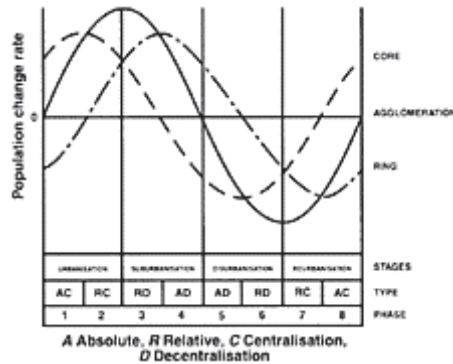


## A 'STAGES OF URBAN DEVELOPMENT' MODEL

The concept of a cycle of urbanisation has also been employed by Klaassen *et al.* (1981) and van den Berg *et al.* (1982) to study the growth patterns *within* individual urban agglomerations.<sup>13</sup> As Figure



**Figure 4.8** The stages of urban development model

Source: A.Champion (2000) Urbanization, suburbanization, counter-urbanization and reurbanization, in R.Paddison and W.Lever (eds) *Handbook of Urban Studies* London: Sage

4.8 shows, four stages of urban development are envisaged:

1. *urbanisation*: when certain settlements grow at the cost of their surrounding countryside;
2. *suburbanisation* or *exurbanisation*: when the urban ring (commuter belt) grows at the cost of the urban core (physically built-up city);
3. *disurbanisation* or *counterurbanisation*: when the population loss of the urban core exceeds the population gain of the ring, resulting in the agglomeration losing population overall;
4. *reurbanisation*: when either the rate of population loss of the core tapers off, or the core starts regaining population with the ring still losing population.

As Figure 4.8 indicates, the model is based on changes in the direction and rate of population movement between urban core and urban ring (which together comprise a functionally related daily urban system). The two types of change are absolute shifts when the directions of population change in the two zones differ, and relative shifts when change occurs in the same direction but at different rates. These trends are summarised in Table 4.7. We have already examined the processes and patterns of urbanisation. Here we

**TABLE 4.7 STAGES OF DEVELOPMENT OF A DAILY URBAN SYSTEM**

Stage of development	Classification type	Population change characteristics			
		Core	Ring	DUS	
I Urbanisation	1. Absolute centralisation	++	-	+	} Total growth (concentration)
	2. Relative centralisation	++	+	+++	
II Suburbanisation/ Exurbanisation	3. Relative decentralisation	+	++	+++	
	4. Absolute decentralisation	-	++	+	
III Disurbanisation/ Counterurbanisation	5. Absolute decentralisation	---	+	-	} Total growth (deconcentration)
	6. Relative decentralisation	---	-	---	
IV Reurbanisation	7. Relative centralisation	-	---	---	
	8. Absolute centralisation	+	---	-	

**TABLE 4.8 GREAT BRITAIN: POPULATION CHANGE, 1951-91, BY FUNCTIONAL REGION ZONE (PER CENT)**

Zone type	Rate for decade				Deviation from GB rate			
	1951-61	1961-71	1971-81	1981-91	1951-61	1961-71	1971-81	1981-91
Great Britain	4.97	5.25	0.55	2.50	0.00	0.00	0.00	0.00
Core	3.98	0.66	-4.20	-0.09	-0.99	-4.59	-4.75	-2.59
Ring	10.47	17.83	9.11	5.89	5.50	12.58	8.56	3.39
Outer area	1.74	11.25	10.11	8.85	-3.23	6.00	9.56	6.35
Rural area	-0.60	5.35	8.84	7.82	-5.57	0.10	8.29	5.32

*Source:* adapted from A.Champion (2000) *Urbanization, suburbanization, counterurbanization and reurbanization*, in R.Paddison and W.Lever (eds) *Handbook of Urban Studies* Beverly Hills, CA: Sage

focus on population movements associated with the other major dimensions of urban change identified in Table 4.7.

### REURBANISATION

The empirical evidence for reurbanisation is mixed. A study of 241 functional urban regions (FURs) in Europe found that between 1981 and 1991 the proportion of urban cores gaining population reached 47 per cent, compared with only 22 per cent over the period 1975–81.<sup>14</sup> However, it was mainly the smaller FURs (particularly those with ancient cathedrals and universities) that exhibited reurbanisation, not the larger, older urban regions. In the UK reurbanisation occurred in only four of thirty-six FURs (Glasgow, Oxford, Cambridge and Canterbury), with only Glasgow confirming model expectations.

