

## Urban Growth: Concept, Dimensions, and Theoretical Connotations

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### **Abstract:**

*The study aims to analyze the phenomenon of urban growth, a significant phenomenon that impacts the form and urban functions of cities, encompassing both developed and developing world cities, and which requires a new perspective and study by researchers interested in urban studies, as urban growth is linked to numerous phenomena and problems, including the prevalence of formal discipline, superficial social relations based on interests, and significant social mobility (spatial and professional).*

*To understand the aspects of urban growth, a clear understanding of the meaning of urban growth is necessary, it also requires a forward-looking vision of urban growth in contemporary studies, based on a set of theories and principles that explain the factors influencing the locations, sizes, and numbers of cities, as well as the distribution of these urban centers within their countries and regions; in addition to theoretical approaches to analyzing urban growth, which include the historical de-*

*velopment of urban growth and the most important theories that explain this development.*

*Finally, we discuss the main aspects of urban growth: demographic, regulatory, and environmental factors, as well as the most important factors upon which urban growth depends, the importance of which varies according to the stages and levels of urbanization.*

**Keywords:** *urban growth, urbanization, city.*

## **La croissance urbaine : Concept, dimensions et connotations théoriques**

### **Résumé :**

*L'étude vise à analyser le phénomène de la croissance urbaine, un phénomène important qui a un impact sur la forme et les fonctions urbaines des villes, englobant à la fois les villes du monde développé et en développement, et qui nécessite une nouvelle perspective et une nouvelle étude de la part des chercheurs intéressés par les études urbaines, car la croissance urbaine est liée à de nombreux phénomènes et problèmes, y compris la prévalence de la discipline formelle, les relations sociales superficielles basées sur les intérêts, et une mobilité sociale importante (spatiale et professionnelle).*

*Pour comprendre les aspects de la croissance urbaine, une compréhension claire de la signification de la croissance urbaine est nécessaire, elle nécessite également une vision prospective de la croissance urbaine dans les études contemporaines, basée sur un ensemble de théories et de principes qui expliquent les facteurs influençant l'emplacement, la taille et le nombre des villes, ainsi que la distribution de ces centres urbains au sein de leurs pays et régions ; en plus des approches théoriques pour analyser la croissance urbaine, qui comprennent le développement historique de la croissance urbaine et les théories les plus importantes qui expliquent ce développement.*

*Enfin, nous discutons des principaux aspects de la croissance urbaine : les facteurs démographiques, réglementaires et environnementaux, ainsi que les facteurs les plus importants dont dépend la croissance urbaine et dont l'importance varie en fonction des étapes et des niveaux d'urbanisation.*

**Mots-clés :** *croissance urbaine, urbanisation, ville.*

## **Introduction**

The world has witnessed a dramatic population increase, which played a significant role in the emergence of urban areas. By 1990, the world's population had grown five times what it was in 1850, accompanied by the rapid development of cities and their expansion, with their numbers increasing as a result of the movement of people to the suburbs and the opposite trend of internal migration from rural to urban areas, where economic development also contributed to the development of cities and the improvement of the standard of living of the population.

Urban growth is a global phenomenon that has evolved along with the development of cities. Its beginnings were accompanied by an actual movement in all human societies, in terms of the conditions for the emergence of local communities and their relationship to the rapid increase in population growth, through the phenomenon of migration and the increase in the number of industrial cities in the world, their growth and their population numbers, due to the connection between urban growth and the process of industrialization, as urban growth was the result of industry, which was concentrated in cities and attracted many rural people seeking to improve their standard of living in all areas, which led to the growth and development of cities, the complexity of modern urban life, and the emergence of numerous social problems associated with urban growth, affecting the form, morphology, and urban functions of cities.

### **Study Problem:**

Urban growth is closely linked to everything that happens in our cities, and from this perspective, the problematic aspects of

our study become clear in the following central question: What are the most important concepts and aspects of urban growth? How do various theories and theoretical approaches explain the factors of urban growth in cities?

### **Definition of Urban Growth:**

Urban growth, or "urbanization," as some researchers call it, is considered one of the biggest problems of our time, along with bureaucracy and backwardness, as developing countries have witnessed a surprising degree of urbanization in recent years, manifested by demographic growth—a natural increase in addition to waves of people migrating from rural areas due to poverty and lack of employment (Abdel Latif Ben Ashnahou, p. 152).

Socially and linguistically, this term denotes a social transition to urbanization; Scientifically, it denotes the abandonment of rural characteristics for urbanization, thus abandoning some characteristics and acquiring others (Abdel Baqi Zidan, p. 14).

Urban Growth has more than one definition; it is defined as: "The migration of people from rural areas to urban areas for permanent residence, therefore it refers to people engaging in activities other than agriculture" (Abdel Moneim Anwar, 1970, pp. 57, 90).

Demographer Warren Thompson defines urbanization in the Encyclopedia of Social Sciences as "the movement of people from communities based primarily or solely on agricultural activity to larger communities for employment in trade, industry, services, and other related activities" (Farouk Zaki Younis, 1970, p. 23).

Others have also defined it as "the process by which urban populations increase through the change of rural to urban life, or the migration of villagers to existing cities, including changes in the character, customs, and ways of life of rural people so

that they adapt to urban life" (Abdel Moneim Shawqi, 1966, p. 23).

