesolithic population in West Asia create the situation of 'food crises'. The natural resources of both cereal

and animal began to lessen. Because, in gathering practices, the seed/ essential part of the cereal yield to be used for next crop was also consumed. Similarly, the hunting of grazing animals and their younger members too was detrimental to keep balance between the consumption and the growth. Thus, a continuous exploitation of natural resources by hunter-gatherers created a situation of food scarcity. It is said that necessity is the mother of invention. This proverb appears to be true in this case. Mesolithic man was not only physically fully developed, but was also familiar with his natural surroundings of edible plants and animals. Thus, he could initiate food production by means of domestication of cereals and animals. These efforts came up as agricultural and animal husbandry practices. Origin of food production may also be considered as the outcome of ecological niche formation as mentioned above. Human being has got the capability of handling down of knowledge from one generation to the other. Knowledge accumulates in every generation. Mesolithic people had an intimate knowledge about the species of plants they collected and the species of animals they hunted. It appeared that Mesolithic people with their knowledge about the environment and its resources became species specific hunter- gatherers, meaning they preferred certain species of plants and animals over others. The cereal, which we call domesticated variety are distinguished from wild varieties by a character of its seeds. The seeds in domesticated varieties do not fall off the stalk when ripe. These are known as no shattering types. In case of the wild cereals after ripening the seeds fall off the stalk and shatter around. Shattering of the seed is convenient for natural dispersal of seed. Non shattering types are not. Non-shattering types are mutants of the shattering types. Human beings selected the non-shattering seed type of cereals, namely, wheat, barley, rice, millet etc. for domestication because they could harvest and bring the cereals home with the seeds attached to the stalk. This saved them from picking seeds one by one from the ground. Theyalso took charge of propagation of the cereals by planting the seeds of these varieties near to their home stead. West Asia, particularly Levant region, has been mainly identified as the nucleus area for the origin and growth of Neolithic strategies. For not only was the above geographical background available here, but also one finds individual efforts of taming of animals and cultivation of cereals at very early date in this region. Wheat and barley were cultivated for the first time in Levant. There are other nuclear areas of food production as well. For example lower Yangtze valley in China is considered as nuclear zone for rice cultivation and Mexico for the cultivation of maize.

b) West Asia

Levant includes present countries of Israel, Palestine, Lebanon, Syria and Jordon. Zagros Mountain lying north of Rivers Tigris and Euphrates mark a half moonshaped plain of alluvium, which is known as the 'Fertile Crescent'. During early Holocene, this region had savanna climate. The severe post-Glacial climatic conditions were replaced by arid and mild seasonal climatic cycles. There was natural growth of such plants and animals in this region, which were suitable for human consumption. The original inhabitant of the region, the Mesolithic population got well adapted in this ecological niche, between 10, 000 and 8500BCE. As was explained earlier, this back ground laid the foundation for the origin of Neolithic technologies. Many sites of Mesolithic and Neolithic period have been discovered and some important ones have been excavated. As a result almost complete sequence of development of Neolithic is known to us from this region. The early dates and details of history of animal husbandry and agriculture have made this region as the nucleus area for the origin and development of Neolithic period. Four following stages have been identified in the history of Neolithic of West Asia.

Stage I

Advanced Mesolithic, represented by Natufian. Named after Wadi-el-Natuf, a long strip along the eastern coast of Mediterranean in the present day Israel, this stage was food collecting. Located at the lowest levels of large sites like Jericho, Beidha, etc. The stage appears to lay foundation for successive stages of food production.

Stage II

Proto-Neolithic, is a short span (8900 – 8500 BCE), with very limited remains. This is marked by sporadic attempts of beginning of cereal cultivation and taming of wild animals. This phase is marked at Natuf and at Jarmo in Iraq. These are represented with the presence of mortar and pestle – a cereal processing tool and the presence of sickles, the harvesting tool.

Stage III

Archaic/ Aceramic (without pottery) Neolithic (8500 – 6000 BCE),is comparatively well represented. Though no pottery was used, it is marked by settlement of permanent nature, a feature of 'sedentary life'. With the use of unbaked bricks (in the shape of flattened cigar),multi-celled houses were constructed. But, the most imposing feature in this stage was to fortify the settlement. A feature which is taken to be a characteristic of urban centre of historical times. Stone and bonetools, domesticated species of sheep and goat, and cultivated wheat and barley are noteworthy finds. Domestication of cattle appears in the last phase (around 6500 BCE). Needless to mention hunting and gathering of food items continued.

Stage IV

Developed /Ceramic Neolithic (6000 – 4000 BCE), is marked by an expansion in size of earlier settlements. At CatalHüyük in Turkeyan area of 32 acre could be demarcated as settlement. An estimate of10,000 to 8,000 people is calculated to be residing in here. Sun dried bricks now were of bun shape and the houses rectangular. All species of animal and cereal were being domesticated. The society was heading towards the stage of surplus food production. The follow up of Mature Neolithic by copper using community completed the story of Neolithic subsistence in West Asia. However, it may be noted that in archaeological records a hiatus, desertion of sites, is distinct, between Neolithic and Chalcolithic horizons.

c) *Expansion of Neolithic to the other parts*

West Asia thus could be identified as the nucleus region for the origin and growth of Neolithic practices. By 6000 to 4000 BCE, Neolithic was fully developed in this region. Agriculture and animal husbandry through an incipient stage, could give rise to imposing and affluent settlements, which looked similar to cities. Soon people from Levant migrated to other parts of the world. With them spread the food production strategies. As the evidence stands today, one branch from West Asia migrated to west. Through Anatolia this branch reached and settled in Europe. The other expansion was towards central and south-east Asia. It may be mentioned here that the major crop of South and South East Asia had been Paddy. Cultivation of rice, a complex process of agriculture appears to be of local origin in Asia. This innovation appears to take place in more than one region – the Spirit Cave in Thailand, Yang Sao in China and Belan Valley in India, for paddy farming.

2.5 .4 *Neolithic Remains of India*

It was explained earlier that the diagnostic feature of Neolithic period is the category of Ground Stone Axes. In India also all the Neolithic sites have yielded polished or ground stone axes in good number. Also adze, chisel, pick, hoe etc. form part of this tool-kit. Mace head or ring stone and stone ball form a separated category, as these appear to be used for defensive purposes. So are the quern, pestle, which were used for grain processing. Since all of these are made on large stone piece and are heavy in weight, these are also called 'heavy duty tools'. Besides the ground stone tools, Neolithic remains of India include earlier tools, like microliths and blades. Microliths are diagnostic tools of the Mesolithic period. But in many regions, these are associated with the Neolithic deposits, in small proportion. In some regions, like Kashmir Valley, microliths are not recorded from Neolithic deposits. Bone and antler tools comprised needle, point, arrow head etc. Broken bones of food refuge with point and edge were also used, as tools. At Senuwar this tendency was very pronounced. Use of earthen pots in large way was a Neolithic feature. But, in regions like Baluchistan and Kashmir, Aceramic Neolithic phase has been recorded. Earthen pots and pans were not in use in these regions. The pottery of Neolithic period developed from simple hand made forms like bowl, to wheel turned forms of bowls and vases. Study of tribes who make earthen pots by hands, like SemaNagas of the Northeastern India, suggest that bowls can by prepared by coil method. Surface of the pots were often decorated by pressing cord or mat in semi-dried condition. Grey or dull red colour of a typical early Neolithic pot is due to ill firing.On the floors of Neolithic period are found remains of simple structures. The post-holes and earthen floors indicate that shelters were constructed by the use of perishable material, like wood, bamboo and earth. There are also exampleswhenunder ground dwellings were used. The huts are found in archaeological records in small clusters. These might have looked like simple and small villages. However, in the north-western part of Indian sub-continent, durable rectangular houses similar to the West Asian Neolithic settlements were in use. But, in other parts of the country Neolithic settlements were in the form of small villages made of simple huts. Neolithic remains also comprise items of arts and crafts. Beads of semi precious stones, like — carnelian, chert, agate, lapis, turquoise, etc. and clay figures of animal like bull, and human, particularly portraying mother goddess, are important categories.

2.5.5 *Neolithic sites and regional pattern*

Recognition of Neolithic in India dates back to 1852 A.D, when an axe was found in Mysore. Many sites have been discovered, thereafter. A number of these were also excavated. Neolithic remains are reported from almost entire length and breadth of our country. But, the sites of the period are confined in small regional pockets. At least six regions, — the Kashmir Valley, Assam, Vindhya-Ganga region, Middle Ganga plain, Chhotanagpur and Deccan have yielded Neolithic sites. All of these are marked by varying characteristics, such as, — density of sites, date of existence, nature of subsistence and dwelling etc. Thus each region needs to be discussed individually. However, on account of the dates and density of sites, it is possible to divide each region of Neolithic occupation within two main categories — the nucleus and the peripheral regions, which are as below.

Three regions in India, — Vindhya-Ganga Valley, Kashmir Valley and Karnataka(Deccan), can be identified as nucleus areas for the Neolithic occupation. Evidence for early beginning of food production in India comes from Vindhya-Ganga Valley.While the northern most, the Kashmir Neolithic and the southern most, the Karnatak group are significant, due to their diverse culture formats.

2.5.6 Vindhyan Region

Ths region is characterised by two geological formations. One the fertile alluvial plain of the Ganga basin and the other is the hilly tract of Vindhyas (Fig. 1.3).The area lying within the boundaries of Uttar Pradesh is very important for the history of Neolithic remains. A continuous sequence of Stone Age has been recorded in the Valley of Belan, a tributary of the river Ganga. The geological composition of this region was very suitable for the Stone Age cultures. The Vindhya-Kaimur ranges are rich in variety of stones, and, the flat southern plain of Ganga is very fertile. Thus the geographical back ground which is needed for the origin of food producing strategies was available in this region. The cluster of sites of Neolithic, pre-Neolithic, and post-Neolithic in Vindhya-Ganga region provides evidence of origin and developmental stages of Neolithic. The important sites which have been excavated in this region are – Chopani-mando, Mahgarha, Koldihwa, Pachoh and Indri. The recent findings from Lahuradeva and the earlier excavated remains from Adamgarh rock-shelter sites are also important to note. On account of all of these the following stages of Neolithic of Vidhya-Ganga region can be reconstructed.

i) Advanced Mesolithic/Proto-Neolithic

This stage is reported from Period III of Chopani-mando. It is significant to note that through a long continuous development this stage was reached at this site. For example, during earlier two periods size of tools had become tiny and the stone used was of fine grained semi-precious category. But at this stage large tools made on hard rocks like quartzite and sandstone appear. Grinding technology also appears for the first time. Heavy duty tools were ring stone, quern, pestle, and hammer. Microliths in good proportion continue. Use of earthen pot was initiated at this stage. Bowl and small vase of this phase were hand made and ill fired. A lone example of stone bead and engraved bone piece were the other significant findings. In Belan valley, shelters were being constructed right from the Mesolithic times. In 'Proto-Neolithic', this tendency becomes pronounced. A group of13 huts arranged in bee-hive pattern were exposed at Chopani-mando. Floor full of tools, pot fragments and fragments of bones were covered by bamboo, wood and earth. Post-holes suggested that the circular huts had support of wooden frame and thatched roof. However, hearths were made out side the huts, and were used for community cooking, as was the case during Mesolithic times. This stage is dated around 9th /8th millennium BCE. It was pre-food producing, as the bones of animals included wild species of cattle and other animals. Also, the paddy husk after analysis was identified as of wild variety. But, the pots and the food processing equipments suggest consumption of such species of wild cereals and animals, which could be domesticated subsequently.

ii) Early Neolithic stage

This stage is reported from sites like Koldihwa and Mahgarha. The most significant finding of this stage is the very early date for the cultivation of paddy, which is seventh to 5th millennium BCE. Though there was doubt expressed for acceptance of this date-bracket, a number of recent sites, like Lahuradeva, confirm cultivation of rice, at this early period in the Ganga plain. .Remains of settlement of this period from Mahgarha, a site close to Koldiwa, reveals that the huts were associated with cattle-pens. Small animals like sheep and goat were kept there. But, for cattle, a large enclosure was constructed of wooden fence. These places revealed hoof marks. In the domesticated animal bones identification of horses are noteworthy. Group of 20 huts were exposed at Mahgarha. These were also constructed by use of wood, bamboo and mud. Circular in

plan, the floors of these were full of food processing equipments like pestle, muller, quern etc. Axes, microliths, pottery, bone arrow head and animal food refuge were other noteworthy remains. The earthen pots discovered from this phase are developed and are of diverse fabric. Important types were cord impressed Black-and-Red and rusticated wares. Baking technology now was much developed. The shapes include dbowl, vase, basic and handi. Neolithic phase of Belan Valley does not have good representation of ground stone tools. The proportions of carpentry tools were negligible. Axes were few, but food processing equipments were many. Bone tools included hunting tools.

iii) Late Neolithic

The Koldihwa-Mahgarha group suggest that Neolithic inthis region continued up to 2nd millennium BCE. The later phase, date between third and 2nd millennium BCE, evidence continuation of the earlier culture with intrusion of Chalcolithic characteristics. It was during this phase that there was migration of farming communities from Belan region to east. Sites near the slope of Kaimur hills in Bihar were occupied during the process. Excavations of Senuwar in Rohtas district support this presumption. From the lowest level evidence for rice cultivation is attested. This is dated to 2200 BCE. A little later, multi crop agriculture which appears to be inspired by Harappan crops, have been identified. This indicates a change from Neolithic to Chalcolithic subsistence in this region. Recent archaeological evidence suggests that in Vindhya-Ganga region Neolithic food producing practices had very early dates. At more than one place rice cultivation was attempted. One in Belan Valley and the other inner land of the Ganga plain, as is evident by Lahuradeva. Similarly, domestication of animal may also have been initiated in Vindhya-Ganga region. Pasotral practices, around6th millennium BCE, appear to spread to the hilly tracts of the Vindhyanregion.Excavation of Adamgarh rock-shelter indicates that this branch was using microliths, but was also domesticating animals like cattle, sheep and goat for their livelihood.

2.5.7 ***Neolithic culture of Kashmir Valley Kashmir***

Valley was occupied between 3rd and mid 2nd millennium BCE, by Neolithic communities. Main sites like Burzoham, Gufkral, Begagund, Hariparigom, Pampur, Badatal etc., indicate that small groups of people were spread in this region. Excavations of Burzoham (16 km Northeast of Srinagar)andGufkral (41 km East of Srinagar) have given to us full sequence of Neolithic in Kashmir Valley. The Neolithic remains in this region is divisible within the following stages —

i) Aceramic Neolithic Stage

This earliest phase of Kashmir Neolithic has been reported from the lowest levels of Gufkral. Dated around 3rd millennium BCE, typical Neolithic findings from this phase were ground stone axes, adzes, chisel, muller made on schist, the local Himalyan rock. Bone tools comprised points and needles. But a number of broken bone fragments with points were also rubbed and used. Two beads of bone and stone paste were noteworthy finds. But, the most significant finding from earliest levels of Gufkral was pit dwellings. Circular or oval pits were dug. Floors of these pits were prepared by ramming earth. Large under groundpit dwellings measured 3 m long, 1.5 m broad and one meter deep. In the centre of this pit was a platform, on which were located three grain storage pits. The underground pits were covered by thatched roof, which was supported by wooden logs and hay. Under ground huts are suitable for the cold climate of Kashmir. The earliest subsistence of Aceramic Neolithic of Kashmir Valley was animal husbandry. In the remains of bones

domesticated sheep and goat species have been identified. These species were tamed from the local wild forms. Hunting of deer, wild cattle, wolf, bear and Ibex was the supporting edible consume. Beginning of agriculture was introduced a little later. But, right from its first appearance it was recorded in developed form. Since the cereal remains recovered from the period were wheat, barley, mansur and pea. Clove (Ban-methi) was also cultivated. It is believed that knowledge of agriculture inKashmir Valley migrated from out side. The seeds of the cereals for initiating cultivation were also brought to the region during this process.

ii) Early Neolithic Stage

In view to food producing practices and also nature of dwelling this stage was similar to the above. But, now earthen pots were being made and used. This Cermaic Neolithic stage has been reported both from the Period IB of Gufkral and Period I of Burzoham. Pottery is handmade and ill fired and are of grey and ochre colour. Main forms of pots used were bowls, vases and bases. On the flat surface of pots, was mat impressed design.Stone tools in this stage were large in number and also new forms like, —quern mace-head, picks were found along with axes, adzes, chisels etc. Similarly, in the category of bone tools, important forms were, — harpoon,needle (eyed and with out eye), arrow-head, point scraper, etc. The pit dwelling continued in Early Neolithic of Kashmir Valley. At Burzoham, where good evidence for pit dwellings has come to light, two types have been recognised. One was of circular and oval shapes and the other of rectangular shape. These pits were dug by the use of picks. Sidewalls were many times plastered by mud. For entering into the pit-huts steps used to be dug at one corner of the hut or wooden stairs were also used. On the living floors were found traces of small and large pits, which were storage of edible items, like grain or also meat, roots etc.

Remains of domesticated species, like sheep and goat increased. Cattle breeding too were added. Findings of Gufkral Period IB suggested that cultivation of pea and clove was dropped at this stage. The economy at this stage appears to be dominated by pastoralism, the subsistence which even now is followed by tribes like Gaddis of Kashmir region.

iii) Late Neolithic Stage

This phase is represented by the findings from Period IC of Gufkral and Period II of Burzohom. The subsistence though remained similar to the earlier stage; it is marked by development in livelihood strategies, e. g. potting technology and change in the nature of dwelling.The list of domesticated animals now includes sheep, goat, humped cattle, pigs, dog and buffalo. Hunting continued. So were the agricultural practices. The most prominent feature was use of over ground huts. Remains at Burzohom suggest that some of the pits of earlier times were filled. Thesurface was plastered and used as floors. Two types of structures were constructed. One which was only thatched with the help of erecting posts, and in other the area of the hut was enclosed by mud or wooden screens.Traces for the use of sun dried bricks were also noticed in the excavations. Earthen pots were made both by hand modeling and wheel. The grey and dull red color of these indicates less perfection of firing technique. Besides,bowl and vase, basin and dish on stand were also found. The surface of pots was decorated variously by impression cord, hay, matt or by incising geometric designs.Ground stone tools have some new forms like two pointed picks. Clothweaving is also attested by terracotta or stone spindle whorls. The dead were buried in the residences in pit burials, in which animal pets like dogs were also buried. Increase in such items which suggest trade included beads, copper tools like

arrow head, needle, ring etc. A painted pot contained 950 carnelian beads, which was perhaps imported from Harappan region in Baluchistan-Pakistan. Exchange of goods or trade between far places and Kashmir Valleyis indicated by these finds. Neolithic in Kashmir Valley appears to be migration from out side. As presence of Mesolithic stage was not established here. Perhaps one of the groups from West Asia had reached this Valley. The physical features of the skeletons from Burzohom bear similarities with West Asian population. The local species of sheep and goat, and subsequently, cattle were domesticated by these immigrants. But, the seeds which they sowed for cultivation of cereals were brought by them from out side. The noteworthy variation of Kashmir Neolithic was its' Aceramic stage and the pit dwellings.

2.5.8 ***Neolithic Culture of Deccan***

The plateau of Deccan in Karnatak has a dense concentration of Neolithic sites,such as, Maski, Piklihal, Hallur, Brahamgiri, Tekkalkotta, Snagankallu, Kopagaletc. The southern part of Andhra Pradesh too has revealed important Neolithic habitations, Uttanur, Nagarjunakonda, Palvaya, Rampuan etc. Extension of Deccan Neolithic was also in north Tamilnadu, as is attested by Payampalli site.

The time span for Deccan Neolithic is 2500 – 1000 BCE. The Neolithic remainsof the region is divisible into four phases:

i) Aceramic Neolithic

Reported from the earliest levels of Sangankallu, iscomposed of just flake tools.

ii) Mature Neolithic

This Ceramic Neolithic is pre 1600 BCE. Period IA of Sangankallu and other sites have revealed this horizon.

iii) Neolitihic-Chalcolithic

Dated between 1600 and 1500 BCE, it is reported fromSangankallu Period IIB, and many other sites. The Neolithic appears to bein close contact with Chalcolithic communities of the north.

iv) Neolithic-Megalithic

This phase is very common at sites of Deccan, where overlap between Neolithic and Megalithic can be seen. All the Neolithic phases of Deccan are influenced by the ecology of the plateau. Composed of Dharwar formation, the granite and trap, the rocky terrain is drained by rivers, which have alluvial stretch. Till the mature phase, Neolithic communities of the region were occupying the hilly terrains, which could support pastoral subsistence. In the succeeding phase, when these groups came in contact with Chalcolithic communities, their villages got concentrated in the alluvial plains. For the reason that fertile land for agriculture was available around the water channels. The main subsistence of the Mature Neolithic phase was animal husbandry. In archaeological remains 80-85 % bones of animals were found to be of humpless cattle, and buffalo. The other domesticated animals were sheep, goat and ass .Agriculture at this stage was secondary. Only coarse grains like, Kuthali, Jowar,lentils and gram were cultivated. Four types of shelters have been recorded in the Neolithic period of Deccan.1)Pit dwellings were found at Nagarjunakonda and Payampalli. These pits were covered by thatched roof, supported by wooden posts. Smaller pits associate the dwelling which were used for storage of edibles, discard of garbage or burying the dead.2)Circular huts with thatched roof supported by

wooden posts have come to light from Period I of Tekkalkotta. The wooden posts were supported by block of stones.3) Circular huts with walls made of wood and mud were covered by thatched roof. Many sites including Tekalkotta have yielded this type.4) Square and rectangle shaped huts were being constructed in the last phase .In this case the mud walls up to half height were constructed. Over which wood and mud walls were made. The conical thatched roof was the upper component.The later huts resembled huts made by Boya tribes of the region. Small cluster of Neolithic huts perhaps looked similar to these tribal villages. Each of the hut had cattle-shed. Also, cattle-pen, for the village was made adjacent but away fromthe village. The ash mounds of Deccan Neolithic, like the one excavated at Uttarnur, suggested that accumulation of cattle dung were burnt from time to time.

Burying the dead was an important ritual practice of the Deccan Neolithic. Burials were made within the residential area. Two types of burials have been reported. Pit burials, in which adults were buried along with edible items and pots. Children were buried mostly in earthen pots. This custom appears to continue during Megalithic times in the south. The culture content of Deccan Neolithic was characterised by polished stone tools which were made of local rocks – dolerite and trap. Small to medium sized axe, adze, pick, quern, pestle, ring-stone etc., were the main types. Continuation of earlier technology, microliths was another feature. Besides usual types a number of flake and blade tools with serrated edge, point and scraping edge were used.In the bone and antler tools the forms found were scraper, point and chisel. Except for Stage I, pottery was found from all the phases of Neolithic of Deccan.Grey and red ware pots made by hand or slow wheel were characteristic of the region. These were often painted, grey with ochre colour, and red with purple or dark brown. Painting included simple geometric designs. Terracotta figures of animals like bull and birds associate the collections from Neolithic sites of the Deccan. These forms appear to correspond with Chalcolithic clay models. Similarly, beads of semiprecious stones also looked similar to the Chalcolithic beads. Occurrence of lead bead in the Neolithic horizon of the late phase may be taken to be a Megalithic trait. Similarly small copper objects which occur in the third phase of Neolithic of Deccan, evidence Chalcolithic contacts. Occurrence of gold ornaments, particularly earring is accepted as an important indication of trade between the Deccan Neolithic communities with the Harappans. For, the gold used by city dwellers of the north during 2nd millennium BCE, was known to be coming from the Kolar mines of the southern India. On account of the above it may be summarized that the Neolithic culture of Deccan though retained earlier culture traits, microliths, it does not appear tohave originated in this region. As the earlier stages of Neolithic are not represented in this region, and also the time span too is quite late.

2.5.9 *Neolithic sites in eastern India*

The other remains of Neolithic are very late, and also sporadic in nature. There were early farming communities in Ganga plain, — in Bihar and Bengal, —Chhotanagpur plateau, — lying within the boundaries of Bengal and Orissa, —and Assam.

a) Early Farming communities of Middle Ganga Plain

In the fertile alluvial plain of middle Ganga Valley, many sites were occupied formany centuries. The earliest levels have been identified as Neolithic. Chirand(Saran district), Chechar (Vaisali district) and Sahgaura (Gorakhpur district), are noteworthy. The earliest levels at Chirand (Period IA), was pre-metal, when pit-

dwellings were used. The subsistence was characterised by multi-crop cultivation. The cereals found were wheat, paddy, barley, gram and lentils. Also domestication of sheep, goat and cattle were practiced. Pottery is characterised by evolved techniques like Black-and-red ware, and polished red and black wares. Also evolved forms, like, — spouted and lipped vases associated the ceramic collection. Proportion of ground stone axes was nominal. But, bone and antler tools were many. Called also as 'Neolithic-Chalcolithic', this phase of Chirand is dated between 1800 and 1400 BCE. Similar Neolithic horizons have been reported from, — Tamluk and Pandurrajar-dhibi in Bengal. Characterised by ground stone axes and primitive pottery, allthese remains fall in the later part of 2nd millennium BCE.

b) Neolithic remains of Chhotanagpur Plateau

Chhotanagpur is a wide spread plateau, comprising parts of Bihar, Bengal and Orissa. Many surface finds of ground stone axes included shouldered axe, round butted axe, chisel, Ring-stone hammer etc., are reported from Santhal pargana, Chakradharpur, Ranchi and Mayurbhanj districts. Only a few sites have been excavated. These too have revealed very limited deposit of habitation. Dated between 1200 and 800 BCE, Barudih in Bihar, revealed round buttedaxes, adze, quern, muller, pestle, ring-stone etc. Also hand and wheel made pottery were obtained. Bowls and dishes were the main forms. Like wise Kuchai in Orissa, was a contemporary site. Near Baragaon, in Sundergarh district factory sites of Neolithic tools have recently been discovered, which suggest production of large quantities of stone axes and Celts in this region.

c) Neolithic remains of Assam

Many surface findings are reported from Assam. The ground stone tools of this region are characterised by shouldered axe. Two sites of the region — SarutaruandDeojali-handing are significant.Neolthic tools and cord impressed handmade and wheel turned pottery are reported from the excavation of these sites. The evidence of Markdola, near Sarutaru suggests that the Neolithic way of life in this region continued up to first century CE (Common Era).All the finds of incipient farming from Chhotanagpur plateau, and Assam are late to very late in date. Thus, could be accepted as late survival of Neolithic technologies in these geographically isolated areas. It may be recalled that even to day, Chhotanagpur plateau and eastern India are occupied by tribal population, who live in cultural isolation.

2.6 Self Check Exercise

1. Who gave the word Neolithic revolution?
2. From where the earliest evedences of paleolithhic culture have been found?
3. Who discovered the evidences of Mesolithic period?
4. What is the largest Mesolithic site of india?

2.7 Summary

Human Past or History is divided into three main periods, namely, 1) Stone Age, 2) Bonze Age, and 3) Iron Age. These are not simply technological stages implying that tools and weapons were made of stone during the Stone Age, of bronze during the Bronze Age, and of iron during the Iron Age. These Ages imply much more than technology. They imply subsistence economy or ways of acquiring food, social organisation, including caring for the weak, sick and old, mode of disposing of the dead, art, and other aspects of life.

2.8 Glossary

Bagore	:	Largeat site of India od Mesolithic period
Karishanmurthy	:	Who discovered the Neolithic tools in india.
Vakankar	:	Who discovered the paintings of Bhimbetka.

2.9 Answers to Self Check Exercise

1. Ans. Garden childe
2. Ans. From pallavaram by Robert Bruce Foot
3. Ans. A.C.L. Kalayle
4. Ans. Bagore

2.10 Suggested Readings.

1. Singh, Upinder, History of Ancient India, Pearson Publication, 2018.
2. Pandey, Jay Narayan, Puratatva Vimarsh,2019.
3. Basham, A.L., The Wonder that was India. New Delhi: 1967.
4. Ghosha, A., An Encyclopedia of Indian Archaeology, New Delhi, 1989.

2.11 Terminal Questions

1. Write down the paleolithic cultures of India.
2. Elaborate the Acheulian culture in India.
3. Throw light on the Mesolithic culture.
4. Throw light on the origin of agriculture and settled life.
5. Discuss the Mesolithic art in India.

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CHAPTER- 3
HARAPPAN CIVILIZATION

Structure

3.1 Introduction

3.2 Objective

3.3 Origin and Evolution of Harappan Civilization

3.4 Geographical Spread

3.5 Chronology

3.6 Salient Feature in Harappan Civilization

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- 3.8.1 Town planning and layout of settlement
- 3.8.2 Fortification
- 3.8.3 Gates
- 3.8.4 Streets
- 3.8.5 Drainage system
- 3.8.6 House and Buildings
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3.9 Harappan Economy

3.10 Social and Economic dimension of Harappans

- 3.10.1 Food Gatherer
- 3.10.2 Agriculturist/ Farmers
- 3.10.3 Transporter or Trader
- 3.10.4 Fishing Communities
- 3.10.5 Butchers
- 3.10.6 Ivory or the bones craftman
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3.11 Causes of the Decline of Harappan Civilization

- 3.11.1 Foreign Attacks
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- 3.11.5 Increased Aridity and Drought
- 3.11.6 Fair service: Ecological Imbalance

3.11.7 Disruptions in Trade
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3.12 Self Check Exercise
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3.15 Self Answered Questions
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3.17 Terminnal Questions

3.1 Introduction

Harappan Archaeological Research dates back to the year 1922 with the advent of the finding of Mohen-jo-Daro, the 'mound of dead', in Sindh. Because of its extraordinary urban character, the discovery raised immense interest world-over. Since then, the archaeology of the Harappan Civilization has been growing, both in terms of geographic factors and cultural dynamics. By the time archaeologists found that the Indus Civilization is no longer confined to the Indus Valley, archaeologists have redesignated it as 'Harappan Culture' or 'Harappan Civilization' after the type site namely Harappa (The naming of related sites after the one that was firstdiscovered is a common convention in Archaeology.) discovered in 1921. From 1950 onwards, this study has been occupying paramount place in the archaeology of South Asia and the last twenty five years, in particular, have witnessed excavation of the scores of Harappan sites, which have brought to light the most exciting results. Intensive explorations and excavations of several sites of entire Harappan domain (known) have caused a tremendous knowledge explosion, facilitating a far betterunderstanding of the fundamentals of its "origin", its efflorescence and of its ultimate "end". Archaeologists from India and Pakistan, either independently or in collaboration with western scholars, have launched multidisciplinary investigations to reconstruct the spatio-temporal framework of this civilization. The radiocarbon determinations and the evidence of the early food producing cultures in the entireHarappan domain have put this civilization in the perspective of indigenous origins.

3.2 Objective

After reading this unit, you will be able to learn the various aspects of Harappan civilization as society, economy, religion etc.

- To study about the advent of iron in India. In which megalithic culture is related to the iron in south India. In which iron is reported from the megaliths as sangora, dolmen, kuddaikal etc.
- After studying this unit, you will be able to learn about the various sources through which we can attempt to know about the Vedic period, examine the theory of a large scale migration by the Indo-Aryan5 through the sources, and know about the nature of economy, society, polity and religion of the Vedic people.

3.3 Origin and Evolution of Harappan Civilization

The discovery of India's first and earliest civilisation posed a historical puzzle as it seemed to have suddenly appeared on the stage of history, full grown and fully equipped. The Harappan civilisation till recently showed no definite signs of birth and growth. The puzzle could largely be solved after the extensive excavation work conducted at Mehrgarh near the Bolan Pass between 1973 and 1980 by two French archaeologists

Richard H. Meadow and Jean Francoise Jarrige.According to them, Mehrgarh gives us an archaeological record with a sequence of occupations. Archaeological research over the past decades has established a continuous sequence of strata, showing the gradual development to the high standard of the full-fledged Indus civilisation.These strata have been named pre-Harappan, early Harappan, mature Harappan and late Harappan phases or stages. By reviewing the main ele-ments of the rural cultures of the Indian sub-continent the origin of the Indus civilisation can be traced. Any Pre-Harappan culture claiming ancestry to the Indus civilisation must satisfy two conditions.The first condition is that it must not only precede but also overlap the Indus culture.The second is that the essential elements of the Indus culture must have been anticipated by the Proto-Harappan (Indus) culture in its material aspects, viz, the rudiments of town planning, provision of minimum sanitary facilities, knowledge of pictographic writing, the introduction of trade mechanisms, the knowledge of metallurgy and the prevalence of ceramic traditions.The different stages of the indigenous evolution of the Indus can be documented by an analysis of four sites which reflect the sequence of the four important stages or phases in the pre-history and proto-history of the Indus valley region.The sequence begins with the transition of nomadic herdsmen to settled agricultural communities as per the evidence found at the first site i.e. Mehrgarh near the Bolan Pass. It continues with the growth of large villages and the rise of towns in the second stage exemplified at Amri.The Amri people did not possess any knowledge of town-planning or of writing. The third stage in the sequence leads to the emergence of the great cities as in Kalibangan and finally ends with their decline, which is the fourth stage and exemplified by Lothal. Amri, Kot-Dijian and Kalibangan cultures are stratigraphically found to be pre-Harappan.The pre-Harappan culture of Kalibangan in Rajasthan is termed as Sothi culture by Amalananda Ghosh, its excavator. The Harappan were owed certain elements such as the fish scale and pipal leaf to the Sothi ware.The four Baluchi cultures, viz, Zhob, Quetta, Nal and Kulli, undoubtedly pre-Harappan, also have some minor common features with the Indus civilisation, and cannot be considered as full-fledged proto-Harappan cultures.The culture of Northern Baluchistan is termed as 'Zhob' culture after the sites in the Zhob valley, the chief among them being Rana Ghundai. This culture is characterised by black and red ware and terracotta female figurines. Nal culture is characterised by the use of white-clipped ware with attractive polychrome paintings and the observance of fractional burial.The characteristic pottery of the Quetta culture is the buff-ware, painted in black pigment and decorated with geometrical designs. Apart from the painted motifs such as the pipal leaf and sacred brazier, some pottery shapes are common to the Harappan and Kulli cultures. All these pre-Harappan habitations preceding the phase of the Harappan civilization shows evidences of people living in houses of stone and mud-brick.Similarities were found in the cultural traditions of the diverse agricultural communities living in the Indus region in the 'early Indus period'. During the urban phase these little traditions were fused into one great tradition.How-ever, even in the 'early Indus period', use of similar kinds of pottery terracotta mother goddess, repre-sentation of the horned deity in many sites show the way to the emergence of a homogenous tradition in the entire area.The people of Baluchistan had already established trading relations with the towns of the Persian Gulf and Central Asia. Kulli, situated on the southern foothills of the Baluchi mountains near the Makran coast, occupies an important position on the trade route between the Persian Gulf and the Indus Valley.Thus, the available evidence suggests that the Harappan culture had its origin in the Indus valley. And even within the Indus valley, several cultures seem to have contributed to evolve the urban civilisation. There is no evidence to suggest that the Indus people borrowed anything substantial from the Sumerians. It is thus difficult to accept Sir Mortimer Wheeler's assumption that "the idea of civilization came to the Indus valley from Mesopotamia".

3.4 Geographical Spread

The Indus civilization developed in the region between the dry Iranian plateau and tropical South Asian peninsula dominated by the monsoons in present day Pakistan and North-Western India including Baluchistan, Sindh, Punjab, Haryana, Rajasthan, Gujarat and Saurashtra. This region at that time was drained by the Indus and its tributaries and the Ghaggar-Hakra rivers mainly. The Indus is fed by five rivers rising in the Himalayas with a confluence at Panjab forming the lower course of the Indus in Sindh region which is largely arid and therefore supporting agriculture along river banks and pastoral communities elsewhere. A number of sites have been found both in the Upper Indus and Lower Indus forming one core region of the Harappan civilization.

In the 3rd millennium BCE, the Ghaggar-Hakra flowed parallel to the Indus across what is now the Thar Desert and a number of sites have been found in the now dry riverbeds of the Ghaggar-Hakra in Cholistan desert and also Rajasthan, including Kalibangan. To the west of the Aravalli Hills in central India lived a number of hunter-gatherer and pastoral communities. Gujarat was the southern province of the Indus civilization: Today Kutch is separated from the Indian mainland by the marshy Ranns, but at that time it was probably open water as the Indus entered the Arabian Sea south of its present delta. A few sites have been found in western Uttar Pradesh in the Yamuna valley including Alamgirpur. Trade routes across the Iranian plateau served communications with Near Eastern civilizations, while the Arabian Sea provided maritime connections with the Gulf, the Near East, Arabia, East Africa, south India, eastern India, and Southeast Asia.

3.5 Chronology

Marshall was the first to conclude that the seals, terracottas, script and the architectural remains unearthed from Indus towns of Harappa and Mohenjodaro were the remains of an ancient civilization. This he inferred from the fact that:

- These remains were quite different from any known material,
- The deposits from which they were uncovered lay underneath a Buddhist monastery of the Kushan period,
- Lack of iron and presence of copper indicating a pre-iron age,
- Undeciphered ancient script
- Similar objects were reported from some sites in Mesopotamia which were dated to early 3rd millennium BCE. Therefore he concluded that these were remains of a civilization predating the Mauryas, and as old as the civilizations of Egypt and Mesopotamia. It was only with the advent of radiocarbon dating techniques that Harappan remains from several sites could be dated absolutely. Excavations and dating at Mehrgarh on the Bolan Pass revealed early development of farming by 7th to 8th millennium BCE roughly at the same time as in West Asia. Ag ricultural settlements spread to Baluchistan and neighbouring regions by the end of the 4th millennium BCE. During this time several regional groups could be identified on the basis of artifact styles, mainly pottery styles: Amri-Nal in Sindh, southern Baluchistan; DambSadaat in central Baluchistan; KotDiji in central and northern Baluchistan, including

Cholistan; and Sothi-Siswal in the east. Yet they had features antecedent to the Harappan civilization. The chronology for the origin, development and decline of the Harappan civilization has been a matter of debate among archaeologists. We summarize two major viewpoints here: This can be easily explained below: 5500 – 3500 BC (Neolithic): Emergence of permanent villages with pastoralism and limited cultivation in Baluchistan and Indus plains at sites like Mehrgarh and KiliGhul Muhammad. 3500 – 2600 BC (Early Harappan or Pre-Urban Harappan): Spread of settlements. Beginning of the use of copper, wheel and plough. Emergence of characteristic features of the Harappan civilization but still marked by regional traditions. 2600 – 1800 BC (Mature Harappan or Urban Harappan): Emergence of large planned cities, uniformity in material culture like standard types of bricks, weights, seals, beads and pottery characteristic of the Harappan Civilization. 1800 BC (Late Harappan or Post-Urban Harappan): Many Harappan sites were abandoned and urbanism of the Harappan civilization gives way to village life once again. Degenerate features of Harappan life continue with some Harappan crafts and pottery tradition. Jim Shaffer reviewed the chronology of the Pre-urban and Urban Harappan Phases and concluded that the transition from the 'Early Harappan' to the 'Mature Harappan' took place about 2600 to 2500 B. C. and that this transition was an abrupt one. The transition to the Indus Civilization was not homogenous, and it occurred at different places at slightly different times beginning with a rapid transition in Sindh during the time range 2600 to 2500 B.C.

3.6 Sailent Features of the Happen Civilization

Before going into the details, it is necessary here to define some of the terms, which are used in this and next (fourth) chapter. The name Indus Valley Civilization/Harappan Culture signifies not only the sites limited to the Indus Valley proper but also to the similar kind of sites found in other parts of India, Pakistan and Afghanistan. Pre-Harappan is the culture, preceding the Harappans but different from it. Early/Pre-Urban Harappan means the earlier phase of the Harappan culture, whichpaved the base stone for urban phase. Mature/Urban Harappan denotes the urban phase (prosperous period) of the Harappan culture. Late/Post-Urban Harappan represents the late period of the Harappan culture, which marks decline and deurbanization. Regional Chalcolithic cultures/traditions indicate the cultures other than theHarappans, which have their own identity and existed separately or co-existed with the Harappans in Gujarat during various phases of the above mentioned periods. The term period is defined as a bracketor interval, for example — a particular cultural event that endured for 900 years between 3500-2600 B.C.Cultural transformation or change is a continuous process with a varying degree of intensity. It involves factors like human adjustments to prevailing environmental and social condition of the region. Cultural change is also multi-directional and the degree and nature of change vary in time and space. Precisely, therefore, the beginning, growth and decline of the Harappan culture like other cultures, have been categorized into separate phases termed differently by various scholars (Rao 1963; Mughal 1970; 1977, 1980, 1984, 1993). Whatever the case or term may be; these terms indicate socio-cultural and technological development in various stages of Harappan development.

Although Mature/Urban Harappan phase is well defined through type fossils and several other settlement features, but Pre Urban Harappan and Post Urban Harappan phases are not so clearly defined.There's definite lack of consistency in the material relics from different sites of both Pre-Harappan and Post Urban Harappan phases. Moreover, it must be noted here that these Pre Harappan, Pre-Urban

Harappan, Mature/Urban Harappan and Late/Post Urban Harappan divisions are not necessarily time brackets applicable throughout the entire Harappan region. As regard to the chronology of the Harappan Civilization, it may be useful to take the cultural sequence as revealed byrecent excavations on different sites supported by number of radiocarbon (C14) dating samples. Beginning with the earliest level at the bottom of the sequence, we have:

Post Urban Harappan 1900-1400 B.C.

Mature/Urban Harappan 2600-1900 B.C.

Pre/Early Harappan 3500-2600 B.C.

After the partition of British India, massive amount of archaeological explorations and additional excavations in the present Indian frontiers confirmed numerous Indus Valley Civilization sites. According to Possehl (2002) and Setter and Korisettar (2002), relentless survey conducted both in India and Pakistan during the last seventy odd years has thrown up a list of not less than 1,022 Mature-Harappan sites. Of these, 406 sites are located in Pakistan while 616 are in India. About 96 of these sites have been excavated so far: 41 in Pakistan and 55 in India. Research oh Indus Civilization in India, changed the position regarding the extent, culture-contents, regional variations, etc. In spite of the fact, that considerable regional variations within the entire Harappan domain have been discovered, the following diagnostic traits of the culture can be postulated, which give it a unified character throughout, perhaps with central authority. Some of these traits are-

1. Planned cities and towns with basic layout of citadel and lower town, Dholavira being the exceptional as it has middle town also. Use of the burnt bricks in pre-Harappan phase is 1:2:3, whereas, in mature phase it is 1:2:4.
2. Red Ware pottery painted with black designs, well fired, paintings consisting of floral and geometric patterns and shapes including dish-on-stand, "S" shaped jars, beakers, goblets, perforated jars etc.,
3. Beads of Faience and steatite and long tubular beads of camelian,
4. Terracotta Mother Goddess (?),
5. Triangular Terracotta cakes and Mushtikas,
6. Terracotta and Faience Bangles,
7. Rohri chert blades,
8. Seals and Sealings,
9. Writing system/inscriptions
10. Chert and agate weights and
11. Copper and Bronze objects

3.7 Expansion of Harappan Civilization

One of the important aspects of the Harappan civilization is its apparent mobility and proliferation over a large area consisting of number of ecozones with diverse environmental variables and economic incentives. Number of sources has affirmed that environment of the regions covered by the peoples of Harappan civilization during the period was quite different from today. There may have been little climatic

change between then and now, but the environment, and hence the ecology, of this vast region is none less the different (Possehl 1999). The remains of the Harappan civilization, dating from 2600 B.C. to 2000-1800 B.C., include cities and villages, craft centers, river stations, camp sites, fortified palaces and probable ports, spread over a vast geographic area of 1.25 million Square Kilometers. Extreme cardinal limits of this civilization were Sutkagendor (Makran) in the west, Alamgirpur (Uttar Pradesh) in the east, Manda (Jammu and Kashmir) in the North and Daimabad in South Gujarat. But, when we talk of the scenario of Indian Subcontinent (entire Harappan culture domain) we will see that Shortughai on the left bank of Oxus, in Badakhshan, is the extreme northern limit. Whereas, the sites of this civilization are found in Sind, Makran, Baluchistan, Punjab, Haryana, north Rajasthan, Uttar Pradesh, Gujarat, Maharashtra and Badakhshan, in the modem states of Pakistan, India and Afghanistan.Indus Valley, by and large, is devoid of basic raw material to meet some of their needs on its own. However, Harappans evolved in a magnificent civilization mainly because of their expansionist nature towards resource areas situated far apart by their ability to mobilize economic potentials. The discovery of Harappan settlement at Shortughai in Badakhshan province of northern Afghanistan for lapis lazuli (Francfort 1984), Balakot on the Somani bay in Pakistan for marine gastropods (Dales and Kenoyer 1977), Cholistan region in Bhawalpur District of Pakistan for copper (Mughal 1980), Limestone hills at Sukkur Rohri in upper Sindh region of Pakistan for flint/chert (Allchin and Allchin 1982 1996-97) and Manda in Jammu and Kashmir for Timber (Thapar 1985) are some of the explicit indicators of their hunt for procuring desired raw material. The penetration of Harappans further south into Gujarat demonstrates a similar enterprising character exploiting rich deposits of semi-preciousstones and marine gastropods (Sonawane 1992, 2005). Thus, enterprising Harappans demonstrated their skill in selecting suitable environmental niches during their multidirectional expansion. These factors and accessibility to natural resources were largely responsible for the growth, expansion and long survival of the Harappan culture. The spread of this civilization was therefore governed by the areas of attraction, depending upon the availability of resources and geographical factors conducive to their cultural dynamics. These factors partly explain not only the regional diversities in the manifestation of the Harappa culture but also the innate capacity of the Harappans to mobilize different subsistence systems by integrating them into their economic structure (Sonawane 1999,2005).The story of the rise and decline of the Harappan civilization is the summary of man's struggle for conquering nature and building an integrated peace loving and affluent society. Harappans seem to have succeeded to a large extent in this struggle. Later in the stage, Harappan civilization achieved a high degree of sophistication, yet was imbued with simplicity and utilitarianism. In terms of settlement planning, monumental buildings, impressive architecture, stamp seals, the pictographic script, uniform weights and measures, ceramics, jewellery, copper and bronze utensils and implements etc. is notable among the contemporary cultures. Moreover, it is also unique for its phenomenal growth and prosperity, close cultural uniformity, mass production of crafts, complex trade mechanism, maritime trade and intercultural contacts, besides long life and vast territory. Its elaborate trade mechanism controlled the process of procurement of raw materials, converting them into finished products and transporting them over long distances by both sea and land routes to domestic as well as international markets. All these reflects on a system which induced for surplus food production and controlled its efficient distribution to promote and sustain specialized activities by different classes of artisans and craftsmen as well as by well organized trading community. The Harappans had brisk trade relations with Mesopotamia, parts of Iran, Central Asia, Oman, Bahrain Island, and Failaka. Mercantile base for its rapid

growth and expansion is envisaged through the vast archaeological data. The people of this civilization did not build towering monuments, bury their riches along with their dead or fight legendry and bloody battles and yet could evolve a highly organized and stupendously sophisticated first Urban- Civilization of south Asia. The Harappans thus made spectacular civilization, whichmust have dazzled the contemporary world with whom they came in contact. Surprisingly still we do not know precisely what the nature of governing authority was as visionary rulers or architects behind the creation of such fabulous civilization.However, possibility of wealthy merchants, powerful landlords or spiritual leaders cannot be ruled out considering the evidence.

3.8 The Architectureor/ Town Planning of The Harappan Civilization

The manifestation of towns and cities is an urban phenomenon and thus, the first towns and cities were linked with the first urbanization that took place in the fertile valleys of the river Indus, Saraswati and their several tributaries and even in the far off region dominated by the Harappan civilization. However, on the basis of excavation, in many of the Harappan sites, it has been confirmed that these towns and cities grew out of earlier villages that existed in the same locality prior to Pre/Early Harappan period. Before 2600 B.C. sites like, Harappa, Dholavira, Rakhigarhi, Banawali, Kalibangan, Rehman Dheri, Nausharo, KotDiji and many more existed in the form of rural Harappan settlements. Their ideal locational setups were on the threshold, which led to urbanization. Beginning with quite a small population, they grew in size and density to become larger settlements of the region along the major trade routes. Population growth, strong agriculture base, developed trade and growth of specialized skilled craftsmen favored the growth of towns and cities in the entire Harappan domain. These towns and cities amply fulfilled many of the criteria suggested by the Gordon Childe while defining Urbanization.Before going into the minutiae of Harappan town planning and layout of the settlements, fortification, gates, streets, drainage network, houses and buildings and water reservoirs, it is relevant to know the nature of its settlement. More than 1500 sites, (including Pre-Harappan, Early-Harappan, Mature-Harappan and Late- Harappan) covering the Harappan realm has been classified into three categories i.e. 1. villages or hamlets occupying an area sometimes even less then one hectare and maximum up to ten hectares, 2. towns between ten to fifty hectares and 3. cities extending in* an area of more than fifty hectares.Of these, maximum number of sites are represented by village or hamlets followed by quite a number of towns while metropolitan cities are just five in number. Their ratiois somewhat similar to the distribution pattern of the villages, towns and cities, like the configuration of modem districts within a provincial state. In the entire Harappan domain, five large cities have been identified as the major urban centers or metropolis. Among these, Mohen-jo-Daro being the largest of all covers an area of more than 200 hectares. Second on the list is Harappa covering an area of more than 150 hectares whereas; Dholavira covers an area almost close to 100 hectares.

Ganweriwala and Rakhigarhi measuring almost equal in dimensions occupy an area of more than 80 hectares. According to Kenoyer (1998), Jansen (2002) and Sonawane (2005) Mohen-jo-Daro, Harappa, Ganweriwala and Rakhigarhi are inland centers located far apart from each other approximately 400 km in a zigzag pattern that covers the Indus and Saraswati plain. The fifth, Dholavira, is situated in on a small island called Khadir in the Greater Rann of Kutch in Gujarat connecting Lothal situated further south east on one side and Balakot further on the north west on the other, located approximately 300 km away on the either side. Quite a good deal of archaeological data, for proper understanding of the Harappan town planning is

available now as a result of extensive excavations. Key sites like Dholavira, Lothal and Surkotada in Gujarat, Kalibangan in Rajasthan, Banawali and Rakhigarhi in Haryana, Harappa and Mohen-jo-Daro in Pakistan, all located in diverse environmental and geographic settings has given a slight variation in the planning of the Harappan settlements, within the known Harappan norms.

3.8.1 Town Planning And Layout of The Settlements

The most noteworthy feature, unheard elsewhere during the second half of third millennium B.C., is the remarkable town planning of the Harappan civilization, with a probable margin on either side. Dholavira being the exception with middle town as the extra feature of the settlement, every other small cities and towns of the Harappan civilization consist of the basic layout out of citadel and lower town. Recent excavations have proved that Harappan town planning does not represent uniform pattern. The evidence from Lothal, Surkotada, Dholavira, and Banawali has shown different settlement pattern than that of Mohen-jo-Daro, Harappa and Kalibangan. With the excavation of Mohen-jo-Daro, Harappa and Kalibangan, archaeologists earlier had the conception of twin mounds, higher ones located on the west acted as the citadels. lower towns occupying relatively less elevated area situated towards the east. In the absence of large scale excavation at Rakhigarhi, covering entire site, precise plan of the settlement is yet to be known.Based on the evidence of excavations, the majority of the Harappan cities and towns are composed of a series of walled mounds or sectors oriented in different directions. Harappa and Mohen-jo-Daro both have rectangular mound on the west and extensive mounds to the north, south and east whereas the settlement of Kalibangan is confined to two separate mounds with the citadel on the west, represented by a smaller mound and the lower city towards the east, marked by a fairly extensive mound. Citadel was situated over the remains of the preceding occupation to gain eminence over the lowertown, which was laid out on the natural plain towards the leaving the gap of over 40 meter between the two. Harappa is remarkably similar to that of Kalibangan in layout having fortifications—parallelogram on plan. Mohen-jo-Daro also appears to have a similar layout, despite the fact that flood erosions have obscured the evidence. Thelower town of Harappa and Mohen-jo-Daro spreading out on different mounds also appear to have separately fortified. However, lower town of Kalibangan gives clear indication of fortification—parallelogram in shape. In contrast, Lothal and Surkotada follow a different expression for the layout of the settlement. In these two sites, a common periphery wall encloses both the citadel and the lower town. In case of Lothal, which is roughly rectangular on plan, with longer axis running north to south was surrounded by a massive brick wall, probably to protect from flood, as the site is situated on the low-lying area of Bhogava, a tributary of Sabarmati. There is no wall as such to separate the lower town from the acropolis; the latter is situated in on the southeast, a unique location. The layout of the Lothal also claims distinction because of a rectangular brick basin, interpreted as dockyard, attached with a wharf along the eastern side of the settlement. Whereas, fortification of Surkotada is built of mud and mud bricks having stone rubble veneer and also has a partition wall separating the citadel from the residential annexe in such a way that settlement gets divided into almost two equal squarish halves, with an intercommunicating passage between the two. The western half retains its identity as the citadel. Among all, Dholavira, on account of its unique city planning indeed enjoys a pre-eminent position. The city is basically oriented in the traditional cardinal directions, but the layout of the settlement, especially of the walls and sectors are quite different from that of the other Harappan settlements. The salient components of the full-grown cityscape consisted of bipartite citadel, middle town and lower town. These three sectors are set

within gargantuan fortification constructed entirely of mud bricks, running on all four sides. The citadel of Dholavira, unlike its counterparts at Harappa, Mohen-jo-Daro and Kalibangan was laid out in the south of the city area. Like Kalibangan and Surkotada, Dholavira too has conjoined subdivisions, identified as castle and bailey, located on the east and west respectively, on the top of a low hill with fortification. Impregnable defences most zealously guard the former, being the most important unit, while the latter is lower in height and enclosed by comparatively less thick walls. A broad and long ground between the citadel and middle town has been interpreted as a ceremonial ground. Further north, was located the enwalled middle town and to the east of it wasfounded lower town. The lower town though did not have its own fortification: set within the general circumvallation running around the entire citymajor built-up divisions made together an L-shaped design: the citadel and the middle "town forming the shorter line from the north-south and the middle town and the town forming the longer stroke along the east west axis. Besides, to the south of the castle, across the adjoining reservoir, there was raised another built-up area running along the city wall. On the other hand, the Harappan town at Banawali stands apart for its unusual town planning which the Harappans accepted in bequest. Belying the accepted norms it had an apsidal citadel within a trapezoidal town, both fortified by brick separately and securely, following natural elevation, resulting in an unusual layout. The citadel of course, enjoyed pre-eminently vantage location within the town itself, not located separately as at Harappa, Mohen-jo-Daro, Kalibangan and Dholavira. In Banawali the situation is somewhat like that of Lothal, where the acropolis occupied a higher and comparatively much larger south-central area of the town in which former was embraced by the latter from the three sides, i.e., the eastern, the northern and the western. Another innovation of special significance was the provision of a V-shaped moat that runs around the outer face of the town wall.From the above mentioned data it is quite obvious that the centralized planning of the Harappan settlements is one of the distinctive features and the earliest advanced urban civilizations of the world. Although they were not strictly laid on chessboard or gridpatterns with invariably straight roads, they do show many signs of careful planning. Sites like Mohen-jo-Daro, Harappa and Kalibangan had low, large eastern sectors andseparately fortified higher but smaller western sectors, known as lower towns and citadels respectively. There is a clear evidence that the buildings of the citadel were laid on a high podium fortified with bastions and towers whereas the eastern one too lay within a fortification though of high magnitude but less impressive. Though some of the settlements were fortified even during the Early Harappan phase, their actual division into separate enclosed units evidently appears to coincide with the Mature Harappan phase only, obviously denoting socio-political stratification. On the contrary Surkotada shows no such divisions but has only a single sector on the model of western sector of Kalibangan. Though, Lothal and Banawali each lay within a single enclosure, the latter shows distinctly fortified apsidal citadel within a trapezoidal town. Of the two, Lothal has distinction of having a dockyard. On theother hand, Rakhigarhi, though not fully exposed show signs of possessing more thantwo walled residential sectors.

However, Dholavira stands apart and show three divisions within the general enclosing wall consisting of bipartite citadel (Castle and Bailey), middle town and lower town, which temptingly sound analogous respectively to three different categories of the settlement or buildings. An open space between the citadel and the middle town served as stadium. However most amazing is the layout of gates and provision of larger reservoirs in the drought prone area of Kutch, integrating the use of two local streams into the overall civic planning. However, despite variations in details, all settlements were well integrated to suit into the landscape under one platform. Unlike the haphazard arrangement of Mesopotamian cities, Harappan settlements followed the same basic plan everywhere.

3.8.2 Fortification

One of the important aspects of the Harappan town planning is the provision of forts.Archaeological evidences has brought into notice the concept of development of fortification during pre and early Harappan phase, it became more pronounced and standardized during the Mature phase with the emergence of earliest towns and cities, as a measure to safeguard their settlements. The massive fortification walls were in fact solid structures made of proportionately moulded bricks set in mud mortar. Successive courses of brick were laid in recessed manner as a result both the faces registered a marked taper, which resulted into the raised wall from a border base to a lofty narrow top forming trapezoidal cross section and often indicating the evidence of clay plastering. On the other hand, in areas where the availability of stones are easy, i.e. Dholavira and Surkotada, both inner and outer faces were provided with stone facing to sustain the strength of susceptible portions. It appears that special carewas taken for the construction of the comers, gates and bastions of the fortification. In Harappa, one of the walls around mound AB, was 14 meter wide at the base and the exterior face of the wall was of baked bricks. Whereas, in Kalibangan the width of the fort wall of the citadel complex varies from 9 to 11 meters. At Dholavira, the basal width of the fort wall of the castle is 11 meter whereas at Banawali, the basal width of the fort walls of the citadel ranges from 5.4 to 7 meter. At Surkotada, the width of the fortification wall of citadel is 7 meter whereas residential annexe is 4.25 meter. At Lothal, despite the fact of a relatively small settlement (covering an area of onlytwelve hectares) was protected against floods by raising a 13 meter thick wall of mud bricks. However, northern side of the wall (facing the ancient river bed) was armored with baked bricks. More so, some of the smaller settlements like Bagasra demonstrate more or less the same layout where square bastions were provided on the curves of the inner face instead of outer ones.However, most of the scholars are of the view that the massive fortifications were for military confrontation, but the nonexistence of sudden turn in walls and no moats (with the exception of Banawali) to lead enemies into an ambush, would have been ill suited for defence. For that reason, it appears that, they were rather created to controlto the flow of goods in and out of the city (Kenoyer 1998: 56). What on earth were the precise function of the fort walls and gates; they demonstrated the high level of architectural skills of the Harappans.

