in Hampton Court Palace, stunned the Institute's leadership by lashing out publicly at the low quality of architectural design: the proposed extension to the National Gallery, he said, was like a monstrous carbuncle on the face of a friend. Community architecture, he declared - mentioning Hackney by name - was the answer. The architectural establishment was bitterly offended. Two and a half years later, Hackney - by then running a £4 million a year business with twenty regional offices and a staff of 200 - defeated the official candidate to become President of the RIBA: community architecture had officially arrived. It would, he confidently declared, become 'the political architecture of a post-industrial age'.

In June 1987, Hackney - just installed as President - sat on the platform at the Royal Institute of British Architects' London headquarters with Prince Charles, who presented the year's awards for outstanding community architecture. The top prize went to the Town and Country Planning Association's Lightmoor project at Telford New Town. In his speech, the Prince delivered yet another of his memorable quotes for the assembled media: he spoke of the need to overcome the 'spaghetti bolognese of red tape' that held up the efforts of ordinary people to create their own environment. As one television programme after another followed the battles of the community-builders with the entrenched bureaucracies, it seemed that Howard, Geddes, Turner and the anarchist tradition in planning had achieved ultimate respectability at last.

Few, seemingly noticed the irony: that the accolade had come under a radical right-wing government, which now - as in Liverpool - made common cause with the anarchists against the spirit of bureaucratic socialism. That autumn, Mrs Thatcher unveiled the centrepiece of her continuing revolution of the right: following the sale of a million public housing units to their tenants, the government would now seek to turn over the remainder to tenant co-operative management, thus finally removing the dead hand of the bureaucracy. Geddes, that pupil of Bakunin and Kropotkin, who had fought so long before against its colonial manifestation, would certainly have appreciated this strange twist of history.

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The City on the Highway

This segregation of motor traffic is probably a matter that may begin even in the present decade .... And the quiet English citizen will, no doubt, while these things are still quite exceptional and experimental in his own land, read one day in the violently illustrated popular magazines of 1910, that there are now so many thousand miles of these roads already established in America and Germany and elsewhere. And thereupon, after some patriotic meditations, he may pull himself together.

H. G. Wells

_Anticipations of the Reaction of Mechanical and Scientific Progress upon Human Life and Thought_ (1901)

Las Vegas takes what in other American towns is but a quixotic inflammation of the senses for some poor salary mule in the brief interval between the flagstone ramblers and the automatic elevator downtown and magnifies it, foliates it, embellishes it into an institution. For example, Las Vegas is the only town in the world where the landscape is made up neither of buildings, like New York, nor trees, like Wilbraham, Massachusetts, but signs. One can look at Las Vegas from a mile away on Route 91 and see no buildings, no trees, only signs. But such signs! They tower, they revolve, they oscillate, they soar in shapes before which the existing vocabulary of art is helpless.

Tom Wolfe

_The Kandy Kolored Tangerine Flake Streamline Baby_ (1966)
companies competing against the suburban railways will find themselves
hampered in the speed of their longer runs by the slower horse traffic
on their routes', and that they therefore would 'secure the power to form
private roads of a new sort, upon which their vehicles will be free to travel
up to the very limit of their possible speed.' Though Wells was wrong in
many predictions in this book, this was one he got uncannily right. He
said that 'almost insensibly, certainly highly profitable longer routes will
be joined up', though the Americans and Germans would move much faster
than the staid English. He predicted that they will be used only by soft-
tired conveyances; the battering horseshoes, the perpetual filth of horse
traffic, and the clumsy wheels of laden carts will never wear them'; that
'they will have to be very wide' and that 'their traffic in opposite directions
will probably be strictly segregated'; that 'where their ways branch the
streams of traffic will cross not at a level but by bridges', and that 'once
they exist it will be possible to experiment with vehicles of a size and power
quite beyond the dimensions prescribed by our ordinary roads - roads
whose width has been entirely determined by the size of a cart a horse can
pull.'

Wells's remarkable prescience did not end there. For he predicted not
merely the age of the motorway, but also its effect. In a chapter on the
'Probable Diffusion of Great Cities', he predicted that 'practically, by a
process of confluence, the whole of Great Britain south of the Highlands
seems destined to become ... an urban region, laced all together not only
by the railway and telegraph, but by novel roads such as we forecast' as
well as 'a dense network of telephones, parcels delivery tubes, and the like
nervous and arterial connections'. The result, he suggested, would be

a curious and varied region, far less monotonous than our present English
world, still in its thinner regions, at any rate, wooded, perhaps rather more
abundantly wooded, breaking continually into park and garden, and with
everywhere a scattering of houses ... Through the varied country the new
wide roads will run, here cutting through a crest and there running like some
colossal aqueduct across a valley, swarming always with a multitudinous
traffic of bright, swift (and not necessarily ugly) mechanisms; and everywhere
amidst the fields and trees linking wires will stretch from pole to pole.'

As on other occasions, Wells proved over-sanguine as to the pace of
technological change. But he was uncannily right about its location. The
pioneer, as he predicted, was America. That was because down to 1950,
thanks to the revolution Ford had wrought, America was the only country
in the world that could boast mass car ownership. By 1927, building 85
per cent of the world's cars, it could already boast one car for every five
Americans: a car-ownership level of one to approximately two families.'

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* Kenward, 1955, 74.
* Nevins, 1954. 471; Flink, 1975. 73-5. 4 Flink, 1975. 80.
Thereafter, world slump and world war kept the level pegged down for more than two decades; not until the early 1950s did car ownership exceed the level of the late 1920s.

As a result, mass motorization had already begun to impinge on American cities by the mid-1920s, in a way the rest of the world would not know until the 1950s and 1960s. By 1923, traffic congestion in some cities was so bad that there was talk of barring cars from downtown streets; by 1926, Thomas E. Pits had closed his cigar store and soft-drink bar at a major intersection in the centre of Atlanta because congestion made it impossible to operate. In the same decade, Sears Roebuck and then Montgomery Ward planned their first automobile-oriented suburban stores.

When the Lynds came to make their classic sociological study of 'Middletown' (actually, Muncie in Indiana), at the end of the 1920s, they found that even car ownership was allowing the ordinary worker to live farther from his work. And, by that time, already in some cities—Washington, Kansas City, St Louis—downtown commuters by automobile outnumbered those coming by transit. Unsurprisingly, then, the 1920s were the first decade when the Census-takers noticed that the suburbs were growing much faster than the central cities: by 29 per cent, more than 4 million people, as against 19 per cent or 5 million in the cities. In some cities the suburbanization trend was even more marked: the relative rates of growth in New York City were 67 against 23 per cent, in Cleveland 126 against 12 per cent, in St Louis 107 against 5 per cent.

The remarkable fact was that some American planners, at any rate, greeted this trend with equanimity, even with enthusiasm. At the National Conference of City Planners in 1924, Gordon Whitnall, a Los Angeles planner, proudly declared that western planners had learned from eastern mistakes, and would now lead the way to the horizontal city of the future. During the 1920s, as transit systems for the first time reported falling ridership and loss of profits, Detroit and Los Angeles considered largescale support for transit investment in order to support their downtown areas, but found that voters would not support it.

This ever-growing volume of car traffic for the most part travelled on ordinary city streets, widened and upgraded to cope with the flood. By the end of the 1920s there were few examples even of simple underpasses or overpasses on American highways. The outstanding exception was New York, which during the 1920s followed a distinctive path, deriving directly from an older tradition already noticed in chapter 4: the parkway. First used by Olmsted in his design for New York's Central Park in 1858, the parkway had been widely employed by landscape architects in the planning of parks and new residential areas in cities as diverse as Boston, Kansas City and Chicago.

But, beginning with William K. Vanderbilt's Long Island Motor Parkway (1906-11), which can claim to be the world's first limited-access motor highway, and the 16-mile Bronx River Parkway (1906-23), followed by the Hutchinson River Parkway of 1928 and the Saw Mill Parkway of 1929, this distinctively American innovation was rapidly adapted to a new function: extended continuously for 10 or 20 miles into open countryside – and sometimes, as in the Bronx Parkway, used to clear up urban blight – it now gave rapid access from the congested central city both to new suburbs and to rural and coastal recreation areas.

The moving spirit was New York's Master Builder, Robert Moses. Using a State Act of 1924, which he had personally drafted to give him unprecedented (and, to the hapless legislators, unappreciated) powers to appropriate land, he proceeded to drive his parkways across the cherished estates of the Long Island millionaires – the Phippses, the Whitneys, the Morgans, the Winthrops – to give New Yorkers access to the ocean beaches. It was done, like most other things Moses did, for the highest public-spirited motives; and it established the base of his unprecedented public support, which he then skillfully extended through his management of the Triborough Bridge and Tunnel Authority, tying his parkway system together and linking it to the teeming tenements of Manhattan and the Bronx.

But there were limits to public spirit: deliberately, Moses built the parkway bridges too low not only for trucks, but also for buses. The magnificent bathing beaches that he created at the ends of the parkways would thus be strictly reserved for middle-class car owners; the remaining two-thirds of the population could continue to ride the subway to Coney Island. And, when in the 1930s Moses extended his system down the west side of Manhattan island to create the Henry Hudson Parkway, the world's first true urban motorway, the same applied: Moses was now consciously planning a system for car commuters.

The point about Moses's gigantic public works of these years was indeed precisely this: whatever their ostensible original purpose, once linked by the Triborough Bridge they constituted a vast network of urban expressways, making it possible to commute to Manhattan offices from distances up to 20, even 30 miles: three or four times the effective radius of the subway system. There was an immediate effect: the population of Westchester and Nassau counties, served by the new roads, increased by 350,000 during the 1920s. But the full implications would emerge only in the suburban building boom after World War Two. It was no accident that the most

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13 Hubbard and Hubbard, 1929. 208.
celebrated of all the resulting developments, the one that came almost to symbolize the whole process, was located where it was: the original Levittown stands just off an interchange on Moses's Wantagh State Parkway, built nearly twenty years earlier as one of the approaches to Jones Beach State Park.

