Ch. 13 Urbanization

Central Case: Managing growth in Portland, Oregon
- Oregon residents feared sprawling development would ruin their communities
- Urban Growth Boundaries (UGBs) allow development in urban areas and protect open spaces and rural land
- Measure 37 became Measure 49 and new regulations were put into place in 2007

Our urbanizing world
- **Urbanization** = the movement of people from rural to urban areas
  - The greatest change of human society since its transition to a sedentary agricultural lifestyle
- Why are urban areas growing rapidly?
  - Growing human population
  - Industrialization causing movement from farms to cities

Global urbanizing trends
- In 1950, 30% of the population was urban, today it’s 49%
- In developed nations, urbanization has slowed
  - Suburbs = the smaller communities that ring cities
- Developing nations are urbanizing rapidly
  - People are searching for jobs and urban lifestyles
Today’s urban centers

- **Metropolitan area**: geographical area (or entire county) with a minimum pop. of 100,000 and at least 50,000 of pop. living in a center city
- **Megalopolis**: area of fused cities with 10 million or more people (New York, Los Angeles, Tokyo)

Urban growth has often been rapid

- **Growth in U.S.**:
  - Due to increased trade
  - Crowding and deteriorating economic conditions occurred
  - Residents moved to the suburbs
  - Movement to southern & western states due to warmer weather or more space

- **Fast-growing cities are in developing countries**:
  - Less need for farm labor
  - Wars, conflict, and ecological degradation
  - Many cities now face overcrowding, pollution, and poverty

What is **marginal land**? Land that is poorly suited for building.

- What happens when homes are built on marginal land? Damage that impossible to repair and insurance is expensive due to risk.
- Examples: Los Angeles and Mexico City
  - Little room for expansion. Expand up into the surrounding mountains on hillsides prone to landslides.
How can urbanization impact a city?
- City generate and trap more heat. Roads and cities absorb more heat than vegetation does and retain it longer.
- It may result in a heat island, a city with an increased temperature. ex. Atlanta

Factors influence geography of urban areas
- Climate, topography, and waterways determine if a small settlement becomes a large city.
- Successful cities often located near corridors for trade.

People have moved to suburbs
- By the mid-1900s, the U.S. accumulated more people than jobs
  - Unemployment caused poverty and crime
  - Inadequate infrastructure
  - Affluent city dwellers moved to cleaner, less-crowded suburbs
- Suburbs offer
  - More space, privacy, better economic conditions, cheaper real estate, less crime, and better schools
- But natural space decreased with increasing suburbs
  - People had to drive everywhere, increasing traffic congestion

Sprawl
- Houses and roads take over more than 1 million ha (2.5 million acres) of rural land per year.
- Sprawl = the spread of low-density urban or suburban development outward from an urban center
  - Caused by human population growth and per capita land consumption
  - U.S. metropolitan areas grew by 80% since the 1950s but the land they covered grew by 305%
Several types of development lead to sprawl

What is wrong with sprawl?

- Transportation: people are forced to drive cars
  - Pressure to own cars and drive greater distances
  - Increases dependence on nonrenewable petroleum
  - Lack of mass transit options
  - More traffic accidents
- Pollution from sprawl’s effects on transportation
  - Carbon dioxide, nitrogen- and sulfur-containing air pollutants contribute to global warming, smog, acid rain
  - Runoff from polluted water from paved areas

Land-use Planning:  

- Geographic information system (GIS):
  - Computerized system for storing, manipulating, and viewing geographic data.
  - GIS software allows a user to enter different types of data about an area.
  - Such as: location of sewer, roads, and parks, and then create maps.
GIS Views of Seattle, Washington

City and regional planning
- **City planning** = the professional pursuit that attempts to design cities so as to maximize their efficiency, functionality, and beauty
  - Planners advise policymakers on development options, transportation needs, public parks, etc.
- **Regional planning** = deals with same issues as city planning, but with broader geographic scales that must coordinate with multiple municipal governments

Zoning = the practice of classifying areas for different types of development and land use
- Can restrict areas to a single use or can allow a combination of residential and commercial use
- Violation of individual freedoms or for the good of the community?