3.8.3 Gates

Archaeologists are still not very sure of the precise number of gates provided in different walled sectors both at Harappa and Mohen-jo-Daro. Mound E at Harappa, gives the evidence in one of the gates to be only 2.8 meter wide, just large enough to allow movement of one bullock-cart to get in or out of the city, at a time. It seems that the top of the gate was perhaps covered and may have had rooms or sentinel posts. The second most important gateway of mound E found near the junction at mound E and ET, is much more complex. The actual gate opening is only 2.6 meters in width but it has pylons and side rooms. Around mound AB, the excavated walls revealed four gates, three on the western face and larger one on the northern side of the wall with a ramp leading down to a lower suburb in the north of mound F. Recent studies at Mohen-jo-Daro seems to have confirmed that similar to that of Harappa, each major mound at Mohen-jo-Daro was surrounded by an enormous mud brick walls with gateways at locations (Kenoyer 1998: 55-56). As said earlier, the fortified citadel complex of Kalibangan consists of two almost equal but separately patterned parts, rhomboid on plan, has revealed four gates, three in the northern half and one in the southern half. In

addition, the separation wall, dividing citadel and lower town, also has a gate in the form of stairway between the two centrally located salient,connecting both the entity. Three gates of the northern half (occupied by the elites) and one each on eastern, western and northern side, are simple ones without a ramp,exceptional being the eastern one with a brick pavement on the edge. In addition to these, the southern gate situated between central salient and the southern corner tower has revealed 2.65 meter wide stairway passage. Similarly, two entrances of the fortified lower town were found on the northern and western sides, Of these, the western entrance was controlled by a guardroom (Thapar 1979: 200-01). In Lothal, there is not a single evidence of tower or gateway built in the periphery wall. On thecontrary, the extent of excavated areas has revealed a slanting entrance passage to theacropolis on the southern outer wall further west of the warehouse. At the same time scenario at Surkotada is quite different. Being a garrison defense outpost, it has elaborate gateway complexes with guardrooms. Here, citadel as well as residential area was provided with separate entrance, each 1.70 meter wide, constructed in the middle between the comer and central bastion of the southern rampart. In addition, a 4m wide passage for intercommunication was provided in a partition wall between citadel and the residential annexe . Similarly, Banawali has an elaborate gate complex constructed in the thick outer eastern wall was found where five major streets met with the passage of the gate on a broad piazza. It was flanked by bastions having a moat in front.Most noteworthy of all the Harappan settlements, Dholavira accounts for most of the gateways unparallel to be seen elsewhere. Overall, 14 gates have been laid bare in different fortified habitational areas. The divisions of all these 14 gates are: Castle-5; Bailey-2; Stadium-4; Middle town-1 and Annexe-2. All the five gates of the Castle bear distinct designs. Of these, eastern arm of the fortification wall has yielded two gates while one each in remaining three sides of the walls. The south gate has a concealed passage with an ordinary doorway. Gate on the western arm, which was connected with the Bailey, has a 9 meter long and 2.2 meter wide passage with a guardroom. The eastern gate (Fig. 3.8), one of the two major ones, had a large elevated side chamber on the south and a passage on the north. The passage was interconnected with the flight of 14 steps at the inner end while the other end was fitted with a doorsill made of large limestone slab. On the either ends of the floor of chamber was found a set of smooth, nicely cut and polished limestone blocks of rectangular shape. Thus, it is quite possible that both the ends have been provided with huge doors. In these blocks, the topmost block bore two long sockets, one each on two sides, parallel to each other. Each pair of the blocks served as the base for thepilasters, made out of mud-concrete bricks. In the center, between the two pilasters, was found another set of limestone blocks supporting a beautifully carved and polished pillar base having a pronounced concave profile. The top flat surface bore in the center a 5 mm circular hole to support a large sized cylindrical pillar. The northern gate (Fig. 3.9) was found to be the most majestic, most elaborately designed architectural construction, which commanded over the stadium, middle town, lower town and further beyond the picturesque landscape. In the thickness of the wall, it consisted two elevated chambers flanking a passageway, which in term was furnished at the inner end with a limestone doorsill flanked by a set of limestone each bearing sockets, thereby suggesting the existence of two enormous stone columns, which might have supported the heavy door frame (Bisht 1998-99: 30-31). Discovery of these pillar bases in situ, in Dholavira, helps us to understand numerous such stones found in the streets and dumps at Harappa and Mohen-jo-Daro. Comparatively, other gates found at Dholavira are rather simple.

3.8.4 Streets

Streets are of the utmost importance in any of the civilization and the layout of the streets can tell us about the nature of the settlement. During Harappan period too, streets played vital role in the urban planning. The overall layout of the Harappan settlements is distinguished by the orientation of streets according to cardinal directions. The prime streets at best were laid out running north-south and east-west cutting at right angles forming a grid pattern in such a manner that it divided the settlements into square or rectangular blocks. Though, in its stricter sense Mohen-jo-daro does not have precise alignment and the widest street measures 9.1 meter,running across the lower town, from north to south. Excavations at Kalibangan have confirmed the existence of four arterial thoroughfares, running north-south and three running east-west. While the former were found to run without hindrance, the latter did not come across the former but were staggered and possibly served as entrance lanes for certain house blocks. Yet again, while the former were not equally spaced, the latter were situated on an average of 70 meter from each other. The width of thethoroughfares and streets corresponded to the multiple of 1.8 meter and range from 1.8 to 7.2 meter. To prevent damage from vehicular traffic, fender posts were provided at some street comers. Throughout the occupation, the width of these thoroughfares appears to be maintained, the only encroachments of the structures into the streets were rectangular platforms immediately outside some houses. Archaeological evidences suggest that the streets were unmetalled, except in the late phase. The layout of the city shows that the alignments of the streets were at variance with that of fortification walls. It seems fortifications and streets had been planned at the same time (Thapar 1979: 200-201). In the same manner the streets of 4-6 meter wide and narrow lanes of 2-3 meter divided the principal living area of Lothal with main-street running from north to south. Surkotada also furnishes the evidence ofstreets and lanes in between the house complexes.Dholavira, however, remains exception with the main arterial street running east- west,, connecting lower and middle town and either sides were provided with bold projections and recesses, which resulted into an open space opposite to the main street, which is indeed a unique method of layout of the habitational sectors with a wide-open space so far unknown at other Harappan sites. Of course, one could also see major and minor streets and lanes, which cut each other at right angles for making a defined network of housing units. The streets at Banawali due to typical configuration of the settlement offered a different layout. The citadel has, notwithstanding its curvatural delineation, resolved itself in formal arrangement of streets and lanes which ran straight almost along the citadel directions and cut each other at right angles and thereby determined a fairly rectangular form for individual housing sectors of which six units can be easily identified within the excavated area. On the other hand, the lower town, having trapezoidal plan, has exhibited a nucleated radial layout of the streets and lanes, which, in turn, demarcated a series of triangulate of acutely trapezoidal residential sectors. In this unconventional layout, there were seen certain focal points for streets, like spokes of wheel, to converge on or radiate from. They therefore, made an acute or obtuse angle at the point of bifurcation. In the lower town, one such focal point was near the east gat, where five major streets-threecoming from the interior of the town and two running along the fortification wall- meet with the passage of the gate on a broad piazza. No streets showed use of vehicular traffic. The only exception was seen in the outer street near the northernapex of the citadel wall. Here, several pairs of rut marks were found deep cut into the floor. This shows that the movement of carts was restricted to some special streets only.

3.8.5 Drainage Network

One of the most excellent features of the Harappan town planning is the well laid out streets and side lanes geared up with drainage network. As a matter of fact, discharge of polluted water and sewage was an important part of the concerns of the Harappans, which is reflected not only in the cities but also in smaller towns and villages having impressive drainage system. Baked bricks were the important part for the construction of the drains. Bathing platforms and latrines of the houses were connected to the medium sized drains in the side streets. These medium sized drains flowed into larger sewers along with the main streets, which were covered with bricks or dressed stone blocks. Corbelled arches allowed the larger drains to cut beneath streets or buildings until they finally exit under the city wall.One completely preserved drain found atHarappa has a magnificent corbelled arch- 1.6 meter high, 60 centimeter wide and extends from 6.5 meter beneath a major city street. Rectangular sump pits, for collecting solid waste, were aided with main sewage, at regular intervals. Harappans seems to be through with the art of management of waste water inside the houses. As evident from excavations, there were provisions of intramural drains, vertical drainpipes in the walls, chutes through walls to the streets and drains from bathing floors into the street drains. The Great Bath at Mohen-jo-Daro was provided with that largest of all the Harappan culverts. Water from inside houses was sometime led directly into a street drain, but there are other facilities, which were used as well, like brick-lined cesspits and pottery jars along the streets.On the other hand, Dholavira presents excellent evidence of rainwater drains. The citadel has yielded an efficient system of water harvesting through network of drains to a reservoir carved out in open space provided in the bailey. The large drains are high and broad enough to allow a person to walk through (Fig. 3.10), resembling the drain to flush out wastewater from the Great Bath at Mohen-jo-Daro. Small apertures at short intervals on the roofing stone slabs, which might have acted like ducts to let air escape and instigate the easy flow of storm water, are one of the interesting features of these drains at Dholavira.

3.8.6 Houses And Buildings

Groups of residential houses and public buildings were constructed close together and formed larger blocks that were bordered by lanes and wide streets. Most of the housesopened on the narrower streets and lanes and rarely on the main street. An average house centered around an open courtyard from which access was provided to the various rooms to meet basic requirements as modules seen in traditional houses even today. Apart from bathroom, latrine, and drains for sewage in almost every house,hearth was also a common feature and quite a few of the houses having their own well. Floors of the houses were either made up of rammed earth or moulded mud bricks. Quite a few houses have provided evidence of staircases, which suggests thepossibility of upper storey; though it is quite likely that in most of the cases these might be the openings for the roof. On an average, house walls were 70 centimeter thick and ceilings were probably three meter high. Clay models of houses show that some of the doorframes were painted and possibly carved with simple decoration and. also suggest a kind of locking device. Windows were reported to have normallyformed by lattice brickwork. Besides the common types of houses, barrack like quarters, arranged in two parallel back to back north-south rows, separated by a narrow passage were evident from the HR area of Mohen-jo-Daro. Here, each quarter had two rooms, one at the back and the other in the front. These barracks are reminiscent of more or less similar quarters at Harappa. There were also large houses surrounded by smaller units served as one single residential complex. The other outer units may have been the houses of relatives or

service groups attached to the main house. While large public buildings may have been associated with specific administrative or religious functions. The structures identified as the Great Bath, the so called granary, the College, and the Ware-house etc. may be included in this .

3.8.7 Water Reserves

Depending upon the geographical position and environmental setting of the site, wells, tanks and reservoirs were built to ascertain various necessities related to water. Jansen estimated that Mohen-jo-Daro may have had more than 700 wells (Jansen 1989: 252). Comparatively, Harappa may have had as few as 30 wells. In the same manner excavations at Chanhudaro, Kalibangan, Lothal and Dholavira also had furnished evidence of wells restricted to very few in counts. Majority of these wells were lined with specially made wedged-shaped bricks (Fig. 3.11) to form a structurally sound cylinder, with the depth of almost 10-15 meter, which would not cave in under pressure from the adjacent earth. On the top edge of the well made of bricks had deep grooves, except that of Dholavira where such marks are seen on the basal stone slab of the trough (Fig. 3.12), indicating use of ropes to lift the water, probably with leather bags. At Mohen-jo-Daro, diameter of the wells ranged from 60 (beingthe smallest) to 2.1 meter (the largest one). Whereas, in the castle area of Dholavira, with highly skilled masonry work employed in the construction of the well is the largest, of which the inner diameter measures 4.12 meter. Mohan-jo-Daro's tank complex, popularly known as Great Bath is considered as the earliest public water tank in the ancient world measuring approximately 12 meter north-south and 7 meter east-west, with the maximum depth of 2.4 meters. Two set of step ways, one each on northern and southern sides, led to the base of the tank. To avoid leakage of the waterform the tank, impregnable gypsum-mortar was used in between brick-on-edge floors of the tank as well as in the sidewalls. Corbelled drain in the south-west comer of the floor of the tank was used to discharge used water.Around the tank there ran successively a courtyard and pillared corridors. In one of the rooms, found behind one of the three corridors have a double-lined brick well, which obviously supplied water to the tank. Most of the scholars are of the view thatthis elaborate building was not only used simply for public bathing but also might have some religious significance, where water was used to purify and renew the well being of the bathers in special religious functions. Similarly, at Dholavira, in the southwestern quarter of the castle two water tanks with a well, as an interrelated complex was identified. Of these, larger tankhas competently made floor with smothered stones, the side walls upto a certain height lined with large limestone slabs and superstructure with dressed stones. Northern portion of the tank was provided with a flight of steps till half way down only and not upto the floor as a normal practice. Center of this tank was provided with pit, probably to let the dirtywater accumulate there during the periodical cleaning of the tank. Small aperture wasalso noticed in the tank for an easy disposal of the bulk of water. Probably it was connected to the waste-water drain under the nearby broadway. Sticky, grey-colored clay, highly impervious in nature towards water, was used in the masonry work, to make tank leak-proof. The smaller tank, besides the bigger one was more or less in the same fashion, exception being, the steps were provided upto the tank floor. Common source of supply of water for both these tanks was from the nearby well, which was connected with high inlet drain. Nevertheless, Lothal too provides interesting feature of baked brick lined basin, practically rectangular in shape and measuring 219 by 37 meter in size, was located right away to the east of the parish of Lothal. The brick walls of the sunken enclosure are 4.5 meter high. A platform borders the town side and permit easy access to the Warehouse and Acropolis. In addition, two inlets were also noticed, supporting entry of water in the tank, one each on the northern and southern wall, measuring 12 meter and 7 meter in width. Beside this, a spill way for the exit of

surplus water was provided in the southern wall.Excavator has identified this water-body as dockyard. However, there still remains, elements of doubt about the explicit function of this brick lined enclosure and is still open to question. Few scholars do believe that it was a tank (Feshnik 1968). In fact, none of this tank versus dockyard alternatives isfully convincing. Feaving aside these functional utility theories, it remains one of the ancient and represents one of the largest artificial water-retaining basins, reflecting superior hydraulic technology developed by the Harappans.Dholavira, of all the Harappan sites, was endowed with the most proficient system of water harvesting and storage in the form of reservoirs in the absence persistent rivers, lakes or springs in its environs, where subsoil water is by and large,briny. It seems as if great deal of consideration might have been given for the site like Dholavira, at an ideal location between two seasonal drains, the Manhar and the Mansar. The architects of Dholavira might have conceptualized an astonishing harmonization of dams and tanks to manage water by conserving every drop of water that used to flow in the contiguous streams after the downpours; or else, a city of such magnitude may not have flourished in an area where drought and famine are so common. The Dholavira Harappans, during their prime, constructed almost sixteenreservoirs of varying dimensions, within the city walls along the northern, westernand southern sides of the main settlement and to the main settlement of the citadel. The Harappans were extremely conscientious towards zealously storing the maximum or rather the entire volume of water that used to flow in the flanking streams after the downpours. A casual rough estimate works out that approximately 17 hectares, i.e. 36% of the total enwalled area was appropriated alone for the storage of the waterharnessed from the streams by way of raising several dams which are at least three or four across the Manhar in the south and two or three across the Mansar in the north. In addition, there might have been quite a few inlet channels piercing through the city walls for bringing in the surface run-off. It is worth noting that the gradient between the higher northeast and lower southwest area of the city is 13 meter, an ideal situation of having reservoirs. Of these, the reservoir located to the east of the castle has 31 steps from the top to bottom and is a marvel of the technology and endeavor, of which the embankments and the steps were built in the stone masonry. It is 24 meter wide and varied between 7.5 and 5 meter in depth. Another reservoir near the Annex, to the south of the Castle, has an expose length of 95 meter and width of approximately 10 meter. The depth varies from 2 to 4 meter. It is one of the earliest ever rock cut example of reservoir and that too of such a large scale. The excavator remarks that the city might have looked like a lake-city or "Jala-Durga".

3.9 Harappan Economy

It is generally believed that economy of the Harappan people was mainly based on external trade. It is true to the extent that the Harappan urban centres were supported by the external trade but actually agriculture was the backbone of the civilization. Agriculture was supported and supplanted by the animal husbandry. The economy of the Harappan civilization was based on domestic animals, particularly on zebu cattle, and on variable agriculture of growing cereals, pulses and other plants. These were supplemented by the exploitation of wild resources, such as fish. Pastoralism and agriculture differ in their relative importance in view of the great diversity of environment that composed the Indus realms1 in the valleys and plains of the Indus and Ghaggar rivers, their tributaries and other small rivers. Mixed farming was highly profitable as rains and other local water resources supported farming in the region and also facilitated grazing of cattle on the expanses of seasonal pastures in Gujarat, Punjab and in the uplands of Baluchistan. Coastal settlements took advantage of marine resources such as shellfish, which provided not only food but also shells, an important resource for making ornaments.

Some domestic animals played a major role in Harappan agriculture. These domestic animals, mainly, were cattle, sheep, goat, water buffalo, dog, pig, horse, ass, camel, elephant and fowl. Subsistence economy like agriculture was supplanted with domestic animals which provided meat, milk, hides, wool and raw material for other related industries like shoe making, woolen textile etc. Raising livestock was a useful investment against crop failure. In good monsoon years, when crops yields were high, grazing would also be good and the number of animals that were kept could be increased. In addition to this surplus agriculture produce would also be available as fodder. In the drought years agricultural activities tend to decrease and grazing activities shall increase and animal products shall also increase. In lean years, when grazing was limited, the additional animal could either be killed for food or used to obtain other foodstuffs, say for example, by trading with pastoralists, by giving the animals as gifts to kin in other areas in the expectation of useful return gifs, or perhaps by exchanging them for grains stored by those in authority, though the evidence of central storage is limited and dubious.

Large numbers of sites were excavated by various archaeologists in different region of Harappan civilization and archaeozoological, as well as archeological evidences in respect of domestic animals were collected. The faunal material available is probably one of the best sources of information in archaeozoological context. It provides an excellent example of human coexistence with animal in the artifactual remains viz., terracotta animal figurines, depiction on ceramic and seals etc. The recovered animal bones reveal the existence of terrestrial, aquatic and also of avifauna. These can be grouped as wild and domestic. The wild taxa belonging to larger mammals and reptiles exhibit forest dwelling tendencies, a great bearing on understanding the ecological conditions prevalent around this region in ancient times and also on the potential food resources available to them to supplement the domestic stock.

The animals of the domestic category viz. zebu (Bos-indicus), buffalo (Bublusbublis), sheep (Ovis arise), goat (Capra hircus), pig (Sus domesticus), ass (Equus asinus), horse (Equus caballus), camel (Camelus dromedaries), elephant (Elephas maximus) and fowl (Gallus gallus) have been exploited as some of these were used in term of food economy, some for transport and other for traction. This speaks of the priorities given to the animals in various respects on the basis of selective physical capabilities possessed by them. The artifacts depicting these animals also support this evidence.

At Harappan settlements, cattle (Bos indicus) occur in great density and accounts for about 40 to 70 percent of the total animals found. Domestic pig (Sus domesticus)) outnumbers other animals as the statistical analysis by Singh has revealed that domestic pig played a dominant role in the food economy at Mohenjodaro, followed by cattle, sheep and fowl. Due to the presence of juvenile individuals of cattle and excessive use of pig at Mohenjodaro. It has been postulated that probably animal husbandry practices were quite inadequate and immediate requirement for food were fulfilled by consuming meat. In addition, various corvine kinds also supplemented their diet by affording exploitation of their secondary products. The cattle bones are represented by jaw fragments, isolated molars and phalanges. Probably, most of the proximal and distal ends of long bones were either consumed or damaged as these do not occur in the collection. The presence of bones of various age groups within the cattle assemblage indicates their optimal food yielding capacity. However, the osteological and dental material also seems to have been dominated by juvenile individuals. This supports the assumption that young ones (most probably males) were slaughtered first, females and a few of the males probably

maintained for the purpose of milking, breeding and as draught animals. They were replaced by new stock and consumed as they grew older. Quantitatively, the amount of meat supplied by cattle is of large size and measures ten times greater than that of sheep or a goat of comparable age as postulated by Chaplin5, and Meadow6. This great variation in the ratio of quantity of meat might have attracted the Harappans for greater exploitation of cattle than that of sheep or goat. Milk is one of the important secondary products, containing great dietary values though we have not found any representation of milking of cows. But the depicting of a cow and her calf is a solitary example on Harappan pottery (Pl.3.13). In the painting, a calf is sucking milk of her mother cow. Before milking of the cow firstly the calf was allowed to suck.

Early animal domestication in South Asia: A first report of the faunal remains from Mehrgarh, Pakistan. The milk and then cows were milked. This is an earliest evidence of the consumption of milk. In Harappa, cows were probably kept for their milk and bullocks for drawing plough and cart, threshing and drawing water, while a few bulls would be maintained for breeding, one bull being enough to service all the cow of a village. Such a practice is still prevalent in the villages where only one stud bull is available for the cows of whole village. This bull was either donated by some benevolent person or panchayat arranged the same. Similarly only one he-buffalo was available as stud for the whole village. The use of the bullock for traction is vividly illustrated by many terracotta models of cart (Pl.6.6 to 6.10) drawn by a pair of bullocks. They would also have been used to draw plough and probably provided the muscle power needed to draw water from well for irrigation. Model yokes have been found at Nausharo. Other uses of cattle included threshing grain and carrying goods as pack animals.

3.10 Social and Economic dimension of Harappans

On the basis of archaeological and archaeozoological studies, the researcher has classified the Harappan society as directly and indirectly connected with the animal husbandry. On the basis of these sources, we can classify the Harappan social organizations as hunter-gatherers, pastoralists, farmers or agriculturist, fishing communities (Fishermen), Butchers, Transporters or traders, tool maker (Jewellers), priest group, magician and cart makers etc. Although the Harappan script has not been deciphered, hence we have to depend on the interpretation of the material remains in order to have socio-economic condition of the Harappans. Here in this research work the domestication of animals have been taken as a basis for the reconsruction of socio-economic fabric of the Harappans. On the basis of this we can postulate various social groups in the society.

3.10.1 Hunter-gatherers

Hunting of wild animals such as antelopes, nilgai, chital, wild pig, wolf, jackal, jungle cat, gaur, hare, blackbuck, chinkara, sambar, leopard, and tiger was common as observed at several Harappan sites where these animals' bones have been found. These animals appear to have played an equally important role in the food economy. The Harappans were also fully familiar with the tiger and rhinoceros which they might have hunted as a game7. Every Harappan sites yielded 10 to 40 percent wild animal bones. There is no doubt that a hunter-gatherer group also existed in Harappan culture. Many arrow heads and spears were recovered from several Harappan sites and both were the major weapons used for hunting by the Harappans (Pl.6.1 & 6.2). The hunting equipment fond from various excavated sites throw light not only on the economy of the Harappan but also on the social life. It reflects that there was a class of hunters in the society which was

otherwise a well settled one. The metal objects lead us to inter that a group specialist classes were there in the Harappan population which were engaged in the identification of the area, where ore are is available, extractors of the ores, metal extractors and the craftsman who made their tools. These metal smiths enjoyed a higher status in the society than the ordinary crafts men. Apart from these transporters of the ore, from field to workshops, finished goods from workshops to market were also there. Shopkeepers or the sellers of these goods also provided a useful link in the trade and contributed in the Harappan economy.

Environment would have played an important role in regulating the sociology of hunting as practiced by the Harappans. Hunting of a pig or a wild buffalo in tropical jungles could not be an individual affair. Except a concerted attempt made by a number of able-bodies at a time, it is almost impossible to trace and kill a pig or wild buffalo in the virgin tropical rain forest of the region. Hence, to cope with the environmental situation, the Harappans might be lived in groups.

When a big wild animal like a pig or a wild buffalo was captured, not only the members of the hunting party shared it, but every member of the community took a portion of the game. Being the most strenuous work, hunting was exclusively the business of the males. Pastoralists: Pastoral community had been another community or class in Harappan society. A study of the distribution of Harappan settlements shows significant clusters of towns and villages in some region. Pastoralists, and perhaps also hunter-gatherers, moved within these tracts, grazing their animals and providing the vital link that held together the civilization. Pastoralism involves breeding, raising and managing of domesticated ungulates by members of a human society or we can say that the term "pastoral" is generally used to refer to a group of people who maintain a nomadic lifestyle and keep domestic animals. The main pastoral animals of Harappan people were cattle, sheep, and goat. Pigs might also have been husbanded and included among the pastoral animals8. Focus of this research work, has been on the archaeological and iconographic evidences for pastoralism in Harappan culture. The earliest evidence for pastoralism comes from the site Mehrgarh, which is located at the foot of the Bolan Pass of Baluchistan9 in eastern Pakistan. Cattle were the predominant animals in the Harappan Culture. This is true for all excavated Harappan sites. The Harappans were well acquainted with the multiple utility of the cattle, and cattle pastoralism was an indispensable profession in the Harappan economy. The other domestic animals such as buffalo, sheep, goat and pigs also contributed substantially to the diet of the Harappans. In the subsistence system of the Harappans, the domestic animals contributed more than 80 percent of the animal protein. The remaining 20 percent was obtained from the wild animals consisting of the terrestrial, avian and aquatic fauna. In Harappan periods, pastures received an influx of animals from the adjacent northern highlands during the winter months, but throughout the Harappan period communications between the northern borderlands and the Indus region appear to have been severally limited; so Late KotDiji inhabitants of the highlands probably took their animals to other pastures, west of the mountains. In summer, from around March to October, the pastures of the Kulli region in southern Baluchistan might have been utilized by Indus pastoralists, though the majority of animals were probably grazed in the summer in eastern Sindh, particularly on the seasonal grasslands of the Tharparkar, Kuchchh, particularly the grassland immediately south of the Great Rann, Saurashtra, and the western Ghaggar region. Winter grazing was available on the Kachi plain, in Sindh, Punjab and Gujarat. The inhabitants of the mountains would thus have spent their summers near home and travelled to seasonal pastures in the winter. In greater Indus region it was the winter months that saw the herders at home and it was the spring and summer when they moved to others pastures,

though the distances they had to travel were often quite short. A few settlements have been found that we can say were directly linked to pastoralists, although they are hard to locate, given their ephemeralnature. At Nesadi (Valabhi) in Saurashtra, pastoralists dwelt in circular huts with rammed earth floors, occupying the settlement during the winter months. Another probable pastoralists' campsite, from the Late Harappan period, was uncovered at Oriyo Timo in Gujarat. This site was probably occupied seasonally by a community whose main economic strategy was the herding of cattle, sheep, and goat but who may also have practiced a limited amount of cultivation. No structural remains were found there, with the exception of hearths, and it is, therefore, probable that temporary huts were constructed on arrival each year. Analysis of the cattle and caprine bones show that the animal were killed in the hot season, March to July, indicating the time of year when this camp was occupied.

It is likely that in the Harappan period there were both specialists: pastoralists and farmers who spent part of their year in transhumance. In Mature period, the animals fully belonged to the farmers and could be exploited directly and those who took them to pasture would return seasonally to their place in the settled family. Specialist pastoralists, on the other hand, would have had an elaborate pattern of traditionally established or negotiated relationships with settled farmers whereby milk, dung, and other animal products were exchanged for grain, access to grazing, and perhaps manufactured goods. Settled farmers may have made arrangements with pastoralists whereby the latter took charge of some of the farmers' livestock during the period when the animals needed to be taken to seasonal pastures away from the settlement. The pastoral practices have been identified from the faunal remains in the early Harappan phase from several sites. Hence, pastoral practices continued in the Mature phase and also in the Late Harappan period.

3.10.2 Agriculturists or Farmers

The evidences regarding agriculture in Harappan Culture are constituted by the food grain and fibers and from the potteries, granaries, terracotta toys and ornaments recovered in excavations. The size of the Harappan town itself indicates that it was plough agriculture, with dependence on bullocks for draught. The Harappans cultivated bread wheat, barley, sesame, sorghum, peas, melons, date-palm, and species of mustard, rice, millet and cotton. Actual remains of cereal grains in Harappan Culture have been found at Harappa, Mohenjodaro, Kalibangan, Rohira, Moharana, Daulatpur, Hulas, Surkotada, Rojdi, Orio Timbo, Rangpur and several other sites. The only direct evidence of the practices of Harappan agriculture comes from the ploughed field at Kalibangan13 belonging to the Early Harappan period. The filed at Kalibangan was about 140 meters square and had been ploughed in two directions at right angles a practice still used in this region. In modern times, closely special strips, ploughed at right angles to the first furrows are sown with mustard seed. This matches the arrangement in the Kalibangan field (Fig.6.1) where furrow 30 centimeters apart were ploughed first, followed later by furrow 1.9 meters apart and a large number of lignum seeds scattered across it.

A terracotta model plough was found at Banawali, giving an idea of the form of the Harappan plough. It had narrow, pointed share to go through the ground surface and a caved shaft by which it was drawn along. It is possible, therefore, that it was small enough to have been drawn by man, though it is more likely that a yoke for a plough team of two oxen

would have been attached to the shaft. The black cotton soil of Gujarat, used for Kharif cultivation, also did not require ploughing. The plough enabled large areas to be cultivated than was possible with hand tools such as digging sticks and hoes and it made use of animal traction, reducing the human effort involved in ground preparation. Ratnagar15 argues that farmers in the Harappan period were likely to have been less interested in achieving high productivity than in ensuring reliability: minimizing the risk rather than maximizing yields. Nevertheless, an increase in agriculture efficiency by using animal labor is likely to have increased productivity and therefore, produced a surplus that enabled some sector of the community to engage in part time or full time non farming activities such as craft production and trading expeditions. Yields would also be higher if the seeds were carefully sown rather broadcast. The crisscross ploughed furrows at Kalibangan would have required careful showing along the furrow in order to maintain the clear separation between the two crops grown in the field; this suggests that sowing rather than broadcasting was practiced even in Early Indus times.

3.10.3 Transporter or Trader

Transport was one of the significant aspects of land trade and the cultural diffusion which became possible through the living means of riding and traction such as the horse, ass, camel, and may be bull also. Overland transport over short distances might have been bull. Overland transport over short and may be long distance utilized bullock cart. Terracotta models provide a clear picture of the wooden carts with solid wooden wheels that were widely used for land transport over short and long distances. These are virtually identical to those used by modern farmers of the Indus region. Some carts consisted simply of a solid wooden platform above the axle; others had an open frame work. In some cases, the platform might have laid permanent sidepieces but many just had holes into which wooden stakes could be slotted when required to form sides supporting a load. These carts were drawn by oxen or bullocks of which there are also terracotta models. A different style of cart, with a short chassis, a roof and high sides was probably a vehicle in which people travelled. A small platform in front of the cab provided a seat for its driver. The ass being docile and useful in transport and dung etc. is likely to have become an easy target for exploitation by the Harappans. It was used as a pack animal to conduct long distance transport in the western and northwestern India17. In modern south Asia, pastoralist play an important role in providing links between settled communities and in transmitting goods from places as they move in their seasonal round. Seasonal movement was an important part of the pastoral economy in Harappan times, and it seems highly probable that people taking their animals through different parts of the Indus realms would have acted as carriers, moving goods from source to consumer and participating in a complex network of connections among pastoral groups from different regions, enabling the produce of one region to be transported to others. In the Harappan times, ass, horse and cattle could transport heavy loads and even sheep could be used as pack animals. While many goods, probably, moved within private transactions, pastoralists might also have been entrusted with the carriage of official consignment of goods by representatives of those in authority.

3.10.4 Fishing Communities (Fishermen)

An important source of food for the Harappan was fish: large numbers of bones have been recovered from several Harappan sites. At Balakot fish provided around half the faunal component of the diet. The faunal remains from the coastal settlement of Balakot and from Harappa, far inland near the Ravi river, have

been examined in detail, providing a complementary picture of the exploitation of marine and fresh water resources19. The remains from Harappa show that the range of fresh water fish was more restricted than that available from the sea. Here, the main species exploited were four types of catfish, though various types of carp, snakeheads, and spiny eels were also important. The distribution of the remains at Harappa shows that some households consumed large quantities of fish while others ate little. At Nausharo in the Bolan Valley, carp and catfish were also the species of fish caught. Nets were the principal fishing device, used on the side channels, and lakes. The bottoms of the nets were weighted down with terra-cotta net sinkers. These nets have been found in many Harappan sites. A sherd of pottery from Harappa depicts a fishing scene, in which a man stands among fish, holding one or several nets, while along the foot of the scene runs a large net presumably surrounding an area of water in which the fish have been trapped. In early period, simple hooks had been used, but in mature period they were probably responsible for developing the barbed fish hook, which also had a looped end to which the line was fastened. The copper fishhooks have been recovered from Mohenjodaro, Harappa, Rakhigarhi, Lothal, Padri and Chanhudaro etc. According to above mentioned sources, we can confidently say that the fishing profession was well established in Harappan society. A major group of society has adopted this profession. Cart Makers: Bullock cart played a vital role in the economic life of the Harappan people. Buffaloes and bullocks served as beasts of burden in the plains; it may be that mules and goats were used for the same purpose in the hilly regions. Although the bullock-cart was widely known, its use must have been confined to the plains. In the absence of the actual remains of carts because of the material used for making them, the clay-models and a few examples of copper/bronze models are to be relied upon in order to know the various types of carts in use in those times. Three main types are reconstructed with the help of the toy-wheels and cart frames discovered from Lothal21. The first type has a solid chassis which is concave or flat. The second and third types have a perforated chassis, but the latter has, in addition, a detachable cross-bar. On one such chassis, wooden pots are fixed to form a box-like frame. Even now, the carts in Gujarat and Rajasthan carry such frames formed by interlacing ropes for carrying huge quantities of light goods.

We have varieties of terracotta toy cart models recovered from large cities and towns of Harappan Culture like Harappa, Mohenjodaro and several excavated sites22. Besides, a few copper / bronze miniature carts have been reported from Harappa, Chanhudaro and Daimabad. Early to Late phase of Harappan civilization witnessed a full-fledged toy cart and wheel mould. Many toy carts frames and wheel models have been recovered from Rakhigarhi23. In this context, it is interesting to note that at Banawali, an Early Harappan pot sherd decorated with a "canopied cart with spoked wheels" in black painting24 has been found. We have terracotta toy wheel models of a solid variety of the Early Harappan period from sites such as Kalibangan, Bhirrana, Rakhigarhi, Gumla, Rehman Dheri25. A large numbers of toy cart frame and wheel models have been recovered almost from every Harappan site. Terracotta models provide a clear picture of the wooden carts (or may be frame with metal) with solid wooden wheels that were widely used for land transport over short and long distances. There is no doubt that a group or a class existed which made their carts. Information on wheeled vehicles is scantly. However, solid terracotta model wheel often with single sides protruding hub, terracotta toy-cart frames and bull figurines may indicate that wooden carts with solid wheels were driven by bulls. Toy-cart wheels and cart frames are, however, absent at the hill site of Baluchistan. In the Indus plains cartframes are found at Kalibangan II26, Sarai Khola II27 early levels of MohenjodaroMitathal IIA, and

Jalilpur II. Toy-cart Wheels are reported from Mitathal IIA, Jalilpur II28 (Solid wheels with a single or double hub), Sarai Khola II29. Gumla II30 (the hub-less varity) and Kalibangan. The presence of toy cart frames and wheels help us not only to have idea of actual models but also give an indication that the makers of actual specimen were a class of wood workers. These carpenters were specialists and may have higher social status than the ordinary carpenter who made simple wood product.

3.10.5 Butchers

Both wild and domestic animals were important sources of food Early to Late Harappan people. Many of the animal bones have been found at every Harappan sites show evidences of cut marks, butchering; charring; indicating human activity on them. There is no doubt the Harappans were used to these animal for food. Breakage patterns in long bones are being studied to distinguish human activity from scavengers and other biological / or non-biological angles. Breakages were of different types which include longitudinal, irregular, spiral, oblique and mosaic, mainly caused by different angles of forces implied to break the long bones for marrow extraction and also while meat was removed by some sharp edged instruments. The fractures were often found at the end of either of the extremities or sometimes the epiphyses were chopped off. To dismember the body parts, pelvis and vertebrae appear to have been subjected to butchering, which is indicated by different cuts and butchering marks on them. Most of the distal aspect of humeral of cattle and buffalo show the sharp edged instrument's cut almost at right angle to the horizontal plane of the bones. Possibly the crania were crushed by some blunt instrument32. The cut marks, specially the cuts made for extraction of morrow etc. indicate ordinary butcher along with the specialist butchers were classes of people in Harappan society.

3.10.6 Ivory and Bone Craftsmen (Jewellers)

The archaeologists have unearthed a large number of objects made of ivory, shell and bones of animals. These include weapons, ornaments and decorative objects. Even poorly preserved and fragmented relics may lead to, at least, a partial reconstruction of the history of animals reared by Harappan people or those which were their beasts. The making of bone and ivory objects required sharper tools and high skills which go a long way to prove the high efficiency achieved by the craftsmen. It appears that these objects were mostly used by the people of rich classes as these were costly objects on account of the labour and skill involved in them. Many artisans may have practiced their craft on full time specialists. There artisans lived in towns and cities, and many of them were highly skilled individuals producing special products like bone's tools as well as ivory ornaments and tools also. Bone and ivory tools (Pl.6.12-13) and ornaments are known from almost all Harappan sites.

The Harappan must have used tools and ornamental objects made of ivory, shell, bone and horn. Many evidences of ivory-working at several Harappan sites, such as Mohenjodaro and Lothal, are rich for ivory objects. The objects of toiletry produced in this material comprise combs, hairpins, antimony rods, mirror-handles etc. other objects included ear-ornaments, gamesmen bead, a few knives for sophisticated use, a couple of seals and scales. A scale found at Lothal is of great interest. Though damaged, it shows at least thirty divisions. Rao refers to something rather unusual: small tapering rods of ivory on which stains of red ochre are seen at the tip have been used for decorating lips or nail-tips33. The ivory carving workshops, in a number of Harappan sites were probably associated with craft items and other items were obtained through trade. Bones were used for many artifacts of everyday use, such as handles for metal and flit tools,

weaving equipments, beads, tools for smoothing and decorating pottery, awls, needles, and many other small objects. Unmodified bones were probably used as soft hammers for flint knapping. Horn and antler may have been used in similar ways, and antlers were also employed as picks or punches. The distal extremities of rhinoceros' limb bones were found both at Kuntasi and Shikarpur, but were probably not included in the diet of the inhabitants. These bones might have been collected as curios objects or for making stronger bones tools34. There is no doubt as to the above mentioned sources and we can say that the graphs of Harappan people existed in the society which made these tools and ornamental objects. Excavations at Surkotada have yielded a number of objects made from bones and ivory. It appears that the ivory industry was a flourishing one in period IC as revealed by the find of a huge elephant tusk. The jewellery of the Harappan people both the Metropolitan and Provincial towns consisted of fillets, ribbons, brooches and hairpins, ear and nose ornaments, necklaces and pendants, armlets, bracelets and bangles, finger ring and girdles. Bangles, with etched deigns, are a specialty of Harappan jewellery in most of the sites. The large variety of Jewellery suggests that there must have been a good number of workshop and shops to make sell ornaments, which constituted an important item of trade as well outside the Harappan Empire.36 Combs: Ivory combs seem to have caught the fancy of man at a very early stage of human civilization.37 The use of ivory for making combs was in fact very common. Many examples have been found from several Harappan sites (fig.6.4). The circular motifs are commonly found on Harappan combs.

Ivory comb from Banawani Hairpin: The attractive hair-do of the Mohenjodaro bronze dancing girl39 makes it evident that women of those days were found of arranging and stylizing their hair. Not only women but men also used hair-pins.40 It is quite likely that the Harappan were using hair-pins mostly made of ivory. Such pins have been found in excavations from various Harappan sites. Mohenjodaro alone has yielded twelve such pins.41 Kohl-stick: The Harappan seems to have been using Kohl also, as is evident from the discovery of Kohl-sticks at Harappa, Lothal. Generally these are cylindrical but a few examples are found rectangular in section. In most of the cases, they taper a little at both ends, which are fairly thick and rounded, but sometimes only end is finished, the other being left rough. Handles: The ivory was also used for making handles of various utilitarian objects, such as, mirrors, knives etc. Two such objects have been discovered from Mohenjodaroand two from Harappa. It is surprising to note the extent of the everyday use of ivory in life of the Harappan peoples. Even the hooks to fasten boxes were made of ivory46. There were usually about 7.5 cm long with an oval head about 1.25 cm in section, and the stem tapering from 2.45 cm diameter down to 1.25 cm at the end47. The top of the head was slightly rounded and the other end cut square with the sides. Seals: Many seals have been unearthed from the various Harappan sites which are square or rectangular and are made mostly of steatite, but some ivory seals have also been recovered. In fact, from the point of view of art, they are the best creation of Harappan artists. Ivory seals, five of which were discovered by Marshall48 are somewhat different from their steatite counterparts. They are cylindrical in shape and bear only inscriptions. Scales: A few examples of ivory scales have been discovered. The Lothal ivory scale is 15mm broad and 6 mm thick, the available length being 128 mm and 27 lines are visible in a length of 46 mm, the average distance between two lines being 1.7 mm.49 Besides these objects, a number of other unidentified objects have also been recovered from various Harappan sites. Bone craft: In the economic activity of Harappan people, a remarkably important part was played by bone as a material for tools, weapons, ornaments and in the manufacture of objects of representational art. Bone awls and needle have been found at Mohenjodaro50, Chanhudaro51, Harappa52 and Lothal53.

3.10.7 Shell Craft

The shell was largely used to inlay beads and ornaments of various kinds by Harappans. A number of shell objects have been recovered from various Harappan sites but beads and bangles are common. Thus we see that bone, ivory and shell were in use for ornamental purpose as well as for making various small utilitarian objects. Bones must have been easily obtainable in the locality, and ivory was rarely available. Shells of many kinds and in large quantities were imported from the coastal regions to other places. Thus we can reconstruct that bone and ivory workers were important component of Harappan society and they cater to the needs of highly sophisticate clients. These provide item with combs, pins, pendants and other ornamental goods highly special of them were employed for cutting the ivory seals etc. Excavations at Surkotada have brought to light a distinct bone tool hitherto not reported from any other Harappan site. A wide range of tools have been recovered from lowest to the upper levels. Bones tools from Surkotada can be broadly classified into three categories according to their use i.e., Hunting tools; Domestic tools; Digging tools like Scraper,Pierces, Engraver, Spatula, Digging tools. Bone tools from Bhagwanpura are mostly common tools: as point scrapers and pieces-cum-scrapersBones and ivory beads from Lothal have also been reported. One ivory barrel bead with criss-cross incised grooves is an interesting type. A similar one is reported from Harappan58 three beads have been recorded at Lothal from period.

From Lothal some bones tools or objects are recorded such as the arrow-head, awl, needle, antimony-rods, weaver's scrapes and spatula60. Harappan used ivory in a different view, its local use was limited to few kohl rods, gamesmen, jar stoppers and ceremonial knives. The most interesting ivory found at Lothal is the scale. A solitary ivory seal is also found.

The Bhagwanpura excavation has yielded about one hundred and fourteen objects made of bone and ivory. Almost these eight nine belong to Sub-period IB and remaining are from uncertified levels. Not a single object could be collected from sub-period IA. The objects are: awls, knitting needles, bangles, spatulas, pendant and styli also. The number of styli have been large than other objects. All the objects have well smoothened polished surface62. These awls, needles, stylus etc. were used for sewing and knitting purpose. Ordinary folks in their houses and specialized workers used them in their small worshops. Thus these indicate the presence of not only specialized crafts but also craftsman who made them and also these who used them.

3.10.8 Priest Groups

Many a time a question occurs as to 'why the animal representation outnumbered the human imagery, whether in terracotta figurines, painting on pottery and engraving on seals and sealings? Animal worship was prominent and their representation on seals, particularly those which were the important documents in trade and transactions, carried the animal figures in an innovative manner. Thus the seals provide us the evidence of animal worship. Among all the animal engravings, the unicorn, the humpless bull and composite animal form occupy special place. Harappan people loved animals and their qualities. They have expressed their concern over them by using so many varieties of animals in art. Representation of animals and their majestic stance evoking admiration and respect suggest that the Harappans held them in great reverence. The most quoted seal is the one showing a figure seated on a legged dais (Chaulki) and surrounding by animals (Pl.6.14 and fig.6.6). The legs of the figure are folded and drawn in such a way that the juxtaposed heels touch the part of the body below the genital. The figure appears to have three faces, a frontal and two sides ones,

though the depiction is such that one cannot be too sure of these faces. On the head there is a gear consisting of two horns of a buffalo and a central bunch of feathers. Surrounding the figure there are, beginning from the right and in anti-clockwise manner, a buffalo, a rhinoceros, a man, fine characters of the Indian script, an elephant, a man and a tiger. Below the dais there appears to be two dear, one of which is damaged. By most writers, beginning with Marshall the figure has been taken to represent a Proto-Siva in his lord-of-Beast (Paœupati) aspect.

Commenting on Marshall's,proto-siva or the pasupati,Possehl gives four reasons for this identification. In the first place, the figure has three faces and Siva was portrayed with three as well as with the more usual five faces and there are abundant of examples to prove it. Secondly, the head is crowned with the horns of a bull in the form of a Triœula, and both the bull and the triœula are characteristic emblems of Siva. Thirdly, the figure is in a typical yoga attitude, and Siva was and still is, regarded as the Mahayogi, the prince of Yogies. Fourthly, he is surrounded by animals and Siva is par excellence the "Lord of Animals"- Paœupati of the wild animals of the jungle and according to the Vedic meaning of the word, paœuis no less than that of domesticated cattle66. Some other scholars dispute Marashall's position on his Proto Siva or Paœupati seal. Sullivan disagrees with Marshall on almost every point, including the possible presence of a phallus and the three faces. Sullivan submits that the figure is, in fact, female: There is no phallus and soon. Srinivasan has two important papers reviewing Proto-Siva seal. The first is a fine review of the history of the problem. She holds that there are many "non proto-Siva" images with the horned headdress; the figure is not "three-faced". Moreover, there are not other tricephalic images in Harappan art; the posture of the yogi is indeterminate; her survey of Rudra in the Vedas indicates this aspect of Paœupati who does not protect wild animal, and Rudra's predominate trait with respect to all animal is wrath, rather than protection. This compromises the notion that the lord of the Beasts is a Hiltebeite's critique is much like Srinivasan's but he makes much of the fact that the horns on the central figure are those of a buffalo. Indian tradition is rich in mythology and symbolism concerning Mahisha, the Buffalo God. Water buffalo has also been seen tooccur in various contexts in the Harappan civilization. There is a clear association between the god and the buffalo based on the headdress. There are clearly buffalo horns in both the sweeping curve and the fact that the artist who carved this seal attempted to indicate the distinctive ribbing of buffalo horns. The importance of buffalo to the Indus people is revealed in two contexts. The number and frequency of the remains of this animal demonstrate its importance to the subsistence economy. Combat between humans and the buffalo is also a part of Indus iconography.

The buffalo horn motif first appears in the Early Harappan-Mature Harappan Transition. The famous pot from KotDiji is undoubtedly the best and clearest representation of this motif (fig.3.15). From the Mature Harappan at Kalibangam, there is a famous horned figure incised on the broken triangular terracotta cake (fig.6.7). A more recent discovery came from the site of Padri in Saurashtra, where there is a large, complete storage jar with a human figure in a horned headdress70 The Horns in this case seem to be those of a buffalo, based on the ribbing that the artist has portrayed. The Padri figure is flanked by a motif that is more plantlike, but retains the ribbing of the buffalo horn. This is important documentation of the fact that these two sweeping motifs, one animal and the other plant, might travel together. There are some other seals which seem to throw light on the religious beliefs of the Harappan. Thus, for some examples, some seals show composite animals: the body of tiger, the horns and face of bull, the trunk of an elephant. If the animals have

a totemic value, then the composite animals may represent the merging of clans. Otherwise, the composite animals may have had some mythological significance which, of course, we would not be able to reconstruct until the script is deciphered. On another seal is an animal with the heads. However, on the bases of horns one may even regard these three different animals: the one looking downwards may be a short horned bull, the one looking ahead, a unicorn, while the horn first shooting up and then curving downwards, is not easy to establish. It may be a mythological creature. The composite figure may even signify contemplation on the time with the down-to-earth face signifying the present, the forward-looking one, the future, and the back looking, the past. Then there are some seals wherein a short-bodied individual puts up a fight with two tigers, one on each side. These seem to depict uncommon or extraordinary concepts and may thus have had some sort of the mythological import. The presence 'fire-altars' of the animal sacrifice is another part of the Harappan religion. In tablet showing an individual spearing a water buffalo with one foot pressing the head down and one arm holding the tip of a horn. A gharial is depicted above the sacrifice scene and a figure seated in yogic position, wearing a horned headdress, looks on. The horned headdress has a branch with three prongs or leaves emerging from the center.

Terracotta tablet from Harappa a sacrifice scene (after Agrawal, 2007) At Kalibangan, in many of the houses in the Lower Town, a room appears to have been reserved for the fire altars since these were found associated with successive floor-levels in that room, a fire altar was located in a pit measuring 1.25X1m and internally lined with kiln-fired bricks within it there lay bovine bones and antlers indicating some kind of animalsacrifice. That animal sacrifice was practiced by the Kalibanganities is also suggested by incised drawing on the two side of a flat roughly triangular terracotta cake.

Lothal has also yielded evidence of animal sacrifice. In a house of phase-III, there was a low platform over which was identified a mud-bricks enclosure measuring approximately 85X75 cm on plain and low to a depth of about 20 cm. Within it were found charred fragments of the jaw-bones of an animal of the bovine group72. The Harappan script has not been deciphered so far. In such a situation, it is very difficult to be sure of any statement that one might make with regard to the above mentioned topic. Nevertheless an attempt can be made to find out the various possibilities by analyzing the material remains such they are. Studying the evidence from Kalibangan would tend to suggest that there was at least a threefold division amongst the inhabitants. (i) A priestly class inhabiting the Citadel. (ii) An agriculturist-cum-merchant class occupying the lower town. (iii) A workers' class living outside the two fortified areas73. The Lower Town at Mohenjodaro presents the picture of a well-to-do community which may have been engaged n trade and commerce and also exercised control over agriculture production.

Harappan civilization was the earliest civilization of the world, it exhibited tinge of modernity with a socially well knit, administratively well administered and economically well prospered society which thrived in the Indus-Ghaggar region some four thousand years ago. It was a society divided into three distinct social groups. One group ruled and administered the city whereas the other group was of traders and merchants associated with business activities. The third group consisted of labourers who rendered manual services to the society. This group also included farmers whose occupation was cultivation of crops and domestication of animals. On the basis of archaeozoological evidences, it can be safely conjectured that the people of Harappan civilization cultivated crops of wheat, barley, cotton, vegetables, fruits etc. and domesticated and reared

cows, bulls, buffaloes, sheep goats and camels as their primary animals. The artisans of the civilization achieved lofty standards in manufacturing of pottery. Archaeozoological evidences further prove that hunting was not only a means of entertainment but also a means of sustenance as the people of Harappan civilization merchandised the skin, hair and bones of different animals. Further, various objects of weaving and spinning found in archaeological excavations point that the weaving and spinning were the occupations highly adored in the society. Cotton as well as wool was used as fabric. Most city dwellers appear to have been traders and artisans who lived in well definedneighborhood. Although some houses were larger than others, yet cities of the civilization bear remarkable feature of egalitarianism. All houses had access to water and drainage facilities. As such, all this creates impression of a society with relatively low wealth concentration but well to do living. Social leveling of inhabitations is also clearly discernible in the personal adornments evidenced by seals representing different groups and strata of the society. The economy of the Indus civilization was significantly dependent on trade, which was greatly facilitated by major progress made in the field of transportation. The use of wheeled transport was fully in vogue. Big and modernized cities like Harappa and Mohanjodaro are undisputable evidences of the economic prosperity of the people. The bulk of public buildings in the cities seemed to be solely oriented towards economic activities and making the lives of the inhabitants comfortable and luxurious. The municipal town planning with administration placing high priority on hygiene suggest the existence of an advanced and sophisticated urbane culture in region now known as Harappan civilization. The impressive dockyards, warehouses, brick plate forms, granaries and protective walls are further evidences of sound economy of the society. Harappan agriculture was also a profitable venture as Indus river brought fertile soil to the region from the Himalayas. The civilization flourished, and touched its pinnacle because of rapid progress in all fields of life. Art and craft is another infallible criterion of progress and prosperity of a culture as artistic talent and craftsmanship flourishes in an environment of peace and prosperity. The inhabitations of the region were superb in their art and craft with no parallel in contemporary civilizations. Briefly, it can be concluded that archaeological and archaeozoological evidences have greatly contributed in reconstructing the social and economic life during the time span of Harappan civilization.

3.11 Causes of Decline of The Indus Valley Civilization

The Harappan Civilization lasted for about one thousand years. Archaeological evidence shows that many of the major cities of the Harappan Civilization, like Harappa, Mohenjo-daro, and Dholavira faced abandonment and decline during the late 3rd and early 2nd millennium B.C. Many of the distinctive features of the Harappan Civilization like writing, standardised seals and weights, some standardised aspects of town planning and other traits of material culture also disappeared. The decline of this civilization which was the largest in Bronze Age civilization has been an enigma even today. Earlier it appeared to be a sudden and total decline and abandonment. This was due to focus on the studies of cities, town planning, large structures and goods of splendour. However, mounting new evidence since the sixties compels that the decline was not as sudden and dramatic as earlier assumed. Some scholars have even argued for continuity and survival of the Harappan tradition in certain areas. We see abandonment or sparse occupation of certain areas like Sindh in the west and increase in settlements in other areas, particularly towards the east - northwestern India including the westernmost Yamuna -Ganges rivers region, and Gujarat in the southwest. Often, reoccupation of former cities is also noted. During this transitional phase we notice a shift from urban centres towards

increasing settlements of villages, or deurbanisation. But many distinctive features of the Harappan Civilization, like Indus script, seals, architectural style, etc. disappeared forever. Timing: The abandonment of major Indus cities has been roughly dated to about 1700 B.C. References toMeluhha in the Mesopotamian literature does not occur after 1900 B.C. After the Harappan Civilization, the major culture observed is Painted Grey Ware (PGW) culture which is found after a long gap. PGW sites have been dated variously to 1100-500 B.C. (Possehl 2002); 1200-800 B.C. (Kenoyer 1998) and 1700-1400 B.C. (Bisht 1998). The interface between PGW and the "Late Harappan" in the Punjab has been documented at places such as Dadheri and Bhagwanpura. However, the interface between the Cemetery H assemblage (Late Harappan or Post-Urban Harappan) and the PGW has not yet been defined in Pakistan. The interface between the Rojdi C/Lothal B and the Gujarat Early Iron Age is also not clear. The chronology of the end of the Harappans still remains tentative (Table 1). We also do not know whether the major settlements were abandoned at the same time or at different periods. Further there are various contradictory views with regard to the terminology employed. Mughal prefers the term `Late Harappan' instead of `Post-Urban Harappan coined by Possehl, because of the find of a large settlement at Kudwala in Cholistan during that period. Moreover, the archaeological evidence for occupation in the Late Harappan/ Post-Urban phase varies regionally and the distinctions are largely based on local ceramic types (Table 2). The Jhukar terminology for the Lower Indus is based on the excavations of a locally distinct culture, identified by ceramics. Pattern of Decline: There is very little evidence of habitation at Mohenjodaro between ca. 1900 B.C. and the Kushan period in the 1st century A.D. At Harappa too we find a major reduction and alteration in the settlement, the evidence from Cemetery H indicates continued settlement but without the characteristic material culture of the Mature Harappan period. Archeological evidence indicates abandonment or severe depopulation of many cities between the Mature and Late Harappan. Cities like Harappa, Mohenjodaro, Surkotada, Dholavira, Lothal, Kalibangan and many other sites, particularly in Sindh and Cholistan witnessed a decline in many aspects of urban township. There was a decline in civic standards, with low quality construction, often with re-used bricks; houses were made in haphazard manner, often encroaching upon streets; drain and city walls were not maintained. We find appearance of industrial activity like pottery kilns and metal furnaces in residential areas, hasty burial in houses, streets and hoards of valuables left on the streets. Deterioration of public works and architecture is also evident. Many entry points to the `Great Bath' were blocked and later both the `Great Bath' and the `Great Granary' which were perhaps symbols of power and ideology fell into disuse. We witness a degeneration of civic authority or breakdown of civic order and reorganisation of society where the ruling elites no longer controlled the functioning of the urban centre. This can be inferred as many of the hallmarks of elite culture during the Mature Harappan disappeared. Objects displaying prestige and splendour, like sculptures, beads, bangles, and other technologically elaborated arts and crafts like inlaid ivory work, seal carving, etc. became increasingly scarce. Cubical chert weights, meant perhaps for taxation and trade, were no longer used. Though the distinctive Indus square, oblong stamp seals are no longer made, we continue to find evidence of graffiti from sites to the east of the Indus system, though it virtually disappeared in Sindh. Indus graffiti is found even at Iron Age `Megalithic' pottery from Central India. This indicates that Indus writing system did not disappear with the Mature Harappan,

though it did change. The Mature Harappan style of architecture and material culture disappeared indicating a decline in internal socio-cultural complexity and deurbanisation. Disruption in economy and trade also occurred. There was no longer any mention of Meluhha (Indus region) in trade records of Mesopotamia indicating that long distance trade network had started deteriorating. Production of many special items like long-barrel cylindrical beads, etched beads, and inscribed stamp seals was reduced. Maritime posts of Sutkagen-dor and Sotka-koh were abandoned. However increasing interaction was noted with the BMAC cultures. Strategic changes were noted in subsistence patterns in the form of double cropping with the growing use of millets. This reflected social and political reorganisation rather than an environmental crisis. There was also probably a change from centralised or communal crop processing to processing within households as large numbers of residues from threshing, winnowing, grinding and cleaning of grains are found. Reduced demand for traction animals indicated a less intensive agricultural system and reduced need for transport. The end of the Late Harappan saw the introduction of camel, horses and donkeys. Reduction in the size and number of settlements was also noted (Table 3). Mohenjo-daro shrank in size from eighty five hectares to three hectares. Several sites in Baluchistan were burnt around during the end of the Mature Harappan period. Number of settlements in the Bahawalpur region along the Hakra river, which formed a core area of Harappan settlement reduced from 174 in the Mature Harappan to 50 in the Late Harappan. However, there is a net increase in the number of settlements during the Post-Urban/Late Harappan, but a decrease in the net settled area and average site size. This implies important changes in socio-cultural system, mainly in the mode of subsistence and settlement, or perhaps some kind of `deurbanisation' or `redistribution of population on the landscape'. Recent evidences indicate that the civilization did not suddenly disappear. Craft production continued at a high level of sophistication as supported by the find of the Quetta treasure at around 1900 B.C. near Mehrgarh. We continue to see disconnected signs of the survival of certain Harappan traditions such as the binary-decimal system of mensuration, written signs, certain pottery forms like the scored goblet etc. These arguments have been cited by proponents of cultural continuity and survival which include Possehl, Kenoyer, Malik, Jarrige, Mughal and Shaffer and Lichtenstein. Possehl opined that it was the state that died, not the Harappan civilization or its material culture. But, Allchins, B.B. Lal, Ratnagar, Wright and others are of the view that the civilization did indeed come to an end as the contrast with the succeeding cultures "is too great to allow for a case of tradition and continuity" (Ratnagar 2000). Ratnagar sums it, "however many such elements we count as `survivals', they are not tantamount to an integrated Bronze Age political economy." By the end of the Late Harappan, many cities were permanently abandoned and the basic character of the Harappan tradition in the form of its planned cities, system of weights, technologically elaborated crafts, seals, and script largely disappeared leaving echoes only in myths and general cultural traits. Unlike the Sumerian, Egyptian, and Chinese civilizations, all of which were known from historical sources, the Harappan Civilization was truly lost and forgotten until archaeologists rediscovered it.

