Patterns of sociospatial differentiation

In parallel with the tradition of regionalization within the discipline as a whole, urban social geographers have sought to 'regionalize' towns and cities in attempts to produce high-level generalizations about urban form and structure. These generalizations can be thought of as capturing the outcome, at a particular point in time, of the sociospatial dialectic. They provide useful models with which to generate and test hypotheses and theories concerning urban growth processes and patterns of social interaction in cities. Whatever the perspective, the initial objective is to identify areas within cities that exhibit distinctive characteristics and which can be shown to be relatively homogeneous. The word *relatively* is crucial here for, as Chapter 3 indicated, we need to be careful, when labelling such areas, not to assume that all the inhabitants share similar characteristics, for there is diversity and difference in even the most homogeneous-looking urban areas. Nevertheless, cities do display distinctive spatial patterns. In this chapter, we shall establish the fundamental patterns that occur in both the physical and the socioeconomic dimensions of contemporary cities and describe them from a variety of perspectives.

4.1 Urban morphology and the physical structure of cities

The study of the physical qualities of the urban environment is one of the longest-established branches of urban geography, especially in Europe, where the study of 'townscapes' and 'morphological regions' has occupied a prominent place in urban studies.

House types, building lots and street layouts

To a large extent, morphological patterns are based on two fundamental elements: the size and shape of plots of land, and the layout of streets. Both vary according to historical period, economics and sociocultural ideals. Where there is a shortage of building land, or where as many buildings as possible have to be accommodated along a given frontage (as on a waterfront or around a market square), small, deep plots tend to result. Elsewhere, the size and form of the plot tend to be determined by the predominant house type (for example, the towns of England, the Netherlands and the north German coast were historically characterized by small, rational house types that required small plots with only a narrow (5-metre) frontage; the standard nineteenth-century tenement building of American cities required only a 9-metre frontage; whereas the standard apartment house needed 32 metres of frontage).

Morphogenesis

Morphogenesis refers to the processes that create and reshape the physical fabric of urban form. Over time, urban morphology changes, not only as new urban fabric is added but also as existing fabric is modified. Basic forms, consisting of house, plot and street types of a given period, become hybridized as new buildings replace old, plots are amalgamated or subdivided, and street layouts are modified. Each successive phase of urban growth is subject to the influence of different social, economic and cultural forces, while the growth of every town is a twin process of outward extension and internal reorganization. Each phase adds new fabric in the form of accretions and replacements. The process of outward extension typically results in the kind of annular patterns of accretion shown in Figure 4.1. The process of reorganization is illustrated by Figure 4.2, which shows the changes that occurred in part of Liverpool as institutional land users (including the
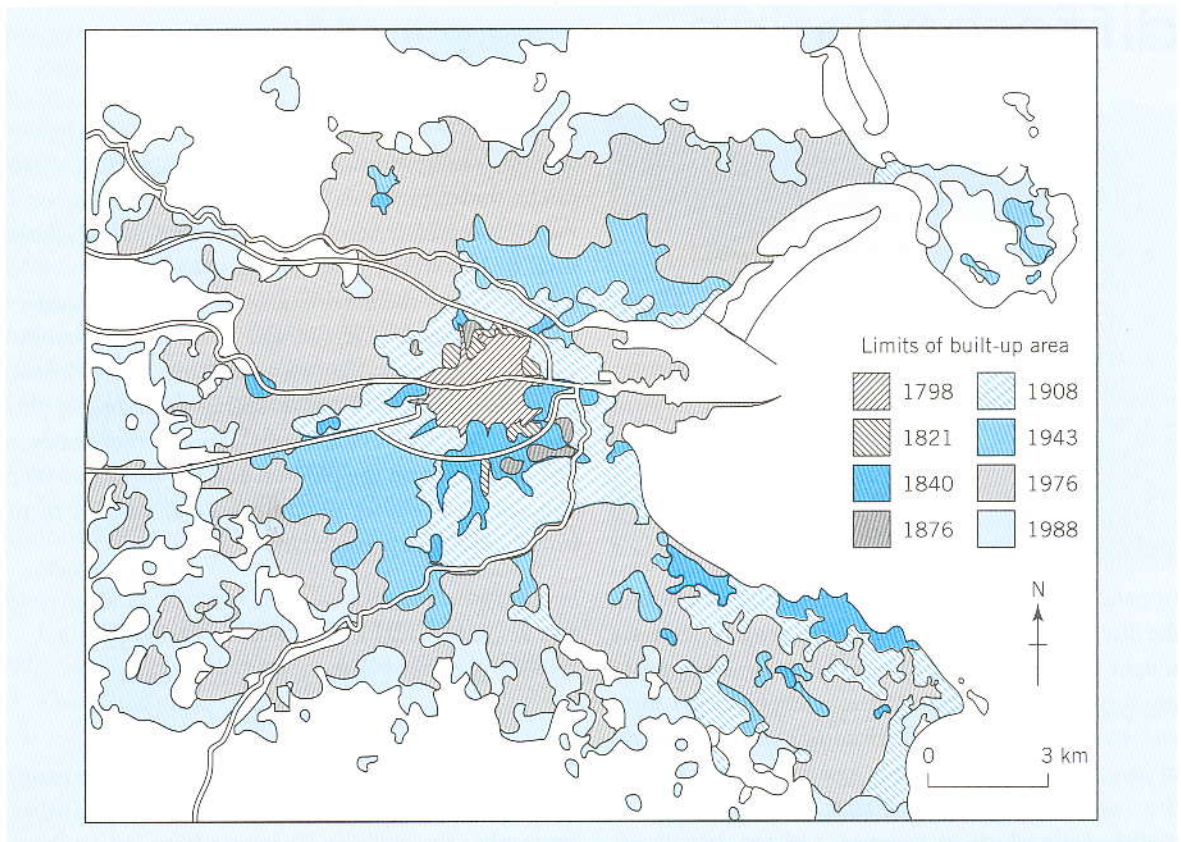

Figure 4.1 Growth phases in Dublin.
Source: After MacLaran (1993), Fig. 2.9, p. 42.

1890   0   300 m

1938   0   300 m

1956/57   0   300 m

1980   0   300 m

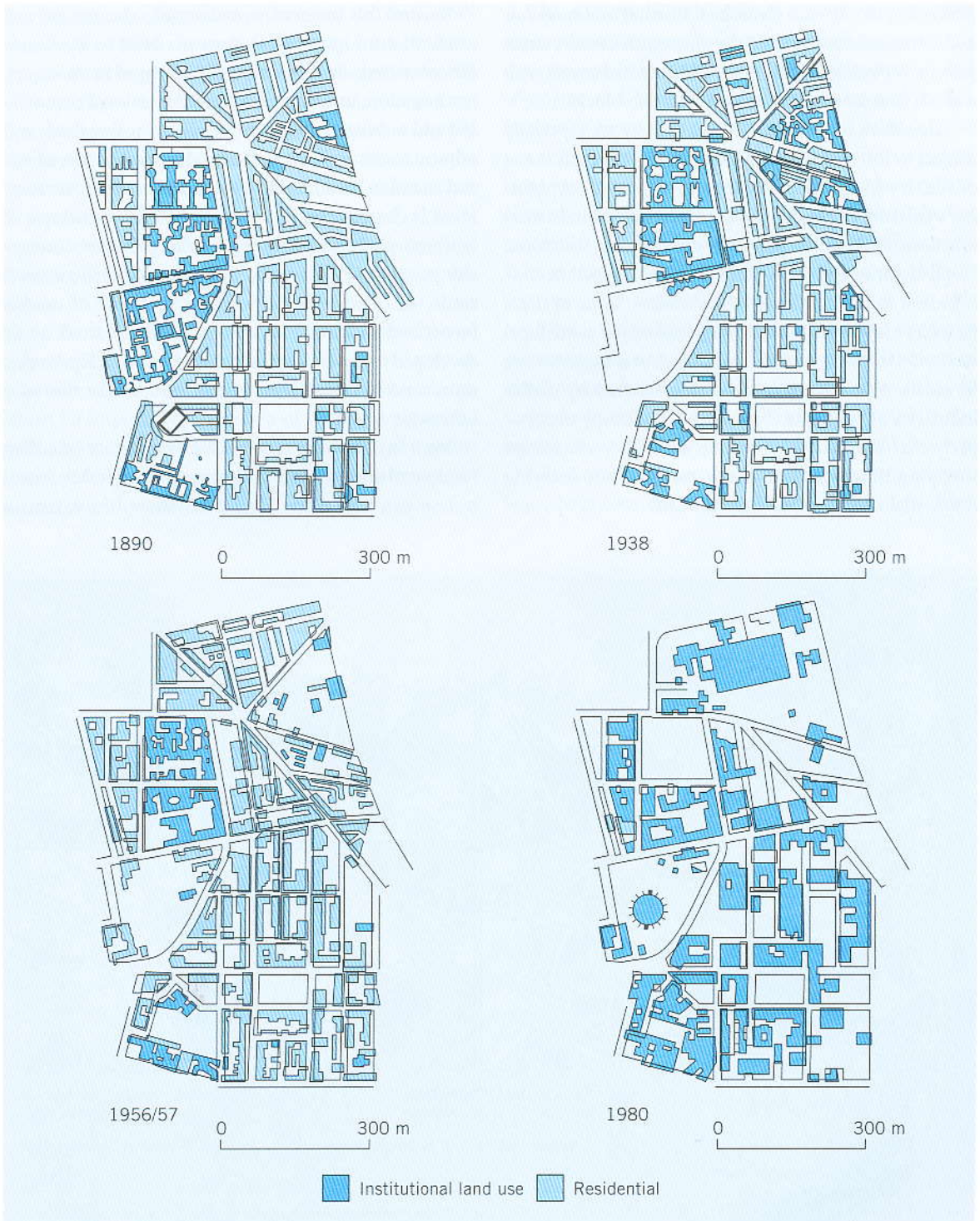Institutional land use   Residential

Figure 4.2 Morphological reorganization of the university district in Liverpool, 1890–1980.
Source: After Chandler *et al.* (1993), Fig. 5.3, p. 112.

university, the Roman Catholic Cathedral and hospitals and clinics) encroached into the nineteenth-century street pattern, replacing the fine grain of residential streets with a much coarser fabric of towers and slab blocks.

The oldest, innermost zones of the city are especially subject to internal reorganization, with the result that a distinctive morphological element is created, containing a mixture of residential, commercial and industrial functions, often within physically deteriorating structures. Small factories and workshops make an important contribution to the ambience of such areas. Some of these factories may be residual, having resisted the centrifugal tendency to move out to new sites, but a majority are 'invaders' that have colonized sites vacated by earlier industries or residents. Typically, they occupy old property that has become available in side streets off the shopping thoroughfares in the crowded but decaying residential zone surrounding the CBD.

