

## **URBAN DEVELOPMENT AND ITS FORMS: ORIGINS AND NEW CHALLENGES FOR THE TWENTY-FIRST CENTURY**

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**Keywords:** urban development, city planning, human ecology, Chicago School of Sociology.

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### **Summary**

This chapter deals with the issue of urban development. The history of urban development is studied attentively through its main theorists and architects. Special attention is drawn to industrial cities which are the closest examples to our modern cities. The article also studies the urbanization process and the main analyses made by classical as well as modern Urban Sociology. The processes of globalization are taken into account in the general discussion. The main problems of urban spaces in developing countries are analyzed.

### **1. The origins of the city**

‘City’ and ‘town’ have different meanings according to language and place. In Spanish, Italian or German, for example, one word contains both concepts. In the United States, a city is an administrative unit ruled by a mayor and a city council. In the United Kingdom, a city is traditionally a place where a Bishop dwells and it is identified territorially by a church or a cathedral. In both cases, the historical roots of cities have determined the subtle differences in those concepts: USA built its first cities in an age when religious influence on society was decreasing, and when the Catholic Church had definitely lost social power in Anglo-Saxon communities. Urban planning is also known in USA as ‘city planning’ (the American Institute of Planners was originally founded in 1917 as the American City Planning Institute), and in the UK as ‘town planning’ (the Town Planning Institute was founded in UK in 1914). There it is generally accepted that a town exceeds 3000 people, whereas in USA. a town ranges from 5000 people upward. The borderline between villages and towns, and towns and cities, are sometimes subtle, and the very difference between urban and rural spaces might be confusing, making it difficult to draw a clear line between them.

In history, there is evidence of permanent human settlements at around 10 000 B.P., before the discovery of agriculture. They were basically settlements of hunters and gatherers, who did not use extensive agriculture but had some knowledge about the basic principles. Agriculture was the result of the combination of a climate change—that made available new land areas of the planet—and of social and technological factors. There was a trend of growth of population due to better territory control. This growth of population showed some constraints as the communities of hunters and gatherers could not sustain increased pressure on the environment by human inhabitants without collapsing. Population control was implemented through infanticide, longer periods of lactation or sexual inhibition. All these measures were a psychological and a social burden. The development of agriculture made it possible to establish an important food surplus in towns, with a resulting increase in commerce, the creation of important commerce networks, and the growth of its political power in relation to its surroundings. Towns with public buildings made of brick or stone appeared for the first time around the third and fourth millennium B.C. in the rich valleys of the Indus River, the delta area of the Tigris and Euphrates rivers, the lower Nile valley, and the east China coast. At that time, there was not a strict difference between rural and urban ways of life, and in fact most of town dwellers were peasants. The development of agriculture led eventually to further advances: the development of astronomy, in order to know more exactly the best dates to harvest; mathematics, in order to calculate profits and the quantity of surpluses stored in warehouses; and writing, needed for having a written record of these activities. This helped to create a new social class, tied to religious duties, exempted from physical labor. An administrative body was developing, making a more complex urban society. Division of labor and central direction spread. The existence of an agricultural surplus in towns led to another unintended effect, i.e. the frequent raids of tribes of nomads searching for food and manufactured goods. Because of this, another distinctive feature of towns, alongside temples (to house the bureaucratic body) and palaces (for the political power) was created: city walls. In time, rich civilizations would rise, creating cities and empires.

The first form of urban space, that was hegemonic until the seventeenth century A.D. was “that of a classic *container*: an imposing mass of monumental buildings, usually protected by a wall and surrounded by closely built residential quarters, workshops, minor shrines or temples, and markets, threaded by alleys, streets, or processional ways, the whole area enclosed by one or more heavy walls, moats, and canals and entered only through massive gates. Such a city covers a dozen or many hundred acres. Another, looser form, in which the *magnet* prevails over the container, is also visible. This open form, which possibly characterized the pyramid age of Egypt, appeared later in the Acropolis cities of the Aegean and the ceremonial centers of Meso-America. Here, priestly authority rather than royal coercion, provided protection and controlled economic activities, giving dominance to the *temenos*, or sacred precinct. The population that served this area and periodically gathered there was distributed in neighboring villages, suburbs, and country estates. This open urban pattern preserved the institutional order of the citadel but by its salubrious spaciousness escaped the serious sanitary disadvantages of the closely built type” (Sills, 1972: 450).

In origin, the shape of the city was determined by factors such as topography, existing paths or public buildings, vegetable gardens and so on. The results of this unplanned

town were winding roads and labyrinthine layouts. Sometimes, towns would grow more or less out of control around a symbolic center made by the religious and political buildings. Eventually some pattern of urban planning was applied; *grid planning* appeared as the most popular one in classic times. The main supporter of *grid planning* was Hippodamos of Miletus, he was active around the fifth century B.C., and is said to have designed Pireus, Athens' Port.

