Urban Land Use Models

- Began to appear in the 1920s and 1930s
- Help explain how cities grow and are structured
- Common starting point is the CBD
  - major shopping concentration
  - tall office buildings
  - streets crowded by pedestrians
- Framing the core is a fringe area
  - warehousing
  - transportation terminals
  - light industries
- Residential land use begins beyond the fringe
Newest settlers in city use older housing near city center (migrants to industrial jobs)

Previous groups move outward to higher-income areas as they assimilate

Burgess Concentric Zone Model

Land-use pattern follows concentric rings around city center (CBD)
Burgess Concentric Zone Model
Burgess Concentric Zone Model

1. Central business district
2. Zone of transition
3. Zone of independent workers' homes
4. Zone of better residences
5. Commuter's zone
Burgess Concentric Zone Model

Austin CBD (Financial District)

- Blue-Collar Residential
- Middle-income residential
- Commuter residential

Michael Dell’s home, “The Castle” Commuter Residential
Hoyt Sector Model

- 1939 (Hoyt) - Land uses in pie-shaped wedges radiating from CBD
- High-income areas along fashionable boulevards, waterfronts, or high ground
- Industry along river or rails
- Low-income near industry
- Middle-income between low and high sectors

Tacoma Park, MD
Hoyt Sector Model

1. Central business district
2. Transportation and industry
3. Low-class residential
4. Middle-class residential
5. High-class residential
**Harris and Ullman Multiple-Nuclei Model**

- Post WW2 - Early days of suburbanization
- Downtown CBD not only core of business land use
- Other nuclei develop - special retail districts, office parks, light manufacturing in city
- Metro areas develop “suburban downtowns” (called “edge cities”)

Legend:
- Central business district
- Most exclusive residential
- Light manufacturing and wholesale
- Industrial park
- Middle-class residential
- Lower-class residential
- Heavy industry
Harris and Ullman
Multiple Nuclei Model

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
How do these models compare to North American cities?

- Prior to 1945: concentric zone or sector with a clearly defined and dominant CBD
- Following World War II: new and expanding older cities grew more sprawling and complex in the automobile era
- Peripheral model: changes since World War II, especially suburbanization
Applicability of classic land use models

A model is not a map!
Rings, sectors, and multiple nuclei are still seen, but overall pattern is complex

Family status — distributed concentrically
Socioeconomic status — tends to be radial
Ethnic status tends to be clustered
Median Household Income in Austin

Washington: A world apart

Washington A World Apart
What is an edge city?

Garreau equates the growing edge cities at major suburban freeway interchanges around America as the latest transformation of how we live and work.

These new suburban cities have sprung up like dandelions across the fruited plain, they’re home to glistening office towers, huge retail complexes, and are always located close to major highways.
Garreau established **five rules** for a place to be considered an edge city

1. More than five million square feet of office space
2. Over 600,000 square feet of retail space
3. Population must rise every morning and drop every afternoon
4. Known as a single end destination
5. Was not anything like a "city" 30 years ago
Harris Galactic City or Edge City Model
also part of the Peripheral Model

- Takes into account the major changes in urban form that have taken place since World War II
  Especially suburbanization
- Circumferential highways and expressways
  low-density sprawl
- Residences are segregated by price level into relatively homogenous suburban clusters
- Individual nodes in the peripheral belt are centers for employment or services
- Much of the life of the residents of the periphery takes place outside the central city
- The urban core also retains an important cultural role
Harris Galactic City or Edge City Model
also part of the Peripheral Model

1. Central City
2. Suburban Residential Area
3. Shopping Mall
4. Industrial District
5. Office Park
6. Service Center
7. Airport Complex
8. Combined Employment & Shopping Center