On the other hand, there is a growing body of case-study evidence that indicates a recovery of large cities from the high levels of population loss experienced in the 1970s era of counterurbanisation. As Table 4.8 shows, the rate of population loss for all 280 of Britain's urban areas fell from 4.2 per cent in 1971–81 to 0.1 per cent for 1981–91, while the growth rate for the urban rings declined from 9 per cent to less than 6 per cent. In the USA the 1980s witnessed the re-emergence of the larger metropolitan areas as the fastest-growing elements of the urban landscape<sup>15</sup> (Table 4.9). Overall, metropolitan areas with 1 million or more residents grew by 12 per cent in the 1980s compared with 8 per cent in the previous decade. While much of this growth was in the South and West even the North's large metropolitan areas switched from a population decline of 0.9 per cent between 1970 and 1980 to a 2.7 per cent increase in the 1980s.

**TABLE 4.9 TYPES OF POPULATION CHANGE IN METROPOLITAN AREAS OF THE USA, 1980–90 AND 1990–96**

Type	1980–90		1990–96	
	No. of cities	%	No. of cities	%
1	39	17.0	15	6.6
2	54	23.5	53	23.3
3	40	17.4	31	13.7
4	60	26.1	85	37.4
5	37	16.1	43	18.9

**Source:** adapted from J. Mercer (1999) *North American cities: the micro-geography*, in F. Boal and S. Royle (eds) *North America: A Geographical Mosaic* London: Arnold, 191–206

**Notes:** Type 1 cities: central-city decline added to metropolitan decline. Type 2 cities: central-city decline and metropolitan growth. Type 3 cities: central-city stagnation (equal to a less than 5% population change over the period) and metropolitan growth. Type 4 cities: strong central-city growth (between 5.1–19.9% over the period) and metropolitan growth. Type 5 cities: booming central-city growth (20.0% or more over the period) and metropolitan growth

The population growth that has occurred in the central areas of US cities was fuelled by two principal migration streams. First, new migrants, primarily from Latin America and Asia, moved into lower-value areas of cities such as New York and Los Angeles as well as into other metropolitan areas on the west coast (San Diego and San Francisco), in the South-West (Houston) and Florida (Miami) that historically had attracted relatively fewer migrants (see Chapter 5). The second stream comprised a flow of 'baby-boomers' (those born just after the Second World War and during the affluence of the 1950s and early 1960s), investing in high-status residential areas. During the 1980s the strongest magnets for adult 'boomers' were metropolitan areas with expanding high-tech and defence-oriented economies, including coastal cities such as Boston and Seattle and sunbelt locations like Dallas and Atlanta. Australia and Canada also provide evidence of strengthening metropolitan areas and inner-city growth in the 1980s.<sup>16</sup> Evidence for US cities over the period 1990–2000 indicates that the occurrence and extent of downtown 'population rebound' varies considerably (Table 4.10). While in some cities the downtown contribution to metro growth is small, in others it represented a significant proportion of total population growth, and in others downtown population growth offset citywide population decline.

In general, these empirical observations suggest that:

1. There are widespread signs of renewed growth or reduced population decline for larger metropolitan areas, as well as a population recovery for urban cores.
2. There is no evidence of suburban-ring areas losing out to core areas, not even in relative terms, let alone in accordance with the absolute change associated with the later phase of reurbanisation specified in the 'stages of urban development' model.

Reurbanisation as defined by Klaassen *et al.* (1981)<sup>17</sup> has not yet emerged as a significant feature in the urban systems of advanced economies. There is also considerable disagreement over the extent to which the inner-city revitalisation that took place in the 1980s will be able to continue and lead to a fundamental change in the form of the Western city. The process of decentralisation, on the other hand, is likely to continue as a major feature of post-industrial urbanisation, albeit in a form very different from the dormitory-style suburbanisation of the early post-Second World War period.