Some planners, even then, embraced the idea of new roads as the basis of a new urban form. One of the founding fathers of the Regional Planning Association of America, Benton MacKaye, had— as was seen in chapter 5—developed the idea of a townless highway, or 'motorway'. Seizing upon the plan of Radburn—developed by two other RPAA stalwarts, Clarence Stein and Henry Wright—he argued for its extension to the regional scale.

The townless highway is a motorway, in which the adjoining towns would be in the same relationship to the road as the residential cul-de-sacs in Radburn are to the main traffic avenues. What Radburn does in the local

community, the townless highway would do for the community at large. . . . Instead of a single roadtown slum, congealing between our big cities, the townless highway would encourage the building of real communities at definite and favorable points off the main road.\(^\text{19}\)

The concept was clear and consistent:

the abolition of approaches to the main highway except at certain points; public ownership, or effective public control through rigorous zoning, of the foreground along the right-of-way . . . proper landscape development of the foreground, including the culture of shade trees and the strict regulation of telephone and electric-light lines; and finally, strict control of highway service station development.\(^\text{20}\)

All that, of course, came to pass— but first in other places, and only long afterwards in the United States. And the other part of the prescription, the ultimate RPAA dream— 'to stimulate the growth of the distinct community, compactly planned and limited in size, like the old New

\(^{19}\) MacKaye, 1930, 94. \(^{20}\) Ibid. 95.
England village or the modern Radburn** - was to remain unrealized in the land of its origin.

Everywhere but in the United States, the automobile revolution had yet to come. That was undoubtedly true in Europe, where down to World War Two only a tiny minority - at most 10 per cent - of families owned cars. The first assembly line in Britain, at the Morris works in 1934, came more than twenty years after Ford's pioneering effort in Detroit, while in Germany, Adolf Hitler's promised People's Car, which began production at the huge Wolfsburg plant in 1940, was diverted into war service and became a reality in the people's garages only long after World War Two.***

Yet Germany can dispute with America the claim to have built the world's first true motorway: the AVUS (Automobil-Verkehrs- und Übungsstrecke), a 6-mile combined racing track and suburban commuter route, built through the Grunewald in Berlin between 1913 and 1921. Though a private company produced a plan for nearly 15,000 miles of motorways in Germany as early as 1924, and though by the end of the 1920s another company was well advanced on a plan for a 550-mile highway connecting Hamburg, Frankfurt and Basel, only one other short inter-urban motorway connecting Cologne and Bonn got built before Hitler seized power in 1933.

Originally opposed to all the plans of the Weimar Republic, the Nazis hastily reversed their position; the Autobahnen promised quick unemployment relief, and they had critical military importance. So they simply took over the existing plans and, using a special subsidiary of the German State Railways, turned them into concrete at epic speed. Dr Todt, Inspector-General of the Reichsautobahnen Gesellschaft, finished the first stretch from Frankfurt to Darmstadt in the summer of 1935; his name proved only too symbolic, as there was a fatal accident that very day. Thence, with a construction force that reached 250,000 workers by 1934, the completion rate was dizzying: more than 500 miles by 1936, 1,900 miles by 1938, 2,400 miles by the start of World War Two.***

The pace showed. By later engineering standards, these early Autobahnen - still seen in almost pristine form in the DDR - are strikingly primitive: they run like a roller-coaster over every undulation in the landscape, almost devoid of cut-and-fill techniques; acceleration and deceleration lanes, ill understood and probably unnecessary for the cars of those days, are conspicuous by their absence; on- and off-ramps are too tightly engineered. But, primitive though they might be, the Autobahnen created a new highway landscape that would later be faithfully imitated in almost every other country in the world. And, ironically, it was precisely the landscape that Mackaye - the archetypal liberal-social democrat - had imagined in that


Figure 3.3 AVUS.
The Automobil-Verkehrs- und Übungsstrecke, built through Berlin's Grunewald and completed in 1921, can claim to be the world's first true motorway.

paper of 1930: the separated carriageways, the grade-separated interchanges, the impeccably designed and landscaped service stations, even the huge blue signs with their distinctive lower-case lettering, that became part of a new global visual symbolism. The historic irony was this: independently conceived in Weimar Germany and Coolidgean America, they were indeed part of that movement that embraced Ernst May and Benton MacKaye, Martin Wagner and Henry Wright. It was the identity of the midwife that proved so disturbingly incongruous.

For in such long-distance inter-urban highway building, during the depression decade of the 1930s the United States lagged. Though the lawyer-planner Edward M. Bassett had coined the term 'freeway' in a New
York Times article of 1928, the notion remained on paper. Apart from a longer-distance extension of the New York Parkway system into the neighbouring state of Connecticut—the Merritt and Wilbur Cross Parkways, which were toll roads, restricted to private motor traffic—America's first true inter-city motorway, the Pennsylvania Turnpike through the Appalachians from Carlisle near Harrisburg to Irwin near Pittsburgh, opened only in 1940. December of that same year marked another milestone in the automobile age: Los Angeles completed its Arroyo Seco Parkway, now part of the Pasadena Freeway. Like the early Autobahn, it was under-designed; in an extraordinary re-run of the opening of the first Autobahn, the opening ceremony was marked by a multiple shunt collision involving three car-loads of dignitaries. Thereafter, war intervened: at its end, Los Angeles had precisely 11 miles of freeway. Its 1933 freeway plan, which had been produced by the City Engineer Lloyd Aldrich with the aid of downtown business after the City had denied the money, was implemented only over the subsequent two decades. Only then did the city of freeways deserve its appellation.

But perhaps what gave Los Angeles its mythical reputation was not the extent of its network—the New York metropolitan area, with the head start Moses gave it, could always win on that score—but the total dependence of its citizens on it, revealed by the rarity of public transportation and by that telling phrase of Angelenos who talk of 'going surface' as if it were an eccentric undertaking. It was also the distinctive lifestyle that ensued: a style exemplified by the heroine of Joan Didion's novel *Play It As It Lays*, who, deserted by her husband, 'turns to the freeways for sustenance,' and is finally initiated:

Again and again she returned to an intricate stretch just south of the interchange where a successful passage from the Hollywood onto the Harbor required a diagonal move across four lanes of traffic. On the afternoon when she finally did it without once braking or once losing the beat on the radio she was exhilarated, and that night slept dreamless.

It was also the resulting pattern of urban growth. The opening of the Arroyo Seco was followed almost immediately by higher land values in Pasadena. Thence, wherever the freeways went, the developers followed. And, unlike Moses's network in New York, this system was not radial—or at most, only partially so; it rather formed a loose trapezoidal grid, giving roughly equal accessibility from anywhere to anywhere. True, this had also been a feature of the old Big Red Cars of the Pacific Electric Railway; Los Angeles's celebrated polycentric, dispersed quality antidated the freeway era by many decades, and, as the urban area tripled in population in the 1930s and 1940s, downtown traffic stayed constant. And, ironically, as the rail system decayed under the pressure of rising car ownership from the mid-1920s, its abandoned rights of way provided ideal routes for the new freeways. But the automobile revolution, coming much earlier here than in most American cities—the there were already close on 600,000 cars, two to every five people, in Los Angeles County by 1930—brought early thrombosis to the downtown area and the early spread of business activities outside it, thus contributing to the city's conscious decision in the mid-1930s not to support transit, and to the business pressures in the next decade to build a freeway system.

So Wells had proved right; but it all took longer than he had imagined, and its impacts were seen on Long Island and in the Los Angeles basin long before they were observable in the English shires. The first stretch of motorway in Britain, 8 miles round Preston in Lancashire, opened in December 1953, nearly forty years after its first German equivalent and fifty years after its first American one. And only in the 1960s did the car begin fundamentally to affect the ways of life, and the settlement forms, of the English countryside.

*Frank Lloyd Wright and the Soviet Deurbanists*

In America, long before that, automobile-oriented suburbs were being consciously planned, even on a large scale. Thus in Kansas City, George E. Kessler's great city-parks plan of 1893-1910, which included recreational parkways, provided a basis for the developer Jesse Clyde Nichols's Country Club District begun in 1907-8; influenced both by the City Beautiful movement and by a bicycle tour of European Garden Cities, designed by Kessler to incorporate with his parks, it was the first garden suburb specifically based on the automobile. Nichols deliberately bought cheap land outside the range of the city's streetcar system, allowing him to build at low density—first at six houses per acre, then even less; at the centre, the brilliant Country Club Plaza (originated by the architect Edward Buehler Delle in 1923-5) was the world's first car-based shopping centre. In Los Angeles both Beverly Hills (1914) and Palos Verdes Estates (1923) followed similar planning principles; though the first was originally based on a Pacific Electric Railway station, both soon became classic early automobile suburbs.
on factory-produced materials, with individual lightweight transportable homes located in natural countryside, thus creating a ‘townless, fully
decentralized, and even populated country’;36 they even envisaged the
eventual razing of the cities to form huge parks and urban museums.37 But
these were Soviet planners, and their version of individualism was curiously
collective: all activities, save sleeping and repose, would be communal.38
The technological imperative was identical to that of Frank Lloyd Wright;
the moral order was – at least superficially – quite different.
In the event, given material conditions in the Soviet Union at the time,
it was all quite fantastic. There were hardly any cars, and not much
electricity. Well might Corbusier, who was of course allied to the opposite
urbanist camp, parody the deurbanist vision:
The cities will be part of the country; I shall live 30 miles from my office in
one direction, under a pine tree; my secretary will live 30 miles away from
it too, in the other direction, under another pine tree. We shall both have
our own car. We shall use up tires, wear out road surfaces and gears, consume
oil and gasoline. All of which will necessitate a great deal of work . . . enough
for all.39
Perhaps such a vision was all conceivable in America; even in the
depression-ridden America of the early 1930s. But in the Soviet Union,
even given the appalling condition of Moscow’s housing and infrastructure
at the time, it was not. The historic 1931 Party Congress determined that
anyone who denied the socialist character of existing cities was a saboteur;
from 1933, a decree laid it down that city centres should be rebuilt to
express ‘socialist greatness’.40 Stalin had spoken; the great Soviet urban
debate was stilled for a generation.
Frank Lloyd Wright’s vision, in contrast, was perfectly attuned not only
to its author’s personal philosophy, but also to the conditions of its time.
It was, indeed, the distillation of almost everything that he felt and had
expressed about the theory of built form. In the process, it managed in a
rather extraordinary way to weave together almost every significant strain
of American urban – more precisely, anti-urban – thinking.
Wright began to conceive of Broadacre City as early as 1924, and soon
afterwards coined the title in a lecture at Princeton University.41 The
conception shares many philosophical affinities with the ideas of the
Regional Planning Association of America, and some of these with Ebenezer
Howard. There is the same rejection of the big city – specifically, New
York – as a cancer, a ‘fibrous tumour’; the same populist antipathy to
finance capital and landlordism; the same anarchist rejection of big