© 2011 Pearson Education, Inc.
Transportation and urban growth

**Transportation Model**

Original Downtown
Streetcar or Rail Line with Stops
Freeway

**Urban Areas Built During Each Transport Era**

<table>
<thead>
<tr>
<th>Era</th>
<th>Density</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walk and Horse 1800 - 1890</td>
<td>very high</td>
</tr>
<tr>
<td>Streetcar 1890 - 1920</td>
<td>high</td>
</tr>
<tr>
<td>Auto 1920 - 1950</td>
<td>moderate</td>
</tr>
<tr>
<td>Freeway 1950 - present</td>
<td>low</td>
</tr>
</tbody>
</table>

Modeling the Cities of the Global Periphery and Semi periphery

- **Africa**
  - Core: Commercial/residential
  - Residential/Density: Indigenous/high, Mixed/intermediate, Elite/low, Shanties/villages

- **Latin America**
  - Core: Original, Extension
  - Residential: Mature, In situ accretion, Elite, Squatters

- **Southeast Asian city**
  - Residential zones: Elite, Mixed, New suburb, Squatters
  - Commercial cores: Chinese, Indian, Western
In Situ accretion: where less expensive homes and businesses seem to be in a chronic state of ongoing construction and renovation.
Buenos Aires, Argentina
Disamenity sector – very poorest parts of the city e.g. the favelas of Rio de Janeiro, Brazil
The African City (de Blij model)

North African cities Muslim influences. Sub-Saharan major cities developed by European colonizers.
Most major Asian cities developed by European colonizers on ports.

Alien commercial – typically Chinese & Indian
Figure 9.41
Which of the following is most likely to have a large religious building and a market bazaar at its center?

A. A traditional city in Northern Africa
B. A post-colonial city in Sub-Saharan Africa
C. A colonial-based city in Southeast Asia
D. A modern city on the west coast of the United States
E. A manufacturing city in Western Europe
Which of the following is most likely to have a large religious building and a market bazaar at its center?

A. A traditional city in Northern Africa
B. A post-colonial city in Sub-Saharan Africa
C. A colonial-based city in Southeast Asia
D. A modern city on the west coast of the United States
E. A manufacturing city in Western Europe
European Cities: result of very long histories

- Complex street patterns - prior to automobile, weird angles
- Plazas and Squares - from Greek, Roman, Medieval
- High density and compact form - wall around city or low-growth zoning
- Low skylines - many built before elevators, others required cathedral or monument to be highest structure
- Lively downtowns - center of social life, not just office work
- Neighborhood stability - Europeans moved less frequently than we do.
- Scars of War - many wars, many cities originally defensive
- Symbolism - gothic cathedrals, palaces, and castles
- Municipal Socialism - many residents live in buildings that are owned by city gov’t. Some of these are massive housing projects, others small scale apartment buildings.
Western European City
European cities, including this hypothetical U.K. example, tend to restrict suburban development, thereby concentrating new development in and around existing concentrations. This leaves large rings of open space, so-called greenbelts.

What are the social costs of sprawl?
One major difference between land use in European and US cities is that

1. European cities usually have more dispersed populations than US cities
2. Europeans cities are less likely to have large urban parks than US cities
3. European cities are less likely to have ring roads than US cities
4. European suburbs are less likely to have high crime rates than US suburbs
5. Wealthy Europeans are more likely than wealthy Americans to live close to center city
One major difference between land use in European and US cities is that

1. European cities usually have more dispersed populations than US cities.
2. European cities are less likely to have large urban parks than US cities.
3. European cities are less likely to have ring roads than US cities.
4. European suburbs are less likely to have high crime rates than US suburbs.
5. Wealthy Europeans are more likely than wealthy Americans to live close to center city.
Eastern European City

Budapest, Hungary

- Old Town
- Government building
- Statue/monument
- Church/cathedral
- Embassy
- Railway station
- Shopping center
- Square
- Pedestrian mall
- Tramline
- Railway
- Elite residential
- Housing estate
- Retail
- Industry
- Greenbelt/park

Old Town, Budapest

Housing estate, Budapest

Elite residential area, Budapest
Toulouse, France
Narrow, Twisty Medieval Streets

Vienna, Austria