This definition makes clear that urban growth cannot occur solely due to an increase in urban populations for any reason, as stated in the definition. Rather, it can occur through rural development and a change in lifestyle for the better. Some authors have expressed this as cultural diffusion—cultural contact; according to this definition, urban growth is "movement and change," and in this regard, it is undergoing a phase of urbanization. A document from the United Nations Economic Commission for Asia and the Far East indicates that the phenomenon of urbanization can be defined within its simple demographic context as: "The process by which people tend to concentrate in communities exceeding a certain size" (Abdel Latif Ben Ashnahou, *op. cit.*, p. 154)

Dr. Sayed Abd Al-Aati believes that there is a difference in the rates of balance between population and resources, unlike western urban growth, as there is a noticeable balance between population increase and available resources, and he revealed a repulsive factor for the population from rural areas versus a factor of attraction for them through the resources and job opportunities available in industrial centers, in which the population surplus found a wider opportunity to migrate to other areas that have not yet been exploited. However, urban growth in most developing countries was accompanied by only a repulsive factor, which pushed rural residents to reside in cities, which caused the density rates of developing cities to rise beyond the available resources, as the situation more difficult is that such areas have almost no new possibilities for expansion to accommodate their population growth, which is increasing day after day at rapid and more dangerous rates (Sayyid Abdel Ati Al-Sayyid, 1999, p. 223).

Despite the disagreement among scholars about the precise definition of urban growth, they agree that they use the term urban growth to express natural increase and migration, characteristics that have been confirmed by everyone who has studied urban growth, where a brief definition of urban growth can be given as follows: "Urban growth refers to the increase in the number and proportion of city residents and the expansion of their size as a result of migration from rural to urban areas and natural increase".

### **1. Conceptions of Urbanization and Urban Growth:**

It is essential to have a clear conception of what urbanization and urban growth mean. In general, the connotations and implications associated with the concept of urbanization and urban growth can be summarized as follows (Al-Sayed Abd Al-Aati Al-Sayed, 2003, pp. 104, 112):

#### **1.1 The Demographic Concept:**

This conception is considered the most important measure of the urbanization and urban growth process, according to this conception, what is considered urban refers to population centers of a certain size, as urbanization is defined according to this conception within the limits of its connection to population concentration.

Urbanization is also defined within the limits of the trend toward increasing population concentration in cities and urban areas; for example, Hope Tisdale's analysis of urbanization as a process of population concentration is based on two basic elements: the multiplicity of concentration points, on the one hand, and the increase in the size of individual centers, on the other, therefore, the increase in the population residing in urban areas becomes an accurate statistical indicator for measuring the processes of urbanization and urban growth.

While this concept highlights the distinctive characteristics of the process and departs from the conception of the sociological trend, the concept has been and continues to be widely accepted by many researchers, especially demographers.

## **1.2 The Economic Concept:**

Urbanization and urban growth represent an advanced stage of human economic progress. Consequently, urbanization and urban growth are associated with a movement of transition and transformation into more complex economic organizations, meaning the transition from a subsistence economy to a market economy, where this concept has been translated into various formulations that emphasize this trend, which has dominated most Western urban studies, particularly American ones, which focused on studying metropolitan economies and emphasized the link between the processes of industrialization and urbanization.

In this regard, N.S.B. Grass, in his 1932 study, attempted to review the economic history of Western civilization, where he explained the relationship between economic development and patterns of human settlement and settlement throughout history in his evolutionary introduction.

In his historical research of Western civilization within a continuous classification framework, Grass distinguished five basic developmental stages: the stage of the gathering and gathering economy, the stage of the pastoral economy, followed by the stage of the settled village economy, and finally the stage of the city economy, the micro and finally the metropolitan stage, the development of agriculture as a way of life was the most important factor that led humanity to enter a more advanced stage on the road to urbanization.

With the continuation of development, in the view of "Gas", small cities grow as a result of the increase in agricultural production, the increase in the number of craftsmen, the development of means of transportation, and the flourishing of commercial activity, as the emergence of the metropolis after that was a necessary result of the connection between technological and organizational changes accompanying the spread of industrialization and the dominance of the metropolitan economy, where Eric E. Lampard took the same approach in his study of urban industrial development, following the same stages identified by Grass.

### **1.3 The Ecological concept:**

Proponents of the ecological concept—both in its traditional and modern iterations—emphasize population and space (or the variables of size and density) as primary metrics for measuring urbanization, and according to this framework, degrees of urbanization are assessed based on:

- The extent of human mastery over the natural environment and its exploitation for welfare.
- The evolving physical character of urban society, including its scale, functional base, population distribution patterns, activity clusters, and growth trajectories.

### **1.4 The Organizational concept:**

This concept posits that urban growth and urbanization extend beyond mere population increase or density, nor are they confined to economic systems bolstered by advanced industrial technology, rather, urbanization signifies a shift toward more complex social organizations, entailing:

- Enhanced communication networks.
- Socio-political mechanisms that integrate specialized and disparate domains.

- Historically, this systemic complexity has manifested in:
- The rise of strong central governments.
- The expansion of local, regional, and global markets.
- The proliferation of formal and informal institutions.

In essence, urbanization represents a transition from simple to structurally intricate societies.

### **1.5 The Behavioral Perspective:**

The behavioral lens focuses on individual lived experiences over time, particularly behavioral and interactional patterns; here, "urbanism" is viewed as a system of values, norms, and modes of social interaction shaped by specific temporal and demographic contexts.

This concept is rooted in the evolutionary thought of the German sociological tradition (e.g., Tönnies, Spengler, Simmel, and Weber), which applied the ideal type construct to urban phenomena; Weber, for instance, linked urbanization to the rise of rationalized social action.

The concept migrated to American sociology via Robert Park, who studied in Germany and later treated Chicago as a "social laboratory" for urban analysis; In Britain, scholars like Ronald Frankenberg contributed seminal works on urban indicators, amassing a robust empirical legacy.