Beyond this inner zone, industrial, commercial and residential morphological elements tend to be clearly differentiated, although typically arranged in an imperfect zonation, interrupted by radial arteries of commercial and industrial development and by major roads and railway tracks, and distorted by the peculiarities of site and situation. In addition, a good deal of urban development is characterized by the persistence of enclaves of relict morphological units (e.g. castles, cathedrals, university precincts, boulevards, public parks and common lands, all of which tend to resist the logic of market forces and so survive as vestigial features amid newly developed or redeveloped neighbourhoods). These relict units tend to impair the symmetrical pattern that may otherwise emerge.

Even in relatively new and homogeneous suburban residential areas a good deal of morphological reorganization can take place. Figure 4.3 shows the extent of
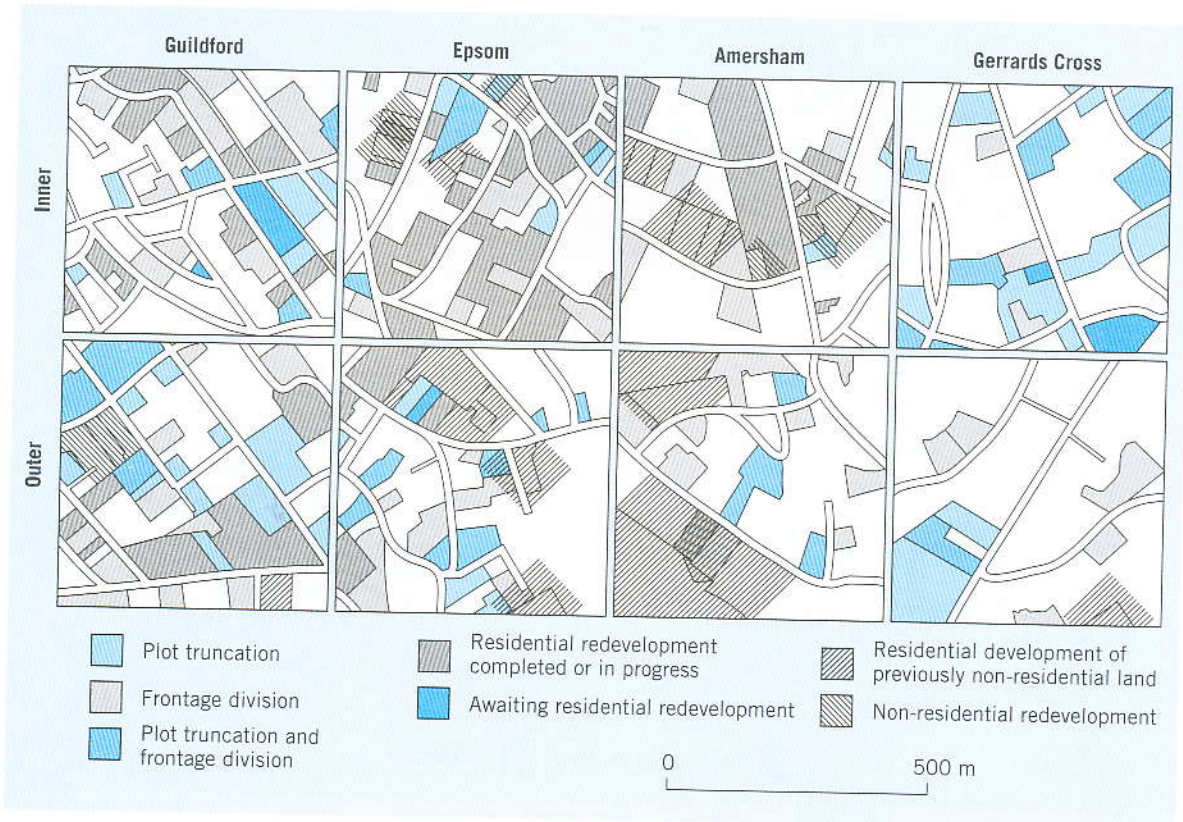

Figure 4.3 Plot subdivision and redevelopment in low-density residential areas in sample towns in south-east England, *circa* 1955–1986.
Source: After Whitehand (1992), Fig. 4.4, p. 141.

morphological reorganization (between the mid-1950s and the late 1980s) in sample sites taken from both the inner and the outer reaches of suburban neighbourhoods of towns in south-east England. In this case, reorganization resulted from pressure for more intensive residential development that arose because of a combination of a reduction in the average size of households and increases in population, employment opportunities and incomes in south-east England. The result, reflected in all of the sample sites shown in Figure 4.3, is a considerable degree of plot subdivision (the truncation of corner plots, the subdivision of original parcels, or both) and redevelopment (including the residential development of previously non-residential land). Such patterns represent an important dimension of change – piecemeal infill and redevelopment – that is central to the sociospatial dialectic of the ageing suburbs of cities throughout the developed world.

The sociospatial dialectic is indeed an important aspect of morphogenesis. Over the broader sweep of time, morphogenesis is caught up in the continual evolution of norms and aesthetics of power, space and design. Successive innovations in urban design (Table 4.1) are not only written into the landscape in the form of extensions and reorganizations but also come to be symbolic of particular values and attitudes that can be evoked or manipulated by subsequent revivals or modifications. Within this context, innovations in transport technology are of particular importance, since they not only contribute to the evolution of the norms and aesthetics of power, space and design (as in the development of subdivisions based on culs-de-sac and loop roads in response to the intrusiveness of automobiles) but also exert a direct influence on the overall physical structure of urban areas. Major innovations in transport technology (the railway, the streetcar, rapid transit, automobiles,

Table 4.1 Innovations in urban design

| Time	Innovation	Location
1100–1500	Medieval irregular towns	Middle Europe
1200–1400	Medieval regular towns	France, south-west Germany, Baltic Sea, east of Elbe
1500–1700	Renaissance town concepts	Italy, France, Germany, USA
1600–1900	Baroque town concepts	Rome, Paris
1800–1830	Classical grid/block reverting to Renaissance principles	Krefeld, Prussia
1800–1880	Geometric town design	Middle Europe
1850–1900	Haussmann: axis concept, circus, triangle, boulevard, point de vue	Paris
1857	Ring concept	Vienna, Cologne
1889–1930	Sitte, Henrici, Unwin: artistic movement	Austria, Germany, UK
1898–1903	Howard, Parker and Unwin: Garden city	Letchworth
1902–1970	Garden city movement	Worldwide
1900–1930	Modern blocks	Netherlands, Germany
1920–1930	Corbusier, Taut, May, Gropius: Rationalism and 'Neues Bauen'	France, Germany
1930–1945	Fascist neoclassicism	Italy, Germany
1945–1975	Flowing space and free	
1975 to date	Reurbanization: reverting to block systems	Europe
1975 to date	Postmodernism	Worldwide
1985 to date	Deconstructivism	Western world

Source: Curdes (1993), Table 14.2, p. 287.
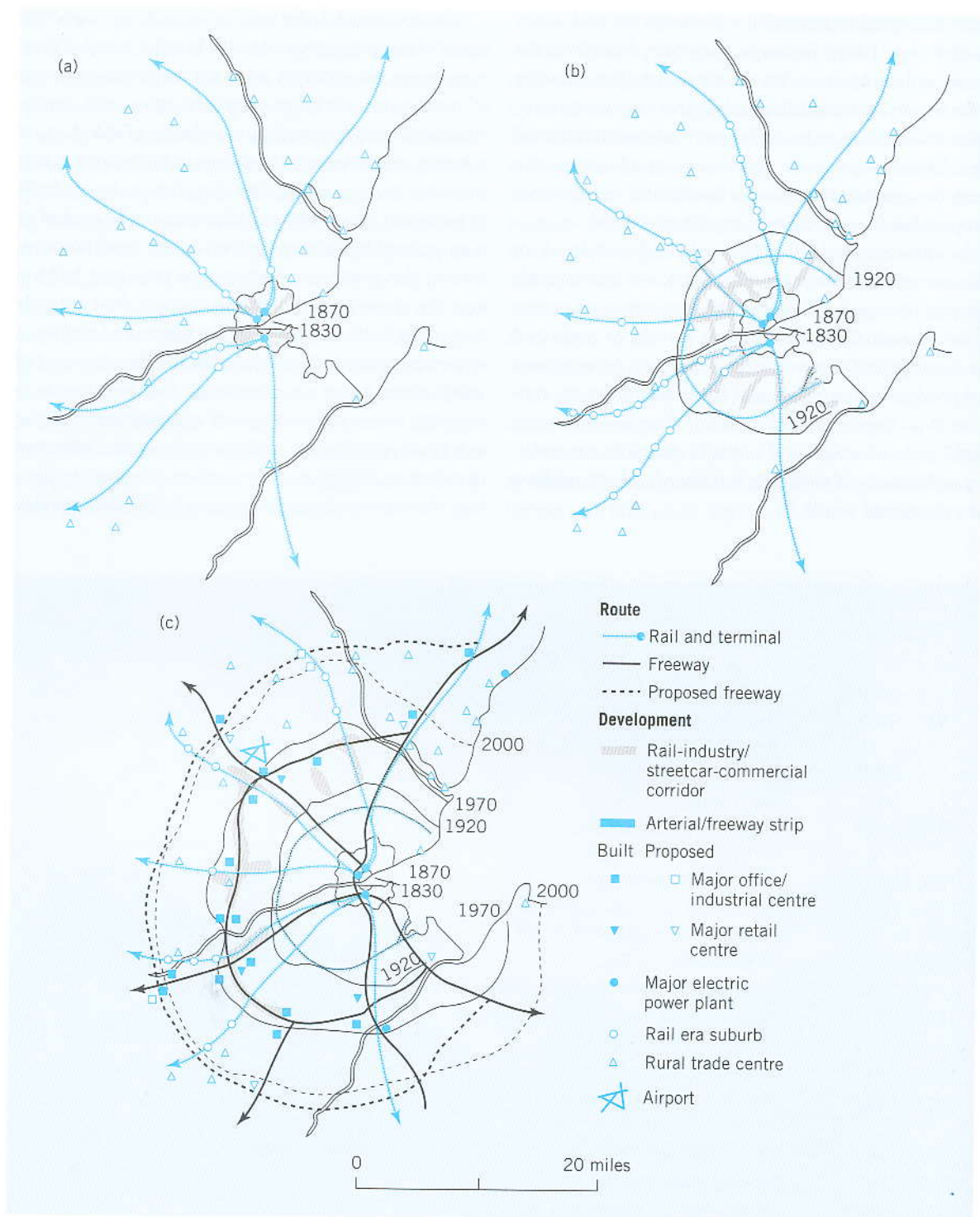
Figure 4.4 Schematic maps of development patterns and age rings in a 'generic' high-order metropolitan area: (a) to 1870; (b) 1870–1920; (c) 1970– .
Source: After Borchert (1991), Fig. 12.21.

trucks and buses) have the effect of revolutionizing urban structure because they allow for radical changes in patterns of relative accessibility. The result is a pattern of physical development that is the product of successive epochs of transport technology. These have been identified in US cities (Figure 4.4) as:

➤ the pre-rail (before 1830) and 'iron horse' (1830–1870) epochs;

➤ the streetcar epoch (1870–1920); and

➤ the auto-air–cheap oil epoch (1920–1970) and jet propulsion–electronic communication epoch (1970–).

