Ziving for the City

A new agenda for green cities

Edited by Jesse Norman



2000



About Policy Exchange

Policy Exchange is an independent think tank whose mission is to develop and promote new policy ideas which will foster a free society based on strong communities, personal freedom, limited government, national self-confidence and an enterprise culture. Registered charity no:1096300.

Policy Exchange is committed to an evidence-based approach to policy development. We work in partnership with academics and other experts and commission major studies involving thorough empirical research of alternative policy outcomes. We believe that the policy experience of other countries offers important lessons for government in the UK. We also believe that government has much to learn from business and the voluntary sector.

Trustees

Charles Moore (Chairman of the Board), Theodore Agnew, Richard Briance, Camilla Cavendish, Iain Dale, Richard Ehrman, Robin Edwards, George Robinson, Tim Steel, Alice Thomson, Rachel Whetstone. Policy Exchange would like to thank the following:

City of London Land Restoration Trust



A new agenda for green cities

edited by Jesse Norman



First published in November 2006 by Policy Exchange Limited

Policy Exchange Clutha House 10 Storey's Gate London SW1P 3AY Tel: 020 7340 2650 www.policyexchange.org.uk

© Policy Exchange 2006 All rights reserved

ISBN 0-9551909-7-5

Printed by Heron, Dawson and Sawyer, London

Contents

	About the contributors	7
	Introduction: Living for the City	13
	Jesse Norman	
	The present consensus over cities is failing.	
	We need a new agenda	
1.	Cities for Biophiliacs	21
	David Nicholson-Lord	
	How and why nature is central to cities,	
	and the consequences of neglecting that fact	
2.	Green Growth	34
	Matthew E. Kahn	
	Far from impeding economic growth,	
	greenery can power it	
3.	The Urban Jungle	52
	Dirk Maxeiner and Michael Miersch	
	Cities not fields are the true homes of biodiversity	

4.	Safer Cities Jonathan Foreman The true lessons of New York's policing revolution, and a refutation of the famous "Freakonomics" view on crime	68
5.	Healthy Cities, Dream Estates Crispin Kelly Suburbs are not perfect. But we ignore them at our peril	94
6.	Cities for Everyone Chris Holmes <i>Mixed city communities are good for all concerned</i>	112
7.	A Manifesto for X-Listing James O'Shaughnessy How to use public participation to remove ugly and defunct buildings	127
8.	City of the Future Herbert Girardet and Peter Head <i>The vision of Dongtan, the new Chinese eco-city</i>	139

About the contributors

Jesse Norman is Senior Fellow at Policy Exchange, having previously served as its Executive Director. He was a Director at Barclays before leaving the City to research and teach at University College London. He was educated at Oxford University and at UCL, where he holds an honorary research fellowship in philosophy. He also serves on the Advisory Board of the Roundhouse, an urban regeneration project for young people in London. His most recent book is *Compassionate Conservatism*. Jesse also co-authored *Direct Democracy: An Agenda for a New Model Party* (www.direct-democracy.co.uk), which was serialised in the *Daily Telegraph* in 2005. He has written widely, including for *The Times, Sunday Times, Sunday Telegraph, Financial Times, Guardian* and *Spectator*, and presents *The Ideas Show* for the new talk TV channel, 18 Doughty Street. www.jessenorman.com

David Nicholson-Lord is an environmental writer, formerly with *The Times*, *The Independent* and *The Independent on Sunday*, where he was Environment Editor. He is chair of the Urban Wildlife

Network (http://urbanwildlife.orangeleaf.net), a member of the UNESCO UK Man and the Biosphere Urban Forum, a trustee of the National Wildflower Centre and a former director of Think Green, the Campaign for Liveable Cities. His publications on this subject include: *The Greening of The Cities* (Routledge, 1987), *Public Open Space* (in Living Cities, RICS, 1992), *The Greening of Cities: A Psychological and Spiritual Geography* (British Association for the Advancement of Science, 1993), *Ecology, Parks and Human Need* (Comedia/Demos, 1994), and *Green Cities And Why We Need Them* (New Economics Foundation, 2003).

Matthew E. Kahn is a Professor of Economics at the Fletcher University, School at Tufts Medford, MA 02155 Matt.kahn@tufts.edu. He is the author of Green Cities: Urban Growth and the Environment (Brookings Institution Press, 2006). He blogs on environmental and urban economic topics at www.greeneconomics.blogspot.com. He was an undergraduate at Hamilton College and the London School of Economics. He finished his PhD in economics at the University of Chicago in 1993. From 1993-1999 he was an Assistant Professor of Economics and International Affairs at Columbia University. From 1999-2000, he was an Associate Professor at Columbia University. Between 1996-1998, he was a Visiting Assistant Professor of Economics at Harvard University.

Dirk Maxeiner was born in 1953. He was on the editorial staff of *Hobby*, a technology magazine, and *Stern*, a major weekly German magazine. In the 1980s he developed a city magazine in Paris of which he was Editor in Chief and Publisher. After that he established

the environmental magazine *Chancen* where he was the Editor in Chief until 1988. Then from 1988 until 1993 he was Editor in Chief of the German magazine *Natur*, at that time the biggest ecological magazine in Europe. Since 1993 he has worked as a freelance writer. He writes non-fiction books and op-ed articles for newspapers, magazines and periodicals, and a weekly column in the German national daily *Die Welt* together with Michael Miersch. With Miersch he has written several influential books, including *Eco-Optimism, The Mephisto Principle* and *The Future and its Foes.* His books have been awarded several prizes including "Science Book of the Year" twice.

