

Chapter 6

Urban Land Use and Planning

KEYWORDS

- › zoning
- › central business district (CBD)
- › concentric zones
- › sectors
- › multiple nuclei
- › social stratification
- › gated communities
- › *favelas*
- › brownfield sites
- › gentrification
- › land use change
- › land values
- › bid rent
- › greenfield sites

LEARNING OBJECTIVES

By the end of this chapter, you should be able to understand:

- › That different land use zones develop in cities
- › That urban land use theories explain land use zones in cities
- › That changes in land use zones can lead to planning issues
- › That land values vary within cities
- › That social stratification exists in urban areas
- › That the expansion of cities puts pressure on rural land use.

Urban land use zones

Urban settlements display an ever-changing land use pattern and pose planning problems.

In cities today, separate districts are used for different purposes and activities. Local authorities divide urban areas of land into zones, within which various uses are permitted.

Zoning means that a city will develop in accordance with a specific plan. Zoning prevents a free-for-all in urban land use. Zoning ensures that manufacturing with heavy goods traffic is located in an area zoned for manufacturing and that residential areas are located close to recreational parks.

There are several types of land use:

- › Commercial
- › Industrial
- › Recreational.
- › Transport
- › Residential

Commercial land use

Commercial districts in an urban area are where banks, building societies, department stores, offices and theatres are found. The commercial centre of an urban area is referred to as the **central business district (CBD)** and is usually in the city centre. The CBD is accessible to residents because transport networks meet there. Because space is limited and rents are high in the CBD, office buildings are multi-storey. Dublin's CBD is in the city centre and includes a large area around O'Connell Street.

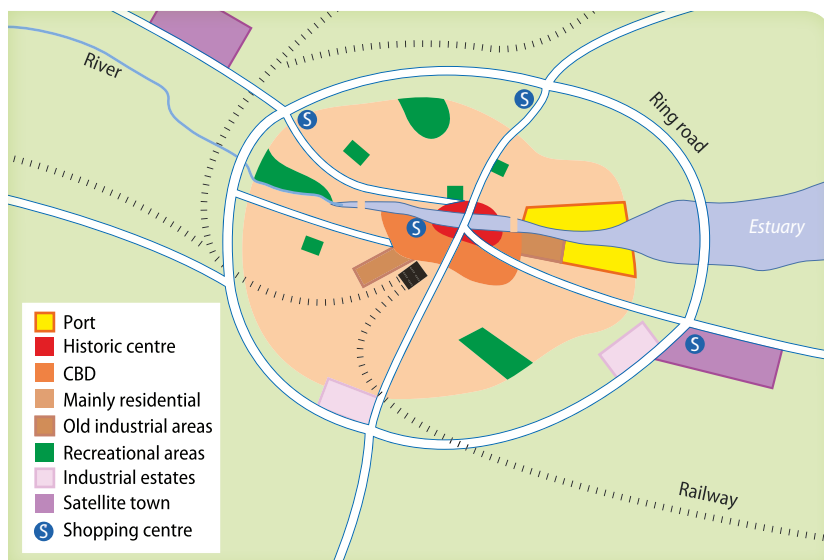


Figure 6.1 Land use zones in modern cities. These features are found in most cities today.

Transport land use

Roads, car parks, bus depots, train stations and tramway lines take up a lot of space in urban areas. Since European cities have grown outward from a medieval core, city-centre streets are often very narrow. However, cities in the Americas and in Australia have developed in the last 200 years and have much more spacious streets in the city-centre areas.

Industrial land use

Since many cities have major ports, cities are important manufacturing centres. Port industries include steelworks, shipbuilding and ship repair, cement manufacture, heavy chemicals and oil refining. In the past, factories were built close to canals and railways for access to bulky raw materials. Today, however, many modern light industries are located on the perimeter of cities close to a ring road such as the M50 in Dublin, where land is cheaper and sites are more spacious than in the city centre.