Environmental quality

One specific dimension of the built environment that is worth special consideration from a social perspective is that of spatial variations in environmental quality. Implicit in the previous sections is the fact that not only are different urban sub-areas built to different levels of quality and with different aesthetics, but that at any given moment some will be physically deteriorating while others are being renovated and upgraded. Because they are closely tied in to the sociospatial dialectic through patterns and processes of investment and disinvestment (Chapter 6) and of social segregation (Chapter 8), the qualitative dimension of the built environment tends to exhibit a considerable degree of spatial cohesion.

Take, for example, the patterns of physical upgrading and downgrading in Amsterdam (Figure 4.5), where the stability of the outermost sub-areas contrasts with the renewal and upgrading of much of the inner, nineteenth-century residential districts and in most of the central

Type 1 Poor maintenance, little construction

Type 2 Poor maintenance, active construction

Type 3 Stable maintenance, little construction

Type 4 Stable maintenance, active construction

Type 5 New, good maintenance

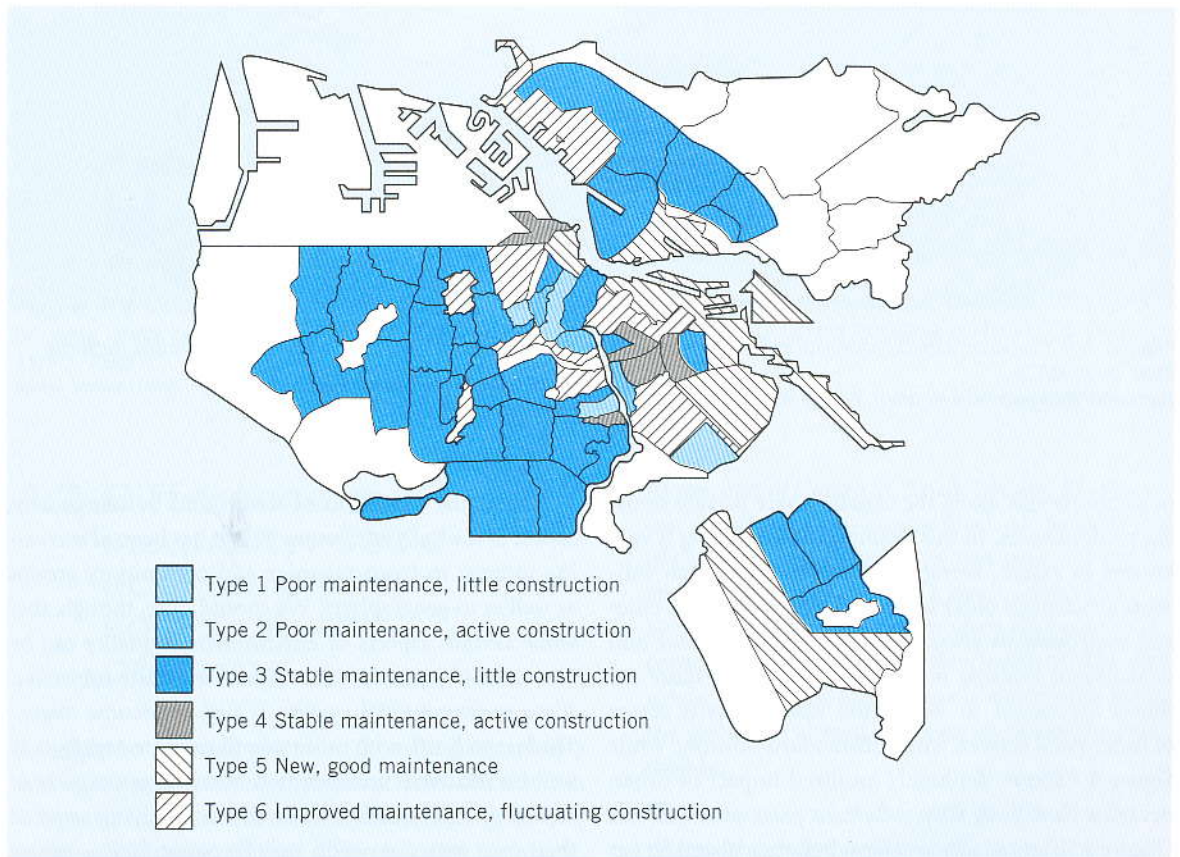Type 6 Improved maintenance, fluctuating construction

Figure 4.5 Physical upgrading and downgrading in Amsterdam.
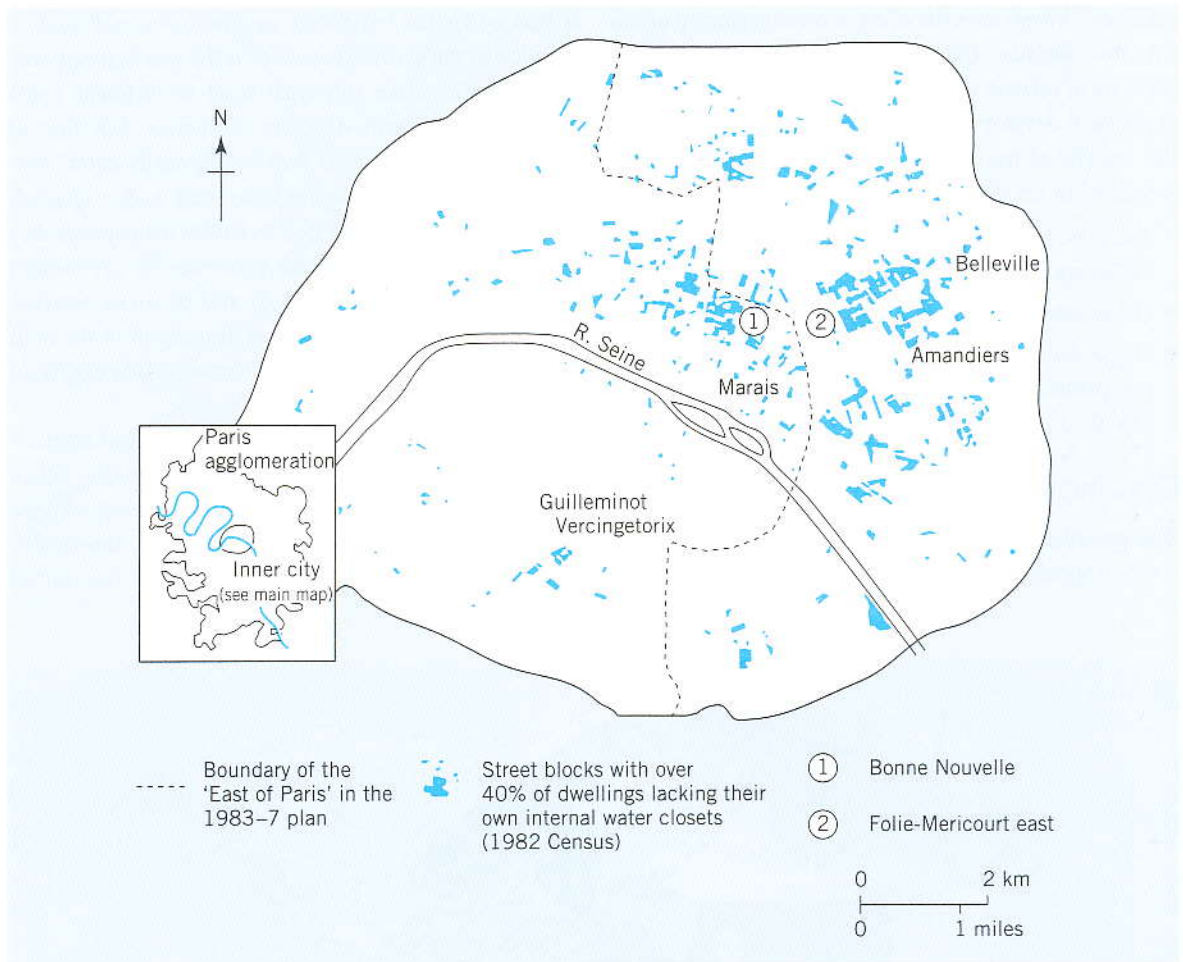*Source:* After Musterd (1991), Fig. 5, p. 37.

Figure 4.6 Substandard housing in Paris: street blocks with over 40 per cent of dwellings lacking their own WCs.
Source: After White and Winchester (1991), Fig. 1, p. 41.

neighbourhoods along the canals, where private housing predominates. In this example, downgrading is very limited in extent, being restricted to four small sub-areas adjacent to older industrial works. In some cities and metropolitan areas, however, physical decay and substandard housing is a serious problem. Figure 4.6 shows the extent to which the north-eastern sector of inner Paris is riven with substandard housing; while Figure 4.7 shows the highly localized impact of urban decay in New York City, where in parts of the Bronx (Figure 4.7b) some sub-areas lost between 50 and 80 per cent of their occupied housing units within a brief (ten-year) but devastating period.

