

Unit IV:

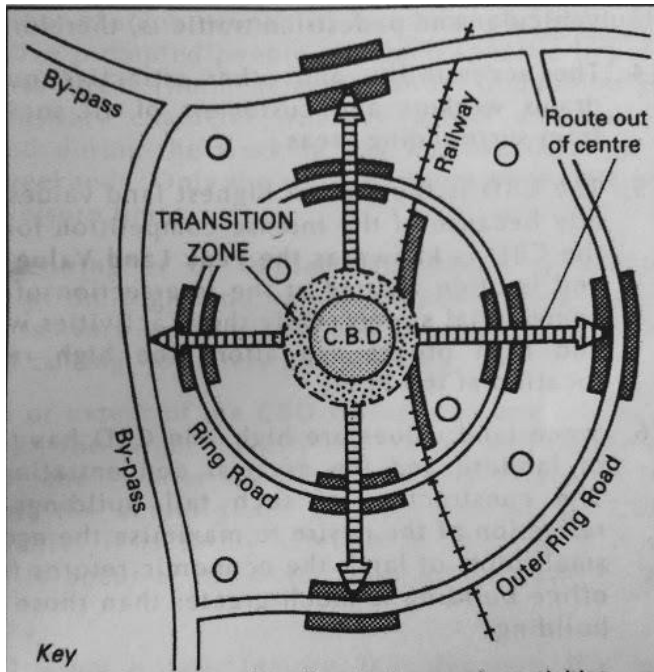
CBD: Function and characteristics – Urban Morphology – Classical Models - Burgess, Homer Hoyt, Harris and Ullman – Rural Urban Fringe.

**CBD: Function and characteristics:**

The Central Business District or the CBD is the nucleus of the entire urban area and acts as a focus of the city's commercial, social and civic life.

Its major characteristics are:

1. It is an area where the retailing of goods and services and the performance of various office activities is completely dominant.
2. It is the most accessible zone within the urban area. Transport routes converge here or radiate outwards from the CBD in all directions. This attracts a large number of vehicular and pedestrian traffic.
3. The CBD is also the area of the highest land value within the city because of the intense competition for the site. The centre of the CBD is known as Peak Land Value Intersection (PLVI) and is often located at the intersection of two or more commercial streets.
4. Since land values are high, it has the highest intensity of land use and the greatest concentration of tall buildings.
5. The high land values also ensure that the buildings are not only tall but also multifunctional. Ground floors are usually shops while higher floors are rented by professional and office workers.
6. The CBD is the area with the greatest pressure for the modernisation and redevelopment of buildings and therefore, demolition and rebuilding are continuous activities here.
7. Residential population is absent due to high land values and rents.
8. Manufacturing is of limited importance within the CBD because of high land values and most of the activities are from the service sector.
9. The larger the city, the larger is the extent of the CBD generally.



Thus, the Central Business District is a dynamic location of high rent and the centre of major service activities in the city.

Urban Morphology:

- The **places or location** of *colonies, hospitals, industries, market, schools, & parks* in urban areas
- The **arrangement** of *colonies, parks, manufacturing hub, market, etc*
- The **social & economic functions** are the *deciding factor* for **internal structure & the land use** of urban areas.