We can identify two main forms of population decentralisation. The first, counterurbanisation or urban deconcentration, is characterised by net population movement from metropolitan regions into smaller urban regions and rural areas that lie beyond the primary commuter-sheds of the major cities. The second, suburbanisation, reflects a long-established centrifugal movement of population which progressively has involved a broader range of urban functions than just housing taking place over longer distances as personal mobility has grown and urban centres have expanded to embrace their previously rural hinterlands.

**TABLE 4.10 CITY AND DOWNTOWN  
POPULATION CHANGES IN THE USA, 1990-  
2000**

<b>Cities where downtown population growth contributed to city population growth</b>							
	<i>Downtown population</i>			<i>City population</i>			<i>Downtown share of city growth (%)</i>
	<i>1990</i>	<i>2000</i>	<i>Increase</i>	<i>1990</i>	<i>2000</i>	<i>Increase</i>	
Miami FL	15,143	19,927	4,784	358,548	362,470	3,922	122.0
Boston MA	77,253	80,903	3,650	574,283	589,141	14,858	24.6
Atlanta GA	19,763	24,931	5,168	394,017	416,474	22,457	23.0
San Francisco CA	32,906	43,531	10,625	723,959	776,733	52,774	20.1
Chicago IL	56,048	72,843	16,795	2,783,726	2,896,016	112,290	15.0
Seattle WA	12,292	18,983	6,691	516,259	563,374	47,115	14.2
New York	153,927	170,708	16,781	7,322,564	8,008,278	685,714	2.5
Dallas TX	11,858	15,198	3,340	1,006,877	1,188,580	181,703	1.8
Los Angeles CA	34,655	36,630	1,975	3,485,398	3,694,820	209,422	0.9
Houston TX	7,029	7,565	536	1,630,553	1,953,631	323,078	0.2
<b>Cities where downtown population growth reduced city population loss</b>							
	<i>Downtown population</i>			<i>City population</i>			<i>Downtown offset of city loss (%)</i>
	<i>1990</i>	<i>2000</i>	<i>Increase</i>	<i>1990</i>	<i>2000</i>	<i>Decrease</i>	
Detroit MI	34,872	35,618	746	1,027,974	951,270	-76,704	1.0
Baltimore MD	28,579	30,067	1,470	736,014	651,154	-84,860	1.7
Norfolk VA	2,390	2,881	491	261,229	234,403	-26,816	1.8
Washington DC	26,597	27,667	1,070	606,900	572,059	-34,841	3.0
Milwaukee WI	15,039	16,359	1,320	628,088	596,674	-31,114	4.1
Philadelphia PA	74,686	78,349	3,663	1,585,577	1,517,550	-68,027	5.1
Cleveland OH	7,261	9,599	2,338	505,616	478,403	-27,213	7.9
New Orleans LA	6,988	8,051	1,063	496,938	484,674	-12,264	8.0
Pittsburgh PA	6,517	10,216	3,699	369,879	334,563	-35,316	9.5

Jackson MS	5,253	6,762	1,509	196,637	184,256	-12,381	10.9
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**Source: adapted from E. Birch (2002) Having a longer view on downtown living *Journal of the American Planning Association* 68(1), 5-21**

### COUNTERURBANISATION

Signs of a population reversal in rural areas were first identified in the USA,<sup>18</sup> but similar trends were soon detected in other advanced nations, including Canada,<sup>19</sup> Australia,<sup>20</sup> Western Europe<sup>21</sup> and Britain.<sup>22</sup> Counterurbanisation in Britain dates from the early 1960s, when for the first time areas situated well away from metropolitan influence began to grow faster than the main conurbations and their dependent regions. Population growth in rural Britain was particularly strong in the late 1960s and early 1970s but has continued over recent decades, with net out-migration from the main metropolitan areas to the rest of the UK averaging around 90,000 people per year, a rate of 0.5 per cent.<sup>23</sup>

The reasons for this reversal of long-established trends are so multifaceted that any attempt to apply a single explanation to the widely diverse changes under way in different regions would be unduly simplistic. Synthesising findings from a range of investigations provides a useful inventory of contributory factors. These include:

1. continuing growth of metropolitan centres and their spillover into adjacent non-metropolitan counties;
2. decentralisation of manufacturing in pursuit of lower land and wage costs;
3. increased employment in service occupations;
4. early retirement coupled with higher retirement incomes not tied to a particular location;