The actual condition of streets and buildings is an aspect of the built environment that has been of increasing interest to town planners and community groups as well as to geographers. We should note, though, that while certain aspects of environmental quality can be measured objectively, other aspects are quite subjective. Also, environmental quality is highly income elastic. The less well-off, with more urgent needs to satisfy, may well be relatively unconcerned about many aspects of environmental quality; while the rich, having satisfied their own material needs, may be particularly sensitive to environmental factors such as the appearance of houses, streets and gardens.
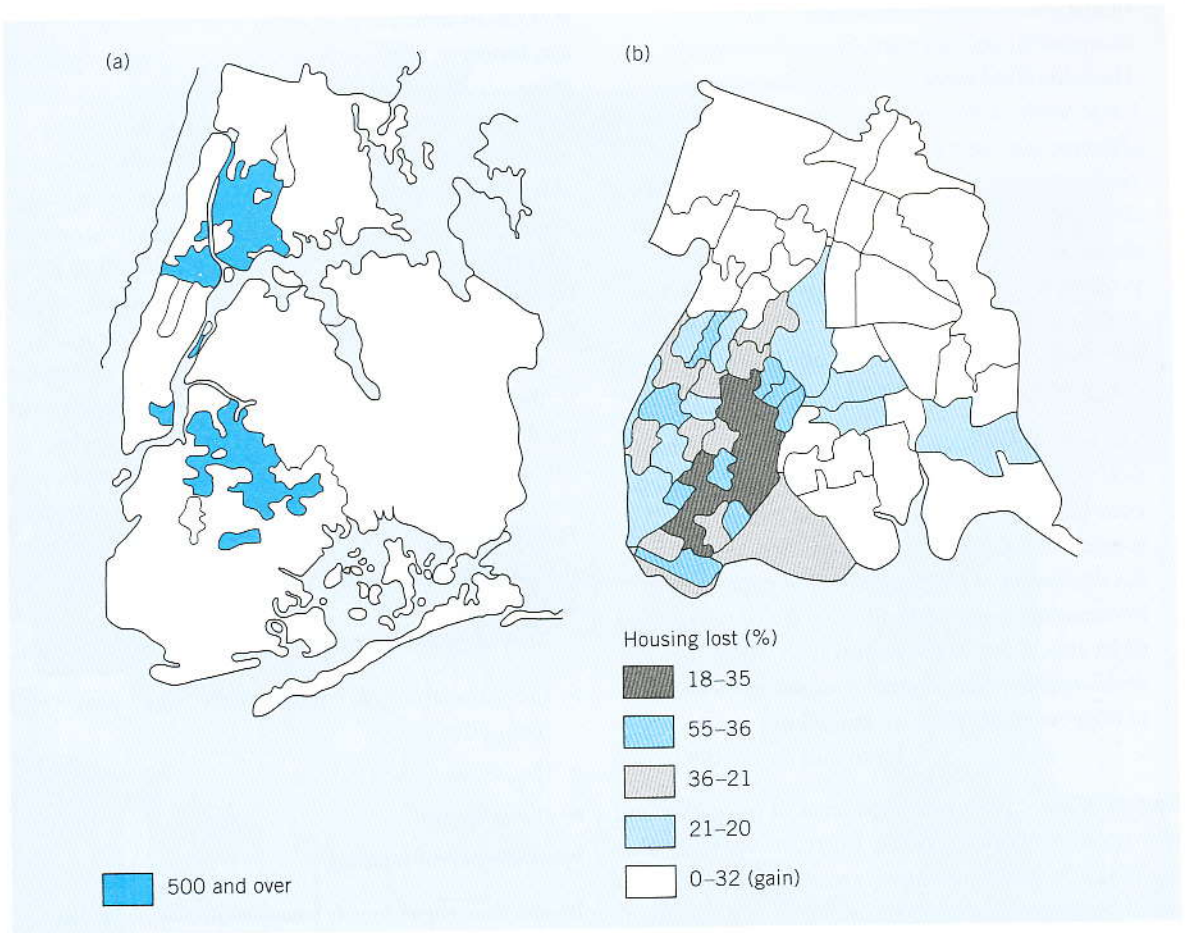
Figure 4.7 Urban decay: (a) census tracts in New York City that each lost 500 or more occupied housing units between 1970 and 1980; (b) percentage loss of occupied housing units in the Bronx, 1970–1980.

Source: Wallace (1989), Fig. 4 (part), p. 1590; Wallace and Fullilove (1991), Fig. 2, p. 1703.

4.2 Difference and inequality: socio-economic and sociocultural patterns

As might be expected given the increasing complexity and social polarization of Western cities discussed in Chapters 2 and 3, a major theme of urban social geography is the spatial patterning of difference and inequality. In detail, such patterns can present a kaleidoscope of segregation, juxtaposition and polarization:

At one end of Canon St. Road, London E1, you can pay £4 for a two-course meal. At the other end of the street, less than 500 metres away, the same amount of money will buy a single cocktail in Henry's wine bar in a postmodern shopping mall come upmarket residential development. The very urban fabric here, as in so many other cities across the globe, has altered at a feverish rate in the past decade.

The street runs south from the heartland of the rag trade and clutter of manufacturing, retail and wholesale garment showrooms on Commercial Road. Residentially, the north end is occupied

67

almost exclusively by the Bengali community in one of the poorest parts of any British city. Three hundred yards south, the road crosses Cable Street, a short distance away from a mural commemorating a defiant Jewish community confronting Moseley's fascist Blackshirts in 1926, the caption 'they shall not pass' now addressed to the adjacent gentrified terrace. A few hundred yards further and the microcosm is completed by Tobacco Dock, cast as the 'Covent Garden of the East End,' although suffering badly in the depression of the early 1990s.

The leitmotif of social polarization is unavoidable. Golf GTIs share the streets uneasily with untaxed Ford Cortinas. Poverty is manifest, affluence is ostentatious. Gentrification sits beside the devalorization of old property. The appeals for information in the police posters tell of yet another racist attack, just as the graffiti with which they are decorated demonstrate the credence given locally to the powers of police investigation.

(Keith and Cross, 1992, p. 1)

Seen in broader perspective, patterns of inequality and spatial differentiation exhibit a certain regularity that is often consistent from one city to another. In societies based on the competition and rewards of the market-place, personal income is probably the single most significant indicator, implicated as it is with people's education, occupation, purchasing power (especially of housing), and with their values and attitudes towards others. It has long been recognized that the geography of income within cities is characterized not only by steep gradients and fragmented juxtapositions at the microlevel but also by clear sectors dominated by high-income households and by sinks of inner-city poverty. Consider, for example, the map of incomes in the Tucson metropolitan area (Figure 4.8), where the median family income in the affluent northern suburbs was between four and six times the median family income of inner-city Census tracts.

While socio-economic differentiation is arguably the most important cleavage within contemporary cities, it is by no means the only one. Demographic attributes such as age and family structure are also of central importance to social life, yet are only loosely related,

if at all, to differences in socio-economic status. There are, however, clear patterns to the geodemographics of cities – in large part because of the tendency for certain household types to occupy particular niches within the urban fabric. Thus, for example, families with pre-school children are typically found in disproportionately high numbers in new, peripheral suburban subdivisions and apartment complexes; the elderly, on the other hand, typically tend to be concentrated as a residual population in older, inner-city residential neighbourhoods.

Embedded in the sociospatial framework delineated by the major stratifications of money and demographics are the marginalized subgroups of contemporary society. The idea of marginality is of course a relative concept, and depends on some perceived norm or standard. Hilary Winchester and Paul White (1988) suggested that these norms and standards can be economic, social and/or legal.

They identify four groups of the *economically marginal*:

- ➤ the unemployed, particularly the long-term unemployed;
- ➤ the impoverished elderly;
- ➤ students; and
- ➤ single-parent families.

In addition, they identify another three groups that can be categorized as *both economically and socially marginal*, the two dimensions generally reinforcing one another:

- ➤ ethnic minorities;
- ➤ refugees; and
- ➤ the handicapped (either mentally or physically), and the chronically sick (notably including people with AIDS).

The remaining marginalized groups are marked by elements of *legal* as well as economic and/or social marginality:

- ➤ illegal immigrants;
- ➤ down-and-outs;
- ➤ participants in drug cultures;
- ➤ petty criminals;
- ➤ prostitutes; and
- ➤ homosexuals (both male and female).

Median Household Income By Census Tract

Coronado
National
Forest

N

Legend

— Major Streets

☐ City Limits

Median Household income

▨ 9464–25618

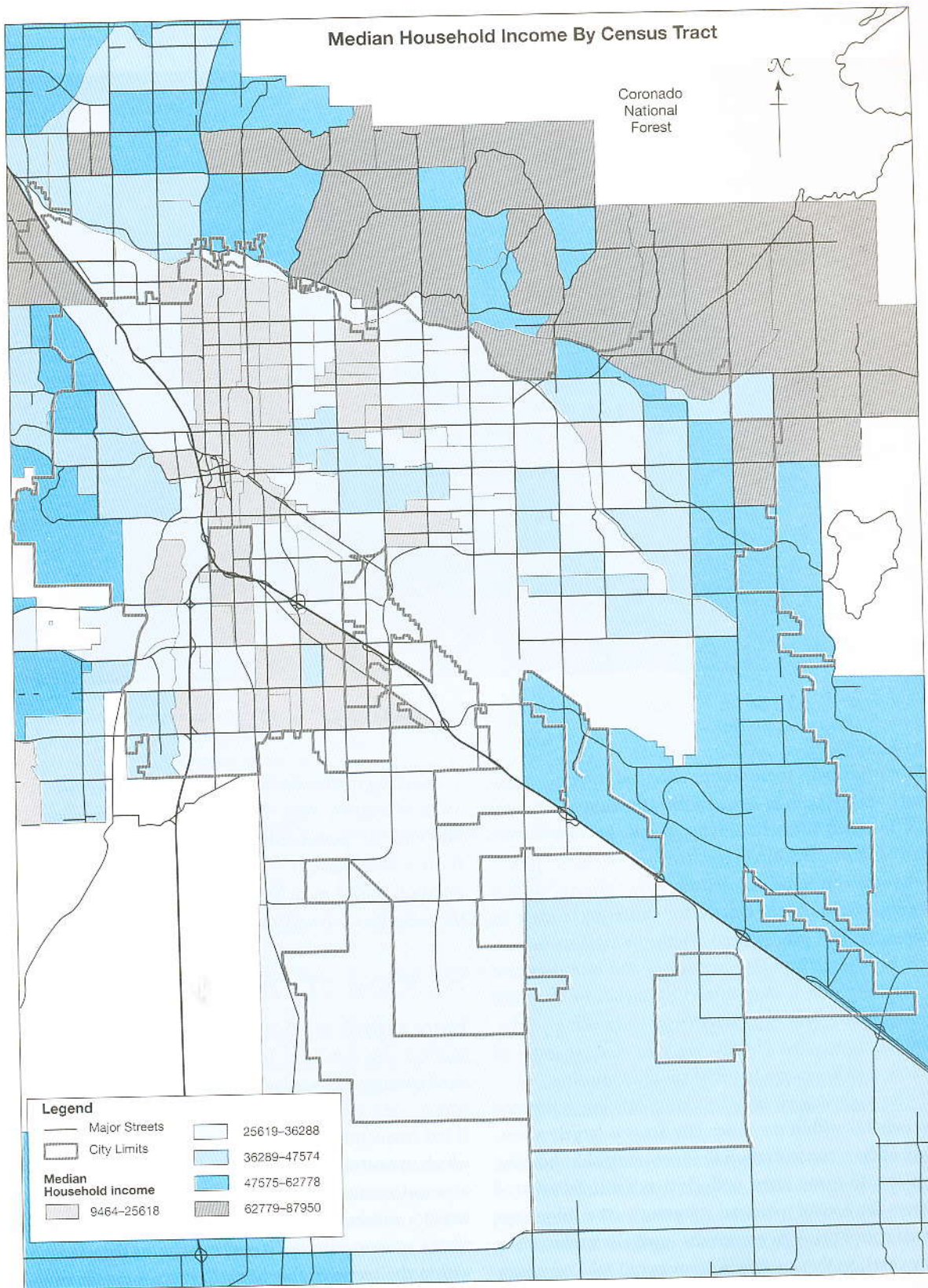☐ 25619–36288

☐ 36289–47574

☐ 47575–62778

▨ 62779–87950

Figure 4.8 Median household income by census tract, Tucson, 2000.

Source: www.tucsonaz.gov/planning/maps/census/data/00inccl-pdf

An everyday sign of social polarization and inequality in the city: a homeless person in Paris. Photo Credit: Paul Knox.