Thus the downfall of the Harappan Civilization has been one of the most puzzling issues in Indian archaeology. A number of explanations have been put forward ranging from environmental causes like droughts, floods, changing river courses and sea levels, tectonic shifts due to Aryan

invasions and disruptions in trade and social instabilities. These explanations are reviewed below in the light of recent understanding emerging from new explorations and excavations. They are Foreign Invasions Environmental Changes Disruptions in Trade Social Instabilities.

3.11.1 Foreign Invasions

Wheeler was the first to propound a theory for the decline of the prosperous Harappan Civilization. He believed that the Harappan Civilization was destroyed by Aryan invasions. He inferred this from interpretation of the circumstantial and historical evidence: skeletons lying on the streets of Mohenjo-daro indicated that a massacre had taken place; he uses Rigveda as a source of historical information for this theory - a.Rigvedic mention of conflicts was equated to war between the incoming Aryans and the indigenous Harappans; b. Reference to fortress of the 'Dasas' and 'Dasyus' was equated to the Harappan fortification walls as the geographical area of the Rigvedic Aryans correspond to the core area of the habitational sites of the Indus, that is, the Punjab and Ghaggar-Hakra region, and remains of no other historical culture have been found during the above period; c. Mention of Indra, the Aryan war-god, as puramdara 'fort-destroyer' who shatters 'ninety forts' for his Aryan protege, Divodasa; and d. Mention of Hariyupia located on the banks of the parushini (probably Ravi river) where the Aryans had fought a battle was thought to be mentioned of Harappa. However, this theory has been criticized on a number of grounds. Chronological: The Harappan Civilization came to an end around 1800 B.C. while the Rigveda is believed to be written around 1000 B.C. even though the exact chronology of the Rigvedic Aryans has not yet been established. Historical: Further, the exact nature of the historical content of the Rigveda has also not been established, though it is reasonably supposed that there is some important historical information in this text. Skeletal: Scientific analysis of the skeletal remains from Mohenjodaro does not show any signs of trauma due to massacre, they appear to be just hasty interments. The skeletons show phenotypic differences from other Harappan populations indicating a heterogenous population, but they do not show evidence for the 'introduction of a novel phenotypic pattern' just before or after the decline of the Harappans suggestive of new groups migrating into the region. Cultural: Harappa had a final stylistic phase that seems to reflect some foreign influence, particularly from Iran. But there was no radical replacement or change that might indicate an invasion. Many scholars have cited continuities in architectural traditions and technologies, and artistic and religious symbols. It would seem that if indeed Aryan's invaded India, then there would be evidence of a completely different sort of religion, craft making, significant changes in art and social structure. But none of this has been found. What changes have occurred, were largely due to internal factors.

3.11.2 Environmental Changes

Often hydrological calamities like floods, droughts, changing river courses and sea-levels have been cited as responsible factors for the collapse of civilizations. Even for Harappan Civilization, this has been considered as an important factor leading to its final demise. Floods: There have been records of flooding at Mohenjodaro, Kalibangan and Dholavira, as cited in the excavation reports. This was inferred from collapsed buildings and houses and streets covered with silt clay intervening actual periods of occupation. This clay is thought to be left by the receding floodwaters. At Mohenjodaro

these abnormal floods and consequent rebuilding of the town seems to have happened at least thrice. Chanhudarowas also twice-destroyed by 'massive' inundations. The devastating floods obstructed the normal process of irrigation, leading in turn to the economic decline of some of the Harappan settlements.

Raikes Hypothesis

Raikes and Dales believed that such catastrophic floods as evident from massive silt deposits could not be accounted by the normal behaviour of a river. Since, the Indus River lies in a seismically active zone, upliftment of the plains must have blocked the passage of Indus water, creating a natural dam in the vicinity of Sehwan, leading to prolonged submergence of cities like Mohenjodaro. This was first proposed by Sahni (1956) after noting thickly bedded alluvium at Hyderabad. However this theory has been criticized on many grounds: Lambrick argued that even if earthquakes raised a bund, this could have been easily breached by the huge discharge of Indus water. The evidence from the Allah Bund along northern Kutch on the borders of Sindh, which was raised during the earthquake of 1819 shows that such damming did occur in the past, but this dam was subsequently breached by the first significant floods from a small stream of the Indus, the Nara river. This also proves Wasson's argument that the unconsolidated Indus sediments have little structural integrity to impound Indus water. Lambrick also opines that the silt deposition at Mohenjodaro is not due to flood deposits, but it is actually a result of deposition of eolian sand and silt combined with disintegrated mud, mud brick and baked brick structures. Possehl argued that though this could have served as an immediate cause of change, but the collapse of the civilization could only be accounted for, by some deeper, internal structure within the society and culture, geomorphology alone cannot explain it.

3.11.3 Shifts in River Courses

Changes in hydrographic networks and consequent impact on farming systems have also been used to explain the decline of the prosperous civilization of the Mature Harappan period. The Indus and Ghaggar-Hakra river system which were the loci of Harappan settlements and the Harappan agrarian economy was dependent on the natural floodwater of the rivers. They were however subject to many changes in the river systems with grave consequences. Use of aerial photography and remote sensing imagery accompanied by regional geoarchaeological surveys in the recent times, have helped provide a better picture of the river dynamics.

Indus River

Mackay was the first to argue that Mohenjodaro was abandoned due to the shifts in the course of the Indus river. Later, Lambrick furthered this theory. He argued that Indus being an unstable river shifted its course many times during the Harappan occupation which led to the collapse of the civilization. Flam documented major changes in the Indus river system in its lower reaches since Pre-Harappan and Mature Harappan periods . During the period from 8000 to 4000 B.C., there were two main courses unlike the present single course, the Jacobabad course on the western edge for the Indus river and the Nara river running parallel to the Indus on eastern edge of the plains which was part of the Ghaggar-Hakra system. Between 4000-2000 B.C. the course shifted eastward and now followed the Sindhu river course and the confluence of the Nara river with the Sindhu river shifted

farther south, just north of the coastline. Even the coastline was situated 95 miles north of its present location during the Mature Harappan. These shifts may have been a result of tectonic or environmental forces. Mohenjodarowhich was located between the two courses may have been abandoned due to these river regime fluctuations as this led to water shortages and need for frequent restructuring ultimately leading to desertion of the city. The upper reaches of the Indus have also been subject to extensive studies, which include the Ravi and now - dry bed of the Beas river near Harappa. Many Harappan settlements are located on terraces of the Beas river suggesting that the river was active at that time. Further relict channels have also been identified. Ratnagar criticize the theory saying that though shifts may have occurred, but no pattern is evident in the location of Early, Mature and Late Harappan sites indicative of adjustments to river shifting. Yet it can be said that frequent shifts in river courses of the Beas, GhaggarHakra and Lower Indus and rainfall fluctuations did have an impact on local adaptations, resulting in group migrations, abandonment of many towns like Ganweriwala, reduction in size and number of settlements during the Late Harappan. Major dislocations occurred to the east of Cholistan towards northwest India. But it was not the ultimate cause. It does not explain the collapse of the entire civilization which was so widespread; it can at best explain the demise of specific regions like Mohenjodaro. Possehl labels it as the "Domino Effect" "as Mohenjo-daro went, so went the Harappan Civilization".

Ghaggar-Hakra River

Changes in the course of the Ghaggar-Hakra (often identified with the lost Saraswati-Drishadvati rivers of the epics), has also been cited as a major factor in the decline of the Indus Civilization. The drying up of Ghaggar-Hakra and increased aridity, has left many sites without a viable subsistence base. The Ghaggar rises in the foothills of the Himalayas and flow seasonally, but the Hakra is visible only as a relict channel in the deserts of Cholistan in Pakistan. The Ghaggar-Hakra probably flowed south into the Nara river. Today, the relict channel of the Ghaggar-Hakra disappears into semi-arid Haryana and Rajasthan. A number of settlements have been located along the now dry beds of the Ghaggar-Hakra system with a relatively high density of sites in 'Hakra Ware' phase indicating a strong flow in the river, which decline in the Early Harappan and then again increasing during the Mature Harappan, indicating a resurgence of the river, perhaps arising from the presence of a rich inland delta. Sites of the Early/Mature Harappan transition, ca. 2600-2500 B.C. have however not been identified in Cholistan. Then in the Cemetery H and Painted Gray Ware (PGW) periods we see the retreat of the river to the east, eventually with insufficient flow even to reach the Fort Derawar delta. By Painted Grey Ware (PGW) period (ca 1200 -500 cal B.C.) the river must have been dry indicated by few sites (Fig. 9), many of which are found in river bed contexts This change is thought to have been brought by tectonic movements. It induced the capture of Ghaggar headwater flowing from the melting of the Himalayan glaciers by Yamuna which now flows east into the Ganges system and Sutlej which was captured by the Indus river. This led to increasing aridity in this semi-arid region and drying up of the Ghaggar-Hakra river which supposedly worked as a major factor in the de-urbanisation of the Late Harappan period, as reduced water and moisture availability must have affected agriculture, forcing protohistoric farmers to move to more viable areas. aThe population declined in Cholistan, but the number of villages increased in the Late Harappan period in the Sutlej-

Yamuna divide. Shaffer noted an increase from 43 Siswal A-B and Harappan sites to 127 Siswal C-D sites. Courty studied of paleosols from the Ghaggar-Hakra region and concluded that piedmont hydrographic network was rejuvenated between 12,500 - 7000 BP due to re-establishment of a strong monsoon circulation. But again during the middle Holocene (around 5000 years BP) there was reduced seasonal flooding, primary drainage arteries retreated 100 to 150 kms northward and there was formation of localised sand-dunes. However, despite present day climatic conditions, low-lands and interdunal basins were favorably utilised by protohistoric farmers due to high water table (despite moderate saline conditions). Sometime around 2500 years BP, microrelief disappeared due to increased eolian activity and silting up, lowering the water table and the effect was enhanced due to anthropogenic landscape leveling leading to abandonment of the region. Recently Rajani (2011) utilised digital image processing and enhancements techniques on multisensor satellite data along with field investigations to trace the palaeochannels of Saraswati river through parts of Indus alluvial plain in Thar Desert. Pattern ofpalao-channels identified westward migration of the Saraswati river. Settlement patterns indicated a good distribution of Mature Harappan (2200 - 1700 B.C.) sites along the palaeo-channel of the Saraswati and its tributaries in north-west India, but Late Harappan (1700 - 1500 B.C.) sites are limited to further west in adjoining regions of Pakistan (Bahawalpur) indicating that settlement relocation followed the pattern of river migration towards west. As regards the timing it is said that sometime between 2500 B.C. and 1900 B.C. the Yamuna shifted its course eastwards, allegedly reaching its current bed by 1st millennium B.C. The Sutlej several times shifted its channel northwards and was eventually captured by the Indus system around 2500-2000 B.C. (Mughal 1997) or 5000-3000 B.C. (Valdiya). The drying of the Saraswati indeed had a major impact as can be seen from the drastic reduction in the number and size of settlements from Mature to Late Harappan. This had some kind of 'domino effect' leading to general collapse of the civilization (Possehl 1997). However, we do not have reliable chronological information to support this theory. Further, despite large scale migrations and relocations, hydrological factors cannot be singled out as the cause of the collapse, because we continue to find thriving settlements in Gujarat and Ganga-Yamuna doab. Further, Harappan settlements were deserted not only along the Hakra river in Cholistan, but also in Makran, Kutch, Sind and southern Punjab.

3.11.4 Tectonic Shifts

Earthquakes can accelerate decline by causing change in drainage patterns due to alteration in elevation levels thus affecting water supply, disrupting trade routes, necessitating rebuilding or forcing migration. Kovach et al. (2010) have emphasised the effects of earthquakes on Harappan settlements. In their studies they noted that the Rann of Kutch which earlier formed as a delta for three rivers, became an inland sea during the 3rd century B.C. and ultimately became a salty marsh. These changes were induced by a combination of sea level changes, truncation of the three rivers by tectonic uplift and the deepening of the Rann by earthquake induced subsidence. They opine that events analogous to the 1819 Allah Bund earthquake, which dammed the Puran river for seven years, would have significantly altered the water source for downstream settlements. Support has been garnered from data from the recent 2001 Bhuj event to show that Harappan settlements would have suffered considerable shaking damage from an analogous historical event. There is also direct

archaeological evidence for at least one major earthquake at Dholavira in 2200 B.C. Further, a number of the mature Harappan settlements are located along the dry Ghaggar-Hakra river system. These sites however declined during the Late Harappan coinciding with the divergence of the Ghaggar-Hakra system to the Indus and Ganga river systems. This was supposedly induced by tectonic forces and aridity. Although theGhaggar-Hakra region has not had any large earthquakes in historic times, there is archaeological evidence of two large events at the Harappan site of Kalibangan, at 2900 and 2700 B.C. Excavations atKalibangan have shown evidence of faulting in the form of horizon displacements and tilted brick walls. This layer was sealed by infertile windblown sand indicating abandonment and then reoccupation indicating a date of around 2700 B.C. All the above evidence has been cited to demonstrate that earthquakes were an instrumental factor in bringing about the demise of several Harappan sites either by direct shaking damage, altering the water supply or by changing the relative sea level.

3.11.5 Increased Aridity and Drought

Singh propounded a 'Culture -Climate' hypothesis, wherein he attributed the florescence of the Mature Harappan Civilization to a period of higher rainfall during the 3rd millennium B.C. and its decline to increasing aridity, on the basis of pollen sequences from three salt lakes (Sambhar, Lunkaransar and Didwana) of Rajasthan-between 3000 to 1800 B.C. Later Bryson and Swain argued that till 4000 B.C. there was a wet phase due to efficient winter rains. But later shift of westerly circulation to the south and a weak monsoon resulted in drying. Weiss and Bradley also mention that a larger-scale dry climatic event at 4200 cal BP led to the fall of many Bronze Age civilizations, including the Akkadian empire, old kingdom of Egypt, the Early Bronze Age civilizations of Greece and Crete and the Harappans. However, this theory has been criticized by many scholars on a number of grounds: Misra (1984) said that pollen frequencies are not a direct measure of past climatic changes because there is often a time lag between climate change and vegetation change. Misra stated that no agricultural sites have been found in Rajasthan, whereas Singh identified pollen of cereal plants from 7000 B.C. onwards. Changing salinity cannot definitely be attributed to increasing aridity as freshwater and hyper-saline lakes can coexist in one climatic regime as can be seen today in Rajasthan. These conclusions have also been criticized on grounds of imprecised chronology. Besides, even if rainfall decreased, it is difficult to say that aridity in central and northern Rajasthan was responsible for the eclipse of the civilization as a whole. Further shifts in winter or monsoon rain-bearing winds would have had a marked effect as Sindh lies between the two belts. In fact the drought in 1972 occurred because of the southeastward shift of wind and pressure belts. The system of agriculture and reliance on rainfall also influences the effect of change in rainfall pattern. It may be pointed that Mohenjodaro which receives less than 12 cm of annual rainfall and depends on the Indus floods has a viable agro-pastoral economy. Further, settlements continued to exist in large numbers in east Punjab, Haryana, western Uttar Pradesh, and northern Rajasthan right from Mature Harappan through Post-Urban times with an increase in the number of sites, though the site size diminishes. Since then however Harappan environment has been investigated using new improved scientific techniques and better-dated sequences using sedimentology, mineralogy, geochemistry and pollen analyses. Recent studies based on pollen sequences from Rajasthan indicate that the Harappan Civilization in fact

emerged during increasing aridity. Enzel's study of the Lunkaransar playa identified a dry phase from 2894 to 2643 B.C., thus showing that drying or reduced rainfall had started even 1000 years before the Harappan occupation, and the peak of the Mature Harappan period corresponds to an arid period of sand-dune destabilisation. Sediment studies from Ghaggar river in northwest India also showed that fluctuations began around 10,500 years ago with abundant rainfall. Around 5000 years ago, rainfall reduced and there was onset of aridity which coincided with the peak urban period of Harappan Civilization from ca. 4000 B.C. to 2500 B.C. Stable isotope records on marine foraminifera near the Indus delta provide a paleo-discharge record for the Indus river during the last 6 ka which showed a reduction in Indus River discharge at 4.2 ka BP. The 4.2 ka BP event is said to be global as similar climatic changes are noted in the eastern Mediterranean and the Middle East. Wright et al. (2008) came across a similar general pattern of drying using the 'Macro-Physical Climate Model' to reconstruct the Holocene flow of the Beas river. They concluded that rainfall increased between 8000 and 5000 B.C. and was stabilised between 5000-4000 B.C. After 3500 B.C. summer monsoon reduced, while winter rains increased. Rainfall was lowest around 2000 B.C. but recovered a few hundred years later. Harappan settlements continued after 2000 B.C. till as late as 1300 B.C. by making adjustments in cropping patterns from more intensive agriculture and control of surpluses to a multiple cropping system which provided strategic risk buffering for smaller, local groups. Recent studies by Macdonald based on Pacific sea surface temperatures (SST's) and El Niño Southern Oscillation (ENSO) variability in the strength of the Indian Summer Monsoon (ISM) also showed a pronounced increase in aridity in the late Holocene and a steep drought at ~4,200 ca BP. However, transition to the deurbanised Late Harappan phase may have begun some 300 years prior and the persistence of the Late Harappan phase until 3000 cal BP suggests a more complex story. The above review shows that although most studies agree that there were fluctuations in rainfall regime, the datasets are marked by chronological uncertainties and opinions vary on the timing of these changes. However, the impact of climate would vary according to local conditions while Harappan decline took place across the entire Indus Valley region and therefore we must seek causes that had a wide, rather than local geographic scope. Madella and Fuller argued that climatic events were not responsible for the end of Harappan Civilization, although shifting agricultural strategies at a local level in response to climatic change, probably contributed to the emergence of Harappan urbanism at ca 2600 B.C. and again to deurbanisation and restructuring of human communities starting ~2200 -2000 ca B.C.

3.11.6 Fairservis: Ecological Imbalance

Fairservis tried to explain the decline and abandonment of Harappan cities in terms of anthropogenic causes dismantling the ecological balance in the region. He calculated the impact of Harappan land use around Mohenjodaro by computing the population of Mohenjodaro and its requirements. He estimated the population of Mohenjodaro as 41250 inhabitants and the area under cultivation in the vicinity of Mohenjodaro at around 22715 acres (on the basis of pre-modern rates of wheat output per acre in the region). On the basis of the number of cattle needed for ploughing, he estimated the total cattle population at 8700 or more. He however underestimated the cattle requirements by missing the use of cattle for lift irrigation. It must have also required a large network

of villages serving the needs of the city. He suggested that the growing demands of the increasing human and cattle population led to depletion of forest, food and fuel resources. Over-cultivation and over-grazing disturbed the symbiotic ecological balance of the region. Over manipulation of natural resources and such large scale alterations to the landscape resulting from human activity perhaps caused floods and salinity further aggravated the problem. This is reflected in the gradual deterioration in town planning and living standards. Depletion of resources for subsistence caused a shift eastwards towards more viable regions. However, it has been pointed out that the Indus region has been a fertile area serving the needs of its teeming population over the last two millennia, which puts under doubt soil exhaustion. Further, computation of Harappan population and its requirements is based on very little evidence. Such a computation would require understanding the relationship with neighbouring villages and areas supplying raw materials and the trade networks with contemporary civilizations and cultures. This theory is based on the assumption that the climate of the region has remained much the same. Yet, as Ratnagar (2000) puts it, it is an 'important approach to the question of the relationship between a people and their land.' She favours environmental degradation as a cause of demise over natural catastrophe, though its impact must have been non-uniform. Ratnagar mentions that huge requirements of wood charcoal fuel for ancient copper metallurgy must have also considerably depleted the wood resources. She cites: Horne's estimate that for 5 kgs of copper, about 100 kg of charcoal was burnt which required 700 kgs of fresh wood, or the wood of 25 to 30 trees. Wertime's mention of the end of ancient metallurgy in Oman at around 3rd millenium B.C. because they ran out of charcoal sources. At Lothal, which lies near the boundary between tropical thorn forest and dry deciduous forests, in the mature Harappan levels II and III, charcoal from diverse species like acacias, teak, albizzia and lauraceae indicates a mixed dry deciduous forest. However, in level IV, only large quantities of acacia were found which was interpreted as indicating arid climate. But preponderance of harder and rapidly growing acacia is said to be a result of biotic interference by man. The evidence of an ash dump near a carnelian heating kiln of level IV as use of animal dung for fuel. Though it is not clear whether this was due to shortage of wood charcoal or suitability of animal dung for slow heating. She further wonders if drinking water problems aggravated the demise of towns like Mohenjodaro. She reasons that Jansen calculated 700 wells dug in Mohenjodaro indicating that Indus River was quite far to serve as a source of drinking water.

3.11.7 Disruptions in Trade

The growth of trade and the expansion of Indus settlements onto the Ganges river plain and Gujarat in western India led to the overextension of the Indus political and economic system. But sometime during the end of the 3rd millennium B.C. there is considerable evidence for the disruption of trade between the Harappans and other civilizations. Textual references to Meluhha (Indus region) decrease at the end of the 3rd millenium B.C. in trade records of Mesopotamia indicating that long distance trade network had started deteriorating. On the other hand references to Alashiya (Cyprus) and its copper start occurring. Production of many special items like long-barrel cylindrical beads, etched beads, and inscribed stamp seals was reduced. Further many exotic materials like shells from the coastal regions and lapis lazuli from the north were no longer found in Indus sites. Indus materials like gold, carnelian and ivory objects, Indus seals, shell and bone inlay objects, cubical weights and

ceramics are recovered from southern Mesopotamia and sites along the coast of Arabian peninsula only up to 1900 B.C. However, after that we find evidence of contact with coastal settlements in Oman at Ras-al-Jinz, Bahrain and Gujarat. This indicates continuity of trade, only the focus shifts from Sindh and Mesopotamia to Gujarat and Oman. Further there was increasing interaction with the Bacteria Margiana Archaeological Complex (BMAC) cultures. BMAC materials are found in small quantities at Mohenjodaro, Harappan, several sites in Baluchistan and even at Rajasthan. Maritime posts of Sutkagendor and Sotkakoh were abandoned. At Shortughai, Afghanistan we find diminishing evidence for Indus materials around 2200 B.C. which arereplaced by BMAC materials. Even atNausharo, Indus materials are replaced by Kulli culture evidences suggesting extension of its influence through small scale exchanges. Internal trade also declined due to climatic and environmental changes. However, Possehl has raised a pertinent question with regard to the direction of cause: whether disruption of trade contributed to the transformation of the Harappan Civilization or vice versa. Further, he points that there is very little evidence for disruption of trade with Mesopotamia around 1900 B.C. as there are many references to Meluhha even during the second millennium B.C. in Mesopotamian texts. Further we have no clue as to the scale of trade and its importance in the Harappan economic rubric. We do not have much archaeological evidence on the economic weightage of trade except some documentary evidences from Mesopotamia and stray finds providing insight into the scale of trade. Evidences indicate that Harappan materials are more visible in Mesopotamia and other neighbouring cultures than vice versa. All these evidences do point out that trade was indeed vital to Harappan civilization and must have contributed to its demise in some way.

3.11.8 Social Instabilities

Possehl opines that the collapse of the Indus Civilization was primarily a matter of ideology. This was induced by over extended socio-political networks and the rise of a new social order. There was "a definite transformation of Harappan life, with important changes in the socio-cultural system" (Possehl, 1997). Continuity and Survival of the Indus Tradition: In the aftermath of the Harappan Civilization we find continuity and survivals of the earlier tradition in the form of a large number of Regional/Local PostUrban/Late Harappan cultures in the Harappan culture area and its margins. The urban character of the Mature Harappan with its large, multifunctional cities, system of writing, weights and measures, long-distance trade, and contacts with the Gulf, Africa, Mesopotamia, and Central Asia was no longer found. But rural villages or peasant societies with local arts and crafts continued to thrive, particularly towards the east of the Indus system. Average site size declines, but there was no net change in the total settled area. This indicates a redistribution of the population from cities to villages or increase in number of small communities owing to shifts in trade, economy and environmental parameters. Therefore, Possehl, Kenoyer and many others shy away from talk of `collapse' or `eclipse' of the civilization and instead talk in terms of `continuity' and survivals'. These cultures have their own characteristic artifacts and varying chronological distribution.

Upper Indus (Cemetery H/ Late Harappan)

At Harappa, there is evidence for continuity from Urban/Mature Harappan to Post-Urban/Late Harappan. Evidence for the Post-Urban phase at Harappa is found from Cemetery H, Mound AB, E and F. Though the burial practices and pottery styles of Cemetery H differ from the R37 burial area dated

to the urban period, continuities have been found at excavations on the north side of Mound AB where in-situ hearths, intact walls, pottery with inscriptions and charred grains have been found dated to 1730 B.C. along with a cache of typical Harappan objects including 133 beads, and other objects of copper alloy, agate, carnelian and faience indicating a continuity in technological style. But changes were noted in the form of haphazard constructions encroaching onto streets. After the Post-Urban period Harappa was abandoned. During the Post-Urban period the number of settlements on the Indus, Chenab and Ravi rivers reduced considerably to only 4 from 18 during Harappan period, also diminishing in size Lower Indus.

(Sindh-Late Harappan and Jhukar Style): Late Harappan settlements have been found at Amri, Chanhudaro, Lohumjodaro, Mohenjodaro, Jhukar and many other sites. The Post-Urban settlements in Lower Indus are distinguished by a distinctive pottery style, the Jhukar ware - a bichrome ware with a thick buff or cream slip and paintings in black or red. The shapes and motifs of the Jhukar pottery are different from Mature Harappan, with none of its artistic value and tidiness along with use of new pigments. The shapes included unusual straight sided shallow dish and carinated bowl on stands, and lota shaped vessels at Chanhudaro. The major urban centre, Mohenjodaro was virtually abandoned. However, the beginning of the end of Mohenjodaro has been placed at ca. 2200 B.C. when the Great Bath and Granary were abandoned. Jhukar culture was characterised apart from characteristic ceramics by huts constructed of brickbats and matting, fireplace outside huts or indoors in wall recesses formerly occupied by doorways, unplanned or haphazard layout of settlements, profusion of bone awls used for making mats, round or occasionally rectangular seals with basic geometric motifs, short barrel shaped or biconical beads of faience, and bronze tools and pins with spiral or other sorts of ornamental heads. Terracotta female figurines, cubical weights and Indus script (except on pottery incisions), which are hallmark of Mature Harappan culture became rare. This suggests the collapse of a centralised administrative system. We also find some distinctive metal objects at Jhukar, including a shaft-hole, axes and copper pins with looped or decorated heads with parallels in Iranian sites indicating trade links or migrations. Besides, circular stamp seals of stone or faience which replace typical square stamp seals of Indus and a bronze cosmetic jar also indicate culture contacts with the west. At Jhukar, Mature Harappan ceramics occur together with 'Jhukar Ware' in three successive strata along with terracotta cart wheels, bangles, animal figurines, chert blades and unicorn seal. Similar observations were made at Amri and KotDiji. There is good evidence for continuity and no break in sequence can be seen. Jhukar is not an intrusive, Post-Harappan separate culture, but only a name for new ceramic style emerging within the Harappan culture area (Mughal 1992). There is a drop in the number of sites from 86 to 6. After this period there is a clear break with no sites recorded in Sindh. Post-Urban/ Late Harappan (Ghaggar-Hakra): This region has been surveyed by Mughal, Stein and Archaeological Survey of India. Mughal found 50 Post-Urban/Late Harappan sites in Cholistan. These are followed by PGW sites which are located more to the north of Late Harappan settlements and even the number of sites reduces to 14 with a total settled area of 36 hectares (from 255 hectares). During the Late Harappan, the geographical focus of settlements shifts to the east towards northwest India (Punjab, Haryana and northern Rajasthan) where 563 Late Harappan ((Siswal C-D) sites have been recorded which actually denotes an increase in the number of settlements in many parts of this

region. The major sites of this time period include Mitathal, Bara, Ropar, and Siswal. At many of these sites OCP ware is also found, which is a typical ware at many early historic sites in ancient India. However, the exact nature of the linkages needs to be established.

Post-Urban/ Late Harappan (Kutch, Gujarat and Sorath)

This region provides evidence for both decline and abandonment in certain areas and continuity of settlement in other areas. However, even when continuity is indicated, the defining features of the Harappan Civilization, like its seals, weights and script, are nearly absent. In Kutch, we find evidence for the decline and eventual abandonment at Dholavira, Lothal and Kuntasi, the major urban centres of the mature phase. At Dholavira, the excavators noted erosion and cracks in the walls resulting from an earthquake which were hastily repaired. At this time, circular houses make their appearance and planned layout of the city and its architectural features are gone. Jhukar ceramics have also been found in this phase along with typical Harappan ceramics, terracotta cakes, and weights in somewhat transformed form. Around 1900 B.C. the industrialcenter of Kuntasi developed during the Late Mature phase was also abandoned and houses made of stone rubble appeared, and by 1700 B.C. it was reduced to a small village. At Lothal also there is evidence for disappearance of manufacturing and trade around 1900 B.C. Possehl opines that since Lothal, Kuntasi and Dholavira were dependencies or trading posts of the Sindhi Harappans, they succumbed to 'Domino Effect' and collapsed with the Sindh Harappan. On the other hand there was also a phenomenal rise in the number of villages in Gujarat. In fact at sites like Rangpur, there is evidence of greater prosperity during the Late Harappan. This phase in the area is marked by Lustrous Red Ware. Even during the Mature Harappan, local ceramic tradition co-existed with Harappan pottery. However, the use of Indus script, seals, weights, etched carnelian beads and imported material declined and stone tools of locally available stone were made. Rojdi, a small settlement in central Saurashtra also continued to be occupied during the Late Harappan. In fact, the site size increases by two hectares during Rojdi C (2000-1700 B.C.), an outer wall was built and many parts of the main mound were rebuilt at this time. Though the number of sites decreases by one-third in Saurashtra yet we find a number of settlements which continued to thrive at the same time that other settlements were being abandoned (Table 5). This suggests considerable settlement mobility and influx of new populations. On the basis of the finds of local pottery style and other local features along with typical Indus characters like its weights and seals, Possehl believes that this region had considerable independence even during the Mature Harappan phase and therefore gives it the name of Sorath Harappan, after the name of the region. Evidence fromKanewal and Ratanpura indicate nomadic hunting-gathering based subsistence at this time. Late Harappan sites have also been found at Maharashta where they merged with the emerging agricultural communities. Borderland Areas - Afghanistan and Baluchistan (Nausharo,Sibri and Pirak) At Rana Ghundai in Loralai uplands of north Baluchistan, the level III C is overlain by ash lenses indicating fire and in the above level pottery also changes. Dabarkot also preserves four layers of ash indicating repeated conflicts. Sutkagendor andSotkakoh in southern Baluchistan which served as trading posts were abandoned during this period. Only evidence of a Post-Urban occupation in Baluchistan comes from Mehi, Kulli, Quetta and other places in the form of stray artifacts and signs of cremation in a highly disturbed context. These have been assigned

to the 'Bactria-Margiana Archaeological Complex' (BMAC). It can be noted from the scanty archaeological evidence that BMAC people were nomads who came from Bactria and Margiana in the north (Table 5). In theKacchai plains west of the Lower Indus, Nausharo on the Bolan Pass has preserved evidence in Period IV (2200-2000 B.C.) for pottery (round jars and painted goat freizes) and female terracotta figurines associated with the Kulli culture from southern Baluchistan which was contemporary to the Harappan. Archaeological remains at Nausharo show more links with eastern Iran and Turkmenistan than with Sindh during the Late Harappan period. At Sibri, we find coarse, hand-made pottery, some wheel turned ceramics in a wide variety of shapes; a number of flaked stone and bone tools, grinding stones and a large number of terracotta figurines similar to Hissar and BMAC sites. Besides, many items with parallels in the west include a small stone column, bronze and stone compartmented seals, a bronze shaft hole axe-adze and pins. Notably, a very large number of high quality bronze artifacts have been recovered from this site. At Mehrgarh where we find the earliest evidences for a settlement dating up to 2600 B.C. After this there is a break and we find evidence for a new culture, the only evidence for which are in the form of tombs with grave offerings but without skeletal remains. This culture is widely known as the BMAC. BMAC is also evidenced atNausharo and Sibri. At Pirak with evidence of occupation from 1700-700 B.C. the assemblage recovered is foreign to the Indus system. Here we find a characteristic light or white coloured pottery with applique bands of finger indentations and a number of animal figurines in clay, including those of cattle, camel and horse. The architecture is also different from Harappan - brick houses with reed matting on the floor and walls with symmetric rows of rectangular niches, fire places were actually single-brick square platforms full of cracked pebbles in the central hollows. Hundreds of stone tools with very little metal have been found here. Few Pirak type sites are found in the Kachhai plains, and may be some existed in the Quetta-Pishin uplands, but very little is known about their cultural distribution. In Afghanistanalso during the end of the Mature Harappan/Urban period, evidence from Shortughai indicates replacement by BMAC. Pattern of Shift: A geographic pattern of abandonment of the Indus valley with declining occupation in the west in favor of a phenomenal rise in the number of settlements in northwestern India including east Punjab, Haryana, northern Rajasthan, the westernmost Yamuna -Ganges rivers region, and Gujarat in the southwest has been noted. This shows that though the theory of 'eclipse' might hold true for Sindh and Baluchistan, there is strong evidence for continuity in the east and in Gujarat. However, the dark chapter in the history of Baluchistan needs to be verified with more research in that area. In the dry farming areas of Punjab, Haryana, northern Rajasthan and western Uttar Pradesh which were dependent on rainfall, there is a dramatic increase in habitation during the early second millennium B.C. During the same period, climatic reconstruction models, largely based on pollen data from Rajasthan lakes, show an increase in aridity. In Gujarat, there is evidence from Rojdi, Rangpur and other areas for expansion and rebuilding at the same time that Mohenjo-daro was being abandoned. Recent studies (Gangal et. al. 2010) have integrated GIS information on topography, hydrology, radiocarbon dates and archaeological data of 1874 sites, to analyse the spatio-temporal growth and decline of urbanism in the Indus valley. The spatio-temporal analysis indicates that the pace of de- urbanisation is non-uniform with a strong geographical variation. The decline starts in the Ghaggar-Hakra region, followed by a large-scale collapse in the lower Indus

plain, but settlements continue to flourish in Gujarat, which has a fairly delayed decline. The pattern clearly indicates a redistribution of population. There was a shift from integrated state to regional resources and local trade networks, in other words de-urbanisation is noticed. We see a societal transformation from citycentred economies to vibrant agricultural village communities. This shows the complexity and heterogeneity in the socio-cultural processes of change that were at work. The center of settlements shifts from Cholistan during the Mature Harappan to east Punjab, Haryana, northern Rajasthan and western Uttar Pradesh during Late Harappan/Post-Urban period. The Early Harappan centre was farther to the west and tracing back to the earliest settled village farming communities in the Baluch hills and piedmont, they were even farther west. There is a clear eastward shift of settlements with time, though it is not clear what it means. Further, there was a shift from concentrated residence in cities to dispersed residence in villages along with a population move from west to east (Ratnagar 2000) did indeed come to an end. There seems to have been no single cause of the decline and abandonment of cities, and reorganization and transformation of the Indus Civilization but that it is 'a complex, multifaceted process of change' (Possehl 1997). Allchin and Allchin argued for the interconnection of causes in regional and interregional terms. It may be said that both internal and external factors together contributed to the decline and collapse of the Bronze Age civilization in the Indus valley and its surroundings. Ratnagar (2000) succinctly sums the causes for the transformation at the end of the Mature Harappan, "Triggers or immediate causes could have been raids, migrations in the west, or internal dissensions that affected the centres of control and residential stability. In contrast, background conditions or enabling factors could be the shamanistic nature of the religion, the absence of institutionalised temples, tensions in the little communities, an undeveloped division of labour within the villages, absence of village selfsufficiency in a Bronze Age political economy, as also the inroads by metal, faience and brick industries into the vegetation cover of the surrounding localities. Ultimate and deep-rooted causes would mainly be the stresses and contradictions of a system which could sustain itself only in its geographic expansion, and in which the polity, trade and craft production, all centred on the elite. And elite dominance depended on a paradoxical combination of coercion and the forging of personal ties (this being too early a form of state to have developed a full-fledged bureaucracy). Perhaps the structural strains became too great to override when they were juxtaposed with other independent variable, coincidental occurrences in adjoining regions: the expanding pastoralist mobility in the Eurasian steppe, the emergence of Elam as a dominant power and its possible appropriation of tin supplies after 2000 B.C. which in turn could have been connected with group movements and migration along the western margins of the Harappan world, and the possible extension of regional cults." For a better understanding we need a firmer chronology and better understanding of the regional cultures and environment. The process of transformation was perhaps slow and gradual that began two to three centuries before the actual decline as evidenced from the abandonment of the Great Bath and Granary at Mohenjo-daro. By 1300 to 1000 B.C. A new social order characterised by a distinctive ideology and language began to emerge in the northern Indus Valley and the Ganges river region to the east though some aspects of Indus urbanism and the important craft technologies survived. A second urban revolution was brought through the emergence of new technology of iron metallurgy and glass production.

3.12 Self Check Exercise

1. Who gave the theory of ecological imbalance for the decline of Harappan civilization?
2. From which site the evidences of plough have been found?
3. From which Harappan site the head of the priest has been found?
4. Who gave the theory of the foreign attack for the decline of Harappan civilization?

3.13 Summary

Until recently, it was believed that the Harappan civilization along with its spectacular achievements, evolved quite mysteriously and then disappeared suddenly, leaving little or no legacy for later cultures. However, as new sites have been discovered and previously excavated ones were restudied it became apparent that it disintegrated gradually, leaving the field open for the development of subsequent Protohistoric cultures and the second urbanization during the first millennium B.C. In fact, there are significant continuities in subsistence activities, art and architecture, technologies, economic set up, urban organizations and possibly socio-ritual as well as political structures. Even today in the modern cities, towns and villages of the subcontinent one can see the legacy of the Harappan culture reflected in traditional arts and crafts as well as in the layout of houses and settlements.

3.14 Glossary

Proto-siva	:	Depiction of shiva on harappan sealings
AmriNaal	:	Pre harappan site
Mehargarh	:	An important archaeological site which represents the change from Neolithic to harappan times
Dholavira	:	A famous harappan site in kacch region

3.15 Answered to Self Check Exercise

1. Ans. Fairservice.
2. Ans. Banawali, in Haryana.
3. Ans. Mohenjodaro
4. Ans. MortimarWheelar

3.16 Suggested Readings

Possehl, G. L., (2002), The Indus Civilization – A Contemporary perspective

Sullivan, H. P., (1964), A Re-examination of the religion of the Indus Civilization, in History of Religious No. 4,

Srinivasan, D., (1975-76), The so-called proto-Siva seal from Mohenjodaro: An iconographical assessments, Archives of Asian Art, No. 29

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Badam, G. L. and V.G. Shathe, (1991), Subsistence economy of Indus Civilization,

K. V. RoundaraRajan, (ed.), Indian Archaeology Heritage,

Chaplin, R. E., (1969), The use on non-morphological criteria in the study of arrival domestication from bones founder archeological sites.

Meadow, R. H., (1979), Early animal domestication in South Asia: A first report of the faunal remains from Mehrgarh, Pakistan, Haertel, H. (ed.), South Asian Archaeology

3.17 Terminal Questions

1. Discuss the salient features of Harappan civilization.
2. Throw light on the town planning of Harappan civilization.
3. Write a note about the society in Harappan civilization.
4. Discuss about the various causes of the decline of Harappan civilization.

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CHAPTER- 4
EARLY IRON AGE AND MEGALITHIC CULTURES

Structure

4.1 Introduction

4.2 Learning objectives

4.3 Early Iron Age in India

- 4.3.1 Gangetic Valley
- 4.3.2 Painted Grey Ware Culture
- 4.3.3 Northern Black Polished Ware Culture
- 4.3.4 Southern Zone

4.4 Megalithic Culture of India

- 4.4.1 Types of Megaliths
- 4.4.2 Burial Rituals and Social Organisation
- 4.4.3 Ethnic Affinity and Origin
- 4.4.4 Chronology
- 4.4.5 Erection of Megaliths by Some Indian Tribes

4.5 Self Check Exercise

4.6 Summary

4.7 Glossary

4.8 Answered to Self Check Exercise

4.9 Suggested Readings

4.10 Terminal Questions

4.1 Introduction

A megalith is a stone which is larger in size and has been used to construct a monument or a structure stones. Megalithic has been used to describe buildings built by people living in many different periods from many parts of the world. The construction of this type of structures took place mainly in the Neolithic. The monument or the structure has been constructed either alone or together with other and continued into the Chalcolithic Age, Bronze Age and Iron Age.

4.2 Learning Objectives

Once you have studied this unit, you would be able:

1. To study the Megalithic Culture of India;
2. To study the Megalithic types;
3. To understand the development of Megalithic culture keeping in view the regional variations;

4. To briefly outline the main problems of the Megalithic Culture in India;

5. To study the Megalithic practices among Indian Tribes; and

6. To study the Iron Age Culture of India

4.3 Iron Age Cuiture in India

We study the Iron Age culture here because Megalithic culture is very much a part of Iron Age. The Iron Age in the Indian subcontinent succeeded the Late Harappan culture. The main divisions of Iron Age in India are the Painted Grey Ware (PGW) culture (1100 to 350 BC) and the Northern Black Polished Ware (NBPW) culture (700 to 200 BC). Iron Age in India brings one to the threshold of ancient history. This culture had recorded history. Literary accounts of the contemporary period are recorded in Vedas, Upanishads and other Brahmanic literatures. A combination of archaeological evidences and such literary accounts have become a standard method of dealing with Iron Age culture in India. The origin of iron in our sub-continent still remains a matter of dispute among specialists. It is important also to remember that some tribes of India, such as, Agarias of Madhya Pradesh, prepare iron tools from surface ores with indigenous techniques and trade their finished products among the local villagers. It can be assumed that these communities must have had their knowledge for a time, may be for several thousand years.

The earliest Iron Age sites in South India are Hallur, Karnataka and Adichanallur of Tirunelveli district, Tamil Nadu at around 1000 BC. Technical studies on materials dated c. 1000 BC at Komaranhalli (Karnataka) showed that the smiths of this site could deal with large artifacts, implying that they had already been experimenting for centuries (Agrawal et al. 1985: 228-29). Sahi (1979: 366) drew attention to the presence of iron in Chalcolithic deposits at Ahar, and suggested that "the date of the beginning of iron smelting in India may well be placed as early as the sixteenth century BC" and "by about the early decade of thirteenth century BC iron smelting was definitely known in India on a bigger scale".

Historical kingdoms of the Iron Age

Iron Age India 1200-272 BC

MahaJanapadas 700-300 BC

Magadha Empire 648-424 BC

Nanda Empire 424-321 BC

Maurya Empire (Pre-Ashoka) 321-272 BC

With the exception of the earliest phase of the Rigveda, most of the Vedic period, falls within the early part of the Indian Iron Age around 12th to 6th centuries BC. The development of early Buddhism takes place in the Magadha period around 5th to 4th centuries BC.

The edicts of Ashoka, 272-232 BC suggest that the North Indian Iron Age can be taken to end with the rise of the Maurya Dynasty and the appearance of literacy, indicating gradual onset of historicity. South India simultaneously enters historic age with the Sangam period, beginning in the 3rd century BC. From the 2nd century BC, the cultural landscape of Northern India is transformed with lasting effect with the intrusion of the Indo-Scythians and Indo-Greeks. The kingdoms succeeding these periods, up to the medieval Muslim conquests are conventionally grouped as Middle kingdoms of India.

4.3.1 Gangetic Valley

The colonization of Ganga basin by iron users can be taken as one of the best evidence of second urbanization in India. Urban centres, which mushroomed around Indus, Ghaggar and its tributaries during 2600 BC to 1500 BC were generally deserted after this time. Understanding of the second colonization in this region needs a consideration of the changes that can be witnessed further west. In Baluchistan, the earliest evidence of copper has been noted at Mehargarh. The occupation at this area was abandoned even before the development of mature Harappan culture but around the same region one can witness the transition of the post Harappan phase at Pirak. Initially Harappan influence can be demonstrated in this occupation centre but very soon and perhaps around 13701340 BC first pieces of iron appeared here. The cultural continuity from pre-iron phase is so remarkable that an invasion by iron users as a possibility also can't be entertained. Here the houses are prepared of mud bricks like the pre- Harappan stage. The pottery is coarse with appliqué bands and finger tips impressions. Terracotta figurines become more in frequency of occurrence than the preceding period and they include horse, camel and human figures. The most important feature of this phase is barley and rice cultivation in this zone. Evidence of fullfledged adoption of iron, however, is not seen until another 2 to 3 centuries. Iron Age in the west of the Indus broadly belongs to the time bracket of 1100-900 BC. In the northwest another culture developed. This culture is known from the Gandhara sites. There are large complexes of graves and the culture is entirely known and defined from the accompanying grave goods. Taxila, Charsada and Timargarha are some of the important sites from this complex. The pottery is a red burnished type. City structures in this region are not identified till about 500 BC. Similar to Pirak in south west, in Gandhara iron emerged without any change in the earlier culture in the area. Furthermore these pre-existing cultures are unique in character and does not bear any resemblance to the widely distributed Harappan features.

4.3.2 Painted Grey Ware Culture

You have already read about this culture in another Unit in connection with chalcolithic phase. This cultural phase is interesting because it has the use of tools made both from stone and metal. Early phases of this culture are associated with copper and bronze. The phase, which corresponds with Northern Black Polished ware phase in Genga valley, has yielded iron tools but stone tools also continued. The Painted Grey Ware culture (PGW) is an Iron Age culture of Gangetic plain, lasting from roughly 1000 BC to 600 BC. It is contemporary to, and is a successor of the Black and red ware culture. It probably corresponds to the later Vedic period. It is succeeded by Northern Black Polished Ware from ca. 500 BC.

Although you are already familiar with the PGW culture, a few words may be added here to establish its relevance in the Iron Age cultures of India. PGW culture is named after the pottery of the same name. This ware was first found at Ahicchatra in Bareilli district of Uttar Pradesh during excavations in 1944 but its importance was fully realised only after its discovery by B.B.Lal in the excavations at Hastinapura during 1950-51.

The first large-scale and effective use of iron in India is associated with this culture. The PGW culture is found in the Indo-Gangetic Divide and the upper Ganga-Yamuna doab, the ancient Aryavarta and Madhyadesa.

The PGW was produced from well-lavigated clay and manufactured on a fast wheel. A thin slip was applied on both surfaces and the ware was baked at a temperature of 600 degreecelcius under reducing conditions, which produced the smooth ashy surface and core (Hegde, 1975). The distinctive shapes are dish with curved sides and bowls with straight sides. The vessels are painted in black pigment on both surfaces with geomatric patterns like dots, groups of vertical lines, concentric circles, bands, and strokes of vertical and slanting lines, dashes, chains, loops, spirals, sigmas and swastikas. Naturalistic patterns like lotuses, leaves, bunch of flowers and the sun are also occasionally found.The PGW people cultivated rice and wheat and lived in wattle-and-daub houses. They were the first people to have definitely used the domesticated horse.

4.3.3 Northern Black Polished Ware Culture and the Second Urbanization

The Northern Black Polish Ware (NBPW) Culture in India is a definite Iron Age Culture, succeeding the Painted Grey Ware Culture. Iron technology accelerated colonization of the middle and lower Ganga valley by farmers around 700 BC onwards. The characteristic pottery of this period is Northern Black Polished Ware. The NBP period saw the emergence of cities and first political entities known as Mahajanapadas in the Ganga plains in the 600 BC.

The NBP region is also the locale of the second major Hindu epic, the Ramayana, and of the rise of Buddhism and Jainism. This period witnessed the second urbanization of India. By 600 BC a number of these Mahajanapadas had been assimilated into the first Indian empire known as the Magadhan Empire with its capital at Pataliputra being located at the place where modern Patna in Bihar is situated. The Magadhan Empire was succeeded by the Mauryan Empire in the 400 BC. The best known Mauryan emperor, Ashoka, expanded the empire up to Karnataka in the south, Bangladesh in the east and Afganistan in the northwest. He also patronized Buddhism and promoted its spread within the country as well as outside in Sri Lanka and other countries of Asia. After the long gap between first and second urbanization, lasting about 1500 years, writing again appeared during this period. The script is known as Brahmi. Buddhist and Jains literatures were in Pali language. The pillar and rock edicts of emperor Ashoka were written in Brahmi script. Coinage in the form of silver punch-marked coins appeared in this period.

4.3.4 Southern Zone

This is the area, which developed a fairly consolidated regional character during 1500-1300 BC. Iron Age in this area does not develop any special characteristic of its own like what has been observed in Western Uttar Pradesh.

The Iron Age in South India till today is known entirely from a large variety of burials and their accompanying grave goods. Since these graves are mostly megalithic in nature the cultures are traditionally known as 'Megalithic Culture'. Further, the 'Megaliths of India' may also refer to the memorial and sepulchral stones erected by the tribals living in various parts of India in the historic period.

You have already learnt about megalithic types. Following is the brief information on Iron Age Megalithic types of South India. The Megalithic burials found so far with iron were from South India particularly from Deccan. They can be grouped as follows:

- Large urns with bones collected from previously excarnated dead bodies in them. These urns are kept with grave goods in a pit. The pit after covering can be marked by a circular demarcation made of stones.
- Cists made out of slabs of stones and may at times be covered with a similar flat stone on top. These are sometimes with portholes curved out on one of the chamber wall slabs.
- Legged-urn or sarcophagi used to encase the body before actual burial is another important pattern of these Megaliths.
- Sometimes chambers have been cut out in the compact lateritic floor and the body was placed inside the chamber.

Megalithic Cultures Large numbers of variations are seen in the pattern of disposal of the dead in the region. The Megalithic arrangement on the ground to mark the grave also can vary from one kind of burial system to the other. In all Iron Age sites of Deccan India Black-and-Red ware is seen as the common feature of Iron Age and Megalithic culture. The pottery types include carinated vessels, bowls with pedestals and spouted dishes. A conical shaped lid is found often provided with a loop on the top. The iron implements which are common to all megalithic sites are flat axes with crossed straps, sickles, tripods, tridents, spear heads, lamps, multiple lamp hangers and arrow heads.

The Megalithic builders appears entirely exotic in the pre-existing cultural canvas of the region. And this led many scholars to visualize a new population movement from west. The traditional homeland of Chalcolithic culture, i.e. West Asia, does not show the practice of Megalithic burials and hence cannot be considered as the source of dispersal of the iron using megalithic builders. Instead the coastal regions of South Arabia and the Levant show sarcophagi and cist graves during Iron Age. They probably came by sea route to enter into Deccan India. Apparently, these people did not create any urban settlements, the likes of which we have witnessed in the Harappan period or during the phase of second urbanization in the Ganga valley. Megalithic builders might have maintained isolated gypsy like tented colonies where they might have bred and grazed horses to be traded with the newly rising political centres around the middle Ganga valley.

4.4 Megalithic Culture of India

In 1872, Fergusson brought out his excellent work entitled "Rude Stone Monuments in all Countries: their age and uses. This first attracted the attention of scholars. Although Babington (1823) had published his book, "Descriptions of the Pandoo Coolies in Malawar" and Meadows Tylor (1873) was writing about his observations pertaining to the "Distribution of Cairns, Cromlechs, Kistveans and other Celtic, Druidical or Scythian monuments in the Dekhan". Fergusson's work on Megaliths may still be regarded as a landmark because of its wide scope and integrated approach.

In 1873, Breeks tried to correlate Megalithic practices with some of the customs and rituals practiced by the tribals still living in the region of the Nilgiri Hills of Tamil Nadu. All earlier authors showed a strong bias towards tracing the ancestry of the Megalithic builders to the Celts, Druids or Scythians. Breeks, at least, was the first to show that local megalithic bias had survived in the Nilgiris. As with the descriptive accounts, the first excavation of Megalithic monuments also took place more than a century ago. In the last quarter of the 19th century, Dr.Jagor first excavated in the classic site of Adicanallur in the Tirunevelly district, Tamil Nadu. The extensive site of Junapani, near Nagpur in Maharastra was also excavated on a small scale by

Rivett-Carnac (1879). Simultaneously, extensive exploration in the Madras region continued, resulting in the publication of the list of antiquarian remains in the Presidency of Madras by Sewell in 1882. At the turn of the century, Foote (1901) brought out an excellent Catalogue of antiquities, including megaliths.

In the later years of the 19th century, Alexander Rea (1902-03) excavated a number of megalithic sites in South India. The classic site of Adichanallur was also reexcavated in 1903-04 by Louis Lapicque. The remarkable variety and distinctive natures of the Indian Megalithic cultures were then placed before the world by Rea in 1915, when he published the Catalogue of the Prehistoric antiquities from Adichanallur and Perumbair. A decade later, Hunt (1924) published the result of the excavation of Megalithic graves in Andhra Pradesh. By the end of the first quarter of the 20th century, a number of Megalithic sites had been excavated. However, the first attempt to place the South Indian Megaliths in a chronological framework was by Sir Mortimer Wheeler (1948), who excavated the sites of Brahmagiri and Chandravalli in Karnataka in 1944.

In 1962, it appeared that the megaliths, that is, huge stone monuments, were a special feature of South India. Preliminary classification had shown regional types. Wheeler's excavation at Brahmagiri showed that these were not as old as once believed. This was confirmed by subsequent excavations at Sanur, Maski and other places. While studying the Karnataka megalithic monuments A. Sundara (1975) concluded that "the varied tomb types in different geological zones are essentially due to the traditional affiliations rather than environmental influence." The megalithic builders at Hallur and further south at Paiyampalli, were not only adept at quarrying all kinds of stones, but they made a judicious use of these rocks. They employed a particular stone for a particular part of the tomb. Again, these people were excellent architects-engineers. The best example is the constructional plan of the passage chamber. Though we still do not know about the houses and habitations of these megalithic builders, the recovery of sickles and plough coulters of iron, rice and ragi grains from the excavations at Kunnattur and Hallur respectively, shows that these people were probably dependent largely upon agriculture and partly upon hunting, as proved by the hunting scenes in the rock-paintings at Hire-Benkal. Animals such as cow/ox, goat/sheep, dogs and horses were domesticated.

So far no evidence of literacy in the form of writing of any kind has been found from the megaliths in Karnataka. Finally, on the question of the identity of the megalithic builders, Sundara (1975) has shown how there was mutual borrowing between the Neolithic-Chalcolithic inhabitants of Karnataka and the megalithicbuilders who arrived about 800-700 BC. As Kennedy has said, it is difficult to say anything about the racial types from the study of the extant skeletal remains. Hence, the only thing left to a culture-historian is cultural relics. Amongst these, the only significant thing was the post-holed cist. In this regard Sundara again is of the opinion that all the megalith-chamber types of tombs of North Karnataka or South India, are the passage chamber type that has fundamental resemblances with those of the Mediterranean and Western European megaliths. He further thinks that the South Indian megaliths were derived from the Mediterranean region via the coastal route.

Some idea of the megalithic in Coorg can be had from the work of K. K. Subbayya. Excavation of four sites at Heggadehalli revealed some new types of burials, which seem to be unique. Instead of the stone sides containing a simple pit or underground cist of stone slabs, at this place, the sides contained a pit and at the base of the pit were laid a granitic slab over which the funerary offerings were deposited. The pit was then filled with soft earth. On this lay the large capstone. Another megalith contained only a pit without a

stone slab at the base, whereas in the third one was a cairn side, under which was a stone chamber of large granitic slabs, inordinately large in dimension. It also contained an underground passage to the east outside the cist.

Except pottery, nothing else was found from the chambers. This is of the usual kind, black-and-red ware and included bowls, tall three-legged vases and conical vessels. Up till now, any kind of weapons have not been found at these sites. However, the differences in the method of making these three megaliths might indicate a kind of economic and social status their builders enjoyed in their society.

An extension of the South Indian Megaliths to Vidarbha has come to light by the excavation at Junapani and subsequent full-fledged excavtions at Khapa and Muhurjhari. The excavations at Khapa and Mahurjhari and another site at Naikund have supported that the megaliths belonged to a particular section of the community or people in each region. The evidence from Vidarbha and Tamil nadu, particularly horse bits and several types of iron weapons suggest that these sepulchral monuments might only belong to a warrior class. At Khapa, situated on the left bank of the river Krishna there are a number of megaliths in the form of stone circles, whereas on the opposite side at Takelghat there is a habitation site. Both were dug in 1968-69 by Nagpur University. Out Megalithic Culturesof the nine megaliths, Megalith-1 which was the lar gest of all having a diameter about 25-26 metres, yielded interesting evidence like pots and pans of blackand-red ware, micaceous red ware, and coarse red ware, utensils and weapons of iron and copper, copper bangles and beads of carnelian and bones, possibly of the horse. Among the other interesting objects must be mentioned the copper dish and a copper lid each with a bird motifs, the copper bell and a chain of copper rings. The excavation of the habitation site on the opposite side at Takalghat gave some idea of the houses these people lived in. The floors are well made with rammed brown clay, and coated with lime, whereas the walls are made of mud, with supports of wood/bamboo posts for roof. This, at present on the evidence of C-14 date from Takalghat, is placed around 556 B.C. Takalghat megalithic culture is believed to be similar to that of Hallur in Karnataka.