### **1.6. Urban Growth in Contemporary Studies (Abd Al-Ilah Abu Ayyash, 1980, pp. 128-133):**

The study of urbanization and urban growth in the Arab world and other parts of the world has not relied solely on describing the phenomena associated with and resulting from them, moreover, the growth in the number and size of cities, in the view of many researchers and specialists, is not simply a random change or fluctuation, rather, these changes govern the

characteristics of cities and urban agglomerations. To give the city a scientific character, and to prevent the process of examining and studying cities, their sizes, and their numbers from remaining merely descriptive studies based on direct observation, several researchers have developed a set of rules, models, and theories that explain the factors influencing the location of cities, their size and numbers, and how these urban centers are distributed within their respective regions and countries.

In the 1930s, Mark Jefferson used the concept of the "proto-city" as a phenomenon that characterized the sizes of major cities in the developing world, however, this does not mean that it does not exist in developed countries, where Jefferson noted that in every country in the world, there is a proto-city, which is usually the largest city in the country and often the capital, it is the largest city in size, has the most activities, is the most important in location, and has the greatest influence on the life of the country and its inhabitants. This city is characterized by its control over most of the country's investments and agreements and absorbs most of the labor and productive forces, it is also the city that dominates cultural and economic life, as such, it is characterized by a high rate of consumption compared to other cities, and it has harmful effects on other cities because it monopolizes the most important activities and events in the country.

The proto-city is a phenomenon that characterizes the life of new cities, and it has become evident in city-states, which were composed of a single city, as these cities appear in the Arab world in the new oil-producing countries.

Some researchers believe that it is difficult to predict the circumstances under which the importance of a primary city might decline, furthermore, the size of a primary city is a reflection of the size and population of the country, on the other hand, a primary city doesn't need to be solely the primary city

of a country, but it can also be the primary city of a subordinate region within the country.

Brian Berry has attempted to study this phenomenon in 38 countries around the world, and what appears from the conclusions of "Christaller's Theory" is that there are rules and laws governing the distribution, size, and number of cities, as the Christaller system is an ideal theoretical construct that is difficult to find in reality except in very limited areas whose conditions are consistent with Christaller's assumptions.

- In addition to these rules and theories, various models have emerged to study the process of urbanization and the phenomenon of urban growth, as these models can be classified into the following groups:
- Demographic models, which focus on the impact of population growth and demographic changes on the movement and migration of people from rural to urban areas.
- Economic models, which are linked to traditional location theories, such as Weyer's theory of city locations in industrial areas (Abd Al-Ilah Abu Ayyash, 1980, p. 130).
- Social change models, which view cities as centers for social transformation, as these models rely on difficult assumptions that are difficult to establish in reality, however, through a set of axioms, he was able to explain how cities and centers are distributed across the Earth's surface, according to his view, cities vary in hexagonal shapes, and the emergence of the city as a center for providing services is due to the surrounding environment, where Christaller arranged the centers into seven levels, beginning with the capital as the largest city and ending with new social concepts that conflict with traditional concepts.

- Systems models, which emphasize that the study of urbanization and urban growth is linked to a network of relationships that constitute the urban system, therefore, the phenomenon is studied as a unit interconnected with each other, on the one hand, and with the factors and variables that influence and are influenced by it, on the other.
- City structure models, which view the city as a diverse set of land uses that form its distinctive patterns, where the Burgess, Homer, White Harris, and Ulman models are the most famous, despite the traditional nature of their underlying concepts (Op. cit., pp. 128-133).

## **2. Theoretical Approaches to Analyzing Urban Growth**

### **2.1. The Historical Evolution of Urban Growth (Sayyid Abd Al-Aati al-Sayyid, 1974, pp. 113-115):**

The historical evolution of urban growth is represented by the emergence and development of cities across successive historical stages, as these stages can be summarized into four basic historical stages for analyzing urban growth:

#### ***2.1.1. The First Stage: The Folk Stage***

This is considered the pre-urbanization stage, extending from the appearance of humans on Earth until approximately 55,000 BC, the date in which humanity experienced the first forms of urban settlement, as, during this stage, the world's population gathered into communities—folks—which were small, self-sufficient groups that relied on hunting, fishing, gathering, and gathering, where they did not experience a permanent sedentary life.

Folk societies recognized some aspects of order based on customs and traditions, in which groups (clans or tribes) represented the dominant social unit, as social relations were then

organized based on kinship alone, while leadership and social control were based on customs and traditions, as folk societies did not recognize long-term social goals.

### *2.1.2 The Second Stage: Early Urbanization:*

This stage represents the first "urban revolution" in human history, during which human life changed from food gathering and gathering to food production, this stage marked a life of stability and permanent settlement in a specific location, which began around 8000 BC, and began particularly in the Middle East.

In general, this initial stage of urban growth witnessed several social, cultural, and economic changes, and according to some researchers, such as Gordon Childe, these changes represent basic criteria or evidence of the early beginnings of urban growth, including:

- The emergence of large, densely populated settlements.
- The emergence of a class of artisans, craftsmen, and other individuals who were entirely dedicated to non-agricultural activities—the division of labor-, where early urban settlements were a natural habitat for population groups that did not produce their food and were devoted to crafts, transportation, and trade.
- Taxes were imposed on farmers in the form of grain or agricultural products.
- The construction of large, public buildings and structures symbolizing the concentration of political and economic power, through the concentration of surplus agricultural production.
- The flourishing of commercial activity and its expansion beyond the local boundaries of the city.