**TABLE 4.11 CHANGING POPULATION AND EMPLOYMENT DISTRIBUTIONS IN THE USA, 1950-2000**

	<i>Census year</i>					
	1950	1960	1970	1980	1990	2000
<b>Central cities as percentage of:</b>						
Metro population <sup>a</sup>	57	49	43	40	37	38
Metro employment	70	63	55	50	45	37
<b>Suburbs as percentage of:</b>						
Metro population	43	51	57	60	63	62
Metro employment	30	37	45	50	55	63
<b>Source: US Census Bureau statistics</b>						
<b>Note: <sup>a</sup>Metro refers to the metropolitan statistical area (MSA) as defined by the US Census at each census date</b>						

centred on amenity-rich areas outside the daily range of metropolitan commuting;

5. increased per capita disposable real income;
6. increased pursuit of leisure activities at all ages,
7. increased enrolments in rural colleges and universities in the USA, especially in the late 1960s and early 1970s as a result of the post-war 'baby boom';
8. growth of state government in the USA;
9. levelling off of the loss-of-farm population;
10. growth of an anti-materialist perspective among the young;
11. narrowing of the traditional gap between urban and rural lifestyles with the extension of electricity, water and sewage systems, telecommunications and access to modern facilities;
12. more long-distance commuting;
13. growth associated with energy and extractive industries;
14. completion of the interstate highway system in the USA;
15. lower cost of living in rural areas;
16. growth of anti-urbanism as characterised by increased fear of crime and concern with urban disamenities such as congestion and pollution;
17. growth in importance of military establishments in some US counties during the 1960s;
18. residential preference for lower-density rural living;
19. government decentralisation policies in some countries such as Sweden, France and Britain (in the case of the last-named, via the New Towns programme; see Chapter 9).

The list of factors is diverse and many are interrelated. The extent to which each contributes to the population turnaround will depend on local conditions.

### THE SUBURBANISATION WAVE

The suburbanisation process began on a significant scale in the 1920s and accelerated after the Second World War, especially in North America. The USA is the world's first predominantly suburban nation.<sup>24</sup> As Table 4.11 shows, by the early 1960s the suburbs held 51 per cent of the US urban population, by 1980 they accounted for half of total metropolitan employment, and by 1990 about two-thirds of the metropolitan population and 55 per cent of metropolitan employment. By the last of these dates, US suburbia contained more than half the entire national population, having expanded from 41 million to 115 million since 1950 (an increase of 180 per cent). In 2000 the **suburbs** accommodated 140 million Americans (50 per cent of the total population).

The suburban wave was driven by the following factors:

1. The rapid growth of urban population and rising disposable incomes enabled people to meet both the cost of new housing and the associated transport costs.
2. Widespread diffusion of the automobile enhanced individual mobility. The number of US automobiles rose from under 1 million in 1910 to 27 million by 1930, the latter amounting to one for every five persons.
3. New suburbs started to resist annexation by central cities through legal incorporation, which enabled them (and their residents) to shield themselves from the problems of the central city (such as low-quality housing, rising taxes, congestion, racial tension

- and crime), and to provide the particular living environment they desired and could pay for.
4. There was a huge pent-up demand for housing.
  5. There was a need to generate employment after fifteen years of low investment during the Depression of the 1930s followed by the war years.
  6. These goals were promoted by public policies that favoured new house-building over rehabilitation and highway construction over mass transit.

Consequently, in the USA, the 1950s represented 'the largest suburban decade ever'.<sup>25</sup>

In the UK the most ubiquitous form of new rural residential development has been the residential subdivision or housing estate located as an adjunct to an existing rural settlement within commuting distance of an urban workplace. These dormitory settlements, growing almost solely because of out-migration from central cities, have been termed **metropolitan villages**, defined as settlements where more than one in five of the workforce is employed in towns or cities.<sup>26</sup> In the USA the suburbanisation process has created transit- and freeway-dependent dormitory subdivisions, infill developments and automobile-dependent dispersed suburbia. The functions of suburbs range from undifferentiated residential areas to a more recent mix of specialised retail corridors, high-technology industrial clusters, and high-density office and commercial nodes or 'edge cities'<sup>27</sup> (Box 4.6). The impact of suburbanisation on central cities has been profound. Most strikingly, in the 1960s several US cities, notably New York, became technically bankrupt and unable to finance their current expenditure on services. Rising local taxes and deteriorating local services merely served to accelerate the flight of better-off residents and footloose firms into the suburbs, leaving behind the less dynamic economic sectors and less wealthy people, notably African-Americans and recent immigrants from overseas. Even in the more stable 1980s, when New York City's population grew by 3.5 per cent, its white non-Hispanic population fell by 11.5 per cent and the proportion of its total residents accounted for by the 'minority population' rose to over 60 per cent in 1990. As Table 4.12 indicates, similar patterns of 'white flight' were