Not surprisingly, these groups also tend to be marginalized spatially, both in terms of their residential locations and in terms of their activity spaces. In general, this translates into fractured, isolated and localized clusters – though with some numerically larger groups, such as the impoverished lone elderly, the clustering tends to be somewhat less pronounced. With the possible exception of some criminals, prostitutes and homosexuals, this localization is determined by niches of the most economically and socially marginal housing: older, residual inner-city blocks, blighted and abandoned spaces, and lower-grade social (public) housing.

The high degree of localization of female-headed households within the inner-city areas is largely a product of their concentration in inner-city public housing projects. In many cases, such clusters are in fact shared spaces for several marginal subgroups (the subgroups listed above being by no means mutually exclusive, in any case), so that specific sub-areas can take on a very definite character – bohemia, ghetto, slum, drug market

– according to the mix of inhabitants (see also Box 4.2). This, of course, begs the more general question of how cities are patterned according to the attributes and relative homogeneity of their neighbourhoods. It is a question that is most effectively addressed empirically through the study of factorial ecology.

Studies of factorial ecology

Factor analysis, together with the associated family of multivariate statistical techniques that includes **principal components analysis**, has become one of the most widely used techniques in social research of all kinds. It has frequently been used as an inductive device with which to analyse the relationships between a wide range of social, economic, demographic and housing characteristics within cities, with the objective of establishing what common patterns, if any, exist in the data. It is not within the scope of this book to discuss details of the methodology of factor analysis and related techniques.

Box 4.1

Key trends in urban social geography – the growth of student enclaves

An important trend in many UK cities in recent years, but one that has so far received relatively little research, is the development of residential areas dominated by young adults (i.e. those aged between 18 and 24). There is growing evidence that the geographical distribution of these age groups is becoming more concentrated in British cities. To a large extent this development reflects the increasing proportion of people entering higher education in the United Kingdom. In contrast to many nations, a high proportion of UK students move out of their parental homes and away from their immediate localities to universities and colleges in other towns and cities. This migration leads to a demand for accommodation that cannot be met by purpose-built university properties, and so about three-quarters of all students move to the privately rented sector. Such property tends to be overwhelmingly concentrated in inner-city areas, although sometimes these can be relatively affluent neighbourhoods adjoining university campuses (such as Headingly, a suburb of north-west Leeds).

These patterns have a number of important consequences. Most notorious is the clash of lifestyles between older inhabitants and the transient student population. Late-night parties, loud music and rowdy behaviour can lead to bad relationships and the exodus of older people. Indeed, as in the case of certain ethnic minorities, sometimes a 'tipping point' is reached whereby the proportion of students reaches such a level that not only is out-migration of the established population intensified, but non-student households are inhibited from moving into such areas. Another impact is the development of city quarters catering for the needs of students with pubs, clubs, restaurants, discos and bars. These areas may cater for all young adults in a city, although sometimes hostilities between students and the indigenous young adult population can lead to areas that tend to cater exclusively for students. To cap it all, some claim that an influx of students taking up low-paid part-time jobs to help fund themselves through higher education can undermine the employment prospects of locals or else depress overall wage levels in the economy.

There is a growing recognition of the enormous impact that higher education can have on urban economies. Universities and colleges are often major employers, injecting vast sums into local economies through the purchase of local services and spending power of staff salaries. In addition, universities can be the catalyst for local economic development through the exploitation of scientific and technological assets in the form of new firm 'spin-offs'. In more general terms, it seems that the intellectual and cultural facilities provided by universities forms an attractive milieu for the talented, 'creative' sections of the population who appear to be increasingly important in ensuring local economic growth. Evidence from the United Kingdom in 2008 indicated that not only are house prices above average in university towns, but they have also been less vulnerable to price declines as a result of the credit crunch.

Key terms associated with student enclaves (see Glossary)

Community action, externality, subculture, 'tipping point', 'turf' politics.

Further reading

Chatterton, P. (1999) University students and city centres: the formation of exclusive geographies – the case of Bristol UK, *Geoforum* **30**, 117–33

Chatterton, P. and Hollands, R. (2003) *Urban Nightscapes: Youth cultures, pleasure spaces and power* Routledge, London

Hollands, R. and Chatterton, P. (2002) Changing times for an old industrial city: hard times, hedonism and corporate power in Newcastle's nightlife, *City* **6**, 291–317

Links with other chapters

Chapter 6: The decline of private renting

Chapter 10: Box 10.4 The development of 'urban nightscapes'

Chapter 13: Externality effects

Essentially, they can be regarded as summarizing or synthesizing techniques that are able to identify groups of variables with similar patterns of variation. These are expressed in terms of new, hybrid variables called factors or components. Each factor accounts for measurable amounts of the variance in the input data and, like 'ordinary' variables, can be mapped or used as input data for other statistical analysis. The relationships and spatial patterns that the factors describe are known collectively as a **factorial ecology**. The usual statistical procedure produces a series of hybrid variables (factors), each representing a major dimension of co-variance in the

data, each statistically independent of one another and each successively accounting for a smaller proportion of the total variance in the input data.

By far the major finding of factorial ecology studies has been that residential differentiation in the great majority of cities of the developed, industrial world have been dominated by a socio-economic status dimension, with a second dimension characterized by **family status**/life cycle characteristics and a third dimension relating to segregation and **ethnic status**. Moreover, these dimensions appear to have been consistent even in the face of variations in input variables and in the statistical solution employed; and evidence from the limited number of studies of factorial ecology change that have been undertaken shows that these major dimensions have tended to persist over periods of two or three decades at least. There also appears to be a consistent pattern in the *spatial expression* of these dimensions, both from city to city and from one census year to the next.

This consistency suggests that socio-economic status, family status and ethnicity can be regarded as representing major dimensions of social space that, when superimposed on the physical space of the city, serve to isolate areas of social homogeneity 'in cells defined by the spider's web of the sectoral-zonal lattice'. The resultant idealized model of urban ecological structure is shown in Figure 4.9. Yet it should be acknowledged that these sectors and zones are not simply superimposed on the city's morphology: they result from detailed interactions with it. Radial transport routes, for example, are likely to govern the positioning of sectors and to distort zonal patterns. Similarly, the configuration of both sectors and zones is likely to be influenced by specific patterns of land use and by patterns of urban growth. By introducing such features to the idealized model it is possible to provide a closer approximation to the real world.

It is important to emphasize that this classic model represents a high level of generalization and that the results of some studies are ambiguous or even contradictory. Nevertheless, many geographers have suggested that the classic three-factor model has substantial generality throughout the Western culture area. This is certainly borne out by factorial ecologies of cities in Canada, Australia and New Zealand, but evidence from studies of European cities tends to be less
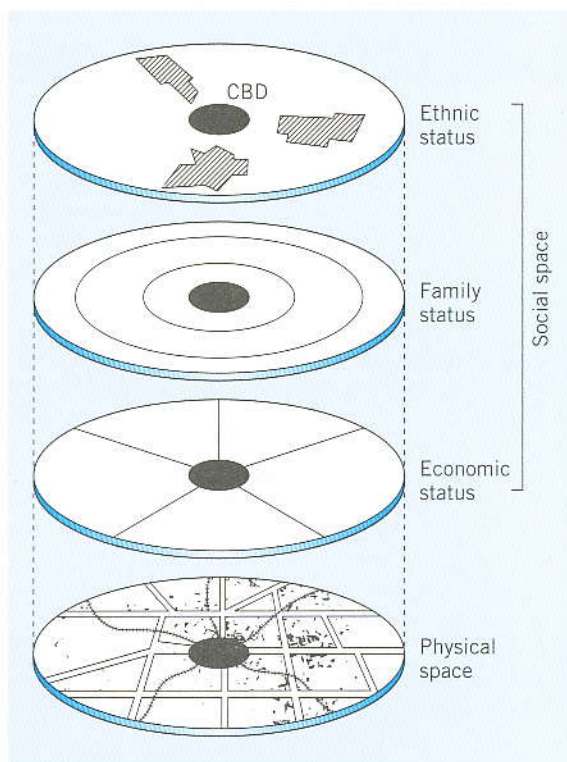

Figure 4.9 Idealized model of urban ecological structure.
Source: Murdie (1969), p. 8.

conclusive. Overall, residential differentiation in continental European cities does tend to be dominated by a socio-economic status dimension, though it is often associated with housing status and the localization of self-employed workers. Continental cities also tend to conform to the 'classical' ecological model in that family status figures prominently (though often in a complex manner) in the factor structure. Ethnicity, however, does not generally occur as an independent dimension, partly because of the absence of substantial ethnic minorities, and partly because those that do exist appear to be more integrated – at census tract level – with the indigenous population. British cities, however, do not conform so closely to the general Western model. Indeed, British cities exhibit a somewhat distinctive ecological structure, with the principal dimensions of the classical model being modified by the construction and letting policies associated with the relatively large social housing sector.

More generally, these patterns are dissolving under the 'splintering urbanism' associated with the evolution of Western economies to a postindustrial basis within a global economy. As a result, the classical model of factorial ecology is in the process of being overwritten. As we saw in Chapters 1, 2 and 3, cities of the developed world have entered a new phase as a fundamental economic transition has gathered momentum, accompanied by demographic, cultural, political and technological changes. Advances in telecommunications have already begun to remove many of the traditional frictions of space for households as well as for economic activities, opening up the possibility of the dissolution of traditional urban spaces and the irruption of a diversity of new ones. This is not to suggest that residential differentiation and segregation will disappear, but that they will be manifest *in more complex ways and at a finer level of resolution* than the sectors, zones and clusters which have been associated with socio-economic status, family status and ethnicity.

The implications of economic, technological, demographic and social change for ecological structure suggest that the increasing complexity of society is likely to result in more dimensions of differentiation. Among these are the following:

> the emergence of migrant status as a potent source of differentiation;

> the reinforcement of ethnic differentiation with the arrival of new immigrant groups;

> the emergence of new dimensions of occupational differentiation related to the expansion of service jobs;

> the appearance of significant distinctions in the degree of welfare dependency;

> a relative increase in the importance of poverty and substandard housing as a result of the consolidation of the urban underclass;

> the increased sociospatial differentiation of young adults and of the elderly as a result of changes in household organization;

> the emergence of a distinctive social ecology in the urban fringe.

At the same time, long-standing differences between suburban and central city areas have already begun to disappear as the suburbs have become the hub of daily economic activity and sections of central cities have been renewed, upgraded or gentrified, bringing some 'suburban' socio-economic and demographic profiles to some inner-city neighbourhoods.

Patterns of social well-being

One of the major shortcomings of traditional factorial ecology studies is that the mix of input variables overlooks many important aspects of urban life, including environmental quality, accessibility to facilities such as hospitals, shopping centres, libraries and parks, and the local incidence of social pathologies such as crime, delinquency and drug addiction. The recognition of **quality-of-life** indices and 'territorial justice' as important concerns within human geography has meant that much more attention has been given to such issues, demanding a rather different perspective on patterns of socio-economic differentiation.

