NETAJI SUBHAS OPEN UNIVERSITY

STUDY MATERIAL

POST GRADUATE GEOGRAPHY

Paper : 8

Group : A

Special Paper - II

URBAN GEOGRAPHY

PREFACE

In the curricular structure introduced by this University for students of Post-Graduate degree programme, the opportunity to pursue Post-Graduate course in a subject is introduced by this University is equally available to all learners. Instead of being guided by any presumption about ability level, it would perhaps stand to reason if receptivity of a learner is judged in the course of the learning process. That would be entirely in keeping with the objectives of open education which does not believe in artificial differentiation.

Keeping this in view, study materials of the Post-Graduate level in different subjects are being prepared on the basis of a well laid-out syllabus. The course structure combines the best elements in the approved syllabi of Central and State Universities in respective subjects. It has been so designed as to be upgradable with the addition of new information as well as results of fresh thinking and analysis.

The accepted methodology of distance education has been followed in the preparation of these study materials. Co-operation in every form of experienced scholars is indispensable for a work of this kind. We, therefore, owe an enormous debt of gratitude to everyone whose tireless efforts went into the writing, editing, and devising of a proper lay-out of the materials. Practically speaking, their role amounts to an involvement in 'invisible teaching'. For, whoever makes use of these study materials would virtually derive the benefit of learning under their collective care without each being seen by the other.

The more a learner would seriously pursue these study materials the easier it will be for him or her to reach out to larger horizons of a subject. Care has also been taken to make the language lucid and presentation attractive so that they may be rated as quality self-learning materials. If anything remains still obscure or difficult to follow, arrangements are there to come to terms with them through the counselling sessions regularly available at the network of study centres set up by the University.

Needless to add, a great deal of these efforts are still experimental—in fact, pioneering in certain areas. Naturally, there is every possibility of some lapse or deficiency here and there. However, these do admit of rectification and further improvement in due course. On the whole, therefore, these study materials are expected to evoke wider appreciation the more they receive serious attention of all concerned.

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POST-GRADUATE GEOGRAPHY
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Group A

UNIT 1 ❑ CONCEPT OF URBAN

Structure

1.1. Concept and Definition : Urban, Urbanization, Urban Systems, Urban Pattern, Urban Ecology, Urban Sprawl.

URBAN : A settlement is an organized colony of human beings including the buildings in which they live or work and the tracts of streets over which their movements take place. Settlements modify the natural environment by imposing a cultural element. In the beginning, these settlements bear simpler forms, but with the growth of civilization and technical knowledge the degree of variability in their size and complexity of their relationships become overwhelmingly greater. Settlements are often divided into two types—**rural** and **urban.**

Definition of Urban : The term 'Urban' is usually applied to a spatial or areal unit having certain specific characteristics which differentiate it from a rural unit. An urban unit may take the form of a town, city, or metropolis, while a rural unit is a village, administratively defined as a mouza in India.

Jones (1966, also cited in Hudson, 1976; p, 79) has defined an urban settlement as a physical conglomeration of houses and streets or it is a centre of exchange and commerce or it is a kind of society. The sociologist, Wirth has defined a city as a relatively large, dense and permanent settlement of socially heterogeneous individuals. According to him, towns and cities have a social framework characterized by anonymity and lack of personal and their replacement of allegiance to diverse groups which by their multiplicity encourage mobility and social instability.

In most of the Central American Republics, Brazil and Bolivia all administrative centers even the minor civil divisions were labeled as towns. In the

UK prior to the local government reform, the urban population covered all those who lived in the country and municipal boroughs, and in the urban districts (i.e. those who did not reside in rural districts).

Considerable amount of variation and controversies exist in the specification of characteristics which would identify and delimit the boundary of urban units. The selected criterion has varied over time and space. Different countries have used different criteria for delimiting the urban areas of various spatial dimensions which have also modified from time to time, thus making comparisons difficult. Sorokin and Zimmerman have assembled eight characteristics in which urban world differ from rural world (Sombart, 1939). They are ;

1. Occupation
2. Environment
3. Size of Community
4. Density of Population
5. Heterogeneity or homogeneity of population
6. Social differentiation and stratification
7. Mobility
8. 'System of Interaction' (i.e, number and type of contacts).

The **Census of India** has used a multiple or compound criteria for defining Urban areas. According to the 1991 census (series 1, VoLl 1, p3-4) an Urban place is defined as :

1. All statuary towns, i.e. all places with a municipality, corporation, cantonment board, or notified town area committee etc which in essence is an administrative criterion.

2. All other places which satisfy the following criteria
   a. A minimum Population of 5000,
   b. At least 75 percent of the male working population is engaged in non agricultural pursuits.
   c. A density of population of at least 400/sq.km (1000/sq.miles)

The **U.S Census Bureau** recognizes four distinct kinds of units (Carter, 1989:p. 21-22, Dickinson, 1955:p, 306-310) ;

1. An "urban place' (i.e. a place with at least 2500 inhabitant)
2. an "incorporate city'(i.e. a town with at least 2500 people and separate political identity)
3. An "urbanized area 'centered on a city of at least 50000 people and including the city's urban fringe or suburban area, i.e.
   i) incorporated plaees with 2500 inhabitants or more,
   ii) incorporated place with less than 2500 inhabitants provided that each has a closely settled area of 100 dwelling or more,

iii) Enumeration districts in unincorporated territory with a population density of 1000 inhabitants or more per sq. miles.

iv) Enumeration district with less than 1000 persons /sq.miles ,if they are a) eliminated enclaves , b) closed indentation in the urbanized area of 1 mile or less across the open end, c) link outlying enumeration districts of qualifying density that were no more than 1 and 1/2 miles from the main urbanized area,

4. A "Standard Metropolitan Statistical Area" (SMSA) - a group of counties containing a population nucleus at the core say at least 1 city of 50000, or more people, together with that part of the surrounding area which is socially and economically integrated with it.

Standard definitions of metropolitan areas were first issued in 1949 by the then Bureau of the Budget (predecessor of OMB), under the designation "standard Metropolitan area" (SMA). The term was changed to "standard metropolitan statistical area" in 1959, and to "metropolitan statistical area" (MSA) in 1983.

URBANIZATION

Urbanization is defined as the increase in the proportion of population residing in towns, brought about by migration of rural populations into town and cities and /or the higher urban levels of natural increase resulting from the greater proportion of people of child bearing age in cities. Urbanization indicates a change in employment structure from agriculture and cottage industry to mass production and service industries.

This backs up the view that urbanization results from, rather than causes social change. This is most notable in the development of capitalism and the resultant industrialization. It is said that the development of landless labourer and the concentration of wealth into few hands encourages urbanization. Others argue that urbanization is the inevitable result of economic growth, with the rise of the specialized craftsmen, merchants and administrators. A further view stresses the importance of the agglomeration economies; cities offer market, labour and capital with a well developed infrastructure, all of which increases their comparative advantage. In addition, Clark observes that the effect of globalization compound rather than replace, local processes of urban development. They introduce reasons of urban growth and urbanization, which add to the traditional attraction of the cities as central places.

Urbanization is relatively a recent process of third world where it is even more rapid than population growth and where the largest agglomeration are growing even more rapidly. The negative effect of Urbanization includes the loss of agricultural land coupled with the problems of urban food supply, the destruction of habitats and urban diseconomies.

Urbanization Curve: It is a model of progress of Urbanization, based on empirical evidence fromEurope. In a traditional society Urbanization is below 20% and the rate of Urbanization is slow, so the curve starts gently. With industrialization and the rise in the importance of manufacturing and services the pace of Urbanization quickens, but the curve slackens after about 75%. While most of the developed countries have reached this third stage, the countries of the developing world are still on the rising curve of Urbanization, often with a steeper gradient than is the characteristic of advanced economies.

Some geographers believe that counter urbanization constitutes a fourth stage when urban population falls; other feels that counter urbanization is temporary.

Urbanization Economies is defined as the advantages gained from an urban location, these include proximity to market, labour supply, good communications, financial and commercial services such as auditing stock broking, advertising, investment, industrial cleaning and maintenance. Large cities have a greater comparative advantage than the small ones and the relationship between the city size and urbanization economies is non linear.

Urbanization Today

The 2005 revision of the UN World Urbanization Prospects Report described the 20th century as witnessing "the rapid urbanization of the world's population", as the global proportion of urban population rose dramatically from 13% (220 million) in 1900, to 29% (732 million) in 1950, to 49% (3.2 billion) in 2005. The same report projected that the figure is likely to rise to 60% (4.9 billion) by 2030.

Urbanization rates vary across the world. The United States and United Kingdom have a far higher urbanization level than China, India, Swaziland or Niger, but a far slower annual urbanization rate, since much less of the population is living in a rural area

Urbanization Projections

According to the UN-HABITAT 2006 Annual Report, sometime in the middle of 2007, the majority of people worldwide will be living in towns or cities, for the first time in history; this is referred to as the arrival of the "Urban Millennium". In regard to future trends, it is estimated 93% of urban growth will occur in Asia and Africa, and to a lesser extent in Latin America and the Caribbean. By 2050 over 6 billion people, i.e. two thirds of humanity, will be living in towns and cities.

Economic effects : Over the last few years urbanization of rural areas has increased. As agriculture, more traditional local services, and small-scale industry give way to modern industry the urban and related commerce with the city drawing on the resources of an ever-widening area for its own sustenance and goods to be traded or processed into manufactures.

Research in urban ecology finds mat larger cities provide more specialized goods and services to the local market and surrounding areas, function as a transportation and wholesale hub for smaller places, and accumulate more capital, financial service provision, and an educated labor force, as well as often concentrating administrative functions for the area in which they lie. This relation among places of different sizes is called urban hierarchy.

As cities develop, its effects can include a dramatic increase in rents, often pricing the local working class out of the market, including such functionaries as employees of the local municipalities. For example, Eric Hobsbawm's book "The age of the revolution : 1789-1848" (published 1962 and 2005) chapter 11, stated "Urban development in our period [1789-1848] was a gigantic process of class segregation, which pushed the new labouring poor into great morasses of misery outside the centers of government and business and the newly specialized residential areas of the bourgeoisie. The almost universal European division into a 'good' west end and a 'poor' east end of large cities developed in this period." This is likely due the prevailing south-west wind which carries coal smoke and other airborne pollutants downwind, making the western edges of towns preferable to the eastern ones.

Changing form of urbanization

Traditional urbanization exhibits a concentration of human activities and settlements around the downtown area. When the residential area shifts outward, this is called suburbanization. A number of researchers and writers suggest that suburbanization has gone so far to form new points of concentration outside the downtown. This networked, poly-centric form of concentration is considered by some as an emerging pattern of urbanization. It is called variously as exurbia, edge city (Garreau, 1991), network city (Batten, 1995), or postmodern city (Dear, 2000). Los Angeles is the best-known example of this type of urbanization

Planning for urbanization :

Urbanization can be planned or organic in nature. Planned urbanization, i.e. new town or the garden city movement is based on an advance plan, which can be prepared for military, aesthetic, economic or urban design reasons. Unplanned (organic) cities are the oldest form of urbanization. Examples can be seen in many ancient cities; although with exploration came the collision of nations, which meant that many invaded, cites took on the desired planned characteristics of their occupiers. Many ancient organic cities experienced redevelopment for military and economic purposes, new roads carved through the cities, and new parcels of land were cordoned off serving various planned purposes giving cities distinctive geometric shape. UN agencies prefer to see urban infrastructure installed before urbanization occurs, landscape planners are responsible for landscape infrastructure (public parks, sustainable urban drainage systems, greenways etc) which can be planned before

urbanization takes place, or afterward to revitalize an area and create greater livability within a region.

New Urbanism

New Urbanism was a movement which started in the 1980s. New Urbanism believes in shifting design focus from the car-centric development of suburbia and the business park, to concentrated pedestrian and transit-centric, walk able, mixed-use communities. New Urbanism is an amalgamation of old-world design patterns, merged with present day demands. It is a backlash to the age of suburban sprawl, which splintered communities, and isolated people from each other, as well as had severe environmental impacts. Concepts for New Urbanism include people and destinations into dense, vibrant communities, and decreasing dependency on vehicular transportation as the primary mode of transit.

Thus it may be concluded by saying that urbanization means the removal of the rural character of a town or area, a process associated with the development of civilization. Demographically, the term denotes redistribution of population from rural to urban settlements

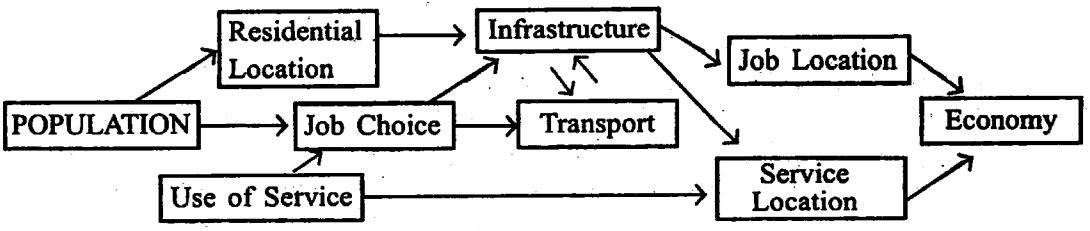
URBAN SYSTEM

Urban System is any network of towns and cities, and their hinterlands, which can be seen as a system, since it depends on the movement of labour, goods and services, ideas and capital through network. Crucial to the interaction within the system is efficient systems of transport and communication. With improved technology it is possible to see urban system which transcends national boundaries. All the surrounding landscape is a multidimensional organization system. This frames the basis to consider the human settlement system having to basic kinds of components.

1. Spatial structural components
2. Spatial interaction components

Doxiadis through the study of Ekistics provided a theoretical framework for understanding the complex system ranging from man to universal city. It comprises several sets and closed subjects containing five elements, i.e. nature, man, society, shell and networks. As regard to urban settlement the structure of the city can be seen in terms of population activities (e.g. having jobs, various services, etc) and organizational or more normally economical activities together with physical infrastructure and the transport system which support these.

Main Components of Urban System



URBAN ECOLOGY

Urban ecology is the subfield of ecology which deals with the interaction of plants, animals and humans with each other and with their environment in urban or urbanizing settings. Analysis of urban settings in the context of ecosystem ecology (looking at the cycling of matter and the flow of energy through the ecosystem) can result in healthier, better managed communities. Studying the factors which allow wild plants and animals to survive (and sometimes thrive) in built environments can also create more livable spaces.

Urban ecology also involves the study of the effects of urban development patterns on ecological conditions. Emphasis is also placed on planning communities with environmentally sustainable methods via design and building materials in order to promote a healthy and biodiversity urban ecosystem Just as the ecologist study the way in which an ecosystem seeks to re-establish equilibrium after certain alteration, so an urban ecologist assume that people will try to re- establish equilibrium after sudden changes.

Urban Ecology posits that the urban realms are made up of four interrelated variables: a functionally integrated population, a self sustaining system of relationships, an urban environment and the technology and the tools which sustain the community. A change in one will bring the change in the other three.

Urban Ecology has been criticized for focusing too much on competition at the expense of the cultural and subjective forces which shape the city. It flourished in 1920s and 1930s, went through a period of neglect was revived in the late 1950s and early 1960s, but is no longer seen at the centre of urban studies. The term is so applied to the sum of societal relations with nature and restoration of non human nature in cities.

URBAN SPRAWL

Urban sprawl, also known as **suburban sprawl,** is the spreading out of a city and its suburbs over rural land at the fringe of an urban area. Residents of sprawling neighborhoods tend to live in single-family homes and commute by automobile to work. Low population density is an indicator of sprawl. Urban planners emphasize the qualitative aspects of sprawl such as the lack of transportation options and pedestrian friendly neighborhoods. Before the introduction of planning controls in the UK, Urban Sprawl went largely unchecked, and ribbon developments along major routes like London's Great West Road , was rife .In an attempt to check further growth, Conservationists tend to focus on the actual amount of land that has been urbanized by sprawl and established Green Belts around Britain Cities.

The term urban sprawl generally has negative connotations due to the health and environmental issues that sprawl create. Residents of sprawling neighborhoods tend

to emit more pollution per person and suffer more traffic fatalities. Sprawl is controversial, with supporters claiming that consumers prefer lower density neighborhoods and that sprawl do not necessarily increase traffic. Sprawl is also linked with increased obesity since walking and bicycling are not viable commuting options. Sprawl negatively impacts land and water quantity and quality and may be linked to a decline in social capital.

1.2 DIFFERENT APPROACHES - CHANGING EMPHASIS-RECENT TRENDS PERCEPTION OF URBAN SPACE

The body of theories which have been applied by geographers to urban areas has varied over time. The changing approaches of Urbanization are depicted in the following paragraphs.

Early Approaches :

Positivist approach- this philosophy dates back to the 1820s it significantly influenced Urban Geography only from 1950s.

The positive philosophy is based upon the belief that human behavior is determined by universal laws and displays fundamental regularities. It can be subdivided into two types—

1. Ecological Approaches and
2. Neo-Classical Approaches

Ecological Approaches were based upon the belief that human behavior is determined by ecological principles namely that the most powerful groups (however this was defined in terms of their incomes).This approach grew out of the work of the Chicago based sociologist in the early part of the century. The work of Burgess and Park was concerned with applying the principles of ecology to the urban areas. Particular emphasis was placed on the study of specific neighborhoods and on identifying the spatial patterns of urban social structure. The best known example of this approach is the concentric model formulated by Burgess. Ecological tradition has also concentrated on identifying different sub areas of the city.

Neo-Classical Approaches take its basic orientation from Neo-Classical economics which picture the economy as the harmonious system in which firm seeks to maximize the profits and households maximize their net benefits. This approach seeks to understand how the distribution of different land uses in social groups in the city deals with profit maximization on the part of the firms and utility maximization on the part of the households.

Behavioral and Humanistic Approaches - Both of these approaches developed as criticism of the failings of the positivist approaches. They were united in their belief that the people and the ways in which they made sense of their environment,

should be central to their approach. Behavioralist approaches can be regarded as an extension of positivist approach. They sought to expand positivism narrow conception of human behavior and to articulate more richly the values, goals and motivations underpinning human behavior,

Humanistic approaches stemmed from a very different philosophical background. They sought to understand the deep subjective and very complex relationship between individuals, groups, places and landscapes. The best developed application of the humanistic perspective in this regard is Edward Ralph's "Place & Placelessness" (1976) **Structuralist Approaches** - Structuralist approaches in the social sciences generally and in Urban geography can be recognized through their conviction that social relations and spatial relations are either determined or are same way influenced by the imperative of capitalism as the dominant mode of production. Structuralist approach have been accused of treating humans as mere passive agents of economic structures. **Mordern Approaches** -

Site and Situation - Studies in early 20th century were concerned primarily with physical characteristics as the determined factor in location and development of settlements. Urban Morphology

This was an important root of Urban Geography. It developed particularly strongly in German Universities in the early 20th century. It was a descriptive approach that sought to understand urban development through examination of the phases of the growth of urban areas. This concept has undergone heavy criticism in 1950s and 1960s. As a result recent work has concentrated on the roles of architects, planners other urban managers in the production of the form and design of urban areas.

The two approaches mentioned above were associated primarily with infancy of urban geography. Basically, they have all sought to examine the ways in which the urban pattern and processes are the outcome of the combination of human choice and action and wider social processes which place constrain upon this human action.

Firstly, they all have considered the ways in which human makes choices about a variety of things and the ways in which the discussion may influence Urban Pattern and processes.

Secondly, they have all explored the constrains that might impinge upon this human choice and the ways that these constrains might influence the urbanization.