Michael Miersch was born in 1956. He was on the staff of the German daily newspaper *Die Tageszeitung* and Editor of the environmental magazines *Chancen* and *Natur*. Since 1993 he has worked as a freelance author. He writes non-fiction books, scripts for TV documentaries, and op-ed articles for magazines and newspapers. Moreover, he gives lectures about the topics of his publications. Over 70 European newspapers and magazines have published his articles. His books have been translated in nine languages (including Chinese) and have been awarded prizes in the USA and Germany. He writes a weekly column in the German national daily *Die Welt* together with Dirk Maxeiner. With Maxeiner he has written several influential books, including *Eco-Optimism*, *The Mephisto Principle* and *The Future and its Foes*.

Jonathan Foreman is a former lawyer with degrees from Cambridge and the University of Pennsylvania. A freelance writer and editor, he was until July 2004 a leader writer, columnist, correspondent and film critic for the *New York Post*. In the mid-1990s he was a contributing editor at *City Journal*, the influential quarterly publication of the Manhattan Institute, America's premier urban studies think tank. His *City Journal* paper "Towards a More Civil City" was cited by Mayor Rudy Giuliani as the inspiration for the "quality of life" law enforcement efforts of his second term. Foreman was an embedded war correspondent in Iraq in Spring 2003 and Spring 2005, for the *Post* and *Vanity Fair* respectively. An Anglo-American dual national, he was based in New York for thirteen years and now lives in London. His articles have appeared in publications such as the *Daily Telegraph*, *The Guardian*, *The Daily Mail*, the *New Yorker* and the *Weekly Standard*.

Chris Holmes is an independent consultant and writer. He is a member of the Board of the Housing Corporation and the Youth Justice Board. He was the Director of Shelter (1995-2002) and Director of Housing for the London Borough of Camden (1990-1995) and has worked with housing, homelessness and community organisations for the past 40 years. His book a *New Vision for Housing* was published by Routledge in January 2006. He has recently written a Foundations report for the Joseph Rowntree Foundation on the findings of seven research reports on mixed income communities.

Crispin Kelly RIBA is the Chief Executive of Baylight Properties PLC, and a former President of the Architectural Association. He read Modern History at Magdalen College Oxford, and has a Diploma in architecture from the AA. During the 1980s, he was one of the pioneers in developing new models of flexible urban workspace. He is also currently very active through Baylight in promoting suburban residential architecture and high-quality volume housebuilding.

James O'Shaughnessy is Head of Research at Policy Exchange. He read PPE at St Hugh's College, Oxford. After graduating, he taught at the Mathieson Music School in Calcutta before returning to the UK to work in new media. He joined Conservative Central Office in 2001 where he led the education research team. He was Head of Research at public affairs agency LLM Communications before joining Policy Exchange in 2004. For Policy Exchange he has co-authored *More Good School Places* (2005) and edited the awardwinning series of reports on housing and planning reform: *Unaffordable Housing* (2005), *Bigger Better Faster More* (2005) and *Better Homes, Greener Cities* (2006). He is Chair of Governors at Garratt Park special school in Wandsworth.

Herbert Girardet Hon FRIBA is an author, filmmaker and consultant focusing on sustainable development. He is a visiting professor at the University of the West of England and at the University of Northumbria. He is Director of Research, World Future Council, a patron of the Soil Association, and a UN Global 500 Award recipient. In 2003, as 'Thinker in Residence', he developed 32 environment strategies for Adelaide which are now being implemented. He has written three books on sustainable urbanisation, the most recent being *Cities, People, Planet - Liveable Cities* for a Sustainable World, Wiley-Academy, 2004. He is a senior consultant to Dongtan Eco-City. He currently holds a Royal Commission for the Exhibition of 1851 Sustainable Cities Fellowship.

Peter Head OBE FREng joined Arup in December 2004 to bring together its consulting teams in master planning, economics, development, transport and environmental planning. The objective is to offer sustainable solutions to the development of cities, using public and private investment to drive more social and environmental value. Peter has developed his skill and understanding through the planning and delivery of major infrastructure projects in cities. He is a Commissioner on the London Sustainable Development Commission and has recently been reappointed until 2008. Peter is project director for Dongtan and has recently worked for London Mayor Ken Livingstone to support the development of a Zero Carbon housing project in Thames Gateway.

Introduction: Living for the City Jesse Norman

Michelangelo claimed he loved cities above all, finding no salvation in nature. For many people, though, today's cities mean overcrowding, pollution, congestion and yobbery.

But how do we live in cities today? How does city design affect our lives? How can we make cities not just bearable but healthy and vibrant places to live for all their inhabitants?

These are among the questions that this book addresses. Its eight essays range in subject matter from the architecture of cities to their zoology, in geography from the UK to China, Germany and the USA, in tone from the poetic to the harder edges of public policy.

In addressing such topics as social segregation, crime, planning controls and environmental sustainability, the book faces in two directions. First, it questions the deep assumptions on which much recent British government policy has been based. But secondly, and more positively, it brings out a crucial and unexpected linkage between three things: "direct democracy" or greater citizen participation in community action and local decision-making; greener, healthier and safer city environments; and improved economic growth. It thus sets the scene for a new centre-right agenda for cities.

An impoverished debate

In the modern era cities have long been seen as engines of economic and cultural growth. But today, in Britain at least, many cities are beset with problems including high crime, social unrest, growing strains on roads and public transport, educational underachievement and middle-class flight.

In the face of these challenges, for a decade or more the political debate on cities has been partial and inadequate. There has been a highly questionable consensus on certain fundamental issues, for example that urban policy should aim for higher densities in housing. There has been stiff opposition to new policy ideas by entrenched political coalitions; against reform of local taxation and the development of green field sites, for example. And there has been a certain lack of interest in cities, and in the urban environment, from politicians, policy-makers and thinkers on the centre-right. The present consensus has held sway, not so much through its own merits, as by default in the absence of plausible and coherent alternatives.

As a result of this impoverished debate, some government policymaking, far from improving the position of cities, has actually weakened it. The best-known example is that of housing policy, in which the British planning system has over the past 60 years generated a housing stock that is small, poky and expensive by international standards. Housing policy has focused on increasing urban densities, banning new towns, cramming in more flats and turning many inner city green and brown field sites into new developments. This trend is set to continue, and indeed to worsen.