- The emergence of urban communities due to the development of a social stratification system unprecedented in folk societies.
- The emphasis on "place of residence" or "location" rather than kinship as the basis for membership or citizenship, where early cities revealed a kind of adherence closer to organic solidarity, based on integration and functional interdependence among individuals.

It was also characterized by colonial settlement migration processes, and with the formation of the Greek Empire, urban growth entered a new phase characterized by the development of means of transportation, and in some industries, which in turn was a driver for the growth of many urban settlements at a rate of size and population density that had not been known before, as several factors combined, such as spatial expansion, roads, ports, and railways equipped with capabilities, all of which led to increased commercial development, and thus to more urban growth such as the establishment of new cities..., and the trend of urban growth continued continuously, so that despite the division of the empire into three royal governments, the wave of urban growth remained continuous and in a noticeable manner.

### ***2.1.3. The Third Stage: Urban Revival***

This stage extended from the fall of the Roman Empire in the fifth century AD until the occurrence of what is known as the Industrial Revolution, this period witnessed an urban dark age, but over time, some cities were able to regain some of their lost political, economic, and religious importance, as this period extended throughout Europe, establishing what became known as the Industrial Revolution, marking a new phase of urban growth.

As commercial activity flourished and expanded during this stage, urban growth expanded across the European continent, and increasing numbers of people were absorbed into trade and crafts, where urban growth itself was conditioned by the protection enjoyed by merchants and craftsmen at the time, as this stage witnessed an increase in the number of urban settlements or small towns.

### ***2.1.4. The Fourth Stage: Rapid Urbanization***

With the beginning of the sixteenth century, a new phase of urban growth began, marked by several factors whose influence on urban growth rates became so pronounced that many historians have dubbed it "equilibrium", as the first manifestation of this balance was the Agricultural Revolution, where urban growth was coupled with a shift from agricultural businesses and activities to industrial, commercial, and service activities, which began to flourish in industrial urban centers. This was followed by the technological revolution, which served as the prominent starting point for urban growth in the modern era, as for cities to become more than just religious and administrative centers, a technological and organizational revolution was necessary.

The growth of many cities and the urbanization of numerous regions in many countries around the world were due to successive scientific discoveries and mechanical inventions, where transportation is considered one of the most influential and effective scientific discoveries in determining the path of modern urban growth, as these discoveries, along with the changes they brought to various products, served as the attractive forces that enabled the increasing number of immigrants to the city. Urban growth in this modern phase was linked to increased efficiency of transportation, because Cities depend on trade and

the development of global markets, and thus the increased efficiency of long-distance transportation has had a significant impact on driving urban growth; Urban growth has also been accompanied by radical changes in the functional basis of the modern city, clearly reflected in its ecological structure, with industrialization taking center stage between urban growth and ecological change, the latest approaches to urban growth have been characterized by the phenomenon of urban deconcentration, a counter-trend to the population concentration that characterized the early stages of modern urban growth.

Consequently, the city is no longer a center of population attraction, and the surrounding areas of major cities have emerged, including suburbs, urban fringes, and satellite cities, as the introduction of land transportation, represented by the use of private and public cars, the introduction of electricity, tunnels, and the paving of roads... has helped to reduce the effect of the spatial distance factor in determining the size of the city, and has facilitated the spread of urban patterns of land use beyond the traditional and official boundaries of cities and major urban centers, which has created a kind of close connection between the city and the surrounding areas, thus, what appears at first glance to be a population infiltration may appear to be a redistribution of the urban population within the metropolitan region.

## **2.2. Urban Growth Theories:**

Today, humanity is witnessing an unprecedented phenomenon of urbanization and urban growth. This necessitates realistic, scientific urban planning, especially since cities began to grow significantly in the late nineteenth century, with millions of people living in them, which calls for the emergence and development of theories of a planning nature, i.e., theories and laws that do not attempt to study and explain the phenomenon

of urbanization as much as they attempt to intervene in it, understand it, and control it, in a way that serves human well-being and makes life easier and more comfortable in these cities; Among these theories are:

### ***2.2.1. The Concentric Circle Theory (O. W. Burgess):***

This is considered one of the first theories to address social planning in cities or the ecology of urban centers, as it is also one of the theories that explore areas of concentration, where Burgess made a distinguished contribution that reveals a profound influence from early ecologists in his book, "The Growth of the City," an introduction to a research project that included his well-known study on growth patterns and the composition of functions in the city of Chicago, as he was interested in developing ecological theory (Al-Sayed Abd Al-Aati Al-Sayed, 1974, p. 403).

To evaluate this, he attempted to develop a model and graphic description of the way the city grows and its spatial organization, using an ecological map of Chicago as the basis for his research; and to achieve his objectives, he addressed the city's growth in light of its physical extension and spatial differentiation, starting from the basic idea that land prices and accessibility reach their highest in the city's commercial core, then gradually decline with distance from the central area, he then developed another basic idea, namely that land prices and accessibility reach their highest in the heart of another city (Hanfi Awad, 1986, p. 40), which means that the city grows within five rings, or decreasing, concentric zones (Mohamed Hafed, 1987, p. 29); These rings are:

- **The Central Business District:**

This area is located at the center of the city's ecological distribution and constitutes the vital core economically, socially, and culturally, it is a transportation intersection and the most accessible part of the city, as the city's most intense activities take place there, and it is home to numerous theaters, cinemas, specialty stores, major hotels, administrations, commercial offices, and banks.

The advantageous location of the central business district and its ease of access have led to increased demand for land and its high prices, this is the reason that led Burgess to say that businesses that achieve relatively high profits and use land intensively are the ones that can be located in the first zone.

- **The Transitional Zone or the Transition Zone:**

The urban expansion and growth that the central business district is experiencing leads to the transitional zone being subject to constant change, which is characterized by population density, a marked decline in per capita income, and the spread of social ills such as social disintegration.