Finally they have considered the outcome of the relationships between choice and constraints. Choice and Constraints are the dominant theme of Urban Geography in the post 1950 period.

1.3 GROWTH OF URBAN SETTLEMENTS - PROCESSES OF URBANISATION -STAGES OF URBAN DEVELOPMENT

The most important problem in identifying the origin of urban settlements is the

difficulty in establishing the beginning in time and the place of the first urban settlement. Much of the available evidences for very early forms of settlement is archeological and goes back to several million years.

Various theories have been put forward to describe the origin of the earliest urban settlement forms over the world. Among these the most established theory of the origin of cities is the traditional or ecological or environmental theory. The basic tenet for the emergence of cities according to this theory was a consequence of the process of agricultural change .A Neolithic revolution which advanced society from a stage of primitive hunting and gathering one to food producing one was necessary precondition for the emergence of towns. The second theory for origin of cities was the concept of surplus. This was postulated by Harvey (1973) that an agricultural surplus was necessary for the emergence of city forms However it is doubtful if a single autonomous causative factor can ever be identified in the nexus of social economic and political transformation which resulted in the emergence of urban forms and the catalyst was probably the intricately related role of temple fortress and market place.

THE FIRST URBAN REVOLUTION-the earliest Towns

The earliest towns arose during the later part of the Neolithic period when early farmers, after experiencing settled agriculture and village life began to produce with the aid of the newly invented plough producing surplus foodstuff and thus allowing part of society to free itself from work on the land. From about the 4th millennium B.C. in certain fertile riverside plains of the near east where irrigation water was available mainly in Egypt, Mesopotamia and lower Indus valley it became possible to spare some people for non-agricultural work which benefited the society like hand manufacturing, trade and community organization etc. Thus there arose a group of specialized artisans, merchants, priests etc. Along with a proportion of the agricultural community these people gathered themselves together in close knit societies which probably came to form the first towns. Thus during this period village increased in size and changed in function. Some of them also became centers of administration and were used for the exchange, storage and redistribution of goods. The rise of social factors like temples and religion also marked the beginning of urban life. So there was a flowering of towns between 4 millennium B.C. and 3r millennium B.C. which included Eridu, Erech, Lagash Ur in ancient Sumeria (Tigris-Euphrates Delta) Babylon further north, Memphis and Thebes in Nile Valley and Harappa and Mohenjodaro in the Indus Valley.

Such towns were generally walled for defense and dignified by temples, pyramids and palaces. But these towns continued for long to depend for their food supplies upon the productivity of the immediately surrounding land so they could not grow into large cities and seem to have had an upper population limit of about 20,000.

From the alluvial plains of the near east the idea of the city filtered through to Phoenecia, Asia Minor and Crete. In these areas during the Bronze age a number of new trading centers came into being as for example, Byblos, Ugarit, Tyre and Sidon. All were able to benefit from Mediterranean Sea trade though like the earliest towns they were primarily tied to their own restricted areas of agricultural land which severely limited their growth as population centers. At about the same time or somewhat later a few caravan centers dependent on overland trade were established in the desert oases of Syria on the margin of the fertile crescent example, Damascus and Aleppo. Further away in the Wei ho Valley in northern China, other towns similar in character to the riverside settlements of Near East emerged and with this the concept of city was gradually diffused into Central and South China.

THE SPREAD OF TOWNS IN GREEK AND ROMAN TIMES

The cultural and financial capital acquired by the early near Eastern cities was gradually transmitted into Greece and Italy by traders and colonist who also introduced the cult of the city into north-west Africa and Spain during the 2nd and 1st millennium B.C. There were similar extensions of urban societies into Persia, Central Asia, Peninsular India and Ceylon (now Sri Lanka).

The Greek city state consisted of a city and the rural area from which it obtained its essential supplies. Most of the Greek cities had a hill-top site and were in close contact with the sea. They were therefore able to import luxuries and other specialized products without difficulty and it became possible for them to outgrow to a limited extent their own narrow rural base. As the population grew it became common for the go-ahead to establish colonies and secondary trading stations in other parts of the Mediterranean world where they were able to find similar geographical conditions as those of the homeland. Thus came into being cities like Paestum, Neapolis, Cyrene, Alexandria, Marsielles etc in the T1 millennium B.C.

Thus by about 500 B.C. examples of urban forms mostly based on the ancient rectangular grid plan found at Harappa could be found in a broad belt extending from Atlantic Coast of Iberia to Pacific Coast of China. Use of iron tools had come in along with improved ships and land vehicles. All these development facilitated ever widening commercial contacts and allowed towns to expand beyond the resources of their immediate environment. Even then only a few settlements seem to have exceeded 10,000 people.

Rome had been founded in the 8th century B.C. It was from this political centre when its power had made it into an imperial city that urban settlements and the civilizations associated with them were gradually propagated north of the Alps. Then came Alexandria founded in 4th century B.C. which became the second city of Roman empire and a centre of government education and culture. Other notable cities which grew within the shelter of Roman Empire included Ostia, Turin, Aries, Lyons,

Strasbury, Cologne, London Lincola, York etc. As strategic bases, administrative centers and commercial emporia all these towns became the springboards from which Roman architecture, sculpture, law and language leapt into prominence in Western Europe and came to dominate the lives of non Italian people. These towns were probably much smaller than those in Italy and Southern France some of which probably attained a population of 30,000 with Rome probably with 250,000 persons.

URBANISM IN THE MEDIEVAL PERIOD

The collapse of the Roman Empire in the 5th century A.D. and the ensuing period of confusion and insecurity caused urban life, no longer supported by Roman troops and officials to contract in Northern and Western Europe though it was able to maintain itself to some extent in Southern France and Italy and to a greater degree in the east Byzantium.The New Rome flourished with the help of sea power.

The Dark ages in Europe set in with the coming of barbarians mainly peasant communities who disposed the cultural legacy of Rome and ignored its towns. It was not until the 11th century that town life centered upon a market place began markedly to revive as security returned and trade began to flow again following the more thorough agricultural colonization of forest and marsh.

The typical medieval town was walled for defense and often acted as a refuge not only for foreign traders and artisan but also for people from the open country around. Its nucleus was often a monastery, important church, feudal castle or guild hall. Other buildings spread outward from the market place to the walls and left room for formless groups of gardens courts and winding irregularly aligned streets.

By 1400 A.D the human habitat in Western Europe and the Central parts of European Russia was covered with compact villages and towns. Not until later were there many effective urban settlements in the lower Danube lowlands and the Steppes of Southern Russia. Between 1500 and 1750 many cities in the previously urbanized parts of Europe under the initial impetus of voyages and discoveries and the growing prestige of their rulers expanded considerably. Now far more than previously a few great cities began to tower over the rest as a result of amalgamation under single rulers of large tracts of territory and of the burgeoning trade. The rise of nation states in Europe was accompanied by the acquisition of new wealth from which stemmed growing princely prestige. It was also the age of expanding ocean ports like Antwerp, Lisbon and Amsterdam. London both the capital of a great state and a leading commercial city grew to 700,000 people by 1700 when it outstripped Paris(500,000) Moscow and Vienna both nodal centers which had become the centralized capitals of powerful empires, were now entering upon a period of rapid growth. The small market towns however continued to dominate the urban scene.

SECOND URBAN REVOLUTION: INDUSTRIAL TOWNS

Although the rise of capital cities in classical antiquity and in Renaissance Europe

had produced occasional large cities the complex technical and economic changes which were the bases of the Industrial Revolution instituted a much more profound alteration in the size of cities in the proportion of people who lived in them and in the rate at which urbanization was taking place. The industrial revolution which took place in England, spread to other parts, and the Commercial Revolution which accompanied it made it possible for the production of a greater multiplication of towns and a more marked expansion in the size of towns than any event which had gone before. It also gave birth to a new kind of town which was dominated by industrial function. Manufacturing had long held *a* place in most towns, but the concentration of this activity in urban settlements some of which had formerly been mere villages was as new as the power driven machines and the factories which housed them.

Fundamental to urban growth were the great improvements in agriculture. Open fields were enclosed and farms reorganized and wastelands reclaimed. New implements were invented and mechanical power to drive them hence increasing the output of individual agricultural labourer. The greater productivity of agricultural workers reduced the number of workers in agriculture and encouraged many workers to seek employment in growing towns. They were also attracted by better paid jobs in towns. So there was movement of population from rural to urban areas.

The need for coal to raise steam in the early factories was the main locating influence on the new industrial towns. In 1901 of the 33 towns in Britain with more than 100,000 people, 20 were situated on or close to coalfields. The construction of improved roads, canal and later the invention of rail transport and the motor vehicle allowed such settlements to develop as hubs of communication even when they possessed little or no natural location or nodality.

The population of industrial and commercial cities grew not so much by natural increase but more by immigration from rural areas, which was facilitated by improved agricultural techniques and reduced the demand for labour on the land. Some cities like London, Calcutta and Shanghai became "super cities". In Europe between 1800 and 1890 the number of towns with population exceeding 100,000 increased from 22 to 120. Most of them were primarily concerned with large scale factory industry or international commerce. However these industrial towns were not a beautiful sight. They have been long condemned because of the squalor produced by hasty, haphazard growth and the squatter of the working class streets. Most of the 20th century planners are still trying through urban renewal projects and with the aid of modern transport and electric power, to change the face of these congested industrial towns to clean them up and make them more worthy of their inhabitants.

The proliferation of towns continues in almost all countries. New urban settlements mushroom like are appearing overnight. In areas with longer history of urban expansion

many existing towns are becoming multifunctional, others more highly specialized. Urban sprawl is becoming endemic in most developed countries and more and more conurbations are coming into being. The various activities associated with very large c,, ,s like administration, manufacturing, commerce, residence are becoming increasingly segregated probably for the general good but urban life is thereby becoming less integrated and is splitting up into a series of compartments.

In the 20th century however there have been two further development in growth of urban settlements which have had important geographical results. The first is the development of motor transport which has encouraged urban dispersal and the second recent development, the spread of large cities to tropical lands and urban growth is taking place at a faster rate in tropical lands than in Western Europe.

In conclusion it may be said that urban settlements of some kind have been found on earth for at least 5000 years or possibly even longer. There have been variations in urban forms at various periods but the great contrast is between the smaller cities of the past and the great extent of the largest modem cities, a phenomenon which is merely 100 years old. Before even in exceptional cities like Imperial Rome building was compact and there was always a visible distinction between urban areas and the surrounding countryside. But modern metropolises, which are attracting the greatest absolute increase in population are steadily dominating the urban geography of the world are radically different. The growing number of people who live in large cities is one of the most important factors shaping the human geography of the modern world. As nodal points in local, national and international network of communication they provide vital links for economic functioning of regions of all sizes

STAGES OF URBAN DEVELOPMENT

The stages of urban development are envisaged as follows:

1. Urbanization, when certain settlements grow at the cost of their surrounding countryside.
2. Suburbanization or extra urbanization, when the urban ring (commuter belt) grows at the cost of the urban core (physically built-up city).
3. Disurbanization or counter urbanization, when the population loss of the urban core exceeds the population gain of the ring, resulting in the agglomeration losing population overall and,
4. Re-urbanization, when either the rate of population loss of the core or the core starts regaining population with the ring still losing population.
5. Ex-urbanization takes place due to continued deconcentration of employment and the rise of exurban industrialization. Latent and anti-urban feelings and rural local preferences with improved technology have helped to make ex-urbanization possible

1.4 THIRD WORLD URBANISATION

Since 1950, urbanization has become a worldwide phenomenon. Although the phase of change has varied considerably between countries and regions, virtually every country of the third world has been urbanizing rapidly. Recent evidence of a slowdown in the rate of growth of some of the largest cities and of polarization is reversal or spatial de-concentration into concentric metropolitan forms does not contradict the conclusion that the Third World is becoming surprisingly urbanized. The process of Third World urbanization and its effects on urban structure are analyzed in historical context from the early period of mercantile colonialism to the present day is characterized by high levels of urbanization of phenomena such as exo-urbanization.

Urbanization in the First and Third Worlds:

Urbanization in the Third World exhibits number important characteristics with the earlier process in First World.

1. Urbanization taking place in countries with the lowest level of economic development rather than the highest as was the case when accelerated urbanization began in Western Europe and North America.
2. It involves countries in which people have the lowest levels of life expectancy at birth, the poorest nutritional levels, the lowest energy consumption levels and the lowest levels of education.
3. It involves greater numbers of people than it did in the developed world.
4. Migration is greater in volume and more rapid.
5. Industrialization lags far behind the rate of urbanization, so that most of the migrants find at best marginal employment in cities.
6. The environment in cities of the Third World is usually more healthy than in their rural hinterlands, unlike in the industrial cities of the West. Urban fertility is greater in Third World cities and net reproduction rates are higher than they ever were in most of the industrial countries.
7. Massive slum areas of spontaneous settlements characterize most like cities of the Third World.
8. Rising expectations mean that pressures for rapid event change are greater than they were in the West.
9. Political circumstance conductive evolutionary takeovers of government are then present as a result of the recent colonial Neo-Colonial status of land of the Third World nations.

Notwithstanding these general differences between the urbanization process in the two world realms it is essential to recognize that urbanization is not a uniform

process that all countries go through in the course of development. Although there are similarities at a general level, the process of urbanization in different parts of the world is a complex interplay of global and local economic and political, technological and geographical and agricultural factors.

In many Third world countries most large scale modern activities are located in a single major city which dominates all others.

The relationship between urban primacy and economic development is inconclusive. Some researchers believe that primate cities in the Third World are 'parasitic' and retard development. Their reasons are as follows:

1. The cost of supporting a large city, especially in an agriculturally based economy, drains resources from development activities.
2. The power of the primate city to attract migrants from rural areas, many of whom remain unemployed and constitute a non-productive population and a cost to the national economy.
3. The Concentration of government, investment in the primate city reduces the growth prospects of other parts of the country.
4. The focus of national, political and economic in a primate city creates major social divisions between urban and rural areas.
5. As cities grow beyond a certain size, diseconomies of scale may arise, including increased land and service costs, extended transportation lines, and environmental problems such as congestion and pollution.

An alternative view is that primate cities provide an environment necessary for development. To compete successfully in the global market, Third world countries must develop the financing, marketing and management patterns that the world economic community demands. Only in the primate cities is the necessary infrastructure to be found, along with the skilled labour. Primate cities also offer agglomeration economies that attract enterprises and stimulate a cycle of growth.

While the international division of labour is not a new phenomenon (throughout the colonial era the metropolitan power undertook manufacturing of raw materials produced by the colony). The major factor underlying the new international division of labour (NIDI) was the rise of finance capital comprising investment funds accumulated by organizations (such as banks and insurance companies) concerned with the management of money. The reasons why the bulk of these investment funds have gone to organizations operating in the Third World include the following.

1. Cost of production has risen in Europe and North America.
2. Cheap labour is available in Third World cities as a result of rural-urban migration.

3. A large informal sector (or reserve army of labour) is present in the Third World urban economy which helps keep down demand for wage increases.
4. Technological advances have permitted the spatial segregation of the production and management processes. Use of computers, satellite links and containerization has made it possible for the labour-intensive parts of the production process to be located in the Third World while specialist management, research and development are retained in the home country.
5. The NIDL has also been encouraged by international agencies and national governments anxious to bring employment to burgeoning Third World cities in order to forestall possible political instability.

The Impact of the NIDL on Third World cities has been mixed:

1. Most importantly, the changes have been selective, with only a small number of Third World countries such as Taiwan and South Korea, rapidly expanding their industrial economy. However, as labour costs rise in these locations, so the multinational corporations look elsewhere for new supplies of cheap urban labour.
2. Generally, it is the already large cities that have received the bulk of investment.
3. The social impact has been seen in class formation. A waged working class has appeared in many cities. Being more privileged than many other citizens, they form a conservative labour group. By contrast, the informal sector of the urban economy continues to grow, leading to some instance to fears of political instability. Another significant social phenomenon has been the greater incorporation of women into the urban workforce.

Fundamentally, the urban transformation of the Third World in the post war period has led to unprecedented demands for basic services and infrastructure the most governments have been unable or unwilling to meet. These are related social, economic and political difficulties in infrastructure of the phenomenon of peripheral organization.

Peripheral Urbanization:

The Model of peripheral urbanization is an extension of dependency / world systems theory which employs a political economy perspective to provide a generalized description of the impact of global capitalism into peripheral areas is seen to generate a strong process of urbanization. This may be depicted in a number of stages.

1. First, city ward migration increases, owing to the disruption of pre-capitalist forms of agriculture by commercial agriculture, and the competitive impact of cheap imports on traditional craft industry.
2. Second, surplus generated in rural/peripheral areas is extracted by national bourgeois groups and representatives of foreign capital interests based in the main urban centers. The process of extraction leads to the expansion of the main transportation and market centers, and to the rapid growth of the national capital and main ports.
3. Third, the growth of manufacturing within the national economy concentrates production still further in the largest cities, stimulates the growth of a national state bureaucracy to encourage the process of industrialization and leads to the concentration of higher income groups in the major centers where the surplus is accumulated.
4. Fourth, labour is attracted to the largest cities in search of work and produces a surplus through both wage labour and petty community production, which supports the expansion of the capitalist sector.
5. Fifth, the state acts to support industrial expansion by providing infrastructure in these main urban centres, and by legitimizing the continued functioning of the capitalist system.

Urban Economy and Employment

The economy of cities in the Third World is based on peripheral capitalism. This mode of production consists of two interrelated parts: a capitalist sector integrated into the world economy, and a range of petty capitalist forms of production oriented more towards the domestic economy. These have been described as a 'firm-centered economy' and 'bazaar economy', or the formal and informal sectors. Santos (1979) refers to the upper circuit and lower circuit, in order to highlight the dependence of the traditional informal sector upon the modern formal sector. The well being of individuals and households is dependent on their position within this dual-sector or bipolar urban economy.

The law of primate city :

The law of the primate city refers to a situation in which a single city accommodates a disproportionately large number of a countries population. In some instances the primate city size; distribution is the result of outside or foreign influences on the settlement pattern. In many present day Third World countries, for example, primate cities developed as a result of the intervention of a colonial power. Bangkok is one such example.

Jefferson (1939) argued that in the early stages of a country's urban development, the city that emerges as larger than the rest develops an impetus for self sustaining

growth that enables it, over time, to attract economic and political functions to the extent that it dominates the national urban system. Capital cities, such as Paris or Vienna, occupy this niche.

In some countries a variety of forces, such as nationalism in Spain and territorial size in the USA, have led to several cities growing to comparable size rather than the emergence of a single primate city.

The law of primacy is most relevant to countries that have a relatively simple economy and spatial structure, a small area and population, low incomes, economic dependence upon agriculture, and a colonial past.

1.5 Questions :

1. Distinguish between urbanization and urbanism? Discuss the definitional problems associated with urban areas. How does it wary from one country to another.
2. What do you mean by urban systems ? Bring out the relationship between urban ecology an sprawl in developing countries.
3. Give an account of the processes and stages involved in growth and development of urban settlements.
4. Bring out the characteristic features of third world urbanisation. How does it differ from the developed countries ?
5. Discuss the different approaches to the study of urban geography ? How has this change been associated with the changing economic structure of the world ?

UNIT 2 ❑ URBAN STRUCTURE

Structure

2.1 City size distributi n- Rank Size Rule and Primacy, Central Place Theory and its extension

City Size Distribution :

(SITE, SITUATION, SIZE, TYPES AND SPACING OF SETTLEMENT)

Site and situation refer to the position or location of a town in relation to its total surroundings. A human settlement grows up in a place which is favorable for living. The position on the ground with relation to physical conditions is referred to as site. Thus, depending on site, a village may have a valley location or a dry point location. There are also piedmont towns and riverside cities. The term situation, however, has a wider meaning Situation covers economy, culture and political importance of a place.