government; the same reliance on the liberating effects of new technologies; the same belief in the homesteading principle and the return to the land; there is even that distinctively American transcendentalism that derives from writers like Emerson, Thoreau and Whitman.47

But there are also differences, particularly in comparison with Howard (as indeed with the Soviet deurbanists): Wright claimed to liberate men and women not in order to join in co-operation, but to live as free individuals; he desired not to marry town and country, but to merge them.48 Above all, there is the notion that the new technological forces could recreate in America a nation of free independent farmers and proprietors: ‘Edison and Ford would resurrect Jefferson.’49 In this regard, the similarity is rather with the Greenbelt communities of Rexford Tugwell; but Tugwell shared with Mumford, Stein and Chase a belief in community planning, hard to trace in Wright. Rather, Wright shares with the RPAA a common background of experience: the slow decay of rural America, ground down between the soul-destroying drudgery of the pre-electric farm and the welcoming bright lights of the city, as poignantly recorded by Hamlin Garland in his autobiographical A Son of the Middle Border.

In those few days, I perceived life without its glamor. I no longer looked upon these toiling women with the thoughtless eyes of youth. I saw no humor in the bent forms and graying hair of the men. I began to understand that my own mother had trod a similar slavish round with never a full day of leisure, with scarcely an hour of escape from the tugging hands of children, and the need of mending and washing clothes.45

Liberated at last by World War I and the automobile, they left the farms ‘in rattle-trap automobiles, their fenders tied with springs, and curtains flapping in the breeze . . . with no funds and no prospects’.46 And then, the migration turned into sheer necessity, as depression brought farm foreclosures and the forced conversion of proprietors into sharecroppers.47 Yet, as Chernics Abrams put it at the time, ‘Not only is the frontier closed, but the city is closed’; the farmer had nowhere to go.48 Hence the Resettlement Administration’s greenbelt towns, described in chapter 4; hence Broadacre City.

* * *


**Figure 9.5 Broadacre City.**

Frank Lloyd Wright’s ‘Usonian Vision’ of the low-density marriage of suburb and countryside; every citizen simultaneously an urbanite and a farmer. Something perilously like it happened all over the US in the 1950s, but stripped of its social and economic message.
But Broadacre would be different. The new technologies, as Kropotkin had argued more than three decades earlier, were transforming, even abolishing, the tyranny of geography. 'Given electrification, distances are all but eliminated as far as communication goes.... Given the steamship, airship, and the automobile, our human sphere of movement immeasurably widens by many mechanical modes, by wheel or air.' Now, 'not only thought but speech and movement are volatile: the telegraph, telephone, mobilization, radio. Soon, television and safe flight.' Modern mobility was available even for the poor man, 'by means of a bus or a model A Ford.'

Coupled with this, new building materials — high-pressure concrete, glass and 'innumerable broad, thin, cheap sheets of wood, metal or plastics' — made a new kind of building possible: 'buildings may be made by machinery going to the building instead of the building going to machinery.' And at the same time, 'machine-shop fabrication' made water and gas and electricity cheaply 'available in quantity for all instead of still more questionable luxuries for the few.' So 'the congested verticality of any city is now utterly inartistic and unscientific.'

Out of these technological ingredients, Wright constructed what he called his 'Usonian Vision':

Imagine, now, spacious, well-landscaped highways, grade crossings eliminated by a new kind of integrated by-passing or over- or under-passing all traffic in cultivated or living areas.... Giant roads, themselves great architecture, pass public service stations no longer eyesores but expanded as good architecture to include all kinds of roadside service for the traveller, charm and comfort throughout. These great roads unite and separate, separate and unite, in endless series of diversified units passing by farm units, roadside markets, garden schools, dwelling places, each on its acres of individually adorned and cultivated ground, developed homes all places for pleasure in work or leisure. And imagine man-units so arranged that every citizen as he chooses may have all forms of production, distribution, self-improvement, enjoyment within the radius of, say, ten to twenty miles of his own home. And speedily available by means of his private car or public conveyance. This integrated distribution of living related to ground composes the great city that I see embracing this country. This would be the Broadacre City of tomorrow that is the nation. Democracy realized.

Broadacre, of course, would be a city of individuals. Its houses would be designed not only in harmony with greenery and ground but intimate with the pattern of the personal life of the individual on the ground. No two homes, no two

gardens, none of the farm units on one — to two, three — to ten acres or more; no two farmsteads or factory buildings need be alike.... Strong but light and appropriate houses, spacious convenient workplaces to which all would be tributary, each item would be solidly and sympathetically built out of materials native to Time, Place, and Man.

All this was the physical shell. But for Wright, just as for Mumford or for Howard, the built forms were merely the appropriate expression of a new kind of society. The skyscraper city, for him, represented 'the end of an epoch! The end of the plutocratic republic of America.' Through another mass migration, as huge and as momentous as the original homesteading of America, the new pioneer would replace the plutocracy of the landlords and the giant corporations by 'a more simple, natural-basis right to live by and enough to live upon according to his better self.' The vision is almost identical to Howard's:

Emancipated from rent, were good ground made available to him, he — the machine worker rented by wages — paying toll to the exaggerated city in order that the city give him work to do — why should not he, the poor wage-slayve, go forward, not backward, to his native birthright? Go to the good ground and grow his family in a free city.

There, he would rediscover the quintessential American democracy 'the ideal of reintegrated decentralization... many free units developing strength as they learn by function and grow together in spacious mutual freedom.' It was the vision of his Wisconsin boyhood, recaptured through the new technology.

No one liked it. For his pains, he was attacked by almost everyone: for naivety, for architectural determinism, for encouraging suburbanization, for wasteful use of resources, for lack of urbanity, above all for being insufferably collective in his philosophy. He developed no movement to realize his ideas, received no commissions from Tugwell's Resettlement Administration, and got no moral support at all from the other powerful figures — above all the leaders of the RPAA — who were working in favour of planned decentralization.

And, as Herbert Muschamp has eloquently argued, there was finally a contradiction in the whole vision: the free commonwealth of individuals would live in houses designed by the master architect:

... when all the Whitmanesque windbag rhetoric extolling he pioneer spirit is swept away, what remains is a society constructed upon the strict hierarchical principle of Wright's own Taliesin Fellowship: a government of architecture, a society in which the architect is granted ultimate executive

56 Ibid. 66. 57 Ibid. 120. 58 Ibid. 121. 59 Ibid. 86.
power... It is easy, therefore, to view Broadacre as proof that within every self-styled individualist is a dictator longing to break free.\textsuperscript{53}

The heart of the contradiction, for Muschamp, lay in the belief that the architect could control the whole process. In fact, by the early 1950s, the American actuality ‘threatened to liquidate his own Romantic dream in a vista of carports, split-levels, lawn sprinklers washing away the Usonian dream to make way for the weekend barbecue.’\textsuperscript{54} The final irony came at the end of the 1950s: Wright unsuccessfully sued the local county to remove the pylons that disfigured the view from Taliesin III, erected to carry power to new Phoenix suburbs. Yet, in the same decade, driving Alvar Aalto around the Boston suburbs, he could claim that he had made all this possible. Muschamp comments:

Did the Adventurer in Wright want to roar with laughter at the thought that the greatest architect of all time had made possible the conversion of America’s natural paradise to an asphalt continent of Holiday Inns, Tastee-Freeze stands, automobile graveyards, billboards, smog, tract housing, mortgaged and franchised coast to coast?\textsuperscript{55}

Perhaps. There was a contradiction, to be sure: Wright wanted it all architect-designed, sanitized, in uniform good taste; it came out anything but. Perhaps he did have more in common with the Soviet deurbanizers than either would have admitted: they were all architects, after all. Yet Broadacre City is significant for the nature of its vision. It probably could not have occurred in just that way, when it did, in any other country. It seized the American future, embodied it in a vision. The remarkable fact is just how visionary it proved to be.

The suburbs are coming!

This was the ironic outcome: after World War Two a suburban building boom created a kind of Broadacre City all over America, but entirely divorced from the economic basis or the social order Wright had so steadfastly affirmed. In the late 1940s and the 1950s, thousands of square miles of American farmland disappeared under it; one New Yorker cartoon showed a traditional farm family sitting on their porch with a bulldozer rearing over the brow of the near-by hill, as the wife shouts ‘Pa, get your gun! The suburbs are coming.’ But the people who moved into the new tract homes typically owed their living to those very mammoth corporations which Wright assailed; their homes were mortgaged to giant financial institutions; and in no sense did they constitute a society of sturdy self-sufficient proprietors. Americans had got the shell without the substance.