But there are other examples. Social segregation has markedly increased despite, and indeed in some respects because of, government housing policies over the past century. The social unrest in some London boroughs and northern cities of a few years ago is an outward expression of the potent mix of poverty and segregation. Urban green spaces have been seriously reduced by the longstanding policy of selling off school playing fields—between 1992 and 2005, nearly 34,000 out of 77,949 British sports pitches disappeared. Poor public transport infrastructure has reinforced public reliance on the car, with adverse effects. A recent Royal Horticultural Society study showed, region by region, how front gardens have been paved over to make room for car parking.

As a result, current trends in urban design are failing to deliver a higher quality of life for city-dwellers. We are making our cities less healthy, less safe and less biodiverse than they could be. It is time to try to move the debate on, to challenge current assumptions and to set out a framework for new policy-making that promotes healthier and more liveable cities.

Changing viewpoints

Imagine we could open up the minds of those who govern us. What assumptions about cities would we find there? Four key ones come to mind: first, that the countryside is the home of nature, and cities are man-made impositions that concrete over nature and reduce its diversity; secondly, that in a world of virtual reality and scientific progress there is nothing special about nature as such; thirdly, that "green" policies reduce a city's ability to grow economically, by raising its costs; and finally, that for reasons of wealth, history and culture, only the West is in a position to give global leadership in improving the city environment.

These views are doubtless held by many on the political left and right alike. They are all false. The truth is far more interesting, and it provides a rich basis for new thinking about cities.

As Michael Miersch and Dirk Maxeiner show, measured in terms of biodiversity, the city and not the countryside is the true home of nature. The best data come from Germany, and show that Berlin holds the national record for biodiversity, as wildlife has been driven by intensive farming techniques into cities. Not only that: the bigger the city, the more ecological niches it offers to nature, and so the richer its wildlife. Experts say that the best honey in Britain is made in London. Why? Because it contains an extraordinary profusion of flowers, wild and cultivated, and little or none of the peppery- tasting oilseed rape.

What of it, though? Is there really anything special about nature? The answer is yes. As David Nicholson-Lord writes, nature has a crucial role in promoting human health and well-being—a role of which we have always known, and yet one that scientific research is only now beginning to rediscover. Take, for example, the effects of trees in providing shade, cool and moisture to the local atmosphere, and in filtering out pollutants. A mature tree transpires up to 450 litres of moisture a day, the equivalent of five room-sized air conditioners left on for 19 hours. A tree-lined street has only 10-15 per cent of the dust of a street without trees: it is also 6-10° C cooler.

But nature's effects go far beyond this. Post-operative patients who have a view of trees rather than blank walls recover faster, and need fewer drugs, than those who do not. Plants measurably reduce the anxiety felt by hospital patients. Prisoners who can see countryside from their cells suffer less illness. "Green time" relieves the symptoms of hyperactive children.

Given these facts, you might think that the post-war idyll of the garden suburb might have particular resonance to contemporary debates over urban planning. You would be wrong. As Crispin Kelly reminds us, the present consensus on cities is one that detests the suburb. Surveys consistently show that most people want the advantages of suburban life—detached family houses with a connection to nature and good access to local services. These facts are, broadly speaking, ignored in current government policy-making.

So much for the first two of our four assumptions. What about the third? Do "green policies", and specifically policies that work directly to improve the local environment, always come at the expense of higher economic growth? There is a general argument that can make this view seem almost inevitable. This is that pollution of any kind knows no boundaries. Correspondingly, the effects of improving the environment are always partially enjoyed by others, "free riders" who bear none of their costs. The effect of green policies is thus to transfer uncompensated wealth or value from a given economic entity to others, and this undermines that entity's own growth. Hence the currently fashionable but pessimistic view that the only workable environmental policies are transnational or global ones.

In the case of cities, however, the local context is crucial. Again the basic assumption is mistaken. For as Matt Kahn shows, far from undermining growth, in free-market economies green city policies can prime and sustain new economic development. They do so by drawing in new "value-added" service industries, whose employees both enjoy and increasingly demand a healthy city environment in which to live and to raise their families. With proper city leadership, this can then set in motion a self-reinforcing virtuous circle of further growth and further greening. This is not cost-free; in particular, it raises living costs as well as capital values for existing residents. The point, however, is that cities are not economic dead zones, any more than they are biological ones.

Of course, a healthy and liveable city environment is not merely a matter of ecology, nature and biodiversity. It is also about such things as good public buildings, harmonious community relations and safe neighbourhoods. Three further essays, by James O'Shaughnessy, Chris Holmes and Jonathan Foreman, explore these aspects of city living. What they bring out is the first, starting part of the linkage identified earlier: the central importance of active and participatory local political engagement, or "direct democracy". It may be "X-listing"—building a popular local consensus to redevelop defunct buildings. It may be giving more user "choice to rent" in social housing. It may be calling for the creation of elected police chiefs in order to make community policing more accountable. Whatever the form that civil engagement specifically takes—and the more the better—it is this that provides the political kick-start for city "greening" and so for the positive economic effects already discussed.

This is not to say, however, that only Western liberal democracies with their established civic traditions can give leadership to this debate—the last of our four mistaken assumptions. As Herbert Girardet and Peter Head point out, China—under communism one of the world's most polluting nations—is already doing so. Its new city in Dongtan aspires to be nothing less than a world leader in sustainable and eco-friendly city development. Some readers may be a little sceptical as to the ability of a still communist country to pull off what would be an extraordinary conjuring trick; they may recall other great projects whose principal value in retrospect has been that of PR; and they may also properly question the likely cost and so the replicability of the city thus created. But one must also admire, here as elsewhere, this further example of China's extraordinary energy and ambition. It is already remaking the rules, and we must seek to learn from that.