All settlements need some site advantage initially. This need is greater for rural settlements than for urban ones. Villages specially require a careful selection of site since in rural areas man interacts closely with his physical environment, areas prone to floods usually have dry point settlements, while mountainous regions have spur-line settlements where the slope in gentler. These however are examples of site advantages. All sites may not be this advantageous. This can be due to two reasons :i) a change in the condition may remove the original advantage, for example, a shifting river course or drying up of springs, and ii) Socio-economic pressures may force the weaker section of the society to occupy less favorable sites. The history of occupancy of the lower Ganga Plain shows how the people of higher castes occupies the sloping drier grounds (Rarh) while the lower castes were forced to occupy the marshy floor of the delta. Availability of water, protection from floods, sunlight etc. are some site advantages.

Cities are less dependent on site factors except in certain cases, water can be

transported through pipes and air-conditioning can modify any climatic extremes. Once developed, a city has little dependence on site conditions. The expectations are the fort cities and the tourist centers that are located near places of scenic beauty. Port-cities are dependent on coastal features, especially those with natural harbors and river points. Tamralipta, the modern town of Tamluk in West Bengal was a busy port city, in the fifth century A.D. A shifting river course and subsequent silting has changed site conditions thereby leading to its decline as a port city.

Situation of villages does not affect growth as much as site does. The only two aspects of situation that affect villages are a) nearness to urban centers and b) degree of connectivity. Towns and cities grow due to situational advantages. Even though the origin of the city may be attributed to an advantageous site, (such as the riverside for Calcutta and the Coast for New York), cities flourish only if there are situational advantages. These include the economy of the hinterland, close location of other cities and good transport routes. Thus Calcutta backed by a rich industrial hinterland and Rotterdam facing major sea routes, has flourished fast.

The size of a settlement can be expressed in terms of its area and its population. A large area need not necessarily contain a large population. The size of a settlement more often refers to its population and not just to its aerial extent. The growth of a settlement therefore means a greater density of population.

The population density of a village is often related to the carrying capacity of the land. Generally speaking where land is flat and fertile and agriculturally rewarding., villages tend to be larger, for example, those on the river valleys of China and India as compared to those found on rough terrain. In India, the regional variation of village is large. While the average population of a village in the Himachal region is 208, some villages in eastern Uttar Pradesh have population of over 10,000. The national average according to the 1991 census is about 630 persons per village.

The size of urban settlements results from more complex reasons. The minimum size of a settlement necessary to call it urban varies from one country to the other. It is 2500 persons in the United States and Thailand, while it is as low as 250 in Denmark and Sweden. In India, the required population is 5000, although under certain conditions settlements with even smaller population are called towns. The population growth of urban centers depends on the functions of the city. Today, the largest cities, the mega cities with population over five million are the main business and financial centers of the world.

The terms pattern, form and type have been used differently by different geographers. The term pattern indicates inter-building distances (e.g. clustered, dispersed patterns). Form is used to describe geometric shapes of villages such as rectangular, radial or linear. Some Indian scholars however use type to distinguish between compact and dispersed settlements and pattern to describe shape. Thus three distinct patterns of

settlements are identified within the clustered type — (i) nucleated, (ii) linear and (iii) ring while, two distinct patterns of settlement are closely identified with dispersed type — i) evenly dispersed and ii) unevenly dispersed.

Nucleated pattern of settlement is that which arises out of close agglomeration of a number of settlements around a common point — a cross road point or a point of easy availability of drinking water.

Sometimes village settlements from alignment i.e. they spread along the leagues of a river valley, road, embankment, railway and coastline. These are called linear settlements. Habitats forming ring round tanks and enclosed by trees may also be found occasionally in plain areas. These are called ring settlements. When the separating distance between individual homesteads is almost uniform in a dispersed type of settlement, it is called evenly dispersed settlement; if the distance varies from one part of the distribution to the other, it is called unevenly dispersed settlements.

Rank Size Rule and Primacy :

A study of available information on city-size distribution shows that within a given area there develops a regular hierarchy of urban centers consisting of a few large cities, many towns of intermediate size and a still larger number of similar towns. This empirical regularity between number and population size of urban centers has resulted in a number of attempts to define this number-size relationship in precise terms and the concept of the rank-size rule may be considered as a natural outcome of such attempts.

The rank-size rule is an empirical rule used to describe city-size distributions of different countries and regions. Zipf was the first to designate the relationship formally as the rank-size-rule. Most of the scholars have accepted the rule and gathered further evidence in its support. The rank-size-rule is given by the formula,

$$\mathbf{Pi = P_1 / i}$$

Where, Pi is the population of the ith town in the series 1, 2, 3, ... n in which all the urban centers in the region are ranked by population size and pi in the population of the largest town.

The rule suggests that the size of a particular town can be predicted by observing its rank and the size of the largest city in the area. The town's population is derived by dividing the largest city's population by the town's rank. Thus, the second-ranked city should have a population one-half the size of the first ranked, while the tenth ranked city should be one tenth of the size of the first ranked.

According to the rule, an inverted J shaped curve is produced by plotting a town's population against its rank, using arithmetic scales for both the areas.

If the rule is taken in logarithmic form (bare 10), that is,

$$\text{Log Pi} = \log p_1 - \log i$$

Then, this curve becomes a straight line.

The rank-size rule may also be written as a general Pareto distribution

$$Pi = a\ (i)^{-b}$$

Where the population of the ith ranking city (pi) is a function of that rank and a and b are the constants; for computational puiposes the relationship may be written in a logarithmic form:

$$\log Pi = \log a - b \log i$$

And values of a and b may be found as in simple linear regression with the help of the following equations,

$$\Sigma \log Pi = n \log a - b \Sigma (\log i)^2$$

$$\Sigma \log Pi \log i = \log a \Sigma \log i - b \Sigma (\log i)^2$$

Mark Jefferson (1939) introduced the concept of primate city. According to him, primary is present when population of the largest city in several times larger than that second in rank. On his paper he discussed the situation in several countries of the world and thus suggested a primacy index in which he considered the population of three largest cities of each country as percentages of the value of highest ranking city and which were arranged in order of relative importance of the city.

Berry using a somewhat similar primacy index, namely the ration of the population of the largest city to the total population of the first four cities arrived at the conclusion that countries with the highest values have primate city-size distribution.

The Primacy index in this context of the rank-size-rule may be given by

$$11\text{-}P1\ /P2$$

Where, PI and P2 are the population of the 1st and 2nd ranked cities respectively, Similarly 12 = P1/P3, where PI and P2 are the population of the 1st and 3rd ranking cities. If the rank-size-rule holds good then 11 = 2, 12 = 3 and so on. If, on the other hand, 11 is greater than 2, primacy may be said to exist.

It is also possible to find out whether the largest city of the region under study has an optimum population in the following way: the sum of the reciprocates of the ranks of all the urban centers of the region (El/R) are found and the total urban population (EP) is divided by El/R. This will give the expected population of the premier city (Pie) on the basis of the total urban population (EP) and number of urban centers (N) of the region. If Pie is smaller than the actual population (Pia), then the distribution may be said to be primate and vice versa. If Pie and Pia are almost equal then the premier city may be said to have an optimum population.

$$Pie = EP/\ (El/R)$$

If, Pia > Pie — Primacy of the largest city of a region is found.

Central Place Theory :

A theoretical study of the spacing of settlements within a system was done by Walter Christaller his Book "Die Zentralen Orte in Sudentchland" (Central Places in Southern Germany), written in 1933. This theory still remains the single most important basis for analyzing settlement systems. The essence of Christaller's theory is that a certain amount of productive land supports a settlement. This in turn provides essential services to this land, referred to as its complementary area. It is also sometimes called the tributary area or service area. The settlement itself is a central place (this term was first used by Mark Jefferson in 1931).

The extent of the tributary area varies with the size of the central place. Size in this case actually relates to the functions performed and not nearly to population, though ultimately the idea of threshold population show that both are related.

A large tributary area will include several small ones and smaller central places will depend on larger ones for higher order functions. He will or its own accord creates a nested hierarchy of service areas. Ideally each central place should have a circular tributary area around it, since it ensures a perfect central position. This kind of geometry will either create overlapping portions or leave no service areas.

This problem can be solved by flattening the perimeters to form hexagons that fit against each other without overlaps or banks.

Christaller identified seven orders of central places in south Germany and estimated their distance from each other as well as the population and size of their complementary areas. The fact, that there is no rural urban dichotomy and settlements are considered as part of a continuum, makes this the most complete theory in settlement study till now.

On a flat uniform surface with a perfectly regular distribution of settlements, the corners of the smallest hexagon are occupied by villages which perform no function such a settlement will have the option of availing of the services of any of the three central places which are equidistant from it. Thus the central place which are equi-distant from it. Thus the central place A is assumed to be serving 1/3 of the total population of such a settlement. Since there are six such places here the total number of settlements actually served by any central place of the lowest order is

$$6 \text{ X } 1/3 + 1 \text{ (the C. P. itself)} = 3$$

This was taken as a constant to denote the ration of increase in the number of settlements served by each higher order.

That is order one serves 3

Order 2 serves 9

Order three serves 27 and so on

This hexagonal packing of trade areas, each tangential to the other, is mathematically the most efficient system.

This is the K = 3 principle of Christaller where K is a constant. The principle is based on market optimization where each customer remains as close as possible to each level of C. P. This means that central places from the same level are equidistant while distances between central places increases with each succeeding level. The theory thus explains the location of central places in a system of settlements based on the idea of minimizing the distance traveled by any customer for a service.

The K = 3 principle undergoes modifications, however if the "most efficient traffic'1 principle is considered. This visualizes the situation of settlements along traffic routes so that they lie along the edges rather than the corners of the hexagon. This leads to a constant of K = 4.

A central place serves $^1/_2$ of the population of 6 lower order centers and its own population i.e. in total serves (6 X $^1/_2$) +1=4.

Under what has been called the administrative principle this relationship further changes to K = 7. For administrative functions the entire population of one settlement must depend on one central place only. The principle lines, therefore, pass midway between the dependent settlements clearly demarcating the population of the tributary area. The different K values can be applied to the same region.

This only affects the size of the complementary areas and should not affect functional hierarchy.

The central place theory identifies the hierarchy of settlements based on function and considers their location in space. This is a deductive theory based on certain assumption :—

a) One is dealing with an area topographically a plain with uniformly productive soil.
b) There exists no economic disparity due to the localization of resources or technology.
c) There exists also a homogeneous evenly distributed population who are commercially motivated economic men, interested in maximizing profits.
d) All functions found in the lower-order central places are also found in the higher order central places.
e) The central places are service centers which depend entirely upon the trade of their zone of influences.

Under these circumstances the population will have a tendency to gravitate towards a nucleus, the central place. The sequence of events that follows then produces nested hierarchy of C. P. along with their complementary areas. The entire principle can be explained with reference to the concept of threshold population and range of goods and services.

The threshold population is the minimum population necessary to support the service activity. It may be as low as 50 for a corner shop or as high a 1, 50,000 for a theatre. If the population falls below the threshold level, the activity will run at a loss and will face closure in the long run. If the population increases above the minimum, the profits, which may also lead to increase competition through increased provision of service activities.

The hexagonal geometry of this model and the concept of K values or nesting are outdated now as they fail to satisfy empirical test. However, the basic concepts formulated in the central place theory are still valuable for students of geography. Later August Losch has modified it and made it less rigid.

Christaller has recognized typical size settlements, computed their average population their distance apart and the size and population of their tributary areas in accordance with Ms hexagonal theory as the table shows. He also states that the number of central places follows a norm from largest to smallest in the following order 1 : 2 : 6 : 18 : 54 etc.

Central Place	Towns	
	Distance	apart
Population		
Market Hamlet (Marketort)	7	800
Township Centre (Asmtsort)	12	1,500
Country Seat (Kreiadt)	21	3,500
District City (Bezirksstadt)	36	9,000
Small State Capital (Gaustadt)	62	27,000
Provincial Head City (Provinzhauptstadt)	108	90,000
Regional Capital City (Landeshauptstadt	186	3,00,000

Formula of Centrality of Place

$$Z_2 = Tz - [\ Ez\ X\ (T_g/E_g)\ ]$$

Z = Degree of centrally (weightage)
Tz = Number of telephone in that place
Ez = Number of inhabitants in z
Tg = Number of telephone areas served
Eg = Inhabitants the area served by z
Tg/Eg = Telephone density of whole area
T7 = Actual Importance

CHRISTALLER CRITICISM

1. Hexagons are not exist in reality

2. Theory is static; increase in service actively in one sector incorporate the change in other section.
3. Uniform population distribution and rationality of consumer said in this theory do not support reality.
4. Hierarchy of settlement distorted by domination of large cities which have shadow effect and prevented growth of smaller settlement.
5. Harvey Carter raised issues that this model is more optimum than practicable in developing fields; equally the model was questioned on the basis of its functional linkage density and sequence.
6. In reality unequal traveling facility to different directions variations in functioning power and spreading pattern, non service function of many urban settlements may be noticed.
7. Christaller's central place theory is concerned only with one certain place activity that of the servicing functions for the hinterland. Other aspects such as places of residence or industrial centers are not considered.
8. The theory does not work well in areas where the industries are expanding or retarding.

Therefore Christaller's concept of rank is not totally acceptable

2.2 The City Region— Regional Capitals, the Metropolis, the Megalopolis and Ecumenopolis. Conurbation- Rural Urban Continuum

City Region :

Various terms have been used to describe the area linked economically and socially to a town, the word 'umland' has been widely used by German and Scandinavian geographers; some likening all towns to commercial ports prefer the term 'hinterland'. Other terms include 'sphere of influence', 'Zone of influence', 'catchment area', 'and tributary area 'and'urban field'. The term 'city region" is generally reserved to describe a similar situation on a much larger scale. Each town owes its sustenance to the patronage of the city region which supplies it with a proportion of its workers and shoppers and others who wish to take advantage of its cultural, recreational, and professional and health services. The town thus acts as a collecting, marketing and general service centre for a wider area than the town itself.

Virtually, all large cities, especially capital cities, have more than one city-region. Certainly their contacts with the surrounding area diminish in intensity as distance increases. In the sphere of central government, entertainment, luxury goods of the highest value, and certain specialist functions, including those of a financial and

medical character, capital cities, for example New Delhi serves the whole country, but on a lower level of services, their city regions are restricted to their own regions. Thus a large political capital has both a primary and a secondary city region.

The size of an urban field depends essentially on the degree of development of the town as a central place. Thus, the urban field of an industrial town which has not grown up specifically to serve the surrounding population will tend to be more restricted than that of a market town of equivalent size. The spacing of neighboring towns will also have an important effect on the size of a city region. A service centre of moderate importance may have a relatively large city region if there are no competing centers located nearly. Comparatively few city regions assume the neatly shaped hexagon as postulated by Christaller. Some are elongated in the direction of important roads. Others may be restricted in one direction by physical barriers, e.g. a mountain range or a sea coast.

Relation between a Town and its city-region;

R. E. Dickinson has divided the principal regional associations of a city into four categories:—

1) Trade relations, which provide a series of trading areas growing out of different trading activities, e.g. retailing and wholesaling.
2) Social Relations, which produce a social area comprising people who seek to benefit from the various entertainments and cultural activities a town provides.
3) Commuting relations, which produce an area of settlement round a town and perhaps a series of dormitory towns, and also a zone of movement through which people pass on their way to and from work.
4) Agricultural relations, which lead to the development of particular area of farming near a city, which itself acts as a convenient market. Characteristically, dairy fanning and market-gardening activities, the latter in part in glass houses are often associated with city margins, because milk and vegetables not only deteriorate quickly, they are also fairly bulky commodities which are demanded daily at cheaper prices by city shoppers.

There also exist of course, industrial relations between towns and the city region.

Urban geographers have paid considerable attention to the problems of delimiting city regions. Among the most commonly used indices are the following.

a) Newspaper Circulation
b) Public transport services
c) Retail transport services

d) Higher educational catchment areas and

e) Commuter range.

f) Miscellaneous criteria like range of hospital treatment, local radio stations, telephone etc.

The theoretical position of the margin of a city-region can be calculated by using a technique known as breaking point theory. The breaking point between two towns divides the people who will travel to one town from those who will travel to another town for similar services. If enough breaking points can be established around a town theoretical city region can be delimited in that way. The position of the breaking point (x) between two towns (i and j) can be calculated using the formula

$$djx = dij / lt (\square pi / pj)$$

In which Pi and Pj are the populations of the two towns, dij is the distance between two towns and djx is the distance of the breaking point from the town j

When the fields of influence of a number of major urban centres are put together on a single map, it will be seen that there are zones of overlap of the various urban fields. This is in fact, a normal state of affairs, especially is highly urbanized countries. The reverse situation, a zone of vacuum, where the urban fields of two towns fail to meet an leave a zone with no urban allegiance, is quite rare. This is most typical of developing countries where the process of urbanization is little advanced and towns are still widely spaced.

In view of the problems of delimitation and the complications produced by zones of overlap between city regions should be thought of as a series of zones rather than a single area.

A.E. Smailes has suggested that any urban field can be divided into three zones:—

i) A Core Area: Which largely corresponds with the contiguous built up area of the town and in which the majority of the population look to the town for shopping, entertainment and employment.

ii) An Outer Area: In which the town is used for high-order services and local centers for low order, day to day services; and

iii) A Fringe Area: in which the town is the place of work for only a small proportion of the employed population but is still utilized for high-order functions, such as higher education and specialized professional sendees.

Metropolitan area

A metropolitan area is a large population centre consisting of a large metropolis and its adjacent zone of influence, or of more than one closely adjoining neighboring central cities and their zone of influence. One or more large cities may serve as its hub or hubs, and the metropolitan area is normally named after either the largest or most important central city within it.

Mega city

A mega city is usually defined as a recognized metropolitan area with a total population in excess of 10 million people. Some definitions also set a minimum level for population density (at least 2,000 persons/square km). A mega city can be a single metropolitan area or two or more metropolitan areas that converge upon one another. The terms conurbation and metroplex are also applied to the latter. The terms megapolis and megalopolis are sometimes used synonymously with mega city. The term Meta city is also sometimes used to describe cities with more than 20 million people.

In 1800 only 3% of the world's population lived in cities. By the 20th century's close, 47% did so. In 1950, there were 83 cities with populations exceeding one million; but by 2007, this had risen to 468 agglomerations of more than one million. If the trend continues, the world's urban population will double every 38 years, say researchers. The UN forecasts that today's urban population of 3.2 billion will rise to nearly 5 billion by 2030, when three out of five people will live in cities.

The increase will be most dramatic in the poorest and least-urbanized continents, Asia and Africa. Surveys and projections indicate that all urban growth over the next 25 years will be in the developing countries. One billion people, one-sixth of the world's population, now live in shanty towns which are seen as "breeding grounds" for social problems such as crime, drug addiction, alcoholism, poverty and unemployment. In many poor countries overpopulated slums exhibit high rates of disease due to unsanitary conditions, malnutrition, and lack of basic health care.By 2030, over 2 billion people in the world will be living in slums. Already over 90% of the urban population of Ethiopia, Malawi and Uganda, three of the world's most rural countries, live in slums.

In 2000, there were 18 mega cities - conurbations such as Tokyo, Mexico City, Bombay, Sao Paulo and New York City - that have populations in excess of 10 million inhabitants. Greater Tokyo already has 35 million, more than the entire population of Canada.