There were four main foundations for the suburban boom. They were new roads, to open up land outside the reach of the old trolley and commuter rail routes; zoning of land uses, to produce uniform residential tracts with stable property values; government-guaranteed mortgages, to make possible long-repayment low-interest mortgages that were affordable by families of modest incomes; and a baby boom, to produce a sudden surge in demand for family homes where young children could be raised.

The first three of these were already in place, though sometimes only in embryonic form, a decade before the boom began. The fourth triggered it.

The first part, the roads, were embryonic. As already seen, they were there in one or two places: New York from the 1920s, Los Angeles from the 1940s. But, remarkably, developers do not seem to have appreciated their potential for a decade or more after they were in place. Still, in the 1930s, a majority of New Yorkers did not own cars. And many of those who did happened to work in Manhattan, to which car commuting was almost impossible; suburbanization must await the outward movement of jobs to places where the car was more convenient than the subway—which began to happen on any scale only in the 1950s. And in any event, generally the roads were not there. The Depression and the wartime years had brought a halt to the rise in car ownership; not until 1949 did registrations again exceed the level of 1929.\textsuperscript{56} And road-building, 100, had stagnated.

It was the 1956 Federal-Aid Highway Act that marked the real beginning of freeway suburbanization. But at the beginning, it does not seem to have been meant that way at all. True, Roosevelt in 1941 had appointed Rexford Tugwell, Frederic Delano and Harland Bartholomew—all known supporters of planned decentralization of people and jobs—to an Inter-Regional Highways Committee under the chairmanship of Bibb Graves of Alabama, and served by Thomas H. MacDonald, Commissioner of Public Roads—whom MacKay had commended, in that paper of 1939, for his ‘far-seeing’ approach to ‘broad-gauged regional and Inter-regional planning’.\textsuperscript{57} It called for a 32,000-mile Interstate system, and Congress duly passed the Federal-Aid Highway Act of 1944. But that was to be a strictly inter-urban system, bypassing the cities; and, before it could be built, political splits emerged: between engineers who just wanted to pour concrete and city planners (like the veteran Harland Bartholomew) who wanted to use new roads to cure urban blight, between those who wanted self-financing toll roads and those who wanted federal subsidy. Truman in 1949, Eisenhower in 1954, signed Urban Renewal Acts, but kept highways out of them.

\textsuperscript{53} Muschamp, 1983, 79–80. \textsuperscript{54} Ibid. 93. \textsuperscript{55} Ibid. 185.

\textsuperscript{56} Tobin, 1976, 204. \textsuperscript{57} MacKay, 1939, 95.
Finally, Eisenhower — who believed that he had won the war on the German Autobahnen — accepted the argument that new roads were not only vital for national defence in an era of Cold War, but could also generate an economic boom. He called on a retired General, Lucius Clay, to head a committee of inquiry; most of the evidence came from the pro-roads side — including Robert Moses, who used the roads-fight-blight argument. But the fight over paying for them, which was essentially between fiscal conservatives and the highways lobby, almost killed the resulting bill. Finally, a compromise version, providing for the new roads to be built by a special fund through a tax on gasoline, oil, buses and trucks, was passed in June 1956; in the House of Representatives it went through without dissent, in the Senate one solitary vote was recorded against it. The greatest public-works programme in the history of the world — $4.1 billion for 41,000 miles of new roads — was under way.

The critical question, still, was what sort of road system it should be. Congress in 1944 had endorsed the principle that it should bypass the cities. Planners like Bartholomew and Moses argued on the contrary that it should penetrate into their hearts, thus removing blighted areas and improving accessibility from the suburbs to downtown offices and shops. In practice, given the strength of the urban renewal lobby in the 1950s and 1960s, there was little doubt about the outcome: the system would be used to create new corridors of accessibility from city centres to potential suburbs, as Moses had tried to do thirty years earlier. When the programme began in earnest, its chief Bertram D. Tallamy said that the new highways were built on principles that Moses had taught him as long ago as 1926; at that time and for long after, Moses was, after all, the only really experienced urban-highway builder in the United States.

The second requirement, zoning, had originated as early as 1880 in Modesto, California, where it had been used to remove Chinese laundries: a particularly apt beginning, since thereafter one of its principal functions was to safeguard property values by excluding undesirable land uses and undesirable neighbours. And — as seen in chapter 3 — the city that took the lead in the zoning movement from 1913 on, New York City, was impelled to do so by the complaints of Manhattan retailers who, complaining that industrial incursions were threatening their profits, appealed loudly to ‘every man who owns a home or rents an apartment’; the city’s Commission on Building Heights accepted their argument that zoning secured ‘greater safety and security in investment’. And the historic 1926 Supreme Court decision, Euclid v. Ambler, which confirmed the general validity of zoning, seems to have accepted Alfred Beitman’s argument that its point was to enhance property values. The point at issue, significantly, was whether land should be zoned industrial or residential.

Because it was meticulously designed as part of a general police power to safeguard ‘public welfare’ and ‘public health, safety, morals and convenience’, thus to avoid all suggestion of compulsory purchase with claims for compensation, New York’s comprehensive zoning resolution of 1916 deliberately avoided long-term plans; Edward Bassett, the attorney in charge, proudly declared ‘We have gone at it block by block’, invariably confirming the status quo. And most of America followed suit. Thus arose a paradox: land use control in the United States, in sharp contrast to much of Europe, came to be divorced from any kind of land-use planning; it could not be used to raise the level of design, which had to be secured — on the model of Kansas City’s Country Club District and its imitators — through private restrictive covenants.

The third precondition for the suburban boom was cheap long-term housing finance. In this regard, as already noticed in chapter 3, America lagged strangely behind Britain. There, the permanent building societies had developed from the turn of the century, offering twenty- or twenty-five-year mortgages with low down payments, and powerfully fuelling the great suburban spread around London in the 1920s and 1930s. In contrast, until the 1930s the typical American mortgage was only for five or ten years at 5 or 7 per cent interest: a ruinously high burden for the average family. It was an early New Deal experiment — the Home Owners Loan Corporation (HOLC), introduced as an emergency measure of April 1933 to stem farm foreclosures — that introduced into America the long-term, self-amortizing mortgage. The next year, the National Housing Act established the Federal Housing Authority (FHA), with powers to insure longer-term mortgage loans by private lenders for home construction and sale, with a down payment as low as 10 per cent and a period of twenty-five or thirty years at only 2 or 3 per cent. Between 1938 and 1941, it was insuring some 35 per cent of all home loans in the United States.

From 1934, then, the most powerful constraint to suburban home-building had been removed. For the FHA took over from the HOLC the notion of appraising whole neighbourhoods, and thereby reddening those deemed to be undesirable; in practice, this meant the whole of America’s cities. Further, the FHA espoused racial segregation and endorsed it as a public policy; as late as 1966, it had not insured a single mortgage in Paterson or Camden in New Jersey, two predominantly black cities.

63 Davies, 1975, 13-23; Rose, 1979a, 966, 624-4, 70-88.
64 Leavitt, 1970, 28-35.
65 Caro, 1974, 11.
67 Scott, 1959, 154-5.
68 Getz and Brown, 1978, 265.
69 Scott, 1959, 154-5.
70 Dubow, 1967, 14.
71 Tunnard and Reed, 1955, 259-60; Jackson, 1985, 156.
72 Jackson, 1985, 196, 205.
74 Jackson, 1985, 275.
The central objective of the FHA was identical with that of zoning: it was to guarantee the security of residential real-estate values. And both worked through exclusion, to divert investment massively into new suburban housebuilding at the expense of the central city.

Some of the consequences could already be glimpsed later in that decade. The National Resources Committee’s report Our Cities, published in 1937 (and already discussed in chapter 5), drew attention to the fact that even between 1920 and 1930, suburbs had grown twice as fast as central cities: ‘the urbanite is rapidly becoming the suburbanite’, as families fulfilled ‘the urge to escape the obnoxious aspects of urban life without at the same time losing access to its economic and cultural advantages’.

During that decade, some suburbs had grown at dizzy speed: Beverly Hills by 2,500 per cent; Shaker Heights outside Cleveland by 1,000 per cent. But then, the depression drastically cut new housing starts — by as much as 95 per cent between 1928 and 1933 — and brought a huge crop of mortgage foreclosures. Not until after World War Two did the industry completely recover.

Given an almost complete moratorium on new construction — save for essential war-related building — between 1941 and 1945, the result at war’s end was a huge accumulated shortage: an estimated 2.75—4.4 million families sharing, and another half-million in non-family quarters. On top of that came the baby boom, as the servicemen returned and the delayed crop of wartime babies coincided with the regular cohorts. The industry spectacularly responded: as against a mere 515,000 starts in 1939, there were 1,466,000 by 1949, 1,554,000 by 1959. And in the 1949 Housing Act — as well as initiating the urban renewal process, chronicled in chapter 7 — Congress massively increased FHA’s lending powers. As before, this money went into the suburbs. By 1950, the suburbs were found to be growing at ten times the rate of the central cities; by 1954, it was estimated that in the previous decade 9 million people had moved into the suburbs.

The 1950s, as the 1960 Census showed, was the decade of the greatest suburban growth in American history: while the central cities grew by 6 million or 11.6 per cent, the suburbs grew by a dizzy 19 million, or by 45.9 per cent. And ominously, for the first time, some of the nation’s greatest cities recorded actual population decline: Boston and St Louis each lost 13 per cent of their population.

