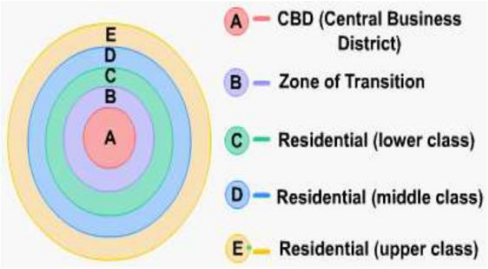
STATION 1

CONCENTRIC ZONE MODEL 1



Concentric Zone Theory

- Burgess (1925)
- 1st model to explain and predict urban growth
- All other urban models are built on this model
- Model suggests that a city's land use can be viewed from above as a series of concentric rings
- Cities grow outward from the centre in a series of rings
- As the city grows and expands, new rings are added and older rings change their function
- Size and shape of rings vary per city

Burgess Concentric Zone Theory

• Timeframe

- 1920's
- Class conscious society
- Housing segregated according to income
- Lack of transport infrastructure

• Assumptions

- Older buildings in city centre
- Newer buildings at edge of city
- Land values highest in city centre
- Strong economic and ethnic segregation
- Low income groups lack transport and live close to city centre
- Cities develop on a flat plain with equal access to transport

The Five Zones - Burgess Model

- 1) Central Business District-non residential activities
- 2) Transition and Industry
  - Low incomes
  - Oldest housing
  - Ghettos
  - Immigrants often live here
- 3) Low Income Residential
  - Stable working class
  - Modest older homes
- 4) Middle Income Residential
  - suburban estates- good quality homes - gardens
- 5) High Income Residential/ Commuter
  - Small towns and villages

Burgess Concentric Zone Theory

- Model assumes a process sometimes called invasion and succession (or succession migration)
- Definition:
  - New arrivals to cities first tend to move to the inner rings near the CBD
  - This pushes the people and economic activities already present out into further rings
- This constant pattern can lead to a ring known as the zone in transition
  - Zone outside CBD--never really developed
  - Developers know that it will be constantly caught in shift
  - Sometimes called “skid-row”

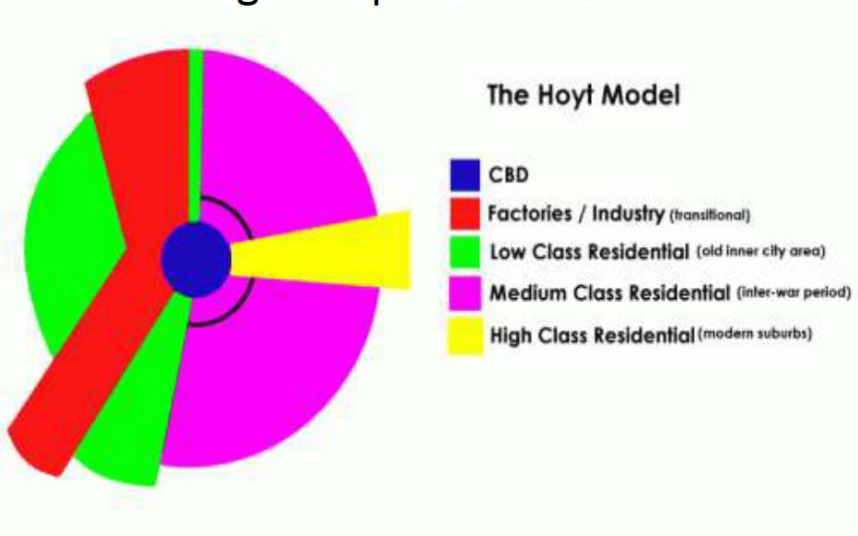
What are some of the problems with the Burgess model?

- Old
- Doesn't consider car ownership
- Landscape not considered
- Impact that industry and transport could have on land use not considered
- Zones are never as clear-cut