Residential land use

This occupies the greater part of the land area of a city and its suburbs. High-density housing is found close to the centre because of the high cost of land. Multi-storey apartment blocks are found close to the city centre for the same reason. In the suburbs, homes are more spacious and are likely to have gardens. The greater portion of Dublin is residential land.

Recreational land use

Recreational areas are important in urban areas. People can take time out from busy lives to unwind in a natural environment and appreciate the natural world. Well-known parks include Phoenix Park in Dublin, Hyde Park in London and Central Park in New York.

ACTIVITY

Skills

Examine the photograph of West Dublin on page 134. Name four different land use zones in the photograph.

ACTIVITY

Thinking

Explain the advantages of zoning in urban centres.

CASE STUDY

Urban land use zones in Dublin

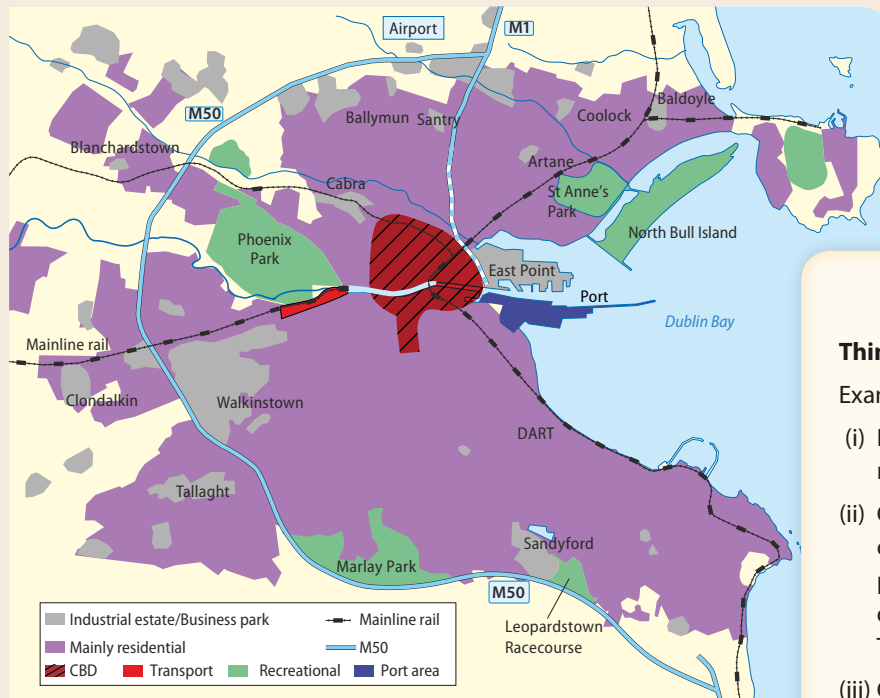


Figure 6.2 A simplified map of land use zones in Dublin

ACTIVITY

Thinking

Examine Figure 6.2.

- (i) Describe what you see in the map of land use zones in Dublin.
- (ii) Can you suggest three commercial activities that take place in Dublin's CBD? (Think of Grafton Street, the IFSC and Temple Bar.)
- (iii) Can you suggest two reasons for the development of industrial estates and business parks along Dublin's urban fringe?
- (iv) List three areas of recreation in Dublin and explain two benefits that these areas bring to the people of Dublin.
- (v) Can you suggest one reason why activities in the port area might be of concern to residents?

Theories of urban land use

Researchers have studied land use in urban areas over many decades. Many theories have developed to explain urban land use. We will now examine three modern land use theories, each of which was developed in the USA:

- E.J. Burgess's concentric zone theory
- Homer Hoyt's sector theory
- Harris and Ullman's multiple nuclei theory.

E.J. Burgess's concentric zone theory (1925)

Burgess focused on social distinctions or social stratification in the city of Chicago only. Burgess's theory tried to explain why people with the same income live in the same urban districts. His theory attempted to explain the relationship between wealth and distance from the CBD. Wealthier people tend to live furthest from the CBD in spacious suburbs at a considerable distance from people with lower incomes and lower social status.