This huge migration was made possible by a new breed of builder: large-scale, economy- and efficiency-conscious, capable of building houses like refrigerators or cars. The archetypal firm, which became a legend in its own time, had been founded by Abraham Levitt and his sons William and

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"Alfred, as a small family firm on Long Island outside New York City in 1929. During World War Two they learned how to build workers’ housing fast, and rapidly waxed larger. In the town of Hempstead on Long Island, 23 miles from midtown Manhattan, they began in 1948 a suburb based on the techniques they had learned: flow production, division of labour, standardized designs and parts, new materials and tools, maximum use of prefabricated components, easy credit, good marketing. The people came and queued in long lines for hours to buy their houses; when the Levitts had finished, they had completed more than 17,000 homes housing some 82,000 people: the largest single housing development in history. They went on to develop similar Levittowns in Pennsylvania and New Jersey.

In an afternoon peregrination down Long Island, the earnest student of planning history can progressively view Stein and Wright’s pioneering Sunnyside Gardens of 1924, Atterbury’s earlier model suburb at Forest Hills Gardens of 1912, and finally Levittown. The result, taken in that order, is anticlimactic. For Levittown is simply dull. It is not that there is..."
anything wrong with it, considered simply as a piece of residential real estate. The Levitts' basic Cape Cod design, repeated in a limited number of variants, has since been modified by its owners in a thousand different ways, as the Levitts always intended it should. (And, if it is not sacrilegious to say, Richard Norman Shaw used a similar limited range of house types in his model London suburb at Bedford Park.) The trees have grown almost to maturity, softening the harshness of the original townscape as it appears in the old pictures.

But the residential streets are slightly too long and slightly too wide and slightly too straight, so - despite the variations - the overall result is monotonous and vapid. And the shopping centre - developed as a commercial strip along the Hempstead Turnpike that bisects the development - is a logistical and aesthetic disaster. The commuters have insufficient road access on to the main highway, so their cars back up; and once there, they come in conflict with the commercial traffic. The visual quality is the worst kind of 1950s American roadside goof; the whole area cries out for the kind of planned commercial mall that in the 1960s and 1970s the Americans did so often and so successfully. So as a piece of planning Levittown is for the most part inoffensive, only occasionally plain bad. What it lacks is any kind of imagination or visual delight, such as the best-planned suburbs in their different ways all offered. It is not bad, but it could be better.

It was, and is, also rigidly segregated by age, income and race. Those who came here were overwhelmingly young married couples in the lower-middle income range, and without exception they were white: as late as 1960, Levittown had not a single black, and in the mid-1960s it does not have conspicuously many. As the elder Levitt put it, 'We can solve a housing problem, or we can try to solve a racial problem. But we cannot combine the two.'\textsuperscript{94} So Levittown, and all its countless imitators, were homogeneous places: like lived with like. And, as places like St Louis eloquently showed, a large part of the suburban flight from the city was white flight: here as elsewhere, the blacks were coming from the countryside to the city, the whites were simultaneously leaving the city for the suburbs.\textsuperscript{95}

The question will be asked and should be asked: what has all this to do with planning? Does a place like Levittown belong in a history of city planning at all? Insofar as Long Island had both planners and plans, then - at least in a formal sense - it does. But Gottlieben's exhaustive analysis suggests that in practice Long Island's planners had little power: 'The decisions made by the politicians, speculators and housing developers lead to the same land-use pattern', he concludes, 'as would result from no planning or zoning.'\textsuperscript{96} This leads him to ask: 'if planners do not implement

\textsuperscript{94} Jackson, K., 1985, 241.  
\textsuperscript{95} Montgomery, 1985, 236.  
\textsuperscript{96} Gottlieben, 1977, 111.
... must have a definite size, form, boundary. It was no longer to be a mere sprawl of houses along an indeterminate avenue that moved towards infinity and ended suddenly in a swamp.  

Ian Nairn, similarly, criticized the suburban landscape for the fact that 'each building is treated in isolation, nothing binds it to the next one', for 'togetherness in the landscape or townscape, like the coexistence of opposites, is essential.'

The interesting fact is that the intellectual counter-attack, when it finally came, originated from the American west. James E. Vance, a Berkeley geographer, argued for the San Francisco Bay Area that

It is fashionable, if extremely trite, to refer to the urban area as a shapeless sprawl, as a cancer, as an unrelieved evil ... The erroneous notion that no such structure exists must result from a failure to study the dynamics of urban growth, or possibly from the desire to put forward a doctrine of what is 'right' or 'good' in urban growth.'

And Robert Riley similarly defended the 'new' cities of the American south-west, like Houston and Dallas and Phoenix:

The new city has been damned simply because it is different ... The planning proposals made for these cities - and, largely, too, for Eastern megalopolises - are based on nothing more or less than channelling growth back into a form that we recognize as the only true city - the traditional city.'

Taking up the case for the defence, Melvin Webber of Berkeley argued,

I contend that we have been searching for the wrong grail, that the values associated with the desired urban structure do not reside in the spatial structure per se. One pattern and its internal land use form is superior to another only as it better serves to accommodate ongoing spatial processes and to further the nonspatial ends of the political community. I am distinctly rejecting the contention that there is an overriding universal spatial or physical aesthetic of urban form.'

New communications technologies, he argued, had broken down the age-old connection between community and propinquity: the urban place was being replaced by the nonplace urban realm. Early the next decade, Reyner Banham wrote his appreciative essay on Los Angeles; the year after that, Robert Venturi and Denise Scott Brown published their celebrated exercise in architectural iconoclasms, boldly proclaiming across its dust jacket: 'A Significance for A&P Parking Lots, or Learning from Las Vegas ... Billboards are Almost All Right'.

The battle lines could not be more clearly drawn: the West Coast had at last reasserted itself against the traditions of Europe.

The defection of Venturi, one of America's most distinguished architects, was especially significant. For he and his colleagues were passionately arguing that the roadside civilization of American suburbia, most exuberantly exemplified by the great neon-lit Strip at Las Vegas, should no longer be judged by the functionalist criteria that had ruled ever since the triumph of the international style in the 1930s.

'Learning from the existing landscape', they began, 'is a way of being revolutionary for an architect. Not the obvious way, which is to tear down Paris and begin again, as Corbusier suggested in the 1920s, but another, more tolerant way; that is, to question how we look at things.' They studied Las Vegas 'as a phenomenon of architectural communication';

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Footnotes:

101 Riley, 1969, 52.
103 Banham, 1971.
104 Mumford, 1938, 397.
105 Webber, 1964b, passim.
106 Ibid.
because people now moved in cars at high speeds and often in complex patterns, a whole new architecture of signs had arisen to guide and to persuade: 'the graphic sign in space has become the architecture of this landscape,' while the building itself is set back, half hidden - like most of the environment - by parked cars:

The A&P parking lot is a current phase in the evolution of vast space since Versailles. The space that divides high-speed highway and low, sparse buildings produces no enclosure and little direction. To move through a piazza is to move through vast enclosing forms. To move through this landscape is to move over vast expansive texture; the megastructure of the commercial landscape ... Because the spatial relationships are made by symbols more than by forms, architecture in this landscape becomes symbol in space rather than form in space. Architecture defines very little. The big sign and the little building is the rule of Route 66.\textsuperscript{110}

This analysis, notice, represents the perfect analogue at the micro-, or urban-design, scale of the Berkeley geographer-planners' argument at the wider urban-structural scale: the new landscape is not worse, it is different; it cannot be appreciated and should not be judged by the traditional rules, but by its own.

The result, for international architecture, was cataclysmic: \textit{Learning from Las Vegas} is one of the distinct breakpoints that mark the end of the modern architectural movement and its displacement by post-modernism, with its new stress on architecture as symbolic communication.\textsuperscript{111} For the student of urbanism, it likewise marked a revolution: henceforth, the artefacts of roadside civilization were worthy of study for their own sake. So, by the mid-1960s, a scholarly treatise could trace the evolution of the 1920s motor court into the 1930s motel and finally into the 1950s motor hotel; this last mutation represented by the historic first Holiday Inn, developed by Kemmons Wilson and the prefabricated home-builder Wallace E. Johnson in Memphis, Tennessee, in 1952.\textsuperscript{112} Or it could analyse the evolution of the fast-food outlet from the White Castle chain started by Edgard Ingram and Walter Anderson at Kansas City in 1921, via Howard Johnson's pioneering efforts in Massachusetts in 1929-30 and the historic McDonald's drive-in at San Bernardino, California, in 1948, to their standard design of 1952, first marketed nationally by Ray Kroc at Des Plaines, Illinois, in 1955.\textsuperscript{113} Such work revealed just how long and rich this tradition of roadside/architecture had been, making it the more remarkable that previously no one had possessed the sensibility or the energy to see or to analyse the landscape in front of them.

But long before this overturn in aesthetics, as early as the 1960s the

\textsuperscript{110} Ibid. 9. \textsuperscript{111} Ibid. 10. \textsuperscript{112} Jencks, 1981, 45. \textsuperscript{113} Lieb, 1985, 182-5.

\textsuperscript{111} Ibid. 185, 204, 208-8, 212-13; Langdon, 1986, 29-35, 91-109.

\textsuperscript{112} Riesman, 1950, 132-4; Whyte, 1956, 46-7.

\textsuperscript{113} Memphis, Tennessee, 1952: the birth of the roadside chain. Three years later came the first standardized, franchised McDonalds outlet, in Des Plaines, Illinois.