HOYT SECTOR MODEL

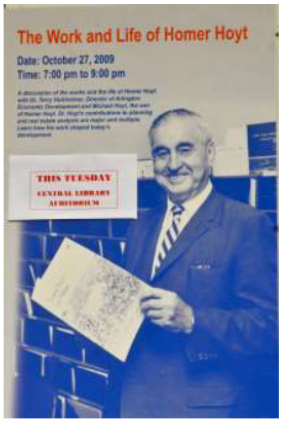
STATION 2

1939-Sectors radiating out from the CBD along transport routes



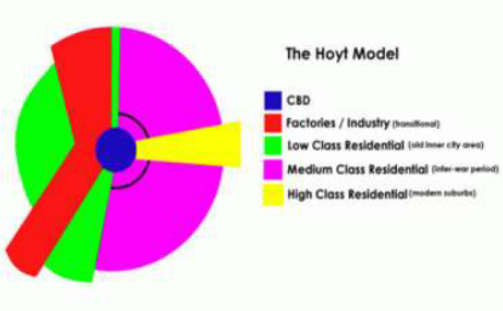
Homer Hoyt (1895-1984

- Land economist, a real estate appraiser, and a real estate consultant
- Conducted path-breaking research on land economics
- Major figure in the development of suburban shopping centers in the decades after World War II
- His sector model of land use remains one of his most well-known contributions to urban scholarship



Hoyt's Sector Theory

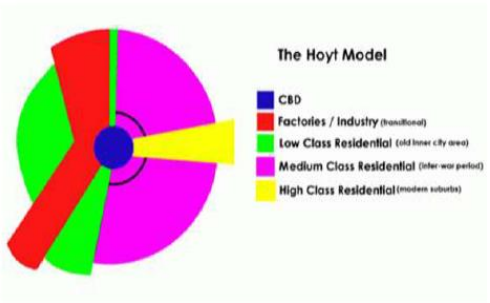
- **Timeframe**
  - Late 1930's
  - Income and status divided society
  - Housing areas reflect social segregation



- **Assumptions**
  - Settlement develops along transport routes
  - Towns radiate out from the CBD
  - Low-income and industrial areas lie next to each other
  - Wealthy people choose the best sites

Criticisms of Hoyt's Theory

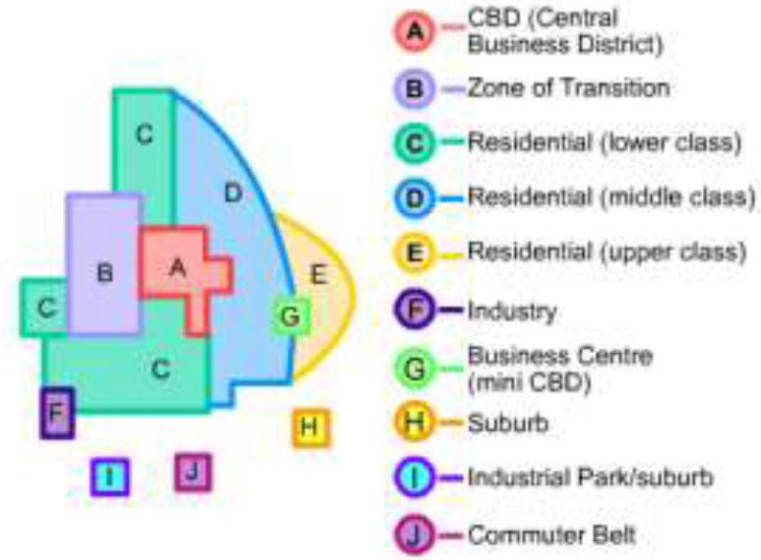
- Old
- Too general
- In reality, most zones contain more than one land-use
- Doesn't consider the impact of urban renewal schemes



MULTIPLE NUCLEI MODEL

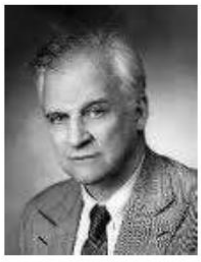
STATION 3

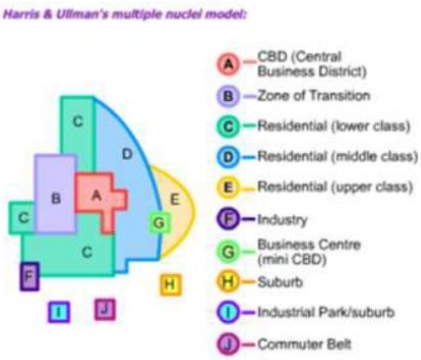
Harris & Ullman's multiple nuclei model:



Harris and Ullman's Multiple Nuclei Theory

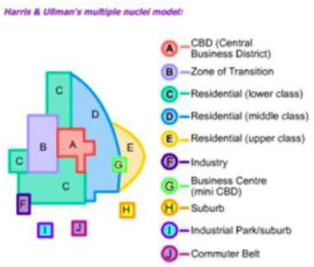
- 1945
- Premise: as an urban area grows, it develops around a number of different business centers or nuclei.





