

# Unit 10

## Temporal Evolution of Ancient, Modern, Pre-Industrial and Industrial Cities

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### Learning Objectives

After studying this unit you should be able to:

- describe the features of ancient cities;
- explain the major characteristics of modern contemporary societies;
- discuss the nature of pre-industrial and industrial cities described by scholars like Gideon Sjoberg.

### 10.1 Introduction

In the previous Unit 9 Typologies of Cities, you had learnt about the different types of cities. In this unit the time element i.e., temporal factor has been considered in the formation of different cities.

Temporal analyses of cities refers to the changes experienced by a city through a period of time. These changes have arisen due to a number of factors. Historians have looked at social, economic, political and technological factors that have led to these changes. As you have seen in Unit 8 of this Block, cities have undergone change and during each period of history—ancient, medieval or modern—we see changes in the character of the city. The city can also be characterised as pre-industrial and industrial city. An industrial city is one that emerges on account of the process of industrialisation, such as Jamshedpur. A pre-industrial city is a city which has emerged not on account of the process of industrialisation, such as Banaras. It has been assumed by scholars that the pre-industrial city predates the industrial city but this is not always true. The pre-industrial and industrial cities are not related to the time aspect only as they may exist simultaneously at the same time. Different kinds of cities that have existed at different points of time and performed function that were required by the regional/national economy and society.

We will now examine changes that have taken place in cities and categorise these different kinds of cities and look at their characteristics: The four kinds of cities that are seen in terms of chronological or temporal change are:

- i) Ancient
- ii) Modern
- iii) Pre-industrial cities
- iv) Industrial cities.

## 10.2 Ancient Cities

Archaeology has been useful for the study of ancient cities. An ancient city is identified by archaeologists on the basis of its size and from the scale of its remains. (Fagan, B., 2004). We will be examining the first cities that emerged in India. The cities first emerged during the Bronze Age and then the second phase of urbanisation took place during the 6<sup>th</sup> century B.C. First we will look at the Bronze Age cities:

### Bronze Age

The earliest cities in India can be traced back to the 'Bronze Age' Indus civilisation that witnessed the emergence of well organised cities, planned and inhabited by specialists – such as carpenters and metal workers. **Bronze Age** refers to a period in history when there was an increased dependence on copper and copper alloys (when copper is mixed with other metals such as arsenic, tin or lead to manufacture bronze. V. Gordon Childe (1979) puts forward ten criteria based on archaeological data, to distinguish the earliest cities from older cities the villages found today. These are the ten features that he postulated:

- 1) In terms of size, the first cities should have had larger and more densely populated areas than any previous settlements, although considerably smaller than many villages found today.
- 2) The composition and function of the urban population differed from that of a village. There may have been citizens who were cultivating land near the city. The city must have accommodated full-time specialist craftsmen, transport workers, merchants, officials and priests.
- 3) Each producer paid a tiny surplus as tax to an imaginary deity or a divine king and the surplus concentrated in his hands.
- 4) Monumental public buildings not only distinguish each known city from any village but also symbolises the concentration of the social surplus. The city of Harappa in the Indus valley was dominated by a **citadel**, **rampart** and **baked bricks**. **Citadel** is a term used for that part of the city that houses the important buildings and is higher than the other parts of the city. It is often walled by brick or stone as seen in the excavations of the Harappan cities. A **rampart** is an embankment built around a space for defensive purposes. **Baked bricks** are those bricks that have been manufactured in a brick kiln.
- 5) All those people who were not engaged in food production were supported by the surplus accumulated in temples or royal granaries. The priests, civil and military leaders and officials absorbed a major share of the concentrated surplus and thus formed a "ruling class". They were exempt from all manual tasks. While the lower classes were not only guaranteed peace and security but were relieved from intellectual tasks. The ruling class did confer substantial benefits upon their subjects in the way of planning and organisation.