#### BOX 4.6

##### Edge City, USA: Tyson's Corner VA

The post-Second World War movement of housing, industry and commerce to the outskirts of urban areas has created perimeter cities that are functionally independent of the urban core. In contrast to the residential or industrial suburbs of the past, these new cities contain along their superhighways all the specialised functions of a great metropolis: commerce, shopping malls, hospitals, universities, cultural centres and parks. This new peripheral urban form is referred to by various names, including technoburb, post-suburbia, cyberbia, stealth city or edge city. Driving time, not space, determines its fluid boundaries. Garreau (1988)<sup>28</sup> defined an edge city as a place that has 5 million ft<sup>2</sup> (460,000 m<sup>2</sup>) or more of leasable office space, 600,000 ft<sup>2</sup> (56,000 m<sup>2</sup>) or more of leasable retail space, more jobs than bedrooms, is perceived by the population as one place, and that grew from practically nothing in the early 1960s.

Tyson's Corner, just beyond the Beltway around Washington DC, is the archetypal edge city. In the mid 1960s Tyson's Corner was a rural corner of northern Virginia



marked only by the intersection of Interstate 66, the Washington Beltway and the access road to Dulles International Airport. Administratively it is still rural, an unincorporated 6,000 acre (2,400 ha) area that contains 30,000 residents and over 75,000 jobs, all under the jurisdiction of Fairfax County but split between three different county supervisory districts and three county planning districts. Tyson's Corner does not exist as a postal address; residents' mail must go to either McLean or Vienna. Within this framework in 1990 was the ninth largest concentration of commercial space in the USA, including more than 20 million ft<sup>2</sup> (1.9 million m<sup>2</sup>) of office space, 3,000 hotel rooms and parking for more than 80,000 cars. The area was also the largest east-coast retail concentration outwith Manhattan. Yet it had little of the apparatus of urban governance or civic affairs.

**Source: J. Garreau (1991) *Edge City* New York: Random House**

recorded by other major cities of the USA. While the exodus of white-flight population from New York and Chicago slowed during the 1990s in other major cities, the rate of white out-migration from

**TABLE 4.12 POPULATION CHANGE IN US CENTRAL CITIES, 1960-2000**

City	2000 population (000)	Population change (%)				White population change (%)		Minority share of total population (%)	
		1960- 70	1970- 80	1980- 90	1990- 2000	1980- 90	1990- 2000	1990	2000
New York	8,008	1.4	-10.4	3.5	-9.4	-11.5	-6.6	60.5	55.3
Chicago IL	2,896	-4.7	-10.7	-7.4	-4.0	-17.2	-3.8	62.7	58.0
Philadelphia PA	1,518	-3.1	-13.5	-6.1	3.2	-12.3	-19.5	48.4	55.0
Detroit MI	951	-8.5	-19.2	-14.6	7.5	-47.7	-47.6	79.7	89.5
Baltimore MD	651	-2.8	-12.5	-6.4	11.5	-15.8	-28.4	61.6	69.4
Cleveland OH	478	-14.3	-23.6	11.9	5.5	-19.0	-20.7	52.5	58.5
Pittsburgh PA	335	-14.1	-18.5	-12.8	9.5	-14.9	-15.2	28.5	32.4
Cincinnati OH	231	-9.8	-15.0	-5.5	9.1	-11.2	-20.3	39.9	47.0

**Source:** US Census Bureau statistics

**Notes:** Data refer to central cities only. Cities are ranked by 2000 population size. Hispanics are included in the minority population