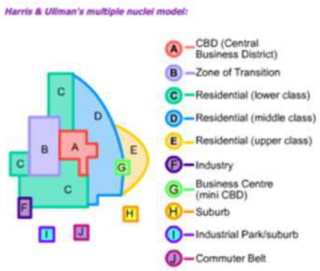
Multiple Nuclei Theory

- Assumptions
  - Modern cities more complex than suggested by other theorists
  - Each nucleus acts as a growth point
  - Growth occurs outward from each nucleus, until they all merge into one large urban area



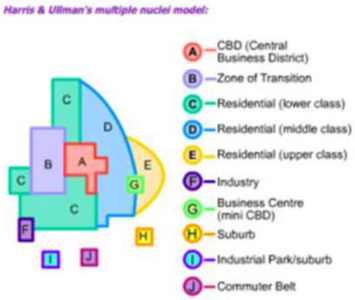
Multiple Nuclei Theory

- Mixture of Burgess and Hoyt
- Shows some land-uses attract more of the same, for example industrial areas
- Some land-uses may deter others from locating nearby, e.g.; housing is usually located away from industrial areas

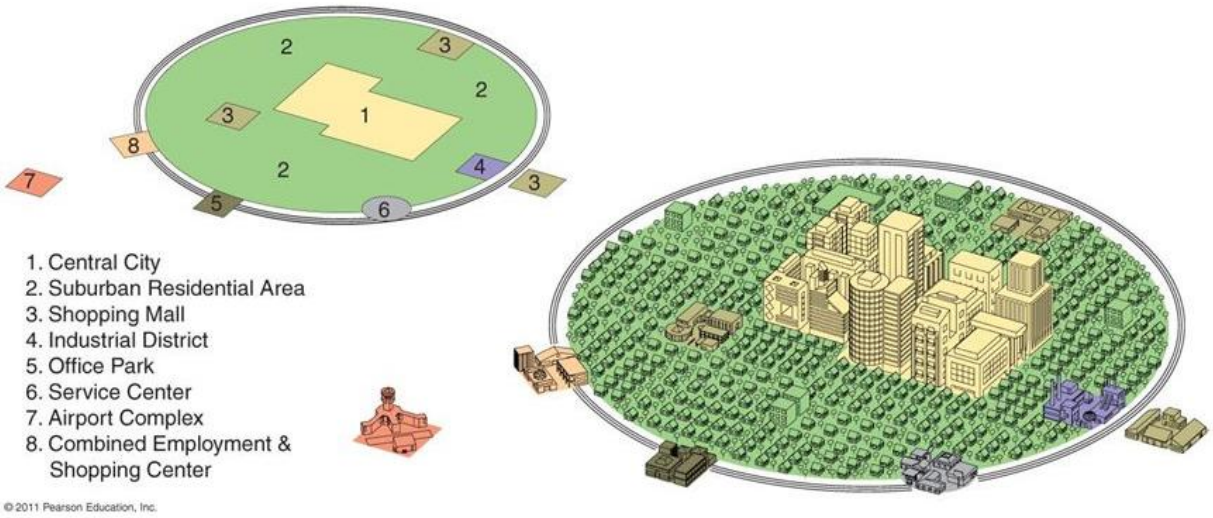


Criticisms of Multiple Nuclei Theory

- Not an exact fit for all cities and towns
- Too complex



STATION 4 – Galactic (Peripheral) Model



Galactic City (Peripheral) Model

Night-time skyline shot of glowing city that is Detroit. [Image Source: Wikimedia Commons]
The galactic city model is also known as the peripheral model. The model is based on the city of Detroit, Michigan and is made up of an inner city, with large suburban residential and business areas surrounding it. These areas are tied together by transportation nodes, like beltways, to avoid traffic congestion. This model takes the Harris and Ullman's multiple nuclei model one step further. It accounts for the fact that the classic CBD is no longer dominant, but is instead upstaged by several specialized suburban areas. In the galactic city model, the urban area is decentralized and more focus is placed on edge cities.

The galactic city model depicts a city taken over by lives dominated by the car and has been affected by a quickly growing suburb. Models developed in the 1920s and 30's assumed a lone urban center, which may have been a reliable assumption for much of urban history up to that point, but developments in transportation made these models less realistic by the by the 1950s. Cities would now be built at auto-scale, with parking lots around stores and office complexes. These suburban areas would spread out and single-use zones would separate one another.