City	Year	Population
Alexandria	100	250.000
Amsterdam	1470	7.500
Antwerp	1430	14.000
Baghdad	1000	125.000
Barcelona	1350	27.000
Beijing	1500	672.000
Berlin	1450	6.000
Bologna	1370	32.000
Brussels	1496	19.000
Cairo	1500	400.000
Constantinople	1000	400.000
Cordova	1000	450.000
Edo (Tokyo)	1800	685.000
Kyoto	1000	175.000
Leipzig	1.470	2.100
London	1800	861.000
Luo Yang	100	420.000
Paris	1190	59.000
Patan	1000	100.000
Rome	100	450.000
Venice	1360	77.700
Vijayanagar	1500	500.000

Table 1. Estimated population of historical cities  
Source: Russell (1958) and Chandler (1987).

*Grid planning's* basic characteristic is the design of the town following a plan consisting of rectilinear blocks and straight streets, usually with a square created by leaving a block or part of a block unbuilt. Most of the planned cities from the classic age until the nineteenth century follow this pattern. Greek colonies spread this model through southern Europe, and the Roman Empire brought it beyond. When the Roman Empire fell, Germanic tribes adopted it and expanded the concept to all Europe, if not as a matter of fact, at least as an ideal to be applied. In fact, the so called barbarian kingdoms were conducted by people uneasy with urban life, and towns many times adopted an "urban landscape", tending to dissolve the city into many rural nuclei. This pattern was stronger in northern Europe. Bending narrow streets were also easier to defend from enemies' attacks, creating barriers like city walls, the church being the city castle.

With the development of artillery, city walls changed, and urban patterns changed as well, adapting to the new defense strategy, namely, the citadel. The citadel did not present a straight wall, but an angled one that enhanced radial urban patterns because the city was enclosed within a polygon. In the Renaissance the radial street system grew in importance. It was wrongly traced back to Vitruvius (Hall, 1997, and used that way to obtain an additional classic reference for legitimization. In the seventeenth century, architects tended to design buildings in harmony with the built surroundings (i.e. squares, sculptures or other buildings), a tendency that is still valued today.

In the nineteenth century, the Industrial Revolution had reached the European continent (though the UK had experienced it almost a century before) and brought about changes in existing cities that demanded new solutions in the urban planning realm. Rapid city growth, high density of population and industrial necessities such as good access routes, were part of the new scenario.

## **2. Urban planning of industrial cities**

The huge changes that cities were undergoing, combined with the emergence of the more critical and rationalistic ideas of the Enlightenment, led to a debate about city redevelopment and urban improvements. One of the first traditional symbols of cities, namely the city wall, was cleared away to let the city spread beyond, and to prevent the pernicious effects of crowding on public health.

Urban areas underwent a rapid growth as they proved to be a better location for factories. Cities attracted people from the countryside looking for a better life. The attractiveness of urban areas for the location of industry and services stems from scale economies in production (efficient plant sizes are large), lower transport costs (reduced by clustering activities together), the modest use of land by industry and services as an input to production (allowing high densities), externalities among firms (sharing of information), linkages across firms (providing intermediate inputs to each other) and potential agglomeration economies (because large clusters of activities use specialized inputs more efficiently).

Uncontrolled urbanization brought tremors to the cultural elite of Europe. The rise of urban problems brought about an idealization of rural life and the necessity of analyzing the new social problems (which gave birth to Sociology at the beginning of the nineteenth century) as well as a new trend of people concerned with urban design. These people wanted to design perfect cities where “urban sins”—that were thought of as a consequence of poor urban design and social injustice—would be swept away. Many of them were labeled as utopian socialists by Marx. Charles Fourier (and its *phalanstère*), André Godin (and its *familistère*), Robert Owen, and Claude-Nicolas Ledoux, were some of them. Some of their projects were in fact carried out, although none of them achieved their ambitious goals. There were, nonetheless, some interesting ideas to be found. “Different ideas lay behind the first successful model town, Saltaire, founded in what is now Bradford in the middle of the nineteenth century by the industrialist Titus Salt. A good environment and organized social conditions would, Salt assumed, promote effective production. The historical importance of Saltaire lays in the demonstration that planned alternatives to haphazard growth in industrial environments

could be realized within the prevailing social and economic system” (Hall, 1997).

