

**Unit VII – Cities and Urban Land Use**  
**Chapter 13 – Urbanization and Urban networks**

**Introduction:**

- We have now reached the point where half of humanity lives in cities
- Cities make the most sense in an economy reliant on production and services
- These jobs do not require abundant land but thrive instead on interaction and conglomeration
- Still, large parts of the world are primarily rural
- The bulk of people in Africa, South Asia, and Southeast Asia continue to work the land and to live in villages
- But even these regions are experiencing tremendous rural-to-urban migration as cities become bigger and more numerous
- The interactions of goods, money, and people are primarily urban-based, moving within a larger network of cities and creating an established urban hierarchy within countries and across the world

**Module 13A – Urban Beginnings:**

- **Study Table 13A.1**
- The emergence of cities required complementary developments in both economic and political systems
- The movement to an agricultural economy was a key component of this
- When agriculture finally did get started, it set into motion a whole set of cultural changes that permanently altered the spatial and social organization of society
  - First of all, agriculture required a settling down – **Settlements**
  - Second, the overall density of population in agricultural areas increased substantially
  - Third, true food **surpluses** became possible, and they could be planned for, in some cases
  - Fourth, the food supply was on a more regular schedule
  - Fifth, agricultural development set into motion an even greater division of labor
- The lead from these agricultural villages to true cities required a far more complex political organization
- This was essential in order to govern a larger, more differentiated population
- The development of cities was bound up with the development of more complex political forms (Study Figure 13A.1)

**Module 13B – Early Spread of Urbanism:**

- The earliest cities emerged first in Samaria, and then independently in northern China and Meso-America
- The area surrounding a city from which it obtains its food is called the hinterland, and the range and fertility of the hinterland largely determines the size of the city
- This is one reason that cities are so often located on water bodies, since they have traditionally allowed easier and cheaper transportation access by boat
- Iron allowed for better wheels for carts and for faster ships
- In addition, cities began to initiate the development of road networks and sea lanes for easier travel and access to resources
- A final factor in the further development of a more urban world lay in the expansion of states
- The earliest cities were likely in city-states, composed of the city and its hinterland
- Gradually, smaller city-states evolved into larger territorial states, which managed a number of cities and extended far beyond the hinterland of a single city
- Within these large empires, urban development was transformed in two major ways
  - First, the imperial capitals attained a truly heroic size
  - Second, important consequences of these large empires were that they functioned as major engines of urban development
    - All empires were subdivided into provinces, and each province was governed from a capital

- Beyond politics, some cities could emerge for economic reason, such as trade or access to a major resource, or as centers for churches or universities

### **Module 13C – Urbanization in an Era of Capitalism:**

- **Urbanization** refers to the increase in the percentage of people who live within cities
- you should not confuse this with urban growth or city size
- another concept you should keep in mind is that of situation, as cities evolved, the logic of their situation changed
- the nature of urbanization changed with the introduction of a capitalist economy
- of most significance is that these new towns relied more on the activities of merchants and artisans than on any political leaders
- economic activity no longer required political power centralized in a leader or a strong central government
- access to raw and agricultural materials, markets, and the trading routes between goods and markets was the most important consideration and changed the logic of urban location
- these new cities needed to be at the nexus of economic exchange
- **Urban network** is a term that comes up repeatedly in discussions of urbanization
- It refers to cities that are tied together in some meaningful way, what geographers and other urban researchers may describe as **functional linkages (Study Figure 13C.2)**
- These ties were historically political and administrative, as particular cities operated as capitals for subunits within a kingdom or a state
- Yet under this new capitalist system, the linkages between cities were based on trade, and the cities themselves were located along key trading routes (Hanseatic League)

### **Module 13D – Industrial Cities:**

- For urbanization to occur, there had to be a new economy that allowed a much larger number of people to live and work in cities
- This change was introduced through industrialization
- Industrialization had four major effects
  - First, it allowed some cities to get enormous
  - Second, it enabled the proliferation of cities, so more people could live in cities
  - Third, it led to more concentrated settlement patterns
  - Fourth, it altered the logic of urban location
- **Study Figures 13D.1 - .5**