The residents of this zone are particularly racial and ethnic minorities, recent immigrants, homeless individuals, and the marginalized; Because housing and professions in the transitional zone are socially unacceptable, they are usually described as deprived and morally and physically corrupt, according to Burgess theory, the first zone expands physically through the processes of invasion and occupation at the expense of the second zone, which also expands and invades the adjacent zone.

- **Worker Housing Area:**

This area is inhabited by blue-collar workers, clerical professionals, and children of immigrants, they aspire to improve

their children's standard of living and advance them up the social ladder.

- **Better Residential Area:**

This area includes single-family housing, local business districts, luxury apartments and condominiums, and some residential hotels, this area is inhabited by white-collar workers, professionals, and small entrepreneurs.

- **Commuter or Suburban Area:**

The commuter area is located outside the city limits and represents a residential area for high-income earners, it can also be home to some specialized neighborhoods, and it consists of the upper and upper middle classes, and most of its residents are commuters (Al-Sayed Al-Husseini, 1981, pp. 131-134).

From the above, we find that Burgess's attempt clarified:

- The city grows and expands in the form of rings and circles, and these circles represent successive areas of urban expansion.
- Burgess takes the idea of growth and expansion as a starting point for studying the processes of conquest and occupation, meaning that the expansion of central businesses leads to their conquest of a second area, and the expansion of the latter leads to the conquest of a third.
- The greater the distance from the city center, the greater the tendency toward increased land sizes and a decrease in the density of ownership.

### **Criticism of the Concentric Circle Theory:**

Through his theory, Burgess attempted to formulate an ideal model for studying the growth of the city in light of its physical expansion and spatial differentiation, similar to the ideal model

formulated by Max Weber for the study of bureaucratic organizations, as the first thing that can be noted is that, when formulating his ideal model, Burgess did not anticipate that the concentric circle pattern would exist in every city, where he anticipated variations and distortions from this pattern, attributing them to factors such as natural and human obstacles, previous land use, political interference in the form of planning, and available means of transportation.

Despite the benefits Burgess achieved, it still raises many questions to which it has not provided satisfactory answers, and it is also not without gaps and weaknesses, which can be summarized as follows:

- Diversity in land use within each region and city.
- Arbitrary definition of regional boundaries.
- The lack of Americanization of Burgess's model.
- Limite of generalizability.

Burgess's testing of ecological variable (Hamid Kharouf and others, 1999, pp. 24-26).

These criticisms were made by urban ecologists, and most of them relate to the limitations of Burgess's ideal model and its flaws and shortcomings, where some advocates of Burgess's theory add further criticisms based on American studies, which we summarize as follows:

- The central area does not necessarily have to be circular.
- Different housing types may exist in many parts of the city.
- The location of heavy industry, which Burgess considered a distorting factor, may not be so in some cities.
- Industry is not found only in transitional areas.
- In many cities, there is a correlation between the location of industry and housing for low-income workers, confirming the inconsistency of this model with reality, as it has been applied temporarily to some American cities that grew rapidly as a result of immigration.

### 2.2.2. *Sector Theory: Homer Hoyt*

This theory emerged in the late 1930s (1939) as a response to criticisms of Burgess's theory, as Hoyt presented a conceptual framework attempting to define the ecological pattern of the city in light of the sector concept, and he explained that the identification of sector residents or social class residents depends on rental values. To clarify this, he specifically studied the variable of income, revealing that what determines the spread of residential areas is individual income, while what disrupts the internal structure of cities are the roads leading from the city center to the outskirts.

Based on Hoyt's specific understanding of city growth, he asserted that urban growth is determined by the extension of the prevailing land-use patterns, and he viewed the city as a circle and the different areas as sectors, as well as he also explained that urban growth occurs most rapidly along major transportation lines and along the lines of least resistance.

#### **Criticism of the Theory:**

Among the criticisms directed at this theory are the following:

- Its limitations and narrow scope of application, due to its starting point being a specific ecological pattern that reflects the reality of some cities in a particular historical period.
- It ignores the historical dimension, which profoundly influences ecological construction, where Francis Hauser emphasized the importance of this dimension in urban studies, therefore, the sector theory's application is limited to a few European cities, making it difficult to generalize it to the rest of the world's cities.

### ***2.2.3. The Multiple Nuclei Theory:***

This theory emerged in the mid-1940s by Harris and Allman, attempting to arrive at an explanation of the ecological pattern, as this theory is based on a fundamental idea that asserts that urban growth does not depend on a single nucleus, but rather on multiple nuclei, and that four factors influence the distribution of activities – the establishment of nuclei – in the city.

- A. Some activities require special facilities, located in specific parts of the city.
- B. Some activities benefit from being located in a single location.
- C. Some activities tend to be incompatible.
- D- Some businesses are unable to obtain prime locations, which forces them to seek less desirable locations with lower rents.

These theories have formed an intellectual framework that reflects a distinct trend in the study of the ecological pattern of the city, however, there are differences between the three theories, due to the perspective each adopts and the way they view this pattern.

Despite the multiplicity of visions and concepts for interpreting urban ecological structures, classical ecological theory has been subjected to a harsh critique, encompassing the following points:

- The basic assumptions upon which this theory is based.
- The role of competition as a quasi-social phenomenon.
- The boundaries between social and quasi-social phenomena.
- The spatial nature of human activity.