By 2025, according to the Far Eastern Economic Review, Asia alone will have at least 10 hyper cities, those with 20 million or more, including Jakarta (24.9 million people), Dhaka (25 million), Karachi (26.5 million). Shanghai (27 million) and Bombay (with a staggering 33 million). Lagos has grown from 300,000 in 1950 to an estimated 15 million today, and the Nigerian government estimates that city will have expanded to 25 million residents by 2015. Chinese experts forecast that Chinese cities will contain 800 million people by 2020

Mega cities around the world

In 1950, New York was the only urban area with a population of over 10 million.Geographers have identified 25 such areas as of October 2005 as compared

with 19 mega cities in 2004 and only nine in 1985. This increase has happened as the world's population moves towards the high (75-85%) urbanization levels of North America and Western Europe.

Today, the largest mega city is the Greater Tokyo Area. The population of this urban agglomeration includes areas such as Yokohama and Kawasaki, and is estimated to be between 30 and 34 million. The variation in estimates can be accounted for by different definitions of what the area encompasses. While the prefectures of Tokyo, Chiba, Kanagawa, and Saitama are commonly included in statistical information, the Japan Statistics Bureau only includes the area within 50 kilometers of the Tokyo Metropolitan Government Offices in Shinjuku, thus arriving at a smaller population estimate. The ten largest mega cities, according to this criterion are, in decreasing order of population:

1. Tokyo, Japan (35,197,000)
2. Mexico City, Mexico (25,600,000)
3. Seoul, South Korea (23,100,000)
4. New York City, USA (21,800,000)
5. Mumbai (Bombay), India (21,100,000)
6. Delhi, India (20,800,000)
7. Sao Paulo, Brazil (20,300,000)
8. Osaka-Kobe-Kyoto, Japan (19,900,000)
9. Shanghai, China (18,600,000)
10. Los Angeles, USA (17,900,000)

Source : Th. Brinkhoff: The Principal Agglomerations of the World, 2006-11-22

Megalopolis (city type)

A megalopolis, or megapolis. is defined as an extensive metropolitan area or a long chain of roughly continuous metropolitan areas in the United States and Canada. The term was first used in the United States by Jean Gottmann in 1957, to describe the huge urban area along the Eastern seaboard of the U.S. from Boston, Massachusetts to Washington, D.C. According to Gottmann, it resulted from changes in work and social habits. A megalopolis is also frequently a mega city, megapolitan area, or a metropolitan area with a total population in excess of 10 million people. Modern interlinked ground transportation corridors, such as rail and highway, often aid in the development of megalopolises. Some examples of major megalopolis of the world are given below:

- Rio de Janeiro-Sao Paulo-Campinas, in Brazil, with approx 43 million inhabitants (includes the Volta Redonda, Campos dos Goytacazes, Juiz de Fora areas)
- Taiheiyo Belt in Japan (roughly 82.9 million); dense with no rural areas at all in between.

- Beijing-Tianjin-Tangshan in China (23 million, all other Hebei cities excluded)
- Jakarta-Depok-Bogor-Tangerang-Bekasi (Jabotabek)-Bandung in Indonesia (28 million)
- West coast of Taiwan, from Taipei to Kaohsiung (18 million)
- Most of South Korea (Incheon-Seoul-Daejon-Daegu-Busan) (32 million)
- Mexico City-Toluca-Puebla-Cuemavaca-Pachuca-Tulancingo-San Juan del Rio-Queretaro-Celaya-Salamanca-Irapuato-Leon Mexico (34 million)
- Delhi-New Delhi, India (18 million)
- Cairo-Giza-Kalyoubia (Greater Cairo), Egypt (16 million)
- Los Angeles-Riverside—San Bernardino—Orange—Ventura—San Diego—Santa Barbara—Imperial counties-Tijuana, Mexicali and Ensenada, Mexico, collectively known as Southern California (24 million; 21 million in S. Cal; 3+ million in Baja California, Mexico)
- Kolkata-Asansol, India (20 million)
- Mumbai-Pune, India (25 million)
- Lagos-Ibadan-Cotonou, including Porto Novo and Abeokuta, Nigeria (22 million)

Ecumenopolis

Ecumenopolis (from Greek words oiKouuevn/ecumen), meaning world, and 7t6A,ic; (polis) meaning city, thus a city made of the whole world) is a word invented in 1967 by the Greek city planner Constantinos Doxiadis to represent the idea that in the future urban areas and megalopolises would eventually fuse and there would be a single continuous worldwide city as a progression from the current urbanization and population growth trends. Before the word ecumenopolis had been coined, the American religious leader Thomas Lake Harris (1823-1906) mentioned city-planets in his verses, and science fiction author Isaac Asimov uses the city-planet Trantor as the setting of some of his books.

Doxiadis also created a scenario based on the traditions and trends of urban development of his time, predicting at first a European **eperopolis** ("continent city") which would be based on the area between London, Paris, and Amsterdam (or the Blue Banana).

Conurbation

A **conurbation** is an urban area comprising a number of cities, towns and villages which, through population growth and expansion, have physically merged to form one continuous built up area. It is thus a polycentric form of agglomeration. This term is commonly used in the United Kingdom.

A metropolitan area usually combines one or several conurbations with peripheral zones not themselves necessarily urban in character, but closely dependent on the conurbation(s) in terms of employment and commerce. The word conurbation is not

used in the United States; the term metropolitan area is used instead. The San Francisco Bay Area, which is a cluster of cities, towns, and villages surrounding the San Francisco Bay, is an example.

The Randstad, which is a densely populated area in the Netherlands consisting of a cluster of the four biggest cities of the country and several smaller cities, towns and urbanized villages, is another appropriate example of a conurbation. The Brussels-Capital Region in Belgium, by contrast, is an ordinary type of agglomeration centered on one city.

Edge city is an American term for a relatively new concentration of business, shopping, and entertainment outside a traditional urban area in what had recently been a residential suburb or semi-rural community. The term was first used in Tom Wolfe's 1968 novel The Electric Kool-Aid Acid Test and popularized in a 1991 book of that title by Joel Garreau, who established its current meaning while working as a reporter for the Washington Post. Garreau argues that the edge city has become the standard form of urban growth worldwide, representing a 20th-century urban form unlike that of the 19th-century central downtown. Other terms for the areas include **suburban activity centers, megacenters, and suburban business districts .**

Garreau established five rules for a place to be considered an edge city:

- It must have more than five million square feet (465,000 m^2) of office space. This is enough to house between 20,000 and 50,000 office workers, as many as some traditional downtowns.
- It must have more than 600,000 square feet (56,000 m^2) of retail space, the size of a medium shopping mall. This ensures that the edge city is a center of recreation and commerce as well as office work.
- It must be characterized by more jobs than bedrooms.
- It must be perceived by the population as one place.
- It must have been nothing like a city 30 years earlier. Since Garreau wrote in the early 1990s, a statement better suited for the 2000s is that it must have been nothing like a city in 1960.

Most edge cities develop at or near existing or planned freeway intersections, and are especially likely to develop near major airports. They rarely include heavy industry. They often are not separate legal entities but are governed as part of surrounding counties. They are numerous almost 200 in the United States, compared to 45 downtowns of comparable size and are large geographically because they are built at automobile scale.

Spatially, edge cities primarily consist of mid-rise office towers (with some skyscrapers) surrounded by massive surface parking lots and meticulously manicured lawns, almost reminiscent of the designs of La Corbusier. Instead of a traditional street grid, their street networks are hierarchical, consisting of Winding parkways

(often lacking sidewalks) that feed into arterial roads or freeway ramps. However, edge cities are of similar job density to the secondary downtowns found in places such as Newark and Pasadena; indeed, Garreau writes that edge cities' development proves that "density is back

NIMBY (an acronym of Not in My Backyard) describes the phenomenon in which residents oppose the nearby location of something they consider undesirable, even if it is clearly a benefit for many. Examples might include an incinerator, an ethanol plant, a nuclear power plant, or a prison.

The term has been applied in debates over developments in various situations, including :

- when parties advocate infrastructure development such as highways, power plants, electrical transmission lines, wastewater treatment plants, landfills, sewerage outfalls or prisons
- when parties build, operate, or advocate culturally unfamiliar functions, such as subsidized housing, halfway houses, or homeless shelters
- when a government or private party advocates development of residential or commercial property

Streetcar suburb

A streetcar suburb is a community whose growth and development was strongly shaped by the use of streetcar lines as a primary means of transportation. The earliest suburbs were served by horsecars, but by the late 1800s cable cars and electric streetcars, or trams, were used, allowing residences to be built further away from the urban core of a city. Streetcar suburbs, usually called additions or extensions at the time, were the forerunner of today's suburbs in the United States and Canada

2.3 Aspects of Urban Economic Base, Basic and Non-Basic

Types of Linkages: The rural hinterland of an urban centre may be defined by the spatial extent of different linkages from the urban centre. Such linkages are of different types:

1. Physical Linkage in terms of connecting roads, railways, telephone lines, etc.
2. Commodity Linkage which include flow of commodity to and from the spatial units under consideration.
3. Service Linkage i.e. the provision of services like health, insurance, electricity, sewage lines, etc. from an urban centre to the surrounding rural areas.
4. Human Linkage which consist of
   i) Commuters
   ii) Migrants

Linkage development via commuters and migrants may result from the motivation of purchasing and /or selling commodities, services or from other types of occupational or social motivation like marriage.

5. Monetary Linkage or the flow of capital in exchange of commodities, services or labour, flow of capital in exchange of labour can take from the remittances which may be defined as personal income transferred to the areas outside the spatial unit.
6. Information Linkage can play a very important part in diffusion of new ideas, technology and development. The development of commodity, human and monetary linkages depend to a great extent on the access of infonnation regarding the demand and supply of commodities, different type of labour (skilled and unskilled), finance, etc. Technological invention and innovation which can lead to changes in the productivity; which depends on exchange of ideas.

These linkages create an impact in the development of economy through socio-economic and physical terms, therefore these type of linkages are required to be implied in the theories of economic growth.

Theories of economic growth are:

1. Economic base theoiy
2. Export base model
3. Sector and stage theory

Economic Base Theory : According to economic base concept, the regional economy can be gradually subdivided into two sectors:

1 Basic Activity

2 Non-Basic Activities

The basic activities are those which exports goods and services to points outside the economic confines of the community for example large scale industries like iron and steel industry, the products of which are supplied to different regions. The non-basic activities are those which provide for the need of the residents within the communities economic limits such as services provided by the local barbers, tailors, retail shop,etc.

An increase in the amount of the basic activity within a region will increase in the flow of income into the region which in turn will result in an increase in the demand for goods and services within it and affecting a corresponding increase in the volume of non-basic activity. Alternatively a decrease in basic activity would lead to a fall in income coming to the region, a decline of demand for the product of the non-basic sector. Hence, basic activity as its name suggest has the prime mover role with any changes having a multiplier effect on the regional economy.

The economic base multiplier is usually calculated in the terms of employment and can be expressed as:

$$\frac{\text{Total employment in basic and non-basic activities}}{\text{Total employment in basic activities}}$$

For example, a region with 500000 person in employment, 250000 in basic activity and 250000 in non basic activity, that is a 1:1 basic: non-basic ratio, will have a multiplier of :

$$\frac{250000 + 250000}{250000} = 2$$

Extensive use has been made the employment multiplier for projection purposes. By evaluating the future prospect of the basic activities in the regional economy and then applying the employment multiplier derived from the total, basic ratios relating to the existing industrial composition, future employment totals have been forecast. This predictive role can be illustrated by considering the impact of an increase in employment in a basic industry in the above region. With an employment multiplier of 2, an extra 20000 non-basic jobs will be created and total employment will increase from 500000 to 540000, that is:

$$1\ T = 1\ B(k)$$

$$40000 = 20000(2)$$

where, IT = change in total employment

1B = change in basic employment

k = employment multiplier.

There will also be a simpler relationship between total employment and regional population.

Unfortunately, an attractive simplicity of the economic base theory can be deceptive and misleading, and there are several technical and conceptual problems which although do not disapprove the theoiy, cast some doubt on the use of economic base studies in forecasting changes in the regional economy.

2.4 Theories of Urban structure

Urban structure is the arrangement of land use in urban areas. Sociologists, economists, and geographers have developed several models, explaining where different types of people and businesses tend to exist within the urban setting. Urban structure can also refer to the **urban spatial structure,** which concerns the arrangement of public and private space in cities and the degree of connectivity and accessibility.

The Concentric ring model also known as the **Burgess model** was the

first to explain distribution of social groups within urban areas. Based on one single city, Chicago, it was created by sociologist B. W. Burgess in 1925. This concentric ring model depicts urban land use in concentric rings: the Central Business District (or CBD) was in the middle of the model, and the city expanded in rings with different land uses.

The centre was the CBD, followed by the transition zone otherwise known as the Inner City, then by low-class residential homes and Inner Suburbs, the fourth ring would be that of better middle-class homes also known as the Outer Suburbs; the last and fifth zone was known as the "commuters' zone". Burgess observed that there was a correlation between the distance from the CBD and the socio-economic status of the citizens; richer families tended to live further away from the CBD. As the city grew, Burgess also observed that the CBD would cause it to expand outwards; this in turn forced the other rings to expand outwards as well

Limitations of the Model:

- Physical features-land may restrict growth of certain sectors
- Commuter villages - commuter villages defy the theory since they are located far away from the city
- Decentralization of shops, manufacturing industry, and entertainment
- Urban regeneration and gentrification - More expensive property can be found in 'low class' housing areas
- Many new housing estates were built on the edges of cities in Britain

Sector model: It is Proposed in 1939 by economist Homer Hoyt, the **sector model** also known as the **Hoyt model** in urban land use and demography modified the concentric zone model of city development. The benefits of the application of this model include the fact it allows for an outward progression of growth however, like all models of urban form its validity is limited

Explanation of the Model

While accepting the existence of a central business district, Hoyt suggested that various socio-economic groups expand outward from the city center along railroads,

highways, and other transportation arteries. Using Chicago as a model, an upper class residential sector evolved outward along the desirable Lake Michigan shoreline north of the central business district, while industry extended southward in sectors that followed railroad lines.

In developing this model Hoyt observed that it was common for low-income households to be near railroad lines, and commercial establishments to be along business thoroughfares. Recognizing that the various transportation routes into an urban area, including railroads, sea ports, and tram lines, represented greater access, Hoyt theorized that cities tended to grow in wedge-shaped patterns ~ or sectors ~ emanating from the central business district and centered on major transportation routes. Higher levels of access meant higher land values, thus, many commercial functions would remain in the CBD but manufacturing functions would develop in a wedge surrounding transportation routes. Residential functions would grow in wedge-shaped patterns with a sector of low-income housing bordering manufacturing/industrial sectors (traffic, noise, and pollution makes these areas the least desirable) while sectors of middle- and high-income households were located furthest away from these functions. Hoyt's model attempts to broadly state a principle of urban organization

The model applied: To a certain extent, this model can be applied to Calgary, Canada. The layout of Calgary indicates the majority of the city's high cost housing in a narrow wedge with growth along the Elbow Valley, part of a good transport route. Admittedly, the aesthetic values of the valley also make this area desirable. It can also be seen that most of the low cost housing is adjacent to industrial areas; Smith (1962) attributes this to the depreciation and deteriaton of the housing caused by industrial expansion. The author also points out, however, that there are also areas of new, middle cost adjoining the industrial sectors caused by a lack of low cost housing in the city. This is not a perfect application of the model as market forces have influenced expansion outside of the city, in out of town malls and around the university with the new layout tending towards a multiple nuclei model.

Limitations of the Model

The theory is based on nineteenth century transport and does not make allowances for private cars that enable commuting from cheaper land outside city boundaries. This occurred in Calgary in the 1930s when many near-slums were established outside the city but close to the termini of the street car lines. These are now incorporated into the city boundary but are pockets of low cost housing in medium cost areas.

- Physical features - physical features may restrict or direct growth along certain wedges
- The growth of a sector can be limited by leapfrog land use
- No reference to out of town development.

Multiple nuclei model :

In demography, the **multiple nuclei model** is an ecological model put forth by Chauncy D. Harris and Edward L. Ullman in the 1945 article "The Nature of Cities." While a city may have started with a central business district, similar industries with common land-use and financial requirements are established near each other. These groupings influence their immediate neighborhood. Hotels and restaurants spring up around airports, for example. The number and kinds of nuclei mark a city's growth.

The theory was formed based on the idea that people have greater movement due to increased car ownership. This increase of movement allows for the specialization of regional centers (eg. heavy industry, Business Park). There is no clear CBD (Central Business District) in this type of model.

2.5 Questions

1. What are the major factors influencing the spacing of sculements in any area ? Explain how city size distribution can be studies with the help of Rank size Rule.
2. What do you mean by Central Place ? Discuss the Central Place Theory and bring out it weaknesses.
3. What do you mean by urban field ? What are the distinctive zones of the city and its region ?
4. What do you mean by "city region" ? Bring out the relationship between town and its city region ?
5. What do you mean by urban structure ? Discuss two important models used to describe the structure of cities.
6. Differentiate between Mega city, Megalopolis and Conurbation ?

UNIT 3 ❑ URBAN SPACE

Structure

3.1 Urban Social Space

Urban space is an agglomeration of people, objects and events. Colquhoun (1989) defines the term Urban space in two perspectives: Social space and built space; which in combination forms Urban Social Space. The Urban Social space is "the spatial implication of the social institutions" and is studied by sociologists and geographer. This is the viewpoint that tends to see the physical characteristics of the built environment as "epiphenomcnal". The built space within the Urban space on the other hand Ibcuscs on the 'Physical space'," its morphology the way it affects our perception , me way it is used and the meaning it can elicit, which is concern of architecture. Thus Urban social space is the interconnection of "function and form"; which includes the disciplines of Geographers and Sociologists.

Urban Social Space is identiiied as the "External Space", by Rob Krier (1979). According to him, Urban Social Space includes all types of spaces between buildings in towns and localities. Thus, this perspective of urban space is purely physical in nature, which is geometrically hounded by a variety of elevations. His analysis ol" Urban Social Space is thus confined to morphology, enumerating the basic elements of Urban Space, streets, and square and its basic forms squares and triangle with a number of possible variations and combinations.

Colquhoun reasserts the conventional distinction between physical and social aspects of urban space by reliance on the role of social functions. He critici/es the modernist tendency "to take a historicist and relativist of architecture and to regard the city as an epiphenomenal of social function, resulting in a particular kind of Urban Space". In explaining this aspect of Urban Social Space, he takes the side with the post-modern critics who tends to dissociate the physical and social space, by concentrating on the former "as an autonomous formal system".

The relationship between Physical and Social Space within the Urban Space i.e between form and function in modernist architectural language become one of the

key themes of Post- Modem challenge to modernism. The Modernist formula, regarding Urban Social Space is "the form which follows function". In other words it is relate the social and physical space in rather simplistic and deterministic way within an urban environment. The post modem attempt in contrast has attempted to disengage this relationship and to concentrate on physical space.

Thus it may be concluded by emphasizing that. Urban Social Space is the combination of both the physical and social space which is not only combined with modem architecture and planning hut also the political escapism associated with post-modernist disregard of social space; which can be maintained in socially concerned approach to Urban Environment.

3.2 Urban Land Use

Four basic types of Urban Land Use can be identified (i) Central Business, (ii) Industrial, (iii) Residential and (iv) Open Areas.

The historical core of the metropolis, the original City, tends to remain its centre. With the main lines of the transportation system oriented to it, this centre remains the point most accessible to all parts of the metropolis and, therefore, attracts all those functioned which serve the entire area. Partly all acted by those, partly for historical reasons, all those functions which require mutual contact also concentrate here, typically in office buildings. These two basic central functions attract other which service them, such as eating and drinking places and parking facilities.