- 6) The ruling classes were compelled to invent systems of recording. Writing is a significant mark of civilisation. The engraved seals from the Indus valley civilisation provide evidence of writing.
- 7) The invention of writing or scripts enabled the clerks who were now relatively free to engage in the sciences, arithmetic, geometry and astronomy. Calendrical and mathematical sciences are common features of the earliest civilisations.
- 8) Other specialists supported by the concentrated social surplus, gave a new direction to artistic expression. The Bronze Age cities had artists/craftsmen, full-time sculptors, painters or seal-engravers who began to carve or draw likenesses of persons or things according to conceptualised and sophisticated styles which differ in each of the four Bronze Age civilisations.
- 9) A further part of the concentrated surplus was used to pay for the import of raw materials needed for industry or cult and not available locally. Regular 'foreign trade' over quite long distances was a feature of all early civilisations.
- 10) In the city the specialist-craftsmen were provided with raw materials needed for the employment of their skill.

Cities existed in and beyond the Indus Valley around 2500 B.C. The important cities have been located in Harappa in Punjab, Mohenjodaro in Sind, and Lothal in Saurashtra. The city of Mohenjodaro clearly revealed many features of urbanism. It was a well planned city, with an efficient drainage system. The houses were well-planned with sanitation facilities. A large granary has been found, an assembly place and a ritual centre. The cities of Harappa and Mohenjodaro had a citadel made up of mud and mud brick which was raised above the ground and demarcated from the rest of the city. The important buildings for administrative and ritual purpose were placed here. Thus, we see systematic town planning, administrative functions, military, agriculture and commercial economy, craft production and ritual organisation.

### Second Urbanisation

The second phase of urbanisation in India can be seen during the 6<sup>th</sup> century B.C. Historians view that the second phase of urbanisation was ushered in due to several factors. It is also known as the early historical period in Indian history and we see the emergence of a definite system of coinage which was essential for organising trade and commerce. There was an abundance of silver punch-marked coins. There developed a system of writing and there is the reappearance of the baked brick which is used for monumental architecture, including fortification. (Ghosh, A. 1973 : p. 14).

There were different kinds of cities during the ancient period (Rao, M.S.A. 1991 : p. 21-69). The *Vastu-Sastra* talks about the science of town-planning and presents different categories of towns based on the kind of functions it performed such as trade, commerce, manufacturing, administration and military. Now we will discuss the different kinds of cities categorised on the basis of the functions they performed:

**Nagara:** This was an ordinary fortified town where inland trade was an important activity.

**Pattana:** This was a large commercial port situated on the bank of a river or sea. It was inhabited by the trading castes such as the *Vaishyas* and

abounds in a lot of wealth and a large number of valuable luxury objects such as silk, perfumes and other articles.

**Dronamukha:** This was also a market town located on the delta of a river or sea shore and was frequently visited by traders. It was also a small marketing centre among four hundred villages.

**Kheta:** This was a small walled town situated on the plains, near a river or a forest, located in between villages and having communication facilities.

**Sakhanagara:** If a kheta was combined with local industries such as mining, then it was known as *Sakhanagara*.

**Kharavata:** It was similar to a *kheta* but was an inland town lying in the midst of about two hundred villages.

**Nigama:** This was mainly a market town but consisted of artisans. It was also a resting place for traders and caravans.

**Rajadhani:** The royal capital or *Rajadhani* which was another type of elaborately planned town. It was surrounded by walls and ramparts and ditches and military outposts were constructed for defence purpose. Separate places were assigned for the palace, royal officers, the army, citizen's quarters and shops. It also provided services to the citizens as several tanks were constructed, wells were dug, gardens and temples were also made for the people. An example was the capital of the Mauryan Empire, Pataliputra.

**Durga:** This was a fortified town equipped with a weapon store and also had facilities for the storage of food products. It was mainly a military town and there were many military encampments. The *sivira* was an encampment of a king's army that was out on war.

