

## Multiple Nuclei Model

The multiple nuclei model is also known as the Harris and Ullman model after its creators, geographers Chauncy Harris and Edward Ullman. They developed this model to counter the concentric zone and the sector models.

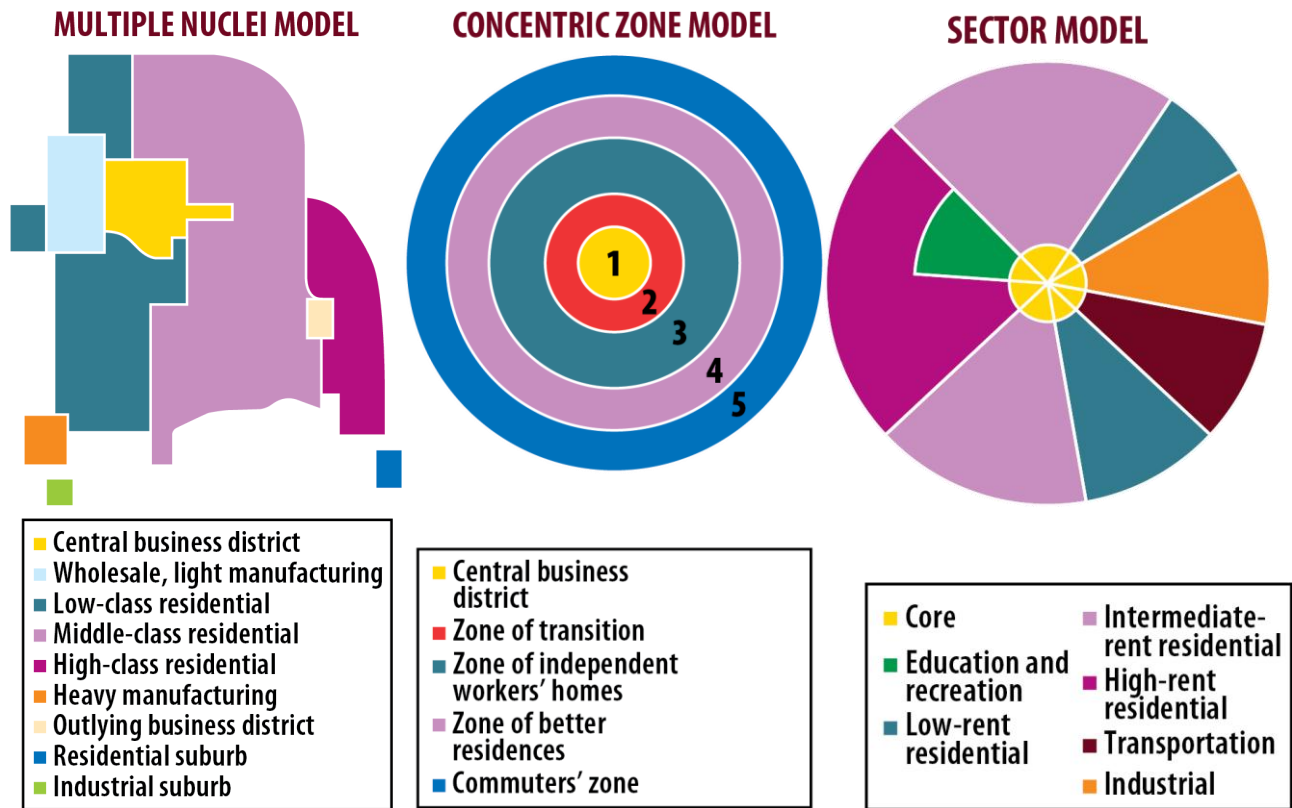
The multiple nuclei model is based on the idea that cities grow organically, and not in set sectors or concentric zones. Cities often have multiple nodes from which housing, manufacturing, and other regions extend. While still featuring a central business district (CBD), you can see that not all zones connect to or extend directly from that district. In some ways, this model is similar to the concentric zone or sector models in that the lower-class residential is nearest and the high-class residential areas are furthest from the CBD.

### MULTIPLE NUCLEI MODEL



- Central business district
- Wholesale, light manufacturing
- Low-class residential
- Middle-class residential
- High-class residential
- Heavy manufacturing
- Outlying business district
- Residential suburb
- Industrial suburb

## Multiple Nuclei Model Worksheet



1. The theory behind the multiple nuclei model includes each of the following EXCEPT

- A. that development of methods of transport affects and is effected by patterns of urban land use
- B. that cities spread peripherally from several nodes of growth, not just one
- C. that cities are complex structures containing more than one center of activity
- D. that high land costs push housing to the edges of the city
- E. that certain activities have specific locational requirements

2. Compared to the concentric zone and sector models, the multiple nuclei model

- A. discounts land use incompatibility
- B. represents a more organic level of urban development
- C. represents a lack of overall city planning
- D. does not include a central business district
- E. does not represent fragmentation of urban areas

3. According to the multiple nuclei model, the nodal regions

- A. are bound by land use compatibility and location suitability
- B. develop organically in a circular fashion
- C. each border the central business district in some fashion
- D. are each proportional to the other zones shown on the model
- E. do not include an industrial area