The resulting competition for space, both within the centre and on the transportation facilities leading to it, leads to a displacement from the centre of all those uses which require relatively much space and can also function elsewhere. These are priority those dealing with goods, manufacturing and warehouses, but also retail stores, consumer services and residents.

As the metropolitan population grows and speaks out outgoing sectors accidental, suffocation population and purchasing paper to support Second order services of their son, naturally retail, but also consumer and home business services. With continuing growth the quality of the second order moves up, bearing a narrow range of the highest order in the central. Similarly, second order routine office functions also move out, bearing only the highest order contract functions in the centre. However, with the overall growth of the metropolis, both types of highest order functions are growing and are being augmented by others of still higher order, which can only exist when the size of the total market has reached a higher threshold.

Thus, the centre is undergoing a process of continuous selection adaptation to the office functions for which it is uniquely suited. Surprisingly thus unending change in quality series produce stability of quantity.

From the centre outward, density of population and of all activities decreased. Once time, this serve undergoes two typical modifications — (a) it becomes flatter, and (b) it becomes smoother. The increasing smoothness seems to indicate that the centre despite its relative decrease in quantity, increasingly dominates the entire area, superceding the influence of other pre-existing centre. The flattening results from a slow decrease of density in the inner and a rapid increase in the outer zones, each of which, however, finally stabilizes at a lower density than the previous one.

Within this basic pattern, modifications are brought about by topography and by transportation. Whenever individual transportation predominates, long distances tend to be proportional to straight-line distances, and the over-all form of the settlement tends to be circular. This was the case in the foot-and-hoof city. The development of suburban railroads brought a change, because trips made by their passengers were performed by two means of radically different speeds — a train at 30 miles an hour and walking at 3 miles per hour. As the technology of steam railroads dictated few and widely spaced stations, a pattern of small circular developed strung out over a considerable length of railroad line, with a small commercial centre at each station.

With the electric structure, stops were for more frequent, and the speed was only three lines walking speed. So, the dots varied into solid and shorter lines, with commercial concentrations at their intersection.

When the automobile brought about a sudden and unpredictable reversal of the secular brand from individual to collective transportation, the use of one means of transportation for the entire trip and at fairly uniform speed reproduced on a vastly large scale, the circular form of the foot-and-hoof city.

The structural pattern of developed and open land, which had began to emerge in the railroad and street car areas, has submerged in universal sprawl. Developments were scattered all over the metropolitan area, cutting up the open space into smaller and oddly shaped remnants.

The developments are of two types mainly — Industrial and residential. The former used for manufacturing, warehousing and transportation, need relatively large areas of level land with good access to transportation by water, car, rail and road. Residential areas are practically unrestricted in their choice of location and cover much more extensive areas. They are patterned by several actors in particular by family composition, income and race.

3.3 STRUCTURAL ELEMENTS OF C.B.D.

Definition :

The Central Business District, which is variously referred to as the CBD, downtown district, urban core, central area or city centre, is that part of the city which contains

the principal commercial streets and main public building. It is essentially the core of the city's business and civic life.

Characteristics :

The characteristics of the CBD have been described as follows :

i) It lies central, at least in terms of its accessibility.

ii) It has a greater concentration of tall buildings than any other region of the city.

iii) Since it normally includes most of the city's offices and largest retail stores.

iv) It is the area where ventricular and pedestrian traffic are likely to be most concentrated.

v) It averages higher assessed land values and taxes paid than any other part of the city.

vi) It draws its business from the whole urban area and from all ethnic groups and classes of people.

Land Use :

In earlier times the CBD was a district of varied land use, containing residential, commercial, administrative and even industrial premises. However, over the years the rising value of CBD land and property has forced out most residential and industrial users leaving a district dominated by retail business premises, officials and industrial buildings.

In a pioneer CBD study two American Geographers R.E. Murphy and J.E. Vance attempted to provide a uniform method for the physical delimination of the CBD. Undoubtedly, the major problem in this exercise resides in the most appropriate criteria to be used.

a) Murphy and Vance identified some special types of land uses as the essential characteristics. So, the collected data on such criteria as (1) Building Heights, (2) Accessibility, (3) Traffic, (4) pedestrian flows, (5) building used for residential and commercial purposes, (6) Load and property values, (7)Wholesale and departmental stores etc.

b) Having identified central uses, then, from the detailed land use map which was made for all floors to include total use, not merely the ground floor, the amount of floor space devoted to each use category is collected. The unit for this process was the city block.

c) For each of the blocks a series of ratios or indices were then calculated. These are :

i) Total height index (HI) = Total floor space / Ground floor space

This is the height of each block in floors if all this space, whatever its use, were to be spread evenly over the whole block.

ii) Central Business Height Index (CBH1) = Total CB uses floor space / *Ground* floor space

This is the height of each block in floors if all the Central Business uses were spread over the whole block.

iii) Central Business Intensity Index (CBII) = Total Business floor space/ Total floor space x 100

This measures the proportion (%) of all available floor space in the total business uses.

iv) Central Business Index (CBI) = Sum of above three indices.

To define the CBD Murphy and Vance took a composite measure as indicated above and called it the CBI. AH blocks meeting the requirement were regarded as part of the CBD.

Internal Structure of the CBD :

Land use in the CBD shows a tendency towards an ordered arrangement which is determined by the pattern of land values. Land values reach a grand peak at the city centre and declame by varying amounts in different directions from the centre. Because of the high land values and property rentals around the peak land value intersection, only companies with a large turnover and high profits can afford to conduct their business on these prestige sites at the heart of the CBD. Thus, at the core of the CBD there are departmental stores, major chain stores, supermarkets, headquarters offices while the small traders with only modest profits, is forced out towards the edge of the central area.

A technique of CBD land use analysis was devised by Murphy and Vance in the 1950's and has subsequently been applied with various modifications to numerous towns and cities. The original study method consisted of drawing up four concentric zones, each 100 yards in width, around the peak land value intersection and then calculating the percentages of the build up area in each zone devoted to specific types of land use, both at street level and upper floor levels. The various establishments were divided up into three main groups as below :

Retail Business Uses	**Service-finance Official uses**	**Non-CBD uses**
Food	Financial	Residential
Clothing	Service trades	Industrial
Household goods	Headquarter Office	Wholesale
Car sales & Services	Govt. and Legal	Vacant
Miscellaneous	Transport residence	Cultural
Entertainment		Electrical
		Feelesidential

Working in this way it has been shown that the hypothesis outlined above is broadly correct, namely, the CBD land use patterns tend to show on ordered adjustment to land values and distance from the peak land value intersection.

Offer prices of retail, office and residential uses with distance from the city centre :

a) Section across the urban value surface.
b) Plan of the urban value surface.

3.4 Suburbs—Rural Urban Fringe

Suburbs :

Suburbs are the regions outside the centrality of urban settlement in the periphery. It is a belt of continuity between urban proper and rural area. It is a mysterious phenomena Suburbs, is an outer district lying with easy communicating range of an area. Urban in nature often exist as a separate political jurisdiction. Like what we have in K.M.A.

In many industrialized countries, construction of suburban elite residential environment distant from the crowding and pollution was in practice in early 19* .

By the late 19th and early 20th century, urbanization became a mass phenomena, as the middle class and skilled working class families woned in residential complex, located in such area. After the World War II, the trend was magnified in many countries.

R. Silverstone —said that "Suburb is an attempt to 'marry' a town and country and to create for middle classes, middle cultures in wild spaces in middle America, Britain or Australia.

Accordingto feminist geo,"suburb is a place of consumption as well as production& reproduction which restrain women's acess to services & paid unemployment."

Marxist geographers believe that "Suburbs are the means of slowing of an accumulation crisis and mechanization of ideological incorporation."

Thus, as one goes down the scale from the largest metropolis or indeed from megapolis, to the single isolated farm it is impossible to identify a climbing line which is conceptually meaningful. This is reflected in the fact that there is a variety of names for the settlements near the assumed border. The oldest is "Superb" although its original meaning was somewhat different but in addition the terms 'subtown' or 'urban village' & 'rurban' have been employed.

There are considerable variety in post war western suburbs, growing *diversity in* housing typoes classes and ethnic groups.

"Suburbs are often called 'edge cities' and at present in the Western countries are characterized by their clustering office and retail spaces together with large number of high aged while collar jobs."

RURAL-URBAN FRINGE

IT CANNOTES marginal areas of rural as well as urban. In other words rural-urban fringe is an area which lies at the rear end or the urban centre. It is a transitional zone, where the characteristics of both urban and rural settlements are found in a mixed form. Ruraji and Piltcher (1958) have established difference between rural-urban fringe, suburb, Pseudo-suburb, Satellite and Pseudo-Sattelite. Some other words used for rural-urban fringe are outer linked areas, sub-urban zone and extended fringe, etc.

Recently, the study of rural-urban fringe has gained importance because the research scholars of urban geography, sociology, land economics, authorities of town administration and planners have give due attention about the study of rural-urban fringe. Rural-urban fringe in a quasi-urban area, where the experiment here of both rural and urban development have been gaining ground especially for the construction of roads, houses, rise in literacy including the dumping ground of wastes, increased amount of juvenile delinquency and suffer from present form of urban development.

Ideas and Concepts :

The conceptof rural-urban fringe has been first of all developed by Thunen in A.D. 1826 who devised the concentric development of the use zones around an urban centre, hi the year 1925 Jonasson, while studying the European cities, revealed that landuse in the suburban area fulfils the ...ed of the town. In 1928, Mackangie first of all expresses in "The New Exploration" that town recklessly uses the surrounding area with the establishment of Bungalow, Godown, factories. Bill-board Gas Filling Station and residential houses.

Some Important Works Done in India :

In 1955 R.L. Singh studied about the rural-urban fringe of Varanasi. He tried to show that fringe area is dependent upon the urban centre for some of the urban facilities. In this regard he has done the sample of Sundarpur Village.

U. Singh studied about the rural-urban fringe of KAVAL towns in Uttar Pradesh. He observed the construction of residential houses even in industrial area due to expanding city limit. The area under urban functions and fringe zone could be seen in Table 34.1.

TABLE 34.1 : Fringe Area of City Level Centres

City	Village Considered into The urban Boundary	Area in KM2 of the Village included in the towns
Kanpur	157	204.80
Agra	44	23.04
Varanasi	93	20.18
Allahabad	55	15.36
Lucknow	47	48.64
Total	386	312.32

The inclusion of villages into the urban fold have covered almost 53.65 per cent of land under rural-urban fringe.

In 1972 R.C. Gupta studied about the rural-urban fringe after considering Sahadara a sub-town of Delhi in this group He also categorized it is a rurban fringe. In the same year Hiralal studied about the concentric development of rural-urban fringe around the city of Bareilly, where he demarcated the Primary and Secondary zone.

In 1980, M.M.P. Sinha studied about the rural-urban fringe of the city of Patna where he demarcated the primary and secondary fringe The variations in the fringe is due to the physical, cultural and economic differentiation of the area. As the urban facilities are changing their intensity and areal extent so the characteristics of the fringe also gets change.

In 1976 S. Nangia in her books Delhi Metropolitan Region : A Study in Settlement Geography studied about the rural-urban fringe of Delhi. Here the fringe zone extended over an area of 212 Km and included 177 villages in its fold. This zone is not concentric in nature rather it is polygonal in shape. In Western side the fringe extends over 18 kilometers in the east in north western the higher development of fringe is found towards Sonmarg whereas Faridabad in the south-east. The characteristic of the fringe of Delhi is that it commands a lot of industrial nucleus in its fold such as Nazafgarh, Azadpur, Okhla, Sahadara and Ghaziabad. It commands sewerage treatment plant and recreation centres as well.

Definition

Rural-urban fringe has mixed characteristics of both rural and urban. Some of the definitions are as follows.

1. "Rural-urban fringe is an area with distinctive characteristic which is only partly assimilated into the urban complex which is still partly rural." — H. Carter
2. "Where the urban influences are essentially mingled with rural forces often

withgout striking a proper adjustment as in the case of unplanned growth designates the nature of the rural-urban fringe." — R.L. Singh

3. "The urban fringe from the active expanding sector of the compact economic city and it lies at the periphery of urban areas.'1 — Andrews
4. "Fringe Settlement as a two directional movement reiterates that new residents converge upon the fringe both from urban places and rural areas." — Roadhaver
5. "In the fringe area there is a mingling of people of some of whom work in and are oriented towards agriculture while at the same time the remainder pursue urban occupations and at urban way of life." — Dewey
6. "Rural-urban fringe is really an extension of the city itself present and potential and since the city or cities of a metropolitan area and the suburban or fringe areas are a commercial&social, the entire area should be thought of a planted unit." — G.s.Wehrwein
7. "The fringe is the zone between the country and the city." — R.R.Mayer and J. A. Beegle
8. "Rural-urban fringe is that area adjoining the inner fringe outward from the economic city in which there is an intermingling of characteristics of agriculture and urban languages." — R. B. Andrew
9. "The urban fringe is defined as the land surrounding the town which is not considered as a part of it but whose use is influenced directly by the town." — Lewis Keeble
10. "The urban fringe is a mixture of land uses — rural and urban and classified it into a series of belts surrounding the city by the analysis of land-use characteristics. Such area is full of serious and complex problems and needs proper planning the solution."— Solter
11. "Rural-urban fringe is the rural land with urban phenomenon. The rural land is forced into urban uses prematurely and is almost frozen rarely being restored to agricultural uses." — R. L. Singh
12. "Urban fringe is a zone of cultural development that has taken place outside the political boundaries of central cities and extends to the areas of agricultural activities." — F. Arpke
13. "The fringe is the extension of housing estates of buildings along the main arterial roads, and by the location of new factories, golf courses, water-works, cemeteries . . . and the like." — R. E. Dickinson
14. "The rural-urban fringe is an area of transition between well-recognised urban land-use and the area devoted to agriculture." — G. S. Wehrwein

15. "The rural-urban fringe is a 'suburb which begin where the continuous build-up town ends. First, there is the built-up area of houses with small gardens, forming dormitory communities from which more than half the active populations work in the town." — Gamier and Chabot
16. "The space into which the town extends as the process of dispersion creates the concepts of rural-urban fringe. The centrifugal forces impel functions to migrate from the central zone of a city towards its periphery." — Hiralal Yadav

Characteristics and Problems:

It is quiet apparent that rural-urban fringe is a transitional zone between urban and rural areas. The urban fringe suffers from the problems of urban expansion where the extension of buildings on road side, the establishment of new industries and several urban functions and characteristics features develop. Sometimes even the cremation ground, burial places, dump of urban refuse, park, garden, water works and golf-course find their place amidst agricultural fields on the fringe area.

A study of American city gives us an idea that a motorway has helped much in fringe development in comparison with railways. This area also favours the construction of human settlements and the establishment of factories at slow pace. In this zone a fast change of land use pattern could be seen which is a sort of premature urban development.

Residents of the fringe area have to manage drinking water, latrines, electricity and gas on self-help basis. Generally, the municipal authorities consider this area outside the municipal limits. Here the plan of Industrial establishment could be managed well on the open land.The fringe area arebutchekhana, petrol depot, cremation ground, aerodrome, sewage plant, dumb places of urban refuge besides brewery industries which spells out bad smell. For this fact, G. S. Wehrwein has considered it as a area of present and future development of urban settlement.

Walter Firey has studied the characteristics and problems of Flint city of Michigan State of U.S.A. and he has drawn the following conclusions :—

a) Fringe withdraw the land from agricultural production ;
b) A lot of differences are found in the distribution of plots and industries cropped up here and there.
c) One has to pay a heavy taxes in order to manage urban amenities in the fringe area;
d) Due to construction of houses the price of the land shoots up very high which favours withdrawal of the land from agriculture and;
e) One could observe a shift change in the characteristics of population.

In 1960 Golledge has shown the characteristics of Sydney city's rural-urban fringe which are as follows :

a) It is a zone of fast changing ownership of the land;
b) The plot of the land is of small size;
c) A zone of intensive agricultural operation;
d) Population is dynamic but the density is low;
e) The expansion of residential houses took place fast;
f) Municipal facilities are almost non-existent, and
g) The house rent is commonly very high.

In 1965 R. E. Pahl has shown the characteristicccs of rural-urban fringe under four heads :

a) Segregation of plots and buildings;
b) Selective immigration by dynamic people;
c) It is a commuting zone of workers of industries and commercial centres of the city; and
d) It is a meeting point of geographical and social forces for human occupation.

Pryor (1968) has considered the land closer to the city as social and economic unit of the town. The tax for this rural sector areas and facilities of electricity, gas, drinking water and transport and communication have been availed by the urban areas. From the point of land utilization and demographic characteristics the rural-urban fringe availed facilities of both the world. The other characteristics of rural-urban fringe are as follows :

a) The urban facilities are always inadequate by any means.
b) The zonal arrangement is not interlinked
c) The areal extent covers the land even beyond the city boundary.
d) There is always chance of the increase of population density.

The residents of rural-urban fringe are wholly dependent upon urban area for employment, retail business along with the dearth of transport and mass communication.

Sudesh Nangia (1976) while studying the rural-urban fringe of Delhi Metropolitan region highlighted the following characteristics and problems :

a) Rural-urban fringe is full of huts, slums and squatter settlements and the construction of buildings going on unawaited without any proper plan.
b) A mixed form of land-use is found here.
c) It is difficult to continue agricultural land-use on a permanent basis;

d) The area suffers from urban facilities;

e) It is difficult to provide facilities at this place due to dispersed location of settlements and huge costs involved; and

f) In rural-urban fringe the living conditions of both rural and urban areas are found.

M.M.P. Sinha (1980) has highlighted the rural-urban fringe of Patna in detail. He concluded that rural-urban fringe has varying width found as a narrow zone at the rear end of the urban centre. It has been found that the rural scenario dominates the scene towards villages and urban scenario dominates the scene towards urban area

Causes of the Development of Rural-Urban Fringe :

In India the expansion of urban core adds dynamic character in the fringe development., whereas in the western world the expansion of fringe area takes place along the transport routes. In 1978 K. N. Goni has analyzed are Process of Urban Fringe Development: A Model Centre, and he observed the similarities of urban fringe of the west and the east in terms of the availability of race-course, industries, sewerage plant along with the open space and land reserves.

Types and Demarcation :

The boundary of Rural-urban fringe changes continuously along with the expansion of urban limits. It may be of the two types :

a) Primary Urban Fringe : This area is found towards the urban centre. It has been called by different names by different authors.

Author	Term
Andrews	Urban Fringe
Reinemann	Outlaying Adjacent Zone
Myres and Beegle	True Fringe
Whitehard	Inner Fringe belt
M.M.P. Sinha	Sub-urban Fringe
R.B. Mandal	Sub-urban Zone/ Rurban Zone

b) Secondary Urban Fringe : This area is found around the primary urban fringe. It is known as rural fringe, suburban zone, partial zone, rurban fringe and outer fringe.

In 1942 Richard Andrews has classified fringe as :

(a) Urban fringe — closer to the town; and

(b) Rural-urban fringe — closer to the village

In 1967 Whiteland has classified fringe as : Inner Fringe Zone, Middle Fring zone and Outer Fringe Zone.

In 1968, R. J. Pryor has classified fringe as : Urban Fringe and Rural Fringe.

For the delimitation of rural-urban fringe the following measures may be considered:

(a) Changes in the land-use;
(b) Changes in the built-up area;
(c) Occupational structure;
(d) House types;
(e) Distribution of industrial and non-agricultural activities.
(f) Distribution of educational institutions.