**Senamukha:** This was a military base which was also a suburban town, located at a distance from the main city and protecting it.

**Shaniya:** This was a local fortified town which was the seat of the king with barracks and police. However, it was not a permanent capital.

**Matha or Vihara:** Another kind of town that was a centre of education or the university town, called the *Matha* or *Vihara*. A classic example of a university town was Nalanda, which developed as a centre of learning and a centre of Buddhism. Excavations at Nalanda reveal that there were several cells in the monastery for the monks.

**Temple towns:** This formed another category of towns. There are central spots where these temples are located and have several circumambulatory paths where the devotees can move around the deity as a form of worship. Some examples of this type of city are Tirupati in South India or the Puri temple in Orissa.

**Sacred cities:** Besides temple towns there were sacred cities which attracted pilgrims. Towns like Haridwar, Nasik, Ujjain and Mathura were important pilgrim centres in India.

Of all the different types of cities during the ancient period the capital cities were the most significant. Pataliputra was an important city during the Mauryan Age. The area of the city was 20 square miles. It also had fortification, towers and gates. It remained a seat for political power under various dynasties and with the Buddhist influence it was also a centre of learning. It even had a large population during the reign of King Chandragupta. Ujjain about which you learnt in unit 8 of this Block, was

another important city during the ancient times. It was not only the ruling centre of the Saka dynasty, but it was considered important from a religious point of view by the Hindus, Buddhists and Jains. It was also an emporium of trade, exporting precious and semi-precious stones. In southern India, Kanchipuram was the capital of the Pallavas and Cholas. It was also a place where a number of religions flourished, as it was home for the Vaishnavites, Saivites, Jains and Buddhists. Several literary and artistic developments took place in this city. It was a well-fortified city and the temple dedicated to the Goddess Meenakshi is situated at the centre of the city. It also housed the royal palace, the royal classes, the merchants and artisans and various religious specialists.

### 10.3 Modern Cities

Generally speaking 'modern cities' have been defined as 'those that belong to the present and recent times' (King, A.D. 1930 : pp. 1-19). All terms of 'modernisation' refer in some way not only to change but to the emergence of efficiency, increased human and spatial interaction, and extraordinary complexities of social relationships (Weiner, M. 1966 : pp. 140-155). Cities are associated with more efficient means of production and provide heterogeneity of goods and services and with a range of contacts among peoples and places. Modernity can be seen in two ways:

- It can be seen in terms of a model of a 'modern' western city.
- It can also be compared with its own immediate past and looking at the amount of 'development' that has taken place.

A third approach would be to first define an ideal pre-modern city and then use it as a model to focus on the kind of changes that have occurred in the 'modern cities'.

The dimensions of a modern city are as follows:

- i) Spatial morphology and location
- ii) Economic Structure
- iii) Demographic and Sociological Structure
- iv) Technological structure.

#### **Spatial morphology and location**

Many modern cities have been developed either through colonial enterprise or due to administrative and political reasons by its colonial rulers. Cities generally have a dual character, as they comprise a traditional section along with the modern characteristics. We see this in the case of Delhi, as it comprises both Old and New Delhi. Old Delhi represents the traditional part, whereas New Delhi comprises the new elements. In its spatial structure, it is relatively a new city, founded and developed primarily after the beginning of the nineteenth century. Commercial activities tend to dominate the central part of the city rather than government buildings and religious structures.

#### **Economic Structure**

The traditional city was primarily concerned with religious, ceremonial, political or administrative functions. It is characterised by an overly large tertiary or service sector. Tertiary sector refers to those services or professions which involve activities other than production such as teaching, administration, transportation, etc. The city also provided large markets

for goods that were not brought from outside, but had to be made within the city itself.

### Demographic and Sociological Structure

In the modern city death rates have fallen significantly, but the birth rates have continued as before or even risen. Due to the decline in the infant mortality rate, there has been a natural population increase in large cities. There is added pressure due to the migration of people seeking employment or for educational purposes, etc.