Interest in patterns of social well-being reflects a number of factors. First, there is the growing social inequality in Western societies that we noted in Chapter 2. Second, following the growing influence of continental European intellectual traditions, there has been a focus upon ideas of *social exclusion*. This approach defines poverty not only in terms of access to material resources, but also in terms of issues such as social participation and belonging. This approach is embodied in a redefinition of the concept of *citizenship*, which is taken up in Chapter 5. Third, there has been a resurgence of interest in environmental issues, not least because of the implications of global warming. This has encouraged the search for measures of environmental impact and broader quality-of-life factors in addition to measures of economic growth.

Territorial social indicators provide a very useful descriptive device for describing the geography of **social well-being** at different spatial scales. Three kinds of study are of particular interest here: those that attempt to describe variations in the overall level of local social well-being – 'quality of life' studies, those that attempt to identify particular sub-areas whose residents are relatively disadvantaged – studies of 'deprivation' (see also Box 4.2), and those that identify sub-areas in terms of material consumption and lifestyle.

Box 4.2

Key debates in urban social geography – are Western cities becoming socially polarized?

A key debate in urban studies centres around the changing class and occupational structures of Western cities. Particularly contentious is the issue of whether these cities are becoming increasingly polarized. The so-called 'polarization thesis' argues that the decline in relatively well-paid manufacturing occupations since 1980, combined with the rapid expansion of both low-paying and high-paying service sector jobs, is leading towards the decline of middle incomes. In other words, the social structure of Western societies is moving towards an 'hourglass' structure. It has been argued that this trend towards a 'disappearing middle' is most pronounced in 'world' (Friedmann and Woolff, 1982) or 'global' (Sassen, 1991) cities with their high-level business and financial services which tend to be especially remunerative for senior employees.

The conspicuous consumption of new urban elite groups, combined with the growth of destitution on the streets of major cities in the form of 'skid rows', makes this polarization thesis seem intuitively appealing and in line with common sense. However, proving that social polarization is taking place raises both conceptual problems and methodological difficulties (see Pinch, 1993, and Hamnett, 2003, for more details). For example, the polarization thesis does not imply simply that the rich are getting richer and the poor are getting poorer. Instead, it refers to the *proportions* in the occupational structure. It is therefore possible for polarization to be leading to increasing inequality of incomes but it could also mean that, although there are more poor, they are doing somewhat

better than in the past in relative terms. Furthermore, there are two further theses in opposition to the polarization theory. One argues that there is an upward reskilling of occupations in the West (the professionalization thesis) and the other that there is progressive deskilling (the proletarianization thesis).

Taking the evidence as a whole, there seems little doubt that the expansion of financial and business services sectors, tax cuts for the more affluent, the decline of relatively well-paid manufacturing jobs and the decline in the welfare state, have in combination all led to growing inequality of incomes in Western cities. These processes are most developed in US cities where larger immigrant labour forces and less restrictive employment legislation have encouraged the rapid expansion of low-paid service sector jobs. In Europe, relatively smaller immigrant workforces, more restrictive employment legislation and stronger (though threatened) welfare states have led to less inequality but much more unemployment. Nevertheless, there is also a general pattern of an upward shift in the occupational structures of Western cities.

The credit crunch has of course thrown into stark relief numerous issues related to social polarization and inequality. On the one hand, the recession is certain to lead to an increase in economic destitution, poverty and hardship, as both individual and firm bankruptcies, unemployment and housing repossessions (foreclosures) all increase. However, the widespread popular revulsion at the excessive rewards given to some in the financial

sector, combined with a growing awareness of the economically dysfunctional nature of incentivized pay structures that encouraged excessive financial risk taking, might lead to increased regulation of the financial sector, curbs on remuneration and the reduction in some of the processes that have led to gross income inequalities in recent years.

Key concepts related to social polarization (see Glossary)

Neoliberal policies, professionalization thesis, proletarianization thesis, residualization, underclass, world cities.

Further reading

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Links with other chapters

Chapter 2: Postindustrial society

Chapter 13: Social polarization

Chapter 14: Los Angeles and the California School

Intra-urban variations in the quality of urban life

Quality-of-life studies are popular because they offer the possibility of portraying the essential sociogeographical expression of urban communities on a conceptual scale that ranges along a continuum from 'good' to 'bad', thus providing a potent index with which to regionalize the city. The construction of such an index presents a number of difficulties, however. The first task is to set out a definition of social well-being that can be translated into a composite statistical measure: something that has taxed social scientists a great deal. The range of factors that potentially influence people's well-being for better or worse is enormous. Moreover, opinions about the importance of different factors often vary between sociogeographical groups; and factors that might be important at one geographical scale can be completely irrelevant at another. Any search for conclusive or universal definitions of social well-being is therefore futile.

Operationalizing the concept of quality of life typically relies on measures of welfare dependency, air pollution, recreational facilities, drug offences, family stability and public participation in local affairs – a marked contrast to the conventional spectrum of variables deployed in studies of factorial ecology. One of the major potential weaknesses of this kind of approach, though, is the problem of weighting the variables according to their relative importance to the people whose well-being is under consideration. It is evident from social surveys, for example, that British and American people do not regard housing conditions as being as important to their well-being as their health, whereas both factors are felt to be much more important than accessibility to recreational facilities. Moreover, these values tend to vary significantly among sociogeographical groups: in Britain, for example, intra-urban variations in attitudes to education have become part of the conventional wisdom of a whole generation of educationalists. There are plenty of reasons for such variations. To begin with, some aspects of social well-being (leisure and material consumption, for example) are highly income elastic, so that successive increases in expendable income will bring about marked increases in the intensity with which they are valued.

This conforms neatly with Maslow's famous suggestion (1970) that human motivation is related to a hierarchy of human needs, so that as people's basic needs – for nutrition, shelter and personal safety – are satisfied, motivation turns towards higher goals such as the attainment of social status, prestige and self-expression. It follows that people with low levels of material well-being will attach more importance to materialistic than to aesthetic, spiritual or cultural aspects of life. People's values also vary according to their stage in the family life cycle, and to their membership of particular religious or cultural groups. Moreover, the social geography of the city is itself likely to generate or reinforce differences in values from one neighbourhood to another, for the sociodemographic composition of different neighbourhoods creates distinctive local reference groups that contribute significantly to people's attitudes to life (see Chapter 7).

The geography of deprivation and disadvantage

Patterns of deprivation represent a particularly important facet of the social geography of the city. In this context, it is useful to regard deprivation as multidimensional (hence the term **multiple deprivation**), directing attention to the spatial configuration and interrelationships of different aspects of deprivation. The tendency within many cities is for the accumulative distribution of deprivations, with low-status neighbourhoods tending to fare badly on most dimensions of deprivation and prosperity. In this context, it seems fair to aggregate indicators to produce a single index of 'multiple deprivation'. A good example of this approach is provided by Figure 4.10, which shows the worst 1 per cent and 5 per cent of enumeration districts in Glasgow in 2001, based on a composite measure of disadvantage derived from a principal components analysis of ten census indicators of deprivation covering access to transportation, health, housing tenure, household composition, overcrowding, social status and unemployment. In Glasgow, pockets of deprivation are found throughout the city, not only in central areas of older, private, tenement housing, but also – and indeed predominantly – in some of the newer, peripheral public housing estates.
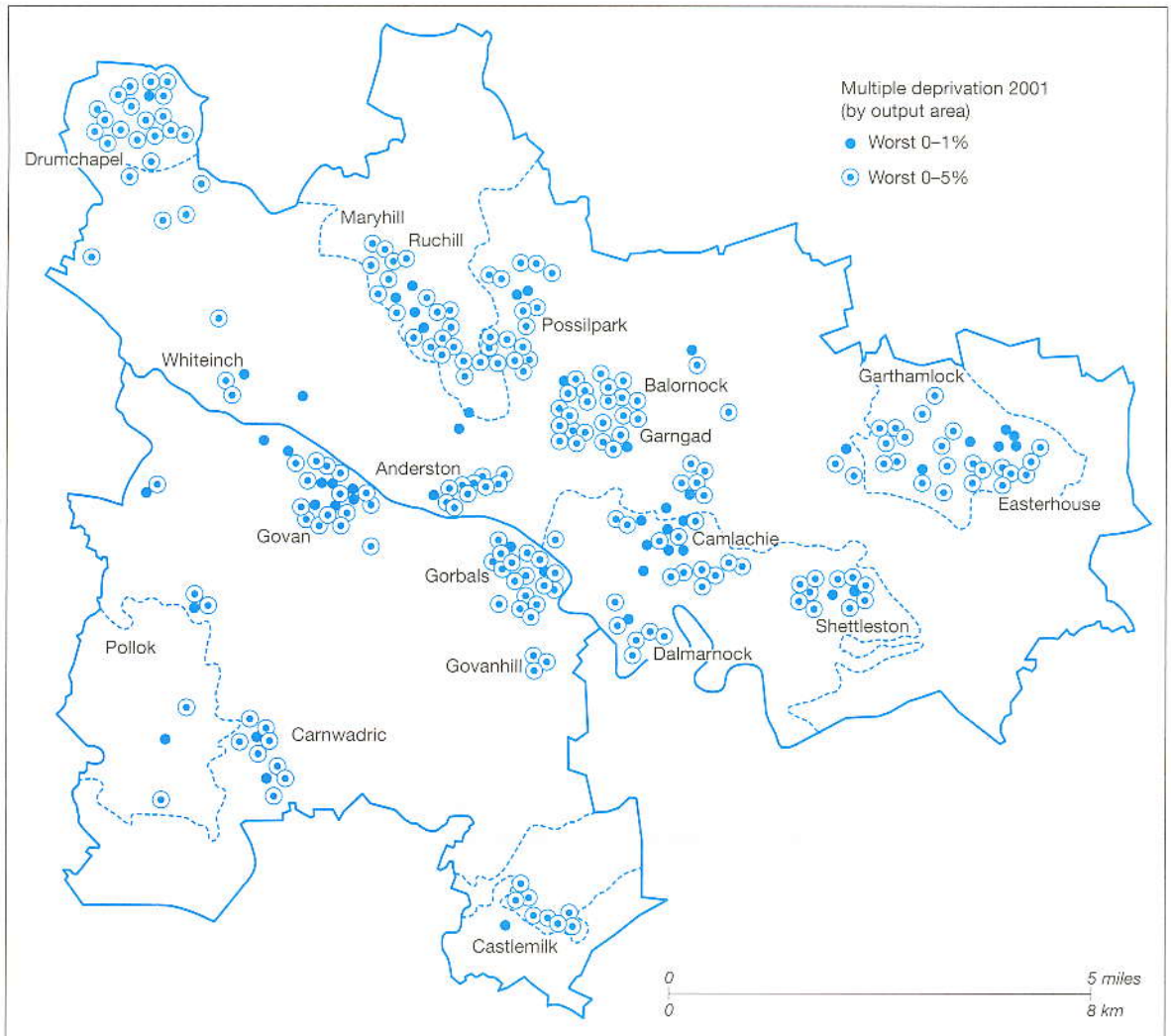
Figure 4.10 Social deprivation in Glasgow, 2001.
Source: After Pacione (2004).