### **Module 13E – The Urbanization Curve:**

- Urbanization is the process in which a larger percentage of people in a society come to live in cities
- This is different from plain urban growth, which can occur if the growth in the rural population keeps pace with growth in the urban population
- The **urbanization curve** is a way to describe the process by which a society becomes more urban
- This curve is a general model of change based on time
- The general shape of the model resembles the letter S (**Study Figure 13E.1 and .2**)
- In an era of Internet communication, global outsourcing, Amazon.com, and the fact that most jobs involve computers, are cities still indispensable?
- All we know is that the global trend continues to be for people to move from the countryside to the city
- Cities continue to attract people because they appear to provide the economic opportunities that cannot be matched in the countryside or in small towns
- Suburbanization is not a movement out of cities but, instead, is an expansion of existing cities – a trend as old as cities themselves

### **Module 13F – Urbanization Patterns around the World:**

- **Study Figure 13F.1**
- Countries considered to be economically developed (more developed countries) are at the saturation stage of the urbanization curve and have at least 70% of their population living in cities
- Most of these less developed countries are at the acceleration stage of the urbanization curve
- This means that they are experiencing tremendous rural-to-urban migration
- This along with high rates of population growth, can create explosive urban growth
- Cities have become huge megacities of 5 to 10 million
- Some giant countries, such as India, have a lower urban percentage than economic progress would dictate
- Several Latin American countries sport very high urban percentages, despite lagging in economic development when compared to North America and Western Europe
- It is important to remember that urbanization is different from population density

### **Module 13G – Agglomeration economies and Urban Functions:**

- In **agglomeration economies**, different economic activities tend to locate next to each other and act as a powerful magnet, attracting other activities
- Cities that emerged contained many of the ingredients needed for modern industrial production
- Often included suppliers that provided essential materials, good transportation facilities (such as harbors and railroad terminals), easy access to financial services in order to obtain credit, and other producer services (such as printing shops and advertising)
- These cities also became major markets
- The linkage between **urban functions** within a city were complemented by the expanding connections between cities
- An interurban network developed, in which cities took on specialized functions
- These areas were generally the wealthiest and most integrated regions – and they were structured largely along transportation routes
- The creation of an American Manufacturing Belt was a clear result of this
- The development of a modern urban economy has also spearheaded the specialization of cities today
- They all serve as marketplaces, as manufacturing locales, as places of recreation and entertainment, and as administrative centers
- Los Angeles is the center of the film and television industry, Las Vegas depends heavily on tourism and conventions, and Boston includes a disproportionate number of colleges and universities
- These specializations, while not absolute, help distinguish cities from each other and contribute to a complementary urban network
- **Study Figure 13.G and Table 13G.1**

### **Module 13H – Urban Hierarchies and the Rank-Size Relationship:**

- Within an urban network, there also exists a particular kind of **urban hierarchy**
- This reflects the idea that cities are rarely equal in size and important to each other
- One relationship that seems to typify the overall urban hierarchy within a country is the **rank-size relationship**
- A relatively even distribution of cities is determined by a very simple formula:
  - $\text{Population of City}_r = \text{population of City}_1 / r$
- What this means is that the population of the second largest city in an urban system is equal to the largest city divided by 2
- The third largest city is equal to the largest city divided by 3 and so on
- A primate city on the other hand, overwhelms the rest of the country in terms of population, as well as cultural and economic importance
- One type of primate city results because of its former position as the capital of a much larger empire
- The second type of primate city reflects uneven development among regions of a country

- This also causes many of these cities to grow at a tremendous rate, overwhelming them with a population that is growing much faster than employment or services can
- In such cases, the government may try to redirect population away from the primate city and toward secondary urban centers
- Some countries also have binary or trinary rank-size distributions, in which the top two or three cities overwhelm the rest
- In Canada, Toronto numbers about 5.5 million and Montreal is close to 4 million, while Vancouver totals 2.5 million – could be because Canada has a political and economic division between English and French Canada