M.M.P. Sinha (1978) has considered the following facts for the delimitation of rural fringe ::

(a) Time taken to journey in work;
(b) Urban habit;
(c) Land value;
(d) Public utility services;
(e) Immigrant population;
(f) Non-agricultural activities;
(g) Population density;
(h) Primary activities;
(i) Built-up area;
(j) Age-sex ratio;
(k) Literacy rate; and
(1) Agricultural activities.

3.5 Questions

1. Identify the major land use of urban areas ? Enumerate the internal structure and characteristics of the CBD ?
2. What do you mean by rural-urban fringe ? Bring out the characteristic features of the rural urban fringe.
3. What are the major factors leading to the development of rural urban corridor around cities ? Identify the problems of these settlements
4. What are suburbs ? Discuss the factors leading to the development of suburbs I developing countries.

UNIT 4 ❑ URBAN INTERNAL STRUCTURE

Structure

4.1 Definition of towns - physical, social, functional, human ecology of cities

Physical City

The most basic elements of physical space of a city are structures and land use. Study of land use is what geographers and physical planners, in particular have meant when they have talked of the "Urban Pattern".

Four basic types of land use can be identified, (i) Central business, (ii) Industrial, (iii) Residential, and (iv) open areas.

The historical case of the metropolis, the original city, tends to remain in its centre. With the main lines of the transportation system oriented to it, this centre remains the point most accessible to all parts of the metropolis and therefore attracts all those functions which serve the entire area. Partly attracted by these, partly for historical reasons, all these functions which require mutual contract also concentrate here, typically in office buildings. These two basic central functions attract others which serve them, such as eating and drinking places and parking facilities.

The resulting competition for space, both within the centre and on the transportation facilities leading to it, leads to a displacement from the centre of all those uses which require relatively mud space and can also function elsewhere. These are primarily those dealing with goods, manufacturing and warehouses, but also retail stores, consumer services and residence.

As the metropolitan population grows and spreads out, outlying sectors accommodate sufficient population and purchasing power to support "Second order" services of their own, notably retail, but also most consumer and some business services. With continuing growth, the quality of the Second order moves up, leaving a narrowing range of the highest order in the centre.

From the centre outward density of population and of all activities decreases. Over time, this curve undergoes two typical notifications: it becomes flatter, and it becomes smoother. The increasing smoothness seems to indicate that the centre, despite its relative decrease in quality, increasingly dominates the entire area, superseding the influence of other preexisting centers. The flattering results from a slow decrease of density in the inner and a rapid increase in the outer zones, each of which, however, finally stabilizes at a lower density than the previous one.

Within this basic pattern, modifications are brought about by topography and by transportation. Whenever individual transportation predominates, train distances lead to be proportional to straight-line distances, and the over-all form of the settlement tends to be circular.

Social City

Social city denotes social space of that particular city. Social space is one which is used and perceived by those inhabiting it. It is originally a mosaic of areas, each of which is perceived as homogeneous by its residents. Each social space is, therefore, identified with a specific social group whose values, preferences and aspirations are replaced in that space. Social space ties the activities and values of a group to a place, suggesting that our activities are discrete and appear therefore as discontinuous units. The conceptual value of social space lies in its condition of the use and perception of space say distinctive social groups.

It is possible to combine the ethnic variable with socioeconomic status — including the lowest groups living in the so-called slum — and family status and to adopt Murdie's model as an indicator of the essential-claimants in the residential structure of the city. This can be stated in terms of the hypothesis that Murdie proposed.

1. Economic status tends to be associated with measures of income, occupation and education and tends to be distributed sectorially.
2. Family status tends to be associated with fertility, type of household and labour force participation by women and tends to be distributed concentrically.
3. Ethnic status tends to form 'grouping' which can be superimposed upon the cellular structure created by combinations of sectorial and concentric patterns.

Functional City

Functional city means the townscape produced by the interplay of different urban functions. Function is one of those important aspects in which a town differs from the other. Recently, urban geographers are becoming increasingly concerned with these features associated with functions, while discussing the physical and social characteristics of a city.

While discussing urban functions, C. D. Harries identified the following nine functions, (i) missing, (ii) Manufacturing, (iii) transport, (iv) wholesale, (v) retail, (vi) educational, (vii) resorts, (viii) diversified, (ix) others (this includes political).

Howard J. Nelson recognized much the same major classes of functions as Harris. But, instead of the last four functions, be considered (i) finance, (ii) personal, (iii) professional, and (iv) public administration. It is time that more than one function is usually performed by a city. There is hardly any city that performs only one function. Different functions are generally performed in different parts of the city. It is, therefore, possible to divide a city into different parts on the basis of different functions. In fact, different functions create a functional mosaic in a city. This is known as functional city.

Functional Classification of towns

There are three closely related aspects of defining towns, that can be distinguished for analytical purpose. Like :

1) The Physical growth of individual cities in a "brick and mortar" sense.
2) The emergence of functional specification of cities.
3) And distinctive social and economic changes that characterize a city.

There may be two types of cities according to Redfield, (a) the orthogenetic cities — that carry forward systematic and reflective dimensions of old culture, (b) And, the heterogenetic cities where "now status of mind become prominent."

So, a town is a point of specialized activity carrying out tasks which are best performed here, and that should be highly accessible, and demands a higher degree of population concentration from the economic point of view.

In the 'general description' phase, where M. Aurrousseow in his paper "The Distribution of Population : A Constructive Problem" recognized six classes of active towns like :

	Functions	
Class I	Administration	Capital City, Revenue Towns
Class II	Defence	Fortless town Garrisson Town
Class III	Culture	University town Cathedral town Pilgrimage town
Class IV	Production	Manufacturing towns
Class V	Communication	
	a) Collection	Mining towns Fishing towns Forest towns
	b) Transfer	Market towns Fall-line towns Break of Bulk towns
	c) Distribution	Export town

		Import town
		Supply town
Class VI	Recreation	Health Resorts
		Tourist resorts

However such descriptive use of fimctions lack sufficient theoretical base though.

Whereas in the Statistical description phase there was the introduction of statistical technique into the problem of classification.

Like in 1943, Chauncy D. Harris attempted a functional classification of cities of the USA. And eight classes of towns were recognized like manufacturing, retailing, wholesaling, transport, mining, university, resort (and retirement) and diversified. One example will be sufficiently describe the principle used. Transport towns were defined as where 'transportation' and communication contain at least 11% of the gainful workers, and workers in this sector should at least equal 1/3 the member in manufacturing, and 2/3 the member in the trading.

Again, these definition are the result of subjective definitions, and although dispersion graphs are used, yet the decisions are personal. In the Statistical Analysis phase however, H. J. Nelson cause up with a service classification of the American towns, where he worked out the percentage of each occupation to the total labour-force of each city. The 'mean' or normal value and standard deviation 'as a measure of the departure from the mean condition of any occupation'. Any towns which then shows a percentage employment of more than mean plus one standard deviation, then it is said to be significantly characterized by that functions. This is further developed by recording how many times, the employment ratio in one town is above the mean for all towns in term of standard deviations, and not more than thrice standard deviations are measured. The percentage of function less than its mean and SD ranges were considered insignificant. And, he mentioned 'diversified' function where no single service employed a sufficiently higher proportion of labour force.

However, this analysis was indeed questioned of its applicability in the third world countries like India.

Further, Homer Hoyt in 1939 used Urban-Economic base studies, while functionally classifying the cities. He classified the city as Basic (or city forming) city which meet non local needs contributing to the national economy.

And another type of city was 'non basic' (or city servings, which meets local and internal demand like educational and health activities. Hoyt himself proposed a cumbersome procedure by which local and non-local destinations of goods & services were determined by questionnaire. But this was very clumsy and unrealistic in case of large number of cities.

Whatever functions do the cities perform it is essential to note that how far the town plays role. In the national or regional economy and there should be redistributional

characteristics of town in similar functional classes, and yet peculiar to those classes in questions.

HUMAN ECOLOGY OF CITIES

It was work in plant ecology at the University of Chicago that provided inspiration for fruitful urban research by sociologists and geographers at Chicago in the years between World Wars I and II. In Robert Park's essay on Human Ecology the analogies are direct. He talks about competition between various population or interest groups in the metropolis, the dominance of one group in the natural or functional areas of a metropolitan community, and the invasion of a natural area by a competing group, leading to succession and to the dominance of the area by a new group. Park points out, however, that though competition is relatively unrestricted in the biological world, in the human world it is restricted by conventions, laws and institutions.

These urban ecological processes — competition, dominance, invasion and succession — derived their energy, according to Park, from the expansion of the city population and the city's area in a concentric ring-like fashion over time. Observation of Chicago revealed that the process of upward social mobility invaded geographic migration — the population group which had resided in the city for the longest like world move from their original homes to newer homes in the city's periphery as their economic status improved. They would be replaced at the centre of the city by new arrivals, to whom the older housing stock woned filter down.

Thus, a distinctive special pattern of activity and residence zones, Burgess's concentric zone emerged, the definitions of which are based on principal load use (Zone - I, Commercial; Zone - Ila , Indistrial, Zone - lib, to v, residential) and within the residential category by the type of resident (Zone -III, Zone of workingmen's homes; Zone - V, Computer's zone) both use and tenants changing in the as a result of the filtering town of prosperity. At the centre of the city is the central business district (CBD, Zone - I), the focus of commercial, social and civic life. Increasingly this theme is normally an area of transistor, which is being invaded by business and light manufacture. A third area is inhabited by the workers in industries who have located from the area of deterioration but who desire to live within easy access of their work. Beyond this zone is the residential area high class apartment buildings or of exclusive restricted districts of single family dwellings. Still further, out beyond the city limits, is the commuter's zone -suburban areas or satellite towns. This stretch of the concentric zones is linked with a historical process — the tendency of each inner zone to extend its area by the invasion of the neat outer zone.

4.2 Factorial ecology, Neighbourhood Analysis *Factorial Ecology*

Factor analysis as applied to the study of man's relation with urban environment. Urban ecology is known as factorial ecology. Factor analysis, in contract to social

area analysis, derives factors, which can be regarded as equivalent to constructs, by an objective statistical procedure. These factors are derived from an input of variables designed to cover as wide a range of urban characteristics as possible. The basic purpose of factor analysis, as applied in urban ecology; is to reduce a matrix of n tracts by m variables to one of n tracts and r factors, where the number of significant factors r is less than m. The r factors summarize the common patterns of variability in the data and make possible more concise statements about the population under consideration.

The variables that are most usually included in social area analyses are those that describe the characteristics of population groups living in small areas (i.e., causes tracts) The characteristics which are regarded as important are (1) education, (2) occupation, (3) income, (4) sex, (5) age, (6) membership, (7) in an ethnic or racial group - measures which apply to people themselves and (2) the value of the home (or its rent), state of repair, plumbing facilities and so forth - measures that apply to the dwelling unit. The physical and mental characteristics of individuals have not usually been included. The nature of each factor derived out of the variables can be identified from its association with the original variables, expressed through a measure known as factor loadings within the range of -1.0 to +1.0. These are similar in form to correction coefficients.

The square of these correlation coefficients or factor loadings, indicates the proportion of variation in the variables that is associated with the variation in the factor, and the sum of the squared factor loadings, which is referred to as an eigenvalue, is used to determine the proportion of total variation summarized by this factor.

The factor scares of each observation unit on each factor are then calculated. In effect, these factors can be regarded as variables, that effectively summarize such of the variation in the data, and so the scares of the observations provide the data that can be utilized for a mapped special representation. The flowchart of factor analysis is as follows. * (a diagram to be given)

The relation that the variables have with the factors then these relation is known as factor loadings.

4.3 Social Area Analysis

Social area is a part of social space. There may be more than social areas within a social space.

The term "Social Area Analysis", strictly speaking, applies only to that mode of analysis originally. Outlined by Eshref, Shavky, Marianne Williams and Wendell Bell in their studies of Los Angeles and San Francisco. From a number of postulates concerning industrial society they derived three basic constructs which, they considered, described the way in which urban populations are differentiated. The three constructs

were called social Rank by Shevky (and Economic status by Bell), Urbanization (Family Status), and Segregation (Ethnic Status). They then proposed three indices, the constructs are one per construct, made up of from one to three census variables — designed to measure the position of census tract populations on scales of (1) economic, (2) family, and (3) ethnic status and to make possible the classification of census tracts into social areas based upon their scores in the indices.

The basic principle on which the key variables were selected is contained in the sentence, "We conceive of the city as a product of the complex whole of the modern society. Thus the social forms of urban life are to be understood within the context of the changing character of the larger containing society. From this three aspects, called three postulates, were isolated epitomizing this changing character, these were :

1. Change in the range and intensity of relations.
2. Differentiation of functions
3. Complexity of organization

The first postulate, i.e., change in the range and intensity of relations, was transformed Shevky and Bell, into the first construct — Social Rank (Economic Status) -considering changes in the arrangement of occupations based on function. Sample statistics used by them for the purpose were (i) years of schooling, (ii) employment status, (iii) Class of worker, (iv) major occupation group, (v) value of home, (vi) rent by dwelling unit, (vii) plumbing and repair, (viii) persons per room, (ix) heating and refrigeration. They derived three measures - (a) occupation, (b) schooling and (c) rent, which combined together formed the first index.

Shevky and Bell transformed the Second postulate i.e., differentiation of function into the second construct - Urbanisation (family status) considering changes in the ways of living, movement of women into urban occupations and spread of alternative family patterns. Sample statistics related to this construct were (i) age and sex, (ii) owner or tenant, (iii) house structure and, (iv) persons in household. Derived measures out of these sample statistics were (a) fertility rate (member of children under 5 years per 1000 females aged 15 - 44), (b) Women in labour force (member of females in the labour force per 1000 females 14 year and over), and (c) single-family detached dwelling units ratio (member of single family dwelling units per 1000 dwelling units os all types). These three measures form the second index.

The third postulate, i.e., complexity of organization, was transformed into the third construct - segregation (ethnic status) - upon consideration of redistribution in space -changes in the proportion of supporting and dependent population and isolation and segregation of group. Simple statistics used in this case were (i) race and nativity, (ii) country of birth, (iii) citizenship. They derived one measure out of these statistics, e.g. racial and national groups in relative isolation, that formed the third index.

For derivation of social areas, urbanization is plotted against social rank is plotted and divisions drawn two standard errors away, This gives nine divisions.

(* here a diagramjojbe given)

Social area analysis, strictly defined, has been criticized both on theoretical grounds (the theory underlying the constructs) and for empirical reasons (the method of dimensioning the constructs.)

It has been urged that it has no theoretical background and is merely an attempt to delimitate areas for their own sake.

If the whole notion of the constructs is open to question, so is the selection of the statistical measures, For example, in most subsequent studies rental has been eliminated from the measure of social rank. In considering the whole range of possible parameters which might be selected as measures of aspects of urban social structure one might, therefore, have even greater doubts as to the validity of isolating those few indices which Shevky suggested.

The third line of criticism, relates to the unidimensional nature of the indices, that is whether the three are discrete and unrelated to each other and net in fact, overlapping measures of the same thing. Thus, it can be shown that fertility is closely associated with occupation and education and hence has a significant linkage with social rank.

4.4 The General Nature of Problems of City : Inner city decay (Urban Decay)- Slums

Inner city: An inner city is the central area of the major city. In the United States and United Kingdom, the term often applied to the poorer parts of the city centre and is some times used as 'euphemism' with the connotation of being an area , perhaps a Ghetto, where people are less educated and wealthy and where there is more crime .These connotation is less common in other Western Countries, where deprived areas may be located in outlying parts of cities .For instance in Paris, Vienna, or Amsterdam, the inner city is the richest part of the metropolis ,where housing is most expensive,and where elites and high income individuals dwell.

Urban decay is a process by which a city, or a part of a city, falls into a state of disrepair. It is characterized by depopulation, property abandonment, high unemployment, fragmented families, political disenfranchisement, crime, and desolate and unfriendly urban landscapes.

Urban decay was associated with Western cities, especially North America and parts of Europe during the 1970s and 1980s. During this time period major changes in global economies, transportation, and government policies created conditions that fostered urban decay.

Although not uniquely a North American experience, the effects of urban decay

run counter to the development patterns found in most cities in Europe and the rest of the world, where slums are usually located on the outskirts of major metropolitan areas while the city center and inner city retain high real estate values and a steady or increasing population. In contrast, North American cities often experience an outflux of population to city suburbs or exurbs, as in the case of white flight, and can lead to phenomena such as squatting'2'.

There is no single cause of urban decay, though it may be triggered by a combination of interrelated factors, including urban planning decisions, the development of freeways^, suburbanisation, redlining'41, immigration restrictions^ and racial discrimination

Background Since antiquity some people have chosen to live in citiesl6] for financial, social, religious or cultural reasons. Urban areas encourage the economical use of infrastructure, transportation and space. Urban areas offer the widest variety of opportunities for education and financial betterment. They are the meeting places where business is conducted and goods are exchanged. They are the ports of entry for immigrants and the seats of power for governments. Urban places are held together by the human desire to form societies, celebrate culture and establish meaningful social relations. Cities are the essential element of most civilizations. The very word "civilization" shares the same root as "city."

During the Industrial Revolution, people moved from the countryside into cities to find employment in the manufacturing sector. Industrial manufacturing was largely responsible for the population boom cities experienced during this time period. Industrial manufacturing and the failures of city planning to keep up with the sudden changes during the late 19th and first part of the 20th century contributed to a poor and unhealthy urban environment. The population of cities increased dramatically and the infrastructure that was in place was visibly inadequate.

Changes in transportation (specifically the private motor car) and communications eliminated much of the cities' advantages. With the end of World War II in particular many political decisions were employed that favored suburban development that further encouraged suburbanisation. Such decisions have drawn the financial resources from the cities in favour of providing infrastructure for remote suburban areas. Racial discrimination, in this context known as "white flight" in the United States, also played a part, as many chose to abandon cities and take part in an urban sprawl.

After World War Two, Western economies lifted tariffs and outsourced most manufacturing. During the change from a manufacturing to a service-based economy, the need for centralisation, and thus cities, has been reduced somewhat. Jobs no longer had to be centralisedland private motor transportation was growing in availability. Even for manufacturing workers, the process of suburbanisation was attractive because it allowed workers work at their factories, while commuting between their place of work and their larger suburban homes.

In the United States, the federal government aided the suburbanization process by mandating discriminatory lending practices through the FHA in the form of redliningLater, under President Dwight D. Eisenhower urban centers were drained further through the building of the interstate highway system. In North America this shift has manifested itself in strip malls, suburban retail and employment centers, and very low-density housing estates. Large areas of many northern cities in the United States have experienced population decreases and a degradation of urban areas. Inner-city property values declined and economically disadvantaged populations moved in. In the U.S., the new inner-city poor were often black African-Americans who were migrated from the south in the 20s and 30s. As they moved into traditional white European-American neighborhoods, ethnic frictions served to accelerate flight to the suburbs.

In Western Europe the experience differs in that the effect was often unknowingly assisted by public sector policies designed to clear 18th and 19th century slum areas and movements of people out into state subsidised lower density suburban housing.

On continental Europe and Oceania the historical core of major cities usually remains relatively affluent; it is generally the inner city districts and the edge of town suburbs made up of single-class state subsidised housing, such as the French 'cites' and British 'council estates', which suffer the worst decay and blight. Simple economies of land mean that extremely low density housing in Europe is not practical due to higher population densities.

Examples of decay

The car manufacturing sector was the base for Detroit's prosperity and employed the majority of its residents. When this industry began relocating outside of the city, it experienced population loss with associated urban decay, particularly after the 1967 riots. In 1950 the city's population was, according to US census, around 1.85 million; by 2003 this had declined to 911,000, a loss of nearly 940,000 people (52%).