One of the most important ideas in urban design during the nineteenth century, which has survived until today, is the importance of green spaces in cities. In terms of a process it was known as Garden City. Its first supporter and important theorist was the British Ebenezer Howard, who wrote a manifest for Garden Cities in 1898 under the title of *To-morrow: A Peaceful Path to Real Reform* (re-issued in 1902 under the title of *Garden Cities of Tomorrow*). The idea of a green belt surrounding the city was one of the main features of the Garden City Movement, along with limits to population, economic autonomy, and distribution of property to those of lower income. The idea of a green belt was not new in history. Plato spoke of it, Aristotle, Licurgus of Sparta included the idea to rebuild Sparta, Thomas Moore in his *Utopia*, etc. What was somehow new was the theoretical background behind it, the reasons for the new green belt, mostly focused on “social health”. The Garden City Movement aimed to combine the best of both the town and the country. Two towns were founded during the life of Howard: Letchworth and Welwyn, the last considered the most salient example of twentieth century’s urban design, although they went through many financial problems, affecting their viability.

A far different urban design movement is the City Beautiful Movement. This movement also has its roots in the nineteenth century, when imperial cities wanted to show their magnificence to the world. The City Beautiful Movement pretended to embellish cities by designing huge boulevards and promenades, squares, monuments and public buildings, showing richness and majesty. Daniel Hudson Burnham was one of the main planners of this movement. Chicago, Paris, London, Berlin, New Delhi and Moscow, were some of the outstanding examples of this movement. The movement went through some changes in the 1930s with the spread of totalitarianism in Europe (for example, the Piazza del Popolo in Rome).

Perhaps the most influential and controversial manifestation of urban planning in the twentieth century has been the document known as Athens Charter. The Athens Charter was the result of the IV CIAM (Congrès Internationaux d’Architecture Moderne), under the title “Functional City”, held in Athens in 1933. The most important theorist of the “functional city” and author of the Athens Charter was Le Corbusier. His perspective of urban design was influenced by fordism and mass production in factories. He spoke of the city as a “dwelling machine”, and he was impressed by the “perfect” distribution of space in factories, each one holding a particular function. Le Corbusier saw spaces with clear functions, perfectly designed for each particular function, creating a specialized space adapted to the needs and desires of people. “Functional City’s” followers did not support multifunctional spaces at all, as those spaces were not suited to any particular behavior or task and were, as a consequence, useless. For them, a rational plan was needed to achieve a perfect working city, where all citizens’ activities would be guaranteed and provided in specific places. For Le Corbusier, the street was a multifunctional element that had to be substituted when possible by motor roads. The only function of streets was to provide access to other places. “Man walks in a straight line because he has a goal and knows where he is going; he has made up his mind to reach some particular place and he goes straight to it” (Le Corbusier, (1929)1971) or, “The winding road is the result of happy-go-lucky heedlessness, of looseness, lack of

concentration and animalism. The straight road is a reaction, an action, a positive deed, the result of self-mastery. It is sane and noble” (Le Corbusier, (1929).

Nowadays, the importance of streets in urban life has been recognized, being multifunctional public spaces. This is a more interesting and accurate perspective from the point of view of Sociology as well, because these spaces mean a richer social life and a broader scenario of social interaction.

One of the main features of the twenty-first centuries’ cities is the prominence of automobiles. Since the mid twentieth century, the number of cars has soared in industrialized societies to the extent that it has dramatically affected urban development. Nowadays, parking lots or motorways are an inherent part of urban planning.

Throughout the course of twentieth century, the distinctions between urban space and rural space have been fading. Those distinctions still exists, but it is getting difficult for social scientists to draw a clear boundary between them. People spend more time out of the city than before, and develop a pattern of secondary houses in the countryside, exporting urban styles of life. More people (mainly working class) choose to live in suburbs next to the city, where prices are lower. Middle and upper class people also move to the countryside, because there is a perceived higher standard of living and a closer contact with Nature, although they continue working in the city.

Through this pattern of settlement, previously existing open spaces between cities have been lost to development. In these cases, we talk of conurbanization and megalopolis. A group of closely situated cities may become important economic centers. The first urban space denoted as a megalopolis is the region in USA. from Boston to Washington D.C., so called BosWash, which is linked by economics, transport, and communications. In this area, characterized by a high population density (271 citizens per sq. km.), reside 44 million inhabitants, approximately 15% of the entire U.S. population. Other megalopolis zones are Tokyo and Osaka in Japan, and the Midlands in UK.

City centers are increasingly being transformed into leisure space and office buildings, specializing on third sector activities. Even so, there is currently a trend to recovering those spaces for more multifunctional social activities.