Compared to Khapa, Mahurjhari from Nagpur is considered as a megalithic haven. With Junapani, it is said to have more than 300 stone circles. Altogether three localities have been identified at Mahurjhari. In Locality-I, megaliths yielded iron axes, daggers, copper bowls, bells, bangles, numerous beads of semi-precious stones, black-and-red pottery and gold leaves. In Locality-II, the megaliths yielded several copper bangles, iron axes, chisels, gold spiral, iron nails etc. This locality seems to be more important because a human skeleton found associated with large number of objects and painted blackand-red potsherds, which were placed near the various parts of the interred body. The other antiquities recorded from the site are gold ornaments with punched decoration, and pottery lids with the goat and bird motifs, in addition to the usual iron and copper objects. In Locality-III, megaliths yielded full length human skeletons with iron and copper objects, including those for the horse. Gold ornaments and painted pottery belonged to a family or persons who were rich and important- probably warriors of a high status. The pottery particularly the painted black-and-red ware is said to be similar to those found at Takalghat and Khapa. The megalithic monuments found in Pune district might be just memorial structure. Megalithic monuments had already been reported near Pune in the last century. They, when re-examined in 1940-41, turned out to be memorials to the dead, but not funerary in nature and devoid of any pottery and dateable objects.

A new dimension to the megalithic problem in India was revealed with the discovery of megaliths in the districts of Banda, Allahabad, Mizapur and Varanasi located in south-eastern Uttar Pradesh. The monuments called as cairns and cists are comparatively sparsely distributed near the junction of the northeast slope of the Vindhyas, and in the Ganga plains. The east-west dimension of this region is about 320 km. There are differences in the materials used for constructing the structures. This is obviously due to vast extent of territory in which the megaliths are distributed. It has been found at all excavated sites at Varanasi, Allahabad, Mirzapur and Banda, that their makers dug fairly deep pits, deposited the funerary goods and covered them with hemispherical cairns of boulders bounded by stone circle. The funerary goods, though varying in other essentials, had a black-andred ware. In case of a cist, a similar pit was dug and a box-like chamber was prepared with orthostats. The box was packed with small stones, and covered with massive single stone slab resting directly on the four uprights. Interestingly, unlike in the south, the Allahabad megaliths reflect the cultural change. The basic types- cairns, stone circles and cists-remain the same, but the grave goods consist, instead of microliths, iron objects like sickle, adze, arrowhead and dagger. There was a significant variation in the livelihood pattern between the two zones. Iron had replaced stone and copper and, as the evidence from Kotia in Allahabad shows, these were made local iron smiths.

On the opposite bank of the River Belan at Koldihwa and Khajuri megaliths belonging to chalcolithic cultures were found, lying between cultures of Varanasi and Kotla of Allahabad. In the former iron is absent, and microliths are scarce while in the latter fragments of iron are associated with microliths. These types of megalithic cultures have also been observed in Mirzapur and Banda districts. It is interesting to note that in spite of the local variations, the inhabitants used, right from the beginning up to the end, a Black-and Red Ware. For nearly 1500 years the technique of making of pottery, its decoration and firing did not change and the way of life of the people remained the same.

Megaliths have also been discovered at Waztal, about 12 kms from the Matau Spring, and Brah, about 9 kms from Martand in Kashmir. At both the sites a number of huge standing stones were found. But these are scattered around without any regular plan. Habitation sites are rarely found in association with the megaliths, excepting at Maski, Tekalghat, Paiyampalli and a few others. Recently, a large habitation site along with scores of stone circles has been discovered at Naikund near Nagpur in Maharastra. However, the ratio of habitation sites to burial sites still remains exceptionally low. This posses problems for the study of settlement patterns, and it is high time that excavation of the few habitation sites are undertaken on a priority basis, before the megaliths are blasted by local bodies for road building. Despite the fact that as early as 1960 an International Commission for the study of megaliths was instituted by the Second International Congress of Archaeo Civilisation, no planned and conscious efforts have been made in India towards understanding of the settlement patterns of the megalithic people. Further studies must also be undertaken to define the main regional complexes of the Indian Megalithic cultures. The above descriptions are of the South Indian, Northern and Northwestern Megalithic cultures. It is obvious that these complexes are not exclusive of each other. Some common elements can be traced among the cultures. Similarities and dissimilarities of ceramic fabrics and typology, presence and absence of iron, and concentration or otherwise of certain megalithic types in certain regions are all problems for which widely diverging views are available. They can be solved only if planned work is carried out, and it is futile and dangerous to generalise on the basis of sporadic and meagre data.

4.4.1 Types of Megaliths

There are large numbers of megaliths found all over world but we may group the similar types together. The types of megalithic structures can be divided into two categories, the "Polylithic type" and the "Monolithic type". In polylithic type more than one stone is used to make the megalithic structure. In monolithic type the structure consists of a single stone. Following are the different megalithic structures. Polylithic types are:

Dolmen

This is a type of megalith which is made in single chamber tomb, usually consisting of three or more upright stones supporting a large flat horizontal capstone. Dolmens were usually covered with earth or smaller stones to form a barrow. But in many cases that covering has weathered away, leaving only the stone "skeleton" of the burial mound intact.

Cairn

A Cairn is a human-made pile of stones, often in conical form. They are usually found in uplands, on moorland, on mountaintops, or near waterways. In modern times Cairns are often erected as landmarks. In ancient times they were erected as sepulchral monuments or used for practical and astronomical purposes. These vary from loose, small piles of stones to elaborate feats of engineering.

Cromlekh

It is a British word used to describe prehistoric megalithic structures, where crom means "bent" and llech means "flagstone". The term is now virtually obsolete in archaeology, but remains in use as a colloquial term for two different types of megalithic monument.

Cist

A cist or kist was used as encasements for dead bodies. It might have associations with other monuments. It would not be uncommon to find several cists close with each other in the cairn or barrow. The presence of ornaments within an excavated cist, indicate the wealth or prominence of the interred individual.

Menhir

A Menhir is a stone Monolithic standing vertically. It could also exist as part of a group of similar stones. They have different sizes with uneven and square shapes, often tapering towards the top. Menhirs are widely distributed across different continents viz., Europe, Africa, and Asia, but are most commonly found in Western Europe; in particular in Ireland, Great Britain and Brittany. Their origin dates back to pre-history. They are members of a larger Megalithic culture that flourished in Europe and beyond.

Stone Circle

A Stone Circle is a monument of standing stones arranged in a circle usually dated to megalithic period. The arrangement of the stones may be in a circle, in the form of an ellipse, or more rarely a setting of four stones laid on an arc of a circle. The type varies from region to region.

4.4.2 Burial Rituals and Social Organisation

The above description of the megalithic culture shows that the megalithic communities were dominated by religious and supernatural beliefs. This is evident from the elaborate objects associated with the burials.

Different burial tradition could indicate different social and ethnic groups, but so far no fixed regional conventions regarding orientation of the bodies or the graves have been observed. The burials vary from total to only fractional types. In the Vidarbha region horses were buried with the dead, possibly after sacrifice, and this may have been a local ethnic tradition. The social organisation of the Megalithic people of India can be worked out only in a sketchy manner, and data on settlement pattern are virtually absent. However, it appears that communities may have comprised different professional groups, such as smiths, warriors, goldsmiths, agriculturists and carpenters. This may be deduced from the types of grave goods offered. Even burial must have involved community effort because setting of such huge stones in a Circle or erection of a gigantic Menhirs, or the placing of massive stone slabs on a Dolmen is not possible by one or two individuals.

4.4.3 Ethnic Affinity and Origin

The origin of Megalithic culture in India is not clear. No satisfactory answer is yet found. Some early European scholars put forward a view that the builders were Celts or Scythians. Rivett-Carnac related them to Central Asian tribes. Other scholars tried to relate them to the Dravidians. Practice of erection of megaliths are still found among some tribes in India in the southern, central, eastern and northeastern parts of the country.

The skeletal remains found especially from Brahmagiri, Yeleswaram and Adichanallar show that people were of a mixed racial type. According to Sarkar (!960), the Brahmagiri skeletal remains were probably of Scythians or Iranian stock. Gupta and Dutta (1962) concluded that similar trend is noticed for Yeleswaram remains but Adichanallur skull, however, show different affinities.

4.4.4 Chronology

Apart from the ethnic affinities and possible migration, the chronology of megaliths in India still poses certain problems. Wheeler (1948) assigned a date for the megalithic culture approximately to the 2nd Century B.C. Gordon and Haimendorf (as quoted by Srinivasan and Benerjee1953:114)propsed dates between c. 700 to 400 B.C. Seshadri (1956) dated them between 6th century B.C. to 1st century A.D. Sundara (1969-70) proposed a date at c. 1100 B.C. for Terdal in Karnataka. Sundara and Aiyappan (1945) extended antiquity of the megaliths as far back as the Indian Neolithic times. The Chalcolithic-megalithic contact period in Maharashtra goes back to c. 700 B.C. Megaliths of Vidarbha is dated to the 6th or 7th centuries B.C. While the question of date of the megaliths cannot be easily settled, well-organised attempt be made to understand the political, social and economic background of the megalith-builders, be it in Vidarbha, Andhra, Karnataka or in Tamilnadu. It seems almost certain that no ordinary family or individual could erect such huge megaliths. Community effort and activity must have been involved in the erection of such huge structures. Such community involvement is noticed among the tribes of the present-day who are still practicing erection of megaliths.

4.4.5 Erection of Megaliths by Some Indian Tribes

The custom of erecting megaliths on a large scale is seen among different communities from the Neolithic times right up to the Bronze Age and the Early Historic period. However, the tradition of erecting megaliths is still found among the tribals living in Northeastern, Eastern, Central and South India. The reasons behind the erection of megaliths are not very clear. In this situation, we can derive some clues on the megaliths' associations by observing the practices of the tribes who still include megaliths in their religious beliefs, for example, the Gadabas, Gonds, Kurumbas, Marias, Mundas, Savaras, Garos, Khasis, Nagas, Karbis, Tiwas, and Marams. These groups still construct megalithic manuments for the dead. 'Megalithism' may be considered as a living tradition.

The Gonds, Kurumbas, Morias and Savaras plant and worship stone menhirs and sometimes erect wooden pillars. Some of these wooden pillars are curved with a rounded projection at the top to represents the human head. These tribes consider the stone menhirs and the wooden posts to represents their gods, or occasionally, the spirit of the dead. The beliefs of the various tribes differ with respect to the stone and wooden menhirserceted in connection with the death rites. The Gonds believe that the spirit of the dead resides in a stone.Thus the wooden pillars and stone menhirs are believed to contain the soul of the dead. The veneration of the wooden and stone pillars is evident in the practices of the Morias who apply turmeric and oil on them. They sacrifice a buffalo and offer rice and worship these stones in the belief that the spirit of the dead resides in them. The Savaras, before sowing, present the seeds in front of the pillars and sacrifice animals to promote the fertility of the seeds. Similarly, the Kurumbas approach the megalithic monuments of their ancestors whom they implore to help them tide over their difficulties. The Gonds mention three reasons for erecting pillars and dolmens: "first, the spirit of the dead not to wander after death; second, they must not worry or harm the descendants; third, they must help by bringing rain and driving away the harmful spirits".

The practices of the tribal people mentioned above indicate their belief that the spirit of the dead resides in the stone or wooden pillars, which they erect. These pillars are venerated and worshipped with various offerings. If the spirits are satisfied they can grant boons and on the other hand they can cause harm, if they are not satisfied (Rao, 2000).

At Mottur in Tamilnadu, a 'headless' anthropomorphic statue was noticed in the middle of a megalithic site. The local people call the megalith ValiyarVadu (house of Valiyar) and the anthropomophic statue ValiyarDaivam (god of the Valiyars). There is a very interesting tradition about the Valiyar current in this locality. According to the tradition, the Valiyars were pygmies of 10 to 15 cm in stature. They used to plough the fields with the help of rabbits. On one occasion they came to know that there would be rain of fire. If they stayed there they would be perished. To escape the fate of burning to death, they decided to leave the place, and requested their god to accompany them. When their god refused to come along, they cut off his head and took it with them. For this reason the statue stands headless. This tradition suggests that some communities consider the megalithic, anthropomorphic statue to represent their god.

The Savaras of Orissa construct a miniature hut over the place where the dead are cremeted or the bones are buried. They keep wooden figures in the huts to accommodate the soul of the dead till the mortuary rite known as Gaur ceremony is performed. Interestingly, figures with female features are used, if the 'soul house' is meant for women. During the elaborate Gaur ceremony, which is conducted by the whole community of a particular village or a group of villages, menhirs are erected to represent the dead, who are believed to have reached the Under World'. That is why during the Gaur ceremony "the stones are washed with water-so that the dead can get bath in the Under World-and oil and turmeric are used so that they can anoint themselves and do their hair. For whatever is given at the Gaur goes straight down to the Under World" (Elwin 1955:360). The above mentioned practices and beliefs of the tribal communities indicate that wooden and stone statues are mainly meant to represent their ancestors. At Mottur alone, the local people believe that the anthropomorphic statues represent the god of the ancestors. Further, where statues with feminine features are erected they would represent a female member who has passed away. The erection of megaliths, both commemorative and burial, though is prehistoric in origin, are still practised by many hill tribes of Northeast India and in the Southeast Asian countries like Myanmar (Burma), Indonesia and Thailand. The custom of erecting menhirs or alignments of stone slabs and dolmen in honour of the dead is practised by the Khasis and

Garos of Meghalaya, the Tiwas and the Karbis of Assam, the Morams of Manipur and the Nagas of Nagaland. There is another interesting example of meglithic tradition found among the Garos of Meghalaya. They erect a forked wooden curved post of 'Y' shape in front of their houses in mamory of the dead member (s) as in Indonesia and Oceania. People erect the 'Y' shaped forked wooden post with the belief that they will be protected from the dangers of life, the fertility of the family will increase, they will escape god's punishment and so on.

The Khasis of Meghalaya, who are matrilineal tribes, erect Megalithic structure in accordance with their traditional religion. Upright stones (Menhir), large and small, horizontal table stones (dolmen or cromlech), cist and cairns are seen all over the Khasi Hills but full and precise information about them have never been recorded and is hard to obtain. The Khasi megaliths are memorial stones, called 'Kynmaw', literally meaning "to mark with a stone". In Khasi language it refers to "remember". The Khasi megaliths are cenotaphs, the remains of the dead being carefully preserved in stone sepulchers, which are often at some distance apart from the memorial stones.

Though there are some observable similarities between the megaliths of the past and those of the living tribes, yet it is very difficult to bridge the gap between the past and the present continuum of the traditions. It is well known that the structures built by the contemporary tribal folk are generally linked with the commemorative purpose, whereas those of the past are mostly graves. The porthole opening, a special feature of many of the megalithic cists, is not found in any of the megalithic graves made by the contemporary tribes. It is possible that the people have given up the tradition of making portholes in course of time. Although all megaliths found all over the world are associated in one way or another with the cult of dead it does not provide sufficient ground to establish a common origin for any two megalithic cultures. The memorial stones of the Ho and Munda of Chhotanagpur would appear to resemble greatly the Khasi Menhirs. The funeral ceremonies of the Ho and Munda tribe are similar to those of Khasi. Both first cremate the body, collect ashes and bones after cremation and put them in to a grave. They also offer food to the spirit of the deceased. They also have a common linguistic resource in the form of 'Mon-Khmer Family'.

There are other tribes in Northeast India, who erect memorial stones. They are, Karbis and the Tiwas of Assam and certain Naga tribes of Manipur and Nagaland. The Karbis erect Menhirs and Dolmens in honour of their deceased similar to the Khasis of Meghalaya. Similar to Khasis, the Karbis dig a small tank for purification purpose before erecting the memorial stones and give feast after the memorial stones are erected. Anal Nagas and Morams of Manipur and AngamiNagas, Lothas and Konyak Nagas of Nagaland erect memorial stones to show reverence to the memories of deceased ancestors. The Anal Nagas traditionally believed to occupy a site of an ancient market place known as Nortiang (some 26 km Northeast of Shillong), which is an important megalithic site of Meghalaya. In the stone monuments of the Anal Nagas and AngamiNagas, the female principle is represented by a flat stone, lying on the ground, while the male is represented by an upright stone (menhir). These typical clan mortuaries are same like those still associated with the Khasis and Syntengs of Meghalaya. Haimendorf (1945) was of the opinion that the ritual associated with megaliths of Northeast India is to gain prestige for the living and to establish links with the soul of the dead. This also is at the root of the megalithic cultures of Indonesia. On the basis of this, he suggested a unity in the megalithic complex in the zone extending from the Nagaland and Khasi Hills up to Nias in Southern Sumatra.

Self Check Exercise

1. What is Megalit ?
2. What is the period of Iron Age in India?
3. What is P G W.
4. NBPW means

4.6 Summary

Prehistoric Megaliths or large stone constructions dating before the advent of written history are found in huge numbers in all parts of India. The monuments are usually found in granitic areas. We still do not know exactly who the megalithic people were, whether they represent an immigrant group, or a local development. Since similar monuments are found in many places around the world, right from Ireland, Malta, West Asia, Baluchistan to Southeast Asia it is possible they represent a single group which spread all over the world. Among the possible groups are the Celts originating from Central Asia, who later became great seafarers: some group from West Asia like the ancient Elamites of Mesopotamia: the Central Asian "Scythians", who roamed all over the world: a group of early Aryan tribes: and more fanciful, the Atlanteans who washed off far and wide. The facts are known from archeology: the detailed explanations are yet to come.

4.7 Glossary

Menhir : A Menhir is a stone Monolithic standing vertically.

Dolmen : This is a type of megalith which is made in single chamber tomb, usually consisting of three or more upright stones supporting a large flat horizontal capstone.

NBPW : The Northern Black Polish Ware (NBPW) Culture in India is a definite Iron Age Culture

4.8 Answers to Self Check Exercise

1. Ans. It is a stone which is large in size and has been used to constract a monument or a structure stones.
2. Ans. 1200-272 BC.
3. Ans. Painte Grey Ware.
4. Ans. Nothern Black Polish Ware.

4.9 Suggested Readings

Deo, S.B. 1973. Problem of South Indian Megaliths, Dharwar: Karnataka, Kannada Research Institute.

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Rao, K.P. 2000. Megalithic Authropomorphic Statues: Meaning and Significance. Indo-Pacific Prehistory Association Bulletin, 19:110-114.

Sankalia, H.D. 1979. Indian Archaeology Today. Delhi: Ajanta Publications (India).

4.10 Terminal Questions

1. What is Megalithic Culture? Discuss the Megalithic Culture of India with special reference to Northeast India.

2. Give an outline of Painted Grey-Ware Culture of India with special reference to the excavated sites.
3. How would you classify the megalithic types? Describe the different types of Megalithic monuments found in India.
4. Megalithic is a living tradition among many Indian tribes. Elaborate your answer with proper examples.
5. Discuss the main features of Indian Iron Age.
6. 'Megalithic Culture of South India means iron age'. Discuss.
7. Write short notes on the following:

   i) Cairns, ii) Monolith, iii) Northern Black Polish Ware, iv) Living Megaliths, v) Painted Grey Ware, iv) Dolmen.

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CHAPTER -5
CHALCOLITHIC CULTURES

Structure

5.1 Introduction

5.2 Learning Objectives

5.3 Ahar Culture

5.4 Kayatha Culture

5.5 Malwa Culture

5.6 Jorwe Culture

5.7 Ochre Colored Pottery (OCP) Culture

5.8 Self Check Exercise

5.9 Summary

5.10 Glossary

5.11 Self Answered Exercise

5.12 Suggested Readings

5.13 Terminal Questions

5.1 Introduction

In post-independent period an interest developed among the scholars for the systematic study of social organisations and political and economic institutions. This was apparent in writings of scholars like D.D. Kosambi. A similar interest influenced the archaeological work during this time when, spearheaded by scholars like H.D. Sankalia, there appeared an effort to reconstruct the past ways of life in different regions. Detailed exploration of Chalcolithic sites followed, particularly in central and western India, with excavations at a few chosen sites. Multi-disciplinary studies at sites like Inamgaon in Maharashtra threw substantial light on past subsistence, religious practices and social organisation. The Chalcolithic culture of a region was defined according to certain salient features seen in ceramics and other cultural equipments like copper artifacts, beads of semi-precious stones, stone tools and terracotta figurines. Migration and diffusion of population groups were often cited as causes for the origin of these cultures, as seen for example, in the idea of an Aryan 'people' being the bearers. Often linkages of archaeological sites were sought with names of places mentioned in the Puranas and epics which were believed to have been located in the same geographical region. Many of these ideas have been critiqued in recent years, e.g. defining a culture on the basis of pottery types and explaining change by factors of diffusion and migration (Panja 2002). On the other hand the Ochre Coloured Pottery , commonly known as OCP, seen at over one hundred sites in Rajasthan, Punjab, Haryana and western Uttar Pradesh, presents a different problem. Opinions are still divided about the authorship of OCP 'cultures'. The dates assigned are diverse, ranging from 2800 BC to 900 BC. The PGW phase, marked by the deluxe ware of the same name has evoked many queries regarding its status. Its association with iron at some sites has been the subject of much scholarly discussion.

5.2 Learning Objectives

Once you have studied this unit, you should be able to:

1. Understand the regional diversity of Chalcolithic cultures in western and central India; Ø understand the significance of the chronology of these cultures.
2. Understand how the Ochre Colored Pottery (OCP) culture and the Painted Gray ware (PWG) culture are distinctively different.
3. Grasp the problem of how the entire cultural landscape in north, western and central India remained devoid of full-fledged urbanism for almost thousand years following the Harappan decline.

5.3 Ahar Cuiture

The Ahar culture –also known as the Banas culture, the latter term derived from the name of the valley in which most of the sites of this culture are located—is among the earliest Chalcolithic cultures of India. This is seen from the calibrated radio-carbon dates available from many of the sites. The culture has been named after the type site Ahar, in District Udaipur, Rajasthan which was excavated in 1961-62 by H.D. Sankalia of Deccan College, Pune. South eastern Rajasthan, where the Ahar culture sites are found, is known as Mewar. Within this region, the sites are located in the eastern plain and the southeastern plateau, two of the terrains that mark the physiographic condition of Rajasthan. This region is rich in mineral deposits, and archaeologists postulate from available evidence that this region also supplied copper to the Harappan sites.

More than sixty sites of the Ahar culture have been discovered so far, of which the most extensively excavated sites are Ahar and Balathal. The sites of Gilund, Bagor and Ojiyana have also been excavated, while section scraping at Marmi and Tarawat was undertaken to ascertain the culture sequence and chronology. Excavations at Ahar revealed a two-fold sequence of cultures of which the first period (Period I) is Chalcolithic and the second (Period II) is early Historic. Available radio-carbon dates (calibrated) suggest a time bracket of 2025 BC— 1270 BC for the Chalcolithic phase. The ancient mound of Balathal is located on the eastern fringe of the village Balathal in Udaipur district, on the west bank of a river locally known as Kataranadi. The excavations were conducted at the site from 1994-2000 by Deccan College, Pune, in collaboration with Institute of Rajasthan Studies, Rajasthan University, under V.N. Misra. This site also revealed habitational deposits belonging to cultural periods like Ahar. A series of radio carbon dates place the Chalcolithic culture at Balathal between the beginning of 3rd millennium BC and 1500 BC.

Balathal is perhaps the most-extensively researched site of this culture, the ceramics having been subjected to detailed studies. Based on the material culture of Balathal, and a comparative study with that of the other sites (Misra, 200203), has divided the Ahar culture into four phases like Early Ahar/Balathal phase, Transitional Phase, Mature Ahar phase and Late Ahar phase.

The Early Ahar phase has so far been noticed only at Balathal. It is marked by mud and mud brick houses with hearths in some. The material culture is characterised by eight types of wares, the potters having already invented the inverted firing technique of black and red ware and that of reserved slip ware. In the inverted technique at the time of firing the pots are places in an inverted manner, so that the parts, which did not get any oxygen became black, while the portion which had access to oxygen became red. A Sturdy Red ware and Red Slipped ware and painted Buff ware are noticed. Beads of steatite and terracotta have been obtained in good numbers. A few stone implements are also found. The faunal and floral remains indicate a mixed economy. This phase is placed at the end of fourth millennium BC.

The second phase, also identified at Balathal is a transitional one which did not have a long time span. In the upper layers the Mature Aharian gradually became prominent. This is evident in the ceramic types.

The Mature phase witnessed a large number of settlements and the emergence of a few key sites and many satellite sites. A uniform settlement pattern is seen at all sites with certain additional features at some sites like a fortified enclosure at Balathal. Houses were now made of stone, mud and mud brick. At Balathal the fortified enclosure is centrally located and surrounded by the residential complex. The reasons for such a plan remain unknown till today. Features associated with the houses are hearths, storage pits, saddle querns and small storage jars. Industrial activities were marked in mass production of ceramics, metal works, and development of bead industries. Beads are made in shell, bone, ivory, semiprecious stones, steatite and terracotta. The diagnostic wares of this period are the black and red wares, red and grey wares. Refinement of technology is seen at this stage with the invention of fast wheel. Hallmark of this stage are the techniques of slipping, polishing or burnishing and embellishing the vessels with many types of decorations. A large number of new shapes and forms emerged during this period. Sankalia and his team had discovered several copper ore quarrying sites within the radius of 32 km of Ahar. For this reason, this region is considered as the source of copper supply to the Harappans.

The evidence of rice has been noticed at Ahar in the form of impressions on potsherds. The other crops cultivated during this period were wheat, barley, milletbajra and jawar. Faunal remains of domesticated species like cattle, buffalo, goat, sheep, pig, dog and fowl have been recovered from excavations. The wild animals hunted were sambhar, nilgai, chital, blackbuck and wild boar. The evidence suggests mixed economy of cultivation and hunting gathering.

As for social organisation one cannot rule out the presence of specialised classes of craftsmen. But, on the basis of the limited nature of evidence it is not known whether it was a chiefdom society. The evidence of fortification at Balathal implies that there may have been internecine conflicts. A large number of bull figurines appearing in large number from the end of the mature Ahar phase has been ascribed with ideological meaning, but nothing concrete can be said.

An inhospitable climate experienced during the end of the second millennium BC led to the termination of the farming culture in southeastern Rajasthan. Features of decline are evident in the Late Ahar phase.

Regarding the authorship of this culture opinions are sharply divided. Sankalia had seen a West Asian link which was disputed by later scholars. Recent research highlights the affinity between the Ahar culture and a chalcolithic culture in Gujarat.

5.4 Kayatha Culture

This Chalcolithic culture was named after the type site Kayatha, in Ujjain dist., Madhya Pradesh. The excavation was due to the joint collaboration of Deccan College, Pune and Department of Ancient Indian History, Culture and Archaeology, Vikram University, Ujjain. Kayatha has been identified with the ancient Kapitthaka, birth place of the celebrated astronomer-astrologer Varaha. Excavations revealed a five-fold sequence of cultures:

i) Kayatha culture (Ca. 2450-2000 BC.)

ii) Ahar culture (Ca. 1950-1700 BC)

iii) Malwa culture (Ca. 1700-1400 BC)

iv) Early Historic (Ca. 600 BC-200 BC)

v) Sunga-Kusana-Gupta (Ca. 200 BC-600 BC)

Over forty settlements of the Kayatha culture have been so far discovered in the Malwa region of Madhya Pradesh, most of them being located on the tributaries of the Chambal River.

The characteristic forms of ceramics include: the chocolate slipped ware also known as Kayatha ware. The types are bowls, high and short-necked storage jars with globular profile and basins. Similarities are evident with the sturdy painted pottery found at some pre-Harappan sites. A red painted buff ware, a concave necked pot with a bulging body, with or without carination, a dish or shallow bowl and a basin, most probably constituted table ware. Some bowls, basins and globular pots represented combed ware. The bulk of the total yield, about 60%, including forms like handis, basins and storage jars were coarse handmade red/ grey ware. Use of both copper and stone tools was found. A cache of copper has been found, as well as two exquisitely made copper axes, cast in moulds. A specialised blade industry existed as seen from evidence of mass production of chalcedony blades in the crested guiding ridge technique. Ornaments like two bead necklaces have been found. Beads were manufactured from semi-precious stones. Most of these artifacts were found inside a house, which could not be fully excavated.

People lived in small huts with well-rammed floors and wattle and daub walls supporting a thatched roof. A mixed economy was practiced as seen from evidence on subsistence farming, stock raising and hunting-fishing. Barley and wheat were grown. Domesticated animals included cattle and sheep/goat. Interestingly, horse remains have been found from the Chalcolithic level at Kayatha.

As no antecedent stages of this culture are found in the Malwa region, Dhavalikar (1997) is of the opinion that the Kayatha culture—the earliest chalcolithic culture in the Malwa region— had developed elsewhere. Following which people migrated with the culture to this region. The sudden end of this culture is ascribed to an earthquake. The presence of a sterile layer between the levels of the Kayatha and the succeeding Ahar culture points to a hiatus between the two.

5.5 Malwa Culture

The Malwa culture is the most predominant chalcolithic culture of central India, with a wide distribution of sites almost all over Malwa region. It was first identified in the excavations at Maheshwar, on river Narmada. Maheshwar was identified with the ancient Mahishmati of the Puranas. Navdatoli on the opposite bank also revealed great potential and was subsequently excavated. Other excavated sites of this culture are Nagda, Kayatha, Eran etc. On the basis of calibrated dates the Malwa culture is placed in the bracket of 1900-1400 BC.

Malwa region lying to the east of the Banas valley and Aravalli hills forms a distinct geographical unit, forming a link between the Indo-Gangetic plain and the peninsular region. Two great river systems, the Chambal and the Narmada traverse the region. A very heavy concentration of Malwa settlements is found in the central Narmada basin, which is considered to be a very fertile land.

Sites are mostly found on the banks of the tributaries. They were not affected by flood, unlike those on the main river. A sort of two level settlement pattern existed, consisting of a large number of small villages and a few large villages. Among the latter one may include Navdatoli, Nagda and Eran, Navdatoli being perhaps the largest. There were two parts of occupation at Navdatoli, enclosed by a fortification wall. Perhaps in historical times the centre shifted to Maheshwar. At Nagda, a mud rampart has been recorded- a feature also seen at Eran.

At Nagda, the houses seem to have been laid out in rows along the road and bylanes. The use of mud-bricks and fired bricks at Nagda is significant as they are absent at other Malwa sites. The houses were multi-roomed with a chulah (Hearth/ oven) bearing four arms. The floors were rammed hard, and there were several floor levels indicating periodic repair and re-laying. There were pebble platforms as well. Two rooms enclosing squarish pits have also been found, the function of which remains unclear. At Navdatoli, a number of structures were laid bare belonging to four different phases of chalcolithic culture. Both round huts and rectangular houses were found together in each phase. Pit-dwellings were noticed in the first phase. Usually round huts were found in clusters of two, three or four. Dhavalikar (1997) suggests each cluster represented a household, of which one had a hearth while others served different functions. Rectangular structures were quite spacious with thick mud walls and wooden posts supporting the thatched roof. The floor was rammed hard. A circular structure in one of the houses was possibly meant to be a storage bin. An extensive burnt floor has been found, possibly used as a threshing floor.There were a number of postholes which did not follow any sensible plan; possibly they were stakes where domestic animals were tethered at night. A burnt house belonging to the latest stage of the Chalcolithic phase has been recorded from Navdatoli. Storage jars and squarish pots have been found inside this house. Multi-roomed structures at Navdatoli are particularly evident from a house in phase II which is marked by rows of postholes of which a double set of postholes forms the back wall. The total extent of the settlement at Navdatoli was about 7 ha. At Navdatoli a large burnt red floor was found. It had a squarish pit in the middle. In the four corners of the pit were found charred wooden posts which probably supported a canopy above. Inside the pit were burnt wooden splinters. Two high-necked pots were also found there. The function of this structure is unknown. This pit was part of a one room house as seen from a hearth in the northern part and a circular pot rest in the west.The Malwa culture spread into Maharashtra by 1700 BC and some of the Malwa sites like Prakash in the Tapi valley, Daimabad in the Godavari valley and Inamgaon in the Bhima valley were quite extensive. At Daimabad, the excavator has identified craftsmen's houses and structures with religious affiliation. The most important structures of the Malwa period at Daimabad were House nos. 32,33 and 54 which formed one complex, located in an enclosure wall. Large fire pits were found in house no. 54, identified as sacrificial altars; two-armed chulahs were also identified. At Inamgaon 20 houses of the Malwa period have been identified, they were large rectangular structures with a low partition wall in the middle. Inside the room were low mudwalls with large fire pits and pit silos meant for storage. Circular pit dwellings also existed at Inamgaon.

The subsistence practices and diet can be reconstructed from remains of carbonized grains of wheat, barley, jawar, rice, legumes, oilseeds and fruits. These are found at different sites due to ecological species types varied from site to site. Animal flesh also formed a part of the Chalcolithic diet.The material culture constituted chiefly of ceramic types, the Malwa ware forming the principal type. It was essentially buff or cream slipped with painted patterns in dark brown. A pottery kiln belonging to the Malwa period has been

uncovered at Inamgaon. Other ceramic wares were white painted black-and-red ware of the Ahar culture, a cream slipped ware, a coarse red/grey ware and handmade storage jars. Dhavalikar drew parallels of some forms of Malwa ware from Navdatoli with forms found in West Asian sites. Other components of the material assemblage were blade tools, copper artefacts and beads of semi-precious stones. Stone rubbers, muellers, querns, grinding stones, hammer stones, sling stones and mace heads have been found pointing to mixed subsistence practices.Religious beliefs are reconstructed from fragmentary evidence. Terracotta female figurines of indistinct types have been found while a few examples of more definite forms exist. Representations of male figures in painted forms are seen in some wares. Terracotta bull figurines were either mere toys or associated with religious beliefs. Presence of a specific structure has been interpreted as fire alter, evidence of fire worship.The decline of the Malwa culture has been placed in around 1400 BC which coincided with that of Ahar culture as well. Dhavalikar suggests climatic deterioration for the end of these cultures.

5.6 Jorwe Culture

The Jorwe culture is the most important and characteristic chalcolithic culture of Maharashtra, extending almost all over the present state, excepting the coastal strip on the west and Vidarbha in the north east. The culture is named after the type site of Jorwe in Ahmadnagar district, Gujrat. The culture was discovered in 1950. In regions, such as, Prakash in the Tapi valley, Daimabad in the PravaraGodavari valley and Inamgaon in the Bhima valley large centres of this culture were found. This is a notable feature of Jorwe culture.

Although over 200 sites of this culture have been documented so far, only a few sites have been subjected to large scale excavations. Inamgaon and Daimabad are two excavated sites. In understanding the settlement pattern of the Jorwe sites, ecological differences between different regions have been highlighted (Dhavalikar, 1997). The high concentration of sites in the Tapi valley has been put down to the occurrence of tracts of highly fertile black cotton soil in the region. The sparse settlement pattern of the Bhima valley, on the other hand, is explained by the fact that the whole basin is practically a dry area. Following regional approaches in archaeology, environment was taken as a prime determinant, and attempts were made to characterise different kinds of sites in functional terms. On the basis of the limited data Dhavalikar classifies all the Jorwe sites as regional centres, namely, villages, hamlets, farmsteads and camps (Dhavalikar 1997).

The regional centres of Prakash, Daimabad and Inamgaon are extensive in area, with a very rich material culture. The work in Inamgaon (Dhavalikar et al 1988) was a breakthrough in Chalcolithic studies. Interdisciplinary in nature it incorporated many disciplines which resulted in a systematic study of the past. Several structures were laid bare at the site of which the granary and the diversion channels may be taken as examples of public architecture. Dhavalikar unearthed over one hundred and thirty houses belonging to both Early and Late Jorwe phases. The Early Jorwe houses were rectangular in plan while the Late Jorwe ones were circular. Dhavalikar ascribes the change in house plan to deteriorating economic condition of the people in the Late Jorwe period when the climate became more dry and arid. He also associated the two contrasting house plans to different ways of life, the Early Jorwe rectangular houses to a sedentary pattern, and the Late Jorwe circular houses to a semi-nomadic existence. To arrive at this conclusion he relied on ethnographic observations on dwellings of present-day communities in and around Inamgaon. This use of ethnographic analogy was critiqued by later scholars (Panja, 2002). These houses revealed features like a fire pit or chulah and storage bins.

A large number of Jorwe sites can be classified as villages, most of them being about 2 ha in extent. A few of these were excavated. They are Songaon, Chandoli, Apegaon and Walki (Dhavalikar, 1997). A small number of sites, not over a hectare in extent, possibly consisting of a few households are considered as hamlets. Sites located within 2-3 km of the major sites, and situated close to the fields to facilitate the conduct of agricultural operations, have been defined as farmsteads. Walki in Pune district, lying mid-way between Pune and Inamgaon, is an important example. Threshing floors were identified at this site. Transitory camps are not easy to identify but Dhavalikar identified one of these at Pachad, at the foot of Raigad fort near Mahad on the western coast in Maharasthra.

Based on an analysis of organic remains the subsistence base was reconstructed. It was based on dry-farming with stock-raising and hunting-fishing as ancillary activities. A variety of crops were grown, and the Jorwe farmers have also been credited for practicing crop rotation. The principal crops were barley, wheat, jowar, rice, ragi, green pea, grass pea, lentil, and green and black gram. Our knowledge of the early subsistence patterns is mostly formed on the work at Inamgaon. For the first time site-catchment analysis was carried out to understand the link between Inamgaon and its immediate surroundings. The Late Jorwe phase, however, marks the decline of agriculture. A fresh analysis of bones recovered from the Inamgaon excavations (Pawankar, 1996) revealed that the number of bones of wild animals increased drastically in the later levels. From this evidence it was deduced that environmental degradation led to a change in subsistence strategies from agriculture to hunting in the Late Jorwe period. At Inamgaon the stone blade/flake industry is substantially represented, occurring at all levels. Considerable progress in ceramic technology is seen. The painted pottery was wheel-made and well-fired. Four pottery kilns have so far come to light through excavations. The Jorwe black-on-red painted pottery is characterised by some forms of which the most important are the spouted jar and the carinated bowl. Other forms include storage jars, basins, cups and an occasional channel spouted bowl. The other important ceramic types are a coarse red/grey ware, a handmade ware, and a handmade red ware, the latter occurring in negligible quantities. Metal technology of the Chalcolithic people was in a rudimentary stage. Lime making was a flourishing industry. Like in other aspects of material culture there was a marked decline in ceramics too in the Late Jorwe period.

A noteworthy feature of the Jorwe culture is the mode of disposal of the dead. A substantial number of burials were exposed in Inamgaon and Daimabad. Many child burials were found in urns laid in pits. In case of adults, the portion below the ankles was chopped off. Among the Inamgaon burials the most important and unique is a four legged urn burial with an adult skeleton inside. Religious beliefs were reconstructed from the presence of terracotta figurines. The analysing these different aspects of material culture Davalikar talked of a chiefdom society which has been critiqued (Panja, 2002).The antecedents of this culture are seen in the preceding Malwa cultural elements. A large number of the settlements were deserted at the end of second millennium BC for climatic deterioration.

5.7 Ochre Colored Pottery (OCP) Culture

The OCP or the Ochre Coloured Pottery culture is named after a ceramic type which is extremely rolled and fragile. It has a wash of red ochre which is easily washed off and hence its name. It was first recognised by B.B. Lal in 1951 in a small excavation at Bisauli and RajpurParsu, the two sites in Uttar Pradesh where Copper hoards were found earlier. Lal also found similar pottery in his excavations at

Hastinapura in the levels below those yielding the Painted Grey ware (PGW). Later exploration and selected excavation brought to light several OCP sites in Rajasthan, Punjab, Haryana and western Uttar Pradesh. At a majority of sites the OCP is found in small bits, but some sites in the upper Ganga-Yamuna doab, namely, Bahadarabad, Manpur, Bhatpura, Ambkheri and Bargaon have yielded larger fragments which have enabled one to study the representative forms. It appears from the better preserved specimens from sites like Ahichchhatra that the pottery was treated with a thick slip and sometimes was also ornamented with painted patterns in black. Incised decorations as well. At Atranjikhera there is a variety of OCP which is decorated with incised patterns, while Lal Qila has provided evidence of a developed OCP. Jodhpura is the only site where the habitational deposit of the OCP had been found in the form of well made floors, mud huts, hearth, terracotta human male figurines and bull figurines. This shows that the OCP people led a sedentary existence, similar to many early farming communities of this period. Remains of domesticated animals like cattle, and evidence of cultivated crops like rice and barley further provide information on their subsistence practices.

The association of OCP with Copper Hoards found from different parts of northern and eastern India is one of the knottiest problems of Indian archaeology. The Copper Hoards consist of implements of different kinds, such as, celts, rings, harpoons, anthropomorphs, double axes, antennae etc. On the basis of their occurrence at different sites the culture is grouped into different zones. Their origin is shrouded in mystery. The presence of OCP and copper objects together at many sites like Ganeswar, Saipai, Bisauli, Rajpur, Parsu, Bahadarabad, Nasirpur and Baharia has been taken as evidence of their association. There are diametrically opposite views regarding this. Other treat them as two completely separate entities. Some assign the OCP either to pre-Harappans, Harappans, or Late Harappans, while others assign this to the Aryans, still others see a tribal association. The chronological span ranges from 2600 to 900 BC.

Although the picture is still very confusing regarding the origin, development and authorship of copper hoards and OCP and their relationship with other cultures, Dhavalikar tries to suggest a framework for the development of the OCP, on the basis of the available evidence. The beginning of OCP is put down to 2800 BC, the evidence coming from Ganeshwar-Jodhpura in Rajasthan. The presence of hundreds of copper objects here has led Dhavalikar to argue that it was a centre for supplying copper artefacts to the Harappans. A close examination of the OCP from the upper Ganga basin shows that it has striking similarities with the pre-Harappan or Early Harappan artifacts from Indus as well as sites in the Yamuna valley. The second stage in the development of OCP is marked at Alamgirpur where OCP shapes are represented at the cultural levels and at Ambkheri and Bargaon where the Harappan influence is distinctly seen in pottery forms. Dhavalikar explains this as a development of 'symbiotic relationship.' The third stage begins from the beginning of the second millennium, marked by a drastic change in climate with the onset of aridity. The people of this culture were forced to move to the upper Ganga basin, and later to middle Ganga valley under the adverse circumstances. Possibly they buried their copper objects at these sites when they could not survive. In the final stage they reached the middle Ganga valley where they could not survive for long as well. Incidentally, the OCP has not so far been reported from Bihar, Bengal, Orissa and Madhya Pradesh (except at Gungeria) where copper hoards have been found.

5.8 Self Check Exercise

1. From where the Ochre Colour Pottery was found from First time?
2. When the Malwa culture got declined?
3. The famous chalcolithic site dates back to?
4. The images of which animal are found in large number?

5.9 Summary

To sum up, the scenario in north, west and central India in the period spanning from beginning of the 3rd millennium – 800 BCE speaks of a great deal of diversity. At many times it is difficult to put the material assemblage in neatly defined categories. A lot of overlapping of cultural traditions is noticed which speaks of considerable vibrancy and mobility in the cultural landscape. The regional diversity is all the more highlighted when one surveys chalcolithic cultures in northern and eastern India, which however, fall outside the purview of this unit.

5.10 Glossary

Gungeria	:	Where the largest copper hoard has been found.
Ganeshwar-Jodhpura	:	A chalcolithic culture in Rajasthan Region.
Ahar	:	A chalcolithic site in Rajasthan
Inamgaon	:	A famous site of jorway culture.

5.11 Answered to Self Check Exercise

1. Ans. It was first recognised by B.B. Lal in 1951 in a small excavation at Bisauli and RajpurParsu.
2. Ans. The decline of the Malwa culture has been placed in around 1400 BC.
3. Ans. Around 3300 B.C
4. Ans. Bull.

5.12 Suggested Readings

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5.13 Terminal Questions

1. Discuss the different types of Protohistoric regional variants.
2. What do you understand by Chalcolithic culture? Describe one very important Chalcolithic culture.

   Write a notes on the following:

   i) JorweCulture, ii) Malwa Culture, iii) Kayatha culture, iv) OCP and PGW Cultures.

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CHAPTER-6
VEDIC SOCIETY

Structure

6.1 Introduction

6.2 Objectives

6.3 Sources

6.4 Early Vedic Economy

6.5 Society

6.6 Early Vedic Polity

6.7 Early Vedic Religion

6. 8 Later Vedic Period

6.8.1 Political Organisation

a) Ascent of Big States

b) Development of Imperialism

c) Root of Kinship

d) Origin of Royal Kinship

e) Authoritative Machinery

6.8.2 Social Organisation

a) Varna System

b) Position of Women

c) Nourishment and Dress

6.8.3 Economic or the Monetary Condition

a) Farming

b) Exchange and Commerce

c) Occupation

d) House Building and Transport

6.8.4 Religious Condition

a) New Gods

b) Ceremonies and Sacrifies

c) Ethical Equality and Duty

e) Religious Philosophy

f) Parismonious Life

6.9 Self Check Exercise

6.10 Summary

6.11 Glossary

6.12 Answered to Self Check Exercise

6.13 Suggested Readings

6.14 Terminal Question

6.1 Introduction

The Rigveda is considered to be earliest of hymns available, and so, we shall start by examining the Rigveda for an understanding of the Early Vedic period and then go on to other Vedas and allied texts which are placed later. This exercise is necessary for two reasons. First, the Vedas are thought to have been composed by the Aryans and it was long believed that the Aryans played a major role in civilizing the Indian subcontinent. The contents of the Rigveda, if they are analysed carefully, do not give the impression of a very advanced material culture. On the other hand, many of the material traits, which are characteristic of Indian civilization, are already present in the non-Vedic archaeological cultures in different parts of India. Second, when the contents of the Rigveda are compared with the contents of Later Vedas and allied texts, it becomes clear that significant changes took place in the Vedic society itself. This means that there was no cultural pattern which can be called Vedic culture or Aryan culture.

The core geographical area to which the evidence of the Rigveda relate was Sapta-Smdhava or the land of seven rivers. This would correspond to the whole of Punjab and its neighbouring region Haryana, but Rigvedic geography also included the Gomal plains, southern Afghanistan and southern Jammu and Kashmir.

Indo-Aryan migration from West Asia into the Indian subcontinent. These migrants, who are regarded as the authors of the 'Vedas' are called the Vedic people. According to this historical interpretation the Aryans came to India in several stages or waves. The Aryans are considered to represent a linguistic group speaking Indo-European languages. They are distinguished by traditional historians and archaeologists from the non-Aryan Harappans of the preceding period. However, in making certain observations on Early Vedic society it may be fruitful to see if literary texts and archaeological evidence can supplement each other. If both types of sources are of the same region and of the same period, then they together can give us more dated ideas on economic, social, political and religious life.

6.2 Objectives

From this unit, we will be able to understand,

The Vedic people and debates regarding their original home

Two parts of Vedic period and reasons behind periodization

Life in Early Vedic Period

Life in Later Vedic Period

Position of Women in Vedic Period

6.3 Sources

We have two types of sources to study the Early Vedic Society-Literary and Archaeological Sources. Let us first examine the literary sources for this period.

Literary Sources

Among the literary sources we may first refer to the four Vedas: Rigveda, Sameveda Yajurveda, and Atharwaveda. Out of these the Rigveda is the earliest text. The word 'Veda' is derived from the sanskrit word 'Vid' which means 'to know'. The "Vedas", are essentially a compilation of prayers and hymns, offered by different familie8 of poets and saga to various gods. These four Vedas are also 'Samhitas', in the sense that they represent the oral tradition of the time. Since the hymns were meant to be recited, learnt and transmitted orally, they were not written when they were be composed. Due to this reason none of the Samhitas can be dated with absolute certainty. In fact, each Samhita represents a collection through a period over a few centuries. Relative dating in terms of the context of these four Samhitas has led echo to believe that the period represented in the Rigveda can be placed between 1500 B.C. to 1000 B.C.

The Rigveda Samhita comprises 10 books or "Mandalas" of which boo& I1 to VII are considered to be the earliest and belong specifically to the Early Vedic phase. Books I, VIII, IX and X are considered to be later additions to the Samhita.

Scholars found similarities in the language used in the Rigveda and the Avesta, the oldest Iranian texts, older to the Rigveda. Based on these linguistic skdarities and taking into account the chronological precedence of the Avesta over the Rigveda, these scholars suggested that:

i) The people represented in both these books belonged to a common linguistic group, and they migrated from West +a and Iran to the Indian subcontinent. These people were called the 'Aryaas'.

ii) The Aryans had a common original home, from where different groups migrated to Europe and the East.

Archaeological Sources

Excavations conducted in Punjab, Uttar Pradesh, Northern Rajasthan, along the Indus and Ghaggar rivers over the last 40 years, have unearthed many post- Harappan chalcolithic settlements from these regions. These have been dated from 1700 B.C. to 600 B.C. You have read about these centuries in Unit 10. You have seen that these chalcolithic cultures are also called late Harappan, OCP (Ochre Coloured Pottery), BRW (Black & Red Ware) and PGW (Painted Grey Ware) cultures.

However, we must remember that pottery types do not reflect the entire culture of the people. Different pottery types do not necessarily mean that people who used these pots also differed. Pottery analysis only helps in defining a specific trait of the cultural assemblage, nothing more. Some scholars have made attempts to examine whether the evidence provided by some of these cultures of north-western and northern India can be compared with what we know from a study of the Vedic texts.

6.4 Early Vedic Economy

The Early Vedic society was pastoral, cattle rearing being the dominant occupational activity. A pastoral society relies more on its animal wealth than agricultural produce. Pastoralism is a subsistence strategy adopted by people who live in areas where large scale agriculture is not feasible due to some environmental and to a certain extent, cultural constraints.

Hymns of the Rigveda yield extensive evidence of the importance of cattle in the Early Vedic society. Many linguistic expressions in the Rigveda are associated with the cow (gau). Cattle was the chief measure of wealth and a wealthy man who owned many cattle was called 'gomat'. The terms used for conflicts and battles in this period were gavishti, gavesana, gavyat, etc. The former literally means 'to search for cows'. The terms themselves suggest that possession of cattle was the bone of contention betweegoups and led to occasional inter-tribal fights and conflicts. The Panis, who. were the enemies of the Vedic people, are stated in the Rigveda to have hidden their wealth, mostly cows, in the mountains and forests. The Vedic god Indra was invoked to release these cattle. This reference suggests that cattle raids were common. The raja or the chief is called the 'gopati' or one who protects cows. In the Rigveda, Godhuli is used as a term for a measure of time. Distance is called gavyuti. A daughter is called duhitr or one who milks the cows. Kinship units are labelled as gotra.

All these terms are derived from gau and suggest that social religions and all important areas of Rigvedic life centred round the rearing of cows. Literary references to pasture lands, cow pen, dairy products and domesticated animals are also found in most of the hymns and prayers.

Compared to the very substantial linguistic evidence for cattle rearing in the Rigveda, agricultural activities find very fem references. Most of the references to agriculture are of a later date. Apart from 'Yava' or barley, no other grains are mentioned. The Early Vedic people did not use iron technology. Copper, with which they were familiar, did not have as much value in agricultural operations as iron implements. Stone tools (like axes) were used and these are mentioned in the Rigveda. Fire was used to burn down the forest cover and shifting agriculture was practised. Further, the region under discussion receives low rainfall and alI the rivers mentioned in the Rigveda i.e. the Satluj, Indus, Ghaggar, Ravi etc. are known to change their courses frequently. Without the facilities of large-scale irrigation which were not developed in this period, the alluvial lands near the rivers could not be cultivated on a permanent basis. Thus the hoes, sickles and axes mentioned in the texts, were probably used for slashing purposes or shifting cultivation. The evidence of pastoralism as well as shifting cultivation suggests that the people were either nomadic or semi-nomadic. They moved out of their villages with their herds for a certain period in order to feed their cattle. The literary and the archaeological sources do show that the people did not lead a fully sedentary life. The mobile character of the population is seen in the term 'vis' which also implied a settlement. The suffixes Punar (vis), Upa (vis) and Pra (vis) were constantly used, and the settlements were qualified by them to mean settling near (asettlement), re-entering (a settlement) or coming back (to the settlement).

Gift exchange and redistribution had an important economic role in the society. Tribal conflicts led to the payment of tributes and prestations, i.e. bali, to the victorious chiefs by the defeated or the subordinate groups. The rest of the clansmen of the victorious tribe had a share in the spoils and booty won in the war. The chief also fed and gave gifts to his clansmen during ceremonial occasions. This was done by him to acquire prestige. Evidence of trade and commerce in Early Vedic society is meagre. There was no concept of private property based on land ownership.

6.5 Society

The Early Vedic Society was a tribal society, in which social relations based on khd$p ties were predominant. The society was not divided according to caste lines, and even the rajas (kings), the purohitas

(priests), the artisans etc. were parts of the * clan networks. The tribe was referred to as the janasrnd many references to the different tribes are found in the Rigveda. Inter-tribal conflicts were frequent, an example being the battle of the Ten .Kings mentioned in the Rigveda. Some of the tribes, which fought in this battle were the Bharatas, the Purus, the Yadus, the Druhyus, the Anus and the Turvasus. Tribal conflicts, as mentioned earlier, were related to cattle raids, cattle thefts etc. The chief of the tribe was the raja or the gopati. He was the leader in battle and the protector of the tribe. His office, was not based on heredity, but he was selected from amongst the clansmen. The warrior category was the "rajanya". Many clans (vis) formed a tribe. The clans settled in villages or grama. The basic social unit was the Kula, or the family, and the Kulapa i.e. 'one who protects the family' denoted the eldest male member or the head of the family.

Tribe (Jana), Tribal Unit (Vis), Village (Grama), Family (Kula), Head of the family (Kulapa).

Society was patriarchal. The birth of a son was the common desire of the people. The importance given to the male members is reflected in the hymns, where the desire for a son is a constant prayer.

Even though society was patriarchal, women had also important position in it. They .were educated and they had access to the assemblies. There'are also instances of women who composed hymns. They had a right to choose their partners, and could marry late. However women were always thought to be dependent on their fathers, brothers or husbands. Education was imparted orally, but the tradition of education was not very well developed in this period.

The authors of the Rigveda distinguished themselves from other groups whom they called Dasas and Dasyus. The Dasas are described as dark, full-lipped, snub-mosed, worshippers of the phallus and of hostile speech. They were rich in cattle and lived in fortified strongholds. We learn about another people called the Panis who were wealthy in cattle treasures. The term Pani came to be associated with merchants and wealth in the subsequent ages. These groups fought and befriended each other from time to time and one cannot define them as separate racial or the linguistic groups. or example the most famous chief mentioned in the Rigveda is Sudasa who led the Bharata tribe in the battle of the ten kings. The Dasa ending in his name might suggest some links with the Dasas. However, the presence of different groups in the same area might have contributed to the emergence of the Varna system.

Various occupational groups such as those of weavers, smiths, carpenters, leather workers, chariotmakers, priests etc. are also mentioned. The chariot makers occupied a special social status.There are no references to beggars, wage-earners or wages in the Rigveda. However, society was economically stratified, and we do find references to rich people possessing chariots, cattle, etc. and making generous gifts of them.

6.6 Early Vedic Polity

The tribal polity was not completely egalita~ian. A division is found in the Rigveda itself, which is seen in references of two groups-the Rajanyas, or those who fought the wars, and are credited to be the senior linegage, and the rest of the clansmen or the vis, who formed the junior lineage. Though noqe of the groups occupied a distinct social hierarchy, constant conflicts aud inter-tribal wars helped to create a division in the society. The @owing needs for more pasture lands, cattle for the protection of people and their settlement all probably contributed to an increase in inter and intra-tribal conflicts and warfare. The clans held large yajnas or sacrifices to help the warrior groups in the wars. In these yajnas the officiating priest or

the purohita acted as the mediator between his clansmen and the gods. He also invoked the gods' blesssings for the tribal chief, for his success in the wars. Initially, the whole clan participated in these yajnas on an equal footing. Large scale distribution of wealth, food, etc. was made during these sacrifices and members got an equal share. But with the growing incidence of conflicts and fights, yajnas or sacrifices also became important and the purohita assumed a special status in the society. In the later part of our period, they received a major share of the gifts from the rajas, and assumed a superior position vis-a-vis the other clan members.

The office of the raja also assumed importance on account of wars, etc. and the division between the senior and the junior lineages became sharper. At what point of time these political distinctions became apparent ii difficult to state, but we must remember that the 10th book of the Rigveda contains the "Purusha-Sukta" hymn, and in the Later Vedic texts we find evidence of the superior rajnaya groups, assuming the status of the Kshatriya-a separate varna by itself. These developments took place after 1000 B.C. This does not mean that the society was stagnant during our period of study. In fact it was changing slowly but surely leading to the development, in the Later Vedic phase, of a complex socio-political structure (see Unit 13).

Tribal assemblies e.g. the Gana, Vidatha, Sabha and Samiti are mentioned in the Rigveda. The Sabha may have been the council of select clan members and the Samiti perhaps comprised the whole clan. These assemblies performed the functions of the government and administration and were also involved in the selection of the raja from amongst the clansmen. They thus kept the power of the wamors in check. However, as stated before, though we do not find well defined political hierarchy in the Early Vedic set up, the changes during the period gave rise to a socio-political hierarchy which manifested itself in the origin of the Varna system during the "Later Vedic phase". Early Vedic Society was governed by tribal values and norms and was largely egalitarian.

6.7 Early Vedic Religion

The religious ideas of the Vedic people are reflected in the hymns of the Rigveda. They venerated the natural forces around them (like wind, water, rain, thunder, fire etc.) which they could not control, and invested nature with divinity conceived in human forms, which were mostly masculine. Very few female dieties were venerated. The religion thus reflected the patriarchal society and was that of primitive animism.

Indra was the god of strength, who was invoked to destory the enemies. He was the god of thunder and was the rainmaker who was asked periodically to release the water. He could not be vanquished. Thus thunder and rain (natural phenomena) were related with strength, which was personified in a masculine form, represented in the god Indra. The concept of a tribal chief, who was a war-lord is also found represented in the character of Indra.

Agni, next in importance to Indra, was the god of fire. He was considered to be an intermediary between heaven and earth i.e., between gods and men. He donimated the domestic hearth and marriages were solemnized in his presence. Fire destroyed dirt and germs, and hence Agni was considered to be pure. The importance of Agni can be related to that of the yajna or sacrifice in the Early Vedic society. It was supposed that the oblations offered to Agni were carried to the gods in the form of smoke. Varuna personified water, and he was the upholder of the natural order of the universe. Yama was the god of death and had an important place in the Early Vedic religious belief. There were many other gods e.g. Surya, Soma (also a drink), Savitri, Rudra etc., and hosts of celestial beings like Gandharvas, Apsaras, Maruts to whom prayers and hymns were addressed in the Rigveda.