### ***2.2.4. Modern Ecological Theory:***

This represents a new model of the early ecological theory formulated by Park, Burgess, Hoyt, McKeetry, Allman, and Harris, it is based on the fundamental idea that ecological theo-

ry, like any other sociological theory, must encompass the entire range of social phenomena, as the works under this theory have appeared in two groups; for clarity, the positions are discussed according to the thinkers:

**The position of Quinn:** He limits the subject of ecology to problems related to the division of labor and its impact on spatial and geographical distribution, as he believes that the various problems facing society cannot all be subjected to ecological analysis, which calls for greater attention to the reciprocal relationships between groups and the environment, where most of his work has focused on applying environmental principles and the concepts of the urban local community and the urban center or metropolitan area (Fadia Omar Al-Julani, 1984, p. 76).

**The position of Amos Hawley:** He presents a new theory that serves as a bridge between early ecological theory and current ecological theory (Al-Sayed Al-Husseini, p. 410), as the previous foundations upon which this theory is based can be summarized in the following points:

- The subject of ecology revolves around how individuals sustain themselves in an ever-changing environment.
- The local community constitutes the unit of analysis.
- The study of individuals as members of groups.
- The spatial dimension.
- The temporal dimension: Hawley's emphasis on daily interaction adds a new dimension to the study of the local community, namely the temporal dimension.
- The integration of psychological and ethical aspects.
- The interconnectedness of subsistence activities aligns with prevailing values.
- The inseparability of biological, parasocial, cultural, and social phenomena.

- Cultural adaptation is considered a legitimate topic in ecological analysis.

### **Third: Aspects and Factors of Urban Growth:**

#### **1- Aspects of Urban Growth:**

We can distinguish two basic types or aspects of urban growth, which have captured the vast majority of urban aspects in our understanding: demographic and ecological, a third aspect, the organizational aspect, can also be added.

#### **A- Demographic Aspect:**

Ancient cities were characterized by being smaller by modern standards, as despite their small size, they were noticeably fewer in number, whereas the size of early cities was determined by several economic, social, and political factors, such as fear of revolution and ensuring control, which was the most reasonable and realistic explanation for determining the size of early cities, in both ancient and modern history, the largest urban centers did not account for more than 1-2% of the population, meaning that between 50-90 farmers supported only one urban resident.

By the beginning of the nineteenth century, the demographic manifestations of urban growth were clear and prominent, as Western Europe started from scratch, yet its cities not only reached the level of the cities of the Roman era or the Middle Ages but also quickly and steadily advanced; At this particular time, urban growth took off based on the achievement of new areas and markets, and the significant rates of progress in agricultural production and means of transportation, to open up new areas and markets and increase the rates of productive activity in the industrial field, where the Industrial Revolution and the radical transformations and changes associated with it represented a modern civilizational revolution in the nineteenth century, not in the sense of the emergence of some cities

here and there, but in the sense of the movement of large numbers of the country's population to reside and live in cities and major urban centers; From this logic, some researchers, such as Kingsley Davies, tend to choose the period from 1500 to 1950 as if it represents a distinct trend of urban growth in the modern era.

This phase, spanning approximately a century and a half, is characterized by the expansion of international trade to such an extent that residents of major cities and urban centers could source their living necessities from increasingly vast geographic areas, as the entire world effectively became the hinterland of modern cities, however, contemporary urban growth trajectories, and conditions diverge significantly from historical patterns, as the 21st-century city of one million inhabitants differs fundamentally from its 19th-century counterpart, even if they share the same population size.

The proliferation of 20th-century cities—some reaching 5 to 15 million residents—reflects not merely quantitative differences but profound qualitative shifts in urbanization dynamics, one of the most notable recent trends is the outward expansion of major cities beyond their administrative boundaries, a phenomenon rooted in the 19th century but intensifying markedly in recent decades.

While metropolitan regions have experienced overall population growth, central cities (Central Cities) have seen declining growth rates compared to their peripheral zones, this trend underscores a spatial redistribution within metropolitan systems rather than a mere decentralization, where Warren Thompson's analysis of 44 U.S. metropolitan areas during the early 20th century (1900–1940) revealed striking patterns:

Peripheral zones grew three times faster than central cities (13% vs. 4.2%).

Rural areas within metropolitan regions even surpassed urban zones in population growth rates.

Thompson concluded that population growth rates escalate progressively with distance from central cities, signaling a transformative shift in urban spatial organization (Al-Sayyid Abd Al-Aati Al-Sayyid, 2000, pp. 132-135).

**A. The Ecological Aspect** (Al-Sayyid Abd Al-Aati Al-Sayyid: op. cit., p. 139):

Among the most distinctive features of early urbanization was the establishment of cities for purposes of defense, worship, and trade—activities that characterized ancient cities in regions such as Madar, India, and Greece for extended periods, these cities also functioned as political centers entrusted with administrative and military responsibilities, thereby becoming natural habitats for ruling elites who monopolized military power and religious-economic authority.

The functional characteristics of ancient cities inevitably influenced their ecological structure and the spatial organization of populations and activities; Geographically, economic factors and socio-political forces played a significant role in determining the locations of early urban settlements, as many ancient cities emerged and developed along land and maritime trade routes, such as Istanbul and Samarkand, whose strategic locations contributed to their prominence as major commercial hubs, however in ancient Egypt, the selection of a capital city was contingent upon the preferences of successive pharaohs, leading to the abandonment of previous capitals in favor of new ones.

Ecologically, ancient cities were marked by physical isolation and autonomy, whereas the predominant urban model during this early phase of urbanization featured cities encircled by fortified walls, which served defensive purposes aligned with the

technological capabilities of the era, as these walls also regulated commercial activities into and out of the city. Internally, partitions and barriers divided neighborhoods, reflecting ecological, cultural, ethnic, occupational, and kinship-based segregation among inhabitants.