Nodes of the Galactic City Model

Central Business District (CBD)

In the middle of the galactic city model is the CBD, as it is in classic urban land use models. However, in the galactic city model, the CBD is very decentralized and somewhat empty due to the move from urban to suburban areas. The galactic city model shows the evolution of the post-industrial city and its movement away from the large central city CBD.

Light Industrial Park

As mentioned above, this model represents a clear-cut decentralization of the commercial urban landscape as the economy transitions to services as the leading form of production. Manufacturing has not disappeared, it

has just decreased significantly and has become more specialized. Local governments often subsidized these industries to offset costs and increase job opportunities.

This change in focus means that new facilities are built in specially designed suburban industrial parks and can be smaller and operate on lower-cost land, called greenfield sites. These sites have ample land, parking areas, and access to highways.

Office Parks (Research and Development Parks and Service Organizations

Office parks are located on the beltway because it is easier to get there by car and is closer to the suburbs and not many people drive into the CBD to work. Also, there are the combined employment and shopping centers; this is where both offices and shopping malls are located.

Other types of service organizations are found in the suburban CBDs. A few examples, including those transportation services, biotechnology, medical centers, telecommunications and call centers, banking and finance, government centers, and academic institutions.

Retail Centers and Malls

You will find suburban retail centers in several areas around the city. They are often located at the intersection of the beltway and the artery leading from the old CBD. Large shopping malls are also located outside the CBD and are typically spread out in the suburbs where the people live. Entertainment businesses and other services have also migrated to the suburbs from the central CBD. These companies concentrate in edge cities which are located at highway junctions.

High Technology and Computing

Another trend in the development of office facilities in the suburbs is the growth of suburban corporate campuses. The 1980s saw the rapid growth of office space in the suburbs, rather than in the city. Many of those start-ups were the iconic high-tech corporations of today, like Apple, Google, and Microsoft. All of these companies have their headquarters in the suburbs.

Conclusion

Urban land use models were developed to explain different types of cities, their neighborhoods, and how they functioned. But the modern metropolis has shed the confines of its old central-city in the second half of the 20th century. These models are longer capable of keeping up with a new reality where the suburbs are the heart and soul of the American urban landscape.

The galactic city model provides a good representation of the land-use organization of today's using edge cities and decentralized specialty areas to illustrate how the urban land is used. The CBD is no longer at the center of the action, but several specialized business areas have evolved to support the outskirts of the city.

As we have discussed in this study guide, the models have changed over time. Both the cities themselves have changed, as well as how geographers have looked at cities and their urban patterns. As you go from the concentric zone model to the galactic city model, think of the growth of the city as an evolutionary process on your way to understanding the changing urban landscape.

The South American City - creator: Griffin Ford (STATION 5)

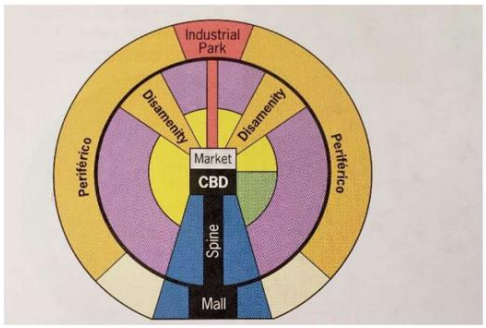
SOUTH AMERICAN (GRIFFIN FORD)

History of Model

A of blend traditional South American culture with the forces of globalization

Description of Model

CBD Center – then a commercial spine (includes offices, shopping, restaurants, etc.) that ends at high end residences



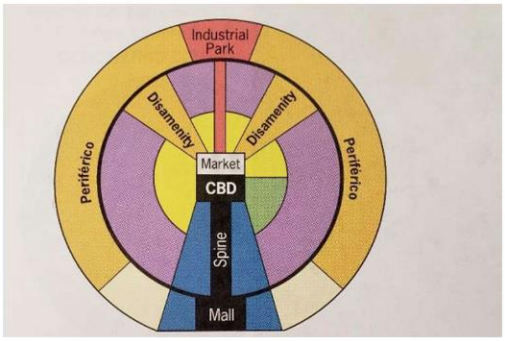
SOUTH AMERICAN (GRIFFIN FORD)

PROS

Strong CBD that extends to the cities edge through the commercial spine

CONS

Shows poor quality of living



In 1980, geographers Ernst Griffin and Larry Ford studied South American cities and derived a model of the South American city referred to as the **Griffin-Ford model**. Griffin and Ford found that South American cities blend traditional elements of South American culture with the forces of globalization that are reshaping the urban scene, combining radial sectors and concentric zones.

