| URBAN GEOGRAPHY – 18MAG21C |
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| **UNIT – III:** Urban Morphology: Urban land use and types - Internal Structure of cities - Burgess, Homer Hoyt, Harris and Ullman - Social Area Analysis. |

Urban morphology is the study of the formation of human settlements and the process of their formation and transformation.

URBAN LAND USE : Urban land use reflects the location and level of spatial accumulation of activities such as retailing, management, manufacturing, or residence. They generate flows supported by transport systems.

- Commercial Land Use

- Residential Land Use

- Industrial Land Use

- Institutional Land Use

- Recreation Land Use

- Transport Land Use
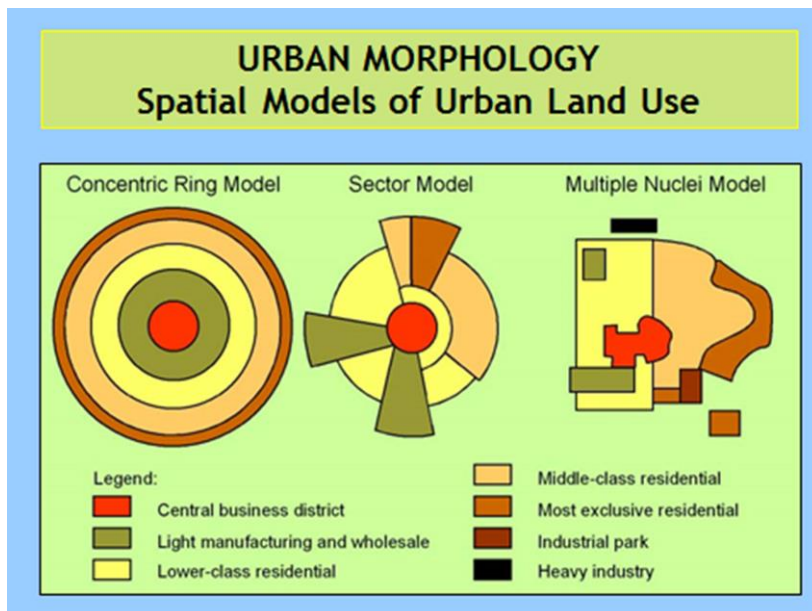
Land use models are theories which attempt to explain the layout of urban areas. A model is used to simplify complex, real world situations and make them easier to explain and understand.

Urban Models of North America

- All urban models contain a Central Business District (CBD)

CONCENTRIC ZONE MODEL:

Geographers have put together models of land use to show how a 'typical' city is laid out. One of the most famous of these is the **Burgess** or **concentric zone model**.

This model is based on the idea that land values are highest in the centre of a town or city. This is because competition is high in the central parts of the settlement. This leads to high-rise, high-density buildings being found near the **Central Business District (CBD)**, with low-density, sparse developments on the edge of the town or city.

- E.W. Burgess - first to explain & predict urban growth
- Chicago, city's land use viewed above as series of concentric rings
- Assumes process called invasion & succession migration - new arrivals to cities move into inner rings nearest CBD
- Invasion/succession creates "zone in transition" just outside CBD that is never developed (Skid Row)
- CBD is premiere land-use ring (Peak Land Value Intersection)
- Bid-Rent Curve = predicts land prices and population density decline as distance from CBD increases
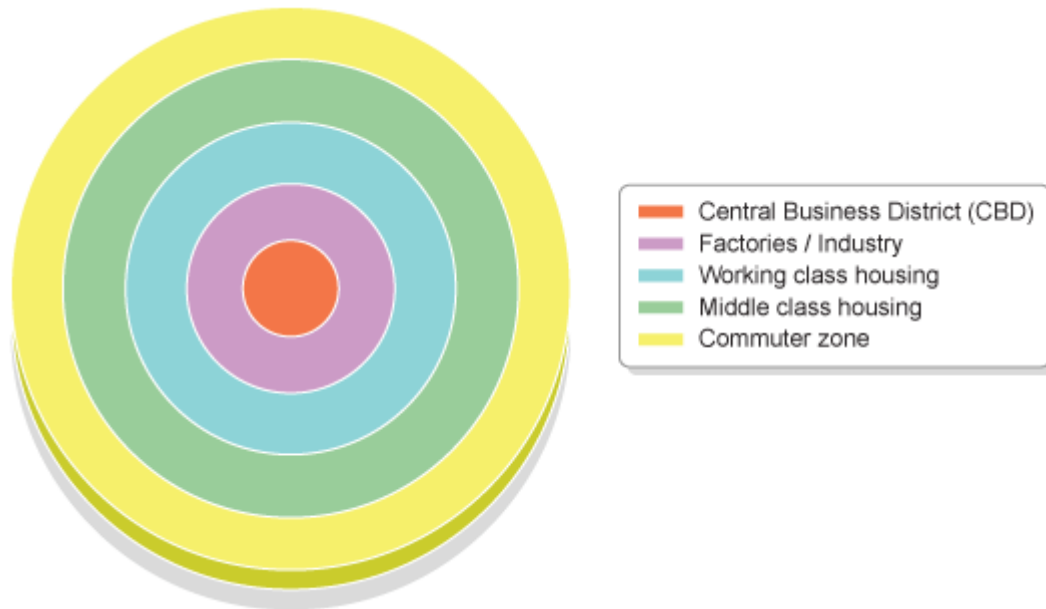
The Burgess model

However, there are limits to the Burgess model:

- The model is now quite old and was developed before the advent of mass car ownership.
- New working and housing trends have emerged since the model was developed. Many people now choose to live and work outside the city on the urban fringe - a phenomenon that is not reflected in the Burgess model.
- Every city is different. There is no such thing as a typical city.