A new agenda for cities

In 2007, for the first time in history, human society will be predominantly urban. The problems faced by cities will not go away by themselves—they need concerted public action. In Britain the governing consensus on cities is badly mistaken, as these essays show. What we need is a new agenda for cities.

Central to this agenda will be the linkage between civic participation, urban greening and economic growth. The point is not to turn the clock back, but to acknowledge what is special about cities and use this knowledge to improve policy-making.

This means such things as direct democracy, which pushes political decision-making and revenue-raising down into communities, both through local and city government and through greater rights of citizen initiative. It means a corresponding recognition that the urban environment is not merely a matter of its ecology, but also involves decisions about services, amenities and priorities that are best made locally, not by central government. It means a rejection of the urbanists' "compact cities" model in favour of one that stresses not in-fill development but greater urban greenery and a looser grain to city planning. Its governing motive will be one not of intervention by Whitehall or its corporate proxies, but the compassionate conservative instinct to recognise the importance of social linkages and to take direct action to improve them.

But the call for action must go beyond government into the civic and commercial spheres. Developers need to improve their pattern books, so the quality of suburban housing improves. Firms need to think of their environmental impact, not just their economic one. Urbanites, as citizens and consumers, must be more engaged and demanding. Government can only go so far; we must go the rest.

The essays suggest a number of policies, some on more distant horizons than others. Readers can decide for themselves which are the most attractive, but three stand out as radical yet practical actions that would help transform our cities:

- A moratorium on building on inner city green space, even when that space is classified as brown field (as gardens are)—as a starting point for increasing the amount of urban greenness, with all the health benefits that creates
- Locally elected city mayors and/or police chiefs—increasing democratic accountability and engaging the community in crime reduction
- Improvement of public space through the introduction of "Xlisting" for ugly and defunct buildings—enabling local people to improve the functional and aesthetic environment of their towns and cities

Twenty-one years ago Andrew Sullivan reminded the centre right in "Greening the Tories" of its natural role as the party of the environment, and of the stewardship of our national resources. It is time not merely for the centre-right to discharge that role for our cities, but for us all to do so.

1. Cities for Biophiliacs David Nicholson-Lord

Losing our nature

Humans' relationship with nature is an affair of some complexity. It began, historically at least, in fear and awe, a thrilling sense of the potent and numinous in the visible universe: hence the animism and Earth-worship associated with early cultures. It progressed to conquest and enslavement—the Bible's teaching that God gave man "dominion" over nature inspired, among Christians at least, the notion that taming the wilderness was an ethical imperative. It has always been a powerful inspirer of emotions, whether these are regarded as pagan superstition or the legitimate source of art and imagination. But in the early 21st century it has reached what may well prove a turning-point.

In 2007, for the first time in the planet's history, human society will become predominantly urban; in Britain 80-90 per cent of us already are. Yet at the same time as we find ourselves in this wholly new evolutionary habitat—most people for most of history and prehistory have dwelt in a recognisably rural environment—new technologies, work and leisure patterns are driving us not only inside cities but inside buildings too. An alternative reality is opening up, and the entrance to it—the literal equivalent of the wardrobe in *The Chronicles of Narnia*—is the computer screen.

The American writer Richard Louv has coined the phrase "nature deficit disorder" to describe the novel absence of nature from our lives. A 2006 study for the Nature Conservancy in the US uses the term "videophilia"—in contrast to the "biophilia" (love of nature) which the ecologist E O Wilson diagnosed as one of the primary human instincts—to explain a significant drop-off in visits to American national parks. Virtually all the decline could be explained by video games, movie rentals, cinema-going, internet use and rising fuel prices, the study found, leading researchers to speculate on a "fundamental" shift in human behaviour. Americans, commented Steve McCormick, president of the Nature Conservancy, were losing their connection with the natural world.¹

In the UK, surveys similarly attest to a new generation of "battery" children, addicted to the TV and computer in their bedroom, venturing relatively rarely out of doors, growing obese on a diet of e-messages, web surfing and video games.² But it is not only children who are affected. The UK 2000 Time Use Survey found that just half an hour in the average day is spent in "purposeful outdoor activity" and that one minute out of 1,140 minutes each day is spent in the countryside or at the seaside.³

Yet such choices are conditioned by circumstance, and thus by policy and human decision. It is little good yearning for nature, for example, if nature where you live has been built on or degraded by bad design and management. Hence it is not surprising that Londoners visit the countryside much less than people living in Wales or the South-West, for example—many of them cannot get to it. Similarly, there is no law of development decreeing that urbanisation is inevitable or that it must entail mega-cities and high densities. It is possible to design settlements that reinforce human connections with nature. Given the role nature plays in promoting human health and well-being, which is the focus of this chapter, one would think urban policies would reflect this. In the UK today, we are told repeatedly that they do—that green cities are central to the urban policy agenda. Unfortunately, the reality is very different.

Urbanism, flight and density

To understand why, it is worth briefly revisiting recent urban history, which in much of the developed world for the last two centuries has been one of growth but also of flight. Flight has taken two main forms—initially suburbanisation, more recently counter-urbanisation, the latter beginning in the 1960s as new technologies permitted urbanites to escape beyond the suburbs to the rural areas beyond. Both phenomena have involved those who can afford it—mainly the middle classes—moving out, in pursuit of space, quality of life, better environments and away from urban areas viewed, correctly, as noisy, crowded, squalid and increasingly beset with social problems.

This population outflow, which has affected much of northern Europe and North America, ranks as one of the biggest migrations in history, and one early consequence was the freeing up of urban space in unprecedented quantities.⁴ Enter, at this point, the newly fledged environmental movement, essentially urban in character, which in the 1970s and 1980s seized the opportunity generated by counter-urbanisation to make an impact on cities that had previously been unfeasible—for the simple reason that the spare land was not there. The green cities movement that resulted saw a wealth of new urban landscapes created, from pocket parks to city farms, many of them bottom-up grassroots initiatives with a strong emphasis on ecology. These grassroots greeners and ecoguerrillas provided much of the inspiration for larger-scale initiatives that followed—notably the national and community forests programme, launched in 1990.