\textbf{Figure 9.8 The first Holiday Inn.}

great intellectual reversal had begun with a whole series of studies from American social scientists, fundamentally questioning many of the basic assumptions that had underlain the previous criticisms of the suburbs and the suburban way of life. Particularly important were those from the sociologists. During the 1950s, several classic works of mainstream American urban sociology - Riesman's \textit{The Lonely Crowd}, Whyte's \textit{The Organization Man} - had reinforced the stereotype of the suburb as a place of boring homogeneity, in which all individuality was progressively eroded away and rich human interaction was lacking; suburbanization, the inference clearly ran, would eventually destroy most of what was valuable in the culture of cities.\textsuperscript{114} To test these assumptions, Herbert Gans went to live in Levittown, New Jersey, for an extended period. His book, which appeared in 1967, predictably triggered critical reviews in East Coast papers. For Gans discovered that the conventional wisdom was a myth:

The findings ... suggest that the distinction between urban and suburban ways of living postulated by the critics (and by some sociologists as well) is
more imaginary than real. Few changes can be traced to the suburban qualities of Levittown, and the sources that did cause change, like the house, the population mix, and newness, are not distinctively suburban. Moreover . . . when suburbs are compared to the large urban residential areas beyond the downtown and inner districts, culture and social structure are virtually the same among people of similar age and class. Young lower middle class people in these areas live much like their peers in the suburbs, but quite unlike older, upper middle class ones, in either urban or suburban neighborhoods.15

The Levittowners, Gans found, refused to fit the labels that earlier sociologists had tried to pin on them:

Levittowners are not really members of the national society, or for that matter, of a mass society. They are not apathetic conformists ripe for takeover by a totalitarian elite or corporate merchantizer; they are not conspicuous consumers and slaves to sudden whims of fashion, they are not even organization men or particularly other-directed personalities . . . Their culture may be less subtle and sophisticated than that of the intellectual, their family life less healthy than that advocated by psychiatrists, and their politics less thoughtful and democratic than the political philosophers' — yet all these are superior to what prevailed among the working and lower middle classes of past generations.16

Gans's conclusions massively reinforced those of another sociologist, Bennett Berger, of blue-collar workers in a California suburb. He too had found that these typical suburbanites did not behave as earlier investigations of suburbia had suggested they should: they were not socially or geographically mobile, they were not joiners or belongers, and their neighbours were people like themselves.17 The fact was that these other studies had analysed relatively unusual upper-middle-class communities, or had overstressed upper-middle-class features in mixed communities. Typical suburbanites, those who inhabited the new mass-produced suburbs, simply did not share the same concerns; they would be living much the same lives, with much the same patterns of social relationships, whether they lived in areas labelled as urban or in areas labelled as suburban. Thus, sociologist-planners had hopelessly exaggerated the effect of the physical character of the urban milieu upon people's lifestyles. In Gans's conclusion:

The planner has only limited influence over social relationships. Although the site planner can create propinquity, he can only determine which houses are to be adjacent. He can thus affect visual contacts and initial social contacts among their occupants, but he cannot determine the intensity or quality of the relationships. This depends on the characteristics of the people involved.18

True, the character of an area — its social homogeneity, or otherwise — could be affected by planning. But only within very narrow limits; in a society like the American one, the market will be the main determinant and the customers will register their own preferences there. Above all, planners must beware of trying to impose their own value systems upon people with quite different ones: particularly, if they believed that long commuter trips and traffic congestion are to be avoided at all costs, and that higher densities would be better because they would cut commuter times and save land and increase urbanity, they must be aware that most suburbanites will just not agree.19 In other words, in attacking the essential features of post-1945 American suburbia, they were simply expressing their own class prejudices.

Thus spoke the sociologist. A few years later, one of America's most distinguished land economists, Marion Clawson, made his own investigation of the costs of suburban sprawl. He gave his verdict: 'It is impossible to judge suburban land conversion simply and unequivocally — to say that it is 'good' or 'bad' or describe it by using some other single and unqualified term. The process is much too complicated for that.'20

On the plus side, it had been a process of extraordinary vitality, producing millions of new homes and hundreds of shopping districts, and thus contributing to national economic growth; it had produced a lot of rather good housing and of rather pleasant neighbourhoods; and the dispersed nature of the whole decision-making process had avoided big blunders.21

On the negative side, the costs of scatetation had made house prices needlessly high; much land had simply gone to waste, needlessly, and might remain thus for a long time; and the results had been less aesthetically pleasing than many buyers might have liked, for they had little or no choice. But the most serious criticism, according to Clawson, was that the whole package had proved too expensive for a full half of the population: thus the urban population had become increasingly stratified by race, income and occupation. Of course, Clawson was quick to admit, some of this segregation arose from deeper social and economic forces; but the suburban development process had certainly contributed.22

Thus Clawson's economic verdict put a marginal gloss on Berger's and Gans's sociological one: yes, Americans did make their free choices in the market-place, and thus got approximately what they want, more effectively and efficiently than via a centrally planned system; but no, the process was not completely efficient in doing this, and could be improved so as to generate a slightly better housing package at a slightly lower cost. There was a more-than-marginal point too; half of all Americans were shut off

14 Clawson, 1971, 317. 20 Ibid. 319. 16 Ibid. 319-20. 21 Ibid. 521.
had produced three main effects. The first was containment: the amount of land converted from rural to urban uses has been minimized and also compacted. A second, somewhat perverse, result was what the authors called suburbanization: the growing spatial separation of the new residential areas from the main employment centres. A third impact was even more perverse, in that it was totally undesired by anyone except perhaps a small body of speculators: it was the inflation of land and property values, on a scale never previously witnessed.\textsuperscript{125}

Containment, the first effect, worked in various ways. Green belts around the conurbations and the larger free-standing towns had effectively stopped their further peripheral growth; beyond these green belts, development had been concentrated in small towns and villages, especially in the least attractive parts of each county; typically, densities had been kept up; the conurbation authorities had responded by building public housing that was dense and high, at any rate in comparison with the kinds of housing they had built before the 1939-45 war.\textsuperscript{126} The leapfrogging pattern of urban development, so clearly evident in Clawson’s American study, had been avoided.

Suburbanization had meant that the new residential developments were nearly all farther from employment opportunities than equivalent developments of the 1950s or any earlier decade; similarly they were more distant from the higher-level shopping, entertainment, educational and cultural facilities. So journeys, especially commuter trips, had become longer. This in part reflected the preference of planners for maintaining a traditional, centralized urban structure, in part the desire of city politicians to maintain the strongest possible economic base. But sociological study showed that the new suburbanities were well satisfied with their lifestyle and particularly with the long commuter trips that this involved; their main desire, indeed, was to move out further into the country.\textsuperscript{127}

The rise in land values had been far in excess of the general salary or price level, and this undoubtedly had made new housing more expensive in real terms than in the 1930s. The developers had adjusted by using smaller sites, building at higher densities — particularly for cheaper housing — and reducing the quality of the houses below the levels that had become mandatory in the public sector. Since many builders also responded by switching into the higher-priced end of the market, which the planning authorities preferred to see anyway, the result was less housing choice at the lower end. In this respect, the research concluded, British policies had been far less successful than American ones in accommodating to the demands of a more affluent, more space-using lifestyle.\textsuperscript{128}

\textsuperscript{125} Hall, Thomas, Gracey and Drewett, 1973, II, 393-4.
\textsuperscript{126} Ibid. II, 394-7.
\textsuperscript{127} Ibid. II, 397-9.
\textsuperscript{128} Ibid. II, 398-405.
use controls had made land for suburban development artificially scarce and had therefore aided the land speculator. So, in both countries, ordinary people would have benefited either from a much looser land-use planning regime, or from a much tighter one; what was not satisfactory was the halfway house.132

Which country then did worse? Was it better to live in Britain with its rather elaborate system of urban planning, which had produced results different from those its sponsors intended, or in the United States, where city planning never really promised much, and never delivered much? The answer, the study concluded, depended on your values. If you put a high priority on giving a large section of the population the material goods they want through market mechanisms, then you must conclude that American suburbia, for all its inefficiency and its occasional ugliness, is greatly superior to the cramped and costly British equivalent. If you put a greater value on protection by society of its land and the natural resources that go with it, you will probably elect for the British system of effective land-use planning. The American policy had been populist, the British policy more elitist.136

In the decade and a half since that conclusion, and especially during the 1980s, the British system has moved steadily in the direction of the American: the stress there too is increasingly on setting the land market free. But the paradox remains, and is bound to do so in any advanced country where different social and income groups obtain bundles of goods and goods from collective political action. Many people in Britain are still deeply committed to the preservation of the countryside and the containment of the cities, and they continue to be well organized in their rural shires and districts. Thus, even on the right wing of the political spectrum, there is a continuing built-in contradiction between the desire to let the developer serve market needs, and the need to palliate deep-held local fears and prejudices; a contradiction well seen in the 1968 statement by Nicholas Ridley, Secretary of State for the Environment and a leading Tories free-marketeer, that the green belt was sacrosanct in its hands. In the United States this balance is different; but there, too, nothing is clearer than the rise of the anti-growth movement in certain regions such as California, with results—in higher land and property prices—very similar to those observed in Britain.137 So, perhaps, both countries were moving slowly and hesitantly towards each other.

Squaring the Circle: Planning the European Metropolis

Long before all that, of course—as we have already seen in chapter 5—European planners had grappled with the problem of reconciling the car

136 Ibid.
137 Dowall, 1984, 152-3, 168-70.
and the city. Over the years from 1943 to 1965, several of Europe's capital cities produced plans which, in their different ways, suggested radical alternatives to America's city on the highway. Given the very different background of the European urban experience, that perhaps was not remarkable. What was more remarkable was that the plans actually got implemented.

Already, in his London plans of 1943 and 1944, Abercrombie had sought to use new urban highways, not merely to alleviate congestion, but to help define the identity of the neighbourhoods of the giant metropolis; here, he had drawn freely on the ideas of a Scotland Yard Assistant Commissioner, Alker Tripp, who had developed the idea of the residential precinct from which extraneous through traffic — not, at that stage, all traffic — would be excluded. Already, too, he had boldly used the Howard–Unwin vision of the garden city to plan new towns where the conflict between car and city would be less pervasive. For him, and for other planners of that generation, the conflict was evident, but was capable of effective and even elegant resolution.