**BOX 4.7**

## The changing ethnic composition of US central cities

A combination of 'white flight' and an influx of Hispanic populations have left US whites as a minority in nearly half the 100 largest cities. According to the 2000 census non-Hispanic whites are now a majority in only fifty-two of the largest 100 cities, compared with seventy a decade earlier. Whites now account for 44 per cent of the 58,441,915 people in the largest 100 cities (compared with 52 per cent in 1990). Some 2.3 million whites or 8.5 per cent of the white urban population left the largest cities between 1990 and 2000. Birmingham AL lost 40 per cent of its white population. Other cities where whites have become a minority include Anaheim CA and Riverside CA where immigration from Mexico is particularly strong. Cities experiencing economic difficulties such as Rochester NY saw 'white flight' to the suburbs. The Hispanic population of the 100 largest cities grew from 17.2 per cent to 22.5 per cent, an increase of 3.8 million. The Asian population grew by 1 million, from 5.3 per cent to 6.6 per cent. The black population increased by 876,000 but as a proportion of the urban population fell slightly from 24.6 per cent to 24.0 per cent.

the central core increased (Box 4.7). In Detroit the loss of almost half the white population of the central city during the 1990s matched the rate of the previous decade, with the result that nearly nine out of ten residents of central Detroit are from minority ethnic groups (Table 4.12).

Although attempts have been made to classify suburbs, they are better viewed as dynamic entities with a diversity that reflects their role in the post-modern city. The diversity of the suburbanisation phenomenon is encapsulated by Bourne (1996)<sup>29</sup> in a list of ten differing interpretations (Table 4.13). The first and more traditional interpretation views suburban development as a 'natural' process of accommodating growth by extension of the urban margin, and is characterised by the classical ecological models of the city.<sup>30</sup> The second perspective sees the suburbs as an escape route from the social and environmental problems of cities either via individual decisions or through centralised planning initiatives.<sup>31</sup> The third and fourth views are based on a structural or political economy perspective which interprets suburbanisation as a tool of government macro-economic policy and a means of generating employment and promoting capital accumulation for the land development, building and financial sectors.<sup>32</sup> The fifth characterises suburbanisation as social engineering, as a means of rescuing the poor from themselves and perhaps as an indirect means of inculcating an assumed superior moral order of the past.<sup>33</sup> The sixth and seventh explanations are market-driven and derive from micro-economic theory and the capitalist logic

### TABLE 4.13 ALTERNATIVE INTERPRETATIONS OF THE SUBURBANISATION PROCESS

1. Suburbs as *natural ecological extensions*: suburbanisation as a natural process of organic and evolutionary growth; expansion takes place from the inside outward to the fringe, but is still tied to the urbanised core for jobs and services.
2. Suburbs as a means of *escapism*: as a means of escape from the health, housing and environmental problems of the industrial inner cities.
3. Suburbs as *macro-economic policy tools*: suburbs as Keynesian policy instruments of macro-economic management and regulation, and for generating local employment multipliers.
4. Suburbs as vehicles for *capital accumulation*: as a means for landowners, the financial sector and the property industry to capture the social surplus, deriving from the profits from the development of newly built suburban environments on the fringe.
5. Suburbs as a means of *social engineering*: as a means of rescuing the poor and the disadvantaged from themselves, and of re-establishing a traditional and presumed superior moral order of earlier times and communities.
6. Suburbs as the logical outcomes of *rational locators*, reflecting the rational decisions of firms and households seeking lower-cost locations and more efficient and less regulated landscapes, within a competitive urban environment.
7. Suburbs as maps of *consumer preferences and choices*, emphasising the dominant role in suburbanisation of the preferences of individual consumers for more space, new housing, social homogeneity and certain public goods.
8. Suburbs as *socio-political strategies*: Strategies building on manipulation of the political fragmentation of the metropolis, entrenched local autonomy and the demands for social exclusiveness.
9. Suburbs as *asylums*: as defensive strategies, driven by fear of others, of the inner city and by uncertainty over property values, and stressing security and exclusion.
10. Suburbs as *rural nostalgia*, reflecting a desire to return to the countryside and rural roots, but without also severing