Since the mid-1990s, however, the social context has changed dramatically. First, and usually overlooked, the UK's population growth, formerly on a gentle upward gradient which was set to level out in the early 21st century, has gone into overdrive. Currently just over 60 million, it is projected to pass 70 million in 2074, with immigration its main component. London, from a low of 6.8 million in the early 1990s, will reach nine million over the next 25 years.⁵ Calculations by bodies such as the Optimum Population Trust suggest we will need another seven million houses, on top of the current 26 million—a potent source of arguments, present and future, about land-use.⁶

Soaring urban populations and greener cities do not easily go together, although this is not a subject much discussed at sustainable cities seminars. One reason is that population growth is now regarded as outside the influence of policy-making—if it is predicted, the assumption goes, then we must provide. Another is that since the later 1990s a new planning orthodoxy has arisen, which actually favours high-density "compact" cities on sustainability grounds. Much of this thinking can be traced back to the Urban Task Force report chaired by the architect Lord Rogers of Riverside in 1999, which itself owed a great deal to Lord Rogers' Reith lectures of 1995 and his subsequent book *Cities for a Small Planet.*⁷

The compact cities agenda, though seldom challenged, is seriously flawed—based to an unhealthy degree on a narrow, technical definition of sustainability related to transport, energy use and carbon emissions: compact cities are said to be more emissions- and therefore climate-friendly. There are elements of truth in this but it ignores other sustainability criteria—many green activities (and, as is increasingly clear, people themselves) require space to function best, for example. It also ignores the fact that on the timescales that cities endure, technologies—and thus, for example, calculations about emissions—change fundamentally. We should be looking for settlements that fulfil human need rather than the passing demands of, say, horse-drawn carriage, Metro, car or even bike.

Compact cities, so far, have failed to do this. As countless studies show, and counter-urbanisation has comprehensively demonstrated, people want space, gardens, low-rise dwellings, a view of nature and greenery. They are getting, at best and with a few honourable exceptions, monotonous estates with smaller rooms and tiny gardens; at worst, multi-storey apartment blocks without green space. The much-praised Greenwich Millennium "Village" is up to 12 floors high—high-rise in all but the name. The average size of the British garden shrank by 6.6 per cent between 1992 and 2002, according to the British Market Research Bureau. One leading urban designer recently declared that the dream of owning a home with a garden was "unsustainable" and should be abandoned.

The gap between what people want and what urban sustainability gurus are telling them they should have is perhaps most piquantly illustrated by Lord Rogers' strictures on "tacky bungalows... creeping aimlessly along the banks of the Thames"⁸ and a MORI poll for the Commission on Architecture and the Built Environment (CABE) in 2002 that found that people's favourite dwelling was ... a bungalow. While 30 per cent chose this and 29 per cent a "village house" as their second favourite, only two per cent chose a modern loft style apartment.⁹

Greening our cities

In one sense, the compact cities agenda is "predict and provide" dressed up as sustainability—an attempt to cope with rising numbers by building high and tight, and thus minimising impact on the environment. In the process, it is ignoring not only the lessons of counter-urbanisation, the chief of which is perhaps that rising material wealth brings an almost gravitational flow from cramped and over-built settlements to more spacious and greener ones (see Robin Best, *Land Use and Living Space*, 1981). It is also ignoring some hard-won wisdom about human relationships with nature.

The first great act of green space creation in modern urban history, the Victorian park, occurred because the park-makers believed intuitively in the healing and redemptive values of nature (this was, after all, an age that read Wordsworth, Keats, Shelley and Tennyson). The second—the urban greening of the 1970s and 1980s—owed more to accident: the sudden release of urban space and its recolonisation by nature. Many "derelict" sites grew wild, brilliant and biodiverse. The grassroots greeners of that generation, inspired by such examples, sought to imitate them—sought, indeed, to extend the design philosophy implied to the city as a whole. In a way perhaps not seen for the best part of a century—not since Ebenezer Howard's *Garden Cities of Tomorrow*, first published in 1899, and the movement it inspired—nature became central to the remaking of cities.¹⁰

One aspect of this was a body of new research into the role of nature in cities. In part this was physical and spatial: the "air-conditioning" effects of green space, for example, the capacity of greenery, notably trees, to provide shade, cooling and moisture, to filter out pollutants, to ameliorate the urban heat-island effect. A mature tree, for example, transpires up to 450 litres of moisture a day—equivalent to five room-sized air conditioners left on for 19 hours. A tree-lined street has only 10–15 per cent of the dust of a street without trees: it is also 6–10°C cooler. More recently, urban greenery has taken on an even wider role, as "green infrastructure"—one of nature's "free services"—supplying flood relief, sustainable drainage, carbon sequestration, cleaner air. You can even put price on a tree, specifically the climatic and other services it offers: \$402 net, according to US forestry research.¹¹

More excitingly, research has begun to unravel some of the causes and consequences, and also the sheer complexity, of humans' psychological relationships with nature. To some degree this was a response to the demands of policy-making, since in the reports of the Urban Task Force and its successor bodies, the importance of high-quality environments—specifically the idea of "greenness"—began to receive explicit official backing, most notably in the Labour Government's sustainable cities agenda. If nature was to play a part in modern policy-making, its benefits had to be codified.

To the Victorian park-makers, for whom it was axiomatic that nature was "good for you", these efforts would have seemed surreal. Nevertheless, there is now a wealth of evidence that greenery can act as a powerful therapeutic agent and thus as a wonderful all-purpose antidote to the pathogens of urban life.¹² Post-operative patients with a view of trees rather than blank walls recover faster, and need fewer drugs. Plants relieve hospital patients' anxiety. Prisoners who can see countryside suffer less illness. A walk in the park reduces muscle tension, blood pressure and stress; promotes happiness, and helps make you less aggressive and more able to concentrate. Daily doses of "green time" relieve symptoms in hyperactive children. Even driving to work through green streets helps to cut stress, promote mental functioning.