That is well seen also in what can fairly be called the other classic metropolitan plan of that time: Sven Markelius's General Plan of 1952 for Stockholm. Markelius, to be sure, had a far smaller metropolis and a far more tractable set of problems than Abercrombie: against a megalopolis (in Abercrombie's extended Greater London) of 10 million, he was dealing with a mere 600,000. His answer, appropriately, was the same as that of May in Frankfurt, a city of similar size, in the 1920s: satellite towns. Markelius's outer suburban units — Vällingby of 1950–4, Farsta of 1953–61, Skärholmen of 1961–8, Tensta-Rinkeby of 1964–70 — are often inaccurately called new towns; they are not, if by that is meant the pure self-contained Howardian vision. Rather, they were based on the classic assumption of a rule of halves: half the working inhabitants would commute out of them, half the workforce were to be drawn in from elsewhere. Markelius wanted to achieve that without making the city car-dependent in the process; there he showed remarkable presentiment, for Stockholm’s car ownership — then a mere nine to every thousand people — was to rise twentyfold to 190 per thousand by 1964. So he proposed a balanced transportation system: a high-capacity highway network, designed especially to provide for circumferential trips, was to be supplemented by a brand-new subway system, already approved by the city council in 1941; radial in form, focusing on the redeveloped central business district, it would largely replace the then streetcar system.149

138 Tripp, 1938, 1942; Forshaw and Abercrombie, 1944: 50–2.
139 Mehr, 1972, 899–5.

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**Figure 9.9 Vällingby.**

Stockholm’s first two ‘B’ level satellite town centres to be developed, with their inevitable standard features: pedestrian shopping mall, Tunnelsbana (metro) station, high-density high-rise apartment blocks close by.
So the capital city of Europe's most prosperous country took off on a suburbanization path radically different from the American one. This could happen for three good reasons. First, the Stockholm city council had begun to buy land for future urban extensions decades in advance of need, as early as 1904, and by the 1940s had acquired virtually all the undeveloped land within the city boundaries. Secondly, after 1934 Sweden was governed for thirty years by Social Democratic governments, committed to active intervention in the housing field; as a result, 90 per cent of dwellings built after 1946 — including virtually all built on the city's land — enjoyed some form of state subsidy, and (in stark contrast to the United States) most were built either by the city itself or by tenant-owned co-operative building societies. And thirdly, Stockholm suffered from a massive and continuing shortage of housing, which made people grateful for whatever they got; in these conditions, consumer sovereignty was a meaningless phrase.

As already noticed in chapter 7, rather remarkably it all got done. During 1945-57 the first Tunnelsbana line was built and, based on it, the first satellite grouping at Vällingby was completed. It took the form that was to be repeated in every subsequent case: a central, high-level shopping and service centre, roughly equal to that found in one of Abercrombie's London new towns and serving 80,000-100,000 people, was supplemented by local district centres; all were connected by the subway; residential densities were highest around the major centre, high around the local centres, progressively lower away from these centres, so as to bring the maximum number of people within walking distance of shops and services, implying that nearly everyone would be housed in apartment blocks. This standard prescription varied only slightly through the 1950s and 1960s, reflecting changes in fashion and the fruits of experience: very high high-rises around an open pedestrian mall at Farsta, with three times the car-parking that had been provided at Vällingby; a tighter, more enclosed pedestrian mall and low-rise high-density apartments at Skärholmen, with a further expansion of parking into a vast multi-storey garage for 3,000 cars, the biggest in Scandinavia; an enclosed mall, with direct access into the subway station, at Mölby.

The pilgrims still come in their reverent thousands to see them, and are duly impressed: everything seems to work, everything is in place, everything is in the best of good taste, on the last subway line to be finished, they even had a separate artist to decorate each station. And, a visiting American sociologist found, in the classic early satellite of Vällingby most people seemed well content: as compared with American suburbanites in

Levittown the men had more time with their children, the women and teenagers found it easier to get around without a car, the children had better-planned open space and special services. Even then, polled, most said that they would prefer a house to an apartment: a conclusion that the sociologist, clearly moonstruck by the quality of Stockholm life, felt must reflect a fault in the poll. But then, in Sweden it is easy for visitors to become moonstruck; it sometimes seems as if all things vulgar and tawdry have been proscribed by Act of Parliament. Yet, on closer look, paradise is not quite gained: on the subway platforms, graffiti deface the exquisite artists' designs; on the subway trains, drunken Saturday-night gangs terrorize the passengers; press reports tell of anomic and alienation in the satellite towns, where — especially on those last to be finished, such as Tensta and Rinkeby — vast numbers of immigrant workers are concentrated. Older Stockholmers say sadly that it was not like that once; back in the 1950s, in developments like Vällingby, they believed in the possibility of a secular millennium, where liberal enlightenment and social harmony would henceforth reign for ever; but somewhere, the worm entered the bud.

In consequence, even in this holy temple of city planning, the professionals' omniscience came to be challenged. The main drama, as already retailed in chapter 7, was fought over the completion of redevelopment in the central business district of Lower Norrmalm, which from the start had been the complement to the development of the satellites. It soon extended to plans for urban renewal in the older residential districts close to the centre, where the city officialdom fought a running battle with squatters. But the criticism also came to extend to the satellites themselves; a new generation of architects and planners attacked them for being built too quickly, for sacrificing quality to quantity, for producing new slums. That was particularly because, during the 1960s, both the planning style and the sociological mix changed. The three-storey walkups and low towers of Vällingby and Farsta were replaced by six- and eight-storey elevator blocks — partly in the interests of economy, but partly in pursuit of an architectural notion of 'urbanity'. The incoming tenants included many more low-income people, working mothers, immigrants and problem groups. The combination, particularly in terms of noise, vandalism and general deterioration, proved disastrous. The volume of complaints from all sides, reported in the media, grew deafening: 'inhuman environments'; brutal destroyers of the landscape; 'social disaster areas'; 'architectural monstrosities'; 'concrete jungles'. Especially, the satellite of Tensta — built in a hurry by industrialized building techniques — was execrated in the media as ett stadsbyggande sommislyckats: a planning disaster. The question, in the

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141 Ödmann and Dahlberg, 1970, 81-4; Goldfield, 1979, 142.
143 Stockholm, 1979, 52-71.
145 Poponen, 1977, 177-201, 236.
146 Poponen, 1979, 177-21.
147 Höjer et al., 1977, 19.
title of one article, became: How could it go so wrong?

Laying down how people ought to live, by central edict of the planning office, came to be seen as a form of liberal totalitarianism.

But one point, interestingly, the critics found it harder to make. All over the world, the ecological movement was then at its height. Indeed, a central point of conflict between the city and its critics, which in 1971 became a national cause célèbre, concerned the fate of a small bunch of elm trees in Kungsträdgården, a central Stockholm square. In the aftermath of the energy crisis, here as elsewhere, the entire automobile culture was under attack; one early ecological movement – Alternativ Stadt, founded in 1965 – campaigned for banning cars from the city altogether. But Markelius had anticipated this conflict of affluence thirty years earlier, building a superb public-transport system in advance of the advent of mass car ownership. In this respect, his grand design has stood the test of time: despite the critics, Stockholm works better, and has more effectively reconciled the conflict between car and urban environment for a longer period, than most other cities.

Europe’s other grand historic attempt to plan a metropolis around a new transit system came a full two decades after Markelius. In the early 1960s Paris had been trying to limit its own growth and had been manifestly failing. France had its own baby boom for the first time in centuries; the young people were pouring off the land and heading for the bright lights of the metropolis. In 1961 de Gaulle, who believed that Paris should fulfil its historic destiny as the physical symbol of the glories of France, called in an official who had won his spurs in the Algerian conflict, Paul Delouvrier, and asked him to head a team to produce a new plan. They ran the numbers and concluded that even if the national planning system were successful in building up the biggest provincial cities as effective métropoles d’équilibre, the Paris region would grow from 9 to between 14 and 16 million by the end of the century. Early in 1962, apparently, Delouvrier convinced de Gaulle in a personal interview that this picture of a dynamic Paris, ‘bursting at the seams’, was correct. Considering alternatives – conventional annular growth, counter-magnets 50 or more miles different, Abercrombie-style new towns, a ‘second Paris’ – they rejected them all: the magnetism of Paris was such that the people wanted to be there, not some other place, yet if it grew as it had been growing the city would throttle.

So they effectively adopted a Stockholm plan on a mega-scale, appropriate to a metropolis ten times Stockholm’s size. Paris would have new towns; yet these would be towns not on the Howard–Abercrombie model, but rather satellites in the May–Markelius mould. Since Paris was huge, the

satellites would be correspondingly so: against 10,000–20,000 in the Frankfurt of the 1920s, or 50,000–100,000 in the Stockholm of the 1940s, the Paris of the 1960s demanded eight units of between 300,000 and 1,000,000 each. As in Stockholm, they were to be linked with the centre, and with each other, not only by circumferential highways but by a new transit system; but again with a difference. Unlike the Stockholm Tunnelbana, unlike the London Underground on which it had been based, unlike the existing Paris Métro or indeed any of the subway systems of the 1890–1910 era, this was to be an express transit system: having the characteristics of a commuter rail service, it could move people long distances in short times. Its only near equivalent, then still on the drawing board, was the Bay Area Rapid Transit System planned for San Francisco.

But BART was never seen as the agent of a coherent regional plan; presented as a solution to threatened chaos on the region’s highways, in fact it promoted further suburbanization and transferred the gridlock there. The 160-mile RER, in contrast, was planned – as in Stockholm twenty
years earlier – integrally with the new satellites. These would be arrayed on two ‘preferential axes’, one on the north side of the existing agglomeration, one on the south; to link them, the RER would take the form of a letter ‘H’ placed sideways, with a main east–west line branching out at each end. But thus it would link not only the planned satellites, but also new inner-urban centres which would act as catalysts for urban renewal in the shabby middle ring of the Paris region and would provide badly needed services there. The largest such centre, at La Défense immediately outside the inner city to the west, had already started when the plan was being prepared, and thus represented a kind of commercial fait accompli which the planners took in their stride.