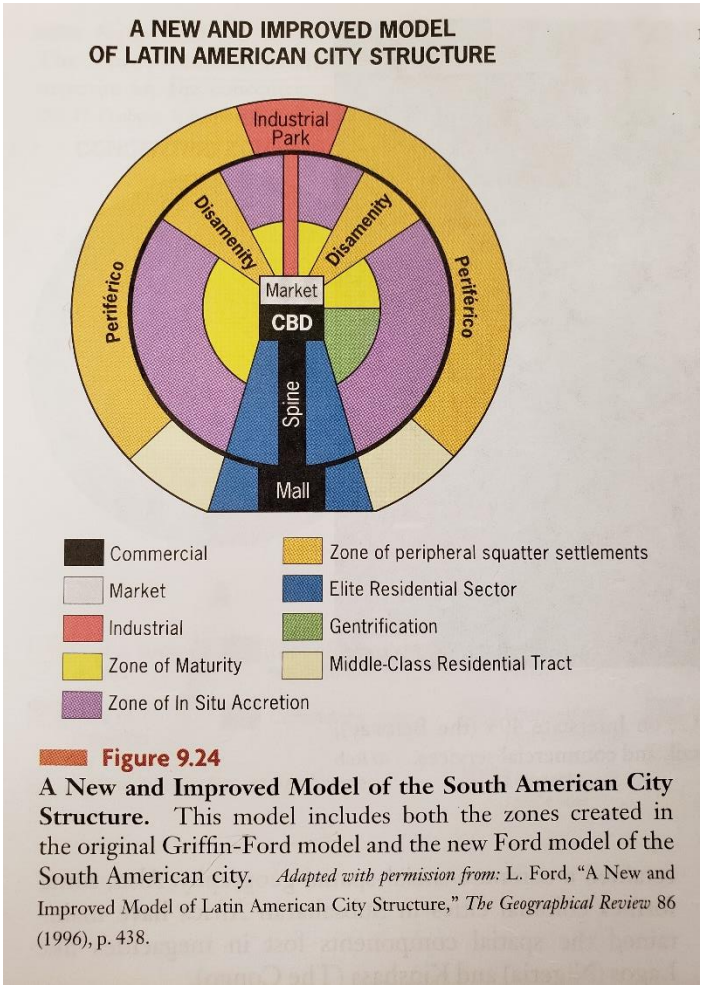


Figure 9.24
A New and Improved Model of the South American City Structure. This model includes both the zones created in the original Griffin-Ford model and the new Ford model of the South American city. *Adapted with permission from:* L. Ford, "A New and Improved Model of Latin American City Structure," *The Geographical Review* 86 (1996), p. 438.

Anchoring- the model is the thriving CBD, which remains the city's primary business, employment, and entertainment focus. The CBD is divided into a traditional market sector and a more modern high-rise sector. Adequate public transit systems and nearby affluent residential areas assure the dominance of the CBD. Emanating outward from the urban core along the city's most prestigious axis is the commercial spine, which is surrounded by the elite residential sector. This widening corridor is essentially an extension of the CBD. It features offices, shopping, high-quality housing for the upper and upper-middle classes, restaurants, theaters, and such amenities as parks, zoos, and golf courses. At the end of the elite spine sector lies an incipient edge city shown as "mall" on the model and flanked by high-priced residences. This reflects the emergence of suburban nodes from the North American model in South America's cities.

In the Griffin-Ford model, the remaining concentric zones are home to less well-off residents, who compose the great majority of the urban population. Socioeconomic levels and housing quality decrease markedly with greater distance from the city center (Fig. 9.24). The zone of maturity in the inner city contains the best housing outside the spine sector, attracting the middle classes, who invest sufficiently to keep their solidly built but aging dwellings from deteriorating. The adjacent zone is one of much more modest housing. Interspersed with the more modest areas are densely populated unkempt areas, which represent a transition from inner-ring affluence to outer-ring poverty. The outermost zone of peripheral squatter settlements is home to the impoverished and recent migrants who live in shantytowns. **Shantytowns** are unplanned developments of crude dwellings and shelters made mostly of scrap wood, iron, and pieces of cardboard that develop around cities. Although the ring of peripheral squatter settlements consists mainly of teeming, high-density shantytowns, many residents here are surprisingly optimistic about finding work and improving their living conditions.