This kind of approach can be criticized on several grounds, however, including the desirability of aggregating indicators of several different aspects of deprivation and the validity of assigning them equal weight in the overall index (recall the discussion of quality-of-life indicators). It is also necessary to guard against the dangers of the **ecological fallacy** (i.e. making inferences about individuals with data based on aggregates of people). Thus not everyone in a deprived area is necessarily deprived and not every deprived person in an area of 'multiple deprivation' is necessarily multiply deprived.

The development of territorial social indicators was for some years inhibited by the absence of geographically disaggregated information on issues related to household income, wealth, taxation and welfare benefits. In the United Kingdom, for example, little information on income is published below the level of relatively large regions. Thus most analysis of data on incomes has been undertaken by economists, who are

seldom concerned with the geographical implications of their studies. However, in recent years this impasse has been overcome by micro-simulation techniques that take advantage of recent developments in **geographical information systems (GIS)**.

These techniques enable the simulation of estimates of data for small areas based on detailed data published at larger spatial scales. To illustrate, in the United Kingdom there is a wealth of complex data relating to households in the Sample of Anonymized Records (SARs). These show the interrelationships between many variables (known as **cross-tabulations**); but to maintain confidentiality this information is published only at large spatial scales. However, certain statistical techniques (linear programming and iterative proportional fitting) can simulate the interrelationships between variables for small areas such as enumeration districts. Furthermore, these techniques facilitate the linking of data from a number of different data sources at new small spatial scales. The major drawback of such approaches is the difficulty of validating the newly created data sets. Two solutions to this problem are: first, to undertake some detailed fieldwork for small areas to compare the results with the microsimulations; or, second, see how the simulations work by reaggregating the new data to spatial scales for which there is detailed information.

Micro-simulation holds out the prospect of reassessing our views of **area-based urban policy** (i.e. urban policy that is targeted upon specific, high-need areas in cities). Edwards (1995, p. 710) has argued that these policies are largely cosmetic, since:

> by far the greatest part of the social and economic needs of inner city residents will not be met by urban specific policies but by mainline housing, health, income support and education provision.

However:

> we know precious little about the effectiveness of such programmes either in targeting the deprived, spatially or otherwise, or in providing for the (sometime) multiplicity of needs or the different additional needs that may be found within individual households.
>
> (Edwards, 1995, p. 711)

Some work has begun to redress this gap in our knowledge. For example, the New Policy Institute and the Joseph Rowntree Foundation devised a set of deprivation indicators based on household poverty, wealth and social exclusion (Howarth *et al.*, 1998). In addition, the UK's Office of the Deputy Prime Minister (ODPM) commissioned a comprehensive measure of multiple deprivation that enables measure of disadvantage to be determined for small-scale areas (wards) in England (see Table 4.2). Although highly influential, this complex index has been criticized, not only for the nature of the data, but the ways in which they are combined. Urban analysts have begun to develop similar indicators for small areas within cities. Thus, Bramley and Lancaster (1998) developed a model that generated income data for small areas based on the numbers of workers in household, economic activity rates and household tenure. Caldwell *et al.* (1998) have also used micro-simulation techniques in the US context to show the geography of wealth, taking into account factors such as financial assets as well as debts.

Lifestyle patterns

The splintering urbanism that is characteristic of contemporary cities has generated a mosaic ecology of lifestyles, all of which have been squarely caught in the crosshairs of corporate market researchers. Euro RSCG, for example, the world's fifth-largest advertising agency and popularizer of the term 'metrosexual', has broken down upscale American mothers into the following 'hot' advertising categories: Domestic Divas (who employ nannies to raise flawless kids and housekeepers to keep their homes gorgeous), Boomerang Moms (who worked when their kids were small and left work when the kids were teens), Yummy Mummies (staying fabulous at the gym), and Mini-Me Moms (whose kids are fashion accessories). The Nielsen corporation's Claritas PRIZM®NE marketing system identifies 14 different social groups that are broken down into 66 lifestyle segments (such as the 'Young Digerati', 'Bohemian Mix' and 'Cosmopolitans' of the 'Urban Uptown' social group) that can be mapped at the level of zip (post) code areas.

Based on extensive market research and the analysis of vast amounts of socio-economic data, the spatial

Table 4.2 The UK Office of the Deputy Prime Minister's Index of Multiple Deprivation 2004

Income Deprivation Domain (22.5% weighting)
➤ Adults and children in Income Support households (2001)
➤ Adults and children in income-based job-seekers households (2001)
➤ Adults and children in Working Families Tax Credit households whose equivalized income (excluding housing benefits) is below 60% of median before housing costs (2001)
➤ Adults and children in Disabled Person's Tax Credit households whose equivalized income (excluding housing benefits) is below 60% of median before housing costs (2001)
➤ National Asylum Support Services asylum seekers in England in receipt of subsistence only and accommodation support (2002)

Employment Deprivation Domain (22.5% weighting)
➤ Unemployment claimant count of women aged 18–59 and men aged 18–64 (2001)
➤ Incapacity benefit claimants women aged 18–59 and men aged 18–64 (2001)
➤ Participants in the New Deal for the 18–24s who are not included in the claimant count (2001)
➤ Participants in the New Deal for 25+ who are not included in the claimant count (2001)
➤ Participants in the New Deal for Lone Parents aged 18 and over (2001)

Health Deprivation and Disability Domain (13.5% weighting)
➤ Years of potential life lost (1997–2001)
➤ Comparative illness and disability ratio (2001)
➤ Measures of emergency admissions to hospital (1999–2002)
➤ Adults under 60 suffering from mood or anxiety disorders (1997–2002)

Education Skills and Training Deprivation Domain (13.5% weighting)
Subdomain: children/young people
➤ Average point score of children at Key Stage 2 (2002)
➤ Average point score of children at Key Stage 3 (2002)
➤ Average point score of children at Key Stage 4 (2002)
➤ Proportion of young children not staying on in school or school-level education above 16 (2001)
➤ Proportion of those aged under 21 not entering higher education (1999–2002)
➤ Secondary school absence rate (2001–2002)
Subdomain: skills
➤ Proportions of working-age adults (aged 25–54) in the area with no or low qualifications (2001)

Barriers to Housing and Services Domain (9.3% weighting)
Subdomain: wider barriers
➤ Household overcrowding (2001)
➤ LA percentage receiving assistance for homelessness
➤ Difficulty of access to owner occupation
Subdomain: geographical barriers
➤ Road distance to GP premises (2003)
➤ Road distance to a supermarket or convenience store (2002)
➤ Road distance to a primary school (2001–2002)
➤ Road distance to a post office (2003)

Crime Domain (9.3% weighting)
➤ Burglary (4 recorded crime offence types, April 2002 to March 2003)
➤ Theft (5 recorded crime offence levels, April 2002 to March 2003)
➤ Criminal damage (10 recorded crime offence levels, April 2002 to March 2003)
➤ Violence (10 recorded crime offence levels, April 2002 to March 2003)

The Living Environment Deprivation Domain (9.3% weighting)
Subdomain: the 'indoors' living environment
➤ Social and private housing in poor condition (2001)
➤ Houses without central heating (2001)
Subdomain: the 'outdoors' living environment
➤ Air quality (2001)
➤ Road traffic accidents involving injury to pedestrians and cyclists (2000–2002)

Source: http://www.odpm.gov.uk/stellent/groups/odpm_urban_policy/documents/page/odpm

Box 4.3

Key debates in urban social geography – how useful is the UK Census?

The first census is believed to be that made by the Babylonians over 5000 years ago in 3800 BC. It is thought to have been undertaken every six or seven years and, as well as measuring people, it took into account livestock, butter, honey, milk and vegetables. In the United Kingdom, with the exception of 1941 (during the Second World War) a census has been conducted every ten years since 1801. The Census now gathers information on a wide range of subjects such as age, sex, religion, ethnic composition, education, socio-economic class, housing, family structure, modes of transport and nature and location of work.

However, a key debate in the UK in recent years, especially in local government circles, is just how useful is the Census as a tool for policy making? In addition to its role in social analysis, much of the data gathered by the Census is used to determine the allocation of resources to local authorities by central government as well as for planning local services. Although attempts are made to update the information with various estimates and projections, local authorities argue that the Census increasingly fails to capture the true extent of the social issues that they face. Hence the mid-year estimates of the usually resident population often fail to include short-term migrants. The UK Statistics Commission admits that the accuracy of the Census varies geographically and that urban areas characterized by large student populations, migrant populations, multi-occupancy households and part-time residents are subject to greater uncertainty.

At the root of much of the current disquiet over the census is the accelerated increase in immigration into the United Kingdom in recent years. The accession of the Eastern European states to the European Union in 2004 has led to an estimated influx of over 600 000 migrants into the UK (although the exact number is difficult to determine and many have returned during the current recession). These migrants have spread throughout the nation but have concentrated in particular towns – Slough to the west of London is a much-publicized example. Such local authorities claim that the influx of Eastern European immigrants has led to huge strains on local services that severely stress the tax base and which are not compensated by central resources based on the Census.

Slough has been resorting to many methods to gauge its true population size and bolster its case for more resources, including analysis of National Insurance applications. Other methods include house-to-house questionnaires, although these have limitations when respondents have poor English, work shifts or for various reasons do not wish to reveal themselves to public authorities. Amazingly Slough, in a further attempt to bolster its case, has also analysed the sewerage flow in the town, which showed a 10 per cent increase in the year up to April 2006 (*The Economist*, 19 May 2007, p. 35)!

Yet another issue facing the Census is the 'missing million', since recent Census estimates have typically been this number short of expectations.

Given that the last Census recorded 94 men for every 100 women it is thought that most of the missing million are young adult men. There is much speculation as to whether they are absent from the United Kingdom because they are backpacking around the world, working elsewhere in Europe (such as in Mediterranean beach resorts) or just reluctant to fill in the Census, perhaps due to their participation in the informal economy. Little wonder then that in a recent EU study of the degree of the public's trust in the Census the UK came twenty-seventh out of the 27 states studied!

Key concepts related to the UK Census (see Glossary)

Area-based urban policy, diaspora, jurisdictional partitioning, micro-simulation, territorial social indicators, territorial justice, transnational urbanism.