Criticism

- It emphasizes clear cut boundaries which cannot be justified by gradient study: Zonal Boundaries!
- Internal heterogeneity of zones!
- Outdated model
- Lack of universality!
- Distortions!
- Building heights!
- Nevertheless, it remains useful as a first approximation of urban land use and has stimulated many other studies
- Now…..multiple nuclei!
- Different land uses benefit different amounts from accessibility

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SECTOR LAND USE MODEL:

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- Homer Hoyt - urban land use zones of growth based on transportation routes
- Land use & socioeconomic groups are clumped in sectors that go outward from CBD along transportation routes

This is based on the circles on the Burgess model, but adds sectors of similar land uses concentrated in parts of the city. Notice how some zones, eg the factories/industry zone, radiate out from the CBD. This is probably following the line of a main road or a railway.
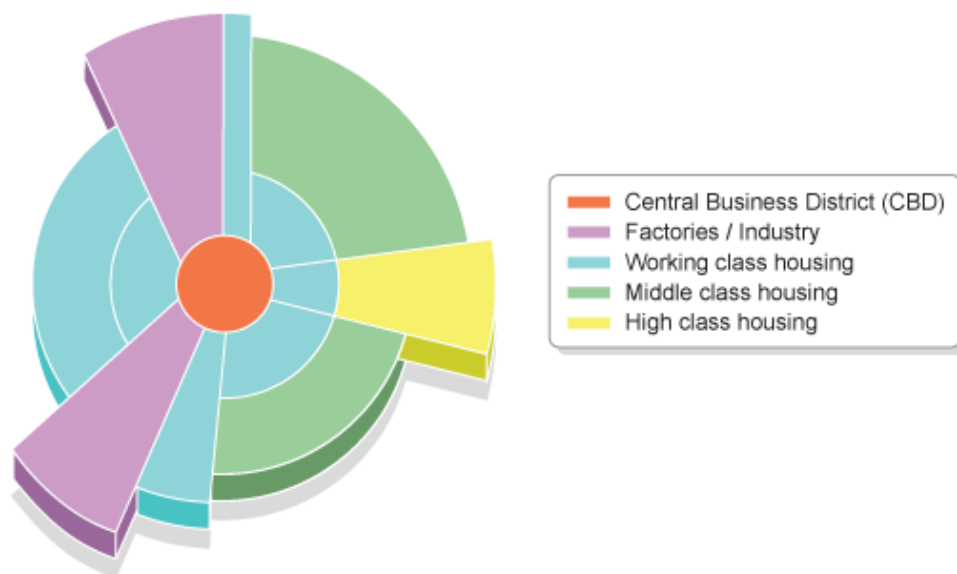

The Hoyt model

Central business district (CBD)

The land in urban areas is used for many different purposes:

- **leisure and recreation** - may include open land, eg parks or built facilities such as sports centres
- **residential** - the building of houses and flats
- **transport** - road and rail networks, stations and airports
- **business and commerce** - the building of offices, shops and banks
- **industry** - factories, warehouses and small production centres

The CBD in the city centre is where most business and commerce is located.
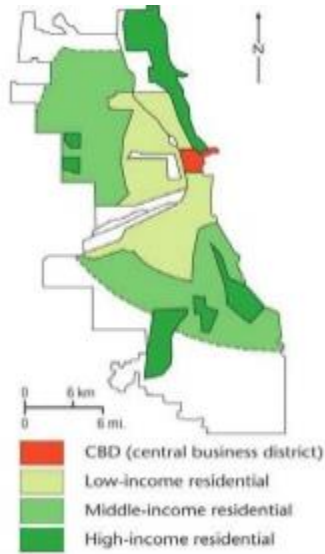
Sectors and zones in a real city (Chicago)

What accounts for the high-income sector north of the CBD?