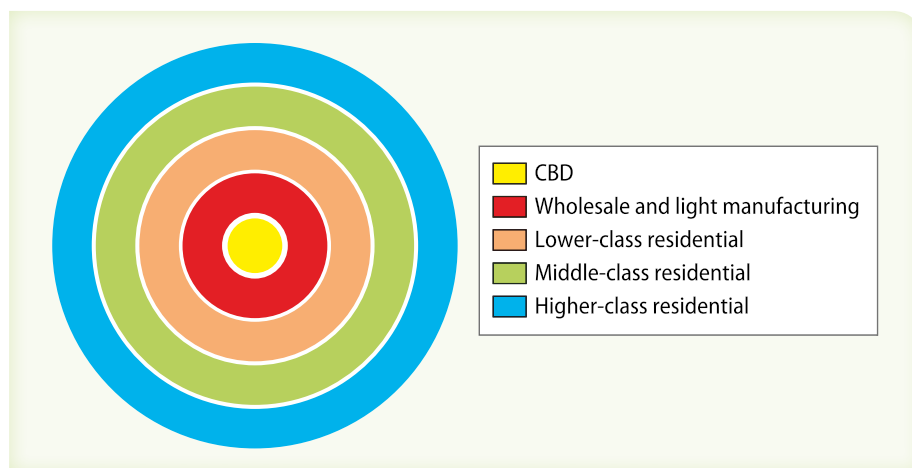


Figure 6.3 Burgess's concentric zone theory

Burgess claimed that cities are composed of **concentric zones** that become established as the city expands outwards from the centre.

- › Zone 1 is the CBD. It is the commercial heart of the city. Land is very expensive in the CBD and there is great competition for land. Therefore, buildings are multi-storey to make greater use of space.
- › Zone 2 is a transitional zone. It has wholesale stores and light industry manufacturing. These premises are increasingly cramped because of the pressure of space. This zone also has some residential areas, with recently arrived emigrants living in cramped quarters.
- › Zone 3 is lower-class residential. Residents here are close to their workplaces in zones 1 and 2. Population densities are high in this zone, with high-density terraced homes. Many apartment blocks are built here to replace older terraced homes.
- › Zone 4 is middle-class residential. Land is cheaper here than in zone 3, so there is space for parks and playgrounds. Homes are spacious and are likely to have private gardens.
- › Zone 5 is high-class residential. It has spacious homes built on large plots. This zone includes villages that have been swallowed up by the expanding city. Many people in this zone have long commuter journeys to the CBD for work.

Is Burgess's theory relevant to cities today?

Burgess developed his theory almost 100 years ago in the USA and cities have changed dramatically since then. However, some aspects of his theory still apply.

- › Recent migrants with low incomes live close to city centres. This occurs in Dublin, Paris, Brussels, Antwerp, Lyon and countless other cities.
- › In Dublin, Cork, Limerick and Galway, many middle-class people live further away from the city centre than working-class communities.

However, the Burgess theory is at odds with modern cities in many ways.

- › His theory does not factor in the impact that physical features such as hills, swamps, lakes and rivers have on the development of a city. For that reason, zones are rarely concentric.

- › Many modern cities have areas on the edge of the city where local authorities have rehoused working-class communities from the inner city. For example, this occurred in Ballymun in Dublin.
- › Modern cities such as Cork, Dublin, Galway, Limerick and Waterford have ring roads where modern manufacturing and shopping centres are concentrated. Today, because of the expansion of the CBD and the lack of space, light industry is rare in the city-centre zones.

Homer Hoyt's sector theory (1939)

Hoyt used many American cities, including Chicago, to develop his theory of urban development. For Hoyt, transport routes are the essential feature in the development of urban land use, an observation that is undoubtedly true. He believed that cities grow outwards from the centre in wedge-shaped patterns along transport routes. Each wedge has a particular land use. People with similar incomes live in similar **sectors**.