**Source: L. Bourne (1996) Reinventing the suburbs: old myths and new realities *Progress in Planning* 46(3), 163-84**

of individual utility maximisation. One views suburban sprawl as the expected outcome of rational individuals, households and firms seeking more efficient and less costly environments; the other emphasises the dominant role of consumer preferences for more space, new housing, privacy and private consumption.<sup>34</sup> The eighth sees suburban development as a socio-political strategy of exclusion designed to satisfy demands for local autonomy, social homogeneity and differential consumption of collective goods and services.<sup>35</sup> The final two perspectives return to the view of suburbs as a defensive strategy that is driven either by fear of 'others' who are different and who may pose a threat to a preferred lifestyle, or by a desire to recapture an assumed simple rural way of life but without losing the advantages of urban living.<sup>36</sup> Suburbs are open to all these

interpretations, with the applicability of each ranging from place to place, and over time. Nowhere else is the postmodern message of difference, and the difficulty of generalisation, more relevant than in suburbia.

## EXURBANISATION

The suburbanisation wave reaches its greatest extent in the phenomenon of extended suburbanisation or exurbanisation. Nelson (1992)<sup>37</sup> identified four principal factors to explain exurbanisation:

1. continued deconcentration of employment and the rise of exurban industrialisation;
2. the latent anti-urban and rural location preferences of US households;
3. improved technology that makes exurban living possible;
4. an apparent policy bias favouring exurban development over compact development.

These developments on the margins of suburbia represent a transition state between urban and rural life akin to the second-home phenomenon. Exurbia tends to be dominated by middle-class residents, many of whom commute long distances to work in the city or in the newer suburbs, but other groups are also present, including retirees and young households seeking social status, more land and new housing at a lower cost than is available in the suburbs. In the USA the **exurbs** have captured as much as one-quarter of recent national population growth and 60 per cent of recent manufacturing investment.<sup>38</sup> For some this heralds a 'post-suburban' era characterised by inner suburban population loss and relative income decline, an increase in suburban employment, a reduction in suburban out-commuting, an increase in exurban population and income, and increased farmland conversion to urban use.<sup>39</sup>

The acid test for any model is how well it corresponds with reality. The first three stages of population change indicated by the model shown in Figure 4.8 accord well with the pattern of urban development in North America and Western Europe. Urbanisation followed by central city decline and suburban growth have been characteristic features of the US city for several decades, and national urban systems in Europe also appear to have followed the model sequence.<sup>40</sup> There is, however, less evidence for the final stage of the model. This casts doubt on the hypothesised progression through all stages. Despite many examples of gentrification and 'urban renaissance' in cities of the MDRs, the weight of demographic evidence seems to indicate the continuing dominance of centrifugal trends

within urban regions rather than a general shift into a reurbanisation stage.<sup>41</sup> In contrast, as we have seen, urbanisation remains the dominant process in the LDRs.

## TYPES OF URBANISED REGIONS

The increasing scale of urbanisation, urban growth and development of national urban systems has given rise to a number of different forms of urbanised regions:



**Plate 4.1 The exploding postmodern metropolis of Los Angeles CA with its restricted high-rise central business district surrounded by low-density suburbia reaching into the mountains**

1. *The city-region.* This is an area focused on the major employment centre in a region and encompassing the surrounding areas, for which it acts as the primary high-order service centre. The functional relationship between a city and its region was a key feature of central place theory (see Chapter 6). The city-region remains an appropriate description of monocentred urban areas of up to a million people found in the less densely populated parts of even the most highly urbanised countries. Variants employed for statistical purposes include functional urban regions (FURs) and standard metropolitan statistical areas (SMSAs) (see Chapter 2).
2. *Conurbation.* This is the term coined in 1915 by Geddes to describe a built-up area created by the coalescence of once-separate urban settlements.<sup>42</sup> With improvements in transportation and communications the functional influence of the conurbation has spread beyond the limits of the built-up area, so the term is now widely used in the UK and elsewhere to describe multi-nodal functional urban units. The functional relationships within a conurbation differ from those of a city-region; in essence, while there is a degree of dominance by the largest city, the other urban places also have their own functional linkages.
3. *The urban field.* This is a unit, similar to the conurbation, used in the USA. An urban field is generally regarded as a core urban area and hinterland of population at least 300,000, with an outer limit of two hours' driving time. Defined in this manner, urban fields range in population size from 500,000 to 20 million and cover one-third of the USA and 90 per cent of the national population. Urban fields are more spatially extensive than European conurbations, since they are based on higher levels of personal mobility. The southern California 'urban field' extends 150 miles from north to south and includes Tijuana in Mexico (in the process creating a transnational city in which the largest 'Mexican' city is Los Angeles). The concept may become increasingly relevant for understanding the functional reality of urbanised regions outwith the USA as similar levels of mobility are achieved through improvements in

transport and communications. The urban field is one form of polycentric urban region.<sup>43</sup> A second is the polynucleated metropolitan region or megalopolis.