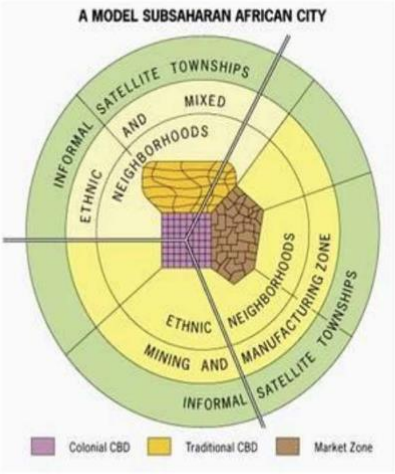
A structural element common among many South American cities is the **disamenity sector**, the very poorest parts of cities that in extreme cases are not connected to regular city services and are controlled by gangs and lords. The disamenity sectors in South American cities contain relatively unchanging slums known as barrios or favelas. The worst of these poverty-stricken areas often include large numbers of people who are so poor that they are forced to live in the streets (Fig. 9.2 5). There is little in the way of regular law enforcement within such communities, and drug lords often run the show—or battle with other drug lords for dominance. Such conditions also prevail in places beyond the ring highway or periférico, which is now a feature of most South American cities.

Finally, the Griffin-Ford model displays two smaller sectors: an industrial park, reflecting the ongoing concentration of industrial activity in the city, and a gentrification zone, where historic buildings are preserved. Gentrification remains much less common in South American cities than in North America, but it is an emerging phenomenon. To what extent is the Griffin-Ford model a realistic portrayal of the South American city? The model reflects the enormous differences between the spaces of privilege and the spaces of abject poverty within the South American city. The model also describes elements of sector development evident in many large South American cities, but the concentricity suggested by the model seems to be breaking down. Figure 9.24 incorporates both the original zones of the Griffin-Ford model and the updates Larry Ford added in a 1996 article. Larry Ford's updated Griffin-Ford model adds a ring highway (periférico) around the outskirts of the city, divides the downtown business district into a CBD and a market, adds a mall near the elite space, and leaves space for suburban industrial parks.

The African City – creator: De Blij (STATION 6)

History of Model

Shows imprints from colonization from European powers



Description of Model

3 CBD's

1. Colonial CBD – multi-story buildings, large corporations
2. Traditional CBD – single story, native people
3. Market CBD – open air flea market