Britain experienced severe urban decay in the 1970s and 1980s. Major cities like Glasgow in Scotland, the towns of the South Wales valleys, and the major English cities like Birmingham, Manchester, Liverpool, Newcastle, and the East of London all experienced population decreases with very large areas of 19th-century housing experiencing market price collapse.

Large French cities are often surrounded by decayed areas. While the city center tends to be occupied mostly by middle- as well as upper-class residents, the city is often surrounded by very large mid to high-rise housing projects. The concentration of poverty and crime radiating from the developments often cause the entire suburb to fall into a state of urban decay as more affluent citizens seek housing in the city, or further out in semi-rural areas. In early November 2005, the decaying northern suburbs of Paris were the scene of severe riots sparked in part by the substandard living conditions in public housing projects

Remedy

The main responses to urban decay have been through positive public intervention and policy, through a plethora of initiatives, funding streams, and agencies, using the principles of New Urbanism (or through Urban Renaissance as its UK / European equivalent). The importance of gentrification should not be underestimated and remains the primary means of a'natural'remedy.

In the United States, early government policies included "Urban renewal" and building of large scale housing projects for the poor. Urban renewal demolished entire neighbourhoods in many inner-cities; in many ways it was a cause of urban decay rather than a remedyHousing projects became crime infested mistakes. These government efforts are thought by many now to have been misguided.112J'31 Some cities have rebounded in spite of these policy mistakes for multiple reasons. Today however with many people interested in moving back to the inner cities, gentrification has renewed and restored some of these neighborhoods. Meanwhile some of the inner suburbs built in the 1950s and 60s are beginning the process of decay.

In Western Europe, where land is much less in supply and urban areas are generally recognised as the drivers of the new information and service economies, urban regeneration has become a quasi industry in itself, with hundreds of agencies and charities set up to tackle the issue. European cities have the benefit of historical organic development patterns already concurrent to the New Urbanist model, and although derelict, most cities have attractive historical quarters and buildings ripe for redevelopment. In the suburban estates and cites the solution is often more drastic with 1960/70 state housing projects being totally demolished and rebuilt in a more traditional European urban style, with a mix of housing types, sizes, prices, and tenures, as well as a mix of other uses such as retail or commercial. One of the best examples of this is in Hulme, Manchester, which was cleared of 19th century housing in the 1950s to make way for a large estate of high-rise flats. During the 1990s it was cleared again to make way for new development built along new urbanist lines. The area is held up as an excellent example of Urban Renaissance

SLUM

The United Nations agency UN-HABITAT defines a slum as a heavily populated urban area characterized by substandard housing and squalor. The tenn traditionally referred to housing areas that were once respectable but which deteriorated as the original dwellers moved on to newer and better parts of the city, but has come to include the vast informal settlements found in cities in the developing world. The word may come from the slang tenn 'Slams' (pronounced slums and short for Islam) referring to the poor and crowded Muslim suburbs of early 19th century Cape Town.

Although their characteristics vary between geographic regions, they are usually

inhabited by the very poor or socially disadvantaged. Slum buildings vary from simple shacks to permanent and we 11-maintained structures. Most slums lack clean water, electricity, sanitation and other basic services.

Slums may be distinguished from ghettos in that ghetto refers to a neighborhood based on shared ethnicity. Other terms which are sometimes used interchangeably with slum include favela and shanty town

Characteristics

The characteristics associated with slums vary from context to context. Slums are usually characterized by urban blight and by high rates of poverty and unemployment. They are commonly seen as "breeding grounds" for social problems such as crime, drug addiction, alcoholism, high rates of mental illness, and suicide. In many poor countries they exhibit high rates of disease due to unsanitary conditions, malnutrition, and lack of basic health care. A UN Expert Group has created an operational definition of a slum as an area that combines to various extents the following characteristics:

i) Inadequate access to safe water;
ii) Inadequate access to sanitation and other infrastructure;
iii) Poor structural quality of housing;
iv) Overcrowding; and
v) Residential status.

To these one might add the low socioeconomic status of its residents.

In many slums, especially in poor countries, many live in very narrow alleys that do not allow vehicles (like ambulances and fire trucks) to pass. The lack of services such as routine garbage collection allows rubbish to accumulate in huge quantities. The lack of infrastructure is caused by the informal nature of settlement and no planning for the poor by government officials. Additionally, informal settlements often face the brunt of natural and man-made disasters, such as landslides, as well as earthquakes and tropical storms. Many slum dwellers employ themselves in the informal economy. This can include street vending, drug dealing, domestic work, and prostitution. In some slums people even recycle trash of different kinds (from household garbage to electronics) for a living -selling either the odd usable goods or stripping broken goods for parts or raw materials Map showing the percentage of each country's urban population living in slums (according to UN-Habitat definition): <10%; 10-20%; 20-30%; 30-40%; 40-50%; 50-60%; 60-70%; 70-80%; 80-90%; >90%; N/A

Growth and countermeasures

Recent years have seen a dramatic growth in the number of slums as urban populations have increased in the Third World. According to a 2006 UN-HABITAT report, 327 million people live in slums in Commonwealth countries - almost one in

six Commonwealth citizens. In a quarter of Commonwealth countries (11 African, 2 Asian and 1 Pacific), more than two out of three urban dwellers live in slums and many of these countries are urbanizing rapidly.

Many governments around the world have attempted to solve the problems of slums by clearing away old derelict housing and replacing it with modern housing with much better sanitation. The displacement of slums is aided by the fact that many are squatter settlements whose property rights are not recognized by the state. This process is especially common in the Third World. Slum clearance often takes the form of eminent domain and urban renewal projects, and often the former residents are not welcome in the renewed housing. Moreover new projects are often on the semi-rural peripheries of cities far from opportunities for generating livelihoods as well as schools, clinics etc. At times this has resulted in large movements of inner city slum dwellers militantly opposing relocation to formal housing on the outskirts of cities.

In some countries, leaders have addressed this situation by rescuing rural property rights to support traditional sustainable agriculture; however this solution has met with open hostility from capitalists and corporations. It also tends to be relatively unpopular with the slum communities themselves, as it involves moving out of the city back into the countryside, a reverse of the rural-urban migration that originally brought many of them into the city.

Critics argue that slum clearances tend to ignore the social problems that cause slums and simply redistribute poverty to less valuable real estate. Where communities have been moved out of slum areas to newer housing, social cohesion may be lost. If the original community is moved back into newer housing after it has been built in the same location, residents of the new housing face the same problems of poverty and powerlessness.

Income disparity

According to the UNDP 1997 Human Development Report, and the 2004 United Nations Human Development (UNHDP) report, Malaysia has the highest income disparity between the rich and poor in Southeast Asia, greater than that of Philippines, Thailand, Singapore, Vietnam and Indonesia. The UNHDP Report shows that the richest 10% in Malaysia control 38.4% of the economic income as compared to the poorest 10% who control only 1 .7%. Kuala Lumpur as the capital of Malaysia has an increasing number of squatters, shanty towns and slums, and is also seeing an increase in criminal acts such as snatch theft, robberies and rape

Slums versus ghettos

Many times people use the term ghetto when they are actually referring to a slum. To qualify as a ghetto, an area must contain certain aspects :

- There must be a majority of one group of people over the rest of a population in an area.
- This majority group must be a racial, ethnic or religious group that is a minority compared to the major population.
- This group must have been discriminated against, when it comes to housing, in the past and possibly currently.

A ghetto is not based on the population's social-economic level, amount of crime or amount of unemployment. A person who lives in a ghetto chooses not to leave the ghetto because of past discrimination and/or is unable to leave because of current discrimination. The first ghetto was a Jewish ghetto located in Venice, Italy. In the United States, census tracts are used to detennine if an area is a ghetto.

By contrast, identification of an area as a slum is not based on the race, ethnicity or religion of the people in the area.

Refugee shelter

Refugee shelters include the most basic kind of structure created in the aftermath of a conflict or natural disaster as a temporary residence for victims who have lost or abandoned their homes. There is a continuum ranging from the most temporary tent accommodation through transitional shelter to rebuilding houses and settlements. Land tenure issues often play a large role in the planning and categorization of settlements as temporary, though many settlements subsist for years.

The materials and technology used to create these shelters have advanced as a result of worldwide news coverage of natural disasters in the new millennium. Simple tent structures, grouped together to form a "tent city", are commonly made of canvas military issue tents which are criticized for being heavy, bulky, uninsulated, expensive, and for rotting in under a year.

There are scores of innovative approaches to constructing temporary shelters, but few make it to the field. Architect Shigeru Ban has designed temporary (and permanent) structures with paper tubes as the underlying structure, used after the Kobe earthquake Cal-Earth Institute has also developed "superadobe" which makes use of sandbags and barbed wire to form an emergency shelter for disaster relief.

The main difficulty with refugee shelters is transporting the materials to areas with damaged infrastructure, so the overall cost of deploying a shelter is largely proportional to its weight.

Disaster responses are increasingly focusing on supporting victims to build their own shelters as this stimulates the local economy, maintains dignity, gives victims something other than their grief to focus on, and encourages a sense of ownership of the shelter and of the materials.

Squatting

Squatting is the act of occupying an abandoned or unoccupied space or building that the squatter does not own, rent or otherwise have permission to use. Squatting is significantly more common in urban areas than rural areas, especially when urban decay occurs. According to author Robert Neuwirth, there may be as many as one billion squatters globally, or about one of every seven people

Example: In Mumbai, there are an estimated 10 to 12 million inhabitants and six million of them are squatters. The squatters live in a variety of ways. Some possess two or three story homes built out of brick and concrete which they have inhabited for years. Geeta Nagar is a squatter village based beside the Indian Navy compound at Colaba. Squatter Colony in Malad East has existed since 1 962 and now people living there pay a rent to the city council of 100 rupees a month. Dharavi is a community of one million squatters. The stores and factories situated there are mainly illegal and so are unregulated, but it is suggested that they do over $1 million in business every day. Other squatters live in shacks, situated literally on a pavement next to the road, with very few possessions.

Tent City

The *term* tent city covers a wide variety of usually temporary housing made of tents. Tent cities may originate spontaneously or be planned. Tents may or may be not comfortable but usually lack plumbing and sanitary facilities which tend to be communal. Tent cities may be the beginning of a permanent settlement, such as Anchorage, Alaska, encampments of homeless people, or structures temporarily erected to accommodate a large number of visitors, workers, or soldiers. Tent cities can be quickly erected and taken down, and differ from shanty towns which are less organized, more permanent, often unsanitary and made from a variety of materials

Skid row

The term skid or skid road is used to refer to a run-down or dilapidated urban area. There are formally recognized neighborhoods named Skid Row in Seattle and Los Angeles. Informally, there is an identified skid-row neighborhood in almost every major North American city, such as The Bowery in New York City and the Downtown Eastside in Vancouver, which like Seattle's, was one of the original locations where the term was first coined.

The origins of the term 'skid rowl date back to the 19th century. The source of the term as an urban-landscape reference is heavily debated, and is generally identified as originating in either Vancouver, British Columbia or Seattle, Washington, where it was adapted from the term "skid road", a corduroy road made of logs, used to skid or drag logs through woods and bog.

The term did not become popular until well into the 20th century, while the

incorporation dates either postdate or coincide with the earliest estimates of the term's origins, mid 1800's.

In what is now Seattle, the logs were floated from the foothills of the Cascade Mountains across Lake Washington to Skid Road. The logs were then "skidded" by attaching a "choke" chain, or cable, to one end of the log. The log was then pulled by overhead cables, dragging or skidding the other end over the hill to the Seattle Waterfront, to a saw mill owned by Henry Yesler. The Vancouver Skid Road was part of a complex of such roads in the dense forests surrounding the Hastings Mill and adjacent to the settlement of Granville, Burrard Inlet (aka Gastown.

Murray Cromwell Morgan, in his 1952 book "Skid Road", described how the loggers spent the summers in the mountains cutting down trees and how the winter snow and mud hampered operations. The out-of-work loggers would hang out on Skid Road hoping to find work and would often run out of money, sleep on the streets, and beg for food or money. This is where the connection between the operation of skidding logs and being poor and unemployed originated.

The term "Skid Road" was in common usage in the mid 1800's, and referred to logging camps and mills all along the Pacific Coast. Vancouver, British Columbia started off as a sawmill settlement called "Granville," in the early 1870s. By the 1960s, "Skid Road" was commonly used to describe the more dilapidated areas in the city's Downtown Eastside, which is focussed on the original "strip" along East Hastings Street due to a concentration of single-room occupancy hotels (SROs) and associated bars in the area.

4.4 Inner city & associated Problems

● Definition of Inner City ?

An **inner city** is the central area of a major city. In the United States, United Kingdom and Ireland, the term is often applied to the poorer parts of the city centre and is sometimes used as a euphemism with the connotation of being an area, perhaps a ghetto or slum, where people are less educated and impoverished and where there is more crime.

These connotations are less common in other Western countries, as deprived areas are located in varying parts of other Western cities. In fact, with the gentrification of some formerly run-down central city areas the reverse connotation can apply. In Australia, for example, the term "outer suburban" applied to a person implies a lack of sophistication. In Paris, the inner city is the richest part of the metropolitan area, where housing is the most expensive, and where elites and high-income individuals dwell. In the developing world, economic modernization brings poor newcomers from the countryside to build haphazardly at the edge of current settlement (see favelas, shacks and shanty towns).

The United States, in particular, has a culture of anti-urbanism that dates back to colonial times. The American City Beautiful architecture movement of the late 1800s was a reaction to perceived urban decay and sought to provide stately civic buildings and boulevards to inspire civic pride in the motley residents of the urban core. Modern anti-urban attitudes are to be found in America in the form of a planning profession that continues to develop land on a low-density suburban basis, where access to amenities, work and shopping is provided almost exclusively by car rather than on foot.

However, there is a growing movement in North America called "New Urbanism" that calls for a return to traditional city planning methods where mixed-use zoning allows people to walk from one type of land-use to another. The idea is that housing, shopping, office space, and leisure facilities are all provided within walking distance of each other, thus reducing the demand for road-space and also improving the efficiency and effectiveness of mass transit.

- **Problems of Inner City:**
  - ***Environmental Racism & Pollution***
  - ***Ghetto***
  - ***Homelessness***
  - ***Urban decay***
  - ***Shanty town***
  - ***Gentrification***

Environmental Racism & Pollution :

Environmental racism is intentional or unintentional racial discrimination in the enforcement of environmental rules and regulations, the intentional or unintentional targeting of minority communities for the siting of polluting industries such as toxic waste disposal, or the exclusion of people of color from public and private boards, commissions, and regulatory bodies, as defined and coined by Reverend Dr. Benjamin F. Chavis, Jr. Executive Director and CEO of the United Church of Christ Commission for Racial Justice in 1981.

(Background :

In the United States

Since the term "environmental racism" was coined in 1987, researchers have investigated why minorities are more likely than whites to reside in areas where there is more pollution. Some social scientists suggest that the historical processes of suburbanization and decentralization are instances of white privilege that have contributed to contemporary patterns of environmental racism.

In the United States, the wealth of a community is not nearly as good a predictor

of hazardous-waste locations as the ethnic background of the residents, suggesting that the selection of sites for hazardous-waste disposal involves racism. Researcher James T. Hamilton studied American zip codes targeted for capacity expansion in plans by commercial hazardous waste facilities from 1987 to 1992. Locations for hazardous waste facilities had an average nonwhite population of 25 percent, versus 18 percent for those areas without net expansion. Hamilton suggests that differences in the probability that residents will raise a firm's expected location costs by engaging in successful collective action to oppose expansion offer the best explanation for which neighborhoods are targeted by polluting industries. Another study centered around Los Angeles in 1997 found that working-class communities of color are most affected by hazardous waste treatment, storage, and disposal facilities

United States organizations working for environmental justice include: Greenaction, Center for Health, Environment and Justice, and the Coalition Against Environmental Racism. In response to public concerns raised by these groups, the United States Environmental Protection Agency created the Office of Environmental Justice in 1992.

According to the EPA, "Environmental Justice is the fair treatment and meaningful involvement of all people—with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. EPA has this goal for all communities and persons across this Nation. It will be achieved when everyone enjoys the same degree of protection from environmental and health hazards and equal access to the decision-making process to have a healthy environment in which to live, learn, and work."

On 11 February 1994 President Bill Clinton signed Executive Order 12898, which directed federal agencies to develop strategies to help federal agencies identify and address disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations. Clinton also intended the Order to provide minority and low-income communities with access to public information and opportunities for public participation in matters relating to human health or the environment.

A 2007 study by the University of Colorado at Boulder showed that although the average black or Hispanic resident of a major U.S. city lives in a more polluted part of town than the average white person, the levels of inequality vary widely between cities. The study found that black/white environmental inequality levels were highest in Orlando, Fla., Norfolk, Va.y Louisville, Ky., and Portland, Ore., and weakest in Baltimore, Las Vegas, Boston and Nassau/Suffolk, N.Y. Urban minority communities may also face environmental racism in the form of parks that are smaller, less accessible and of poorer quality than those in more affluent or white areas in some cities. This may have an indirect impact on health since young people have fewer places to play and adults have fewer opportunities for excercise.

Policies related to redlining and urban decay can play a role in environmental racism, and in turn have an impact on public health. For example, Robert Wallace writes that the pattern of the AIDS outbreak during the 80s was affected by the outcomes of a program of 'planned shrinkage' directed in African-American and Hispanic communities, and implemented through systematic denial of municipal services, particularly fire extinguishment resources, essential for maintaining urban levels of population density and ensuring community stability.I81

International

Environmental racism also exists at an international scale. American corporations often continue to produce dangerous chemicals banned in the United States and export them to developing countries. Additionally, the developed world has shipped large amounts of toxic waste to developing countries for less-than-safe disposal. At a waste site in Giuyu, China, laborers with no protective clothing regularly bum plastics and circuit boards from old computers. They pour acid on electronic parts to extract silver and gold, and crush cathode ray tubes from computer monitors to remove other valuable metals, such as lead.

According to the United States ERA, the six most prominent examples of environmental hazards include:

- Lead - There is a particularly high concentration of lead problems in low-income and culturally diverse populations, who live in the inner city where the public housing units were built before 1970.
- Waste Sites - Low income, and quite often culturally diverse populations, are more likely than other groups to live near landfills, incinerators, and hazardous waste treatment facilities.
- Air Pollution - 57 percent of all whites, 65 percent of African Americans, and 80 percent of Hispanics live in communities that have failed to meet at least one of EPA's ambient air quality standards.
- Pesticides - Approximately 90 percent of the 2 million hired farm workers in the United States are people of color, including Chicano, Puerto Ricans, Caribbean blacks and African Americans. Through direct exposure to pesticides, farm workers and their families may face serious health risks. It has been estimated that as many as 313,000 farm workers in the U.S. may suffer from pesticide-related illnesses each year.
- Wastewater (City Sewers) - Many inner cities still have sewer systems that are not designed to handle storm overflow. As a result, raw sewage may be carried into local rivers and streams during storms, creating a health hazard.
- Wastewater - (Agricultural Runoff) - It is suspected that the increased use of commercial fertilizers and concentrations of animal wastes contribute to

the degradation of receiving streams and rivers in rural areas, with communities that are often low income and culturally diverse.)

Pollution : **Pollution** is the introduction of **pollutants** (whether chemical substances, or energy such as noise, heat, or light) into the environment to such a point that its effects become harmful to human health, other living organisms, or the environment.