Further reading

House of Commons Treasury Committee (2008) *Counting the Population* Eleventh Report of Session. Vol. 1. HMSO, London

Links with other chapters

Chapter 12: Box 12.1: The growth of Eastern European communities in UK towns and cities, Box 12.4: The growth of transnational urbanism

Chapter 13: Box 13.1: The emergence of clusters of asylum seekers and refugees

patterns identified through such classifications are arguably the most comprehensive portrayals of contemporary urban social geography. One of the most sophisticated approaches to consumer behaviour is that developed by SRI Consulting Business Intelligence (SRIC-BI), which offers a taxonomy of consumers based on market research into their values and priorities. In this system, consumers are differentiated according to three kinds of primary motivations: ideals, achievement and self-expression. Consumers who are primarily motivated by ideals tend to be guided in their purchasing decisions by information and principles. Consumers who are primarily motivated by achievement look for products that demonstrate success to their peers. Consumers who are primarily motivated by self-expression have patterns of expenditure oriented towards social or physical activity, variety and thrills.

Consumers can also, of course, be differentiated in terms of their resources. Income and wealth are clearly important, but SRIC-BI's VALStm taxonomy also takes into account people's resources in terms of health, self-confidence, energy, and awareness of current ideas, products and styles. Taking such resources into account, consumers whose primary motivations are ideals based are subdivided into two segments: 'Believers', who have fewer resources, and 'Thinkers', who have more. Similarly, consumers whose primary motivation is self-expression consist of 'Makers' (fewer resources) and 'Experiencers' (more resources). Consumers whose primary motivation is achievement consist of 'Strivers' (fewer resources) and 'Achievers' (more resources). Two other distinctive segments are defined principally in terms of their resources: 'Innovators', who have abundant resources and are able to indulge all three primary motivations to varying degrees; and 'Survivors', with so few resources that they must focus on meeting needs rather than fulfilling desires, and are unable to express a strong primary motivation through their patterns of consumption.

In terms of the material culture of contemporary urban social geographies, two of the most interesting segments are Innovators and Achievers. Innovators tend to be well educated, self-confident, open to innovation

and energetic. They tend to experience more 'positive life experiences' (promotions, salary rises, etc.) than other groups and, when they do, they often reward themselves with some form of consumption. Their consumption patterns reflect cultivated tastes for upscale, niche products and services. Innovators and Achievers are very sophisticated consumers of place and tend to want houses that make a clear statement about themselves and their lifestyles (basically: 'I've got a big/bigger/better equipped/more spectacular/more luxurious one'). But for resource-rich, successful, energetic and aspirational consumers, a house is just the beginning. It must also be a showcase for the right 'stuff': the furnishings, possessions and equipment necessary for the enactment of their preferred lifestyle and self-image. Achievers also have relatively high levels of resources but are characterized primarily by their conservatism and the emphasis that they place on status, structure, stability and predictability. As consumers, they favour homes, neighbourhoods, products and services that demonstrate their success to their peers. Achievers are highly imitative, making purchases similar to those of others whose opinions they value or of those they wish to emulate.

Together, Innovators and Achievers make up almost 25 per cent of the adult population in the United States. Innovators account for one in ten of the adult population. They are, however, distributed unevenly across metropolitan areas. In the Washington, DC, metropolitan area, for example, high concentrations of Innovators reflect a distinctive social geography, dominating Fairfax County (Virginia), along with much of Montgomery County (Maryland) and Loudoun County (Virginia) (Figure 4.11). Achievers are localized in a broadly similar but rather more decentralized pattern (Figure 4.12). Concentrations of Innovators constitute more than 50 per cent of the adult population in some zip code areas, reaching around 58 per cent in Kenilworth (Cook County, Illinois), Glen Echo (Montgomery County, Maryland), and Waban (Middlesex County, Massachusetts). Achievers are somewhat less concentrated, with the highest levels at the scale of zip codes ranging between 30 and 35 per cent.
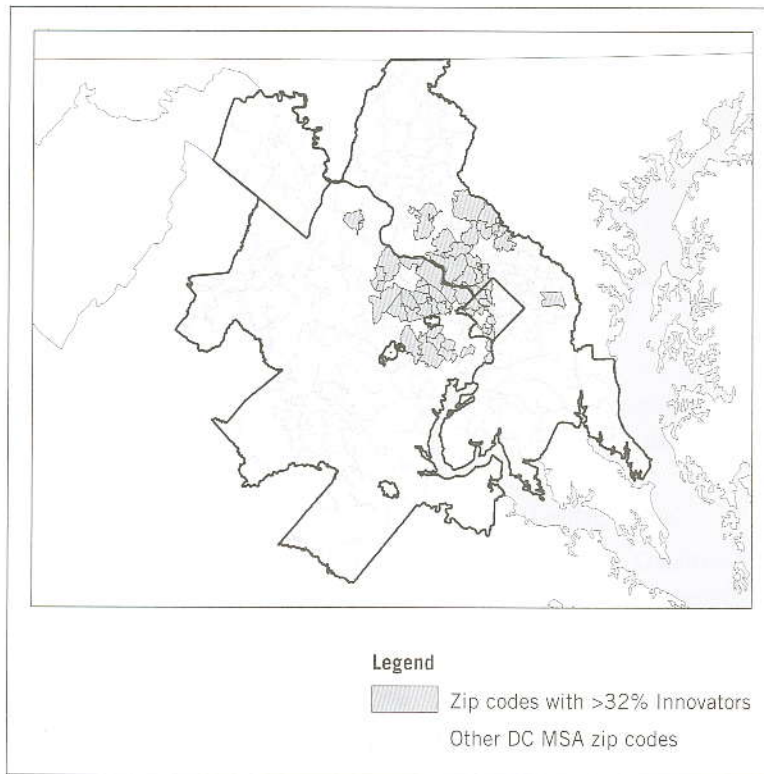
Legend

Zip codes with >32% Innovators

Other DC MSA zip codes

Figure 4.11 Distribution of zip code areas with a high incidence of Innovators (top quintile), Washington, DC, Metropolitan Statistical Area.
Source: Knox (2005), Fig. 2, p. 41.

Box 4.4

Key novels related to urban social geography – Chapter 4

High Rise (1975) J.G. Ballard. A critique of high-rise urban living and its attendant social inequalities.

How Late it Was, How Late (1994) James Kelman. Controversial because of its bad language and attempt to portray Glaswegian dialect, the novel tells the story of an unemployed worker and his dealings with the welfare state.

Last Exit to Brooklyn (1957) Hubert Selby Jnr. A shocking, visceral novel dealing with the experiences of the underclass in New York. Not for the faint-hearted.

London Orbital (2002) Ian Sinclair. A rambling but intriguing novel that deliberates on divisions and dilemmas posed by new urban forms.

The Motel Life (2006) Willy Vlautin. Like the song lyrics of the band of which he is a member (Richmond Fontaine) this much acclaimed debut novel is a downbeat account of two brothers on the run in the seedy side of the United States.

Trainspotting (1993) Irvine Welsh. Another path-breaking novel written in a Scottish dialect, this novel charts the life styles of Edinburgh drug addicts in a manner that is both blackly humorous and disturbing. See also the film guide in Chapter 7.
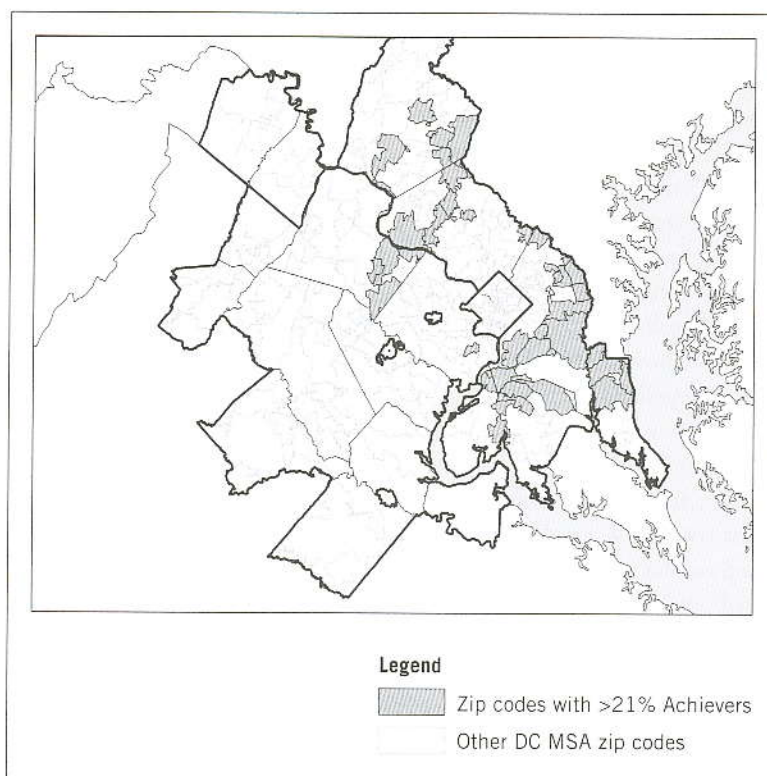
Figure 4.12 Distribution of ZIP Code areas with a high incidence of Achievers (top quintile), Washington, DC, Metropolitan Statistical Area.
Source: Knox (2005), Fig. 3, p. 42.

Chapter summary

4.1 The physical structures of cities display complex patterns that reflect many processes superimposed over the years. There are wide variations in environmental quality in cities. Urban areas also have distinctive characteristics that can often best be captured through subjective written descriptions that reflect the 'feel' of a neighbourhood.

4.2 Studies of Western cities reveal interrelationships between groups of variables reflecting three main dimensions: economic inequalities, family status and ethnicity, which are often reflected respectively in sectors, concentric rings and clusters. There are, however, many variations in residential structure reflecting the distinctive processes to be found within cities. Territorial social indicators also reveal wide variations in the quality of life in cities. Often these indices overlap to reveal multiple deprivation.

Key concepts and terms

area-based urban policy	factorial ecology	quality-of-life indices
cross-tabulations	family status	Social Area Analysis
ecological fallacy	geographical information systems	social well-being
ethnic status	morphogenesis	territorial social indicators
factor analysis	principal components analysis	urban social areas

Suggested reading

Morphogenesis and urban structure

Whitehand, J. (1992) *The Making of the Urban Landscape* Blackwell, Oxford

Whitehand, J. and Larkham, P. (eds) (1992) *Urban Landscapes: International perspectives*, Routledge, London

Knox, P. (1993) *The Restless Urban Landscape* Prentice Hall, New York (Chapter 8, pp. 207–36)

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Johnston, R. and Herbert, D. (1976) *Social Areas in Cities*, John Wiley, London (chapter by Johnston, pp. 193–236)

White. M. (1987) *American Neighborhoods and Residential Differentiation* Russell Sage Foundation, New York

Social well-being

Pacione, M. (2003) Quality-of-life research in urban geography, *Urban Geography* 24, 314–39

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Smith, D. (1973) *The Geography of Social Well-being in the United States* McGraw-Hill, New York

Methods in geography

Flowerdew, R. and Martin, D. (eds) (1997) *Methods in Human Geography* Longman, London

Rees, P., Martin, D. and Williamson, P. (eds) (2002) *The Census Data System* John Wiley, Chichester

Indices of Deprivation used by the UK's Office of the Deputy Prime Minister see: http://www.odpm.gov.uk/stellent/groups/odpm