- › Zone 1 is the CBD, just as it is in Burgess's theory.
- › Zone 2 is the wholesale and light manufacturing sector. This sector is located along routeways such as river, canal, rail or road corridors. Zone 2 grows outwards from the centre as more factories and wholesale premises are built. There are likely to be working-class homes in this zone, where workers live close to factories.
- › Zone 3 is the lower-class residential sector. Many people who live here find work in zone 2, which is close by. They have a short and cheap commuting time, which is important for poorly paid workers. Air and noise pollution from the factories in zone 2 reduce the quality of life in this sector.
- › Zone 4 is a middle-class neighbourhood. It is spacious, leafy and has a clean environment. Hoyt also accepted the idea of social stratification because it was obvious in many cities that he studied.
- › Zone 5 is the higher-class residential area. This is the most desirable part of the city for residents. It may be on higher ground with good views and clear air. It has country clubs and golf courses. Wealthy people can travel to the CBD along major road or rail routes that extend right into the city centre.

ACTIVITY

Thinking

Where is the CBD located in your town or city or in the town or city nearest to you? Explain your answer.

ACTIVITY

Discussion

Can you identify a zone of manufacturing in your town or city or in the vicinity of your town or city? Why, do you think, is it located where it is?

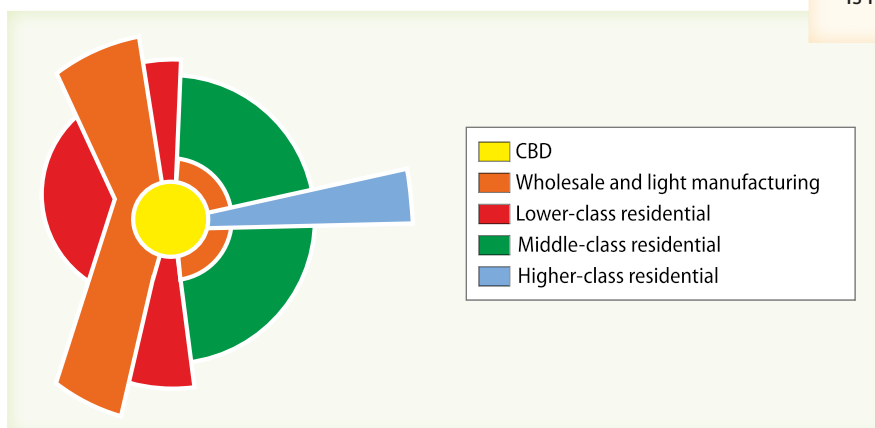


Figure 6.4 Hoyt's sector theory

Is Hoyt's theory relevant to cities today?

This theory was confined to American cities and may or may not apply to European cities. The theory is out of date for several reasons.

- Urban regeneration of inner cities and of old manufacturing and docklands areas has occurred in many cities, such as Belfast, Dublin and London. Old working-class areas beside the CBD have been regenerated with modern offices and high-quality apartments.
- Social stratification is not as distinct or as clear-cut as Hoyt claimed it was. Many high-earning professional young people have replaced or live close to working-class people in regenerated areas.
- City-centre manufacturing has moved out to the perimeter of cities along ring roads in recent decades.

Harris and Ullman's multiple nuclei theory (1945)

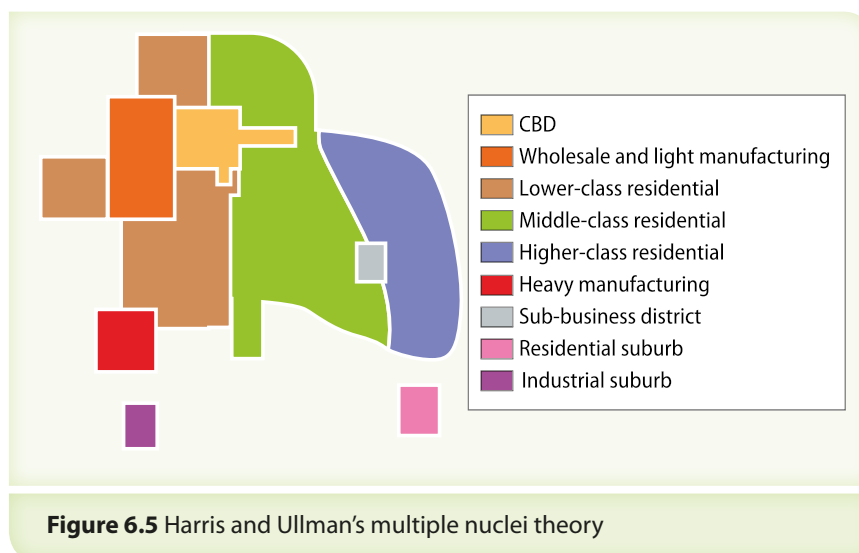
Harris and Ullman believed that the two previously examined theories failed to explain the development of many cities. By 1945, car ownership in the USA was much more important than it had been in earlier decades. Car ownership allowed people to become more mobile and they were willing to travel outside their own urban district to leisure centres and business districts. For that reason, **multiple nuclei** or centres develop in areas of a city where transport routes meet.