The Vedic religion was sacrificial. Sacrifices or yajnas were performed: to invoke the gods in order to grant boons-either victory in battles. We find some hymns dedicated to the power residing in the sacrificial implements, especially to the sacrificial altar, to the stones used for pressing the Soma plant, to the weapons of war, dnuns, mortars etc. Hymns and prayers were recited in these sacrifices and genqally priests performed these yajnas. The growing importance of sacrifices in the Vedic society resulted in the growing importance of priests as well. The ritual of sacrifice also led to the growth and development in the knowledge of mathematics and animal anatomy. Elementary mathematics was necessary to make the calculations which were required to establish the positions of various objects in the sacrificial area. Also, the frequent sacrifices of animals led to a knowledge of their anatomy. For the Vedic people, the world grew out of a vast cosmic sacrifice and was not maintained by the proper performance of sacrifice. Religion was not based on magico-ritual formulae, rather it stressed direct communication with the gods through sacrifices, hymns etc. Gods were not worshipped for the spiritual upliftment of the peole, nor for any other abstract philosophical concept, but were invoked to grant material gains.

Sacrificial religion is a religion of the pastoral people. Animal sacrifice is rampant in the pastoral society, where the older animals who can no longer produce milk or meat, or used for breeding purposes, i.e. those who are no longer economically viable, are killed in order to lessen the burden on their owner. Hence animal sacrifice was one way of destroying the old animals and thus had an important role in the society. In the agrarian society however older animals are employed in the fields, used for traction purposes and hence the destruction of animals is frowned upon by a society which primarily depends on agricultural activities. Thus the Vedic religion reflected the patriarchal pastoral society and was materialistic in perspective.

6. 8 Later Vedic Period

The period that took after Rig Vedic Age is known as Later Vedic Age. This age saw the sythesis of three later Veda Samhitas to be specific, the Samveda Samhita, the Yajurveda Samhita, the Atharvaveda Samhita and also Brahmanas and the Upanishads of all the four Vedas and later on the two extraordinary stories—the Ramayana and the Mahabharata. All these later Vedic writings were accumulated in the Upper Gangetic bowl in 1000—600 B.C. Amid the period spoke to by Later Samhitas the Aryans secured the entire of Northern India, from the Himalayas to the Vindhyas. The spread of Aryans over the entire of India finished before 400 B.C. Of the new kingdoms in the east, the most critical were Kurus, Panchalas, Kasis, Kosalas and Videhas. Bit by bit the Aryans moved towards South India. It is trusted that their southern development started amid the time of Brahmana writing, around 1000 B.C. what's more, went on consistently till they achieved the southernmost furthest point of the Peninsula in or at some point before fourth century B.C. The colossal grammarian Katya Yana who thrived in the fourth century B.C knew about the nations of south, for example, Pandya, Chola and Kerala. In any case, the Aryan colonization in the South was not as entire as in the north. With the advance of the Aryans in Northern India, their focal point of development was moved towards east. The domain amongst Saraswati and Ganga was the seat of Aryan progress.

6. Political Organization

a) Ascent of Big States

With the advance of Aryan settlements in the eastern and southern piece of India, the little ancestral conditions of Rig Vedic period supplanted by effective states. Numerous popular clans of Rig Vedic period like Bharatas, Parus, Tritsus and Turvasas go into obscurity and new clans like Kurus and Panchalas ascended into noticeable quality. The place that is known for the Yamuna and Ganga in the east which turned into the new home of the Aryans ascended into unmistakable quality.

b) Development of Imperialism

With the development of huge kingdoms in the Later Vedic Age the battle for amazingness among various states was of continuous event. The perfect of Sarbabhauma or general domain posed a potential threat in the political skyline of antiquated India. The penances like Rajasuya and Asvamedha were performed to imply the royal influence of rulers over the adversaries. These customs awed the general population with the expanding force and notoriety of the ruler. The Rig Vedic title of "Rajan" was supplanted by the great titles like Samrat, Ekrat, Virat, Bhoja and so on. These titles denoted the development of colonialism and medieval thoughts.

c) Root of Kingship

There were two speculations with respect to the beginning of majesty. The Aitareya Brahmana clarified the sane hypothesis of race by normal assent of source of sovereignty. One next to the other the Taittiniya Brahman clarified the awesome birthplace of authority. It clarified how Indra, "however possessing a low rank among the divine beings, was made their ruler by Prajapati."

d) Development of Royal Power

The lord had supreme power. He turned into the ace of all subjects. He understood charges like "bali", "sulka" and "bhaga". The Satapatha Brahmana depicted the lord to be dependable and resistant from all discipline. The sabha of the Rig Vedic Period kicked the bucket. The lord looked for the guide and support of the Samiti on issues like war, peace and financial approaches. There are references to the Samiti some of the time choosing or re-choosing a ruler.

The expert of the administration in the later Vedic period was maybe more just as in the specialist of the pioneers of Aryan clans was perceived by the ruler. However despite the presence of the prominent gatherings the forces of the ruler continued expanding because of the development of huge regional states and the advancement of an official chain of importance.

e) Authoritative Machinery

The development of the regal power was to a great extent reflected in the broadened shock of the ruler. In crafted by organization the ruler was helped by a gathering of officers who were known as Ratnins (Jewels). They incorporated the Bhagadugha (gatherer of assessments), the Suta (charioteer), the Akshavapa (director of betting), the kshattri (chamberlain), the Govikartana (ruler's buddy in the pursuit), the Palogala (subject) the Takshan (Carpenter), the Rathakara (Chariot marker) notwithstanding the clerical and military authorities like the Purohita (minister) the senani (general), and the Gramani (pioneer of host or of the town).

In the Later Vedic Period Gramani was both a common and military officer Gramani was the medium through which the regal power was practiced in the town. As per FrasnaUpanishadaAdhikrita was the town officer and was most reduced in the rank. The ruler directed equity. Once in a while he designated his legal energy to Adhyakshas. In the towns, Gramyavadin (Village judge) and Sabha (court) chose the cases. Disciplines for wrongdoings were extreme.

The father was the leader of the property of the family. If there should arise an occurrence of legacy of property the law of primogeniture was connected. By this lead the oldest child would acquire the property of the perished father. Neither the ladies nor the sudras had any privilege to property.

6.8.2 Social Condition

Changes of far more noteworthy centrality were step by step occurring in their general public. Rank Society

Varna System Most vital change was the development of position framework. Different sub standings advanced notwithstanding the conventional four-positions. The Brahmanas and Kshatriyas rose as the two driving stations out of the general mass of populace, known as vaisyas. The vaisyas were better than the sudras however their position was consistently falling apart. The Aitaraya Brahmana obviously shows the total reliance of vaisyas on the two higher classes. The Sudras were held in incredible scorn.

The Brahmanas of the later Vedic age were the scholarly and religious class. The Brahmanas held an exclusive expectation of greatness and knew the subtle elements of the customs. The kshatriyas were the battling class in the general public. War, victory, organization of the kingdom was the primary obligations of this class. By their better adapting a few kshatriyas raised themselves than the status of a Brahmana. They formed psalms and performed penances and furthermore tested the matchless quality of Brahmanas.

Two Kshatriya rulers Janak and Viswamitra accomplished the status of Rishi. For quite a while the kshatriyas opposed the amazingness of the Brahmanas and asserted that the cleric was just an adherent of the ruler. Vaisyas were occupied with exchange, industry and horticulture, and creature cultivation. They are suspended from the benefits which were delighted in by the Brahmanas and Rank kshatriyas. However the wealthier individuals among the vaisyas known as Sresthin were profoundly respected in the imperial court.

The state of the Sudras was exceptionally hopeless. They needed to serve the other three stations. They were untouchables. They had no privilege to approach the consecrated fire, i.e., perform forfeit, or to peruse the hallowed writings. They were additionally prevented the custom from securing consuming the dead body. The structure of the standing framework wound up genetic. A huge mass of vedic writing and also an exceedingly created scholarly life talks bounteously about a very much arranged arrangement of training in the later Vedic Period. The understudies needed to learn Vedas, Upanishad, punctuation prosody, law, number juggling and dialect. After the Upanayana or sacrosanct string service and start to examines the understudies were sent to the Gurukula for their training. They needed to live in the place of the educator (master) and lead the modest existence of a Brahmacharin whose chief obligations were study and administration to the instructor. The understudies got free boarding and hotel at the place of the Guru. Toward the finish of their investigation they paid charges (master dakshina) to the educators.

b) Position of ladies

The ladies lost their high position which they had in the Rig Vedic Age. They were denied of their entitlement to the Upanayana service and every one of their holy observances, barring marriage, were performed without recitation of Vedic mantras. Polygamy won in the general public. Huge numbers of the religious services, some time ago honed by the spouse, were currently performed by the ministers. She was not permitted to go to the political congregations. Birth of a girl ended up bothersome— for she was viewed as a wellspring of hopelessness. The custom of kid marriage and share sneaked in. The ladies lost their regarded position in the general public.

c) Nourishment and Dress

In the later Vedic age rice ended up staple nourishment of the general population. Steadily the act of eating meat was declined. Executing of dairy animals was looked with disapproval. Fleece was utilized as a part of expansion to cotton.

2.8.3 Economic or the Monetary Condition

Like political and social conditions, the monetary state of the Aryans of the later Vedic period additionally experienced critical changes. Because of the development of standing framework different occupations additionally showed up.

a) Farming

The Aryans of the later Vedic period lived in the towns. In the towns little laborer proprietors of land were supplanted by huge landowners who secured ownership of whole towns. Horticulture was the primary control of the general population. Enhanced technique for working the land by profound furrowing, manuring and sowing with better seeds were known to the Aryans. More terrains were brought under development.

The cultivator yielded two gathers every year. Assortments of harvests like rice, grain, wheat, maize and oil seeds were raised. Be that as it may, the cultivator was not free from inconvenience. Threats of bugs and harm of products through hailstorm gravely influenced the place where there is kurus and constrained numerous individuals to relocate.

b) Exchange and Commerce

With the development of human advancement, the volume of exchange and business had expanded significantly. Both inland and abroad exchanges were created. Inland exchange was gone ahead with the Kiratas occupying the mountains. They traded the herbs for garments, nattresses and skins. The general population got comfortable with the route of the oceans. Consistent coinage was not begun.

The coins which were available for use were "Nishka", "Satamana" and "Krishnala". The unit estimation of merchandise was a gold bar called "nishka" measuring three hundred and twenty ratis, which was likewise the heaviness of a satamana. A 'Krishnala' measured one rati, i.e. 1.8 grams. There was a class of shippers called 'Pani' who controlled the exchange. References to "ganas" or organizations and the "sreshthins" unmistakably talk about the arrangement of societies or enterprises for encouraging exchange and trade. Usuary and cash loaning was likewise rehearsed in this period.

c) *Occupation*

The development of station framework brought assortments of methods for vocation. There are references about cash loan specialists, chariot producers, dyers, weavers, stylists, goldsmiths, press smiths, washer men, bow creators, craftsmen, artists and so forth. The specialty of composing presumably created in this period. The utilization of silver was expanded and adornments were made out of it.

d) House Building and Transport

The house had numerous rooms with a unique place for 'Grahapatha' fire which was kept constantly consuming. Houses were made of wood. The TaittiriyaAranyakas allude about an exceptional kind of house known as 'Dhandhani' (treasure house). The Atharvaveda says about 'PatninamSadan' (ladies' loft). The methods for transport and correspondence created with the development of exchange and trade. As to of transport specify might be made of wagons drawn by bulls, chariots for war and game and harsh vehicle known as 'bipatha' for transport of products. Elephants and steeds were likewise utilized. Ships and vessels were additionally utilized as methods for transport.

6.8.4 Religious Condition

Amid the later Vedic period the religious soul experienced an incredible change. Religion was eclipsed with customs and ceremonies. New divine beings and goddesses developed amid this period.

a) New Gods

The Rig Vedic divine beings, Varun, Indra, Agni, Surya, Usha and so forth lost their appeal. The general population revered them with less enthusiasm. New divine beings like Siva, Rupa, Vishnu, Brahma and so on showed up in the religious atmosphere of the Later Vedic Period. The magnificence of the Rigvedic divine beings go into blankness, however we find in Atharvaveda the omniscience of Varuna or the advantage of the Earth goddess. Certain less imperative obligations of the Rigvedic Period now wound up prominent with the Common People. One of them was Rudra who as of now bore the sobriquet of Siva. Soon Rudra came to be loved as 'Mahadeva' (incredible god) and the ruler of enliven creatures (Pasupati). Vishnu, the preserver ascended into Prominence amid this period. He possessed the place of Varuna, as the most glorious among the celestials. To accomplish his "Paramapada" (most astounding advance) turned into the objective of the rishis. The love of vasudeva was likewise begun. He was viewed as Krishna Vasudev, the incarnation of Vishnu. Semi divinities like Apsara, Nagas, Gandharbas, Vidyadharas and so on likewise appeared. This age likewise saw the start of the love of Durga and Ganesh.

b) Ceremonies and Sacrifices

Amid this period the customs and services of Vedic religion were expounded and ended up complex. In the Rig Vedic age Yanjas were a straightforward undertaking which each householder could do. Be that as it may, in the later Vedic age forfeit turned into something essential in love. Presently the religious class gave their vitality to discover the covered up and spiritualist importance of the rituals and functions. Individuals had a firm conviction that divine beings must submit to the forfeit if legitimately performed. Vedic songs were viewed as charms to be utilized as a part of forfeit. The conviction that divine beings were fulfilled by Yanjas prompted an ascent in the number, assortment of penances which were recommended for each householder. Truth be told each Aryan played out various forfeits under the supervision of the Brahmana cleric.

c) Ethical quality and Duty

The Later Vedic Period recommended a code of exemplary lead. The Brahmins had spread the conviction that, "man is conceived with certain rinas or obligations" which he should reimburse in his life. He needs to reimburse the obligations to his divine beings, to the rishis, to the munis, to men, to the predecessors and to the lower animals. Furthermore, he make up for himself from these obligations, in the event that he adores the divine beings and performs Yajnas ponder Vedas, performs memorial service functions and Sraddha, and so forth. One ought to play out every one of these obligations with magnanimity. The main essential of a decent life were petitions and benevolent acts. One ought to control himself from the transgressions like robbery, infidelity, and murder.

d) Religious Philosophy

The Later Vedic age saw the development of another scholarly idea. The general population pondered the issues of creation, life and demise and touched base at the conclusion that there is one 'Brahma' (one Unchanging Principle) past the universe—the maker and controller of the entire request. It is the all-inclusive

soul or the Absolute "that dwelleth in everything that guideth all creatures inside, the Inward guide, Immortal." After the demise of a man his spirit goes into another body and again into another and this procedure proceeds till it can be freed from every one of its blemishes and converged in the Universal Soul. This is the principle of transmigration of souls. The Aryans had additionally confidence in the precept of Karma. It sets out that all activities, great or awful, harvest their appropriate natural products. Souls must be conceived over and over and bear the products of the activities (Karma) of their past lives. There is additionally principle of 'Moksha'. It is a condition of birth-lessness and deathlessness at a moment that a spirit is freed from the cycle of births and passings and blended into the all-inclusive soul." It was basic for a man to achieve moksha. All these are encapsulated in the Upanishad which were formed in the Later Vedic Period.

e) Parsimonious Life

The later Vedic Aryans built up the idea of parsimonious perfect of life as the rituals and functions were by all account not the only methods for achieving accomplishment in this world or happiness in paradise. So there built up the thoughts of Tapas and Brahmacharya (chastity) prompting the same or considerably more imperative outcomes. Tapa implies reflection, join by physical torments. A self-denying individual revoked the common life and resigned to the isolation and practiced all the self-denying rehearses with the conviction that they would acquire paradise, as well as create, "spiritualist, additional standard and superhuman resources." This religious austerity was broadly honed in the Epic age. The Aryans of Vedic age had achieved the most elevated phase of human advancement. This age had exceeded expectations in each stroll of life. All the significant things throughout man's life—theory, religion, science and set of accepted rules were altogether created in the Vedic age. Truth be told Aryans filled in as the light bearers of Indian human progress all through the ages.

6.9 Self Check Exercise

1. Who were Ratnins?
2. Whom the word pani was used for?
3. Who were weknat?
4. On which river the war of the ten kings was fought?

6.10 Summary

We have regarded our nation as our Motherland "Bharat Mata" and our patriotism has grown up from the seed Mantra "VandeMataram". Position of ladies in the public eye is the list to the standard of social association. In antiquated India lady delighted in break even with status with man in all fields of life, she got a similar instruction like man, numerous Hindu religious books like Vedas, Upanishads, Ramayana, Mahabharata have said the names of a few ladies who were incredible researchers, artists and logicians of the time. Spouse was viewed as,,Ardhangini which implies she is half of her significant other. An unmarried man was thought to be inadequate man. All religious functions were performed by the spouse alongside the wife. The position of ladies in modem India has changed significantly. Her position in present day India is equivalent to that of men, socially, financially, instructively, politically and legitimately. Her sufferings from Sati, Pardah System, Dowry System and Child Marriage do never again exist.

6.11 Glossary

Gramyavadin	:	Village judge
"Nishka", "Satamana" and "Krishnala	:	Terms used for Coins.
Govikartana	:	Ruler's buddy in the pursuit
Kulapa	:	Head of the family .

6.12 Answered to Self Check Exercise

1. Ans. Ministers of the kings.
2. Ans. For merchents.
3. Ans. Usuer.
4. Ans. Vitasta.

6.13 Suggested Readings

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6.14 Terminal Questions

1. Discuss about the political condition during the early Vedic Period ?
2. Write about the starting of the formation of state which culminated in sixreenmahsajanpad.
3. Write a note on the position of women during Vedic Period .
4. What were the religious changes during later Vedic Period .

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CHAPTER – 7
AGE OF MAHAJANPADAS

Structure

7.1 Introduction

7.2 Objectives

7.2 Mahajanapadas in Early literature

7.2.1 Mahajanapadas in Jain literature

7.2.1 Mahajanapadas in Epigraphic records

7.2.2 Mahajanapadas in old Pali records

7.2.3 Description of the Mahajanapadas

7.3 Mahajanapadas in Pali literature

7.3.1 Anga

7.3.2 Magdha

7.3.3 Kasi

7.3.4 Kosal

7.3.5 Vajji

7.3.6 Malla

7.3.7 Chedi

7.3.8 Vatsa

7.3.9 Kurus

7.3.10 Panchala

7.3.11 Matsya

7.3.12 Surasena

7.3.13 Assaka

7.3.14 Avanti

7.3.15 Kamboja

7.3.16 Gandhara

7.4 Gana/Sangha

7.5 Self Check Exercise

7.6 Summary

7.7 Glossary

7.8 Answers to Self Check Exercise

7.9 Suggested Readings

7.10 Terminal Questions

7.1 Introduction

The age of Mahajanpada or 6th century B.C. refers to the second urbanization in ancient Indian history. The terms Janapada and Mahajanapada occur very frequently in the Buddhist literature. The latter marks the political divisions of ancient India. The conception of the term 'Janapada*was very ancient. The Janapadas were homogenous, political,cultural and geographical units. Panini used this term in asense in which its culture counted more than its geography. We do not find the term Janapada in the vedic Samhitas. It occursonly in the last phase of the Brahmana period. The conceptionof Janapada is found in its full development in the Astadhyayi of Panini. The Janapadas of ancient India can very well he compared with the Greek city-states. Both flourished at about the same period. The jana developed a number of individual units called familiesor kula (Greek Phratries). The association of families formed the ruling Ksatriya tribes which wieldedpolitical power and are termed Janapads in Panini's work. The Kasika says that the Janapadins were the ruling class inJanapadas or states. Thus there were four stages in the evolution of a full-fledged Janapada or city-state.It Is very interesting to note that the Buddhist texts, in most cases do not use the term Janapada, which was very commonly used in-those days, to denote the political divisions of India. Instead they coined the term Mahajanapada, i.e. Great States for this purpose. The early Buddhist canonical text AhguttaraNikaya informs us that during this period there were sixteen states of considerable extent and power, known as "SodasaMahajanapada" in Jambudipa. This period in Indian history refers to the formation of state which we see in Mahajanpadas. The sixteen Mahajanapadas enumerated in the Chedi, (8) Vatsa, (9) Kuru, (10)Pancala, (11) Maccha, (12) Surasena, (13) Assaka, (14) Avanti, (l5)Gandhara and (16) Kamboja. According to Rhys Davids, the list is very suggestive geographically, because no placesouth to Avanti (about 23°N) occurs in it; and it is only atone placethat the list goes even so far to the south as that.The whole ofSouth India, Ceylon, Orissa, Bengal east of theGanges and even Deccan are completely ignored in it.

7.2 Learning Objective

After reading this unit, you will be able

To know about the process of state formation in 6th century B.C,

To know about the political systems in ancient India and republic and monarchy.

7.2 Mahajanapad as in Early literature

7.2.1 Mahajanapadas in Jain literature

The JainaBhagavati Sutra gives a slightly different list of the sixteen Mahajanapadas, viz. (1) Inga, (2) Banga(Vanga), (3) Magaha (Magadha), (4) Malaya, (5) Malava(ka), (6) Accha,(7) Yaccha (Yatsa), (8) Koccha (Kaccha?), (9) Ladha (lata or Radha), (10) Padha (Pandya or Paundra), (11) Bajji (Yajgi),(12) Moll (Maila), (13) Kasi, (14) Kosala, (15) Avaha,(16) Sambhuttara. It is seen that Anga, Magadha, vatsa, Vajji, Kasi and Koslla are common to both the Anguttara and Bhagavati lists.Malava of the Bhagavatisutra is probably Identical with Avanti of the Anguttara list. Moll is probably a corruption of Malla. The other states of the Jain list are comparatively new and display a knowledge of the far east and far south of India.This characteristic of the Jain list proves that it was later in date than the one in the AnguttaraNikaya.

7.2.2 Mahajanapadas in Epigraphic Records

Names of some of the countries mentioned in the list of Mahajanapadas are found in epigraphie records also. Thus theNasik Cave Inscription of VasisthiputraPulumavl (Regnal year 19) of 149 A.D. mentions Asika, As aka, Mulaka, Suratha, Kukura, Aparanta, Anupa, Yidabha, Akara and Avanti. The Junagadh Inscription of Rudradaman'h (150 A.D. mentions eastern and western Akaravanti, champa, anart,Surastra, Svabhra, Maru, Kaccha, Sindhu-Sauvira, Kukura, Aparanta and Nisada countries as those gained by the valour of Rudradaman. The Allahabad Pillar, Inscription of Samudragupta (4th century A.D.) mentions some countries and kings of India among which we find the name of the Kosala country. This Kosala was evidently the South Kosala or Kosala in Daksinapatha as it has been compounded with the names of other southern countries. The Inscription also mentions territories of eastern India like Samatata, Kamarupa, Nepala, Kartrpur and Davaka. The Khalimpur Inscription of Dharmapala (c. 8thcentury A.D.) speaks of Bhojas, Matsyas, Madras, Kurus, Tadus, Yavanas, Gandharas- and Kiras. Thus we find that many of the Great States retained their prominence in later times also as becomes evident from the epigraphic records.

7.3 Mahajanapadas in Pali literature

The oldest Pali records mention some republics of. Jambudipa which may be referred to here. They were the Sakiyas of Kapilavatthu, the Bulis of Allakappa, the Kalamas of Kesaputta, the Bhaggas of Sumsumaragiri, the Koliyas of Ramagama, the Mallas of Pava and Kusinara, the Moriyas of Pipphalivana, the Videhas of Mithila and the licchavis of Yesali. These republics held great power in the political history of India at that time.Now we may take up the description of the sixteen great states or Mahajanapadas one after another.

7.3.1 Anga

Anga country was very ancient as is evident fromthe reference made to it in the ancient Brahmanical works like the Aitreya Brahmana, the Mahabharata, the Puranas, the Ramayana. It seems that Anga was a powerful kingdom beforethe time of the Buddha. In the Buddhist literature also Anga has been given a prominent place. Anga country was to the east of Magadha and west of thechieftains who lived in the Rajmahal hills (Parvatavasinah).Between Anga and Magadha fleweither river Champa (probably the modern Chandan). From the Vidhura Pandit a Jataka which describes Rajagaha as a city of Anga it seems that at one time Angaincluded the Magadha dominions and stretched up to the sea.Anga was considered so important that it is mentioned with Champa its capital in the list of the seven kingdoms (or politicaldivisions) into which India was divided in the MahagovindaSuttanta of the DlghaNiikaya. It is said that once Magadhacame under the sway of Anga. But in Buddha's time Anga lost her political power for good. " In Buddha's time Anga and Magadha were constantly at war with each other. About the middle of the 6th century B.C. BimbisaraSrenika (Sreniya), the crown prince of Magadha is said to have killed Brahmadatta the last independent ruler of ancient Anga. He took Campa the capital andresided there as his father's viceroy. Prom this time Angabecame an integral part of the growing empire of Magadha. TheDighanikaya also suggests that Anga became subject to SreniyaBimbisara.

7.3.2 Magdha

The Magadha country also goes back to a greatantiquity. Though the name Magadha is not mentioned in theRegveda, the name of the country of Elk at a which in later worksis given as a synonym of Magadha is found in the Rgveda. Thename Magadha first appears in the Atharvaveda. The bards ofMagadha are however,

mentioned as early as the Yajurveda. InVedic, Brahmana are Sutra periods Magadha was considered to have been 62 outside the pale of Aryan and Brahmanical culture. But Magadha has always been included in the Madhyadesa the Buddhist holy land. In fact, it was an important centre of Buddhism and a kingdom of the greatest political interest in the history of ancient and mediaeval India. Once again in later history, Magadha became the centre of a great empire under the 63 Gupta' dynasty. During the early Buddhist period Magadha was an important political and commercial centre and the people from all parts of Northern India flocked here for trade and commerce. Magadh had the republic of the Licchavis as neighbour and the Ganges 65 formed the boundary between these two countries. During the reign of Ajatasattu Magadha also came in conflict with mallas, of the Vajjis. It was under the rulership of Bimbisara and Ajatasattu that Magadha rose to great prominence and to speakthe truth, centuries later till Asoka's Kalihga war. The history 566 of Northern India is practically the history of Magadha. Girivraja or ancient Rajagrha was the earliest capital, of Magadha. Later in Asoka's time Pataliputra became the capital. At the ancient site of Pataliputra was Pataligama where the ministers of Ajatasattu built a fort to repel the 68 Yajjjis. The ancient city of Giribraja was encircled by thefive hills of fame — viz. Isigili, Vepulla, Yebhara, Pandava. During the reign of Bimbisara Magadha contained 6980,000 villages.

7.3.3 *Kasi*

The earliest mention of the Kasls as a tribal people seems to he met with in the Paippalada recension of the Atharvaveda. Patanjali in his Mahabhasya refers to Kasi6cloth. Of the sixteen Mahsganapadas Kasi was probably at first the most powerful. Prom a number of Jatakas we come to know of the superiority of its capital Benaras over other cities and of the imperial ambition of its rulers. according to. the Guttila Jatakawas the chief city of India. Several Kasi monarchs are described as aspirants for the dignity of the chief kings of all kings (Sabbarajanamaggarajja) and / lord of the whole of India.The country of Kasi was noted as a great centre of trade, most populous and prosperous at thesame time. One high way connected it with Rajagaha and another with Savatthi. Kasi was noted for silk cloth and perfumes. Kasi covered an area of 86300 leagues. The capital of Kasi was Baranasi. It was known by- various other names, namely Surundhana, Sudassana, Brahma, Pupphavati, Rama and Mohini. It was twelve yojanas in extent. Baranasi was situated on the bank of the river Parana. Other notable places in Kasi were Vasabhagama,' Macchikasanda, Kitagiri, Dhanapalag'ama etc. The mostimportant place near Benares in the history of Buddhism is the deer Park at Sipatana (Rsipataria, modern Sarnath) leaguesfrom Uruvela.

7.3.4 *Kosala*

The kingdom of Kosala during the time of early Buddhism was a mighty one and important too. From theAvadanasatska it appears that the ancient kingdom of Kosala was divided into two broad divisions, namely, the Uttara or North Kosala and the Daksina or South Kosala. The river Sarayu served91as a wedge between them. We are told there that there were 92 fights between the kings of these divisions. The king of Kosala, Pasenadi, was an important historical figure. The kingdom of Kosala was bounded on the west by the Gomti, on the south by the Sarpika or Syandika (Sai) river as becomes evident from the Ramayana' and on the east it was bounded by the Sadanira which separated it from Videha, and on the north by the Nepal hills. It appears from the Sutta Nipata that Kosala also included the territory of the Sakyas of Kapilavastu. The Majjhima Nikaya describes the Buddha as a Kosalan. The political subjection of the Sakyas to the king of Kosala in the latter half of the sixth century B.C.is clear from the evidence of the Agganna 98 Suttanta and the introductory portion of the Bhaddasala Jataka.

7.3.5 *Vajji*

The Yajji territory lay north of the Ganges andextended as far as the Nepal hills. On the west the river Gandakpossibly separated it from the Malias and perhaps also the 103 Kosalas. Eastwards it may have approached the forests, thatskirted the river Kosi and the Mahananda. The Yajji territory appears to have comprised the principalities of eight or nine allied clans. Of these confederate clans the old Yidehas, the licchavis, the Jnatrkas and the Vrjis are the most important.

7.3.6 Malla

The Mallas a powerful people of East India,at the time of the Buddha had a Samgharajya. They are often mentioned in the Buddhist texts as well as in the Jaina works. The country of the Mall as. stated, to be nine in the Jaina canonical texts, comprised in theory nine territories, one of each of the confederate clans. But the Pali canonical textsbring into prominence the territories at Pava and the otherwith headquarters at Kusinara. The river Kakuttha, theCacouthes of the classical writers, identified with the modem kuru probably formed the dividing line. Scholars are notunanimous on the point of the exact site of ancient Kusinara.In the MahaparinibbanaSuttanta it is stated that the SalaGrove of the Mallas, the Upavattana of Kusinara lay near the river Hirannavati. CunninghamidentifiesKusinara with the village of Kasia in the east of the Gorakhpur district. Pava was identified by Cunninghamwith the village of Padaraona or Padraona 12 miles to the north-north-east of Kasia and separated from it by the Badhi or Bandhi 126 Bala (identified with the ancient Kakuttha). Carlleylehowever, proposes to identify Pava with Pazilpur miles south-east of Kasia and separated from it by the Kuru.

7.3.7 Chedi

The Cedis formed one.of the most ancienttribes among the Ksatriyas in early Yedic times. The countryof the Cetis or Cedis lay near the Yamuna, contiguous to that of the Kurus. It was closely connected with the Matsyasbeyond the Chambal, the Kasis of Benares and the'Karushas in thevalley of the Son and is distinguished from the Dasirnas who134 lived on the banks of the Dhasan. In ancient times it corresponded roughly to the eastern part of modern Bundelkhand andsome adjoining tracts. Pargiter places Cedi along the south bank of the Jumna from the Chambal on the northwest as far as Karwi on the southeast; its limits southwards may have been,according to him, the plateau of Malva, and the hills of Bundelkhand. In the mediaeval period, however, the southern frontiers of Cedi extended to the banks of the Narmada. Welearn from the Cetiya Jit aka that the metropolis was Satthivatinagara. The Mahabharata gives its Sanskrit name Suktimati or Suktisahvaya. We learn from the Yedabbha Jataka that theroad from kasi to Cedi was unsafe being infested with rovingbands of marauders. It is stated in the Vessantara Jatakathat Cetarattha was 30 yojanas distant from Jetuttaranagara, the birth place of king Yessantara. It may have been adifferent country as hinted by B.C. law; in India as describedin Early Texts of Buddhism and Jainism According to B.C. law this Ceti country may be identified with the territory covered by the kingdom of Nepal.

7.3.8 Vatsa

The Pali AnguttaraNikaya mentions the land oftheVatsas as one ofthe sixteen Mahajanapadas as we have already seen. According to Dr. H.C. Raychandhuri, the identification of Vamsas with theVasas of the Aitareya Brahmana is not conclusive as it lacks proof. It seems from the evidence of the Yedicliterature that the Yasas had connection with the Kurus, v 145 Pancalas, Usinaras and Matsyas. But the JanavasabhaSuttanta

of the DighaNikaya associates the Yamsas rather with the Cedis than with the Usinaras and mentions the powerful ruling peoples of the time in such groups as Kasi-Kosala, Vajji-Malla, Cedi-Vatsa, Kuru-Pancala and Maecha-Surasena.In the Pali Buddhist canon, king Udena of the Yamsasis Bald to have been a contemporary of the Buddha, and to have 'survived him. Both in Buddhist and Brahmanical literaturestories are recited about king Udena of the Vamsas (Pali) andUdayaha of the Yatsas (Sanskrit). His capital is mentioned asKosambi or Kausambi, respectively. The Yatsas or Yarns as appear to be one of the peoples of YedicAryandom from the earliest period. We hear of the Yasas in the Hgveda, the Aitareya Brahmana, the KaushitakiUpanisad etc. The Pali Anguttara Nikaya mentions the land oftheVamsas (identified by Oldenberg with the Vasas)-as one ofthe sixteen Mahajanapadas as we have already seen. According to Dr. H.C. Raychandhuri, the identification of Vamsas with theVasas of the Aitareya Brahmana is not conclusive as it lacks proof. It seems from the evidence of the vedic literature that the vatsas had connection with the Kurus, Pancalas, Usinaras and Matsyas. But the Janavasabha Suttanta of the DighaNikaya associates the Yamsas rather with the Cedis than with the Usinaras and mentions the powerful ruling peoples of the time in such groups as Kasi-Kosala, Vajji-Malla, Cedi-vatsa, Kuru-Pancala and Maecha-Surasena.In the Pali Buddhist canon, king Udena of the vatsais Bald to have been a contemporary of the Buddha, and to have 147 'survived him. Both in Buddhist and Brahmanical literaturestories are recited about king Udena of the Vamsas (Pali) andUdayaha of the vatsa (Sanskrit). His capital is mentioned as-Kosambi or Kausambi, respectively.The country of the Vats as or Vamsas must have beenlocated round about Kausambl, identified by Cunningham with Zosam, on the right bank of the Jumna near Allahabad.According to the Brhatsamhita the land of the Vats as was inthe Middle region. It lay probably to the northeast ofAvanti along the bank of the Jumna southwards from Kosala and 152 to the west of Allahabad. Yuan Chwang, who speaks of theland of the Vats as as the Kausambl country, says that it was. 153 about 6,000 li in circuit.

7.3.9 Kurus

The kurus formed one of the most ancient andprominent of the Indo-Aryan Ksatriya tribes.Right fromthe vedie age down to the age of the (Epics and the Puranas the156 Kurus occupy a position of honour and glory. According to the Mahabharata, the Kuru kingdom which extended from the Sarasvati to the Ganges consisted of three parts: Kurujahgala, the Kuruland proper and Kuruksetra. The Kuru realm according to the Mahasutssoma Jataka was 300 leagues m extent. The ancient Kuru country may be said to have comprisedKuruksetra and Thaneswar. The district included Sonapat, Min, Kamal and Panipat and situated between the Sarasvatl in the north and the Drsadvati in the south.

7.5.10 Panchala

The Pancalas like the Kurus, are most Intimately connected with the Yedic civilization of the Brahmanaperiod. It continued to be one of the great and powerful countries of Northern India down to the time when the Buddhalived. We are told that it had an abundance of the sevenkinds of gems etc. It had a large army consisting of foot'soldiers, men skillful in fight and in the use of steel weapons.The Pancala country was divided into two regions, northern Pancala and southern Pancala. The Mahabharata, theDivyavadana and the Jatakas bear testimony to this fact. TheBhagirathi served as the dividing line between the two divisions. According to the Divyavadana the capital of northernPancala was Hastinapura but the Kumbhakara Jataka mentionsKampillanagara as its capital. According to the Mahabharatanorthern Pancala

had its capital at Ahicchatra (identical with modern Ramnagar in the Bareilly district) while southern Panchalahad its capital at Kampilya (modern Kampil in the farukhabaddistrict) and stretched from the Ganges to the Chambal. Fromthe statement of the Divyavadana that northern Panchala had itscapital at Hastinapura it appears that sometimes Uttara Pancalawas included in Kururastra and had its capital at Hastinapura"and at other times it formed a part of Kampillya. Sometimes kings of Kimpilyarastra held court at Uttara Pancala-nagara, at other times kings of Uttara Panchala held court atKampilya. Dummukha or Durmukha, was a king of Uttarapancala.He lived in the city of Kanpilla.Ancient Pancala country represents the land north andwest of Delhi from the foot of the Himalayas to the riverChamhal. It roughly corresponds to modern Budaun, Farukhabadand the adjoining district of U.P.

7.3.11 ***Matsya***

The Matsyas appear tohave been one of the prominent kshatriya tribes that made up the vedicAryanpeople in the earliest period of their residence in India. Ahymn in the regveda refers to the Matsyas who were, attached by Turvasa, a famous king. According to the vedicliterature the country of the Matsyas lay to the south or south-west of Indraprastha and to the south of Surasena. The Satapatha Brahmana, the Kausitaki Upanisad, the Mahabharata, the Padmapurana, the visnudharmottaraMahapurana and other 183 texts mention the Matsyas or the Matsya kingdom. Among references to Matsya in the Buddhist literature, leaving side the Anguttara. Uikaya which mentions the sixteen Mahajanapadas, we may speak of the Janavasabha Suttanta of the Digha Nikaya which refers to the Macchas (together with the Kasis and Surasenas) in connection with the account of theBuddha's stay in Nadika. The Matsya country embraced the extensive territory between the hills near the Chambal and the forests that skirted the Sarasvatl of which the centre was Viratanagara or Bairatinthe modern Jaipur state. It included the whole of the modern 185 territory of Alwar with a portion of Bhagalpur.

7.3.12 Surasena

The Surasenas do not find mention in theYedic literature.186They are referred to in the Manavadharma Sastra which speaks in very high terms of the Surasenasas belonging to the Brahmarsidesa or the country of the great Brahmanical seers. The Mahabharata enumerates a number/of peoples in a list which includes the Surasenas along with' the Salvas, Kuru-Pancalas and other neighbouring tribes. The Ramayana places Surasena among the northern countries.The Buddhist texts speak of Madhura or Mathura which 191 was the capital of Surasena. It was on the right bank of the Jumna. It has been a great city from the early times of Indo-Aryan history down to the present day. According to Cambridge History of India, the Surasenas must have occupiedthe Muttra district and possibly some of the territory stillfurther south'. Prof. Rhys Davids says, 'The Surasena whose capital was Madhura, were immediately southwest of theMacchas and west of the Jumna. The Mathura city on the Jumuna included the modern Agra division of U.P.' It lay on theupper Jumna about 270 miles in a straight line northwest of Kausambi. In the Pali Buddhist literature the name is Madhura. Dr. B.C. law in his Historical Geography of Ancient India, says that Mathura is generally identified with Maholi, 5 miles to the southwest of the present town of Mathura, which should be distinguished from Madhura or Madura the second capital of the Pandyan kingdom on the river Vaigai in Madras.

7.3.13 Assaka

The Asmakas or Assakas formed one of the199Ksatriya tribes of ancient India. They are not mentioned in the Vedic literature, but we find them referred to in the Epics and Puranas. The Buddhist texts contain occasional references to this country. The Anguttara Nikaya says that it had anabundance of food and gems and was wealthy and prosperousThe Mahagovindasuttanta of the Digha Nikaya says that Potanawas the (capital) city of the Assakas.In the Sutta Nipata one of the oldest works of the Pali Buddhist literature associates the Assaka countrywiththat of Mulaka with its capital Patitthana (Paithan) and placesit on the bank of the Godhavari, immediately to the south of Patitthana. Rhys Davids points out that the country is mentioned together with Avanti, in the same way as Anga is with Magadha, and its position in the list of Mahajanapadas, between Surasena and Avanti, makes it appear probable that when the listwas drawn up, Asmaka was situated immediately northwest ofAvanti. In that case the settlement on the Godavari was alater colony, and this is confirmed by the fact that there isno mention of Potana (or Potali) in the country in that list. Purther, As anga in his Sutralahkara mentions an Asmaka country 2q5in the basin of the Indus . It is also to be noted that the Greek writers knew of a people called the Assakenoi in eastern Afghanisthan.

7.3.14 Avanti

In the age of the Mahabharata the Avantiswere one of the most powerful Ksatriya clans. The Puranasalso refer to them in different contexts. Prom the Vana- parvan of the Mahabharata we come to know that Avanti was a place of pilgrimage in west India and the sacred river Narmada was situated therein. It was one of the four chief monarchesin India when Buddhism arose, and was later absorbed into theMauryan empire. Rhys Davids observes, 'The country (Avanti)much of which is rich land, had been colonised or conquered byAryan tribes who came down the. Indus valley and turned west from the Gulf of Hutch.' It was called Avanti at least as late /as the second century A.D. but from the seventh or eighthcentury onwards, it was called Malava./Avanti was one of the most flourishing kingdoms India. Prom the first, it became an important centreof Buddhism, and may have been the scene of elaboration of Pali,the sacred language of the Buddhists. With regard to the political history of Avanti we may refer to king Candapajjota orPradyota who was a contemporary of the Buddha and under whom 223 the new faith bee erne the state religion of Avanti.The ancient kingdom of Avanti was divided by the vindhyas into two parts as rightly pointed out by D.R. Bhandarkar, viz., the northern and the southern. The northern part had its capital at Ujjenl or Ujjayinl, and the southern part called Avanti Daksinapatha had its capital at Mahismati. According to the Mahagoyinda Suttanta of the Digha Nikaya Mahisati was the capital of Avanti with Yessabhu as its king. This apparently refersto the Avanti country in Dakkhinapatha. In the Mahabharatahowever, Avanti and Mahismati (Mandhata, the rocky island), are stated to be two different countries. The northern Avantikingdom was drained by the Sipra and other streams and thesouthern by the Narmada. Dipavamsa refers to Ujjeni capitalof Avanti which Sanskrit Buddhist literature places in Daksinapatha. Avanti roughly corresponds to modern Malwa, Nimarand adjoining parts of the Madhya Pradesh. In fact itrepresents the Ujjain region together with a part of theNarmada valley from Mandhata to Maheswar and certain districts.lateJaina writers,-include within its boundaries TumbavanaorTumain in the Guna district of the Gwalior state about miles to the northwest of Eran.

7.3.15 Kamboja

Kamboja is constantly associated with Gandhara246in literature and inscriptions. The Kambojas appear to be oneof the early Tedic tribes. They are referred to in Yaska'sNirukta. like Gandhara, the Kamboja country is included inthe Uttarapatha or Northwest India. Asoka's edicts refer toKamboja along with Yona as frontier' provinces. The Kamboja country must not be confused with Kambuja in the Trans Gangetic Peninsula (i.e. Cambodia) and should be located in some part of North West Indo-Pakistan close250to Gandhara. The Kambojas occupied roughly the province round about Rajaori or ancient Rajapura including the Hazara district of the North Western Frontier Province. The horses of Eamboja were famous throughout all periods of Indian history. Sumahgalavilasini describes Kamboja as the home for horses .

7.3.16 Gandhara

Gandhara formed an integral part of Indiafrom the earliest epoch of Indo Aryan civilization, and isunique among the countries of India, in that its history may be traced in unbroken continuity from Rgvedic times down to the present day. The Buddhist literature contains numerousreferences to the country of Gandharas and its capital Taksas'ilaTakkhasila in Pali). The Jatakas testify to the existenceof trade relations between the KashmiraGandhara kingdom and the northeastern kingdom of Videha. Horse dealers figure prominently amongst the Gandharan traders. We find references to the production of 'Valuable blankets or woollen shawls (Kambala)in the Vessantara Jataka and also in the Sutta Nipata commentary.Gandhara was on the northwest frontiers of India inthe neighbourhood of the Kambojas, Madras and similar other 237tribes, but there are differences of opinion among scholarswith regard to its exact boundaries. It is generally acceptedthat Gandhara denotes the region comprising the modern districtsof Peshawar in the Northwestern Frontier Province and Rawalpindi the Punjab but in the old Persian Inscriptions it seems to?38include also the district of Kabul in Afghanistan. After considering all these observations on and variousreferences to Gandhara, we may agree with B.C. law that perhapsthis country had changed its boundaries from time to time. Atone time it appears to have included the Afghan District roundKandahar, but afterwards it receded to the mountain on theIndian frontier.

7.4 Gana /Sangha

In the sixth century B.C., we find a large number of states in northern India and many of these were not ruled by kings but formed petty republics or oligarchies. That was the age of the Buddha and therefore, the republican states of this period have been called 'Republics of the age of the Buddha'. These were the most ancient existing states not only of India but of the world and, so India is also one of those countries which can feel proud of having experimented with the republican form of constitution in ancient times.

While the existence of republican states in India, at that time, has been accepted by all scholars, they are divided on the form of their organisation. There is no unanimity among scholars regarding the method of election and qualifications of voters. The Buddhist sources provide sufficient information regarding the then republican state of the Lichchhavis, yet the scholars are not unanimous regarding its form and constitution. A few scholars have expressed the opinion that every adult of the population participated in the administration; some others maintain that only Kshatriyas had this right; and yet others have expressed the view that only head of a joint-family was allowed to participate in the administration. Mostly the opinions of scholars are divided on the basis of the above mentioned differences of views. DrJayaswal maintains that these republics were divided into the following three categories:

a. Democracies or pure Gana, wherein the total adult-population participated in the administration;

b. Aristocracies or pure Kula, wherein only some selected families participated in the administration; and

c. Mixed aristocracies and democracies or a mixure of Kula and Gana, wherein the administration was the mixure of the two . According to Dr Bhandarkar, the republics were basically divided into two types, viz., pure republics and Kshatriya aristocracies. Then each of them was further divided into two parts. Both the republics and the aristocracies were of two types, viz., unitary and federal. The republican states which had a unitary character were called City-republics or Nigamas, while the republics having a federal character were called State-republics or Janapadas.

Thus, opinions of scholars have differed on the basis of voting qualifications, methods of elections and areas under the administration of the republican states. However, scholars agree that the fundamental basis of all these states was republican. Thus, it can be agreed upon that all these states were republican states, though they differed from each other in matters of detail. In certain states, only Kshatriya families were given the right to frame laws and elect the members of the executive; in certain others, the heads of joint-families were given this right; while in still others, all the male-adults of the population had this right. But with all these differences among them each of them was a republican state because in each state the members of the assembly to frame laws and the executives were elected directly or indirectly by a large number of the populace. In all these states, the people who had the right to rule according to settled laws of the state used to assemble at an assembly-hall called the Santhagara, discussed all important matters concerning the state, decided on issues by a majority vote, either by open or secret ballot, if there was no unanimity of opinion and elected the members of the executive.

The members of this assembly, which was constituted of these representatives, enjoyed certain special privileges also. The members of this assembly elected the members of the executive, the Commander-in-Chief of the forces, the Treasurer, etc. They were consulted in all important matters of the state such as that of peace and war. The members of the executive were called Rajana and the head of executive was sometimes given the title of Raja (King). In many republics the office of the Raja and also that of other executive members had become hereditary but they could be displaced by election. In certain other republics the head of the executive was not called Raja but Ganapati and he as well as other members of the executive were elected for a fixed period. Thus, we find that these republican states differed in matters of detail but all of them followed the broad pattern of elections, permitted all respectable citizens or their groups to participate in administration and framing of laws and, thus, pursued democratic procedures as primary conditions for the governance of the state. Of course, they were not democracies in the modern sense but having them at that time was not feasible either. But whatever these states practised was sufficient to entitle them to be called Republics. The most ancient republics in India were those of the sixth century B.C. These were as follows:

1. The Sakyas of Kapilavastu

This was an important republican state of that time. It was situated near the border of Nepal in the Terai region of the Himalayas. Mahatma Buddha belonged to the family of the Sakyas. The republican state of the Sakyas had a federal constitution. Its head was elected and was given the title of King. Every Sakya adult participated in its administration and all important matters were decided by the assembly of all. Attendance of a fixed number of members was necessary to complete the quorum. The Sakya republic had eighty thousand families living within its territories and had several cities as well. It was ultimately occupied by the state of Kosala near the end of the sixth century B.C.

2. The Lichchavis of Vaisali

It was the largest and the most powerful republican state of that time. It included nine republican states of Mallas and eighteen republican states of Kasi and Kosala. Vaisali was the capital of the Lichchhavis, wherein lived nearly 42,000 families and was a beautiful and prosperous city. The head of the state was elected and was titled King. It had another 7,707 Rajans who were, probably, the chief officers of their territories. It was such a powerful state that Ajatasatru, the ruler of the powerful state of Magadha, had to make military and diplomatic preparations for years before he could succeed in annexing it and that, too, could be achieved when his diplomacy succeeded in dividing the Lichchhavis.

3. The Mallas of Pava

It was a republican state of the Kshatriyas, the capital of which was Pava.

4. The Mallas of Kushinara

This was another branch of the Mallas.

5. The Koliya of Ramagrama

This state was in the east of the state of the Sakyas and its capital was Ramagrama. The Koliyas and the Sakyas constantly fought against each other on the use of the water of the river Rohini. However, permanent peace was arranged between the two states by mediation of Mahatma Buddha.

6. The Bhaggas ofSunsumargiri

This state belonged to Aitreya Brahmanas. It was near the territories of modern Mirzapur district and its capital was Sunsamagiri.

7. The Mauryas of Piphalivana

This state was in the foot-hills of the Himalayas. Probably, emperor Chandra Gupta Maurya of Magadha belonged to this family.

8. The Kalama of kesputa

Its capital was Suputa.

9. The Videhas of Mithila

It was situated near the boundary of Nepal state and its capital was Mithila.

10. The Ghvatrikas of Kollanga

This state was also situated in the Terai-region of the Himalayas near the boundary of Nepal and its capital was Kollanga.

These were the important republican states in India at that time. Each of them drew their name from the name of its ruling family. These included both great and small states. A few of them were aristocracies, a few others were pure republicans while a few had federal-republican constitutions and were called Janapadas. Most of them brought about their ruin because of their mutual conflicts and the rest of it was completed by the rising power of Magadha which was able to annex them all. After the sixth century B.C. we find the existence of republican states in the north-west of India. The Greek king Alexander had to fight against them during his campaign in India. The republican states, which fought against Alexander, were the Asmakas, the Malavas, the Kshudrakas, the Arjunayanas, the Mushikas, etc. Most of them gave serious resistance to the invader and their role in defending their country remained more creditable than their contemporary monarchical states. After the return of Alexander, Chandra Gupta Maurya conquered all these

republican states. Both he and his minister, the famous Chanakya, favoured the policy of imperialism in order to bring about political unity to India and therefore, adopted a systematic policy to annex these republican states. But, again, after the downfall of the Maurya empire, we find the existence of republican states in Western India. Among them the kingdoms of the Malavas, the Arjunayanas, the Yaudheys and the Madrakas were quite important. Each of them played an important role in defending the country against foreign invaders. Probably, in each case the head of the state was elected and was called Maharaja or Mahasenapati. They were defeated by the Sakas but they fought successfully against the Kushanas. The Arjunayanas were settled in the territory near modern Jaipur, the Malavas in the territory of eastern Rajputana, the Yaudheys near Bahawalpur state while the Madrakas occupied the territory between the rivers Ravi and Chinab. Besides, the Sivis established their kingdom near Chittor; the republican state of Kuluta was in the Kullu valley; the state of Audutnbar was situated in the Kangra-valley and the districts of GurudasapuranaHoshiyarpur in the Panjab; the Bhadrakas had their kingdom at Sialkot; the Abhiras had their kingdom in Central India; the Sanakonikas were established near Bhilra; the Prarjunas inhabited part of Madhya Pradesh; the Kokas had their state near Sanchi; and the republican state of Kharaparikas was near district Damoh in Madhya Pradesh. All these republican states were destroyed by the imperial Guptas who pursued the policy of extension of the empire and that of annexing the neighbouring states. A few of them were destroyed by Chandra Gupta I, most of them by Samudra Gupta and the rest of them by Chandra Gupta II. We find no existene of republican states in India afterwards. Sometimes, the mighty Guptas have been held responsible for this tragedy. But this view is not justified. Of course, the expansionist policy of the Guptas was primarily responsible for their destruction but their internal weaknesses and mutual conflicts were also, certainly, responsible for their extinction. Besides, the republican states had not only failed to provide political unity to India or north India but even a part of it. Therefore, the ideal of an extensive and strong empire pursued by the Guptas was advantageous for India and, thus, the extinction of the republican states should not be accepted at all as a regrettable event in Indian history and no blame should be assigned to the Guptas. The extinction of the republican state was natural and advantageous to the country and it should be accepted as such.

7.5 Self Check Exercise

1. What was Taxila famous for?
2. Who were Yaudheyas?
3. Which of the mahajanapadas, was given as a dowery to Magdha?
4. Who was Bimbisar?

7.6 Summary

The age of Mahajanpada or 6th century B.C. refers to the second urbanization in ancient Indian history. The terms Janapada and Mahajanapada occur very frequently in the Buddhist literature. The latter marks the political divisions of ancient India. The conception of the term 'Janapada*was very ancient. The Janapadas were homogenous, political,cultural and geographical units.

7.7 Glossary

Chanda pradyotmahasena **:** A famous ruler of Avanti
Rajaori : Capital of kamboja
Assak : The only mahajanpad in south
Patliputa : Capital of Magdha

7.8 Answers to Self Check Exercise

1. Ans. The ruler of Magdha.
2. Ans. Kashi
3. Ans. A republic tribe in Ancient Haryana.
4. Ans. It was a famous educational centre.

7.9 Suggested Readings

1. Alterkar, A.S., The Position of Women in Hindu Civilization, Delhi, 1959.
2. Basham, A.L., The Wonder that was India, New Delhi, 1967.
3. Ghosha, A., An Encyclopedia of Indian Archaeology, New Delhi: MunshiramManhorlal, 1989.
4. Kosambi, D.D., Myth and Reality, New Delhi,2001.
5. Sharma, R.S., Indian Feudalism, Motilal Banarasi Das Publication, New Delhi,1965.
6. Thapar, Romila , Penguin History of Early India, New Delhi,2015.

7.10 Terminal Questions

1. Describe the political condition in ancient India in 6thcen B.C.
2. Discuss on the process of state formation in ancient India.
3. Throw light on the political system of Gana or Sangha systems of state.

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CHAPTER-8
EXPANSION OF MAGHDA

Structure

8.1 Introduction

8.2 Objective

8.3 Location of Magdha

8.4 Political History of Pre-Mauryan Maghda

8.5 Origion of Mauryan Rule

8.6 Self Check Exercise

8.7 Summary

8.8 Glossary

8.9 Answers to Self Check Exercise

8.10 Suggested Readings

8.11 Terminal Questions

8.1 Introduction

You have been introduced to the various Janapadas and Mahajanapadas that are known to us from primarily early Buddhist and Jaina texts. The rise of these Janapadas and Mahajanapadas, which were situated mostly north of the Vindhyas, is dated around the second half of the first millennium B.C. In this Unit we shall be discussing in detail the growth of one of these Mahajanapadas, namely Magadha. Magadha has drawn the attention of historians for the last two hundred years. This is so because it had become the nucleus of the pokitical power of the well-known Mauryan dynasty. However, in this Unit we do not intend to highlight only the achievements of the Mauryan kings in expanding the temtorial frontiers of magdha. We shall also discuss the notion of an 'empire' in the pre-modern context at two levels: i) Various meanings of the term 'empire' which does not simply mean a territorially vast kingdom, and ii) the early Indian notions of state and empire. By discussing these various definitions, it would be possible to understand the various views of scholars on the characterization of the Magadhan empire, particularly under the Mauryas. In this Unit we shall also take into account the political events throughout the period from the fifth to the third century B.C. The Magadhan Kingdom began to grow during the sixth century B.C. itself. However, this process accelerated considerably under the Nandas and the Mauryas. The location of the Asokan inscriptions indicate that a major part of the Indian sub-continent, excluding the eastern and southern extremities, had come under Magadhan suzerainty. However, after discussing the details of how this expansion took place. we shall introduce you to the view that the composition and texture of the Magadhan empire, in its various parts, was so diverse that to be able to hold it together, direct political control was probably very difficult. This may perhaps explain why Asoka endeavoured to resolve the inherent social tensions in the,empire through the introduction of his policy of Dhamma.

8.2 Objective

In this Unit we shall outline the territorial expansion of the kingdom of Magadha. This will provide an understanding of how and why it was possible for Magadha to become an 'empire'. After reading this Unit you should be able to identify the location of Magadha and its environs and note its strategic importance. learn about some of the sources that historians use for writing on this period, have a brief idea of the political history of Magadha during the two centuries preceding Mauryan rule. understand the notion of 'empire' in the context of early periods of history, traces the chief events leading to the establishment of Mauryan rule, learn about the early Mauryan kings - Chandragupta and Bindusara - and their expansionist activities, explain the context of the accession and coronation of Asoka Maurya and the importance of the Kalinga War, and finally, identify the boundaries of the Magadhan 'empire' at the death of Ashoka.

8.3 Location of Magdha

You have been generally introduced to the Kingdom of Magadha as one of the sixteen Mahajanapadas in Unit 14 of B lock-4. The Mahajanapadas were located over a major part of the Ganga Valley with a few to the north-west and south-west of it. However, of the four most powerful kingdoms, three - Kosala. the Vajji Confederacy and Magadha - lay in the middle Ganga Valley and the fourth, Avanti was in Western Malwa. 'The kingdoms that surrounded Magadha were Anga in the east, the Vajji Confederacy to the north, to its immediate west the kingdom of Kasi and further west, the kingdom of Kosala. I Magadha can be identified with the modern districts of Patna, gaya, Nalanda and parts of Shahabad in the present day State of Bihar. Geographically, Magadha's t location is such that it has in its vicinity large tracts of alluvial soil: Interestingly, the I earliest capital of Magadha, Rajgriha was situated to the south of the river and not near it. This is most plausibly explained from the point of view of its strategic location and. secondly, due to the fact that it lay in the vicinity of iron-encrusted outcrops. It has also been suggested that its accessibility to copper as well as the forests of the present-day southern Bihar region can effectivley explain why early Magadhan kings did not choose to have their capital. in the most fertile plains of the Ganges Valley I but in a comparatively isolated region. The capital of Magadha did however, shift to Pataliputra (originally Pataligramma). situated on the confluence of several rivers like the Ganga, Gandak, Son and Pun Pun. Pataliputra became the capital of Magadha I under the Mauryas. This enabled Magadha to effectively command the uttarapatha (northern route) which lay to the north of the river Ganges, along the foothills of the Himalayas. The river also came to be used as one of the main arteries connecting Magadha with different regions and making heavy transport along the river possible. Thus Magadha had certain natural advantages over other contemporerous kingdoms, though some of which like Avanti to its south-west. Kosala to its I north-west and the Vajji Confederacy to its north were equally powerful at the turn of the sixth century B.C. Recent researches have suggested that accessibility to the iron mining areas in particular enabled kingdoms like Magadha and Avanti to not only produce good weapons of warfare but also in other ways. It facilitated expansion of agrarian economy and thereby. the generation of substantial surplus, extracted by the State I in the form of taxes. This in turn enabled them to expand and develop their territorial base. Avanti. it must be noted, became a serious competitor of Magadha for quite some time and was also located not far from the iron mines in eastern Madhya Pradesh.