Urban growth boundaries (UGBs)
- Limits sprawl: keeps growth in existing urbanized areas
  - Revitalize downtowns
  - Protect farms, forests, and their industries
  - Ensure urban dwellers some access to open space
  - May reduce infrastructure costs
- Disadvantages:
  - Increases housing prices within their boundaries
  - Restricts development outside UGB
  - Increases the density of new housing inside the UGB
  - Increasing pressure to expand boundaries
Smart growth

- **Smart growth** = urban growth boundaries and other land use policies to control growth
- Proponents promote:
  - Healthy neighborhoods and communities
  - Jobs and economic development
  - Transportation options
  - Environmental quality
- Building "up, not out"
  - Focusing development in existing areas
  - Favoring multistory shop-houses and high-rises

Principles of smart growth

- Mixed land uses
- Compact building design
- Range of housing opportunities and choices
- Walkable neighborhoods
- Distinctive, attractive neighborhoods
- Preserve open space
- Develop existing communities
- A variety of transportation choices
- Predictable development decisions
- Community collaboration in development decisions

New urbanism

- **New urbanism** = neighborhoods designed on walkable scale so homes, businesses, and schools are close together & needs can be met without using a car
- **Transit-oriented development** = communities arrayed around stops on a major rail transit line

Mass transportation

- Public buses, trains & subways, rail transit
- Cheaper, more energy efficient, and cleaner
- Traffic congestion is eased
- Expensive to replace existing roads, may involve raising fuel taxes, taxing other modes of transportation, rewarding carpoolers

![Image of a bus and a train]

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![Graph of energy consumption and operating costs for different modes of transit]
**Parks & open spaces**
- Offers an escape from noise, commotion, and stress of urban life
- Provide greenery, scenic beauty, and recreation
- Protecting natural lands becomes more important as urban dwellers become more isolated and disconnected with nature

**Greenways**
- **Greenways (or green spaces)** = strips of land that connect parks or neighborhoods
  - Protect water quality
  - Boost property values
  - Corridors for wildlife movement
- Ecological restoration in cities
  - Enhances “naturalness” of cities

**Urbanization impacts the environment**
- **Resource sinks** = cities must import resources from long distances
  - Rely on land elsewhere for water, timber, minerals, etc.
  - Material wealth grows as cities grow causing a bigger need for resources

**Consumption in urban areas**
- Cities have ecological footprints far beyond their actual sizes
  - Cities take up only 2% of the land surface, but consume more than 75% of the world’s resources
  - Urban dwellers have far larger ecological footprints than rural dwellers
  - But, urban residents tend to be wealthier, and wealth correlates with consumption
Efficiency in urban areas

- Dense cities minimize per capita consumption because resources within the city are easier to deliver and obtain.
- Density facilitates social services that improve the quality of life such as medical services, education, water and sewer systems, waste disposal, and transportation.

Cities preserve land but export pollution

- Because people are packed densely in cities, more land outside cities is left undeveloped.
  - If cities did not exist, we would have much less room for agriculture, wilderness, biodiversity, or privacy.
- Cities export wastes and transfer the costs of activities to other regions.
  - Citizens are exposed to pollution such as heavy metals and chemicals.
  - The poor bear the brunt of pollution because they are too poor to move.

Cities have noise and light pollution

- **Noise pollution** = undesired ambient sound.
  - Degrades aesthetic surroundings.
  - Can induce stress and harm hearing.
- **Light pollution** = lights obscure the night sky, impairing the visibility of stars; no health effects.

Urban sustainability: cities should...

- Use resources efficiently.
- Recycle.
- Develop environmentally friendly technologies.
- Account fully for external costs.
- Offer tax incentives for sustainable practices.
- Use locally produced resources.
- Use organic waste and wastewater to restore soil fertility.
- Encourage urban agriculture.