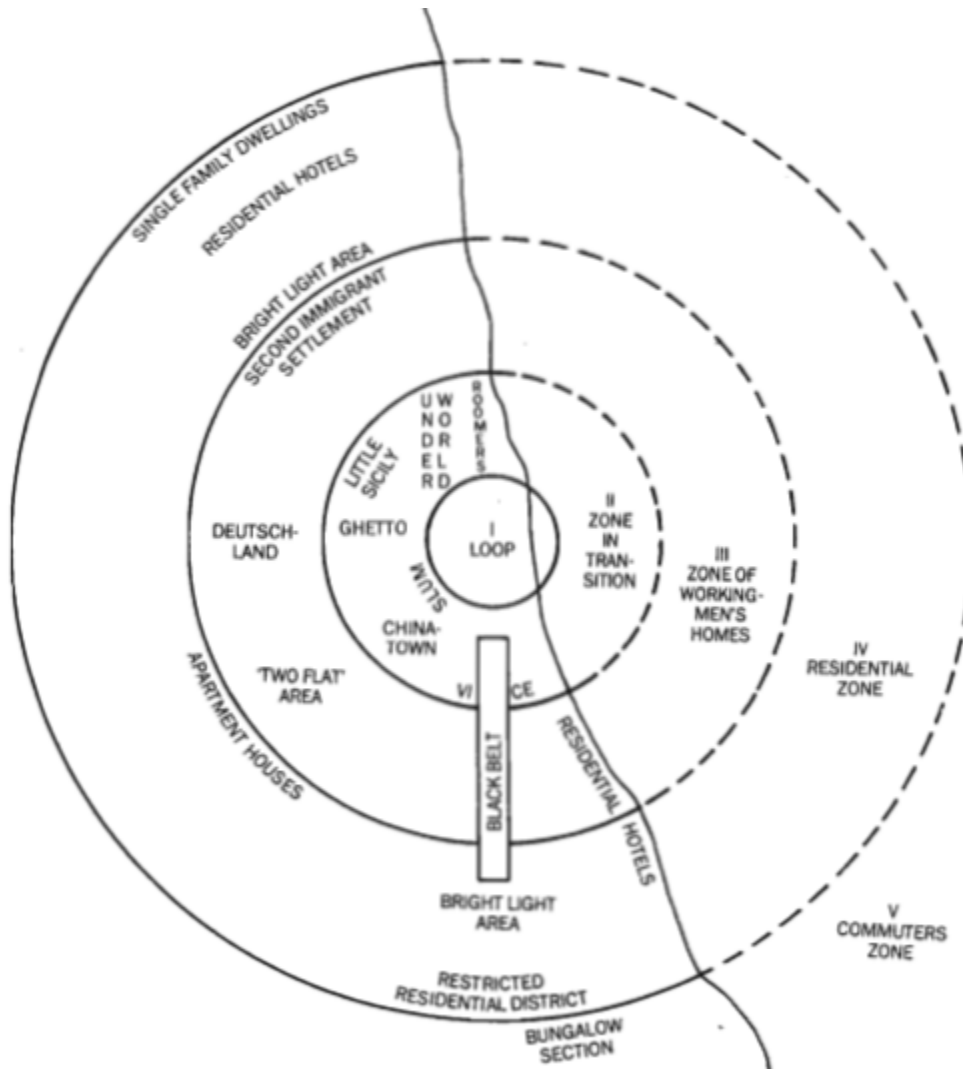
The following are the social & economic functions:

- Social Functions: Lifestyle, prayer area, parks, entertainment facilities, etc
- Economic functions: Industries, education, hospital, market, etc

### **Burgess's Concentric Zone Model**

The Burgess Model was developed by Ernest Burgess in 1925. He identified a series of concentric rings coming out from the centre of the city which correspond to different types of

land use. In the centre was the Central Business District; followed by an inner city area known as the transition zone, with light manufacturing; then a series of residential zones gradually becoming wealthier towards the edge of the city.



- *The Concentric Zone Model, also known as the Burgess Model. Source: [Burgess, 1925](#).*

The model is useful because it shows a heavily simplified version of reality that could be applied to many cities.

The CBD is in the middle because it is the central location, and therefore easiest to get to. This encourages businesses to be located there because they can access the most customers.

- Low class residential (the ‘zone of working-men’s homes’) is near the factory/transition zone because it is an undesirable location (polluted and congested), and because these people must walk or use public transport to get to work in the factories
- People on low incomes cannot afford large houses, so these areas become densely populated; the population density on the outskirts is lower as the house size is larger
- High class residential is around the outside because these people can afford the private transport to get to the city centre quickly and conveniently

However, the model is also criticised for many reasons:

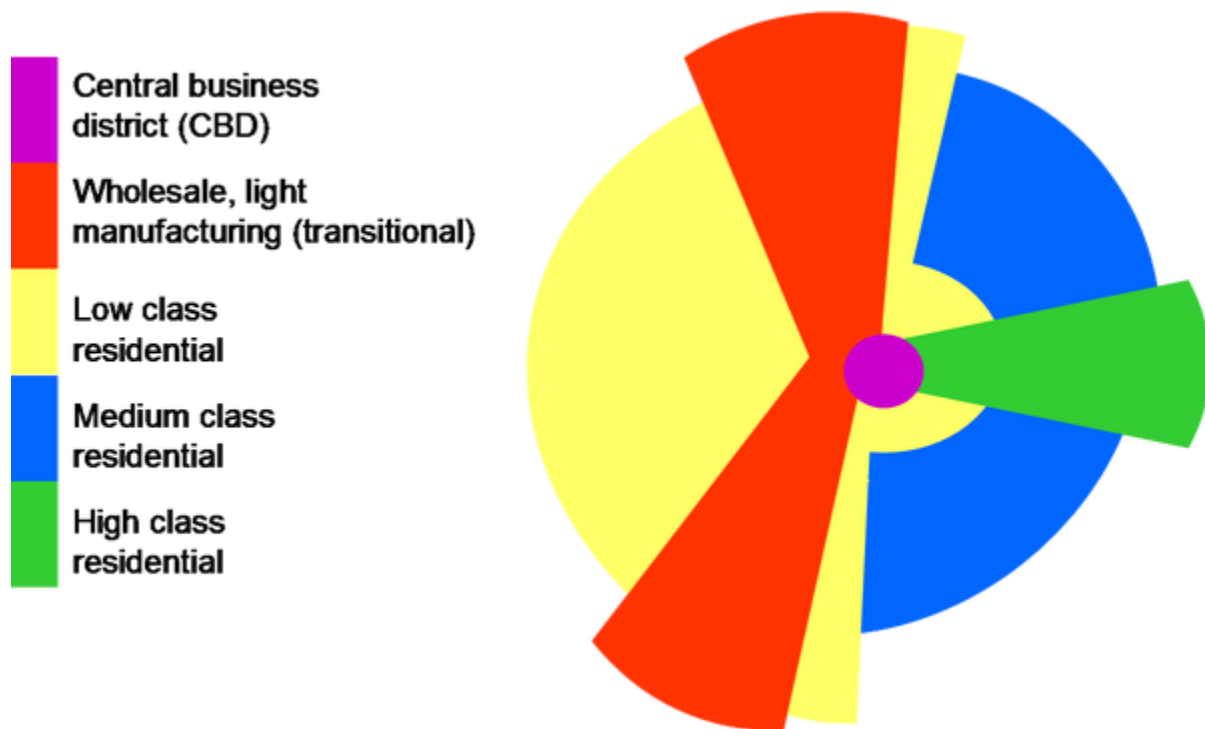
- It is too specific to North American cities; it does not fit more historic cities or those that have recently grown
- At the time of writing this page, the model is over 90 years old! It does not fit the modern age and is “a product of its time” ([Rodrigue, 2018](#)) both in terms of the wording used on the model and the way that the model is organised
- There are many assumptions in the model that mean it doesn’t fit other cities very well

### **Hoyt’s Sector Model**

In 1939 Homer Hoyt published “The Structure and Growth of Residential Neighborhoods in American Cities” in which he developed Burgess’s ideas further. Hoyt studied 142 cities in the United States. He recognised that they were more complex than simple rings of land use, and suggested that industrial land use is linked to transport routes. He also suggested that the location of transport and industry within the city affects the location of residential districts. This results in ‘sectors’ of the city with different land uses.

Hoyt’s model follows on from Burgess’s model in that the CBD remains in the centre of the city because it is the easiest place to access and therefore there are more potential customers for commercial businesses, and the sectors are clearly visible in rings radiating out from the centre. However, there are important differences. The manufacturing zone is found along transport routes – especially railways, but also highways and rivers or canals – that link the city centre to other cities. The low class residential land is found nearby, with the high class residential the

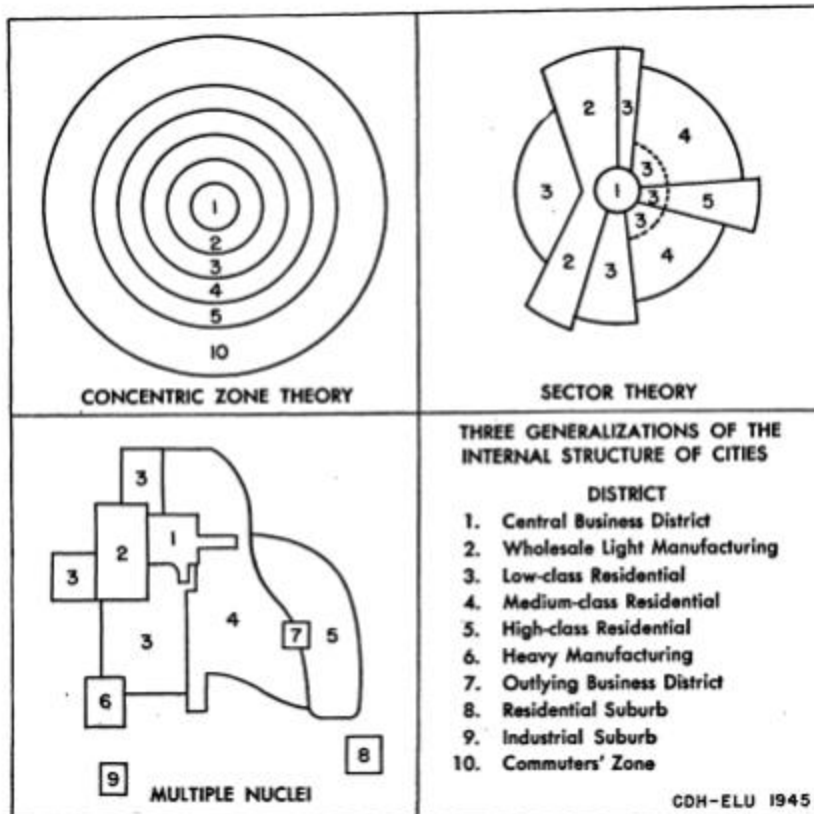
furthest away. The high class residential may also follow transport routes, especially highways, as wealthier people have private cars which they use to get to their jobs in the CBD.