4. *Megalopolis*. This is the term introduced by Gottmann in 1961 to describe the urbanised areas of the north-eastern seaboard of the USA encompassing a population of 40 million oriented around the major cities of Boston, New York, Philadelphia, Baltimore and Washington DC.<sup>44</sup> Gottmann subsequently defined a megalopolitan urban system as an urban unit with a minimum population of 25 million. The central importance of transactional activities (in terms of international trade, technology and culture) would indicate a location at a major international 'breakpoint' (such as a port city). A megalopolis would typically have a polynuclear form but with sufficient internal physical distinctness for each constituent city to be considered an urban system in its own right. The cohesiveness of the megalopolitan system depends on the existence of high-quality communications and transportation facilities.<sup>45</sup> This megalopolitan phenomenon was identified initially in six zones: the archetype model of the North-Eastern USA, the Great Lakes area extending from Chicago to Detroit, the Tokaido area of Japan centred on Tokyo-Yokohama and extending west to include Osaka Kobe, the central belt of England running from London to Merseyside, the North-West European megalopolis focused on

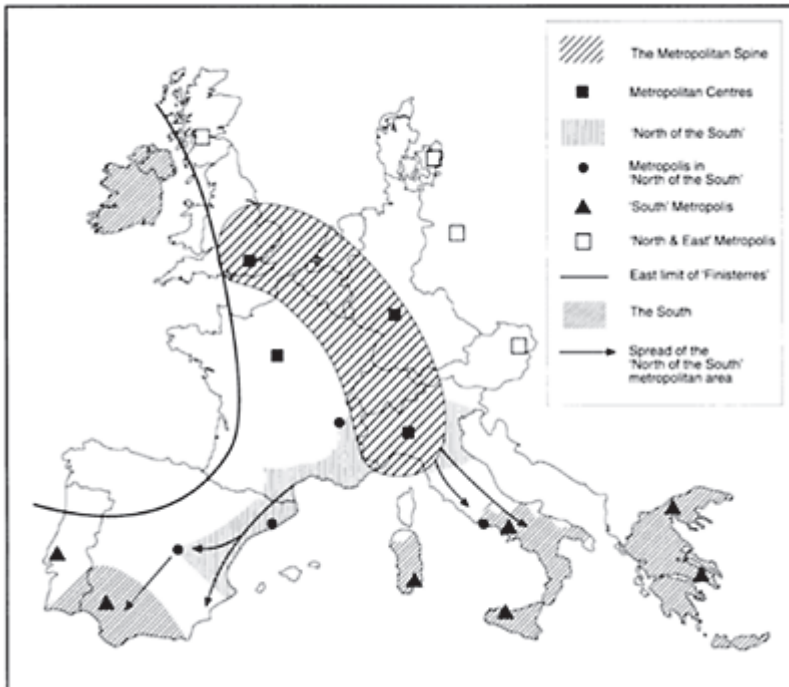


**Figure 4.9** Megalopolises of the USA

Amsterdam Paris Ruhr, and the area around Shanghai. Since then, twenty-six growth areas of the USA have exhibited megalopolitan patterns (Figure 4.9), while similar trends are evident in Brazil (between Rio de Janeiro and São Paulo), in China<sup>46</sup> and in Europe<sup>47</sup> (Figure 4.10).

5. *Ecumenopolis*. This is the term employed by Doxiades in 1968 to describe a projected urbanised world or universal city by the end of the twenty-first century<sup>48</sup> (Figure 4.11). Although highly speculative, the ecumenopolis concept does focus attention on the potential consequences of unrestrained urban growth and underlines the importance that is currently being attached to the concept of sustainable urban development (see Chapter 30).

In the next chapter we switch our scale of analysis to provide a detailed examination of recent processes and patterns of urban change within the major regions of the world.



**Figure 4.10** The megalopolitan trend in Western Europe