More generally, green neighbourhoods—parks, tree-lined streets, even a view of nature—have been associated with less crime, better community relationships, greater longevity, and more maturity, concentration and self-discipline amongst teenage girls. These findings, and many more which there is not space to mention, can be found in reports from bodies such as English Nature, the Environment Agency, CABE Space, GreenSpace, the Countryside Agency and in the publications listed below.

Given the poor health record of cities by comparison with rural areas and the growing toll of stress and anxiety, not least in the developed world—the World Health Organisation has identified depression as the fastest growing source of illness globally—such findings ought to lay the basis for a preventive health service based on greener cities. They ought also to figure in any new Government strategy to prioritise happiness or wellbeing, as advocated by the academic Richard Layard and bodies such as the New Economics Foundation, and now being proposed by Conservative Party leader David Cameron.¹³

To some degree, this is already happening. "Health walks" and green gyms have proliferated in the UK, often "prescribed" by GPs. Exercise has been recommended by the National Institute for Clinical Excellence as a better alternative to pills for treating mild depression.

Yet the message that emerges clearly from research is that it is the green setting, not the exercise, which provides the motivation and the inspiration. Dr William Bird, one of the originators of health walking, estimates in his report *Natural Fit* that a single urban park could save the economy £4.4 million in health costs and that depression resulting from physical inactivity costs the economy £1 billion a year.¹⁴ Courses of cognitive behavioural therapy are currently being advocated as a cost-saving alternative to drugs for the treatment of depression and anxiety. Green space in cities looks a far better bet—cheaper, more flexible and available to all.

Why we love nature

However green space has a value beyond that offered through exercise. Studies have shown that it is enough for it to be *there*—as a view, a presence. Exercise is merely one means of contact. The physiological processes through which its healing effects operate have been summed up in the awkward neologism psychoneuroimmunology—meaning that stress hormones (and their counterbalancing "pleasure" chemicals, the endorphins) feed through via the immune system into general health.

Yet this raises another question. Why should nature generate such feel-good factors? One explanation is evolutionary instinct—

according to E. O. Wilson, we are programmed to feel comfort in the park-like savannah landscapes where we originated as a species.¹⁵ "Whenever people are given a free choice", he argues, "they move to tree-studded land on prominences overlooking water." Another, supported by much research from environmental psychologists, is that nature gives us experiences that are decreasingly available in a crowded and competitive urban world—freedom, mystery, escape, solitude.

Many of these experiences are *asocial*—nature is classless, nonjudgemental, free of symbols, signifiers and semiotics. Research on "tranquillity", the commonest reason for visiting the countryside, has shown that the absence of people, *other* people, is its most crucial ingredient. As to what constitutes tranquillity, people mention openness, greenery, "natural places," water (and particularly its sounds), views and horizons, wildlife. One poll of Radio 4 listeners felt tranquillity was encapsulated in the sound of waves or wind through trees.¹⁶

A third explanation takes us back to our beginnings as a species. For the German philosopher Rudolf Otto, in his book *Das Heilige* (The Idea of the Holy), first published in 1917, the experience of a numinous "Other" in nature—of what he called the *mysterium tremendum et fascinans*—was the wellspring of religion. The associations of nature-worship with paganism have always worried monotheistic religions, notably Christianity, however. Instead, these feelings have tended to emerge in poetry, art, music, mysticism—and probably also rambling. With the decline of organised religion in the West, and in particular the decline of the idea of a transcendent divinity residing "outside" the world, it is clear that nature and our feelings towards it have become a widely-diffused mode of secular spirituality, with many of the therapeutic effects known to derive

from religious faith. In one sense, you might say, nature has replaced God.

Green urbanism

Such realities do not lend themselves to bureaucratic box-ticking and cost-benefit analyses. Not least, they point to a very different idea of the city from the compact city model, which is probably best described as classical urbanism with a green veneer. For Richard Rogers, the ideal city is found on a Tuscan hilltop or renaissance Venice—where "glorious public spaces [are] *enclosed* by well-designed buildings".¹⁷ Yet much of the evidence cited above suggests that it is precisely the sense of an enclosed nature, walled off from the countryside, that we do not like—that we prefer what Kenneth Grahame called the "steadfast mystery of the horizon." Indeed, we do not much like buildings: research on "sensory mapping" and *topophilia* (literally, love of places) shows that the bits of cities we like best—the bits that are the most "restorative" are the bits where the city, and its buildings, end, and nature begins.¹⁸

Yet this fundamental perceptual mismatch between the planners of the sustainable city and the people they are planning for is compounded by the failure to absorb some of the more clear-cut lessons of the past. Despite the popularity with the public of treelined streets and informal landscapes, ecology, biodiversity, even "naturalness", remain notable for their rarity in city green space. The push to redevelop so-called "brown field" sites, the places that inspired the urban greeners of the 1970s and are often far greener than the (rural) green field sites with which they are contrasted, borders on the obsessive. The growth of a risk-averse "health and safety" culture renders much public space sterile—for children as well as adults.

The sheer pressure of human numbers and over-development is having far-reaching knock-on effects—loss of front gardens to car parking, the growing incompatibility of trees with a tightening urban fabric, inexorable erosion and infill of backlands and smaller green spaces, the canyonisation of streets. And as urban design has become professionalised and bureaucratised, relocated away from the grassroots into para-statal agencies such as the Heritage Lottery Fund, it has lost its sense of what the landscape writer Ian McHarg called "design with nature" and has reverted to the designer's default mode: overdesign.¹⁹ Much new urban space, to put it simply, is too urban.