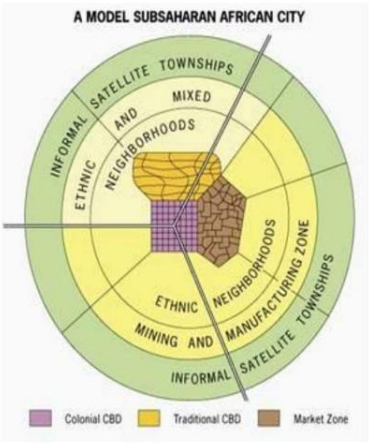
AFRICAN MODEL

PROS

Displays multiple CBD's

CONS

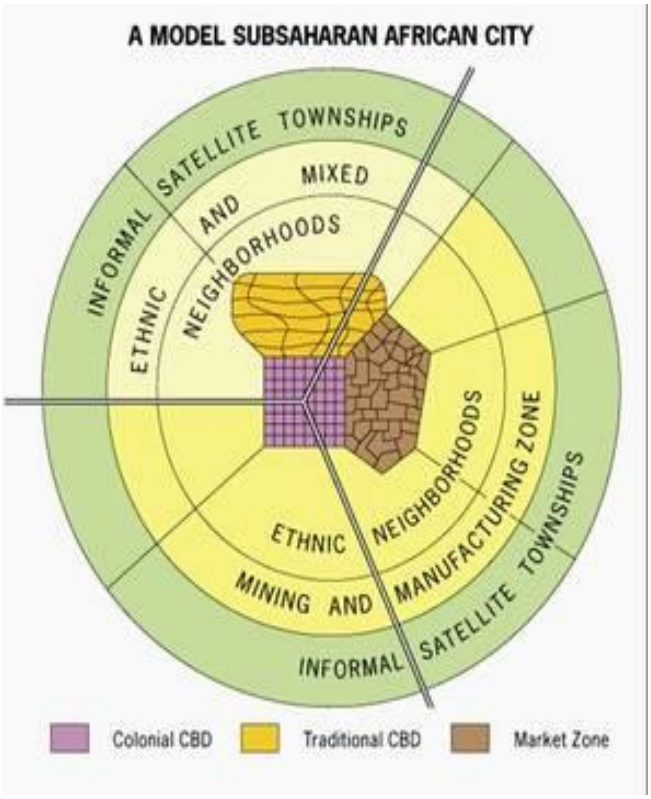
Very vague and little detail



At the beginning of this century, Subsaharan Africa included countries with some of the world's lowest levels of urbanization. In the tropical region of Africa, the majority of the people are farmers, and most countries in the tropics remain under 40 percent urbanized. Outside the tropics, the region is about 57 percent urban. Despite the region's lower levels of overall urbanization than much of the rest of the world, Africa now has the world's fastest growing cities, followed by those in South Asia and mainland East Asia and South and Middle America. In contrast, the cities of North America, southern South America, and Australia are growing more slowly, and those of western Europe are barely growing at all.

The imprint of European colonialism can still be seen in many African cities. During colonialism, Europeans laid out prominent urban centers such as Kinshasa (The Congo), Nairobi (Kenya), and Harare (Zimbabwe) in the interior, and Dakar (Senegal), Abidjan (Ivory Coast), Luanda (Angola), Maputo (Mozambique), and other ports along the coast. Africa even has cities that are neither traditional nor colonial. The centers of South Africa's major cities (Johannesburg, Cape Town, and Durban) remain essentially Western, with elements of European as well as American models and a veneer of globalization including high-rise CBDs and sprawling upper-income suburbs.

As a result of this diversity, it is difficult to formulate a model African city. Studies of African cities indicate that the central city often consists of not one but three CBDs (Fig. 9.26): a remnant of the colonial CBD, an informal and sometimes periodic market zone, and a transitional business center where commerce is conducted from curbside, stalls, or storefronts. Vertical development occurs mainly in the former colonial CBD; the traditional business center is usually a zone of single-story buildings with some traditional architecture; and the market zone tends to be open-air, informal, yet still important. Sector development marks the encircling zone of ethnic and mixed neighborhoods (often characterized by strong ethnic identities as people of ethnic kin tend to cluster together). Since many African cities began as mining towns, such operations still occur in conjunction with this zone in some instances. Manufacturing companies, originally founded near the labor force concentrated in this zone still function here. Invariably, fast-growing African cities are encircled by vast shantytowns rapidly growing as a result of virtually unchecked in-migration.

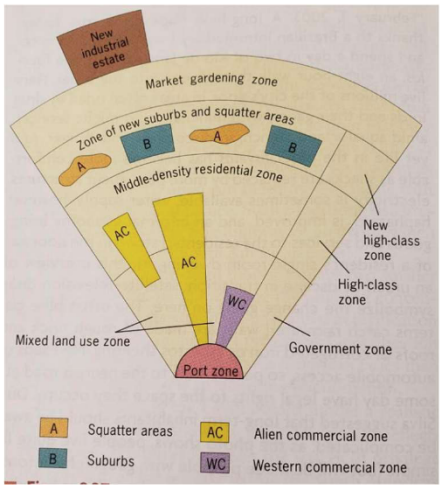


The Southeast Asian City – creator McGee (STATION 7)

SOUTHEAST MODEL

History of Model

Based on former colonial ports



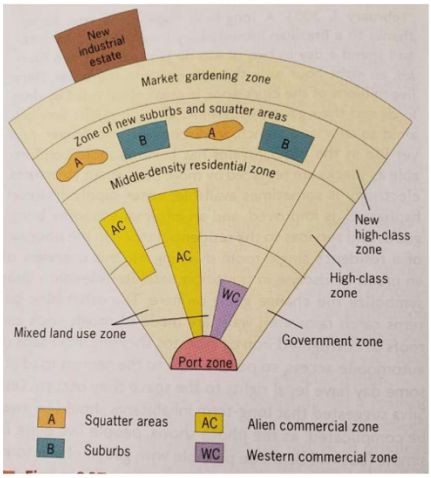
Description of Model

- The focal point is the Port Zone reflecting a city oriented around exporting.

SOUTHEAST MODEL

PROS

Can adapt fast to quick changes



CONS

- Market is very far from port

Some of the most populated cities in the world are in Southeast Asia. The city of Kuala Lumpur, Malaysia, is a complex of high-rise development, including the 1483-foot-tall Petronas Towers, which until recently was the world's tallest building. The city of Jakarta, Indonesia, called Jabotabek by the locals, is an enormous conurbation of Bogor, Tangerang, and Bekasi.