8.4 Political History of Pre-Mauryan Magadha

Under Bimbisara who was a contemporary of the Buddha and who, like the Buddha, lived in the 6th - 5th century B.C. Magadha emerged as a controller of the middle Ganga plains. Bimbisara is considered to be the first important ruler ofmagadha. With political foresight he reaiised the importance of establishing dynastic relations through marriage with the royal house of Kosala. Through this alliance he acquired a part of the district of Kasi as dowry. He had cordial relations with the king of Gandhara. These diplomatic relations can be considered as a sign of the strength of Magadha. To the east of Magadha lay the Kingdom of Anga whose capital Champa ruled over 80,000 villages. Tradition tells us that Bimbisara was imprisoned by his son Ajatasatru who is said to have starved him to death. This is reported to,have taken place around 492 B.C. Internal troubles and the succession of Ajatasatru to the throneof Magadha did not change its fortune. In terms of expansionist policies the new Magadhan king followed a decisively more aggressive policy. He gained complete control over Kasi and broke the earlier amicable relations by attacking his maternal uncle Prasenajit, the king of ' Kosala. The Vajji Confederation of people whose Mahajanapada lay to the north of the Ganga was Ajatasatru's next target of attack. This war was a lengthy one and tradition tells us that after a long period of sixteen years he was able to defeat the Vajjis only through deceit by sowing the seeds of dissension amongst them. His invasion of the kingdom of Avanti, the strongest rival of Magadha at that time did not materialise though preparations are said to have been made for it. However. during his reign Kasi and Vaisali, the capital of VajjiMahajanapada, had been added to Magadha, making it the most powerful territorial power in the Ganga Valley. Ajatasatru is said to have ruled from 492 B.C. to 460 B.C. He was succeeded by Udayin (460-444 B.C.). During Udayin's reign the Magadhan kingdom extended in the north to the Himalayan ranges and in the south to the Chhota Nagpur hills. He is said to have built a fort on the confluence of the Ganga and the son. Despite the vastness of Magadha's territories, Udayin and the four kings who succeeded him were unable to effectively rule and the last of these is said to have been overthrown by the people of Magadha. Shishunaga, a viceroy at Banaras, was placed on the throne in 413 B.C. The rule of the Shishunaga dynasty too was of short duration and gave way to the rule of the Nanda dynasty headed by the usurper Mahapadma Nanda. It was during the rule of the Nandas in Magadha and the Ganga Plains as a whole that the invasion of Alexander took place in north-west India in 326 B.C., often considered the beginning of the historic period in India. The Nandas are therefore, often described as the first empire-builders of India. It must however be underlined that they did inherit a large kingdom of Magadha which they then extended to more distant frontiers. In the later Puraaa writings Mahapadma Nanda is described as the exterminator of all kshatriyas. It is fufiher suggested that he overthrew all the contemporary ruling houses. The Greek classical writings describe the might of the Nanda empire when they tell us about their vast army which is said to have consisted of 20,000 cavalry, 200,000 infantry, 2000 chariots and 3000 elephants. We also have some indications that the Nandas had contact with the Deccan and South India. Their control of some parts of Kalinga (modem Orissa) is indicated in the Hathigumpha inscription of king Kharavela, who ruled in Orissa from the middle of the first century B.C. Some very late inscriptions from the south Karnataka region also suggest that parts of the Deccan may have been included in the Magadhan empire under the Nandas. Most historians suggest that by the end cf the reign of Mahapadma Nanda the first phase of the expansion and consolidation of the Kingdom of Magadha had taken place. That the north-west was still under various small chiefdcms is attested by the Greek writings describing Alexander'sinvasion of the Punjab around this

time. It is clear, however, that there was no encounter between the Kingdom of Magadha and the Greek conqueror. The Nanda rule came to an end by 321 B.C. Nine Nanda kings-are said to have ruled and by the end of their rule they are said to have become very unpopular. Chandragupta Maurya took advantage of this situation to ascend the throne of Magadha. Despite all these dynastic changes, Magdha continued to remain the foremost kingdom in the Ganga Valley. Deeper reasons for the success of Magadha lay in its advantageous geographical location, its access to the iron mines and the control it had come to exercise over important land and river trade routes and unexpected byproduct of Alexander's invasion of the north-west was that "it hastened the Mauryan conquest of the whole country." He has argued thus because since the tribe of Punjab had already.

8.5 Origin of Mauryan Rule

It has been suggested by D.D. Kosambi that the most immediate been weakened, it was not difficult for the Magadhan army under Chandragupta to conquer the whole of Punjab. Most of the Gangetic Valley was already under the control of Magadha. According to Classical sources, Chandragupta is supposed to have even met Alexander and advised him to attack Magadha which was under the unpopular rule of the Nandas. Though this is difficult to verify, both Indian and Classical sources suggest that Alexander's retreat resulted in the creation of a vacuum, md, therefore, it was not difficult for Chandragupta to subdue the Greek garrisons left there. However, what i5 not clear is whether he did this after his accession to the throne of Magadha or before it. Some scholars date his accession to 324 B.C. while now it is generally accepted as 321 B.C. According to Indian tradition Chandragupta was assisted by the Brahmin Kautilya, also known as Chanakya or Vishnugupta. to rise to power. It is further suggested on the basis of a play of the sixth century A.D. which in its description of the overthrow of the Nandas by Chandragupta, hints that at his accession to the throne at twenty-five years of age, he was in fact a weak ruler and the real ruler of the empire was Chanakya. The Arthasastra is attributed to Chanakya who is said to have been well-versed in not only the political principles of warfare and aggrandisement, but was also deeply knowledgeable about the orgnisation of the State and society to ensure that the empire did not collapse. Though the early years of Chandragupta's reign are little known, most historians agree to assign either a 'low caste' or a tribal origin to the Maurya family. According to some accounts Chandragupta was the son of the last Nanda king by a "low born" woman called Mura; from her came the family name Maurya. The Buddhist tradition tells us that he was a member of the Moriya clan of Pipphalivana and thus suggests that this dynasty was in some way linked to the tribe of the Sakyas to which the Buddha belonged. In this explanation the family name Maurya is said to have been derived from the name of the tribe. This also indirectly implies that as an old family of chiefs they were in some senses Kshatriyas. The Puranas do not link the Nanda and Maurya dynasties, though they too describe the latter to be Shudras. The Brahmanical perception about them is however based on its earlier idea 01 rheMagadhan society generally being unrighteous and of mixed caste origin. The Classical sources which know of the last Nanda king also do not link these two dynasties, though Chandragupta, known to them as Sandrakottus, is described to be of low origin. It is also suggested that the name ending 'Gupta' in Chandragupta's name, and the later episode of-Asoka's marriage.to the daughter of a merchant of Vidisa, lend credence to the view that the Mauryas could have been of Vaishya origin. Though the caste affiliation of the Mauryas remains obscure, it is significant that the most important rulers of this dynasty turned to the heterodox sects later in their lives. On the other hand, the several sources that point to the role of the Brahmin

Kautilya as the advisor and the motivating force 6ehind Chandragupta cannot be ignored. Vayu Puranas even suggest that Chanakya had appointed Chandragupta as the king of the realm. One can perhaps suggest that the Mauryas rose to power in a society which was never very orthodox. In the north-west there had been considerable contact with the foreigners and Magadha. itself was looked down upon in Orthodox Brahmanical tradition. Besides, it was considerably exposed to the ideas of Buddha and Mahavira. .it was thus amidst considerable turmoil-social and political—that Chandragupta was'successful in ascending the throne of Magadha. Many historians who understand the Mauryan state as an empire primarily in terms of its territorial extent, attribute great importance to the role Chandragupta Maurya played inthe tide of foreign interference in the north-west and suppressing indigenous rulers in west and south India. Source material on the exact nature of these military exploits is wanting and therefore, one has to construct these details on the basis of accounts which are available for his successors who inherited this empire. Both Indian and Classical sources agree that Chandragupta overthrew the last of the Nanda kings and occupied his capital Pataliputra and this success is linked with his . accession to the throne in around 321 B.C. As mentioned earlier, the polilitical rise of Chandragupta was also linked 4th the invasion of Alexander in the north-west. The years 325 B.C. - 323 B.C. were crucial in the sense that many of the governors who were stationed in the north-west frontier Alexander's invasion were assassinated or had to retreat and this enabled Chandragupta to gain control of this region rather quickly. Here, it needs to be stated that there is an uncertainty about whether Chandragupta routed the foreigners first or defeated the Nandas. In any case both these tasks were complete by 321 B.C. and the state was set for further consolidation. One of the first major achievements of Chandragupta Maurya on the military front was his contact with SeleucusNikator who ruled over the area west of the Indus around 305 B.C. In the war that ensued Chandragupta is said to have turned out victorious and eventually, peace was established with this Greek viceroy in around 303 B.C. In return for 500 elephants Seleucus gave him eastern Afghanistan, Baluchistan and the area west of the Indus. The Satrapies thus called were Arachosia, Paropanisadae, Aria and Gedrosia. A marriage alliance was also concluded. Further, - Seleucus sent an ambassador called Megasthenes who lived in the court of Chandragupta for many years. This achievement meant that the territorial foundation of the Mauryan empire had been firmly laid with the Indus and Gangetic plains well under Chandragupta's control. It is suggested by a majority of scholars that Chandragupta ultimately established his control not only in the north-west and the Ganges plains, but also in western India and the Deccan. The only parts left out of his empire were thus present day Kerala, Tamil Nadu and parts of North-eastern India. Details of the conquests in different parts of India are lacking. The Greek writers simply mention that Chandragupta Maurya overran the whole country with an army of 600,000. The conquest and subjugation of Surashtra or Kathiawar in the extreme west is attested in the JunagadhRock Inscription of Rudradaman of the middle of the second century A.D. This record refers to Chandragupta's viceroy or governor, Pushyagupta by name, who is said to have constructed the famous Sudarshana Lake. This further implies that Chandragupta had under the control the Malawa region as well. With regard to his control over the Deccan too we have late sources. These are some medieval epigraphs informing us that Chandragupta had protected parts of Karnataka. The Tamil writers of the Sangam texts of the early centuries A.D. make allusion to the "Moriyar" which is said to refer to the Mauryas and their contact with the south, but this probably refers to the reign of Chandragupta's successor. Finally, the Jaina tradition informs us that Chandragupta having become a Jain abdicated the throne and went South with Bhadrabahu, the Jain saint. At

SravanaBelgola, the Jaina religious centre in south Karnataka, he spent the rest of his life and died in the orthodox Jain way by sbw starvation. Bindusara, the son of Chandragupta, is said to have ascended the throne in 297 B.C. There is comparatively little known about him from either Indian or Classical sources. To the latter he is known as Amitrochates. They also inform us that he had contacts with the Seleucid king of Syria, antiochus I, whom he requested to send-him sweet wine, dried figs and a sophist. In a very late source of the sixteenth century, in the work of the Buddhist monk Taranath of Tibet, we are told of Bindusara's warlike activities. He is saidto have destroyed kings and nobles of about sixteen cities and reduced to submission all the territory between the eastern and western seas. The descriptions of early Tamil poets' of the Mauryan chariots thundering across the land probably refer to his reign. Many scholars believe that Asoka is credited to have conquered only Kalinga, the extension of the Mauryan empire beyond the Tungabhadra must have been the work of his predecessors. It can therefore be suggested thatit was probably in Bindusara's reign that the Mauryan control of the Deccan, and the Mysore plateau in particular, was firmly entrenched. Though Bindusara is called "slayer of foes", his reign is not very well documented, and, therefore, the extent of his conquests can only be arrived at by looking at a map of the empire of Asoka who conquered only Kalinga (Orissa). His religious leanings are said to have been towards the Ajivikas. Buddhist sources suggest that Bindusara died in 273-272 B.C. After his death there was a struggle for succession among his sons for about four years. Ultimately, around 269-268 B.C. Asoka was crowned Bindusara's successor.

8.6 Self Check Exercise

1. Which ruler annexed Avanti in Magdhan Empire?
2. Who established the patliputra?
3. When the Mauryan rule established
4. Who made Vaishali the capital of magdha?

8.7 Summary

Despite all these dynastic changes, Magdha continued to remain the foremost kingdom in the Ganga Valley. Deeper reasons for the success of Magadha lay in its advantageous geographical location, its access to the iron mines and the control it had come to exercise over important land and river trade routes and unexpected byproduct of Alexander's invasion of the north-west was that "it hastened the Mauryan conquest of the whole country." He has argued thus because since the tribe of Punjab had already.

8.8 Glossary

Ajivakas	:	A religious sect founded by MakhaliGosaal.
Taranath	:	A Buddhist monk from Tibbat.
Sandrakottus	:	Greek writers mentioned Chandragupta as Sandrakottus.

8.9 Answers to Self Check Exercise

1. Ans. Shishunag
2. Ans. Udayan
3. Ans. 321 B.C.
4. Ans. Shishunaga

8.10 Suggested Readings

1. , A.S., The Position of Women in Hindu Civilization,Delhi 1959.
2. Basham, A.L., The Wonder that was India. New Delhi: Surjeet Publication, 1967.
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6. Thapar, Romila, The Penguin History of Early India, New Delhi ,2015.

8.11 Terminal Questions

1. Throw light on the rise of the power of Magdha.
2. Discuss about the achievement of Haryanak dynasty.
3. Throw light on the contribution of shisunaga dynasty in the expansion of magdha.

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CHAPTER- 9
BUDDHISM AND JAINISM DOCTRINES AND SPREAD

Structure

9.1 Introduction

9.2 Learning Objectives of history

9.3 The Emergence of Jainism and Buddhism

- 9.3.1 The Political System
- 9.3.2 Territorial Expansion and Collapse of Gana-Sanghas
- 9.3.3 Political Philosophy
- 9.3.4 New Organisation of Production
- 9.3.5 Social Stratification
- 9.3.6 Samanas and Brahmanas

9.4 Jainism Basic Teachings

9.5 Growth and Development of Jainism

9.6 Religious Practices of the Jains

9.7 Jain and Hindu Religious Practices

9.8 Buddhism

9.9 Buddhism Philosophy and Society of that Age

9.10 The Growth, Development and Decline of Buddhism

9.11 Self Check Exercise

9.12 Summary

9.13 Glossary

9.14 Answers to Self Check Exercise

9.15 Suggested Readings

9.16 Terminal Questions

9.1 Introduction

In the previous Unit of this Block, we discussed Hinduism. In this Unit we shall be dealing with Jainism and Buddhism which evolved from within Hinduism. These religions developed against the backdrop of certain political systems, political philosophy, economic and social order, and practising of particular religious activities in ancient India. This Unit begins with an indepth discussion on the background of the emergence of these religions. Gautam Buddha is the founder of Buddhism and he has given a significant direction to the religious ideologies of India. The relationship between Buddhism and society of that age is discussed in the next section. Buddhism has grown over a period of time and acquired various new dimensions. We discuss all these aspects. In this section besides discussing various sects in Buddhism we also discussed the similarity of Buddhism with Hinduism and decline of Buddhism in India.

9.2 Objectives

This unit deals with the religious belief systems and philosophies of Jainism and Buddhism. After reading this unit you should be able to a explain the social, political and economic background ofthe emergence of Jainism and Buddhism in India a describe the basic teaching of Jainism a explain the growth and development of Jainism in India a discuss the Jain ways of life a describe the basic teachings of Buddhism a discuss the relationship between the Buddhist philosophy and the society of that age a examine growth and development of Buddhism over a period of time a highlight the similarities between Buddhism and Hinduism and discuss the decline of Buddhism in India.

9.3 The Emergence of Buddhism and Jainlsm

The sixth century B.C. has left a permanent impress on Indian history mainly because it witnessed an intense preoccupation with philosophical speculation. Among the various thinkers contributing to this unique phase were the Mahavira and Buddha, who more than any other historical personages born in India have compeiled the attention of the world as the most humane thinkers, the Indian tradition has produced. Jainism and Buddhism represent the most serious and most comprehensive attempt to analyse the rapidly changing society in which it originated and to provide an enduring social philosophy for mankind. Buddhism created the vision of an alternative society, the possibility of organising society on different principles from the hierarchical and inegalitarian ideology and practices that had begun to gain ground. The roots of Mahavira's and Buddha's social philosophy can be clearly traced back to the society of the sixth century B.C. Politically it was situated in the context of state formation and the emergence of certain institutions.

9.3.1 The Political System

The political system at the time of Mahavira and Buddha was characterised by the existence of two distinct forms of government: monarchical kingdoms and clan oligarchies or gana-sanghas. The geographical location of these units is itself interesting with the monarchical kingdoms occupying the Ganga-Yamuna valley and the gana-sanghas being located near the foothills of the Himalayas. The gana- sanghas were inhabited by either one or more Khatriya clans such as the Sakyas or Mallas, or the Lichcchavis. The gana-sanghas were organised on the lineage principle with the entire clan participating in the exercise of power. There was constant conflict between the various political units and the picture that emerges from the Jain and Buddhist literature is that it was a period of expanding- horEons and political consolidation which ultimately ended with the establishment of the Mauryan empire. It is possible to document the process of state formation, especially in the case of Magadha, from the Buddhist literature. Bimbisara, the 5th century B.C. Magadhan ruler, began a systematic and intensive phase of state organisation. The earlier 26 pastoralcum-agricultural economy with tribal organisation had given way to a more ettled agrarian-based economy which became a major factor in state formation. It made possible the support of a large standing army which was imperative for the expanding frontiers of the kingdoms of the Ganga valley and as an instrument of coercive control within the kingdom. Simultaneously, the agrarian based economy encouraged the formation of an impressive officialdom which is an indispensable aspect of state formation. The standing army, formally divided into various specialised groups, replaced the tribal militia of the earlier society and became an instrument of coercion directly in the control of the king. The growing armies of the aggressive expanding monarchies even attracted the ambitious youth of the gana-sanghas who saw in them a possible outlet for their military skills especially since the gana- sanghas themselves were collapsing one by one.

9.3.2 Territorial Expansion and Collapse of Gana-Sanghas

The process of territorial expansion and the consolidation of the early Indian State was operating at two levels in the age of the Buddha. The monarchical kingdoms of the Ganga valley, especially Kosala and Magadha, were each expanding at the expense of their immediate and weaker neighbours. But at the same time they were locked in a struggle for supremacy among themselves, in which Magadha ultimately trimphed. The gana-sanghas were the first to collapse and the smaller ones like the Sakyas and Mallas had already-caved in during the lifetime of the Buddha. What was at stake in the conflict between the gana-sanghas and the monarchies was not just a different political form but also a whole way of life based on communal control of the land by the clan. However, the collapse of the gana- sanghas became inevitable .in the face of the rapid changes taking place in 6th and 5th cen B.C.

9.3.3 Political Philosophy

The most notable aspect of political philosophy in the age of the Buddha and Mahavir was the completely pragmatic approach to power. Kingship is arked by the absolute and arbitrary exercise of power with no evidence of eeect' e checks upon the king's ability to impose his will on the dominion. The king had t l control over his people and is often depicted as using power in a wilful an B ~apticious manner rather than in a legitimate and controlled capacity. Even the law was not applied consistently but in a highly personal and arbitrary way. The literature indicates very clearly that in the process of change old institutions had collapsed but had not yet been replaced by others; the collective power of the people of the earlier society which had been expressed through tribal institutions, were no longer feast in the expanding territorial units. Power thus became less an instrumental value viewed from the point of view of the community as a whole, and instead became an end in itself. This had important consequences for Buddhist social philosophy.

9.3.4 New Organisation of Production

Historians differ about the extent to which iron coritributed to the emergence of new relations of production in the age of Buddha and Mahavira. However there is a fair degree of consensus on various elements that marked the new relations of production. There was a noticeable expansion of the economy and within that of agriculture. Rice cultivation based on transplantation led to a virtual demographic revolution. The Jain and Buddhist texts mention numerous settlements attesting to an expansion of settlements, the extension of cultivation, and of people, into hitherto unexploited lands. Along with an expansion of cultivation, and of people, into hitherto unexploited lands. Along with an expansion of agriculture and settlements there was increased craft production; numerous crafts are mentioned in the texts as also coinage signifying a money economy, trade and trade routes, and corporate commercial activity in the form of srenis. The age of the Buddha has also been characterised as the period of the second urbanisation. From the texts it is also clear that the gahapatis, a category of persons mentioned often in the accounts in the context of economic activity played a crucial role in the expansion of agriculture. Same of them were in control of substantial tracts of land. The gahapatis were the primary tax payers in the monarchical janapadas and in this capacity they were regarded as intrinsic to the sovereignty of the king.

9.3.5 Social Stratification

The growing complexity of the economy was expressed in the emergence of a sharply stratified society. While some sections of society had large concentrations of land, there were others who had no access to the means of production. The period is marked by the appearance of such categories as vaitanika

(wage earner) and Karmakaras (labourers who hired out their labour). Karmakaras ark mentioned often along with dasa (servile labourer) and together they implied elements of servitude and made them unfree in some way. The term dalidda (pali for daridra) denoting extreme poverty, ajso appears for the first time while its counterposition with wealth suggests sharp economic contradictions in the new society. Economic contradictions were accompanied by social contradictions - certain families were regarded as of high status, others were regarded as low; the Brahmanas were staking their claims to preeminent status based on birth but there is evidence of such claims being vigorously contested. , To sum up, in the sixth century B.C. was one which was in the throes of rapid change. Apart from the emergence of inequality, the transformation and reformulation of political units and social and economic institutions entailed the breakdown of clan and kin organisations and the collective units of the earlier periods. In its place what was visible was individuals, individually and greed. There was unbridled power in the hands of some, while no norms had yet evolved which could mediate between the exploiters and the exploited or between the king and his people. Jainism, Buddhism and other 'heterodox' philosophies were the creative response of thinkers to such a society.

9.3.6 Samanas and Brahmanas

The Religious Philosophies All the major ideas of Indian philosophy can be seen, at least in rudimentary form, in the 6th century B.C. The philosophers articulated their world view through their ideas on the one hand and through the institutional practices within which they created in their organisations on the other. The most significant feature common to the philosophies was the renunciation tradition. The period was characterized by the paribbajakas or samanas who had renounced their household status. They wandered above from place to place with the object of meeting and having discussions with others like them. It is through this ceaseless movement that they propagated their ideals and built up their followings. What united all the samanas together was their opposition to the established tradition of the Bruhmanas based on the cult of sacrifice, central to the ideology of the 1 latter. They were also opposed tothe claims of the Brahmanakpreminencein society and for these reasons they had been described as non-conformist sects. The range of ideas indicates the complexity of attempting to understand the rapidly changing society around these philosophers. It has been argued that the breakdown of the earlier simple communal existence had already created a sense of alienationwhich provided the common backdrop against which the individual philosophers grappled with the problems of human existence. And against such a backdrop Jainism and Buddhism emerged in Indian society. In the following sections of this unit we shall be dealing with the religions of Jainism and Buddhism.

9.4 Jainism, Basic Teachings

Jainism is a living religious faith in India. Though the follower$ bf this religion are found all over the country, they are concentrated mainly in the Western India, Karnataka, Maharashtra, Gujarat, Uttar Pradesh and Madhya Pradesh. Historians have noted the fact that both Jainism and Buddhism originated with Kshatriya belonging to the gana-sanghas, both were associated with non orthodox thinking which rejected Vedic authority, Brahmanic and the caste orders, and founded orders comprising bhikkhus who renounced the world. 20.3.1 The Founder of Jainism ~0th Jainism and Buddhism are fundamentally offshoots from ancient Hinduism. Historically Jainism is older than Buddhism. The great Prophet of Jainism, Mahavira (599-527 B.C.) who was the last in the great succession to give Jainism the latest form, was the older contemporary to Buddha (560-480 B.C.. There are twenty four great circles of time.believed in by the Jain; and in each circle one great prophet comes to the world. According to the Jain tradition these great prophets are known as the

Tirthankaras. Mahavira is remembered as the last of the 24 great teachers or Tirthankaras or "ford-makers" of the Jains. Mahavira was a prince. He abandoned a comfortable pleasurable life and became a wandering ascetic when he was about 30 years old. His father was a ruling Kshatriya and chief of the Nata cIan. Mahavira grew up as a boy, as a youth, loving and dutiful to his parents; but ever in his heart is the vow that he had taken to become a Saviour of the world. After the death of his parents, he renounced the world. He retired into the forest. There for twelve years he practised great austerities, straining to realise himself and to realise the nothingness of all things but the self; and in the thirteenth year illumination came upon him and the light of the Self shone forth upon him, and the knowledege of the Supreme became his own. He shook the bonds of Avidya (ignorance) and came forth as teacher to the world, teaching for forty-two years of perfect life (Besant, 1968: 87). He spent the rest of his life teaching his philosophy in the Gangetic kingdoms which were the site of Buddha's spiritual career also. He died of self starvation, an accepted way of ending an earthly existence among the Jains. Mahavira added certain features to an earlier set of beliefs among the Nirgranthas rather than creating a new body of teachngs. Jainism is fundamentally atheistic, in that while not denying the existence of the gods, it does not give them any important part in the universal scheme. The world, for the. Jain is not created, maintained, or destroyed by any personal deity but functions only according to Universal Law. 20.3.2 Central Doctrine There are two main sects in Jainism -the Digambara "sky-clad" (and thusnaked) and the Svetambara, "white clade". (We shall discuss these sects in Section 20.4.2). By the time of separation of these two sects, the doctrine had been fixed for the whole community; this accounts for the fundamental agreement in the main tenets pr0fessed.b~ the Svetambaras and the Digambaras. In this section we shall discuss the central doctrine of Jainism which has been accepted by both the groups. One might almost sum up the central doctrine of Jainism in one phrase that man by injuring no living creature reaches the Nirvana which is Eternal peace. That is the phrase that seems to carry with it.the whole thought of Jain is: Peace - peace between man and man, peace between map and animal, peace everywhere and in 30 all things, a perfect brotherhood of all hat lives

9.5 Growth and Development of Jainism

In this section we shall be dealing with the growth and development of Jainism over a period of time. Here, we shall cover the spread of Jainism, development of sects and sub-sects in Jainism and the Jain scriptures. In a short span of time Jainism spread over to various parts of India. Initially, the followers of Jainism lived mainly in the ancient Kingdoms of Videha, Megadha and Anga in east India and westward as far as Kasi (modem Varanasi) and Kosala. The influence of Jainism also spread to Dasapura (Mandasor and Ujjain). It also spread over to Nepal and in some parts of South India. In the 2nd Century B.C. the king of Kalinga (modern Orissa) professed Jainism. He also excavated Jain caves and set up Jain images and memorials to monks. Jainism got great patronage from King Samprati, the grandson of Great Asoka. such patronage facilitated the spread of Jainism in South India. Tamil literacy classics such as Manimakalai and shilappalikaram attest to the high degree $f Jain influence in South India itself. From the 5th to the 12th Century the Ganga, Kadamba, Cavlukya and Rastrakuta dynasties of South India recorded royal patronage to Jainism and facilitated the spread of Jainism. During the Gupta period (AD 320-600) Jainism became stronger in the Central and Western India. From 7th Century the Jain Svetambara order gained strength in Gujarat and Rajasthan due to royal patronage. Agam from about 1100 A.D. Jainism gained prominence in the court of Calukyas of Gujarat. Jainism still plays a crucial role in the religions faith of the people in these parts of India.

9.6 Religious Practices of the Jains

In the earlier section we discussed the central doctrine of Jainism and its growth and development over a period of time. Let us examine the religious practices and ways of life of the Jain.The religious practices among the Jains are broadly influenced by two interdependent factors, namely the specific Jain convictions and the Hindu social milieu. Usually Jains should be members of four-fold congregation (sangha) composed of monks, nuns, laymen and laywomen. They have deep faith in the triratna - the right faith, right knowledge and right conduct. They believe that the strict adherence to triratna will bring liberation form bondage for them. Though the external and internal liberation can be obtained by the monks (nirghtha) the householders are permitted certain ceremonies viz., worshipping of images etc. Significantly the Jain church has not been able to ignore the devotional aspiration of the laity, who are also attracted Hindu ritual. Hence although temple worship with burning and waving of lamps, pIucked flowersand fruits, preparation of sandal paste etc.) implies violence, cultic practices are tolerated, being considered ultimately to the worshippers progress. The monks and the laymen are to take some vows. The monks and the nuns pledge to abstain from (a) injuring life (b) taking food and drink at night (since it may lead to injury to insects which might go unnoticed in the darkness. The Jains four fc'cldcongretion can be brought under two great bodies; the laymen and laywomen (Shravika and the ascetic, Yati). The lay believers (Shravaka) are also to take a few important vows. These include non-violence, truthfulness, charity etc. These householders also perform some obligatory duties following the examples of life style of the monks:

i) cultivate right state of mind

ii) regularly practice meditation

iii) Observe fasts on the eighth and fourteen days of the Mon's waxing and waning period.

iv) Confess their faults etc.

The Jains have the strict rule that no intoxicating drug or drink may be touched; nothing like bhang, opium, alcohol etc. is allowed to be consumed. They follow strict vegetarianism. Even honey and butter also listed in the category of forbidden food, since in the gaining of honey lives of bees are often sacrified and so on. Regarding regular life for the laymen the Jain rules laid down that: He must rise very early in the morning and then he must repeat silently his mantras, counting its repetition in the fingers; and then he has to say to himself, what I am, who is my Ishtadevata and what is my religion, what should I do, what should I not do? The Jain Ways of Life The Jains are a comparatively small community. However, they are a powerful cornmuiity not by its numbers, but by its purity of life and also by the wealth of its members - who are mostly merchants and traders. Though the four varnas of the Hindus are recognised by the Jains, the vast mass of them are the Vaishyas - the traders, merchants and the manufactures. In northern India the Jaina and the Hindu Vaishyas intermarry and interdine. They usually do not regard themselves as of different religion. The Jain ways of life are distinctive and many of which have similarity with those of Hinduism. Their family life is similar to that of the traditional Hindu joint family. They strictly follow monogamous form of marriage. However, they have a well-defined code of conduct, that makes them distinctive. Jains are selfconscious and they should never loose control over their mind and body. From childhood, a child is taught to check thoughtlessness, continual carelessness and excitement which are the great banes of human life. The children are thus educated and socialised to be thoughtful, caring, considerate and submissive. Thus Jain laymedlay women are by nature quite, self-controlled, dignified and resewed. The life style of the ascetic Jains are more strict. Fasting is a part of their life just like the fasting of the great ascetic of the Hindu. There are both men

and women ascetics among the Swetambers. They are to follow strict rules of begging and renouncing of property. However, they must not renounce the body. They must beg food enough to support the body, because only in the human body one can be gain liberation. They are to attach prime importance to the teachings of the Guru. Hence they must not renounce the Guru, because without his teaching progress will be impossible. Hence the asaetic worldview is confined to four things - the body, the Guru, disciplines and study. The female ascetics are also to follow the same strict rule of conduct. It is the duty of the female ascetics to see that Jain women, wives and daughters are properly educated. They lay great ass on the education of the women. It is significant that there are no female asctics among the Digambaras. The ascetic dies by self-starvation when an ascetic realises that his body cannot make any further progress, he is to put it aside and pass out the world by death by voluntary starvation. The Jain Festivals The major festivals of the Jains are related to the auspicious occasions of the life of great masters of Jainism.These occasions are (i) descent in the mothers womb (garbhadharana, cjavana) (ii) birth (Janma) (iii) enunciation (diksa) and (iv) attainment of omniscience (Kevalajnana) and (v) death and final emancipation of Jina. Pajjusna (also known as Pryusannu) is the most popular festival of the Jain. It is performed in the month of Bhadrapad (August-September) with the aim of purification by forgiving and rendering service with whole hearted effort and devotion. In the last day of this festival the Jains distribute alms to the poor and take out a procession with the image of Mahavir. During the festival annual confession is made to remove all ill-feelings. A fasting ceremony known as oli is observed by fasting twice a year. This is observed nine dayeach during the month of Caitra (March-April) and Ashwin (September-October). In the full-moon night of the month Caitra the Jains celebrate Mahavir Jayanti, the birth day of Mahavira. It is significant that in common with the Hindus the Jains celebrate many of the Hindu festivals like Holi, Makara-Sankranti, Navaratri (in north) Pongal, Kartika etc. (in South). The Jains take part in temple worship and worship is an obligatory rite to them. They worship not only the image Mahavir, but also of all liberated souls, monks and the scriptures in various occasions. Idol worship, chanting of hymns, consecration of images and shrines are of Jain rituals. All these show the reflection of Hindu influence of Jainism. It is significant that it only the Svetambaras decorate the temple idol with clothings and ornaments. The Digambara authors put more emphasis on mental culture than on idol worship.

9.7 Jain and Hindu Religious Practices

There are certain important similarities in the beliefs, rituals and religious practices between Hinduism and Jainism. The Jain philosophy of Karman is similar to the Hindu doctrine of karma and rebirth. Hinduism has also been widely influenced by the doctrine of Ahimsa. Mahatma Gandhi applied Mahavir's doctrine of Ahimsa in all spheres of life in India, social, economic and political. The dietary restriction among the Vaisnavas of Hinduism is also a result of Jain influence in Indian society. It is significant that Jainism also received various elements of Hindu rites and rituals. Jainism has also influenced by the Hindu caste order. During the medieval period several castes arose among. The Jains. However it is to be noted here that caste system is not followed by Jain monks. The Jain caste names are sometimes common with the Hindus, someare named after places while others are exclusively Jains. Though features of Hindu caste system, such as hierarchy also appear in Jain castes, social differentiation is not so clearly marked. Some castes are common to both Svetambaras and Digamharas, while others are exclusive to one or the other. In this context is again significant to mention I I here that since most of the Jains belong to the business communities in India, they are widely considered akin to the Vaishya castes. Indeed social reciprocity is higher among the Vaishya Hindus and the Jains.

9.8 Buddhism

Basic Teachings in this section we shall be talking about the founder of Buddhism and its basic teachings. 20.6.1 Founder of Buddhism Buddha was the founder of Buddhism. His family name was Gautama and Siddhartha was the name given to him by his parents. He was the prince of the Kingdom of Sakyas and Kshatriya or warrior by caste. Sidhartha had a spiritual and humanistic outlook since his childhood. He was married at the age of 16 years with Yosadhara. The turning point of his life came at 29, when he realised that men are subject to old age, sickness, and death - that human life is suffering. He himself resolved on the great renunication, to give up the princely life and become a wandering ascetic. He departed from the palace leaving his wife and infant son behind. He met various teachers in search of truth. Being unsatisfied he practised severe austerity and extreme satisfication for nearly six years. He, however, again abandoned this pat and selected his own pathto enlightenment. This he accomplished while seated crosslegged under a banyan tree at a place now called Buddha Gaya in Bihar, where Siddhartha Gautam became a supreme Buddha (the Enlightened one) in 528 B.C. 20.6.2 The Essence of Buddhism The essence of the Buddha's early preaching was said to be the Four Noble Truths: acceptance of sufferings, knowing the cause of sufferings, bring to an end of sufferings and the eight fold path as a mechanism for release from sufferings. Let us examine these truths in greater length. i) Life is fundamentally disappointment and suffering Many experts have pointed out that the basic propositions of Buddha's philosophy are psychological and not metaphysical. The central proposition upon which all others are contingent is that of dukha, or pain or human misery, which no one can escape from. The first sermon of the Buddha at Sarnath begins with the inevitability of suffering: Birth is suffering, old age is suffering, sickness is suffering, death is suffering, being united * with loved ones is suffering, to be separated is suffering, not to obtain what one desires is suffering, clinging to the earthly is suffering". Thus the starting point of Buddhist philosophy is thus a recognition of what has been termed the "tyranny of pain". But while the origin of pains were specific to the different experience of individuals the Buddha dwelt on the universal aspects of the agony he found everywhere. While the generalised idea of misery could be drawn from the tyrannical acts in the unsettled conditions of his age, they were formulated as psychological universalities afflicting all human beings cutting across all lines. This focus explains the significance ofthe three signs witnessed by the Buddha, of 36 disease, old age and death, which recurs in all the narratives of the Buddha. It is one of the best attested of the early traditions and most characteristic cf Buddha's Jainism and Buddhism lrnderstanding of human experience. ii) Suffering is a result of one's desires for power, pleasure and continued existence The centrality or pain is linked to the second proposition in the four noble truths where the cause of suffering is located in tanha the "thirst for pleasure, thirst for being, thirst for power". The universe consuming thirst itself may well be a product of the insatiable greed for wealth and for territory. Some passages in the Buddhist texts capture the insatiable greed of men most aptly thus: "the rich in this world give nothing of the goods that they acquired to others; they eagerly heap riches together and further and still further go in their pursuit of enjoyment. Although the king may have conquered the kingdoms of the earth and be ruler of the land this side of the sea he would still cover that which is beyond the sea". Finally only by cutting of individually and the abandonment of selfhood will there be end to Dukkha and tanha arise out of ignorance about the nature of the universe; both are part of a world which is in perpetual flux (ariicca), in the process of continuously changing. Buddhist philosophy has thus aptly been characterised as the "metaphysics of perpetual change", further in the Buddhist view the world is anatta, it is soulless. According to the Buddha there is no stable entity, no soul which transmigrates, although

the process of causation and karma ensures rebirth. However, what transmigrates is individual consciousness; as a person dies his/her consciousness and the desire for fulfilling the unsatisfied cravings propelling it forward enters another life, another body, in the same way as one lamp fades out and kindles to Stop Disappointment and Suffering One Must Stop Desiring The cessation of sorrow is the aim of Buddhist philosophy and is attainable by the code of personal ethics. The criterion of Buddhist ethics is self-control which when it reaches its highest point leads to nibbana, the blowing out of the individual. This is the only stable entity, a state of rest, in a world of ceaseless flux. It is a state of bliss reached by the Buddha and other or perfected beings. There are other features of Buddhism are unique to it; these include a steering away from issues regarded by the Buddha as irrelevant (avyaktani), taking one away from the path to be pursued -the most important being the existence of god. The existence or non-existence of god in no way altered the basic propositions of Buddhism. In keeping with this position was the emphasis on selfreliance in early Buddhism wherein the Buddha exhorted his followers not to look for support outside of themselves but be "Iamps unto themselves". Equally significant was the centrality of compassion for fellow beings. iv) The Way to Stop Desiring and Suffering is the Noble Eightfold Path Suggested by Buddha, these paths are right views, right intentions, right speech, right conduct, right livelihood, right effort, right mindfulness, right concentration. Buddhist Social Order When someone joins the Buddhist order he or she is required to subscribe to no creed. In one part of the ceremony of initiation he says:

I go for refuge to the Law.

I go for refuge to the Order.

Buddha suggested his serious disciple to abandon the ordinary civil life since it was difficult to follow the Eight fold Path in such a life. Hence two main types of followers are there in Buddhism: members of monastic communities and the lay disciples. i) The member of the monastic community are to forsake family, occupation and society and lead a solitary life either as anchorities or as members of a monastic community. There are rigid rules of this monastic community: simple dwellings, threepieces garments (an undergarment, a kind of coat and a cloak), shaved off head and beard. He must beg his food, must observe prohibition to meat diet. The monastic life must follow ten commandments. They must affirm (1) killing, (2) stealing, (3) unchastity, (4) lying, (5) intoxicants, (6) solid food after midday, (7) dancing, music and theatrical representation, (8) using garlands, perfumes and salves, (10) using big and broad couches, and accepting gold and silver. There are further minutest details of the monastic life. Pratimoksha contains a list of about 250 contraventions by which a monk have to test his conscience twice every month. Uparasatha (day of fast) is used for this heart searching. Any one, without caste restriction, without the sin of parricide etc. without some form of serious disease and without lack of personal liberty can be a member of the monastic order. BOX 1 / In the monastic order there are four stages to enter into Nirvana. It begins with the entrants, i.e. the novice who has stepped into the stream. In the second stage there are those who will return here on the earth only once more. In the third stage there are those who will not return here on the earth any more. They will be in a higher world 'heaven' and thence with enter into 'Nirvana'. The highest stage is that of the nrahat (saint) who will pass immediately from his present existence into Nirvana. ii) For the laymenlaywomen Buddha also laid down certain instructions. They are advised to lead a moral Life "in keeping with the demands of the time, and to fulfil all duties towards parents, teachers, wives, children, servants, subordinates, and ascetics". He suggested five commandments for the laymen disciples. They are advised to retrainhm a) killing, b) stealing, c) unchastity, d) lying and e) intoxicants. Though for a laymen highest salvation was not possible through

these prescribed methods: it would help them to procure a favourable reincarnation here o the earth. So it would be possible for them to become a member of the community and ultimately attain the rank of arahat. Such an ideal of reincarnation is associated with the doctrine of karma of Hinduism. A laymen is not called to celibacy, but is required to be faithful to his wife. As an aspect of simple life the Buddhism does not suggest elaborate ceremonies.

9.9 Buddhist Philosophy and Society of that Age

How can we relate these ideas to the society in which Buddhist philosophy originated and what impact did it have upon that society? Further how different or shared were these ideas in relation to existing Brahmanical ideas? Let us examine some of these points here. a) Break with Brahmanism Most important, while there were a few ideas that Buddhist philosophy shared with the Upanishadic thought and with the sramanic (renouncer) tradition Buddha did not merely rehash ideas; his ideas marked in innovative and radical move in the direction of creating a new social philosophy with an enduring appeal for human kind. There was not only a break with Brahmanism but also an interrogation and rejection of its basic beliefs. A later Buddhist philosopher, Dharmakiriti, put this successfully when he characterised ignorance as accepting the authority of the Veda and someone as creator, the desire of gaining merit through the holy dip, the vanity of casteism and torturing the body to redeem sin. The sharpest dimension of the break that the Buddha made with Brahamanism was in his understanding of social institutions. In the Buddist view since there was no creator all social institutions were arrangements which men made. Private property, the family, occupational categories and kingship originated in human social arrangements. b) The Demystification of Kingship and Caste Both these institutions were considered divinely ordained in Brahmanism. Buddhism opened up immense possibilities for recording social arrangements. The impulse and legitimation for reordering social arrangements could also come from the Buddhist emphasis on change. For example, if everything was permanently in a state of change, varna divisions and despotic kingship could also change. It was in conceptualising the new social arrangements that the bases of buddhist social philosophy may be discerned. In response to the contradictions that the bases of Buddhist social philosophy may be discerned. In response to the contradictions of society in his age Buddhism also recognised the direction of historical forces. For example, while the breakdown of the gma-sanghas and the earlier traditions of clan-based societies could not be reversed, they provided models for the Buddhist sangha. In the Buddhist sangha all were equal regardless of their origins; there was no individual property and all decisions were taken through consensus or voting. The sangha, D.P. Chottopadhyaya, was the embodiment of the imaginary sustance of the tribe, a symbol of people's memories and of their aspirations;" it was the vision of an alternative society. However, this egalitarian order applied only to the bhikkhus, i.e. to the samana who renounced both family and property to pursue salvation goals. In the world outside the sangha Buddhism did not envisage radical rearrangements. Buddhism introduced norms which by emphasising charity, self control, and moderation, moderated the excesses of an exploitative economic order. Buddhist ethics required a reciprocal 'giving'; masters should treat those who worked for them well in return for which-their servants would word hard for their masters. These norms would however require no re-ordering of the existing economic order in which some had too much, others too little. Similarly kingship was to be exercised according to dhamma moderating the despotic goverance of existing rulers. c) Arrangements for Redistribution of Surplus through Dana - In keeping with the dual arrangements of Buddhist social philosophy, one for the world of the sangha and the other for the world outside, it was the central place given to dana, or alms giving. This was the link between the two worlds - pious laymen maintained the sangha and others who

had renounced the world. Dana was also a way of ensuring that society maintained its marginalised groups, renouncers and the indigent. In substituting dana for the Brahmanical yagna the Buddha was providing a structural inversion; while the yagna ensured that no surplus could be built up, dana effected its redistribution. To sum up the social philosophy of Buddhism, it can be seen that while Buddhism did not envisage the complete eradication of inequalities on society, Buddhist social ethics provides a code for civilised living rather than creating for an equalitarian society. As the "middle path", it sought to contain the excesses of an exploitative order. It also interrogated Brahmanical values especially hierarchies based on birth and the sacred legitimation of secular institutions. It thus became the first and in some ways the most lasting critique of Brahmanism. It is not surprising therefore that oppressed groups in India have seen in it the vision of a new society. It has also appealed to rationalist humanists both in age of the Buddha and the present. For these and a number of other reasons Buddhism became popular not merely within India but in south, south-east and east Asia - by far one of India's most significant contributions to the world.

9.10 The Growth, Development and Decline of Buddhism

Within a few centuries following the age of the Buddha the philosophy that originated with him spread out from its earlier location in eastern India. As it spread, its philosophical content expanded and was transformed through its creative interaction with its new environments and the changed social processes. Kings and other elites provided support for its expansion; by the second century B.C. it had spread into Sri Lanka and south east Asia; by the 4th and the 5th centuries A.D. it was well established in east Asia.TheHinayam, Mahayana and Vijrayana Buddhist philosophy did not remain static during its long history. In the centuries following the promulgation of the original teaching and the formation of earliest community, India Buddhism underwent a massive process of missionary diffusion throughout the Asian world, assimilating new values and undergoing major changes in external and institutional principles. Today, under the impact of conflicting ideologies and of science and technology. Buddhism as a religious belief system has undergone several changes. Its original propositions had focussed on each individual working towards salvation through the path formulated by the Buddha. Although these formulations were not really esoteric, they were not so easy to continuously observe so as to reach the goal of becoming the perfected being, or the arhant. Fairly early, certain ancillary supports began to be incorporated into Buddhism such as showing reverence to the symbols associated with the Buddha, and other popular cults such as the worship of Tumuli. However the most striking development took place around the 1st century B.C. or 1st century A.D. As Weber has pointed out, in order to become popular an abstract religion has two courses; it can become 'soteriological', that is, adopt the notion of a saviour or of salvation, or become magical, Buddhism did noth - first, it adopted the notion of a saviour and later incorporated Tantrik elements. Finally the three different strands of Buddhism came to be known as Hinayana, Mahayana and Vijrayana for reasons that will become evident presently. i) Hinayana: After the death of Buddha several Buddhist councils were held to decide the questions of faith and religious orders in Buddhism. This finally led to the distinction between those who believed they held the most ancient traditions (Theravanndins) and those who claimed their understandings represented the highest and most complete account Buddha's message (the Mahayanisi). The Theravada or Hinayana (located mainly in the lands of South East Asia, Sri Lanka, Burma, Thailand, Laos, Vietnam and Cambodia) represents the sole survivor of the numerous ancient Indian schools. It has a fixed body of canonical literature, a relatively unified orthodox teaching, a clearly structured institutional distinction between the monastic order and laity. The Tripitaka (Three Baskets) consists of VinayuPitaka (Basket of Discipline), Sutta Pitaka (Basket of Discourses)

and AbhidhammaPitaka (Basket of Scholasticism) written in Pali language is the Hinayam canon of sacred literature. This tradition explicated necessary regulations for the community, meditative techniques and rituals and the stages leading to arhatship. ii) The Mahayana (located in Nepal, Sikkim, China, Koroea and Japan) is a diffuse and vastly complex combination of many schools and sects, based on a heterogenous literature. The main thrust of their principle is that of being against the principle of Hinayana. However, in China and Japan its literature 'ranges from the most abstruse philosophy to popular devotional theism and magic. Institutionally it has appeared both in monastic and in radically lagitimized forms and it has occasionally served well defined church-state configurations. The ideal of the Mahayana school was that of a Boddhisattva (Enlightenment being), whose compassionate vow to save all human beings was contrasted with the aloof self-concern of the Hinayana arhat. The incorporation of the idea of a saviour was facilitated by the belief in Boddhisattvas, a series of previous personages of the Buddha before he achieved an arhant status in his last life. The Boddhisattva was a potential Buddha or a potential arhant. The focus on compassion laid by the Buddha resulted in the ideas that accumulated merit of a Boddhisattva could be transferred to help those who were struggling to escape from their various states of miseries; that once one became an arhant one was of no use to anyone else so that the arhant status should be postponed rather than achieved immediately, and finally that a future Buddha would as a saviour, make salvation possible for a large number of ordinary individuals. This form of Buddhism came to known as Mahayana, or the great vehicle, which would any many people into salvation in contrast to the earlier form of Buddhism called hinyana, the lesser vehicle, as it could not carry so many people to salvation.

The following are some of the ways in which Mahayana Buddism differs from Hinayana. In the Hinayana deity worship had no place and no doctrine of God. The Mahayana introduced the idea of deity into this religion. The popular form of theism of Mahayana was the doctrine of Boddhisattva (one whose nature is pervaded by bodi). According to this doctrine through the history of human being a large number of noble men tread the path of Buddha and all of them had to follow the stages of Boddhisattva before they could attain the status of Buddha. However, a large number of them stopped at the Boddhisattva stage (and did not take up the final step to achieve the status Buddha) because they were filled with infinite pity for the suffering of the world. They prefer to wait to help those who are in need.Thus the Boddhisattva intervenes and saves from danger and death. He protects the weak and the helpless, frees the captive, fights plague and famine, consoles the sorrowful and comforts those who are ready to despair. Thus with this peculiar creation of Boddhisattva by the Mahayana the centre of gravity of Buddhist doctrine was completely shifted. iii) The Tantrayana or Wjrayana (prevalent in Tibet, Mongolia, and some parts of Siberia) dominantly identified with Tibetan Lamaism and its theocracy. The third stage in Buddhist philosophy was the incorporation of a magical - mystic dimension where the followers of Vajrayana believed that release or salvation could be best achieved by acquiring magical powers which was called V4ra, meaning thunderbolt or diamond. This form of Buddhism was focussed on feminine divinities who were the force or potency (Sakti) behind the male divinities. These feminine 'spouses' or the Buddhas or Bodhisattava of the new sect were the saviouresses (Taras) of their followers. Those who reached a high state of detachment and mental training acquired supernatural power and were capable of following these magical practices. The Vhjrayana school flourished in Bengal, Bihar and in Tibet where it has survived. One of the formulae of Tantric Buddhism still chanted is "Om manipadme hum"; such formulae were expected to bestow magical power on the worship and lead to the highest bliss. 20.8.2 Neo-Buddhist Movement in India Buddhism is against the Brahmanic social order. It is against the

caste based social inequality. As it emerged as a response against the Brahmanic cult in the ancient India, in contemporary India. Buddhism has been used as the instrument of eradication of ascribed social inequality. Hence the most significant Buddhist mass revival of the new age was led by Dr. B.R. Ambedkar in India. He found in Buddhism the massage for the uplift of the oppressed in India. He used and interpreted Buddhism as the ideology to bring social equality and justice for the oppressed mass, especially for the Scheduled Castes. After many years of spiritual search, he became convinced that Buddhism was the only ideology that could effect the eventual liberation of India out Castes. On 14 October 1956 he performed a mass 'consecration' of the Scheduled Castes to Buddhism in Nagpur, Maharashtra. The new converts were mostly from the Scheduled Mahars Castes (a Scheduled Caste). This mass conversion aimed at the rejection of the untouchability, participation of the oppressed castes towards undertaking more social and political activities for their liberation from the exploitative forces. One aspect of conversion movement was to radically undermine the Hindu dominant culture by rejecting its basic tenets of hierarchy, purity and pollution. This understanding of Hindu culture created a tendency of negation among the Dalits of Maharashtra. This negation was very important in as much as it developed negative consciousness which drove the Dalit of Maharashtra to undertake move creative and organised political action for their emancipation. Ambedkar's idea behind conversion was to make it a part of the larger political movement based on the material contradictions inherent in Indian Society. Decline of Buddhism in India Before analysing the process of decline of Buddhism in India we should know the similarity between Buddhism and Hinduism and also the influence of Buddhism on Hinduism. It is significant that these aspects have contributed significantly for the decline of Buddhism in India. Originally there are certain similarities in the fundamental doctrine of Hinduism and Buddhism. The idea of transmigration of soul or incarnation is common to both the religious. Both these religions are against taking animal life. It was no doubt, permitted to Hindus by epics and in fact prevailed in Vedic times but was given up under the influence of Buddhism. Buddhism also brought phenomenal change on the mode of worship and rituals of Hinduism. Vedic sacrifices were mostly superseded by other form of worship associated with temples and veneration of images. This is however, to note here that Buddha only suggested sermons and meditation to his followers. However, the ordinary follower of Buddha in the due course of time accepted the worship of relics of Buddha and his chief disciples. The I Buddhist tradition of worshipping of great teachers helped the process of deification of Rama and Krishna. Even in Hinduism Lord Buddha has been regarded as the 10th incarnation of Vishnu. Significantly the Mathas of Hinduism owe their origin to Buddhism. For the first time in the history of Hinduism Mathas were established by Sankara, the South Indian revivalist, in the 9th century A.D. modelled on the pattern of Buddhist monasteries. The mathas at Saingiri, Puri, Dwaraka and Badrinath which are established by Sankara, helped in the revival of Hinduism by enforcing the disciplinary concepts of Buddhism. These mathas still attract thousandsof Hindu pilgrims. Buddhism received a set back in the land of its birth. Many of the noble ideas of Hinduism were incorporated in the fold of Hinduism including Buddha himself as the reincarnation of Vishnu. Hinduism struggled with Buddhism from the 4th to 9th century. The greatest danger of Buddhism came from its emphasis on tolerance and obliteration of differences. The very fact that Buddhism and Hinduism came nearer to each other led to the disintegration of the former. The final disappearance of Buddhism was, however, mainly due to the destruction of its great monasteries by the Muslim invaders ... it must be understood that the decline of Buddhism from India was not its annihilation of explusion but absorption.

9.11 Self Check Exercise

1. Who was the pioneer of Buddhist religion?
2. Taxila was the capital of which mahajanpada?
3. Which jain text bear the description of the sixteen mahajanpadas?
4. Who annexed Avanti in Magdhan empire?

9.12 Summary

Thus it can be said that Buddhism and Jainism presented great changes in Indian society. Both of the religion presented an alternate to Hindu religion**.**

9.13 Glossary

Heterodox	:	Ideas opposed to usual practising religious beliefs.
Ganga-Sanghas	:	Geographically located units and inhabitated and ruled by the Khshatriya clans.
Oligarchies	:	A form of government in which ruling power belongs to few people.
Orthodox	:	Conforming to the established religious doctrine.
Mahajanpadas	:	Political units during 6th century B.C

9.14 Answers to Self Check Exercise

1. Ans. Mahatama Buddha
2. Ans. Gandhara
3. Ans. Bhagwati sutra
4. Ans Shisunaga

9.14 Suggested Readings

1. Altekar, A.S., The Position of Women in Hindu Civilization,Delhi 1959.
2. Basham, A.L., The Wonder that was India. New Delhi: Surjeet Publication, 1967.
3. Ghosha, A., An Encyclopedia of Indian Archaeology, New Delhi: Alterkar Munshiram Manhorlal,1989.
4. Kosambi, D.D. , Myth and Reality,New Delhi,2001.
5. Sharma, R.S., Indian Feudalism,New Delhi,1965.
6. Thapar, Romila, The Penguin History of Early India, New Delhi ,2015.

9.15 Terminal Questions

1. Throw light on process of state formation in 6th century BC.
2. Describe the development and growth of Magdhan Empire.
3. Discuss the origin of Jain religion in India.
4. Throw light on the gana and sangha/ republics of India.

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CHAPTER – 10
THE MAURYAN EMPIRE

Structure

10.1 Inroduction

10.2 Learning Objectives

10.3 Mauryan state and the Administration

- 10.3.1 Council of Ministers
- 10.3.2 Amatyas
- 10.3.3 Superintendent or Adhyaksha
- 10.3.4 Military and Espionage Department
- 10.3.5 Revenue Department
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10.4 Economic Condition

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- 10.4.5 Money Economy and Currency

10.5 Ashoka's Dhamma

- 10.5.1 Background
- 10.5.2 Religious Conditions
- 10.5.3 Polity
- 10.5.4 Distribution of Inscription
- 10.5.5 Dhamma Causes
- 10.5.6 Contents of Dhamma
- 10.5.7 Asoka's Dhamma and Mauryan State
- 10.5.8 Dhamma- Interpretations

10.6 Mauryan Art and Architecture

- 10.6.1 Mauryan Court Art
  - a) Palaces
  - b) Pillers
  - c) Piller edicts

10.6.2 Stupa
10.7 Self Check Exercise
10.8 Summary
10.9 Glossary
10.10 Answers to Self Check Exercise
10.11 Suggested Readings
10.12 Terminal Questions

10.1 Inroduction

Mauryan Empire, in ancient India, a state centered at Pataliputra (later Patna) near the junction of the Son and Ganges (Ganga) rivers. It lasted from about 321 to 185 BCE and was the first empire to encompass most of the Indian subcontinent. The Mauryan empire was an efficient and highly organized autocracy with a standing army and civil service. That bureaucracy and its operation were the model for the Artha-shastra (The Science of Material Gain), a work of political economy similar in tone and scope to Niccolò Machiavelli's The Prince. In the wake of the death of Alexander the Great in 323 BCE, Chandragupta (or Chandragupta Maurya), founder of the Mauryan dynasty, conquered the Punjab region from the southeastern edges of Alexander's former empire. The Seleucids, a contending dynasty for Alexander's legacy, attempted to advance into India in 305 BCE. They were defeated and, after the conclusion of a treaty, the Seleucids and the Mauryans maintained friendly relations. Now enjoying peace along the western border, Chandragupta was free to focus his military exploits to the east and to the south. By the end of his reign, he had extended his empire across northern India. His son, Bindusara, continued the empire's expansion well into the Deccan, stopping around the region known today as Karnataka. Bindusara's son, Ashoka (reigned c. 265–238 BCE or c. 273–232 BCE), added Kalinga to the already vast empire. That addition would be the last, however, as the brutal conquest of that region led Ashoka to abandon military conquest. Rather, he embraced Buddhism and instituted dharma as the state ideology. Much is known of the reign of this Buddhist Mauryan emperor from the edicts inscribed on exquisitely executed stone pillars that he had erected throughout his realm. Those edicts constitute some of the oldest deciphered original texts of India. After his conversion, his notion of conquest consisted of sending many Buddhist emissaries throughout Asia and commissioning some of the finest works of ancient Indian art. After Ashoka's death the empire shrank because of invasions, defections by southern princes, and quarrels over ascension. The last ruler, Brihadratha, was killed in 185 BCE by his Brahman commander in chief, Pushyamitra, who then founded the Shunga dynasty, which ruled in central India for about a century.

10.2 Learning Objectives

After reading this unit you will be able to learn about:

The Mauryan dynasty which founded the earliest empirein 4th cen. B.C.

The nature of administration under the Mauryas.