The main elements of this theory are as follows:

- A city grows from multiple centres or nuclei rather than from one CBD. As nuclei grow, they merge with each other to form one large urban area.
- Economic activities of the same kind attract each other because they can avail of the same services and customers. Examples are restaurants, theatres and cinemas, which are located in the CBD because large numbers of customers enter the CBD each day. Law firms and accountancy firms also locate in the CBD because commercial companies in the CBD require legal and accountancy services.
- Some land uses repel each other. Areas of heavy manufacturing will repel residents because of risks such as air and noise pollution and strong odours. The poorest people will live in areas close to heavy manufacturing. As with the other theories, social stratification exists, with working-class, middle-class and upper-class people living in separate neighbourhoods.

DEFINITION

Nucleus: A Latin word meaning centre. The plural is *nuclei*.



QUESTION

Does the structure of your town resemble any of these theories? Explain your answer.

CASE STUDY

Harris and Ullman's theory applied to Dublin

While this theory examined American cities, Dublin has some characteristics in common with this theory.

- › Dublin's CBD is in the city centre, where the main streets converge.
- › As Dublin has expanded in recent decades, it has become a city with multiple nuclei. Villages on the perimeter have been absorbed by the growth of Dublin. These include Blackrock, Dundrum and Stillorgan, which are important nuclei with shopping centres and business districts in their own right. New towns such as Blanchardstown, Lucan and Tallaght have their own nuclei just outside the M50.
- › In this theory, the same activities attract each other. This is evident in Dublin. For example, Ballsbridge has a cluster of embassies and offices. The Fitzwilliam Square area has a cluster of medical consultants because the area is close to several hospitals.
- › Manufacturers are attracted to the same area. The areas of Dublin Port and the perimeter along the M50 have many industrial estates, such as Walkinstown, as you know from your study of the Dublin region in *Geography Today 1*. This is partly to do with zoning land for manufacturing, but also because manufacturers can buy and sell supplies to each other.
- › Dublin is a socially stratified city. Much of the city centre has areas of social disadvantage, while wealthy people are mostly concentrated in southern parts of the city (see Figure 6.6).

LINK

See Figure 6.2 on page 118 to check the distribution of manufacturing in the Dublin region.

However, this theory does not fit Dublin in every way.

- › The theory does not take account of urban renewal and urban redevelopment. An example is the Docklands area of the city. This was a port area with warehouses and poor housing suffering from inner-city decline until the 1980s. Today, it is home to the IFSC, new offices, theatres, the Convention Centre, the 3 Arena and expensive apartment blocks.
- › The theory does not take account of city council housing decisions. An example is Ballymun on the northern perimeter of the city. Ballymun was built in response to a housing crisis. In the 1960s, the city authorities developed Ballymun as a large working-class suburb to rehouse inner-city residents. Ballymun was a greenfield site that was not built around an existing nucleus.

Social stratification in cities

In cities all over the world, people of similar incomes generally live in the same urban districts. In Ireland, **social stratification** is evident in cities such as Cork, Dublin and Limerick.