### **Module 13I – Globalization and World Cities:**

- Just as we can discuss the presence of urban hierarchies within a society, we can also examine a system of cities across the world
- **Globalization** is an ever-greater integration of people, companies and governments across the world
- This is also true of cities and urban economics
- As economics became a more important feature in the development of cities, urban interactions became cross-nation
- With the growth of a truly global economy this meant that each city was tied, to some extent, to every other city in the world
- The term **world cities** describes those cities that are at the top of the global hierarchy
- World cities can be defined in two basic ways
  - The first has to do with the attributes of the cities themselves
    - Attributes that show economic prominence, such as the presence of corporate headquarters, stock markets, industrial capacity, and large banks are often represented here
  - The second definition has to do with the interactions between cities
    - Trade, financial transactions, air traffic, and other factors are indicators of a world city
  - New York, London, and Tokyo have traditionally been considered the “big three” world cities
  - Corporate offices give more weight to Hong Kong, Singapore, Milan, and Paris
  - Looking at banks brings up another set of cities, including Frankfurt, Beijing, Munich, and Brussels
  - Advertising agencies and media centers would introduce Chicago, Los Angeles, and even Miami into the mix
- Examining world cities as part of an interurban network makes a great deal of sense, though it is difficult to do so
- Stock exchange is an important barometer of connectivity
- One approach would be to use air travel connectivity to come up with a hierarchy of cities
- In this scheme, Paris fits with the “big three” of London, New York, and Tokyo, followed by Hong Kong, Amsterdam, Singapore, and Frankfurt
- World city status is more than simple demographics
- A city has to be at the forefront of the global economy
- A map produced 10 years from now will have totally different configurations
- But some sort of world city hierarchy will continue
- **Study Table 13I.1**

**Unit VII – Cities and Urban Land Use**  
**Chapter 14 – The Changing Structure of the City**

**Introduction:**

- Cities essentially separated people from their agricultural livelihood and created a concentrated and ordered community
- City forms vary substantially, even among other developed countries

**Module 14A – Early Urban Morphology:**

- What are some of the most significant elements making up the form, or **morphology**, of city?
- While there are many variations, all cities share an urban population, a center (node), a perimeter (outside boundary), and an internal transportation network
- The first element was the **Urban population** itself – this is a population composed of individuals who were not themselves engaged in agriculture, yet they had to be fed and housed
- The second element is the **urban center**
  - The main items that comprised the center have changed over time
  - In ancient cities, the center was where the elites lived
  - In a modern city, the center is the “downtown,” where land value is at its peak and where office, banking, and retail functions are located, often in tall skyscrapers
- The third element defining a city is the **perimeter** – the manner by which a city is separated from the country
  - Today, the separation is often blurry
  - The perimeter also represented a social division
- The fourth element is the **transportation network** that moves people and goods around
- In an **organic city**, the street network developed by accretion
- Streets varied in width, they were usually sinuous, and they could resemble labyrinths
  - Example – Boston
- Many **planned cities** were rich with symbolic elements, but major cities in China, India, and Meso-
- The type of street pattern with the greatest impact is the **grid**
- The grid’s advantages are that it is regular, simple, and repeatable for as far as the city aspires to go

**Module 14B – Three Historical Urban Types:**

- The industrial city that emerged in the nineteenth century was the first urban form that generally came about without a wall (**Study Figure 14B.3**)

**Module 14C – Land Values, Densities, and Urban Form:**

- What are the functions of the modern city, and what determines their distribution? Much of this can be traced to how urban land is valued (**Study Figure 14C.1**)
- While functions in the public domain are located based on public need, the private functions are determined by market principles
- These market principles are based on the following equation:
  - Land value = f(site, internal situation)
- The f in the equation denotes *function*, specifically land value is a function of site and internal *situation*
- The *site* has to do with the physical attributes of the location
- The *internal situation* defines the location relative to other parts of the city
- In a word, situation boils down to **access**
- Land value also determines the intensity of use within the city (**Study Figure 14C.2**)
- Because expensive land entails intensive use, there is a distinct relationship between land value and land density (**Study Figure 14C.3**)

- In cities within the US and in other parts of the world, the CBD reflected the primacy of commerce and the organization of the city based on land value
- *Density* generally refers to the number of people per unit of land, such as a square mile
  - For example, the CBD itself has very low **nighttime density** because most of its space is reserved for employment, but its **daytime density** (when people are at work) is high
- In general, American cities are the least dense in the world (**Study Figures 14C.4 - .6**)