The spatial distribution of populations and activities within these cities was shaped by prevailing economic and social organizational frameworks; Ecologically, cities were divided into isolated districts based on criteria such as lineage and occupation—a natural outcome of the rudimentary transportation technology of the time.

Moreover, the simplicity of transportation methods and the tendency of populations to reside near their workplaces contributed to another defining characteristic of ancient cities: severe overcrowding and densely clustered buildings, resulting in narrow, winding streets.

On the other hand, ancient cities lacked distinct land use patterns, whereas modern cities are known to use the same spatial unit or building for more than one purpose, as is the case with medieval cities, due to the urban growth trends of this period, which represented a revival and renewal of urban life that had disappeared with the fall of the Roman Empire, therefore, this intermediate phase of urban growth did not reveal anything new except for the expansion of some cities, the dominance of commercial activity over the functional basis of the city, and finally, the emergence of many capital cities, extending urban life to new and diverse locations around the world.

With the entry of urban growth into its modern phase, especially since the Industrial Revolution in Europe, cities have witnessed widespread ecological changes through a series of ecological processes, the most important of which are isolation and urban sprawl.

## **B. Spatial Segregation:**

Spatial segregation refers to the physical separation between various activities and population groups, as previously noted, urban growth has been associated with significant shifts in the functional foundations of modern cities and fundamental modifications in demographic elements, consequently, this necessitates radical transformations in the spatial distribution patterns of populations and activities, as well as in the spatial arrangements organizing them, because, with population growth, cities inevitably fragmented into distinct zones dominated by specific land-use patterns, the separation of residential areas from workplaces and diverse urban activities emerged as a prominent feature of ecological change, paralleled by clear spatial division and the diversification of economic activities in modern cities, additionally, residential neighborhoods became differentiated based on the socio-economic status of their inhabitants.

Industrialization occupies a central role among factors driving urban growth and the ecological transformation of modern cities, over time, population growth in cities—combined with intense competition for central locations in major urban areas, the inadequacy of residential zones in these areas for large segments of the population, and the evident failure to develop new housing in inner-city regions—collectively propelled residential expansion beyond city boundaries, as this process was further accelerated by advancements in public transportation and the widespread adoption of electricity, where these dynamics underscore key outcomes of contemporary urban growth trends:

- The Unplanned Expansion of Metropolitan Centers: The emergence of large metropolitan hubs reflects unintended consequences of interacting forces that lacked comparable influence in earlier urban growth phases.

- Population Deconcentration in Central Cities: A persistent decline in population growth rates within major city boundaries compared to other parts of metropolitan regions.
- Suburbanization and Peripheral Development: Evident in rising daily commuting rates for work, education, commerce, or leisure between urban cores and their peripheries.

**c. Organizational Dynamics** (Al-Sayyid Abd Al-Aati Al-Sayyid: op. cit., p. 145):

Early economic developments played a pivotal role in humanity's transition to settled life, initially marked by advancements in agriculture, animal domestication, and rudimentary craftsmanship, although cities first emerged as economic mechanisms in ancient Eastern civilizations, population growth enabled the evolution of labor division systems, increasing production rates and agricultural surpluses, which allowed larger numbers of individuals to specialize in non-agricultural roles; on the other hand, Early urbanization introduced critical economic elements such as property ownership, labor, economic power, and welfare, alongside basic economic organizational forms—specialized guilds of merchants and artisans, state regulation of agricultural cycles and trade, and the delineation of private property rights.

Early urban growth coincided with significant organizational shifts, particularly in the economic sphere, and with the advent of the technological revolution—especially in industry and transportation—urbanization entered a new phase, as increasing labor specialization accelerated technological progress, facilitating industrial enterprises and factory systems that triggered cascading socio-economic and organizational changes, where market expansion and centralized governance fostered

mass production, epitomized by the industrial city, which reflects the complexity of the modern economic organization, thus, urbanization has historically driven transformative shifts in the means of livelihood, propelling societies toward heightened economic and social complexity.

These organizational developments paralleled technological advancements and demographic shifts, particularly as traditional pre-urban social structures failed to meet the demands of modern urban life, consequently, the proliferation, diversification, and intricacy of urban institutions became imperative, surpassing even the necessity of technological innovation. The organizational changes accompanying urbanization reverberated across all facets of urban social life, from family structures to relationships between urban communities and governmental institutions, as among the most evident outcomes was the bureaucratization of society, which fundamentally altered systems of status and class stratification, where external influences increasingly overshadowed local determinants in shaping individual social standing.

In this regard, scholars such as Oscar Lewis, Max Weber, Josiah Strong, Émile Durkheim, and Marshall Clinard have emphasized the psychological and social repercussions of urbanization, as their works often reveal a pronounced "anti-urban" bias, highlighting phenomena such as alienation and anomie—key concepts framing the adverse psychological and social effects of urban growth on individual identity, interaction patterns, and behavioral norms, where these pessimistic critiques of urbanization are rooted in observations of fragmented social bonds and the erosion of traditional value systems in urban settings.

## 2. Urban Growth Factors:

Urban growth, which is the continuous increase in the proportion of the urban population to the total population, is based on four factors:

- Natural population growth.
- Migration from within and outside the country.
- The integration of villages and rural areas into cities.
- Municipal and regulatory administrative decisions by which some rural population centers are classified as urban.

The importance of each of these factors varies depending on the stage of urbanization, as when urbanization levels are relatively low—especially when there is little difference between fertility rates of the population in rural areas compared to urban areas—migration is one of the reasons for the difference in growth rates between urban and rural areas; while in cases where urbanization levels are high, the rate of natural increases in the size of the urban population has a more effective impact in determining the rate of increase in the proportion of the urban population to the total population.