In 1967, urban geographer T. G. McGee studied the medium-sized cities of Southeast Asia and found that they exhibit similar land-use patterns, creating a model referred to as the **McGee model** (Fig. 9.2 7). The focal point of the city is the old colonial port zone combined with the largely commercial district that surrounds it. McGee found no formal central business district; rather, he found the elements of the CBD present as separate clusters surrounding the old colonial port zone: the government zone; the Western commercial zone (practically a CBD by itself); the alien commercial zone, dominated by Chinese merchants whose residences are attached to their places of business; and the mixed land-use zone that contains miscellaneous economic activities, including light industry. The other nonresidential areas are the market-gardening zone at the outskirts of the urban area and, still farther from the city, a recently built industrial park or "estate."

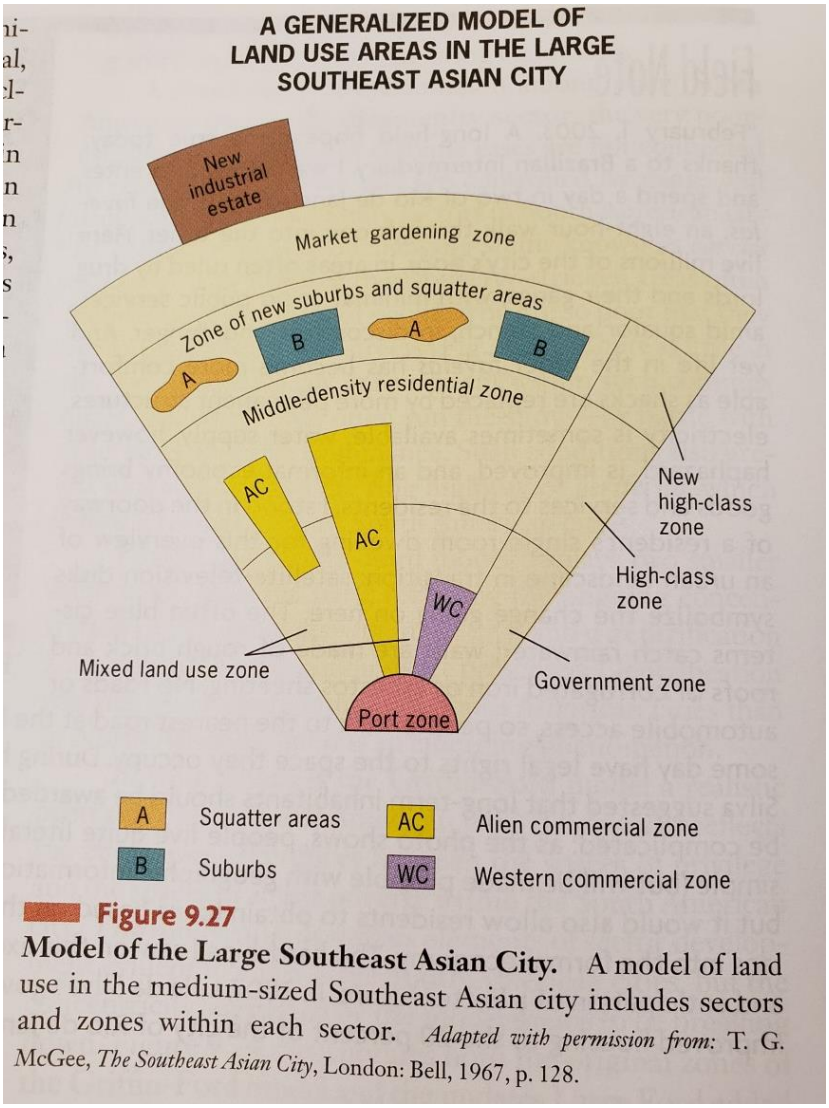


Figure 9.27

Model of the Large Southeast Asian City. A model of land use in the medium-sized Southeast Asian city includes sectors and zones within each sector. *Adapted with permission from:* T. G. McGee, *The Southeast Asian City*, London: Bell, 1967, p. 128.

The residential zones in McGee's model are similar to those in the Griffin-Ford model of the South American city. Other similarities between the McGee and Griffin-Ford model are the hybrid structure of sectors and zones, an elite residential sector that includes new suburbs, an inner-city zone of middle-income housing, and peripheral low-income squatter settlements. One main difference is that the McGee model includes middle-income housing in a suburban zone, reflecting the larger middle class in these cities of the global semiperiphery and the small middle class in South American cities.

Regardless of the region or city, we recognize that models do not explain how or why cities are organized the way they are. A model of a city shows us an end product, whether planned or not and suggests the forces that created that end product.