#### **Module 14D – Transportation and Modern Urban Growth:**

- The modern city has been shaped by many factors, but internal transportation systems have probably been more responsible than anything else
- In looking at transportation and cities, it is helpful to consider them as a series of stages
  - The first stage was the walking city (**Study Figure 14D.1**)
  - The second stage is the omnibus/horsecar/streetcar stage (**Study Figure 14D.2 - .4**)
    - Immigration increased, and the migration of people from the country (including a stream of emancipated blacks from the South) meant that cities were bursting at the seams
    - We can therefore use the term **streetcar city** for this stage
  - The third stage is that of the **recreational auto city**, as automobiles first came on the scene
  - The fourth and the final stage of transportation in cities occurred after World War II, when the automobile began to fundamentally alter city morphology (**Study Figure 14D.7**)
    - The new automobile dependency had some major effect on urban space by hastening decentralization
    - By 1960, a plurality of people lived in **suburbs**, as compared to either rural or central city locations
    - Cities were hemorrhaging manufacturing jobs as factors – which demanded large tracts of cheap land so that they could build on one floor – left the inner city for new greenfield locations in the outskirts
    - By the 1980s, two to three times as much office space – a traditional function of cities – had been created in the suburbs rather than in the city
    - Even corporate headquarters began to abandon their central city high-rises for new “corporate campuses”
    - Related to this, the new transportation era led to a decline in the central business district, in both relative and absolute terms
    - The new superhighways expedited movement around a city center (**Study Figure 14D.6**)
    - It became more convenient to locate near these beltways than downtown
    - Major regional shopping centers popped up near highway interchanges, offering the advantages of many different stores without the hassles of parking and inclement weather

#### **Module 14E – Housing the City:**

- The residential sector is by far the largest consumer of land in the city (**Study Figure 14E.1 - .4**)
- Housing also remains among the most biddable of commodities
- Housing is expected to appreciate in value – so by the end of the mortgage period, owners expect not only to pay off their loan but also to own something that is worth a lot more than it was initially
- The house may go into foreclosure, a situation in which the mortgage holder loses all claims to his or her property

#### **Module 14F – Urban Development in Europe and Japan:**

- While distinct from one another, European and Japanese cities are marked by several elements that place them apart from cities in the US
- These have to do with a rich historical legacy, a greater degree of planning, higher levels of compactness, and an eagerness to try out new urban forms
- Cities in these countries are generally much older

- However, many cities in these regions can appear surprisingly new
- Due to the extensive rebuilding that had to go on after the devastation of World War II
- Cities in both Europe and Japan differ in that they must contend with much higher levels of centralized control compared to US cities
- The clear separation between urban and rural uses is especially apparent in densely populated countries, such as the Netherlands
- Great Britain provides **green belts** around its cities, where suburban land uses are restricted
- Stockholm and Copenhagen have developed a series of land use plans based around extending the cities on transit lines
- Even in large cities, the walkability factor is very high
- The high compactness is a legacy of several things
  - First, people enjoy living close to the city center
  - Second, many Europeans live in apartment buildings with a higher percentage of renters overall
  - Third, automobile use is discouraged in ways that being with higher purchasing fees, gas prices triple to quadruple what they are in the US, and much higher parking costs
    - European cities have an excellent public transportation system
    - The network of trains and buses is more extensive and the pick-up times are more frequent
    - The level of compactness is also true of Japanese cities

#### **Module 14G – Cities in Less Developed Countries:**

- Some of these cities are found in the most historical civilization in the world, while other are in places that were unurbanized until just a few decades ago (**Study Fire 14G.1 and 14G.4**)
- Cities in less developed countries must contend with challenges based on massive growth combined with overall poverty
- The urban population grows even more rapidly than the country's overall population, sometimes as much as 6% a year (**Study Figure 14G.2**)
- No city could easily accommodate this increase, but overwhelming poverty makes matters worse
- Cities are also poor, with limited budgetary resources to spend on infrastructure, safety services, and a professional civil service
- For many people moving to the city, one of the most pressing issues is a lack of proper housing
- People can be too poor to afford private housing, and there is rarely enough government financed housing to go around
- Homelessness is a problem
- The difference tween these cities and those in the US is one of scope
- Nearly half of all urban dwellers in poor cities suffer from a clack of decent housing
- For many, the imperfect solution lies in developing self-built hosing in the city's outskirts (**Study Figure 14G.3**)