Furthermore, when economic opportunities expand rapidly in urban population centers, incoming migration is a more influential factor in the continued growth of these urban areas; In general, natural population growth rates in urban areas are typically lower than in rural areas; however, the impact of migration varies from country to country, and within a country, from region to region.

The integration of villages and rural areas into cities is another factor driving urban growth, undoubtedly, the urban expansion of many small and medium-sized cities often leads to the integration of these cities with neighboring villages and desert areas. It is worth noting that the proportion of Bedouins relative to the population is gradually declining due to their

shift from nomadism to urbanization, in addition to government efforts to settle Bedouins and encourage them to settle.

As for the municipal and regulatory decisions by which some rural communities are classified as urban, in Arab countries in general, this is based on the availability of certain services, such as health and education services, or the population growth in these rural communities, which results in increased state financial allocations and an expansion in the size of the administrative apparatus, which is not based on changes like economic activities.

Despite the classification of these communities as urban areas, the rural cultural background of their inhabitants remains evident in their social behavior and is even prevalent among rural migrants to cities, as migration, both internal and external, represents the most important factor causing urban growth at the level of a single country<sup>1</sup>, because migration is an unnatural population increase that causes urban growth (*Journal of Gulf and Arabian Peninsula Studies*, 2003, pp. 52-57), leading to a natural, human, regional and ecological increase, which adds a continuous addition to the city in terms of services and facilities, which necessarily requires different groups of education and health services to meet the needs of the urban development plan, by introducing everything that increases the vitality of the urban structure, it is required that the urban population advances in quality and increases in quantity, and it is most likely that the "growth of large cities" before the industrial revolution was due to the factor of migration (Mohamed Qabari Ismail, pp. 379, 380).

Analysts often consider rural-urban migration a premature process, resulting in premature urban growth, as Egypt, Iraq,

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<sup>1</sup> Abrams Charles: *The City and Housing Problems*, translated by a committee of translation professors, Good Horizons, Beirut, undated.

Jordan, Algeria, Libya, and other Arab countries are considered overly urbanized, meaning that the level of urban development achieved by these countries does not meet the requirements for productively absorbing migrants, because urban economic sectors have not expanded sufficiently to create jobs and employment opportunities for migrants, on the contrary, these migrants become a heavy burden on city life. And because cities are trying to avoid the emergence of unemployment and the complex problems associated with it, they direct their efforts to absorb some of these migrants into sectors that add little to their economic base, thus, a high percentage of the workforce in major Arab cities, especially capitals, works in service jobs with low returns, and the real productivity of these cities only adds marginal benefits, as this premature urban growth began after the city itself was not prepared for this rapid expansion in its population numbers and in the services that must accompany such population growth.

Early urban growth often occurs in cities when they experience rapid changes and economic booms that force them to establish new activities and create more productive sectors, as these forces act as a pull force, affecting the surplus labor in the surrounding rural areas, where hundreds of rural residents are forced to leave for the city. Because the city lacks plans and absorption programs, urban growth problems arise (Abd Al-Ilah Abu Ayyash, 1980, pp. 149-154), accordingly, the factors of urban growth can be explained through Costello's study on the analysis of urban growth in Middle Eastern societies, as follows:

Urban population growth began to increase gradually, especially after World War II, this element was considered a factor in the factors of modern urban growth in Middle Eastern cities, where the rural-urban changes that occurred in Middle Eastern

cities had a significant impact on the interest in analyzing the factors of rapid urbanization and its manifestations in the Middle East. Costello's study on urbanization in the Middle East, published in his book of the same title in 1997, translated the global interest in analyzing the features of urbanization and urban growth in Middle Eastern societies, as he limited these factors to: political centralization, internal conflict, changes in trade patterns and foreign relations, and the discovery and exploitation of oil, however, his analysis was not limited to these factors alone, as he also emphasized the factor of internal and external migration, external and internal cultural contact, and the increase in population size in urban areas.

To determine the effectiveness of these factors identified by Costello in the urban growth process in Middle Eastern cities:

- a. **Political Centralization:**Some Middle Eastern countries, such as Syria, Lebanon, and Iraq, were influenced by European government management patterns, where administrative and political functions were concentrated in the capital, giving them a special status that helped attract immigrants.
- b. **Political Struggle and Encouraging Urban Growth:**Costello argued that the migration of people to certain urban areas as a result of political struggle affected the population growth of some cities.
- d. **Changes in Trade Patterns and Foreign Relations:**The growth of international air transport emphasized the importance of the Middle East's geographical position between Asia, Africa, and Europe, which led to an improvement in the status of some cities, in addition to foreign and international relations, the changes that occurred at this level had an impact on the growth of commercial and administrative activities in the cities.

## Conclusion

Finally, there is the oil factor, which has significantly contributed to urban growth and development by creating opportunities for investment and technology imports, thus strengthening the economic position of producing countries, and enabling them to provide the conditions conducive to urban life. Another factor contributing to urban growth is the advancement of technology, which has benefited developing countries, given their economic capabilities, which has enabled them to import advanced technology, helping to improve urban conditions. Another important factor is internal and external migration to cities, given their focus on education and manufacturing within their surroundings, and their improved commercial activity, Arab cities have been a hub for the migration of technical, intellectual, and scientific talent from abroad, as well as for residents of smaller cities and rural areas, however clear these factors may be, each country in the region has its unique circumstances that expose it to the influence of various factors affecting urban growth. (Fadia Omar Al-Golan: op. cit., pp. 147-148)

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