Economy during the Mauryan period

Development of Art and architecture

And the changes in the society at this time

10.3 Mauryan State and the Administration

The establishment of the Mauryan empire in contrast to the earlier smaller kingdoms ushered in a new form of government, that of a centralized empire. The Mauryan Empire indicates the triumph of monarchy as a political system over tribal republics. A study of the Arthasastra in conjunction with the edicts provides information regarding the administrative structure. At the centre of the structure was the king who had the power to enact laws. Kautilya advises the King to promulgate dharma when the social order based on the varnas and ashramas (stages in life) perishes. The king is called by him dharmapravartaka or promulgator of the social order. There was a council of ministers or mantri- parishad to advise the king and at times this may have acted as a political check. The Mauryan centralized monarchy became a paternal despotism under Ashoka. Ashoka in his 1st separate Edict (Dhauli and Jauguda) says "SavveMunissePaja Mama". (All men are my children). The Mauryan king did not claim any divine origin yet they attempted to emphasize the connection between kinship and divine power.

10.3.1 Ministers Council

The council of ministers or mantri-parishad advised the king and at times may have acted as a political check. But the powers of the council were limited owing to the fact that it was the king who appointed the ministers in the first instance. Three qualities of a minister that the Arthasastra stresses are those of birth, integrity and intelligence. There was no fixed number for the members of the council and it varied according to the need. The Arthasastra lists the Chief Minister or the mahamantri and also distinguishes between the ministers and the assembly of ministers (mantrinomantriparisadam). It would seem that the ministerial council or mantri-parisad, a small group of perhaps three or four councillors, together with the Chief Minister, was selected to act as an inner council or a close advi-sory body. It's important members included the Purohita, Senapati (Commander-in-chief), the Mahamantri and the Yuvaraja.

10.3.2 Amatyas

Amatyas were some sort of administrative personnel or civil servants who filled the highest admin-istrative and judicial appointments. Their pay scales, service rules and method of payment were clearly laid down. Their role and functions were very important, for all governmental work proceeded from them.

10.3.3 Superintendent or Adhyaksha

The Central administration was conducted by a highly skilled Superintendents or Adhyakshas who looked after various departments. Kautilya in the second book of his Arthasastra, Adhyakshaprachara, gives an account of the working of nearly 27 adhyaksas. Some of the important officials are mentioned below.The Akshapataladhyaksha was the Accountant-General who was in charge of the two offices of currency and accounts. The ***Sitadhyaksha*** was the superintendent of the agriculture of crown lands or government agricultural farms. The ***Akaradhyaksha*** was the superintendent of mining and possessed scientific knowledge of mines, metallurgy, gems and precious stones. ***Lavananyadhyaksha*** was the salt superintendent, as the manufacture of salt was a government monopoly.***Navadhyaksha***was the Superintendent of Ports who controlled traffic and transit by waterways. The ***Panyadhyaksha***was the controller of commerce who was in the charge of the control of supply, purchase and sale of commodities. The ***Sulkadhyaksa*** was the collector of customs and tolls. The ***Suradhyaksha*** was the Superin-tendent of Excise who controlled the manufacture and sale of liquor. ***Pautavadhyaksha*** was the super-intendent of weights and measures. The ***Lakshanadhyaksha*** was the superintendent of the mint, etc.

10.3.4 Military and Espionage Department

The army was often led by the king himself. It was only in the days of the last Maurya that we find a Senapati overshadowing the king and transferring the allegiance of the troops to himself. The army of Chandragupta, according to Pliny, included 6,00,000 foot soldiers, 30,000 cavalry and 9,000 elephants, besides chariots. It was under the control of the Senapati under whom there were several adhyakshas of different wings and units of the army such as those of infantry ***(Padadhyaksha***), cavalry ***(asvadhyaksha),*** war elephants ***(hastyadhyaksha***), navy (***navadhyaksha)***, chariots ***(rathadhyaksha***), and armoury (***ayudhagaradhyaksha***). Kautilya classifies troops into the hereditary ones (Maula), the hired troops (bhritakas), troops supplied by forest tribes (atavivala), and those furnished by the allies (mitravala). The first were of primary importance and constituted the standing army of the king. They were probably the troops referred to by Megasthenes in describing the fifth class, that of the soldiers. Kautilya's also talks about the salaries of different ranks of military commanders. For example, the Senapati received a salary of 48,000 panas per annum. **Megasthenes** describes the administration of the armed forces as comprising of six committees with five members on each. The first committee was concerned with naval warfare, second equivalent to the modern commissariat supervising the transport of war materials, third supervising the infantry, the fourth supervising cavalry, the fifth was concerned with chariots and the sixth supervised the elephant corps. The espionage department was manned by guddhapurushas (secret agents) under the control of mahamatyapasarpa, both stationary (Samsthan) and wandering (Sanchari). Officials formed the per-sonnel of this cadre. Different types of agents, from recluses and students to householders and 'poi-sonous' girls (vishkanyas) were employed. They correspond to the 'overseers' of Megasthenes and the Pativedakas or special reporters and Pulisanis or king's agent of Asokan edicts.

10.3.5 Revenue Department

The central administration was conducted through a number of offices largely relating to the con-trol of the revenue, and each under particular officer.

Sannidhata

The treasurer was responsible for the storage of royal treasure, and of the state income both in cash and kind.

Samaharta

He was in charge of collection of revenue from various parts of the kingdom and looked after the income and expenditure by supervising the works of the akshapataladhyaksha (Accountant General).

Sources of revenue as listed in the Arthasastra, include that of cities, land, mines, forests, roads, tolls, fines licences, manufactured products, merchandise of various kinds and precious stones. Kautilya refers to some other kinds of income such as Senabhaktam, the punitive tax imposed by the army on the region through which it passed, and Pindakara, a fixed commuted tax contributed by the villages from time to time. The Accountant-General kept the accounts both of the kingdom and the royal household. He was assisted by a body of clerks (Karmikas). The chief source of revenue was the land tax which was one-sixth to one-fourth of the produce and was collected by the revenue officer, agronomoi, who measured the land, levied the tax and collected it. The second major source of income was toll- tax which was imposed on all articles (except grain, cattle and a few other items). This tax was approximately 10 percent. Shudras, artisans and others who survived on manual labour had to work free for one day in each month.Strabo mentions that craftsmen (except royal craftsmen), herdsmen and husbands men all paid taxes. The king's own estate or royal lands yielded income called sita. Two kinds of taxes, bali and bhaga, are referred to in the Ashokan edicts.

The Rummindei Edict records that the village of Lumbini, where the Buddha was born, was exempted from bali and was to pay only one eighth of the bhaga. Bhaga was levied on agricultural produce and the cattle at the rate of one-sixth (Shadabhaga) whereas Bali was a religious tribute. According to the Arthasastra, the Brahmins, women, children, armourers, sons and the king's men were exempted from the tax.

10.3.6 Judicial and Police Departments

The King was the head of justice – the fountain head of law and all matters of grave consequences were decided by him. Kautilya refers to the existence of two kinds of courts – dharmasthiyas (dealing with civil matters) and kantakasodhanas (dealing criminal cases). There were special courts in the cities and villages presided over by the pradesika, mahamatras and rajukas. Kautilya mentions about the four sources of law. They are dharma (sacred law), vyavahara (Usage), charitam (customs and precedents) and rajasasana (royal proclamations). The Pradesika were the principal police officers, whose duty was to investigate the crimes com-mitted in the region within their jurisdiction. Police headquarters were found in all principal centres. There was a sthaniya in the midst of 800 villages, a dronamukha in 400 villages, a kharvatika in 200 villages and a sangrahana in 10 villages. The jail proper bandhanagara was different from the police lock-up called Charaka.

10.3.7 Povrincial and Local Administration

Apart from the metropolitan area which was directly governed, the empire was divided into four provinces, each under a prince or member of the royal family (Kumara and Aryaputra). Under Asoka, there were four provinces: the Northern Province (Uttarapatha) with the capital at Taxila, western prov-ince (Avantiratha) with the headquarters at Ujjain, eastern province (Prachyapatha) with the centre at Tosali and the southern province (Dakshinapatha) with its capital as Suvarnagiri. The central province Magadha, with its capital at Pataliputra was also the headquarters of the entire kingdom. The viceroy had the power to appoint some of his officials such as the Mahamattas, who went on tour every five years. The most important provinces such as Taxila and Ujjain were directly under the command of the princes (Kumaras). Provinces were subdivided into districts for purposes of administration and groups of officials were in charge of a district. The three major officials of the provinces were thepradesika, the rajuka and the yukta. The pradesika was in charge of the overall administration of a district – supervising the collection of revenue and of maintaining law and order both in the rural areas and in the towns within his district. The rajuka was responsible for surveying and assessing land. Megasthenes probably referred them as agronomoiand they formed the backbone of the rural administration. The yuktas appear to have been subordinate officials whose duties were largely secretarial work and accounting. There was an intermediate level of administration between the district level and that of the village. The unit here was formed by a group of five or ten villages. The two important officials concerned with the administration of this unit were the gopa and the sthanika. The gopa worked as an accountant to the unit. His duties included the setting up of village boundaries, keeping a census of the population of each village according to their tax-paying capacity, their professions and their age, noting the live-stock of each village, etc. The tax was collected by the sthanika who worked directly under the Pradesika.

Village (grama) was the smallest unit of administration and enjoyed autonomy to a great extent. Individual villages must have had their own set of officials who were directly responsible to the gopas. The head of the village was called gramika who was assisted by gram-viddhas or village elders. Gramika was not a paid servant; he was chosen from amongst the village elders. He may have supervised the tax collection of the village and other matters such as discipline and defence.

10.3.8 Municipal Administration

The Arthasastra mentions the nagaraka or city superintendent who was responsible for the main-tenance of law and order in the city. He was assisted by two subordinate officials, the gopa and the sthanika. Asokan inscriptions mention the nagalaviyohalakamahamattas and refer to them largely in their judicial capacity. In describing city administration, Megasthenesoutlines a more elaborate sys-tem. According to him, the officials were divided into six committees each with a membership of five. The first committee was concerned with matters relating to industrial arts.

The second occupied it with the facilities to the foreigners. The third kept a register of births and deaths both by way of a census and for purposes of taxation. The fourth committee was in charge of matters of trade and commerce. The fifth committee supervised the public sale of manufactured articles. The sixth commit-tee collected the tax on the articles sold, this being one-tenth of the purchase price.

10.4 Mauryan Economy

Economic Condition

The mainstay of the economy under the Mauryas was agriculture, though trade was becoming increasingly more important. It would seem that cultivators formed a majority of the population and taxes on agriculture were the main source of revenue.

10.4.1 Agriculture

In some parts of the empire the gana sangha system with communal ownership of land continued. There are also references to state-owned lands called sita lands, which were worked under the super-vision of the Sitadhyaksha either directly by hired labourers or they were leased out to individual cultivators.In the latter case, a share of the produce had to be paid to the state. In addition to these were private owners of land who were required to pay taxes to the king. The village pastures were largely held by the entire community.

In the fertile Gangetic plain a variety of taxes are mentioned such as bali, bhaga, shulka, kara, etc. Megasthenes states that one-quarter of the produce had to be paid as tax. It is likely that this was the figure in the fertile region around Pataliputra. Most Sanskrit texts, on the other hand, lay down that not more than one-sixth of the produce could be claimed by the king. It is very unlikely that a uniform tax was levied over the entire areas as the fertility of the soil varied from region to region, and it varied from one-fourth to one-sixth of the produce. It was directly collected by the king's officials from the individual cultivators without bringing in intermediaries. In addition, the Arthasastra states that the amount of tax would also depend on the nature of irrigation facilities and would range from one-fifth to one third. The Rummindei inscription is the only Ashokan inscription which makes a precise reference to taxation. Here Ashoka says that he had reduced the amount of bhaga (produce of the soil) to one- eighth (atthabhagiya) as a concession to the people of the holy birth-place of the Buddha. Another interesting fact which emerges from this inscription is that the king deals directly with the question of exemption from land tribute. The village that were exempted from taxation was called pariharaka, those that supplied soliders, ayudhiya, and those that paid their taxes in the form of grain, cattle, gold or raw material was called kupya. There were also the villages that supplied free services and dairy produce in lieu of taxes.

10.4.2 Other Sources of Revenue

The Arthasastra refers to a state monopoly of mines (khani), and the manufacture of salt and wine. According to Megasthenes, shipbuilding and manufacture of arms were royal monopolies. Slave labour was employed in the mines and factories. The state was also the biggest trader and made arrange-ments to check adulteration, provided for the correctness of weights and measures, and collection of tolls through officials like Panyadhyaksa, Mudradhyaksa, Kosthagaradhyaksa, Pautvadhyaksa and Sulkadhyaksa, all of them working under the Samaharta. Megasthenes also refers to six boards of Astynomoi, some of which were entrusted with these duties. The state derived its revenue from seven main heads (ayasarira) viz., durga (fortified towns), rastra (country side), khani (mines) setu (buildings and gardens), vana (forest), vraja (herds of cattle), and vanikpatha (roads of traffic).

10.4.3 Trade and Navigation

There was a brisk internal trade among different regions, in various types of goods. External trade was carried on with foreign countries, particularly with the Hellenic (Greek) world and Burma to some extent. The main exports were different spices, pearls, diamonds, cotton textiles, ivory works, conch shells, etc., The main imports consisted of horses, gold, glass, linen, etc. Balance of trade was very much in favour of India. Trade was an important source of revenue which became a major earner in the post-Mauryan period. The eighteen chief handicrafts of the time were organised in guilds called srenis each under its president called pramukha and the alderman called jetthaka. Trade was organised in merchant-guilds (sanghas and srenis). The sale of merchandise was strictly regulated by the state and a toll tax of one- fifth of the value of the commodity was levied. The percentages of profit to the merchants were fixed and excess profits went to the treasury. The amount consisted of 5 per cent on local commodities and 10 per cent on foreign produce. Commodities manufactured in the country were stamped at the place of manufacture, while those that were brought in from foreign countries were stamped at the toll-gates. Since the toll-tax was based on the value of the commodity it was probably paid in money and not in kind. About the practice of usury, Megasthenes states that Indians neither put out money at usury, nor know how to borrow. Kautilya deals with organized money lending in the Arthasastra. Fifteen percent per annum appears to have been the average rate of interest on borrowed money. A special commer-cial interest (vyavaharika) at 60 percent per annum was probably charged for commercial activities involving sea voyages or lengthy travels. Greek sources speak of tax evader being sentenced to capital punishment (kleptimtotelos). Trade routes in the Mauryan period followed either the main highways or the navigable rivers. Sea trade was conducted both with the west and with the northern coast of Burma. The important internal trade routes were the north to south-west route (from Sravasti to Pratisthana), the north to south-east route (from Sravasti to Rajagriha) and the east-west route which followed the river courses of the Ganges and the Yamuna. The Royal Highway from the north-west (in the region of Taxila) to Pataliputra was considered the most important route. This route extended eastwards along the Ganga to the port of Tamralipti. Tamluk (Tamralipti) on the east coast and Broach and Soparaon the west coast were the most important sea-ports of India in those times. The east coast sea route appears to have had heavier traffic. The state appears to have had a considerable control over the ship building industry.

10.4.4 *Crafts and Industries*

One of the more important results of the political unification of India under the Mauryas, and the control of a strong centralized government was the impetus given to the various crafts. Megasthenes refers to the artisans and craftsmen as the fourth class in his seven-fold division of India society. The Arthasastra lays down rules for artisans and craftsmen. They could either work independently on their own or were organised in guilds. Of the two, the latter system was preferred. In addition, the state also employed some artisans such as armourers, ship builders, etc. who were exempted from tax but had to work in the state's workshops. Guilds of textile workers must have been prominent at this time as the Arthasastra mentions several places in the country which specialised in textiles. Cotton fabrics were made at Madhura, Aparanta, Kalinga, Kashi, Vanga, Vatsa and Mahisa. Vanga (East Bengal), Pundra (West Bengal) and Suvarnakudya (in Assam) was famous for white and soft textile dukula, Kashi and Pundra were noted for linen fabrics, kshauma, and Magadha was famous for patroma, a fabric made from trees.

Guilds had to employ hired labour and it consisted of two categories, the karmakaras or the bhritakas who were regarded as free labourers working for a regular wage and the dasas who were slaves. Metallurgy, pottery, wood-work and stone-cutting were other prominent crafts and industry prevalent during the Mauryan period.

10.4.5 *Money Economy and Currency*

The use of currency, which began in the earlier period, became a fairly common feature of the Maurya period because of the developed commerce. Money was not only used for trade; even the government paid its officers in cash. It seems that the punch-marked silver coins, which carry the symbols of the peacock, and the hill and crescent, called pana, formed the imperial currency of the Mauryas. Copper punch-marked coins were rare. Copper masika was the token curency and quarter pieces of masika was called kakini. Kautilya refers to state officers in charge of coinage, the suvarnadhyaksa, the laksanadhyaksa and the rupadarsaka.

10.5 Asoka's Dhamma

Asoka Maurya, succeeded to the Mauryan throne around 269 B.C. Many historians consider him as one of the greatest kings of the ancient world. His policy of Dhamma has been a topic of lively discussion among scholars. The word Dhamma is the Prakrit form of the Sanskrit word Dharma. Dharma has been variously translated as piety, moral life, righteousness and so on, but the best way to understand what Asoka means by Dhamma is to read his edicts. The edicts were written primarily to explain to the people throughout the empire the principles of Dhamma. This is why most of the edicts have something or the other to say about Dhamma, about how keen Asoka was that his subjects should practice Dhamma and how keen he was that the affairs of the state too were carried out according to the principles of Dhamma. To make principles of Dhamma accessible and understandable to all, he put up edicts or inscriptions at the important points throughout the empire and sent messengers of Dhamma outside the empire. It must be clearly understood that Dhamma was not any particular religious faith or practice; so we should not translate Dhamma (or its Sanskrit equivalent Dharma) as religion. It was also not an arbitrarily formulated royal policy. Dhamma related to norms of social behaviour and activities in a very general sense and in his Dhamma Asoka attempted a very careful synthesis of various norms which were current in his time. To understand why and how Asoka formulated Dhamma and what he meant it, one has therefore to understand the characteristics of the time in which he lived' and to refer to Buddhist, Brahmanical and various other

texts here norms of social behaviours are explained. To understand the various aspects of the policy of Dhamma and the reasons for its formulation we would necessarily need to sketch the historical background against which it became possible for Asoka to enunciate it. In the next three sub-sections we shall deal with this historical background.

10.5.1 Background

The Mauryan period witnessed a change in the economic structure of the society. With the use of iron, resulting in surplus production, a changeover took place from a simple rural economy to a pattern of economy in which cities and towns also played an important part. It has been generally argued that the use of the Northern Black Polished Ware P0ttery.i~ an indicator of material prosperity of the period. The use of Punch-marked silver coins and some other varieties of coins, the conscious intervention of the State to safeguard trade routes and the rise of urban centres point to a structural change in the economy requiring necessary adjustments in the society. The commercial classes had also come to the forefront. The emergence of urban culture by its very logic demanded a more flexible social organisation. The incorporation of tribes and peoples from the outlaying areas into the social fabric also presented a problem. The responsk of the Brahmanical social order based on the four-fold varna division was to make the caste system more rigid and deny a higher status to the commercial class. The rigidity of the Brahmanical class sharpened the division within the society. The lower orders turned to the various heterodox sects and this created .social tensions. It was this situation which emperor Asoka inherited when he ascended the Mauryan throne.

10.5.2 Religious Conditions

The Brahmanical hold over society, assiduously built through the later Vedic period, was coming under increasing attack. The privileges of the priests, the rigidity of the caste system and the elaborate rituals were being questioned. The lower orders among the four castes began to favour the new sects. The Vaisyas who were technically included in the higher category were treated as inferior to both Brahmanas and Kshatriyas. The opposition of the commercial class to Brahmanism was to give a filip to the other sects of the society. Buddhism began as a schismatic movement from the more orthodox outlook of Brahmanism. Its basic tenet was an emphasis on misery and advocacy of the "middle path:'. It was a set gf ethical principles. Buddhism opposed the dominance of the Brahamanas and the concept of sacrifices and rituals. It thus appealed to the lower orders and to the emerging social classes. The human approach to relations in society preached by Buddhism further attracted different sections to Buddhism.

10.5.3 Polity

You have already read that the Mahajanapadas of the sixth century B.C., marked the beginning of the state system in many parts of India. This means that only a small section of society came to have monopoly of power which they exercised over the rest of the socikty in various ways and for various purposes. There were monarchies in which the King was the supreme authority and there were gana-samghas in which the rulers were a group of hereditary Kshatriyas or member of a clan. By the time, Asoka ascended the throne, the state system, over a period of more than two hundred years, had grown very elaborate and complex. It was characterized by: The political supremacy of one region (Magadha) over a vast territory which comprised many previous kingdoms, gana-samghas and areas where no organised states had existed before. Existence, within this vast territory, of various geographical regions, cultural areas, and of different faiths, beliefs and practices. Monopoly of force by a ruling class of which the

emperor was the supreme head. Asoka's Policy of Dhamma Appropriation of a very substantial quantity of surplus from agriculture, commerce and other sources. Existence of an administrative apparatus. The complexity of the state system demanded an imaginative policy from the emperor which required minimal use of force in such a large empire having diverse forms of economy and religions. It could not have been controlled by an army alone. A more feasible alternative was the propagation of a policy that would work at an ideological level and reach out to all sections of the society. The policy of Dhamma was such an endeavour.

10.5.4 Distribution of Inscription

Asoka used the medium of his Edicts to expound the policy of Dhamma. Study the map given in Unit 18 of this block. It shows to you the distribution of Asoka's inscriptions of various kinds such as: Major Rock Edicts Minor Rock Edicts Pillar Edicts and so on. Asoka engraved hisviews about Dhamma on these edicts which were meant to be read by people of various areas. In doing so, Asoka was trying to establish direct communication with his subjects. These inscriptions were written in different years of his rule. An examination of the principles as expressed in them would give us a clear idea of what Asoka meant by Dhamma. 8. An Asoknnlnsereption (Kandhnr) The inscriptions can be divided into two categories. The smaller group of these inscriptions reveal that the king was a follower of Buddhism and were addressed to the Buddhist Church or the Samgha. In these there is declaration of Asoka's own relationship with the Buddhist order. In one of the inscriptions he mentions by their title some of the scriptures with which all Buddhists should be familiar with. Inscriptions of the other category are known as the Major and Minor Rock Edicts which were inscribed on rock surfaces. It included also the Pillar Edicts inscribed on specially erected pillars. All sites of Asokan inscriptions were chosen carefully to ensure that they were accessible to a large numberbf people. Thus, as has been pointed out, these edicts may be described as proclamations to the public at large. They explain the idea of Dhamma. We must make a distinction between Asoka's policy of Dhamma which stressed on social responsibility and Asoka's own commitment as a Buddhist. There has been a tendency in the past amongst historians to study the policy of Dhamma and Asoka as a Buddhist in the same context, without making any distinction. A careful examination of the inscriptions would suggest that Asoka on the one hand I declared his personal association with the Buddhist order and on the other he tried to teach, through the policy of Dhamma, the importance of social responsibility and i toleration amongst different members of the society. We will discuss this in detail in the subsequent sections.

10.5.5 Dhamma Causes

In examining the causes for the policy of Dhamma, we have already outlined the historical background, earlier in this Unit. We have suggested that the policy of Dhamma was an earnest attempt at solving some of the problems that a complex 1 society faced. However, the policy was nurtured in the mind of Asoka and through it he attempted to resolve some of the tension$ within the society. Asoka's private beliefs and his own perceptions of how he should respond to the problems of his empire were responsible for the formulation of the policy of Dhamma. It is necessary for us to understand the immediate social environment in which Asoka grew up as it influenced him in the later years of his life. The Mauryan kings are known to have adopted an eclectical outlook. Chandragupta took recourse to Jainism in his later years and Bindusara favoured the Ajivikas. Asoka himself adopted Buddhism in his personal life, though he never imposed Buddhism on his subjects. Before studying 'the actual contents of Dhamma let us briefly recapitulate the main points of the overall situation that shaped a policy such as this: By the time Asoka

ascended the throne the Mauryan imperial system had become a complex phenomenon. The imperial system encompassed various cultures, beliefs and social and political patterns. Asoka had to either maintain the structure by force, which would incur tremendous expenses, or to define a set of social norms which would be acceptable to all, cutting across all social practices and religious beliefs. Asoka found his answer in the policy of Dhamma. Asoka was aware of the tensions which the rise of heterodox sects like Buddhism, Jainism and Ajivikism had generated in society. They were all opposed to the domination of the Brahmanas in some way or the other and had a growing number of supporters. But Brahmanas continued to have strong hold on society and some measure of hostility was inevitable. It was essential to bring about a climate of harmony and mutual trust in a situation such as this. There were obviously many areas within the empire where neither Brahmanical system nor following of the heterodox sects prevailed. Asoka himself refers to the 1 country of the Yavanas where neither Brahmanical nor Sramanical culture was in vogue. Besides, there were many tribal areas in the empire where people were I obviously not familiar either with Brahmanical or heterodox ideas. To make the 1 empire survive and to bring some measure of cohesion within the empire in the I midst of such diversity it was essential that there should be some common pattern, of bebaviour and common approach to the problems of society.

10.5.6 Contents of Dhamma

The principles of Dhamma were so formulated as to be acceptable to people belonging to different communities and following any religious sect. Dhamma was not given any formal definition or structure. It emphasised on toleration and general behaviour. Dhamma stressed on dual toleration-it emphasised on toleration of people themselves and also an toleration of their various beliefs and ideas. There is a stress on the notion of showing consideration towards slaves and servants; there is stress also on ~bedience to elders; generosity towards the needy, Brahmanas and Sramanas, etc. Asoka also pleaded for tolerance of different religious sects in an attempt to create a sense of harmony. The policy of Dhamma also laid stress on non-violence. Non-violence was to be practised by giving up war and conquests and also as a restraint on the killing of animals. However, Asoka realized that a certain display of his political might may be necessary to keep the primitive forest tribes in check. The policy of Dhamma also included certain welfare measures, like planting of trees, digging of wells, etc. Asoka attacked ceremonies and'sacrifices practised regularly on various occasions as meaningless. A group of officers known as.the Dhamma mahamattah were instituted to implement and publicise the various aspects of Dhamma. Asoka thrust a very heavy responsibility on them to carry his message to the various sections of the society. However, they seem gradually to have developed into a type of priesthood of Dhamma with great powers and soon began to interfere in politics as well. In order to make all these aspects of Dhamma clearer, we will see how the policy chronologically developed by examining the contents of some of the Edicts. Major Rock Edict I declards prohibition of animal sacrifice and holiday of festive gatherings. Major Rock Edict TI relates to certain measures of social welfare which are included in the working of Dhamma. It mentions medical tree etc.

Major Rock Edict 111 declares that liberality towards Brahmanas and Sramanas is a virtue, respect to mother and father, etc are all good qualities. Major Rock Edict IV is a very important statment of the policy of Dhamma. The edict comments that due to the policy of Dhamma the lack of morality and disrespect towards Brahmanas and Sramanas, violence, unseemly behaviour to friends, relatives and others and evils of this kind have been checked. The killing of animals to a large. extent was also stopped. Major Rock

Edict V refers to the appointment of Dhamma-mahamattas for the first time in the twelfth year of his reign. These special officers were appointed by the king to look after the interests of all sects and religions and spread the message of Dhamm in each nook and corner of the society. The implementation of the policy of Jhmma was entrusted in their hands. Major Rock Edict VI is an instruction to Dhamma-mahamattas. They are told that they could bring their reports to the king at any time, irrespective of whatever activity ! he may be engaged in. The second paFt of the Edict deals with speedy administration and transaction of smooth business. Major Rock Edict VII is a plea for toleration amongst all the sects. It appears from the edict that tensions among the sects were expressed intensely, perhaps in open antagonism. The plea is part of the overall strategy to maintain unity. Major Rock Edict VII states that Dhammayatras (tours) would be undertaken by the emperor, The earlier practice, of the emperor, of going out on hunting expeditions was given up. Dhammayatras enabled the emperor to come into contact with various sections of people in the empire. Major Rock Edict IX attacks ceremonies performed after birth, illness, marriage and before setting out for a journey. A censure is passed against ceremonies.observed by wives and mothers. Asoka instead lays stress on the practice of Dharnma and uselessness of ceremonies. Major Rock Edict X denounces fame and glory and reasserts the merits of following the policy of Dhamma. Major Rock Edict XI is a further explanation of the policy of Dhamma. Emphasis is on respect to elders, abstaining from killing animals, and liberality towards friends. Major Rock Edict XII is again an appeal towards toleration among sects. This edict reflects the anxiety the king felt due to the conflict between sects and carries his plea for harmony. Major Rock Edict XIII is of paramount importance in understanding the Asokan policy of Dhamma. The Rock Edict pleads for conquest by Dhamma instead of War. This is a logical culmination of the thought processes which began from the first Rock Edict, and by conquest what is perhaps meant is the adaptation of the policy of it Dhamma by a country, rather than its territorial control. The text of the Edict reads: 1 "When he had been consecrated eight years the Beloved of the Gods, the king Piyadassi, conquered Kalinga. A hundred and fifty thousand people were deported, a hundred thousand were killed and many times that number perished. Afterwards, now that Kalinga was annexed, the Beloved of the Gods very earnestly practised Dhamma, desired Dhamma and taught Dhamma. On conquering Kalinga the Beloved of the Gods felt remorse, for, when an independent country is conquered the slaughter, death, and deportation of the people is extremely grievous to the Beloved of the Gods, and weighs heavily on his mind. What is even more deplorable to the Beloved of the Gods is that those who dwell there, whether Brahmans, Sramans, or I those of other sects, or householders who show obedience to their superiors, obedience to mother and father, obedience to their teachers and behave well and devotedly towards their friends, acquaintances. colleagues, relatives, slaves and servants-all suffer violence, murder and separation from their loved ones. Even those who are fortunate to have escaped, and whose love is undiminished (by the brutalizing effect of War), suffer from the misfortunes of their friends, acquaintances colleagues and relatives. This participation of all men in suffering weighs heavily on the mind of the Beloved of the Gods. Except among the Greeks, there is no l and where the religious orders of Brahmans and Sramans are not to be found, and there : is no land anywhere where men do not support one sect or another. Today, if a 320 B.C. to 200 B.C hundredth or a thousandth part of those people who were killed or died or were deported when Kalinga was annexed were to suffer similarly, it would weigh heavily on the mind of the Beloved of the Gods." "This inscription of Dhamma has been engraved so that any sons or great grandsons that I may have should not think of gaining new conquests, and in whatever victories they may gain should

be satisfied with patience and light punishment. They should only consider conquest by Dhamma to be a true Conquest, and delight in Dhamma should be their whole delight, for this is of value in both this world and the next." This is Asoka's testament against war. It graphically depicts the tragedy of war and shows why he turned against it. It is a unique event in the annals of the ancient world because we do not know of any other contemporary monarch who renounced war. Asoka embarked on the policy of Dhamma after this war.

10.5.7 Asoka's Dhamma and Mauryan State

Asoka's Dhamma was not simply a collection of high sounding phrases. He very consciously tried to adopt it as a matter of state policy for he declared that "All men are my children" and 'whatever exertion I make, I strive only to discharge the debt that I owe to all living creatures". It was a totally new and inspiring ideal of kingship. In the Arthasastra the King owed nothing to anyone. His only job was to rule the state efficiently. Asoka renounced war and conquest by violence and forbade the killing of many animals. Asoka himself set the example of vegetarianism by almost stopping the consumption of meat in the royal household. Since he wanted to conquer the world through love and faith, he sent many missions to propagate Dhamma. Such missions were sent to far off places like Egypt, Greece, Sri Lanka, etc. The propagation of Dhamma included many measures for people's welfare. Centres for the medical treatment of men and beasts were founded inside and outside the empire. Shady groves, wells, fruit orchards and rest houses were laid out. This kind of charity work was a radically different attitude from the king of Arthasastra who would not incur any expenses unless they brought more revenues in return. Asoka also prohibited useless sacrifices and certain forms of gatherings which led to waste and indiscipline and superstition. As mentioned earlier, in order to implement these policies he recruited a new cadre of officials called Dhammamahamattas. Part of this group's duties wds to see to it that people of various sects were treated fairly. Moreover they were especially asked to look after the welfare of prisoners. Many convicts who were kept in fetters after their sentence had expired, were to be released. Those sentenced to death were to be given a grace for three days. Asoka also started Dhamma yatras. He and his high officials were to tour the country in order to propagate Dhamma and establish direct contact with his subjects. It was because of such attit~~des and policies that modem writers like Kern called him "a monk in a king's garb."

10.5.8 Dhamma- interpretations

The Asokan policy of Dhamma has been an issue of intense controversy and debate amongst scholars. Some scholars have suggested that Asoka was a partisan Buddhist and have equated Dhamma with Buddhism. It has also been suggested that it was the original Buddhist thought that was being preached by Asoka as Dhamma and later on certain theological additions were made to Buddhism. This kind of thinking is based on some Buddhist chronicles. It is believed that the Kalinga war was a dramatic tuping point where Asoka out of remorse for the death and destruction of war, decided to become a Buddhist. The Buddhist records also credit him with the propagation. of Buddhism in India and abroad. One cannot, however, lay the charge of being partisan against Asoka. There are two strong arguments to prove that Asoka, as an emperor, did not favour Buddhism at the expense of other religious faiths. i) Asoka's creation of the institution of thcDhammamahamattas convincingly proves that Asoka's Dhamma did not favour any particular religious doctrine. Had that been the case, then there would have been no need for such an office, as Asoka could have utilized the organisation of Samgha to propagate Dhamma. ii) A careful study of the Rock Edicts depicts that Asoka wanted to promote tolerance and respect for all religious sects and

the duty of the Dhammamahamattas included working for the Brahmanas and the Sramans. These two points-made it 'clear that the policy of Dhamma was not the policy of a heretic but a system of beliefs created out of different religious faiths. There has been some discussion among historians about the results of Asoka's propagation of Dhamma. Some historians believe that Asoka's banning of sacrifices and the favour that he showed to the Buddhists led to a Brahmanical reaction. This in turn led to the decline of the Mauryan empire. Others believe that the stopping of wars and emphasis on non-violence crippled the military. might of the empire. This led to the collapse of the empire, after the death of Asoka. It has been shown by Romila Thapar that Asoka's Dhamma, apiytfro'm' being a superb document of his essential humaneness was also an answer to the socio-political needs of the contemporary situation. That it was not anti-Brahmanical is proved by the fact fiat respect for the Brahmanas and Sramans is an integral part of his Dhamma. His emphasis on non-violence did not blind him to the needs of the state. Thus, addressing the forest tribes he warns them that although he hates to use coercion he may be required to resort to force if they continue to create trouble. By the time Asoka stopped war, the entire Indian sub-continent was under his control. In deep south he was on friendly terms with the Cholas and Pandyas. Sri Lanka was an admiring ally. Thus, Asoka's no to war came at a time when his empire had reached its natural boundaries. The plea for tolerance was a wise course of action in an ethnically diverse, religiously varied and class divided society. Asoka's Dhamma could not survive him. As such it was a failure. However, we should remember that he was not establishing a new religion. He was simply trying to Impress upon the society the need for ethical and moral principles.

10.6 Mauryan Art And Architecture

In 321 BC, Chandragupta Maurya, with the help of Chanakya (author of Arthashasthra) founded the Mauryan dynasty after overthrowing Nanda Dynasty.The Mauryan Empire was the first most powerful Indian empire to bring the entire Indian subcontinent under a single rule.The Mauryan empire under Chandragupta Maurya spread its boundaries into Central Asia and Persia.Expansion of Mauryan Empire: Chandragupta Maurya was succeeded by his son Bindusara in 298 BC who expanded the kingdom over most of present-day India, except Kalinga.Mauryan Dynasty under Ashoka: Bindusara's kingdom was inherited by his son Ashoka the Great in 274 B.C.Kalinga Invasion: During the invasion of Kalinga, Ashoka renounced bloodshed and adopted the policy of Ahimsa and adopted Buddhism.The Great Mauryan ruler Ashoka embraced Buddhism (as a part of shraman tradition) and the immense Buddhist missionary activities that followed during his rule paved the way for the development of Mauryan sculptural and architectural styles. King Ashoka patronized the shraman tradition in the third century BCE.Theshraman tradition refers to several Indian religious movements parallel to but separate from the historical vedic religion. It includes Jainism, Buddhism, and others such as Ajivikas, and Carvakas.

Mauryan architecture can be divided into Court Art and Popular Art. The description to this is as follows:

10.6.1 Mauryan Court Art

Implies architectural works (in the form of pillars, stupas and palaces) commissioned by Mauryan rulers for political as well as religious reasons.

a) Palaces

Greek historian, Megasthenes, described the palaces of the Mauryan empire as one of the greatest creations of mankind and Chinese traveler Fa Hien called Mauryan palaces as god gifted monuments. The palace of Chandragupta Maurya was inspired by the Achaemenid palaces at Persepolis in Iran. Wood was the principal building material used during the Mauryan Empire. Examples: The Mauryan capital at Pataliputra, Ashoka's palace at Kumrahar, Chandragupta Maurya's palace.

b) Pillars

Ashoka pillars, (usually made of chunar sandstone), as a symbol of the state, assumed a great significance in the entire Mauryan Empire. The main objective was to disseminate the Buddhist ideology and court orders in the entire Mauryan empire. While most Ashoka pillar edicts were in Pali and Prakrit language, few were written in Greek or Aramaic language also. Mauryan pillars mainly comprise of four parts:

Shaft

A long shaft formed the base and was made up of a single piece of stone or monolith.

Capital

On top of shaft lay the capital, which was either lotus-shaped or bell-shaped.

Abacus

Above the capital, there was a circular or rectangular base known as the abacus.

Capital Figure All the capital figures (usually animals like a bull, lion, elephant, etc) are vigorous and carved standing on a square or circular abacus.

Similarities with Persian (Achamenian) Pillars

Both Maurya and Achaemenian pillars, used polished stones and have certain common sculpture motifs such as the lotus. Maurya's idea of inscribing proclamations (related to Buddhist teachings and court orders) on pillars has its origin in Persian pillars. Inscriptions of both empires begin in the third person and then move to the first person.

Differences with Persian (Achamenian) Pillars

The Capital Figure was absent in Mauryan pillars of the Kumhrar hall whereas pillars at Persepolis have the elaborate capital figures. The shape of Mauryan lotus is different from the Persian pillar. Most of the Persian pillars have a fluted/ ridged surface while the Mauryan pillars have a smooth surface. The Achaemenid pillars were generally part of some larger architectural scheme, and bit complex and complicated, while the Ashokan pillars were simple and independent freestanding monuments. Unlike Mauryan shafts which are built of monolith (single piece of stone), Persian/Achaemenian shafts were built of separate segments of stones (aggregated one above the other).

c) Pillar Edicts and Inscriptions

Ashoka's 7 pillar edicts: These were found at Topra (Delhi), Meerut, Kausambhi, Rampurva, Champaran, Mehrauli:

Pillar Edict I: Asoka's principle of protection to people.

Pillar Edict II: Defines Dhamma as the minimum of sins, many virtues, compassion, liberality, truthfulness, and purity.

Pillar Edict III: Abolishes sins of harshness, cruelty, anger, pride, etc.

Pillar Edict IV: Deals with duties of Rajukas.

Pillar Edict V: List of animals and birds which should not be killed on some days and another list of animals which have not to be killed at all.

Pillar Edict VI: Dhamma policy

Pillar Edict VII: Works done by Asoka for Dhamma policy.

Minor Pillar Inscriptions

Rummindei Pillar Inscription: Asokha's visit to Lumbini & exemption of Lumbini from tax.

Nigalisagar Pillar Inscription, Nepal: It mentions that Asoka increased the height of stupa of Buddha Konakamana to its double size.

Major Pillar Inscriptions

Sarnath Lion Capital: Near Varanasi was built by Ashoka in commemoration of Dhammachakrapravartana or the first sermon of Buddha.

Vaishali Pillar, Bihar, single lion, with no inscription.

Sankissa Pillar, Uttar Pradesh

Lauriya-Nandangarth, Champaran, Bihar.

Lauriya-Araraj, Champaran, Bihar

Allahabad pillar, Uttar Pradesh.

10.6.2 Stupa

Stupas were burial mounds prevalent in India from the vedic period.

Architecture: Stupas consist of a cylindrical drum with a circular anda and a harmika and a chhatra on the top.

Anda: Hemispherical mound symbolic of the mound of dirt used to cover Buddha's remains (in many stupas actual relics were used).

Harmika: Square railing on top of the mound.

Chhatra: Central pillar supporting a triple umbrella form.

Material Used: The core of the stupa was made of unburnt brick while the outer surface was made by using burnt bricks, which were then covered with a thick layer of plaster and medhi and the toran were decorated with wooden sculptures.

Examples: Sanchi Stupa in Madhya Pradesh is the most famous of the Ashokan stupas. Piprahwa Stupa in Uttar Pradesh is the oldest one. Stupas built after the death of Buddha: Rajagriha, Vaishali, Kapilavastu, Allakappa, Ramagrama, Vethapida, Pava, Kushinagar and Pippalivana. Stupa at Bairat, Rajasthan: Grand stupa with a circular mound and a circumambulatory path.

Depiction of Buddha at Stupas

Symbols: In the early stages, Buddha was represented through symbols that represented the different events of Buddha's life like footprints, lotus thrones, chakras, stupas, etc.

Jataka Stories: Later on, Jataka stories (stories associated with the previous birth of Buddha) were portrayed on the railings and torans of the stupas.

The Jataka stories that find frequent depiction are Chhadanta Jataka, Sibi Jataka, Ruru Jataka, Vessantara Jataka, Vidur Jataka and Shama Jataka.

The chief events from Buddha's life which are narrated in the arts are birth, renunciation, enlightenment, the first sermon (dharmachakrapravartana) and Mahaparinirvana (death).

10.7 Self Check Exercise

1. What is stupa?
2. Who was Naukadhyaksha in Mauryan administration?
3. Who was Aakradhyaksha?

10.8 Summary

In 321 BC, Chandragupta Maurya, with the help of Chanakya (author of Arthashasthra) founded the Mauryan dynasty after overthrowing Nanda Dynasty.The Mauryan Empire was the first most powerful Indian empire to bring the entire Indian subcontinent under a single rule.The Mauryan empire under Chandragupta Maurya spread its boundaries into Central Asia and Persia. It was one of the great empires of Ancient Indian History. It represents the great development in the field of Polity, religion, culture, economy and Architecture.

10.9 Glossary

Jatak	: The stories of early births of Mahatama Buddha.
Harmika	: Square railing on top of the mound.
Chhatra	: Central pillar supporting a triple umbrella form.
Sannidhata	: The treasurer was responsible for the storage of royal treasures
Samaharta	: He was in charge of collection of revenue from various parts of the kingdom

10.10 Answers to Self Check Exercise

1. Ans. S Where the relics of Mahatma Buddha were buried.
2. Ans. Who looked after the naval issues?
3. Ans. Who looked after the administration of mines.

10.11 Suggested Readings

1. Singh, Upinder, History of Ancient India, Pearson Publication, 2016.
2. Pandey, Jai Narayana, Purattava Vimarsh, 2019.
3. Basham, A.L., The Wonder that was India, New Delhi,1967.
4. Ghosh, A., An Encyclopedia of Indian Architecture, New Delhi, 1990.
5. Brown, Percy, Andian Architecture: Buddhist and Hindu, CBS Publication Encyclopedia of Indian Archaeology, New Delhi, MunshiramManhorlal,1990.,2014.
6. Sastri, Nilkanth, A History of South India, Delhi, 2000.
7. Cramrish, Stella, Indian Sculpture, Oxford Publication, 1981.

10.12 Terminal Question

1. Discuss the Development of the MauryanEmpire.
2. Describe the nature of administration under the Mauryas.
3. Throw light in the economy during the Mauryan period.
4. Discuss about the development of Art and architectue and the changes in the society at that time.

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CHAPTER- 11
POST MAURYAN PERIOD

Structure

11.1 Introduction

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11.3 Post Mauryan polity

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b) About the state formation

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11.4 The Kushana

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11.7.1 Post Mauryan Architecture

1. Stupas Architecture

2. The Amaravati School of Art

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11.9 Summary

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11.11 Answers to Self Check Exercise

11.12 Suggested Readings

11.13 Terminal Questions

11.1 Introduction

The political history of this period has to be pieced together by going through different types of sources. For some regions, the Puranic lists of dynasties and rulers become important sources of information. Inscriptional sources are also very important and in some cases, they supplement the information that we get

from the Puranas. For the period immediately succeeding the overthrow of the Mauryas scraps of information are found in such texts as: the Gargi Samhita, the Mahabhashya of Patanjali, the Divyavadana, the Malavikagnimitra of Kalidasa and the Harshacharita of Bana. Evidence of Sunga history comes to us alsb from the inscriptions from Ayodhya, Vidisa and In the post-Mauryan period political power did not remain in the hands of one family. Two to 300 A.D. main trends are seen in this period. One is that in the north west, there was a succession of rulers, first of Greek Origin, then of Saka or Parthian origin and next of Yuch-chi origin. The second trend was that in the major part of northern India minor local ruling families came up. In some areas, we also find gana-samghas distributed over a wide area in this period. For all these ruling families, the most important data are provided by the different types of coins minted by them. Coins, with the names of rulers appearing on them, thus become a major source now, but for the political history of this period, this source has to be supplemented by other sources. Cultural contacts with parts of Western Asia but more with Central Asia became regular in this period. So for the north western region some other types of sources become important in this period. For example in addition to coins, inscriptions written in Kharosthi script are found in large numbers in this period in the region of Gandhara and there are many Kharosthi documents found in Central Asia as well. Similarly, there are stray references in Greek and Latin sources to regions of north western India and its rulers. In the Buddhist sources too we find evidence regarding this period. For example, the Pali work Milinda-Panha (The questions of Milinda) bears on the Yavana King Menander and on Buddhism in this period. The Chinese historical chronicles too contain references to contemporary events in Central Asia, Bactria and north west India. For example, for information on the early history of the Yuch-chis or the Kushanas, we have to depend on the chronicles of early Han and later Han dynasties of China.

11.2 Objectives

The final blow to the last of the Mauryan Kings was rendered by Pushyarmitra. Sunga in about 180 B.C. The period which commenced from about 200 B.C. did not witness a large empire, it is historically important as one in which there were widespread cultural contacts with Central Asia, and the assimilation of foreign elements into the Indian society. This period witnessed the emergence of a number of political regions in north and northwestern India. We will take up for our study some of the more prominent dynasties like the Sungas, the Indo-Greeks, the Sakas, the Parthians and the Kushanas. We will also study the cultural contacts in various fields, like trade, technology, art, and religion.

11.3 Post Mauryan polity

11.3.1 Sungas-The Inheritors of The Mauryans

The immediate inheritors of the Mauryas in the Ganga heart land Magadha, were the Sungas, a Brahman family which had usurped the throne at Patliputra. In 185 B.C. Brhadratha, the last of the Mauryans, was assassinated by his commander –in –chief of the army, Pushyamitra, who belonged to the Shunga family as mentioned above. Buddhist tradition speaks of Pushyamitra as a ferocious persecutor of Buddhism. He was certainly an orthodox Brahman, and it is significant that on two occasions he carried out thetraditional house sacrifice. However the orthodox reaction against Buddhism must have been brief because it was during the Shunga epoch that the first great Buddhist sanctuaries sprang up and that the initiative in the field of monumental architecture extended tobroader groups of the population, thus ceasing to be a royal prerogative.

The dominions of Pushyamitra included Magadha and extended southwards to the Narmada, northwest to Jalandhar in the Punjab. It has been recorded that the north western provinces of the Magdha empire had been arrested by Demetrius the Greek king of Bactria, about the beginning of the second century B.C. Demetrius was so successful in his Indian expedition that the Greek writer gave him the appellation of "King of the Indian subcontinent". But while he was busy in India, the Bactrian throne was usurped by one Eucratides, and Demetrius tried in vain to dislodge him. Eucratides, though successful against Demetrius, was not destined to enjoy his ill- gotten power for a longer period of time. He was cruelly murdered by his own son who drove his chariot over the dead body of his father. These internal dissentions among the Greeks probably gave Pushyamitra a good opportunity to recover some of the lost territories and restore order in the empire. But they were followed by other terrible consequences for the Greeks while they were fighting amongst themselves for some or the other reasons, Bactria was invaded by the Scythian hordes, and the Greek sovereignty in the fair valley of the oxus was extinguished for ever. The Greeks, driven from Bactria, were forced to take shelter in their Indian dominions in Afghanistan and the western Punjab, where they ruled for two hundred years more. There were rival dynasties ruling in different localities and it is at present impossible to deal with them in a consecutive narrative. But the interesting fact remains that within this narrow enclave, cut off form the mainland of Greece, and all but unknown to the Greek historians, there flourished two or more principalities ruled over by about thirty Greek kings. The names of these Greek rulers are evident through the coins, but we hardly know anything about most of them of the few kings, who are known to us from other sources also. Menander, King Millinda of the Buddhist literature is the most prominent. His capital was sakala, the present Sialkot, and he seems to have led several victorious expeditions into the interior of Northern India. Another King Apollodotus, is also said to have conquered Kathiawar Peninsula. In general however, the sovereignty of the Greek kings was confined to Afghanistan and the Punjab, and it is only at rare intervals that they temporarily carried their arms into the interior. Pushyamitra, a Hindu and patron of Brahmanism arrested the disintegration of the empire. He marked a powerful Brahmanic reaction and the Buddhist principle of Ahimsa fell in the background. For all the political disorder, and despite the restoration of traditional social orders, this period became the time when Indian monumental work first took on distinctive forms that have survived. Although Buddhist monumental architecture had made its appearance in the Mauryan age, as has been noticed, and although the greatest architecture undeniably belongs to the later periods it was in the Sunga period that in this field – as in the figurative arts – India used for the first time a language of her own, abandoning the Indian "accent" or placing it in a totally new context. It is seen that Mauryan art represented basically a court phenomenon, or better, it was an art based on royal commissions, a manifestation of an ideology according to which the state was ideally identified with the community in its highest expression, with its welfare, and thus with the social order that surrounds every individual. Mauryan art ignored every possible counterpart of the King that king wanted to transform into a religious support for his power. We have also analyzed how Mauryan official art of a high technical level was accompanied by a most modest ceramic production that stylistically has nothing to do with the former. There are two currentsthat developed side by side and that marked the profound difference between thecourt culture and that of the city dwellers who had recently emigrated from the country and were still by tradition bound to a religiosityassociated with agricultural communities. The Shunga period marks a profound revolution in all these tendencies. The Shunga terra-cottas for instance, reveal not only a decidedly better technique compared to Mauryan ones but- and this is

what counts most- they are perfectly compatible stylistically with the more ambitious monumental works. And this despite the fact that the subjects differed religions in the decorations of the architectural monuments, and secular in the terror- cottas found in abundance at excavation sites. When such a unity in expression has been attained, we may speak of a true "Indian art".

11.3.2 The Indo-Greeks

From about 200 B.C. a series of movements across the north western borders of the Indian sub-continent took place. Among the first to cross the Hindukush were the Greeks, who ruled Bactria, south of the Oxus river in the area covered by North Afghanistan. Alexander's invasion in north western India did not result in Greece and India coming together in any significant manner. The mingling of the two cultures came about in the second century B.C. through the ~rkek kings of Bactria who moved into northwest India and came to be called the Indo - Greeks.After the fall of the Achaemenid rule in Iran and the death of Alexander, Iran and the Northern-Western and neighbouring areas passed under the rule of Alexander's generals. Gradually the Greek rulers Northern India of Bactria who were originally subordinate to the Seleacids, and the Arsacid rulers of Parthia started asserting their autonomy. The Greek rulers faced a severe threat from the Scythian tribes. With the construction of the Chinese Wall the Scythians could not move towards China and in turn attacked the Greeks and Parthians. Pushed by the Scythian tribes the Bactrian Greeks were forced to move towards India. These invasions had begun by the end of the Mauryan rule and the successors of Asoka were not strong to resist them. From the first half of the second century B.C. the Indo -Greeks occupied a large part of north western India. They also undertook occasional expeditions to the Ganga basin and other parts of the country and they came as far as Panchala, Saketa and Pataliputra. One of the most famous Indo - Greek rulers was Menander or Milinda. During the period of his rule, the Indo -Greek power extended from the Swat Valley to Punjab as far as the Ravi river. He had his capital at Sakala (modem Sialkot) in Punjab. Menander is best remembered for his conversion to Buddhism by Nagasena, a Buddhist monk and philosopher. Menander asked Nagasena many questions relating to Buddhism. These questions and Nagasena's answers were recorded in the form of a book known as Milinda - Panha or The Questions of Milinda. The names of at least thirty Bactrian Greek rulers are known from a large number of coins. Menander's coins have been located as far as Kabul in the north and Mathura near Delhi. The history of the Indo - Greeks has been reconstructed mostly with the help of their coins bearing legends in Greek and later in Kharosthi and Brahmi as well. The evidence is sometimes confusing, as many kings had identical names and the coins of one ruler can be distinguished from those of another only with great difficulty. Influence of Indo -Greek coinage, particularly silver coinage, which was excellent in workmanship is found present in some coin series issued by some local rulers of the period. The nature of the coinage and the wide area in which it circulated suggest wide trade contacts. The Indo - Greeks are also important for their introduction of Hellenistic art features in north-western India which culminated in the Gandhara art style.

11.3.3 Satvahananas

A) Sources

The names of the Satavahana rulers, also known as the Andhras, occur in the lists of kings found in the Puranas. There are many difficulties in using these lists as sources of history without critically comparing them with other sources. For example the names ' of the kings and the duration of their rule vary in the

different Puranas. Moreover, information about the kings is interwoven with myths and legends, and one has to carefully distinguish between facts and legendary stories. The Puranas are nevertheless useful when studied with other sources such as coins and inscriptions. The Satavahanas minted a large number of coins in lead, silver and an alloy of copper. Their silver coins - carry the portrait of the king and his name. The inscriptions are found in Buddhist caves cut in the rock and record donations made by Satavahana kings and queens as well as by a large number of ordinary people. By comparing the information available in these different sources, scholars generally accept that the Satavahanas began their rule around the first cetury B.C.

B) About State Formation

We should now pose the question: What is a state and how does the emergence of state bring,qbout changes in society? There are many theories which seek to explain the reason for the emergence of a state. Reasons for the emergence of a state vary from region to region. In certain cases the development of trade and the growth of urban centres could lead to the rise of a state. Other theories suggest that population pressure could also result in a change in the political structure. Scholars agree that a state is a more efficient method of controlling expanding populations. A state exercises control over a more or less well-defined territory and maintains an adminisrative machinery to collect taxes and revenue. It pays for a regular army that enforces law and order. But together with all this, the inequality and stratification in society also increases. There is a well-marked distinction between the rulers and the ruled. The rulers control the resources of society for their own benefit and use. The ruled, on the other hand, provide the revenue and the money required to maintain the members of the ruling family, the notables in the state, the various categories of officials and the army. Thus the basic difference between a tribal society and a state society is in the nature of political control. In a state system, a specialised administrative machinery separates the rulers from the ruled. In a tribal society, political power is generally exercised by a clan which has no authority to enforce its decisions. The position of the clan depends on the loyalty of the members and most decisions are taken together.

c) **Antecedents**

The eastern Deccan was occupied a little later in the second half of the first millennium B.C. by iron using communities. These were by and large village settlements, the abode of a large number of tribes. Early Sanskrit literature, particularly the Epics and the Puranas, mention several tribes such as the Andhras, Sabaras, Pulindas, etc., who lived in the Deccan. Many of these are also mentioned by Asoka in his inscriptions. But most of these references are of a general nature and it is difficult to define the region where they lived in the Deccan. The process of change perhaps started with Mauryan expansion in the Deccan. The Mauryas were primarily interested in exploiting the mineral resources of the Deccan peninsula. The gold, diamonds and gems from the mines in Karnataka and Andhra were transported to Magadha in the north through a series of land and coastal routes. Market centres developed at important points along these routes such as Dharanikota on the banks of the Krishna in the Guntur district of Andhra and Karad in Satara district of Maharashtra. Many chiefs known as maharathis became important in several scattered pockets. But it was under the Satavahanas who were related by marriage to the maharathis that the first state emerged in the Deccan.