There are other social trends in 'modernisation' such as changes in family structure, literacy, sex ratio, etc. In the sphere of changes in values, attitudes and forms of social relations, it has been observed that 'rural' and 'non-urban' forms of social organisation, values and attitudes persist in the city. During social occasions such as marriage or the birth of a child, city dwellers tend to follow social observations.

### Technological structure

The modern cities witness technological changes such as a network of good roads, modern and efficient means of transportation, etc. These amenities are important in large cities for communication networks with suburbs. Suburbs are satellite townships situated on the outskirts of large cities and towns, providing residential areas for the population working in the cities.

#### Reflection and Action 10.1

From the map of India, prepare a list of cities that you think are modern. Why you think they are modern? Write a page on your findings about modern cities in India. Compare your list with those of other students at your Study Centre.

## 10.4 Pre-Industrial Cities

The term pre-industrial cities (Sjoberg, G. 1971 : pp. 11-70) has been coined by social scientists for those cities in Asia and Africa that have arisen without stimulus from a form of production that is not associated with the European industrial revolution. It is characterised by a complex social organisation, a highly developed state or religious institutions and a rigid class structure. Now we will discuss three aspects of a pre-industrial city:

- i) Ecological Organisation
- ii) Economic Organisation
- iii) Social Organisation.

### Ecological Organisation

Pre-industrial cities depend for their existence upon food and raw materials obtained from outside and they serve/act mainly as market centres. A number of handicrafts are also manufactured in these centres. Important political, religious and educational activities take place in such cities. For example, the cities of Benaras and Haridwar are best known as religious centres. Benaras is also famous for the manufacturing of Benarsi sarees, which are not machine made but hand-made. Benaras is also an important pilgrimage centre for the Hindus. The people offer a variety of offerings

to the deities in the temples. In this manner the temple priests and administrators get access to a variety of resources. The people living in the city perform a variety of administrative, economic or religious services.

The internal arrangement of such a city is closely related to the city's economic and social structure. The provision of modern transportation systems, good roads, etc. are lacking in these cities. The city may be congested as there may be just narrow passages for people and animals used for transportation. The city may also face sanitation problems due to its congested nature.

There are several social divisions reflected in such a city. There may be different areas allocated for different sections and these areas may be demarcated by a wall. Even the occupational groups, reside apart from one another. Often a particular street or part of the city is occupied by members of a particular trade or craft. For instance, in many cities in India we see areas that are known for a particular craft or for a particular kind of trade. Such instances are Johari bazaar in the city of Jaipur and Chandni Chowk in Old Delhi, which are famous for their silversmiths and goldsmiths.

Finally, in pre-industrial cities it is not the 'business-centre' which holds the position of dominance, but it is the religious centre that is usually the focal point of community life. In Banaras we see that the 'ghats' are of significance as the temples and shrines are situated on the banks of the Ganga. People visit Banaras for a holy dip in the river Ganga.



Ghats of Banaras City

### Economic Organisation

The economy of the pre-industrial city differs from an industrial city. The main difference is that there is the absence of industrialism. Industrialism is defined as a system of production where inanimate or non-living sources of power are used to increase the amount of production. Pre-industrial cities depend for the production of goods and services upon animate (human or animal) sources of energy—used either directly or indirectly through mechanical devices such as hammers, pulleys, and wheels. In industrial societies, electricity and steam is used, which increases the quantity of production. This form of production which requires the development of several institutions, results in changes in the ecological, economic, and social organisation in industrial cities.

Another aspect of pre-industrial city is associated with its unique system of production. There is an absence of fragmentation or specialisation of work. The handicraftsmen participated in nearly every phase of the manufacture of an article, and carry out the work in his own home or in a small shop nearby and within the limits of certain guild and community regulations, maintaining control over the methods of production. Most commercial activities also are conducted in pre-industrial cities by individuals without a highly formalised organisation. The craftsmen market their own products. The various occupations are organised into what have been termed "guilds." Guilds have existed for merchants and handicraft workers e.g., goldsmiths and weavers.