The major forms of pollution are listed below along with the particular pollutants relevant to each of them :

- Air pollution, the release ot chemicals and particulates into the atmosphere. Common examples include carbon monoxide, sulfur dioxide, chlorofiuorocarbons (CFCs), and nitrogen oxides produced by industry and motor vehicles. Photochemical ozone and smog are created as nitrogen oxides and hydrocarbons react to sunlight.
- Water pollution via surface runoff, leaching to groundwater, liquid spills, wastewater discharges, eutrophication and littering.
- Soil contamination occurs when chemicals are released by spill or underground storage tank leakage. Among the most significant soil contaminants are hydrocarbons, heavy metals, MTBEW, herbicides, pesticides and chlorinated hydrocarbons.
- Radioactive contamination, added in the wake of 20th century discoveries in atomic physics. (See alpha emitters and actinides in the environment.)
- Noise pollution, which encompasses roadway noise, aircraft noise, industrial noise as well as high-intensity sonar.
- Light pollution, includes light trespass, over-illumination and astronomical interference.
- Visual pollution, which can refer to the presence of overhead power lines, motorway billboards, scarred iandforms (as from strip mining), open storage of trash or municipal solid waste.
- Thermal pollution, is a temperature change in natural water bodics caused by human influence, such as use of water as coolant in a power plant.

The Blacksmith Institute issues annually a list of the world's worst polluted places. In the 2007 issues the ten top nominees are located in Azerbaijan, China, India, Peru, Russia, Ukraine and Zambia.

Sources and causes

Motor vehicle emissions are one of the leading causes of air pollution.t5ll6H7l China, United States, Russia, Mexico, and Japan are the world leaders in air pollution emissions; however, Canada is the number two country, ranked per capita. Principal stationary pollution sources include chemical plants, coal-fired power plants, oil

refineries,!3! petrochemical plants, nuclear waste disposal activity, incinerators, large livestock farms (dairy cows, pigs, poultry, etc.), PVC factories, metals production factories, plastics factories, and other heavy industry.

Some of the more common soil contaminants are chlorinated hydrocarbons (CFH), heavy metals (such as chromium, cadmium-found in rechargeable batteries, and lead-found in lead paint, aviation fuel and still in some countries, gasoline), MTBE, zinc, arsenic and benzene. Ordinary municipal landfills are the source of many chemical substances entering the soil environment (and often groundwater), emanating from the wide variety of refuse accepted, especially substances illegally discarded there, or from pre-1970 landfills that may have been subject to little control in the U.S. or EU. There have also been some unusual releases of polychlorinated dibenzodioxins, commonly called *dioxins* for simplicity, such as TCDD.P!

Pollution can also be the consequence of a natural disaster. For example, hurricanes often involve water contamination from sewage, and petrochemical spills from ruptured boats or automobiles. Larger scale and environmental damage is not uncommon when coastal oil rigs or refineries are involved. Some sources of pollution, such as nuclear power plants or oil tankers, can produce widespread and potentially hazardous releases when accidents occur.

In the case of noise pollution the dominant source class is the motor vehicle, producing about ninety percent of all unwanted noise worldwide.

Effects

Human health

Adverse air quality can kill many organisms including humans. Ozone pollution can cause respiratory disease, cardiovascular disease, throat inflammation, chest pain, and congestion. Water pollution causes approximately 14,000 deaths per day, mostly due to contamination of drinking water by untreated sewage in developing countries. Oil spills can cause skin irritations and rashes. Noise pollution induces hearing loss, high blood pressure, stress, and sleep disturbance.

Ecosystems

- Sulfur dioxide and oxides of nitrogen can cause acid rain which reduces the pH value of soil.
- Soil can become infertile and unsuitable for plants. This will affect other organisms in the food web.
- Smog and haze can reduce the amount of sunlight received by plants to carry out photosynthesis.
- Invasive species can out compete native species and reduce biodiversity. Invasive plants can contribute debris and biomolecules (allelopathy) that can

alter soil and chemical compositions of an environment, often reducing native species competitiveness.

- Biomagnification describes a situation where toxins may be pass through trophic levels, becoming exponentially more concentrated in the process.

Ghetto :

A ghetto is a section of a city occupied by a minority group who live there especially because of social, economic, or legal pressure. The word was originally used to refer to the Venetian Ghetto in Venice, Italy, where Jews were required to live. The corresponding German term was *Judengasse.* In Moroccan Arabic, ghettos were called me//ah. The term came into widespread use during World War II to refer to Nazi ghettos.

The term "Ghetto" is now commonly used to refer to any. "Rural ghetto" is used to describe mobile home parks, farm labor housing tracts, and Indian reservations. Urban neighborhoods where Hispanic immigrants settled in the late 20th century (called barrios) are said to be comparable to ghettos, because most immigrants are clustered in culturally isolated enclaves.

Ghettos are formed in three ways :[1]

- As ports of entry where minorities, and especially immigrant minorities, voluntarily choose to live with their own kind.
- When the majority uses compulsion — typically violence, hostility, or legal barriers — to force minorities into particular areas.
- When the majority is willing and able to pay more than the minority to live with its own kind.

"Ghetto" is also used figuratively, in a classist manner, to indicate geographic areas with a concentration of any type of person (e.g. gay ghetto, student ghetto). "Ghetto" is also used in slang as an adjective to describe how city-like or thug-like something is. It can also be a place where the housing is cheap and people can barely live off their paychecks.

Homelessness :

The U.S. Department of Housing and Urban Development (HUD) defines the term "homeless" or "homeless individual or homeless person" as - (1) an individual who lacks a fixed, regular, and adequate nighttime residence; and (2) an individual who has a primary nighttime residence that is: A) supervised publicly or privately operated shelter designed to provide temporary living accommodations (including welfare hotels, congregate shelters, and transitional housing for the mentally ill); B) an institution that provides a temporary residence for individuals intended to be institutionalized; or C) a public or private place not designed for, or ordinarily used

as, a regular sleeping accommodations for human beings, *in different languages, the term for homelessness reveals the cultural and societal perception and classification of a homeless person:*

- *Britain : "rough sleeper" (person who sleeps "in the rough" i.e. outdoors)*
- *Spanish :* "persona *sin hogaf', (person without q* home], "sfn fecho" or "sfntecho" *(person without roof above)*
- *French : "sans domicile fixe"* (SDF, *without* a *fixed domicile)*
- German : "obdachlos" *(without a shelter)*
- *Italian : "senzatetto" (without a roof)*
- *Swedish : "uteliggare" (someone lying outside),* "fod/s"/"todare", *luffare.*
- *Portuguese:* "sem-abrigo" *(without a shelter) or* "sem-fefo" *(without a roof)*
- *Polish, Russian, Slovene:* "bezdomny", *"6e3AOMHbiti", or in more frequent use,* "6oMx", *standing for without fixed place of living (6e3 onpAeAennoro Mecro* "brezdomec" *respectively (without a house)*

Voluntary homelessness

A small number of homeless people choose to be homeless, living as nomads. "Nomadism has been a way of life in many cultures for thousands of years" either due to the "...seasonal availability of plants and animals" or by "their ability to trade." A 2001 study on homelessness issues in Europe noted that "Urban transience [e.g., homelessness] is different from nomadism/rootlessness or travelling.." in that nomads and Gypsy travellers in caravans have "planned mobility" rather than forced mobility.!7^ In Britain, most nomadic people are Roma (or Gypsy) people, Irish travellers, Kale from North Wales, and Scottish travellers. Many of these people"... continue to maintain a semi-nomadic lifestyle and live in caravans"; however, "others have chosen to settle more permanently in houses." [8JSome European countries have developed policies that acknowledge the unique nomadic (or "travelling") life of Gypsy people'9!!^]; similar work has also been done by the Australian government, regarding the subgroup of Aborigine people who are nomadic. In large Japanese cities such as Toyko, the "many manifestations of urban nomadism" include day laborers and subculture groups t] ^ (e.g., street punks).

Assistance and resources available to the homeless :

Refuges for the homeless

There are many places where a homeless person might seek refuge.

- **Outdoors:** In a sleeping bag, tent, or improvised shelter, such as a large cardboard box, in a park or vacant lot.
- **Hobo jungles:** Ad hoc campsites of improvised shelters and shacks, usually near rail yards.

- **Derelict structures:** abandoned or condemned buildings, abandoned cars, and beached boats
- **Vehicles:** cars or trucks are used as a temporary living refuge, for example those recently evicted from a home. Some people live in vans, covered pick-up trucks, station wagons, or hatchbacks.
- **Public places:** parks, bus or train stations, airports, public transportation vehicles (by continual riding), hospital lobbies, college campuses, and 24-hour businesses such as coffee shops. Public places generally use security guards or police to prevent people from loitering or sleeping at these locations for a variety of reasons, including image, safety, and comfort.
- **Homeless shelters** ranging from official city-run shelter facilities to emergency cold-weather shelters opened by churches or community agencies, which may consist of cots in a heated warehouse, or temporary Christmas Shelters.
- **Inexpensive Boarding houses** called flophouses offer cheap, low-quality temporary lodging.
- **Residential hostels,** where a bed as opposed to an entire room can be rented cheaply in a dorm-like environment.
- **Inexpensive Motels** also offer cheap, low-quality temporary lodging. However, some who can afford housing live in a motel by choice. For example, David and Jean Davidson spent 22 years at a UK Travelodge
- **24-hour Internet cafes** are now used by over 5,000 Japanese "Net cafe refugees". An estimated 75% of Japan's 3,200 all-night internet cafes cater to regular overnight guests, who in some cases have become their main source of income.
- **Friends or family:** Temporarily sleeping in dwellings of friends or family members ("couch surfing"). Couch surfers may be harder to recognize than street homeless people

Health care for the homeless

Health care for the homeless is a major public health challenge. Homeless people are more likely to suffer injuries and medical problems from their lifestyle on the street, which includes poor nutrition, substance abuse, exposure to the severe elements of weather, and a higher exposure to violence (robberies, beatings, and so on). Yet at the same time, they have little access to public medical services or clinics, in many cases because they lack health insuranceor identification documents. I24i Free-care clinics, especially for the homeless do exist in major cities, but they are usually overburdened with patients.

The conditions affecting the homeless are somewhat specialized and has opened

a new area of medicine catering to this population. Skin diseases and conditions abound, because homeless people are exposed to extreme cold in the winter and they have little access to bathing. Homeless people also have much more severe dental problems than the general population. Specialized medical textbooks have been written to address this for providers.!26!

There are many organizations providing free care al! over the world for the homeless, but the services are in great demand given the limited number of medical practitioners helping. For example, it might take months to get a minimal dental appointment in a free-care clinic. Communicable diseases are of great concern. especially tuberculosis, which spreads in the crowded homeless shelters in high density urban settings.

Income sources

Many non-profit organizations such as Goodwill Industries maintain a mission to "provide skill development and work opportunities to people with barriers to employment", though most of these organizations are not primarily geared toward homeless individuals. Many cities also have street newspapers or magazines: publications designed to provide employment opportunity to homeless people or others in need by street sale.

While some homeless have paying jobs, some must seek other methods to make money. Begging or panhandling is one option, but is becoming increasingly illegal in many cities. Despite the stereotype, not all homeless people panhandle, and not all panhandlers are homeless. Another option is busking: performing tricks, playing music, drawing on the sidewalk, or offering some other form of entertainment in exchange for donations. In cities where pharmaceutical companies still collect paid blood plasma, homeless people may generate income through frequent visits to these centers.

Homeless people have been known to commit crimes just to be sent to jail or prison for food and shelter. In police slang, this is called "three hots and a cot" referring to the three hot daily meals and a cot to sleep on given to prisoners. Similarly a homeless person may approach a hospital's emergency department and fake a physical or mental illness in order to receive food and shelter

Main causes of homelessness

The major reasons and causes for homelessness as documented by many reports and studies include:

- Lack of affordable housing
- Substance abuse and lack of needed services
- Mental illness and lack of needed services

- Domestic violence
- Poverty, caused by many factors
- Prison release and re-entry into society
- Lack of affordable healthcare
- Natural Disaster

Other major causes

- Adjusting from forces to civilian life
- fleeing care
- asylum seekers

The high cost of housing is a by-product of the general distribution of wealth and income. The rate of homelessness has also been impacted by the reduction of household size witnessed in the last half of the 20th century.

Individuals who are incapable of maintaining employment and managing their lives effectively due to prolonged and severe drug and/or alcohol abuse make up a substantial percentage of the U.S. homeless population.f30! The link between substance abuse and homelessness is partially caused by the fact that the behavioral patterns associated with addiction can alienate an addicted individual's family and friends who could otherwise provide a safety net against homelessness during difficult economic times.

increased wealth and income inequality have caused distortions in the housing market that push rent burdens higher, thereby decreasing the availability of affordable housing.

There is an initiative in the United States, to help the homeless get re-integrated into society, and out of homeless shelters, called "Housing First". It was initiated by the federal government's Interagency Council on Homelessness. It asks cities to come up with a plan to end chronic homelessness. In this direction, there is the belief that if homeless people are given independent housing to start off with, with some proper social supports, then there would be no need for emergency homeless shelters, which it considers a good outcome. This is a very controversial position.P'l

In Boston, Massachusetts, in September 2007, an outreach to the homeless was initiated in the Boston Common, after some arrests and shootings, and in anticipation of the cold winter ahead. This outreach targets homeless people who would normally spend their sleeping time on the Boston Common, and tries to get them into housing, trying to skip the step of an emergency shelter. Applications for Boston Housing Authority were being handed out and filled out and submitted. This is an attempt to enact by outreach the Housing First initiative, federally mandated. Boston's Mayor, Thomas Menino, was quoted as saying 'The solution to homelessness is permanent

housing". Still, this is a very controversial strategy, especially if the people are not able to sustain a house with proper community, health, substance counseling, and mental health supportive programs. Most researchers attempt to make a distinction between: 1) why homelessness exists, in general, and 2) who is at-risk of homelessness, in specific. Homelessness has always existed since urbanization and industrialization.

Factors placing an individual at high-risk of homelessness include:

- **Poverty :** People living in poverty are at a higher risk of becoming homeless.
- **Drug or alcohol addiction :** It is common for homeless to suffer from a substance abuse problem. [Debate exists about whether drug use is a cause or consequence of homelessness. However, regardless when it arises, an untreated addiction "makes moving beyond homelessness extremely difficult."!35! Substance abuse is quite prevalent in the homeless population.P6l
- **Serious Mental Illness and Disability :** It has been estimated that approximately one-third of all adult homeless persons have some form of mental illness and/or disability. In previous eras, these individuals were institutionalized in state mental hospitals. According to the National Alliance for the Mentally III (NAM1), there were 50,000 mentally ill homeless people in California alone because of deinstitutionalization between 1957 and 1988 and a lack of adequate local service systems.!37^ Various assertive outreach approaches, including a mental health treatment approach known as Assertive Community Treatment and the Path Program, have shown promise in the prevention of homelessness among people with serious mental illness.psh^jbq]
- **Foster Care background :** This population experienced rates of homelessness nearly 8 times higher than the non-foster care population.
- **Escaping domestic abuse :** including sexual, physical and mental abuse: Victims who flee from abuse often find themselves without a home. Abused children also have a higher chance of succumbing to a drug addiction, which contributes to difficulties in establishing a residence. t4]i In 1990 a study found that half of homeless women and children were fleeing abuse.I42i
- **Prison discharge :** Often the formerly incarcerated are socially isolated from friends and family and have few resources. Employment is often difficult for those with a criminal record. Untreated substance abuse and mental illness also may put them at high risk for homelessness once discharged.!43!
- **Civilian during war :** Civilians during war or any armed conflict are also are at a higher risk for homelessness, because of possible military attacks on their property, and even after the war rebuilding their homes is often costly, and most commonly the government is overthrown or defeated which is then unable to help its citzens/

Urban decay:

Urban decay is a process by which a city, or a part of a city, falls into a state of disrepair. It is characterized by depopulation, property abandonment, high unemployment, fragmented families, political disenfranchisement, crime, and desolate and unfriendly urban landscapes.

Urban decay was associated with Western cities, especially North America and parts of Europe during the 1970s and 1980s. During this time period major changes in global economies, transportation, and government policies created conditions that fostered urban decayci.

The effects of urban decay run counter to the development patterns found in most cities in Europe and countries outside of North America, where slums are usually located on the outskirts of major metropolitan areas while the city center and inner city retain high real estate values and a steady or increasing population. !n contrast, North American cities often experienced an outflux of population to city suburbs or exurbs, as in the case of white flight.

There is no single cause of urban decay, though it may be triggered by a combination of interrelated factors, including urban planning decisions, the development of freeways, suburbanisation, redlining!4!, immigration restrictionsand racial discrimination.

Shanty towns :

Shanty towns (also called squatter camps, barrios, or favelas) are illegal or unauthorized settlements of impoverished people who live in improvised dwellings made from scrap plywood, corrugated metal, and sheets of plastic. Shanty towns, which are usually built on the periphery of cities, often do not have proper sanitation, electricity, or telephone services.

Shanty towns are mostly found in developing nations, or partially developed nations with an unequal distribution of wealth. In extreme cases, shanty towns have populations approaching that of a city.

Gentrification :

Gen trifle a tion, or **urban gentrification,** is a phenomenon in which low-cost, physically deteriorated neighborhoods undergo physical renovation and an increase in properly values, along with an influx of wealthier residents who may displace the prior residents.

Proponents of gentrification focus on the benefits of urban renewal, such as renewed investment in physically deteriorating locales, improved access to lending capital for low-income mortgage seekers as their property values increase, increased rates of lending to minority and first-time home purchasers to invest in the now-appreciating area and improved physical conditions for renters. Often initiated by private capital,

gentrification has been linked to reductions in crime rates, increased property values, increased tolerance of sexual minoritiesand renewed community activism.

Critics of gentrification often cite the human cost to the neighborhood's lower-income residents when debating the topic. They expound that the increases in rent often spark the dispersal of communities whose members find that housing in the area is no longer affordable. Additionally, the increase in property taxes may sometimes force or give incentive for homeowners to sell their homes and seek refuge in less expensive neighborhoods. While those who view gentrification as a positive phenomenon praise its effect on neighborhood's crime rates, those with different paradigms believe that the crime has not truly been reduced, but merely shifted to different lower-income neighborhoods.

4.5 Questions

1. Define towns on the basis of their physical, social and functional characteristics. What do mean by ecology of cities ?
2. Discuss two methods used in identifying social areas of cities.
3. Bring out the characteristic features and problems of the inner city.
4. What do you mean by urban decay ? How is it reflected over urban space.

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মানুষের জ্ঞান ও ভাবকে বইয়ের মধ্যে সঞ্চিত করিবার যে একটা প্রচুর সুবিধা আছে, সে কথা কেহই অস্বীকার করিতে পারে না। কিন্তু সেই সুবিধার দ্বারা মনের স্বাভাবিক শক্তিকে একেবারে আচ্ছন্ন করিয়া ফেলিলে বুদ্ধিকে বাবু করিয়া তোলা হয়।

— রবীন্দ্রনাথ ঠাকুর

ভারতের একটা mission আছে, একটা গৌরবময় ভবিষ্যৎ আছে, সেই ভবিষ্যৎ ভারতের উত্তরাধিকারী আমরাই। নূতন ভারতের মুক্তির ইতিহাস আমরাই রচনা করছি এবং করব। এই বিশ্বাস আছে বলেই আমরা সব দুঃখ কষ্ট সহ্য করতে পারি, অন্ধকারময় বর্তমানকে অগ্রাহ্য করতে পারি, বাস্তবের নিষ্ঠুর সত্যগুলি আদর্শের কঠিন আঘাতে ধূলিসাৎ করতে পারি।

— সুভাষচন্দ্র বসু

Any system of education which ignores Indian conditions, requirements, history and sociology is too unscientific to commend itself to any rational support.

— Subhas Chandra Bose

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