- *Hoyt's Sector Model. Source: [Knights, 2008](#).*

### **Harris and Ullman's Multiple Nuclei Model**

In 1945, Chauncy Harris and Edward Ullman continued the work of Burgess and Hoyt by publishing a new model of the city. This model recognises that as cities grow, they swallow up smaller settlements around the edge. Meanwhile as the city becomes larger, travel between the outskirts and CBD becomes impractical and smaller centres grow throughout the city.



- *Generalisations of internal structure of cities. Harris and Ullman's model is shown at the bottom left. Source: [Harris and Ullman, 1945](#).*

The model has the advantage of being more flexible than the earlier models, as it doesn't have a specific location for each zone. Instead, the zones are recognised as existing nearby to one another but can be in different places depending on the city. It also accounts for the development of the motor car, with the CBD no longer necessarily the easiest place to get to.

Like the other models of the Chicago School, the Multiple Nuclei Model does not recognise several key features of cities that could affect how the model applies to reality ([Planning Tank, 2016](#)):

- High-rise buildings that could affect population density are ignored
- Each zone is homogenous throughout (meaning that there is no variation within each zone)
- Government policies are not considered, e.g. planning laws

- The model is hard to apply to non-Western cities

Even so, it is the balance between the flexibility of the model and its simplicity that makes it still useful today.

## **Rural-Urban fringe:**

### **Definition:**

Rural-Urban fringe is the boundary zone outside the urban area proper where rural and urban land uses intermixed. It is the area where the city meets the countryside. It is an area of transition from agriculture and other rural land use to urban use. Located well within the urban sphere of influence the fringe is characterized by a wide variety of land use including dormitory settlements, housing of middle income commuters who work in the central urban area. Suburbanization takes place at the municipal boundary of rural-urban fringe. Characteristic :A. Land use characteristic :1)There is constantly changing pattern of land use.2)Residential expansion is rapid.3)Farms are small with intensive crop production.4)Service and other public facilities are inadequate.5)Science and business parks development.6)Airport expansion.7)Speculative building is common.

B.Social characteristic :1)Segregation : Rural urban fringe also known as “ Greenfield site “ (undeveloped sites outside the existing built up urban area ) which are favoured by large firms seeking locations for new developments such as headquarters, offices, housing and industrial estates. So there is functional and social segregation of land use.2)Selective Immigration : The rural urban fringe attracts middle class residents who form a small but powerful and economically important proportion of the city population. Service and other public facilities are inadequate in fringe region which lead to immigration.3)Commuting : People living in fringe area commute daily to their place of work. This creates the dual problem of traffic congestion in the city . the city govt. is faced with the task of providing transport service handling peak load.

### **Problems of rural urban fringe :**

#### **Land use problems :**

- 1) The rural urban fringe is often used for dumping garbage and sewage of the city.

- 2) Location of industries emitting noxious gases and generating chemical effluents.
- 3) The fringe is zone of haphazard industrial and residential development.
- 4) The fringe area suffer concentration of landownership , speculation on land and rapidly rising land values.

**Urban amenities and service Problems :**

- 1) urban facilities such as water supply , sewerage etc. are for the most part are not available because the city provides this service only to the place within the municipality limits.
- 2) Outside the municipality limits small town and revenue village lack administrative and financial infrastructure.
- 3) the fringe area served by poor public transport facilities.

**Administrative problems :**

The rural urban fringe is a problem area for administration. The Indian territorial administrative system was designed at the time when the phenomena of rural urban fringe is unknown. When the municipal administration was established in 1860, the city ended abruptly and its boundary over decades were relatively static because of static population between 1872 and 1930.

After independence the city started expanding very rapidly and generated a transition zone with rural and urban characteristic. The gram panchayats are cosmetic substitute for local govt. and they are administratively and financially weak. So fringe area faced many problems.