In a pre-industrial city there is non-standardisation in the way goods are manufactured as well as in the products and this is also seen in the way it is marketed. Generally, there is no fixed price allocated for the goods. Business is conducted in a leisurely manner and earning money is not the sole criterion. Furthermore, the sorting of goods according to size, weight, and quality is not common.

### Social Organisation

There is a clearly demarcated class structure and family, religious, educational and governmental systems. The most striking component is a literate elite controlling the masses as well as dependent on it, as we see in the case of the caste system in India. The elite comprises of individuals holding positions in the government and in religious and educational institutions in society. The masses produce handicrafts and provide services mainly for the elite. There is a sharp division between the elite and the lower class, but in both these classes there are various levels as well. The members of the elite families enjoy power and property. Their position is legitimised by sacred writings.

Social mobility in such a city is minimal. There is no threat to the elite from the lower classes within the city, it usually comes from outside. There is an absence of a middle class in the pre-industrial city. The marginal or 'outcast' groups, who are not an integral part of the dominant social system, play a significant role. The untouchables or lower castes in India provide a number of services to the upper castes. They rank lower than the urban lower class, performing tasks considered especially degrading, such as burying the dead. There is a formalised system of age grading as a mechanism of control in pre-industrial cities. In a family the eldest son is privileged. Children and youth are considered subordinate to parents and other adults. Older persons hold considerable power and prestige in society.

On the peripheries of the modern city a number of residential suburbs are located, which are economically tied to the central city. The modern city is much larger than its predecessors. Some of these cities specialise in different kinds of activities and they carry out manufacturing activities to a large extent. Modern cities also play a number of roles such as administrative, commercial and other service functions. The development of the modern city is linked with industrialisation, with the development of manufacturing processes based on the factory. Most of the land used in modern cities is used for industrial purposes. A large segment of the population is employed in secondary or industrial activities. The factory and the modern city are associated with the usage of non-living sources of energy for manufacturing purposes.



## 10.5 Industrial Cities

A city is known as a city not only because more diverse populations live together but also because more work and different kinds of work are performed there. It is not just the density of population that makes a city, but the population must be organised into a meaningful structure (Anderson, N. 1964 : pp. 134). Let us now look at some of the characteristics of a city:

- i) Ways of Work
- ii) Mobility and Transiency
- iii) Impersonal Social Interaction
- iv) Time and Tempo Compulsions
- v) Family Living and the Individual
- vi) The Man-Made Urban Environment.

### Ways of Work

Work in cities is usually described as industrial work which does not mean work in factories only. It also includes work in commerce, transportation, in communication and many other services. Mainly non-agricultural activities are carried out such as different kinds of public works mainly carried out in cities. Emphasis is placed on the use of machines and on refined ways of organising the workplace to increase the efficiency of workers.

### Mobility and Transiency

There is continuous movement of people towards the city and away from it, or even from one city to another. This movement of people is due to the search for better opportunities found in the cities which are centres of wealth, power and creativity. The mobility or movement of people increases as cities become more and more industrial and because of mobility industry often increases. There is another kind of mobility seen in cities where people change jobs. This type of mobility is known as occupational mobility. Occupational mobility may also take place when a person shifts from a lower to a higher position.

### Impersonal Social Interaction

In a city the social interaction among persons is usually impersonal. There is an element of anonymity in city life. However, there is primary group interaction between family members, friends and neighbours. The 'community' as a pattern of association is not destroyed, but certain new forms called 'networks' replace old neighbourhood forms. Large family networks may diminish but friendship networks remain alive.