- CBD (central business district)
- Low-income residential
- Middle-income residential
- High-income residential

Criticism

Hoyt's model is generally considered to be better than the burgess model as both the distance and direction from the city centre are considered.
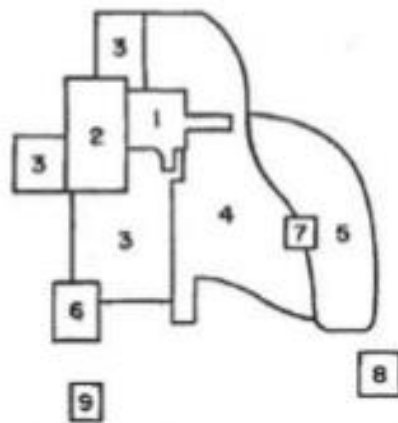
Weakness:
- Narrow focus
- Height of building
- Mixed land use zones
- Modern developments

MULTIPLE-NUCLEI MODEL:

- Chauncy Harris & Edward Ullman - growth occurred independently around several major focal points (airports, universities, highways, ports)
- Land use zones popped up at once in chunks

Multi-Nucleated metropolis
(Harris & Ullman)

1. Central Business District
2. Wholesale Light Manufacturing
3. Low-class Residential
4. Medium-class Residential
5. High-class Residential
6. Heavy Manufacturing
7. Outlying Business District
8. Residential Suburb
9. Industrial Suburb

Harris and Ullman suggested that the zones develop around a number of separate nuclei such as railway stations and industrial complexes.

Why are some industrial regions located in the transition zone and others are at the outskirts of the city? (hint: think of economic utility in conjunction with urban growth)

Advantages:
- Improved transportation
- Hierarchical order of land use
- Functional zones
- Agglomeration
- Suburbanization and decentralization
- Accommodation of irregularities
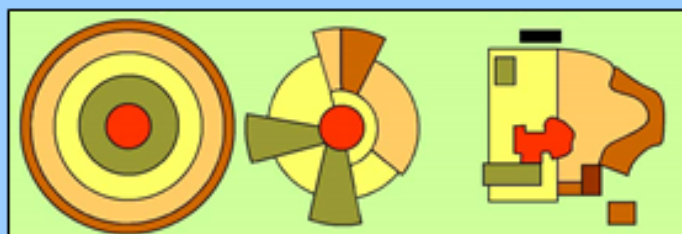- Time dimension
- Flexibility
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Criticism:
- Height of the building
- Rigidity

SOCIAL AREA ANALYSIS

- City residents tend to segregate themselves Groupings according to:
- Family status
- Social status
- Ethnicity

Applicability of classic land use models

Rings, sectors, and multiple nuclei are still seen, but overall pattern is complex

Family status tends to be distributed concentrically

Socioeconomic status tends to be radial

Ethnic status tends to be clustered

- The analysis of a city to define *social areas*—urban areas which contain people of similar living standards, ethnic background, and life-style.
- Three constructs have been used to differentiate urban areas.
- First is social rank. As it changes, the distribution of skills changes from manual to semi-skilled and skilled white collar jobs.
- The second factor is urbanization, which weakens the importance of the family unit as it increases.
- The third is segregation which sees a redistribution of population as it proceeds. Variables are chosen for the three constructs: for example, occupation, education, and

rent for social rank; fertility and number of working women for urbanization; and isolation of racial groups for segregation.

- These variables are then combined to form categories for residential areas, such as low social rank, high urbanization, and high segregation.
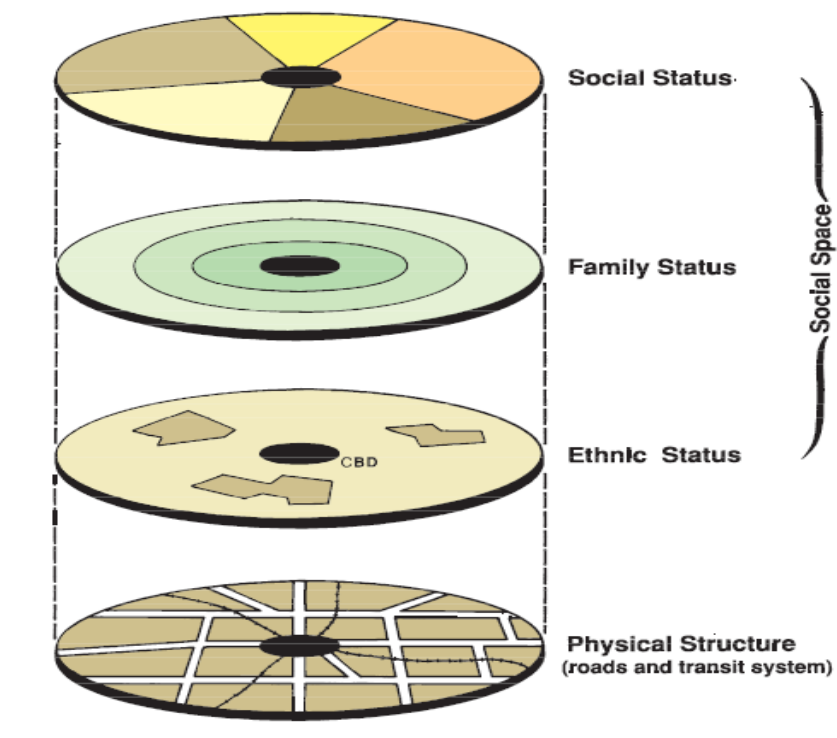
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