Globalization has generated competition among cities. The transformation from a manufacturing to a post-industrial economy, the deconcentration of urban downtowns, as well as the globalization of labor and capital, have created a new scenario where cities compete one with another for investment, tourists and development. This is a situation of global urban marketing, where some factors are determinant in achieving economic prosperity for cities. Perceived quality of life, good communications, good infrastructures, a trained workforce, low wages, low land prices, access to national administrative resources and political stability, are the main factors in urban marketing. Cities that develop a particular urban resource or become specialized in providing a concrete good or environment have more chance of success in the global market. The linkages between administrative powers, the city and the region, are also of great importance for the development of cities. In Western Europe, many governments have invested in their cities, helping them to gain more importance in the global market

place. Conversely, in some cities in USA, there is currently a decrease in financial resources leading to cities in decay, as is the case in Detroit (Savitch and Kantor, 2002). Political domain also has a strong influence on cities. “The type of government also influences the growth of large cities. In countries with unitary governments, large cities have tended to grow faster than urbanization, while large-city growth has been slower in countries with federal governments” (Ingram, 1998). Nowadays, cities are considered by social scientists as social actors that make strategic choices in a global market rather than passive elements.

Sassen (1991) considers the modern city as a global city. The global city is an urban center of great importance and influence in the global economy. Global cities are centers of reference in the production of services, as well as cultural and economic affairs. Many multinational companies locate their decision centers in such cities, making financial decisions that affect the global economy. Those cities are also production centers, but instead of producing manufactured goods, they specialize in services and design, i.e. they deal with added value. The three most important global cities (following Sassen) are New York, London and Tokyo. Castells (2000) adds some other global cities on a second level of importance, such as Hong Kong, Singapore, Chicago, Frankfurt, Los Angeles, Milan, Zurich and Osaka.

The need for cities to offer better services and have more comprehensive resources leads to the development of city regions. A city region is an alternative urban management model to the center for services and resources, as it is aimed at decentralization. A “mother town” and its surroundings form a city region. Services are distributed and a good communication network provides good access to all points. There is a hierarchical relationship but in a milder way than in the older model. Some successful examples in Europe are the German Rhur, the Dutch Randstadt or the Italian Lombardy. On the other hand, a city region model means a rise in housing prices to maintain the low density that characterizes this model. It seems also to depend more on cars rather than in an articulate public transport system. Large cities in both industrial and developing countries usually have a central business and administrative center, but they also have several sub-centers, which form a polycentric pattern. Small cities (above all in developing countries) are more likely to have a single clear center. Land markets are strong determinants of decentralization. On the whole, cities obtain good results when they join urban networks. Other perspectives are increasingly being integrated into the contemporary urban development arena, as is the case of sustainable development.

Sustainable development has become a key challenge for cities as it provides a higher quality of life for its inhabitants and represents a chance for investments in a global market of cities (OCDE, 1997). The growing importance of Nature in all aspects of society can be found in urban planning. Green belts and urban parks are considered as part of basic urban services and as a sign of a good standard of living. Urban parks also work as “city lungs”, creating less polluted spaces, cleaning the air in the city, and also mitigating noise. A very dense vegetal web can reduce noise up to ten decibels (Alonso, 1971). Psychologists have demonstrated a positive influence of green spaces on social behavior and mental health.

Considering users, cities have been traditionally “designed” for a particular kind of user: man, middle aged and a working person. Women, older people, children, disabled people, and unemployed men, are not taken into account in urban planning and management of the city. “Building a city depends on how people combine the traditional economic factors of land, labor and capital. But it also depends of how they manipulate symbolic languages of exclusion and entitlement” (Zukin, 1997).

Cities can also operate as memory places, which reinforce certain values and ascribe the space to particular people. The memory of cities tends to overlook some social groups, mainly women and ethnic minorities (Hayden, 1995). By doing so, their past presence is left aside and its current importance is put into question. The physical structure of cities resembles a specific ideology, and it is carried out mostly by men. Women architects are rare and often undervalued by their male mates. As a result, many women tend to imitate male design, and by doing so they legitimize and perpetuate existing values in the shape of the city.

As for the elderly, their dwellings are often in urban city centers, where services are expensive and spaces are in social decay. The public facilities and plans in these areas often are very different from the needs and interests of older people. For children the main restriction in cities is the use of the street, which has become a space of perceived danger. This fact enhances seclusion at home, resulting in poorer social life and increasing health problems due to the lack of physical activity. Spaces should be design for the people who are going to use it. Where public spaces are potentially used by several kinds of people, spaces have to be designed to take into account the main function of that space. These spaces should be designed as flexible spaces, offering chances to other complementary uses. Always, spaces should be designed with consideration for the least favored person who might use that space, in order to prevent discrimination and guarantee free access for everyone to urban space.

Finally, social sciences’ research on urban issues indicates that social distance between social groups is related in many cases to physical distance between residences. Social segregation in urban spaces is due to three kinds of factors: ecological, voluntary and involuntary. Ecological factors deal with economic and ecological forces such as housing and socioeconomic characteristics of groups. Voluntary factors are exhibited in conscious choice to segregate themselves from other groups. People sharing the same culture or ethnic background might choose to dwell together as a way of coping with urban uncertainty. Involuntary segregation takes place as a result of laws or tradition, and people draw conclusions about what space belongs to each group.

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