A great deal may be at stake in the sustainable cities debate. In a predominantly urban world, the choice between therapeutic and pathogenic cities is not only between healthy people and sick people; it is probably also between functional and dysfunctional relationships with the planet, between biophilia and videophilia. Genuinely green cities, designed "with nature", offer us a chance to repair connections seriously impaired by urbanisation, but too much of what is happening in cities now is a travesty of greenness—and almost certainly a planning disaster in the making.

The irony is that the compact cities model has been adopted so uncritically in Britain, which as the pioneer of both the modern urban park and its forerunner, the eighteenth century English landscape movement, should be uniquely aware of the value of nature in cities. The poet Alexander Pope, no mean landscapist himself, summed up the landscape movement very succinctly. It was about "calling in the country," he said—bringing nature back into human settlements.²⁰ Nearly three centuries later, it is a design statement that could scarcely be bettered.

- 3 The UK 2000 Time Use Survey, ONS, 2002, www.statistics.gov.uk/timeuse/summary_results/ default.asp
- 4 David Nicholson-Lord, The Greening of the Cities, Routledge, 1987
- 5 Data Management and Analysis Group, GLA 2005 Round Interim Demographic Projections, Greater London Authority, 2005
- 6 See www.optimumpopulation.org/opt.release14Mar06.html
- 7 Richard Rogers, Cities for a Small Planet, Faber, 1995
- 8 Guardian, 29 January 2005
- 9 MORI, Commission for Architecture and the Built Environment, 2002
- 10 Ebenezer Howard, Garden Cities of Tomorrow, Faber, 1970
- 11 David Nicholson-Lord, Green Cities and Why We Need Them, New Economics Foundation, 2003
- 12 See, *inter alia*, C.L.E. Rohde [sic] and A.D. Kendle, "Human well-being, natural landscapes and wildlife in urban areas—a review", *English Nature*, 1994; Nicholson-Lord 1987 and 2003; F. Kuo and A. Faber Taylor, "A potential natural treatment for attention-deficit/hyperactivity disorder, evidence from a national study", *American Journal of Public Health*, September 2004; J. Pretty, M. Griffin, J. Peacock, R. Hine, M. Sellens and N South, "A countryside for health and wellbeing, the physical and mental health benefits of green exercise", Countryside Recreation Network, February 2005; Linda Seymour, "Nature and psychological well-being", *English Nature*, 2003; Ian Douglas, "Urban greenspace and mental health", Paper for the UNESCO UK Man and the Biosphere Urban Forum, March 2006. A useful summary is available at www.environment-agency.gov.uk/commondata/103599/top_10_health_1149833.doc
- 13 Hetan Shah and Nic Marks, *A well-being manifesto for a flourishing society*, New Economics Foundation, 2004
- 14 Dr William Bird, Natural Fit, RSPB, 2004
- 15 E. O. Wilson , Biophilia, Cambridge, MA, Harvard University Press, 1984
- 16 Mapping Tranquillity, Campaign to Protect Rural England/Countryside Agency, March 2005
- 17 Guardian, 29 January 2005
- 18 See, for example, Oladele A. Ogunseitan, *Topophilia and the Quality of Life*, available at www.ehponline.org/docs/2004/7467/abstract.html
- 19 Ian McHarg, Design With Nature, Doubleday, 1969
- 20 Alexander Pope, Epistle to Lord Burlington, 1731

^{1 &}quot;Study Finds Today's Kids Are Choosing TV Over Trees", Nature Conservancy, 20 June 2006

² M Huttenmoser and D Degan-Zimmermann, *Lebenstraume fur Kinder*, Swiss Science Foundation, 1995; *Play Deprivation, Play Wales* Briefing Paper, 2003

2. Green Growth: The Economics of Green Cities Matthew E. Kahn

In the 19th century New York City was not a "green city". Dead horses littered the streets, and thousands of tenement-dwellers were exposed to stinking water, smoke-filled skies, and ear-shattering din.¹ In 1900, the average US city-dweller had a life expectancy ten years lower than the average rural resident.² Until the early 20th century, the skies above major cities such as Chicago and Pittsburgh were dark with smoke from steel smelters, heavy industrial plants and coal burning. Similar challenges to people's quality of life were observed around the world. Frederick Engels, for example, bemoaned the density and the squalor in Britain's manufacturing cities, such as Manchester.

Over time, however, many major cities in the developed world have experienced sharp improvements in quality of life. By 1940, the US urban mortality premium had vanished. Air pollution, water pollution and noise pollution in the US have all fallen sharply in recent decades. There are several reasons, including effective regulation, the transition from industrial manufacturing to services and technological advance. But at its simplest, the trend is simply that past "production cities" are transforming themselves into "consumer cities" where people want to live, work and play.³ Urban greenness enhances such experiences and makes such cities even more desirable.

Many of us have an intuitive sense of what sets a green city, such as Portland, Oregon, apart from brown urban centres, like Mexico City. Green cities have clean air and water, and pleasant streets and parks. Green cities are resilient in the face of natural disasters, and the risk of major infectious disease outbreaks in such cities is low. Green cities also encourage green behaviour, such as the use of public transport systems, and their ecological impact is relatively small.

In this essay I argue that green cities are not merely aesthetically pleasing, however. Rather, they are a key engine of economic growth in the modern skills economy. The modern literature on economic growth emphasizes that human capital is one of its key determinants, and can be primed and geared to greenery.⁴ Living and working close to Regent's Park in London does not cause one to be more intelligent or productive. But such green amenities do select for and attract the highly skilled. Where those people cluster, innovations and cross-industry synergies take place. The net result is robust economic growth.⁵

Green cities thus act as magnets, attracting the highly educated as they pursue both a high standard of living and a high quality of life. A virtuous cycle is set off as footloose employers—think of Google or Microsoft—locate in areas where the skilled want to live. This in turn attracts skilled workers and high end commercial restaurants and retail stores to cater to this niche market.