D) Geographical Background

The Deccan peninsula is divided into the plateau region and the coastal plains by the hill ranges of the Eastern and Western Ghats. The Andhra coast is much wider than the Konkan coast to the west. The general slope of the plateau is to the east and as a result the major rivers such as the Mahanadi, Godavari and Krishna flow eastwards into the Bay of Bengal. The deltas and valleysof the rivers provide fertile areas for settlements. Perhaps a significant aspect of the geography of the Deccan is the fact that the hill ranges of the plateau Carl be crossed only along the passes.

e) Early Satvahanas

According to Purana tradition it was SimukaSatavahana who established Satavahana power. Kanha or Krishna, his brother, is perhaps known to us from an inscription at Nasik. Another record that lists several rulers of the dynasty is theNanaghat inscription of Queen Nayanika, the widowed queen of Satakarni, who performed Vedic sacrifices. Nanaghat was a major pass connecting Junnar with the coast, and in a cave at the head of the pass portraits of the Satavahana rulers were carved. 'unfortunately, the sculptures are now completely destroyed and all that remains are labels over their heads giving their names. We knowvery little about the rulers that followed Satakarni till we come to the reign of GautamiputraSatakarni. An inscription of his mother engraved on the entrance to a cave at Nasik, provides us details about the extent of his kingdom and the events of his reign. A major achievement of GautamiputraSatakarni was the defeat of the Kshatrapas of western Deccan and Gujarat. His mother's epigraph praises him as the restorer of Satavahana glory and further proof of this comes from numismatic evidence. After his victory, Gautamiputra counterstruck silver coins of the KshatrapaNahapana with his own legend and symbols. According to the Periplus of the Erytheaen Sea, as a result of the fivalry between the Kashatrapas and the Satavahanas, Greek ships entering Kalyan, a port near present Bombay, were sent under guard to the port of Bharuch. Perhaps control of the lucrative foreign trade was one of the causes for the conflict. It would also seem that under GautamiputraSatakarni, Satavahana rule extended over Andhra as well. Gautamiputra was succeeded by his son Pulumavi and it was at this timethat the Satavahanas consolidated their power in the eastern Deccan. For the first time we find Satavahana inscriptions outside the western Deccan at Amaravati. YajnasriSatakarni was the last important Satavahana ruler and after him the kingdom was splintered divided between his successors - one line of kings ruling in the Andhra region It was also under the later Satavahanas that wins with bilingual legends were issued and In additionto the name of the king in Prakrit these carried a legend in a south Indian language - opinion being divided on its identification between Tamil and Telugu. In addition to the Kshatrapas, an early Satavahana (ruler) had to contend with th . power of Kharavela from Orissa or Kalinga. Khavavela rose to power in Kalinga in the middle of the first century B.C. He despatched an army to the west without caring for Satakani; this suggests that early Satavahana power suffered setbacks both at the hands of the Kshatrapas and of Kharavela. It was revived only through the exploits of GautamiputraSatakarni. One of the problems of Satavahana history is that we know very little about the different pockets of the Deccan. For etample, the inscriptions refer to marriage , relations of the Satavahanas with the Maharathis and the Mahabhojas - in fact in the Nanaghat labels inscriptions a Maharathi finds precedence over a Kumara or prince, and Queen Nayanika herself was the daughter of a Maharathi. Maharathis are also known to have made independent donations -most of their inscriptions having been found around Karle, while the records of the Mahabhojas occur along the west coast.

f) Settlement Pattern

On the basis of the find-spots of their earliest inscriptions, it can be said that the Satavahanas began their rule in the western Deccan. A second century A.D. inscription of GautamiputraSatakarni's mother from Nasik provides information about the extent of the kingdom under the Satavahanas. The mention of both the Western and the Eastern Ghats as forming parts of GautamiputraSatakarni's empire suggests that by this time Satavahana rule covered the entire Deccan and that it was divided into aharas or districts. We get the names of at least five aharas in the inscriptions: Govardhana-ahara with its centre around Nasik; Soparaka-ahara on the west coast; Mamala-ahara comprising the hilly portions of the Pune and Satara districts; Satavahanihara covering the Bellery district of Karnataka; and Kapurachara perhaps in Gujarat. On the west coast there were a series of ports at Bharuch, Kalyan, Sopara and Chaul and continuing further south all along the Konkan coast. To these ports commodities were brought from the inland centres through passes along the Western Ghats. An important text for understanding the nature of travel and trade is the first century A.D. Periplus of the Erytheaen Sea writted by an anonymous Greek sailor. It provides a graphic account of the dangerous passage through the narrow mouth of the Gulf of Cambay to Bharuch. As a result incoming ships were piloted into the port by royal fishermen of the district. We have earlier referred to the conflict between the ,Satavahanas and the Kshatrapas over control of the maritime trade and the competition between the ports of Bharuch and Kalyan.

g) Inland Settlements

Across the Western Ghats on the inland side, the major concentrations of settlements were around Nasik; Junnar; within a 30 Km. radius dKarle; and further south in the upper Krishna basin around Kolhapur. It should be emphasised that all these areas are agriculturally rich and fertile and provided a valuable resource base for the ports on the west coast. These ports handled much of the trade in the first century A.D. between India and the Mediterranean regiop and were also linked by the overland transpeninsular route across the Deccan to centres in Andhra and along the east coast. It went from Bharuch to Paithan and Ter and further east to centres in Andhra. The ancient site of Paithan spreads over 4 sq. km. along the Godavari and from time to time a rich yield of antiquities like coins, moulds, terracottas and pottery have been carried out in the areaso far and hence we know very little about the structural remainsof the Satavahana period. Ter lies in the major cotton produaing region of the Deccan. Excavations at the site have yielded evidence of wooden fortifications and a number of vats, perhaps for dyeing cloth. Ter is also well known for the find of an ivory figurine very similar to the specimen found at Pompeii, but perhaps the most important ruin at the site is that of a brick caitya subsequently converted into a Brahmanical temple. Another route in the Deccan linked Ujjain to Maheshwar on the Narmada and past the caves at Ajanta and Pitalkhora to Bhokardan and Paithan. Bhokardan was a major bead-making centre and was idso known for shell and ivory-working. Inhabitants of Bhokardan or Bhogavardhana are known to have made donations at the Buddhist caves of Bharhut and Sanchi in central India. Further south in the upper Krishna valley Karad is an early centre referred to in Buddhist inscriptions. Alsolocatedin the same region is Kolhapur. In the western part of the town a rich hord of bronze objects was found. Some of these like the statuette of Poseidon were clearly imports, while others like carts and bronze vessels were of local. manufacture. An extensive site in the adjacent district of Belgaumis the site of Vadgaon, Madhavpur, a suburb of Belgaum town where excavations have yielded large numbers of coins and other antiquities. Further south is the site of Banavasi known as the find-spot of one of the Satayahana inscription. It was perhaps a fortified settlement as there are indications of a fortification wall

and a moat. The trans-peninsular route across the Deccan linked these sites in the western Deccan to centres like Amaravgti in the lower Krishna valley and went past the Karimnagar region of Andhra. The Karimnagar region has an extensive distribution of early historical sites, an important centre being that of Kondapur about 70 Km. north-west of Hyderabad. Excavaeions at the site have yielded a rich collection of coins and terracottas and several structures of brick of various sizes laid in mud mortar. Peddabankur is a small village now but was an important settlement during the Satavahana period extending over a 30 hectare area. About 10 km. from Peddabankur was the fortified site of Shulikatta. It was surrounded by a mud-rampart and exacavations have unearthed a large brick structure at the site. Another major habitation site was at Kotalingala which was settled in the pre-Satavahana period as indicated by recent coinfinds. The Satavahana settlement had a mud fortification and extensive brick structures. Large quantities of iron slag and ore were found at the site. Leading from the Karimnagar region, the route branched off into the lower Krishna valley which has a large concentration of Early Historical sites. Prominent among these into a brick structure. But with the gradual silting up of the navigation channel the site was abandoned in the fourth century A.D. In addition to the transpeninsular route, another alternative was to go to the region of Vidarbha into central India - the important settlements in Vidarbha being those of Panuar, Pauni, Mandhal, Bhatkuli and Adam. One point that needs to be stressed is that it is only during the Satavahana period that fortified settlements develop in the Deccan, and excavations indicate a marked improvement in the quality of construction. Brick was increasingly used both for fortification as well as for other structures. The floors were well of the made by means of rammed clay and the roof supported by wooden posts and covered with tiles. railway lines at present follow the same routes that were used in the ancient period. The Bhorghat is still the only pass across the Western Ghats connecting Pune to Bombay past a series of early Buddhist caves such as Shelarwadi, Bedsa, Bhaja, Karle, Ambivale and Kondane.

h) Administration

Administration under the Satavahanas was much simpler that under the Mauryas. Inscriptions refer to ministers who were incharge of various functions. Among other things, they served as treasury officers and maintained land records. The exact number of ministers is not known. These ministers were appointed directly by the king and the post of a minister does not seem to have been hereditary, i.e. passed from father to son. They were perhaps paid in money from the revenue collected by the state. We do not have exact figures for the amount of revenue collected, but we do know that the state collected taxes both from (agriculture and trade. One of the practice started by Satavahana rulers in the first century A.D. was that of donating revenue of a village to , either a Brahmana or the Buddhist Sangha. This practice became much more widespread under the Gupta rulers. The importance of land-revenue for the king can be judged from the elaborate procedure that was used to record donations of land. These donations were first proclaimed in an assembly mnigama-sabha. It was then written down either on a copper-plate or cloth by an officer or minister. This record was then delivered to the donee to whom the grant had been made. There was a keeper of records who maintained a detailed account of these donations. The rulers at this time were eager to bring more land under cultivation so that they could earn extra revenue. It seems that anyone who cleared the forest and tilled a plot could claim ownership of the land. The revenue from trade was another major source of income. We shall discuss the expansion of trade in a later unit. Here we should point out that much of the trade was handled by guilds who also acted as bankers. The state took elaborate measures to encourage trade. Highways were made secure and rest-houses were constructed along them.

11.5 Post Mauryan Society

It is quite clear that the Shunga rule was the result of a Brahmanic revolt against the weak and pacific Buddhist monarchy of the Mauryas. As a result, the Shunga government restored old Brahmanic faith with its ceremonies rituals of scarifies and the supremacy of the Brahmans and gave a set-back to Buddhism. The Sunga period witnessed the revival of the Brahmanical influence and the graving importance of the Bhagvata religion which counted even the cultural Greeks among its votaries. It was under the patronage of this dynasty, that the Sanskrit scholar Patanjali composed his celebrated work, the Mahabhasya, and thus provided a fresh stimulus to the study of Sanskrit literature. In fact, the foundations for the revival of the Brahmanical religion and literature which came with full force under the Gupta Emperors were laid in the time of Sungas. Scholars hold the opinion that probably Manu-Smriti was compiled in this age itself. The literary activity of the period under review makes a great advance over that of the preceding one. The religiou's literature has grown in content and diversity and the vast canonical literature of the Buddhist throws into shade anything attempted before or since in this line. Philosophical literature has also been systemized and developed. If Ashvaghosha,Nagarjuna, Parshwa and Vasumitra has enriched the Buddhist literature with their works, the Jains did not lag behind. It will not be an exaggeration if we say that even in absence of strong central authority, incursions of foreigners, frequent revolts, and wars, there was general efflorescence of literary activity which reached at its climax in some branches of the literature during this long period of struggle The society's framework depended on the caste -system. A large number of foreigners like Sakas, Yavanas, Pahlavas soon formed an integral part of it. As they were conquerors and warriors, many of them were merged in the Kshatriya fold. Many of them adopted Hindu names as Dharmadeva, Rishabhadatta, Agrivarman etc. and performedHindu practices. The gradual absorption of these foreign elements in the society leave no trace to their individual identity or separate existence as a foreign tribe or community. Another feature of the society of this period was the intermarriage between different groups giving birth to new castes. Aryans in the Deccan and the Eastern parts of the country established matrimonial alliances with the non- Aryans. In the Aryans, intercaste marriages known as Pratiloma and Anuloma were common. All this gave rise to the mixed castes then, there were persons who were degraded in society on account of not fulfilling their sacred duties. They were styled Vratya and formed castes of their own.The society of this age also resulted in transformation of the people of many small sovereign republics into new castes. The rising power of Magadha wiped out from existence many small republics known as Gana and incorporated them in its widening sway, but they were allowed to follow their own professions, customs and traditions for which they were distinguished from others. This gave rise to certain new groups in the society. The Sunga monarchs were ardent followers of Brahmanism as said earlier. Under their liberal patronage, Brahnamism received a great impetus. Important orthodox Vedic rites and the Asvamedha, Rajasurya, Aptoryama and other scarifies were revived altogether. The new revived Brahmanism had two principal sects- Vaishvanism and Saivisim – Vaishvanism known as Bhagvatism flourished well in the North as well as in the Deccan. The epigraphic reference to such names as Vasudev, Samarkshana, Indra and four guardians of the quarters Yama, Varuna, Kubera and Vasava prove the existence of Vaishvanism in the Deccan. Similarly, Saivism was also prevailing in many parts of the country. Lord Shiva in the Deccan was worshipped under four names- Shiv, mahadeva, Bhava and Bhutapal. References to Naga, Sarpa and Sarpila indicate the prevalence of Naga cult or serpent worship also. Though the Sungas, were ardent patrons of Brahmanism, they tolerated Buddhism and Jainism as well. Both Brahmanism and Buddhism prospered under their tolerant rule. The votaries of Brahmanism

offered stipend for the education of the Buddhist monks. Pious donors excavated Chaitya Grihas or caused caves to be excavated for the residence and use of the Buddhist Bhiksus and monks. Villagers were also assigned by the Kings and their officials for the support of the Buddhist monasteries and establishments. People from all walks of life donated money to the monasteries and established caves for the monks. The inscription in the Kanheri cave in Maharashtra records the gift of a cave byNagamulamiks (Nagamula), daughter of a Maharaja. Vijayanika, the daughter of SadakaraSudamsana also donated a cave. The inscription in the Nasik cave refers to the building of a chaitya by a lady named Bhatapalika. Inspite of the prevalence of a large number of sects and creeds, the votaries of different faiths were living in perfect harmony. Sometimes, they even offered grants and endowment to one another. The King's religious charities were not confined to their own faith in Brahmanism but were liberally extended to Buddhism also. The Dharmasastras reflect the spirit of the Vedic literature in all respect, especially in assigning the highest status to the Brahmans in reality. In Manu- Samhita, for example, the highest supremacy is given to a Brahmana, though emphasis is also laid on his superior knowledge and qualifications. He filled the highest officers of state and society by his multiple role as a teacher, priest, judge, prime minister assessor and member of the Dharma Parishad. He was punishable in law, but not by capital punishment. Slavery was a recognized institution of the Indian Society from the oldest Vedic times. The smiritis distinguish between different classes of slaves and also lay down various rules regarding their status. Slavery was also the judicial punishment for crime. Through the disabilities of the slaves according to the Smriti law were very great yet they were not without personal rights. A slave was not entitled to any property according to Manu and was not to be a judicial witness expect in the last resort. The status of women in this period was marked by great deterioration. The respect and honour which they had enjoyed in the Rigvedic age became but a memory during this period. The practice of widow-remarriage, which was fairly common in the Vedic Age, was now regarded with disfavour and the widows were also not permitted to learn any Vedic mantras. The place and the situation of a woman became quite difficult and complicated. Thus, the Sunga dynasty gave a new outlook to the society, the people, the religion, art and literature as a whole. Pushyamitra Sunga was succeeded by his son Agnimitra who in his turn was succeeded by his son Vasumitra. There were seven successors of Vasumitra but they were all incompetent and worthless. The last king Devabhuti was assassinated in 75 B.C. by his Brahman minister Vasudeva Kanva who usurped the throne. The Kanva dynasty, founded by Vasudeva, comprised only four kings and ruled a period of 45 years and contributed little to Indian life. Eight chapter of the Mahabharata divides the Brahmanas into grades; those that are equivalent to the gods, the Kshatriyas, Vaisyas and Sudras based on their traits. B.N. Mukherjee states that the attempt to equate the Brahman with Kshatriya probably indicates that the former often took upon the jobs traditionally associated with the other castes. The Kusa Jataka refers to a prince or Kshatriya working successively as a potter, basket-maker, reed-worker garland-maker and cook. This makes B.N. Mukherjee observe that the Kshatriya could engage in activities not traditionally associated with his caste. In this period, it is not the birth in a cast that decided his role, but the profession in which he engaged himself a number of Satavahana epigraphs refer to the issuer's professions, but not their caste. During this period, the Varnaor the caste system was not as rigid as it is supposed to be. Though the rulers proclaim that they upheld the order of the Vamasrama dharma, in reality, the Varna model was theoretical and not actually practiced. A view prevails that the traditional Varna model was threatened by the influx of foreigners. Since there is also a demographic evidence, it may be suggested that the number of foreigners was not such as to disturb the Varna model. Among the foreigners, compared to the Greeks, the Sakas and the Pahlavas, the number of Kushans appear to be more. By embracing Buddhism, the foreigners tried to find

a foothold in India and as such, we notice the Indo-Greek kings, Agathocles and Menander displayed Buddhist symbols on their coins. A foreigner, Irila, built two cisterns for the monks at Junnar. We are very well aware of the patronage of Kanishka to Buddhism and how it became an international religion in his reign. As already noticed, the concept of Varnasamkara or contamination of varnas was intro-duced to explain and justify the emergence of new castes in the Varna order because of Anuloma and Pratiloma marriages. The society of those days appears be less rigid and more catholic in temperament. It is only because of this spirit; a large number of foreigners settled in India and embraced the religions of their choice. Rudradaman was a follower of Brahmanism and Heliodorous, an ambassador to Bhagabadra of Vidisa was a follower of Vishnu. D.R. Bhandarkar observes that in the cave inscriptions, Yavanas are frequently mentioned as making gifts in connection with Chaityas or monastic residences. At Karle, we have two names of Yavanas, Sihadhaya or Singhadyaja and Dharma. At Junar, we find mention of three Yavanas called Isila, Chitya or Chitra and Chandra. At Nasik, the name of only one Yavana is found, Indragnidatta, son of Dharmadeva. They all turned into Buddhist laymen and all of them except one had assumed Indian names.The social structure of the Deccan under the Satavahanas shows many features which are different from those prescribed in thedanskrit texts such as the Manusnuti. For example, many inscriptions~f the Satavahana rulers mention the names of their mothers rather than those of their fathers, such as GautamiputraSatakarnior Satakarni, son of Gautami. This is not in keeping with the Dharmasastras which state that in the approved forms of marriage the bride acquires the gotra of her husband and loses that of the father. Another interesting feature of the inscriptions is that the Satavahanas refer to themselves as unique Brahmanas who crushed the pride of the Kshatriyas. According to the Brahmanical texts it was only the Kshatriyas who had the right to rule. The inscriptions are also usefull as they record donations by a cross-section of the population and from this we can judge the prosperity of certain sections of the society. Traders and merchants figure prominently as donors, but also important are blacksmiths, gardeners and fishermen. No doubt these artisans and craftsmen benefitted from the increased long-distance trade. What is noteworthy is that they mention their occupations with their names and not their castes. In an earlier unit we had mentioned that Buddhist texts prescribe a somewhat different division of society as compared to the Brahmanical texts. Here the distinction was based on work and craft and in most cases people were known by their occupations rather than their castes. I Another category of donors that is known at this time was that of yavanas or foreigners. The term yavana originally denoted an Ionian Greek, but around the Christian era it was used indiscriminately for any foreigner. Many of the yavanas adopted Prakrit names and made donations to Buddhist monasteries. Women frequently made gifts either on their own or sometimes with their husbands or sons. One of the Satavahana I queens named Nayanika also performed Vedic sacrifices and made large donations to I the Brahmana and Buddhist monks. These examples indicate that society in the Deccan, as it is known from the records of the period, were not governed by rules laid down by the Brahmanical texts. Thus any, reconstruction of the ancient social structure shouldcarefully analyse textual references and establish their veracity by comparing these with other sources such as inscriptional or archaeological. The role of the Buddhist monasteries mentioned in the records of the period had also changed a great deal since the time of the Buddha. In the beginning Buddhist monks were allowed very few personal possessions. These were limited to a few robes and a begging bowl. Gradually the influence and membership of the Buddhist Sangha increased. We have seen that Satavahana kings donated large sums of money and land to the Buddhist monasteries. This added to the wealth of the Sangha. It is also at this time that we get references to donations made by Buddhist monks and nuns themselves.

We now take up for our study another dynasty, the Kushanas who succeeded the Parthians in the extreme north-west and spread themselves in successive stages in the regions of Northern India. The Kushanas are also referred to as Yueh-chis. They belonged to one of the five clans of the Yueh-chi tribe. They were a nomadic people, originally from the steppes of North Central Asia, living in the vicinity of China. They were responsible for ousting the Sakas in Bactria and also the Parthians in the Gandhara region. The Kushanas first consolidated territories beyond the Indian border. Gradually their authority in Indiaexpanded and came to extend to over lower Indus basin and most of the Gangetic plain down Varanasi. Although their empire lasted for about one century and a little more, their connection with India, their assimilation into Indian society as well as their contribution to Indian culture left a deep impression on the Indian mind. Like the Sakas and Pahlavas, they too are mentioned in Epic, Puranic and other literature. The Kushanas were particularly important as their empire became a meeting point of civilizations of the Mediterranean world, Westem Asia, Central Asia, China and India. We have coins, inscriptions and other sources which provide evidence about two successive dynasties of the Kushanas. The first line was started by KujulaKadphises who is believed to have united the five tribes of the Yueh-chi and made successful inroads into India, establishing himself in Kabul and Kashmir. KujulaKadphises minted different types of coins in copper and cne type of his coins has a Roman-style male bust on it. KujulaKadphises was succeeded by VimaKadphises. Vima introduced a new phase of coinage in India. The practice of issuing gold coins by Indian rulers regularly started with him. He minted different types of gold coins which broadly followed the weitht system of Roman gold coins and this system continued, with certain modifications, till the Gupta period. Obviously, Vima's gold coins and copper coins indicate further intensification of contact with the Roman world of the time. The Kadphises rulers were succeeded by Kanishka I, who is the best known Kushana ruler in Indian history, particularly because of his association with Buddhism. The relationship between the first two kings (Kadphises) and Kanishka is shrouded in mystery, but he too was of Central Asian origin. He may not have been directly related to the first two kings. The Kushanas reached the zenith of their power under Kanishka I. His period is historically significant for general cultural development in Northem India as well as for the intermingling of peoples of different geographical regions. The accession of Kanishka to the throne has been variously dated somewhere between A.D. 78-144 and sometimes even later. An era with its initial date in A.D. 78 has popularly come to be regarded as the Saka Era and this date seems to be the most likely date for Kanishka's accession. The Kushana empire at its peak extended to Sanchi in Madhya Pradesh and to Varanasi in Uttar Pradesh. Mathura appears to have been the second capital city, the first being at Purushapura near modem Peshawar. At Purushapura, Kanishka erected a monastery and a huge Stupa. Kanishka I is an important figure in the history of Buddhism as being one of its great patrons. He sponsored the fourth Buddhist council during his reign to discuss matters relating to buddhist theology and doctrine. The doctrines of the Mahayana form of Buddhism were finalized at the council. Missionary activity was given an impetus and during his period Buddhist monks started travelling to Central Asia and to China. Kanishka was also a patron of art and Sanskrit literature. The successors of Kanishka I continued to rule for over a century, but Kushana power gradually declined. Some of the rulers used very Indian names such as Vasudeva. The Kushana empire in Afghanistan and in the region west of the Indus was superseded in the mid-third century A.D. by the Sassanian power which began in Iran. Peshawar and Taxila were lost to the Sassanians and the Kushanas were reduced to the position of subordinates of these rulers.

11.6 Post Mauryan Economy

We have noted earlier in this unit that some of the kings like Menander and Kanishka were converted to Buddhism. Some of the rulers were worshippers of Vishnu; others of Siva. We . have an example of the Kushana ruler Vasudeva, whose name is one of the many names of Krishna who was worshipped as an incarnation of Vishnu. Some Kushana rulers worshipped both Siva and Buddha and the images of these two Gods appeared on some of the Kushana coins. We can discern therefore that in the process of assimilation into Indian cultural patterns, the foreigners adapted to Indian ideas and forms of worship. The foreign rulers were also patrons of Indian art and literature. We have evidence that masons and other artisans coming from outside interacted with local workers. Indian craftsmen thus came into contact with those skilled in Greek and Roman craftmanship. We have the example of Gandhara in which images of the Buddha were sculpted in a style which was typical of the synthesis of many cultural elements present in the region. The influence of Gandhara art spread to Mathura. Mathura also has given us many beautiful images of the Buddha and other specimens of art of this period. Details of the art forms art f scussed in the unit on Art and Architecture in this block.The post-Mauryan economy was based on the growth of agriculture, internal and long distance trade and on crafts and arts.The most important development of the period was the flourishing trade between India and the Western world.Improved internal communication system under the Mauryas was responsible for the growth of trade and commerce in the post-Mauryan phase.Land routes to South India developed during this period along the river valleys and the coasts and routes through mountain passes that helped trade and commerce. A landmark in the growth of external trade and commerce was the discovery of the monsoon winds by the Greek sailor Hippolus in around AD 46—47.This made possible, navigation across the Arabian Sea, by reducing the distance between Indian and west Asian ports. The invasions of the Indo-Greeks, Kushans and the Sakas increased and deepened contacts between India and western and central Asia. Central Asia acted as a link between China and India as Indian merchants acted as intermediaries in the silk trade of China. While the merchants of north-western India mostly traded with western and central Asia and China, the merchants of western and southern India concentrated on South Arabia, the Red Sea and Alexandria, which handled the bulk of the Roman trade.The emergence of the Roman Empire was beneficial to the Indian trading community. The Periplus of the Erythrean Sea, written by an anonymous Greek navigator, records that Indians exported pepper, pearls, ivory, silk, diamonds, saffron, precious stones, tortoise shell and spikenard and imported topaz, thin cloth, linen, antimony, crude glass, copper, tin, lead, wine and wheat.The discovery of red glazed arretine ware at excavations of Arikemedu near Pondicherry (now Pondicherry) makes us believe that the Romans not only exported this item but also had a settlement in that locality. So far, 68 hoards of gold and silver coins have been unearthed in India and interestingly nearly 57 hoards have been found south of the Vindhyas. Indians received as their share of profit nearly 50 million Sesterces (Roman currency) per year and this made Pliny remark that Rome was at disadvantage due to the favourable balance of payments towards India.The phenomenal increase of long distance trade led to the vogue of money-economy during this period. While the imported coins were used as bullion, the indigenously minted coins were used for day-to-day transactions. Very few gold coins were minted by the Indo-Greeks, which the Kushans minted in considerable numbers. As gold and silver coins could not serve as medium of exchange, the Satavahanas issued coins of lead or potin. Copper coins were also issued by the Naga rulers and by several other indigenous local state powers. This clearly indicates that money economy had penetrated deep

into the economic life and activities of the common people. As a corollary to the prevalence of cash economy and commerce, there arose a number of towns to which Periplus makes direct reference. Another interesting consequence of the growth of trade and commerce was the growth of towns, increasing affluence of certain sections, and cash economy that led to the proliferation of arts and crafts. Mahavastu, a Buddhist work of the 2nd century AD, which records that more than 36 kinds of workers lived in the town Rajgir, attests this.

Further, Milindapanho another literary work related to the Buddhist discourse also refers to 75 occupations, 60 of which were connected with various kinds of crafts. Along with proliferation of crafts and arts, we also notice increasing special-ization of skills of manufacturing items. While Milindapanho refers to specialized skill of artisans of metals such as gold, silver, lead, tin, copper, brass, iron and precious stones, Periplus refers to export of iron and steel to Egypt. In the sphere of textile manufacturing also, the superior skill of the Indians is known from Milindapanho and the works of Patanjali.Increase in production and the consequent surplus required an efficient way of distribution to obtain sufficient reward for the people's hard labour. Both the artisans and the merchants involved in production and distribution of the goods developed collective bargaining strength by forming guilds and corporations respectively. It is very interesting to note that there existed more than two dozens of guilds of artisans. The Satavahana epigraphs refer to the guilds or Srenis of oil pressers, hydraulic machine operators, potters, weavers, com dealers, bamboo workers and braziers. Besides these, many more might have existed.TheSrenis also acted as banks that paid interest on money deposited in with them in these guilds and we come to know that Ushavadatta made two permanent endowments to KalikaNigama or Sreni and one endowment made provision for new robes and the other for providing minor food necessities. This indicates the permanent financial soundness of the guilds. The existence of the guilds of traders (Sreni) in Kushan Mathura is known from a record, which refers to a perpetual endowment (Akshayanivi) in Purana currency made in two guilds enjoining to make payments out of the interest accrued on the deposit.TheBasarh seal of the Gupta times refers to Sreshti-Sarthavaha-Kulika-Nigama, which has been translated as guilds of merchants, of itinerant traders and of artisans. Epigraphs of this period refer to Vanik or merchant, Sarthavaha or itinerant or mobile trader and Sresti. Epigraphs attest to the existence of many guilds in the Mathura region and the western Deccan and in particular the town of Govardhana, which happens to be an important centre of guild of artisans. Some of the artisans and traders with the help of their guilds have become wealthy and emerged, as a dominant social group, having a say in the administrative structure of the period. Issue of coins by certain guilds indicates how powerful they had become during this period. Generally, a sovereign power only has the right to issue coins. Issue of coins by the merchant guilds of Taxila, Kausambi, Taripuri, Mahishmati or modern Mandhata, Vidisha, Eran and Varanasi indicates that they exercised considerable influence.Yet we have no clinching evidence to prove their actual participation in the administration. Every guild had its own insignia, banner and seal, which gave it individual identity. Every guild had its Samayadharma that had the strength of a law of the king. The guild provided social status to its members whereby also enabling them to earn reasonably good returns for their hard work. Every artisan had to follow the rules of work and quality for which price of the finished product and the guild laws were determined by the state. The position of the Sudras who were artisans was economically better off and the economic distinction between the Vaisya and the Sudra appears to have been reduced considerably. The other Sudras earned their livelihood as hired labour and the Manudharmasastra and Patanjali imposed severe humiliating restrictions on the Sudras. This could be to safeguard the interests of the Brahmans

against the Sudra opposition.The cultivators and the mercantile group were divided into a number of Grihas or homesteads or Kutumbins or Kulas or families. The head of a Griha was called a Gahapati or Kutumbin. The Dasabrahmana Jataka refers to Brahmanas working as tax collectors, hunters, traders, armed escorts, servants, wagon drivers and even menials of the kings.

11.7 Post Mauryan Architecture

1. ***Stupas Architecture***

The Sungas were great patrons of art and architecture. They contributed to the expansion of Bharut and Sanchi Stupas.Time Period 100 BC is the accepted date for Bharut. Slightly earlier than Sanchi and Ajanta. It Said to have been started by Ashoka but much of its work has been done in the time of the Sungas in 100 BC, but much of its work has been done in the time of the Sungas. The decorated gateways with lavish carvings were done by Satavahanas. Location of this stupa is in Satna District of MP. Was on a major trade route from western coastal regions to Pataliputra. A very large complex 13-14km from Vidisha, the capital of Mauryan Empire. Vidisha was a very important trading town. It was on the Dakshinapath – an offshoot of the Uttarapath, which connected Taxila to Pataliputra and further east. Stupa has been reconstructed in Indian Museum Calcutta. There are 3 stupas:

Stupa 1 - The Great Stupa. Largest of them. It has 4 gates with Toranas.

Stupa 2 - This is the earliest stupa. Same time as Bharut but simpler.

Stupa 3 - Has only 1 Torana.

Stupa of Bharhut

Discovered by Cunninghum, has been reconstructed in Indian Museum Calcutta. Stone Architecture. Surrounded by Vedika roughly 3 feet. Only 1 Torana has been found but it is suspected that there would've been 4. As evident, the Vedika and Torana have beautiful carvings. They are 5 elements –

1. ***Visual narratives about the life of Buddha***

Buddha is represented in his iconic form – feet, bodhi tree, dharmachakra, empty seat and not the human form (symbolizing the Theravadin/ Hinayana Buddhism).

2. Jataka Kathas

Jatakas Stories like the Kaka Jataka(Monoscenic), Ruru Jataka

3. Yakshas and Yakshis

These gods of local cults start assimilating into Buddhism. It is believed that Yakshis were made through the contributions of women.

4. Medallions

There are also medallions like the one shown below. They represent the sun god, various bodhisattvas, etc.

Sanchi Stupas

Sanchi Complex has 3 stupas. Follow the Map below.

Stupa No. 1 is the largest and is called the Great Stupa. It has 4 gates with Toranas. In the pic, you see the Northern Gate. There are extensive carvings on the Torana. The themes are similar to those of Bharut.

Stupa 2 – This is the earliest stupa. Same time as Bharut but simpler.

Stupa 3 –Has only 1 Torana.

2. Pillars

1. Heliodorus Pillar

Stone column erected by Heliodorus, Greek ambassador to the court of the Shunga king Bhagabhadra, around 150BC in honor of Vasudeva.

Standing sculptures of Yakshas and Yakshis, discovered from Gwalior and Mathura, a sculpture of Dwarfish Yaksha from the Pithalkhora caves in Central India.

2. The Amaravati School of Art

Sculptural form in this area is characterised by intense emotions. Figures are slender, have a lot of movement, bodies are shown with three bents (i.e. tribhanga), and the sculptural composition is more complex than at Sanchi. White Marble was used in this art and the themes were Buddha's life and Jatakas tales. The curly hairs of Buddha is a feature that is influenced by the Greeks. In this school, the Kings, Princes, Palaces etc. have got prominence. A relief medallion from Amravati belonging to the 2 century A.D. is a masterly representation of a scene showing the subjugation or taming of Nalagiri, a mad elephant let loose on the Buddha. Carving on outer wall of Amaravati Stupa a famous carving depicts the adoration of the feet of the Buddha by four women and belongs to the 2nd century A.D. from Amravati. Three-dimensional space in the relief sculpture is devised by using pronounced volume, angular bodies and complex overlapping.

3. The Gandhara School and the Mathura School of Art

This period saw the emergence to two very important schools of art – one in Gandhara, North West Frontier Province and the other in Mathura. The Gandhara Art received patronage from various dynasties – Indo-Greek, Indo Scythian and Kushan Kings. It was during Kanishka's reign that both these centers flourished.

Gandharan Art

Strong Greek influence and was based on Greco-Roman norms encapsulating foreign techniques and an alien spirit. It is also known as Graeco-Buddhist School of art. Assimilating various traits of Acamenian, Parthian and Bactrian traditions into the local tradition is a hallmark of the Gandhara style. Blue-grey Mica / Grey Sandstone in this art.

Spotted Red Sandstone Rendering of drapery with sharp flowing folds similar to those shown in Roman togas.Finer details and realistic images. Buddha carved out in various Mudras. In Gandhara School Buddha is depicted standing frontally with one leg bent. Greek Deities as Zeus Apollo, Athena indicate the Greeks wanted to preserve their culture. Some of the features are:

Wavy curled hair.

Early period: Light volume having fleshy body.

Later Period: Flashiness reduced. Not much attention to detailed sculpting.

Halo not decorated.

The subject of this art is mainly Buddhism

Images are less expressive

Mathura School - The Buddhist religion greatly flourished under the patronage of Kushan emperors, and several images of the Buddha and Bodhisattavas were produced after the earlier Yaksha types. The first purely Indian Style art and sculptures were produced here. Mathura Art is famous for its iconographic traits – identification of particular deities based on the postures, attributes, vehicles. Common Facial Features – Oval/ Roundish faces, open eyes, thick lips and sharp nose. Fleshy full-body figures in a number of postures. Female figures are voluptuous, heavy round breasts, narrow waist. Male figures are shown with a slight V shape. Buddha seen in Abhaymudra with one hand raised.

Mathura also becomes an important center of Jainism. A new kind of worshipping develops in this era – that of the Ayagapattas. The Jains produced votive tablets called ayagapattas that contain auspicious marks of worship such as fish couple or matsyayugala, the swatiska, etc. Jain Ayagapattas have also been reported, with a Tirthankara at the middle.

Shaiva Images: Various Shaiva images have been found from the region though their numbers are limited. They are of Chaturmukhalinga. Some images of lord Karttikeya-Skanda have also been found.

Vaishnavite Images: in an image Balarama is shown with a snake canopy . Sometimes he carries a lion-staff plough.

Local Cults.: some images are related to the local cults also. Naga Cult is very prominent. A lot of Naga Temples have been found in/around this area.

Portraits of Kings of kings have also been reported from some sited of Mathura.

4. Rock-cut caves

1. Karle caves &Bhaja caves: Both caves belong to Hinayana Buddhism. Karla Cave is the largest Hinayana Buddhist Chaitya in India built during Satavahana's rule. Karla is the best example of rock-cut architecture, which is believed to carve out from a living rock. Some of its 2000 year-old wooden beams are still alive. Bhaja caves are also mainly Viharas and Chaityas. Noteworthy are the Dampati and the Mithuna figures as also the pairs riding the magnificent elephant crowning the pillars forming imposing colonnades. The figures are more than life size and are represented with powerful and muscular physique.

Ajanta caves: The earliest group of caves consists of caves 9, 10, 12, 13 and 15A. They were made during the period 100 BCE to 100 CE, probably under the patronage of the Satavahanas who ruled the region.

11.8 Self Check Exercise

1. From which phase karle caves belong to?
2. Who established the empire of sunga?
3. What was the capital of Kanishka?
4. Who issued the gold coins in India for the first time?

11.9 Summary

The political history of this period has to be pieced together by going through different types of sources. For some regions, the Puranic lists of dynasties and rulers become important sources of information. Inscriptional sources are also very important and in some cases, they supplement the information that we get from the Puranas. For the period immediately succeeding the overthrow of the Mauryas, Sungas, Satvahanas,

ikshwaku, indogreek, sakas, Parthians, kushanasemerded during this period. This period is also very important from the point of view of the religious, cultural and economic way. Jainism and Buddhism were very [popular. Cultural and the development of architecture is very important.

11.10 Glossary

Amfore : A symbol of tilak on the forhead in Mathura art.

Hinyana : A bramch of Buddhism

Heliodorous : A Greek embassy to the court of Sunga ruler.

11.11 Answers to Self Check Exercise

1. Ans. Hinyana.
2. Ans. Pushyamitra Sunga.
3. Ans. Purushpura
4. Ans. The kushanas, Vim kadfisis

11.12 Suggested Readings

1. Singh, Upinder, History of Ancient India, Pearson Publication, 2016.
2 Pandey, Jai Narayana, Purattava Vimarsh, 2019.
3. Basham, A.L., The Wonder that was India, New Delhi,1967.
4. Ghosh, A., An Encyclopedia of Indian Archaeology, New Delhi, MunshiramManhorlal,1990.
5. Brown, Percy, Andian Architecture Buddhist and Hindu, CBS Publication, 2014.
6. Cramrish, Stella, Indian Sculpture, Oxford Publication, 1981.

11.13 Terminal Questions

1. Throw light on the rise and expansion of Satvahana Empire**.**
2. Write down the trade and commercial activites during kushana period.
3. Describe the features of post Mauryan art and architecture.
4. What were the basic features of Mathura and Gandhara Art?

*****

CHAPTER -12
SANGAM AGE

Structure

12.1 Introduction

12.2 Learning Objectives

12.3 Sangam Literature

12.4 Sangam Polity

12.4.1 The Pandyas

12.4.2 The Cholas

12.4.3 The Cheras

12.4.4 Sangam Administration

a) Mantriparishad

b) Provincial and Local Administration

c) Revenue Administration

d) Military Administration

12.5 Sangam Economy

12.6 Sangam Society

12.7 Self Check Exercise

12.8 Summary

12.9 Glossary

12.10 Answers to Self Check Exercise

12.11 Suggested Readings

12.12 Terminal Questions

12.1 Inroduction

The Sangam Age in South India is a landmark in her history. The word sangam is the Tamil form of the Sanskrit word Sangha which means a group of persons or an association. The Tamil Sangam was an academy of poets and bards wsho flourished in three different periods and in different places under the patronage of the Pandyan kings. It is believed that the first Sangam was attended by gods and legendary sages, and its seat was Ten Madurai. All the works of the first Sangam have perished. The seat of the second Sangam was Kapatpuram, another capital of the Pandyas. It was attended by several poets and produced a large mass of literature, but only Tolkappiyam (the early Tamil grammar) has survived. The seat of the third Sangam was the present Madurai. It has also produced vast litera-ture, but only a fraction of it has survived. It is this fraction which constitutes the extant body of Sangam literature. The Age of the Sangam is the age to which the Sangam literature belonged. The Sangam literature constitutes a mine of information on conditions of life around the beginning of the Christian era.

12.2 Learning Objectives

To draw a picture of the society of south India in early centuries.

In order to know the economy polity and culture of south India during sangam age.

To trace the exchange of culture between north India and south

12.3 Sangam Literature

According to Prof. K.A. NilakantaSastri, the Sangam literature which combines idealism with realism and classic grace with indigenous industry and strength is rightly regarded as constituting the Augustan age of Tamil literature. It deals with secular matter relating to public and social activity like government, war charity, trade, worship, agriculture etc. Among the poets and thinkers of the Sangam age Tolkappiyar, Tiruvalluvar, lllangoAdigal, SittalaiSattanar, Nakkirar, Kapilar, Paranar, Auvaiyar, MangudiMarudanar and a few others are outstanding. Sangam literature consists of the earliest Tamil works (such as the Tolkappiyam), the ten poems (Pattupattu), the eight anthologies (Ettutogai) and the eighteen minor works (Padinenkilkanakku), and the three epics. The chief merits of the sangam works is their absolute devotion to standards and adherence to literary conventions.

Earliest Tamil Works

Tolkappiyam is the oldest extant Tamil grammar written by Tokkappiyar (one of the 12 disciples of Saint Agastya.) It is divided into three major parts, each consisting of nine iyals (sub-parts) and has a total of 1612 sutras. Other earliest Tamil works were the Agattiyam (a work on grammar of letters and life) by Saint Agattiyar, Pannirupadalam and the Kakkipadiniyam.

Ten Poems Pattupattu

Murugarruppadai (by Nakkirar), Sirupanarruppadai (by Nattattanar), Perumbanarruppadai, Maduraikkanji (by MangudiMarudam), Pattinappalai (by Kannan), and other works, come in this category. The poetry in the Pattupattu was divided into two main groups: Aham (deals with matters strictly limited to one aspect of subjective experience viz., love) and Puram (deals with matters ca-pable of externalization or objectification).

Anthologies Ettutogai

1. Aingurunuru, compiled by GudalurKilar, consists of 500 erotic poems.
2. Agananuru, compiled by Rudrasarman, consists of love poems.
3. Narrinai comprises 400 short poems on love.
4. Kurunttogai has 400 love poems.
5. Purananuru consists of 400 poems in praise of kings. The Nandas and Mauryas are referred in one of the poems.
6. Kalittogaicomprises love poems.
7. Paripadal has 24 poems in praise of gods.
8. Padirrupattu is a short collection of 8 poems in praise of the Chera Kings. The eight anthologies (Ettutogai) also are in two groups, the Aham and the Puram. These works are called 'minor works' because the poems in these are shorter in form than those in the Ettutogai and Pattuppattu. The most important among these are the Tirukkural by Tiruvalluvar (known as the Bible of Tamil Land', it is a compound of the Dharmasastra, the Arthasastra and the Kamasutra), the Naladiyar, the PalamolibyMunnururaiAraiyar, the Acharakkovaietc.

1. The Epics

The epics Silappadikaram (The Jewelled Anklet) and Manimekalai belong to the early centuries of the Christian era.

1. ***Silappadikaram*** was written by Mango Adigal (grandson of Karikala, the great Chola King) in the second century A.D. It is a tragic story of a merchant, Kovalan of Puhar who falls in love with a dancer Madhavi, neglecting his own wife, Kannagi, who in the end revenges the death of her husband at the hands of the Pandyan King and becomes a goddess. It marks the beginning of Kannagi cult or Pattini cult that is worship of Kannagi as the ideal wife. There is also a reference to the Ceylonese king Gajabahu being present on the occasion of the installation of a Kannagi temple, the Goddess of Chastity, by Chera king Senguttuvan.
2. ***Manimekalaiwas*** written by poet Sattanar. It is the story of Manimekalai, the daughter of Kovalan, and Madhavi of the earlier epic. The main aim of this epic seems to be to expound the excellence of the Buddhist religion through the medium of the travails of Manimekalai consequent on the loss of the city of Puhar when the sea eroded into the coast. This epic is the only important ancient work which gives glimpse of the development of the fine arts in the Sangam age. In both these epics, a good deal of social and historical information is found
3. ***Jivak Chintamani,*** written by Tiruttakkadevar a Jaina ascetic, is the story of Sivaga or Jivaka

Period of Sangam literature: The earliest script that the Tamils used was the Brahmi script. It was only from the late ancient and early medieval period, that they started evolving a new angular script, called the Grantha script, from which the modern Tamil is derived.Some of the contents of the Sangam literature are corrobo-rated by the writings of some Greek and Roman classical writers of the first and second century A. D, leading us to fix the period of Sangam age roughly between third century B.C. to third century A.D. So most of the Sangam literature also must have been produced during this period. The Sangam literature was finally compiled in its present form in circa A.D. 300-600.

12.4 Sangam Polity

From the earliest times Tamilham had known only three major kingdoms – the Cheras, the Cholas and the Pandyas. The Pandyas were first mentioned by Megasthenes, who says that their kingdom was celebrated for pearls. He also speaks of its being ruled by a woman, which may suggest some matriarchal influence in the Pandya society. In the Major Rock Edict II Asoka mentions of the three kingdoms – Pandyas, Cholas and Cheras as neighbours. The Hathigumpha inscription of Kharavelea contains the early epigraphic reference to the kingdoms of the Tamil country, where he is said to have destroyed a confederacy of Tamil states – TramiradesaSanghatam. However, the chief source for the Sangam period is the Sangam literature.s

12.4.1 ThePandyas

The Pandya territory occupied the southern-most and the south-eastern portion of the Indian peninsula, and it roughly included the modern districts of Tinnevelly, Ramnad and Madurai in Tamilnadu. It had its capital at Madurai. The Pandyas are rightly famous for patronising the poets and scholars of the Tamil Sangams. The earliest known Pandyan ruler was Mudukudumi who is mentioned in the Sangam text as a great conqueror.

The most reputed Pandyan ruler was Nedunjhelian, who ruled from Madurai and was a great poet. According to Silappadikaram, Nedunjhelian, in a fit of passion, ordered without judicial enquiry the execution of Kovalan who was accused of theft of the queen's anklet. When Kovalan's wife proved her husband's innocence, the king was struck with remorse and died of shock on the throne. The Pandyan kings profited from trade with the Roman Empire and sent embassies to the Roman emperor Augustus. The Pandyan port Korkai was a great centres of trade and commerce, another port was Saliyur. The brahmanas enjoyed considerable influence, and the Pandya kings performed Vedic sacrifices in the early centuries of the Christian era.

12.4.2 The Cholas

The Chola kingdom which came to be called Cholamandalam (Coromandel) in early medieval times was situated to the north-east of the Pandyan territory, between the Pennar and the Velar Rivers. Their capital was first at Uraiyur, a place famous for cotton trade and later shifted to Puhar or Kaveripattiram. It seems that in the middle of the second century B.C. a Chola king named Elara conquered Sri Lanka and ruled over it for nearly 50 years. A firmer history of the Cholas begins in the second century A. D. with their famous king Karikala which means, 'The man with the charred leg.' He was a contemporary of the Chera king Perunjeral Adan. Karikala was a very competent ruler and a great warrior. He defeated the Chera king Perunjeral. One of his early achievements was the victory at Venni, 15 miles to the east of Tanjore; his victory meant the breakup of the widespread confederacy that had been formed against him. He founded Puhar and constructed 160 km of embankment along the Kaveri River. This was built with the labour of 12,000 slaves who were brought as capitves from Sri Lanka. Puhar was a great centre of trade and commerce, and excavations show that it had a large dock. The Cholas maintained an efficient navy.

Under Karikala's successors the Chola power rapidly declined. Two sons of Karikala ruled from two different capitals – the elder from Uraiyur and the younger one from Puhar. The last great Chola ruler after Karikala was Nedunjelian who successfully fought against the Pandyas and the Cheras both, but was ultimately killed in battle. Their two neighbouring powers, the Cheras and the Pandyas, extended at the cost of the Cholas. What remained of the Cholas power was almost wiped out by the attacks of the Pallavas from the north. The fortunes of the Cholas suffered a serious setback, when, according to a tradition recorded in Manimekalaia good part of the port town of Puhar was engulfed by the sea in terrific tidal waves, during the reign of the later Chola king Killivalavan.

12.4.3 *The Cheras*

The Chera or the Kerala country was situated to the west and north of the land of the Pandyas. It included the narrow strip of land between the sea and the mountains and covered portions of both Kerala and Tamilnadu. In the early centuries of the Christrian era, the Chera country was as important as the country of the Cholas and the Pandyas. It owed its importance to trade with the Romans. The Romans set up two regiments at Muziris identical with Cranganore in the Chera country to protect their interests. It is said that they also built there a temple of Augustus. The history of the Cheras was marked by continuous fight with the Cholas and the Pandyas. One of the earliest and better known Chera rulers was Udiyanjeral (A.D. 130). The titles Vanavaramban and PerunjaranUdiyan are applied to him by the poet Mudinagarayar in Puram. The son of Udiyanjeral was Nedunjeral Adan who won a naval victory against some local enemy on the Malabar Coast, and took captive several Yavana traders. He won victories against seven crowned kings, and thus

reached the superior rank of the adhiraja. He was called "Imayavaramban", he who had the Himalayas as his boundary'. He fought a war with the contemporary Chola king in which both the monarchs lost their lives and their queens performed Sati. According to the Chera poets their greatest king was Senguttuvan, the Red or Good Chera. He routed his rivals and established his cousin securely on the throne. It is said that he invaded the north and crossed the Ganga. But all this seems to be exaggerated. Pattini cult, that is the worship of Kannagi as the ideal wife, was started by him. Senguttuvan was succeeded by his half-brother Perunjeral Adan (180 A.D.), who was a contemporary of the great Chola monarch Karikala. We learn from the poems Puram and Aham, that while fighting against the Cholas in the battle of Venni, Perunjeral Adan received a wound in the back and expiated the disgrace by starving himself to death on the battlefield. After the second century A.D. the Chera power declined, and we have nothing of its history until the eighth century A. D. The fame of the Cheras lies in the liberal patronage to Tamil poets and promo-tion of trade with Romans. The Chera had a number of good ports along the western coast such as Tondi and Musiri or Muziris (Muziris was a great centre of Indo-Roman trade). The capital of the Cheras was Vanji.

12.4.4 Sangam Administration

The king was the very centre and embodiment of administration. He was called Ko, Mannam, Vendan, Korravan or Iraivan. Though hereditary monarch was the prevailing form of government, dis-puted successions and civil wars were not unknown. The court of the crowned monarch was called avai. The ideal of the 'conquering king' (Vijigishu) was accepted and acted on. The King's birthday (Perunal) was celebrated every year. Kings assumed several titles. For example, the Pandyas were known as Minavar, Kavuriyar, Panchavar, Tennar, Seliyar, Marar, Valudi.etc the Cholas called them-selves Sennis, Sembiyas, Valavan and Killi, and the Cheras had titles like Vanavar, Villavar, Kudavar, Kuttuvar, Poraiyar and so on. The royal emblem of the Pandyas was the carp (fish), the bow of the Cheras and of the Cholas was the tiger. The sabha or manram of the king in the capital was the highest court of justice. The king was assisted by a large body of officials, who were divided into five assem-blies:

(1) Amaichchar or ministers,

(2) Purohitachar or priests,

(3) Senapati or military commanders,

(4) Dutar or envoys and

(5) Arrar or spies.

Provincial and Local Administration

The entire kingdom was called mandalam. The Cholamandalam, Pandya mandalam and the Cheramandalam were the original major mandalam. Below the mandalam was a major division, nadu (province). The ur was a town which was variously described as a big village (perar), a small village (sirur) or an old village (mudur). Pattinam was the name for a coastal town and Puharwas the harbour area. The administration of nadus was generally carried on by hereditary chiefs. The village was the fundamental unit of administration which was administered by local assemblies called manrams.

Revenue administration

The commonest and possibly the largest source of revenue was land-tax called Karai, but the share of the agricultural proudce, claimed and collected by the king,is not specified. The ma and veli was the measure of land and kalam as measure of grain. A well-known unit of territory yielding tax was a variyam (Vari meant tax) and an officer in-charge of collecting the tax from that unit of land was called a Variyar. Tributes paid by the feudatories and war booty (irai) constituted a considerable part of royal resources. Trade local and long-distance, constituted a very important source of royal revenue. Tolls and custom duties were ulgu or sungum. The duties to be paid to the king were generally known as Kadamai or Paduvadu.

Military Administration

Apparently out of the taxes collected from the peasantry, the state maintained a rudimentary army and it consisted of chariots drawn by oxen, of elephants, cavalry and infantry. Elephants played an important part in war. Horses were imported by sea into the Pandyan kingdom. The institution of virakkal or nadukul (hero-stone), which was a practice of erecting monuments for the dead soldiers and worshiping them, was prevalent at that time. The institution of Kavalmaram or Kadimaram was also prevalent. Under it, each ruler had a great tree in his palace as a symbol of power.

12.5 Sangam Economy

The Sangam economy was simple and mostly self-sufficient. Agriculture was the main occupation and the chief crops were rice, cotton, ragi, sugarcane pepper, ginger, turmeric, cardamom, cinnamon etc. Weaving, ship-building, metal working, carpentry, rope-making, ornament-making, making of ivory products, tanning etc were some of the handicrafts, which were widely practiced. The market place was known as avanam. This period also witnessed the emergence of various towns like Puhar, Uraiyur, Vanji, Tondi, Muzuris, Madurai, Kanchi, etc. Industry and crafts was given a fillip by a rising demand in the foreign markets. Trade, both inland and foreign, was well organised and briskly carried our throughout the period Internal trade was brisk, caravans of merchants with carts and pack-animals carried their merchandise from place to place, Barter played a large part in all transactions and salt was an important commodity of trade. The Sangam period witnessed the rise of maritime activity. External trade was carried on between South India and Hellenistic kingdom of Egypt and Arabia as well as the Malay Archipelago. The author of the Periplus of the Erythrean Sea (75 A.D.) gives the most valuable information about the trade between India and the Roman Empire. He mentions the port of Naura (Cannanore) Tyndis (Tondi), Muzuris (Musiri, Cranganore), and Nelcynda as the leading ones on the west coast. Other ports of South India were Balita (Varkalai), Comari, Colchi, Puhar (Khaberis of Ptolemy), Saliyur, Poduca (Arikamedu) and Sopatma (Markanam). A landmark in the development of communications was the discovery of the monsoon winds by the Greek sailor Hippalus in around A.D. 46-47. This led to in-crease in volume of trade. Large vessels made up of single logs called Sangara and very large vessels, called Colondia made voyages. The Periplus of the Erythraen Sea, written by an anonymous Greek navigator, gives details of Indian exports to the Roman Empire. The main exports were: pepper, pearls, ivory, silk, spike-nard, malabathrum, diamonds, saffron, precious stone and tortoise shell.

It also mentions Argaru (Uraiyur) as the place to which were sent all the pearls gathered on the coast and from which were exported muslins called agraritic. Silk, which was supplied by Indian merchants to the Roman Empire, was considered so important that the Roman emperor Aurelian declared it to be worth its

weight in gold. The Roman need for spices could not be met entirely by local supply; this brought Indian traders into contact with south-east Asia. In return for her exports, India imported from the Roman empire such commodities as topaz, tin cloth, linen, antimony, crude glass, copper, tin, lead, wine, orpiment and wheat. The Romans also exported to India wine amphorae and red glazed Arretine ware which have been found at Arikamedu near Pondicherry. They also sent to India a large number of gold and silver coins. Connected with the phenomenon of trade was the growth of money economy in the early centu-ries. The imported coins were mostly used as bullions. The large quantities of gold and silver coins struck by all the Roman emperors beginning from the reign of Augustus (and that of Tiberius) down to Nero (54-58 A. D.) found in the interior of Tamil land, testify to the extent of the trade and the presence of Roman settlers in the Tamil country.

12.6 Sangam Society

The society in the southern kingdoms chiefly consisted of agriculturists or those who depended indirectly on the land. Besides, the peasants there were landless labourers, carpenters, gold-smiths, hunters and fishermen. The Brahmanas came there much later form the northern India. But in the ancient times, they followed neither the Varna system nor the Ashram system. Broadly speaking, there were chiefly two classes of people in the early Tamil society – those who tilled the land them-selves and those who got it tilled by others. The latter were wealthier and this very fact introduced inequalities in the social system. Gradually, the Varna System also started. The people lived chiefly in villages. Mostly they were poor who lived in huts and humbler struc-tures. The forest tribal were very poor. The rich lived in houses of bricks and mortar. The town-people were generally rich and they led happy and prosperous life. The towns were surrounded by a wall for protection from invaders. Forts were also built. The women in the Tamil society were free. Polygamy was practiced, though on a limited scale. Prostitutes and dancing girls lived in towns. Dhoti and turban were the chief attire. Women were fond of ornaments. The chief diet consisted of meat and rice. They also drank wine. In the beginning, Brahamanism grew popular in these kingdoms, though its influence was limited. The kings performed Vedic Yajnas and the Brahmanas held discourses with the Jain and the Buddhist scholars. The four chief deities worshipped by them were Shiva, Vishnu, Balram and Krishna. Marugan was the local God. During Chandragupta's reign Jainism spread in the South. In this period, the Buddhism was on the decline. The growing popularity of Shaivism and Vaishnavism, however, caused a setback to Jainism. The people were tolerant and the followers of the various religions lived together peacefully. The practice of cremating the dead had started.

12.7 Self Check Exercise

1. Who was Murugan?
2. Who promoted the Aryan culture in South?
3. How many Sangams were held?
4. Who presided the third council over?
5. If sati was prevalent in Sangam Age?

12.8 Summary

The Sangam Age represents the society, culture, religion and polity of south India in early centuries. The word Sangam is the Tamil form of the Sanskrit word Sangha which means a group of persons or an

association. The Tamil Sangam was an academy of poets and bards who flourished in three different periods and in different places under the patronage of the Pandyan kings. It is believed that the first Sangam was attended by gods and legendary sages, and its seat was Ten Madurai. All the works of the first Sangam have perished.

12.9 Glossary

Hero-stone	:	It was a practice of erecting monuments for the dead soldiers.
Kadamai or Paduvadu	:	The duties to be paid to the king.
Murugan	:	Marugan was the local God.
Arikamedu	:	A famous centre of foreign trade, a Roman settlements

12.10 Answers to Self Check Exercise

1. Ans. A god in south or kartikeya.
2. Ans. Rishi Agsatya.
3. Ans. Three.
4. Ans. Saint Nakkirar.
5. Ans. Yes.

12.11 Suggested Rreadings

1. Singh, Upinder, History of Ancient India, Pearson Publication, 2016.
2. Pandey, Jai Narayana, Purattava Vimarsh, 2019.
3. Basham, A. L., The Wonder that was India, New Delhi,1967.
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7. Cramrish, Stella, Indian Sculpture, Oxford Publication, 1981.

12.12 Terminal Questions

1. What is Sangam age and describe its features?
2. Describe the Society of Sangam Age?
3. Write down the features of polity and administration?
4. Throw light on the economy of the Sangam Age?

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History BA 1st year

B- A- FIRST YEAR (DSC-1)

DSC-1A% HIST (A) 101

History of India from the Earliest Times up to c- 300 CE

Assignments (Compulsory) Max-Marks = 30

Max-Marks = 30

NOTE: Attempt any five (05) of the following questions-

किन्ही पाँच प्रश्नों को कीजिये ।

All questions carry equal marks-

सभी प्रश्नों के अंक सामान है ।

1. Give a brief account of sources of Ancient Indian History.
   प्राचीन भारतीय इतिहास के विभिन्न स्त्रोतों का संक्षिप्त वर्णन कीजिये ।
2. Describe the town planning featurees of Harappn Civilization.
   हड़प्पा सभ्यता की नगर–योजना की विशेषताओं का वर्णन कीजिये ।
3. What do you know the Vedic Religion ?
   वैदिक धर्म के बारे में आप क्या जानते हैं ?
4. Give a comparative study of Buddhism and Jainism.
   बौद्ध धर्म और जैन धर्म का तुलनात्मक अध्ययन कीजिये .
5. Throw a light on Ashoka's Dhamma.
   अशोक के धम्म पर प्रकाश डालिए ।
6. What are the main features of Mathura and Gandhara art?
   मथुरा और गान्धार कला की क्या मुख्य विशेषताएं हैं ?
7. Throw a light on Sangam Age.
   संगम युग पर प्रकाश डालिए ।

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BA 1st Year
History (New Syllabus)

Course Code :
DSC-1A : HIST (A)101

History of India from the Earliest Times up to c. 300 CE

Lessons- 1-12

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