Because of social stratification, some urban addresses are more sought after than others. This is reflected in house prices. Homes in middle- and upper-class areas are very expensive. Working-class areas have a high proportion of social housing.

DEFINITION

Social stratification refers to the division of people into classes based on wealth, status and educational levels.

CASE STUDY

Social stratification in Dublin

In terms of social stratification, Dublin can be divided into two sectors by a line running south-west from Howth. In general, middle- and upper-class people live south of this line. North of this line, residential districts are generally composed of working-class or middle-class people. Dublin's inner city is mainly working class.

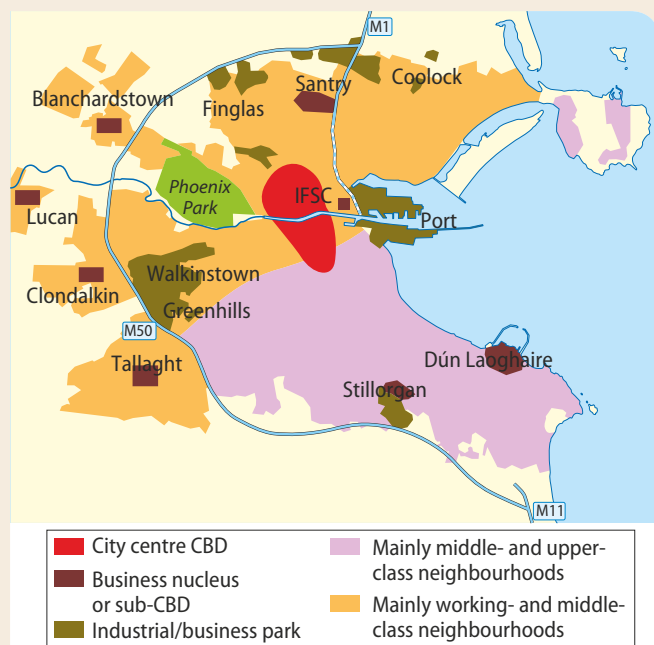


Figure 6.6 Land use and social stratification in Dublin and urban areas to the west of the city

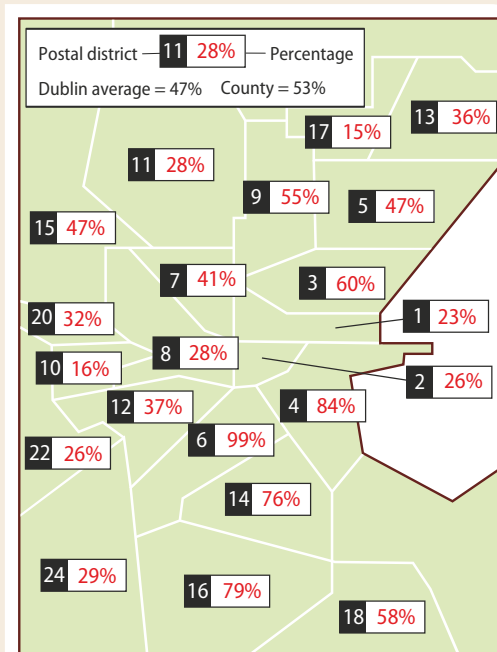


Figure 6.7 The percentage of Leaving Cert students who enter third-level education in Dublin. There is a big difference between the most affluent and the most disadvantaged districts.

Homes

Houses are more spacious in Dublin's upper- and middle-class areas, with three to five bedrooms. The wealthiest homes are detached, may be architecturally designed and stand on their own grounds with manicured gardens. On the other hand, working-class areas have high-density brick-built apartment blocks or terraced homes without gardens.

Third-level education

Social stratification in Dublin is also reflected in the percentage of young people who advance to third-level education. Higher Education Authority figures show that fewer than 30% of young people from some postal districts in Dublin go on to third-level education. These districts contain areas of social deprivation. This compares to 99% of school leavers in Dublin 6 (Ranelagh and Rathmines) and 84% in Dublin 4 (Ballsbridge, Irishtown, Merrion, Ringsend and Sandymount).