#### Reflection and Action 10.2

Prepare a diagram showing you as an ego and all your relationships with family, friends, servants, service men, etc. with whom you have interacted for a day. List the relationships which fall under the family kinsmen and friends category. List other kinds of relationship as well which are impersonal. Write a page on the topic of "Urban Society and its Nature". Discuss whether your social life is urban or rural depending on the lists of relationship or interaction that you underwent in a day.

Share your views with other students at your Study Centre.

## Time and Tempo Compulsions

Due to the nature of the 'industrial' work, life in the urban community becomes 'clock regulated'. There is some amount of order maintained when it comes to maintaining regularity and punctuality. Village life is strictly controlled by the cycles of nature but city life is regulated by more precise timing through the clock. For instance there are fixed working hours for a number of people working in industries, for transportation, etc.

## Family Living and the Individual

Traditionally, the family has been, and in a large measure remains, the unit of production and consumption. The status of the individual depended on his or her membership in the family, mainly a joint family. The joint family system begins to disintegrate and the nuclear family system begins to emerge. The family tends to lose some of its old functions such as economic and educational functions. Other institutions like Play-Schools, Day-Care Centres and Creches, etc. take over some of the functions performed by the family.

## The Man-Made Urban Environment

The urban environment is man-made and mechanical. The city has been called 'unnatural' as everything has been constructed and created by men such as pavements, gardens, streets, etc. Several changes are made in the environment to provide civic amenities such as the laying of water supply lines, sewers, channels for electric power or gas supply. Transportation maybe carried out under-ground, overhead or on the landsurface. Lighting system is provided on the streets for easier movement of people. There are phone lines laid and other systems used for better communication.

Now after looking at the meaning of city life, let us now look at the meaning of Industrialism:

**Industrialism** is related to the work that is carried out in a city. In industrialism hand labour is replaced by machines and these machines are further replaced by even more efficient machinery. Creative methods are used for organising the work process. In most industries unskilled labour has been gradually eliminated. The features of an industrial city are as follows:

- 1) A new role has emerged of the city, as it is not restricted to merely a single market selling one kind of good but there are special markets for each good and each service. Each market serves customers who may come personally as well as customers who send in their orders. The city is also a market for special services, such as the publishing business, finance and insurance, selling of machinery and tools, etc. All these services are separate from each other and also interlinked to each other at the same time.
- 2) Cities acquire a new character with the rise of industrialism as they become highly interdependent on each other and there may also be competition with each other. There are linkages between larger cities and smaller ones.
- 3) The people in the city are usually engaged in industrial work. Tasks become specialised and specialisation leads to interdependence of activity. There is individualism to a great extent due to the impersonal nature of his/her work. Other workers depend on his/her work as s/he depends on their work.

- 4) There is a need in cities of some regulating authority to regulate the dealings between buyers and sellers. Authority was needed to establish weights and measures, money values had to be decided, disputes had to be resolved; authority was needed even to establish a market. This authority that keeps things in balance takes the form of a government. The governments are at various levels but it is the local government that is the principal civil authority.
- 5) Industrial cities are usually planned. Planning may imply the pattern of streets, parks, housing areas, etc. There may also be an interest in planning the distribution of industrial sites and related facilities. There maybe some people who are concerned about housing programmes and the rehabilitation of slums.

## 10.6 Conclusion

In this unit you read about the characteristics of cities and how a city undergoes change. These changes that a city undergoes are a continuous process. Cities have undergone change and this has led to the emergence of four kinds of cities; ancient, modern, pre-industrial and industrial. We see constant changes in the character of the city. We see the emergence of the earliest cities in India in the form of the Ancient city during the Bronze Age and later during the Second phase of Urbanisation. The Modern city is a more recent phenomenon. The city can also be characterised as pre-industrial and industrial city. An industrial city is linked with the process of industrialisation. A pre-industrial city is a city which has not witnessed industrialisation and has other factors leading to its formation.

## 10.7 Further Reading

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