If audacity is a criterion for merit in urban planning, then the Paris Schéma Directeur of 1965 must surely belong in some category by itself. Nothing so grandiose was ever attempted in the history of urban civilization. The total bill to the French exchequer was mind-boggling: the twelve-year plan, drawn up at the same time as the Schéma Directeur, called for a total of 29 billion francs on highways and 9 billion for public transport, not to mention 140,000 new dwellings a year. Only a country led by a figure with a Messianic belief in his own destiny, only one in the middle of an economic boom almost unprecedented in history, only one with a centuries-old tradition of top-down public intervention, could even have contemplated it: maybe not even then.

It was the ultimate plan. All kinds of academic theoreticians, in historical retrospect, can prove anything they like from it. Marxists can represent it as a supreme instance of large-scale capital manipulating the state in its own interests, particularly to provide the social investments necessary to ensure the reproduction of labour power; not for nothing were modern urban Marxist studies born in Paris between 1965 and 1972. Believers in the resilience of national culture, contrariwise, will see in it the long tradition represented by Louis XIV and by Haussmann: Delouvrier, ironically, achieved the kind of planning to which Corbusier long aspired in vain. For theorists of the state, on the other hand, it is the classic example of a central bureaucracy entrenching its independent power. Paul Alby, who – as a key official during its preparation and implementation, has written the definitive account of it as a conspiracy against democracy – gives them their evidence: ‘it involved new methods of state intervention, that of a central State acting as an arbiter above party and their [sic] elected representatives.’ More than that: as he shows, large parts of the existing bureaucratic machine, and their political heads, were simply ignored in the plan’s preparation: ‘The purpose was obviously, not to negotiate with anybody but, above all, to develop a propaganda operation aimed at presenting a new image of the State, a new mode of intervention and furthermore, a new relationship between the State and local authorities.’

Somehow, it survived and, in a fashion, was achieved. Not of course without modification, or without pain: in 1969, economic crisis and demographic changes brought a re-write, in which three of the eight villes nouvelles were dropped and others reduced in scale. But the others were pressed ahead; and some, indeed, proved magnets for private construction capital which built offices, shopping centres, and homes for sale on a huge scale. That perhaps is the ideal moral of the Parisian story: as French planners had always argued, public plans can provide a set of clear signals to the private sector, thus enabling it to turn in turn to make its own phased investment programmes. Audacity can work.

The Great Freeway Revolt and After

But the critical point remains: neither Stockholm in 1945, nor Paris in 1965, succeeded in weaning Europeans from their cars. The years from 1945 to 1975, indeed, were the ones in which Europe supplanted America as the main car-builder of the world; all that had happened was that the automobile revolution came to Europe forty years later. In the process, it began profoundly to affect both traditional lifestyles and traditional urban structures. In Sweden, single-family homes zoomed from 32 per cent of new housing construction in 1970 to 55 per cent in 1974 and to over 70 per cent by the late 1970s, responding to individual preferences that showed as many as 90 per cent of Swedes preferring houses to flats. In the Paris villes nouvelles, similarly, single-family homes made up the overwhelming majority of the housing completions, the supermarkets were full of barbecues and garden furniture, and – most significant sign of all – there were few restaurants to be found, let alone good ones.

So the car in Europe, as in its first homeland, was an agent of suburbanization. Which came first, the suburban chicken or the automotive egg, is impossible to say; as already noted for Los Angeles, and as earlier noted (in chapter 3) for London, suburban sprawl predated mass car ownership, but in turn the automobile allowed the suburbs to sprawl more freely, and farther, than mass transit could ever have done. What was true everywhere was that in the process, the problem of the car in the historic city became an acute one. American cities, facing the conflict from the 1920s onwards, reacted by loosening and weakening their earlier tight urban structures. European city fathers were less reluctant to see this

happen. The crunch came over the massive construction evidently needed to accommodate the age of universal mobility in the cities.

For more than a decade from the mid-1950s onwards, a new generation of urban-traffic analysts came to dominate city planning, first in the United States, then—as they exported themselves and their techniques—in Europe also. Their computer models appeared to demonstrate the inescapable necessity to build vast networks of new urban highways in order to grapple with the rising curve of traffic. For a time, they met no resistance. In Britain at the end of 1962, the Minister of Transport published a report on Traffic in Towns, produced by a technical group directed by a then unknown planner-engineer, Colin Buchanan. It proved a best seller; Buchanan became a public figure overnight. Buchanan’s argument was a subtle one, derived from Alker Tripp’s philosophy of preculntual planning a quarter-century previously: it was that the planner should set fixed standards for the urban environment, whereupon more traffic could be accommodated only through massive reconstruction; if the community were unwilling or unable to foot this bill, then it must restrain the traffic. Hardly anyone grasped the message; the public, bemused by the media pictures of vast multi-level reconstruction, became convinced that Buchanan was calling for the bulldozing of urban Britain. At first, they seemed to receive this with equanimity, even enthusiasm; this was the era of the great rebuilding of Britain, when comprehensive redevelopment was everywhere still seen as a thoroughly good thing. Behind Buchanan came the traffic engineers with their plans for urban motorways: hundreds of miles for London, similarly vast networks for every provincial city.

But in California, as usual the harbinger, the tide had already turned. San Francisco, that most European of American cities—and, therefore, the city most determined to be unlike its arch-rival Los Angeles—awoke to a plan to drive an elevated double-deck freeway along its historic waterfront, past the famous Fisherman’s Wharf. In the world’s first freeway revolt, the Embarcadero Freeway was stopped in its tracks. Then, dizzy with triumph, the city stopped building freeways altogether; everywhere, the bemused visitor could see elevated structures that stopped suddenly, in mid-air. It commissioned a consultants’ report of 1956, and a subsequent one from the same source in 1962, calling for a $900-million new transit system, deliberately engineered to preserve San Francisco as a European-style, strong-centre city. San Franciscans voted two to one in favour; suburbanites were less enthusiastic, but the proposal scraped home and the state-of-the-art BART system started construction.

The revolt spread across North America; Toronto stopped its Spadina Expressway, and later turned the right-of-way into a subway. It spawned imitators in Europe: one morning in April 1973, the incoming Labour administration at the Greater London Council, fulfilling an election promise, tore up the whole of the GLC motorway plans. It was all part of the new Zeitgeist, in which all the popular planning slogans were suddenly stood on their heads: this was the time of the Club of Rome report, the belief that small was beautiful, the emphasis on planning for the disadvantaged, and the great OPEC energy crisis. But the revolt against the freeways came before that crisis, which merely seemed to reinforce the rightness of the policy reversal.

The logical result—not merely in Britain, but much more wholeheartedly in more affluent European economies like France and West Germany—was a massive shift of investment into urban mass transit. Now, other cities followed the pioneer trail beaten by pioneers like Stockholm and Paris. In Germany, by the early 1980s, virtually every major city was building a new or reconstructed rail-transit system. The European suburb, too, was a city on the highway; but it was also a city on the subway. Its inhabitants, in particular those among them with less access to cars, were given a choice.

America, too, began to move in the European direction: by the mid-1980s, over forty major American cities had rail-transit systems either operating or building or in the planning stages, some on the BART long-distance model, some more modest light-rail systems. Yet was a question not just of investing in transit, but also of structuring the suburbs around them. And that was something that American cities—driven by the market mechanism, equipped with only minimal planning powers—would be unwilling or unable to do. So the conclusion for many of these systems was likely to be the drastic one reached by Melvin Webber for BART in 1977: failure, because they simply did not fit the dispersed land use patterns and so did not offer an attractive alternative to the car.

That could be changed only if Americans were suddenly willing to live like Europeans; and that would require that they accept European systems of land-use regulation. In places, to be sure, there was evidence by the 1970s that some Americans were willing to be more regulated. Californian communitics like Petaluma, faced with the outbreak of suburbia from the San Francisco Bay, fought bitter battles to regulate their own growth. After huge fights between the construction lobby and the environmental lobby, the California legislature, in 1972, passed a comprehensive law that effectively stopped all development along the coastline. Such measures did affect the shape of the suburban flood; effectively, the San Francisco Bay Area is surrounded by a green belt almost as effectively protected as

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165 G.B. Minister of Transport 1953.
London's, and the result - according to David Dowall - has been the same as that reported for London: housing-land scarcity and higher housing-land prices. But it has not affected the general fact: beyond the green belt, in the corridor followed by Interstate Highway 880 from Concord to Fremont, 20 and more miles from downtown San Francisco, the suburbs continue to sprawl and the jobs are moving out too. The result, according to Dowall's colleague Robert Cervero, is that the Suburban Squeeze is followed by Suburban Gridlock: the highway system is overwhelmed by the volume of suburb-to-suburb commuter journeys, which the BART system - indeed, any conventional radial transit system - is quite unfit to serve.

Not only then were Americans failing to adopt European urban lifestyles; the evidence seemed to be, if anything, that progressively just the opposite was happening. The energy crisis did not suddenly reverse, or even stem, the tide of out-migration from the cities; during the 1970s, following a pattern long familiar in the United States, more and more European countries began to report losses in their central-city populations. And, though some of the European transit systems were successful in attracting passengers, they were invariably - like their American equivalents - heavily subsidized ones. On both sides of the Atlantic, it seemed, the City on the Highway was winning out over the traditionally structured transit city. The people were voting for it with their wheels; more precisely, those that had them were voting thus, and more had them every year. Wells's prophecy was coming truer every year that passed.

The Highway

The City

The Robbery

The Stimulation

The Economy

The Money

The Government

The Police

The People

The Culture

The Environment

The Future
Cities of Tomorrow

An Intellectual History of Urban Planning and Design in the Twentieth Century

PETER HALL

Basil Blackwell