There is no "free lunch" however. A city that pursues "greenness" as an economic development strategy will experience gentrification. One consequence of this trend will be upward pressure on house prices. This will tend to squeeze out poorer renters, new immigrants, and even the middle class as they search for homes. Such households will then face the choice of living further from the city centre or migrating to a cheaper city.

Of course, there will typically be many other factors in play. But it is worth noting that cost pressures on the traditional urban middle classes are already intense. In 1992, for example, the ratio between house prices and teacher earnings in Greater London was 4.09. By the year 2002 it had grown to 6.73, a rise of well over 50%. Greening a city can be expected to create additional economic pressures on its residents, especially those on public sector salaries, to leave for less expensive places to live.

This essay therefore focuses on two key issues: what impact does greenery have on economic performance, and how? Do green cities outperform their non-green counterparts economically?

What impact does greenery have on economic performance, and how?

Some cities are green and beautiful (e.g. San Francisco) while others are not (e.g. Houston). If people can costlessly migrate across cities, then the population will choose their favourite city. Amenity lovers will move to the green city and amenity likers will tend to cluster in the brown city. Migration across cities will continue to take place until the demand for housing, for example, equals the supply for housing in each of the cities. In equilibrium, the price of housing in the green city will be higher than the equilibrium price of housing in the brown city. Why? If the price of housing in the two cities was the same, then households could enjoy an economic "free lunch" an unpaid-for improvement in living standards—by migrating to the green city.

How much more do people pay for living in cities with nicer weather, cleaner air, and more open space? An enormous academic literature has arisen in an attempt to answer this question.⁶ It emphasises that real estate prices reflect differences in "local" quality of life. Such non-market goods cannot be explicitly purchased. For example, since the 1952 Great Smog, London has experienced an enormous reduction in its ambient particulate levels (a 200 microgram per cubic metre decline). To appreciate the magnitude of this decline, consider the fact that in 2005 London's average PM10 level was 22 micrograms per cubic metre. (Between April and June 2006, however, Beijing's PM10 average level was 197 micrograms per cubic metre.)⁷

One recent US study found that a 10 microgram per cubic metre reduction in particulates correlates roughly to a 10% increase in home prices.⁸ Similar hedonic real estate techniques have been used to value a number of "green city" attributes. A wide array of empirical work, aided greatly by the recent advent of Geographic Information System (GIS) technology, has investigated how housing prices are related to urban "green" attributes. Work on landscape amenities shows positive values for such things as proximity to public parks, privately-owned open space, the natural land cover immediately surrounding homes, and access to natural views. The evidence suggests that households value access to commercial activity (that is, not too much open space everywhere around them), but prefer open space in the immediate vicinity of their residence.⁹ A 2003 study by Kayo Tajima bears this out, finding that doubling the distance of an apartment to the nearest large park reduces its price by 6 per cent.¹⁰

Greenery raises a city's economic performance because green cities attract the skilled. In the words of Edward Glaeser, "Cities such as London and New York which specialise in knowledge transmission have boomed over the last 20 years. The rising importance of information, and the continuing costs of moving people across space, together imply that successful cities should be skilled cities. If knowledge has grown more important, then proximity to people with knowledge should have grown more valuable too, and indeed, there should be a connection between a city's initial and current level of skills."¹¹ Some have argued that new information technologies such as teleconferencing will reduce the demand for city living. Recent urban empirical studies have suggested, however, that such technologies actually *increase* the demand for urban living because they reduce the cost of staying in touch with new urban contacts.¹²

Cities with more skills experience greater subsequent population growth, housing price growth and wage growth. Based on observable worker characteristics, wages are also higher in high human capital cities.¹³ From 1940 to 1990, for example, a 10 per cent increase in a metropolitan area's concentration of college-educated residents was associated with a 0.8 per cent increase in subsequent employment growth.¹⁴ The well-educated not only seek out cities with a higher quality of life. Their presence within a city also creates a strong group interested in "greening" the city. People with better education tend to be more patient and more likely to support costly investments that address long-run environmental threats.¹⁵ They are also more likely to demand in-depth analysis of environmental issues, which sets a virtuous cycle in motion by providing incentives for the media to research and present stories on pollution and the environment. And they tend to play a more active political role. For example, educational attainment is positively associated with the likelihood that a person votes.¹⁶ Well-educated people are more likely to vote for environmental regulation in California's direct initiatives, for example.¹⁷

Cities with more educated populations are more likely to implement "smart growth" policies. Kent Portney has summarized these efforts.¹⁸ He has created indicators measuring, for example, whether cities redevelop brownfield sites, use zoning to delineate environmentally sensitive growth areas, provide tax incentives for environmentally friendly transportation, limit downtown parking spaces, and purchase or lease non-petrol-engined vehicles.¹⁹ Based on these indicators, Portney calculates a sustainability score for 24 cities. For example, if a city is active in 17 of the 30 categories, its score is 17. Using this approach, Portney identifies the seven most sustainable cities as Seattle, Scottsdale, San Jose, Boulder, Santa Monica, Portland, and San Francisco. Each of these cities received a score of 23 or higher.

How do these "green policy cities" differ from cities that have made fewer investments in smart growth? Again the key fact, based on 1990 US Census of Population and Housing data, seems to be this: cities that enact green policies are richer and more educated. In green policy cities, 32.3 per cent of adults have college degrees. In brown policy cities, only 22.6 per cent of adults do so.

Supply side factors that create green cities

Several factors play a key role in greening cities. In the previous section, I emphasised the importance of educational attainment. A bettereducated public generally demands more environmental protection, and so becomes an active interest group monitoring whether government is "up to the job" of supplying green cities. Additional factors such as the adoption of new technology (sometimes driven by regulation), industrial transition and sprawl, however, have all played important roles in determining a city's "greenness".

Technology

Smog improvements in California are a prime example of the value of new technology in greening cities, driven in this case by government regulation. For ambient ozone, a leading indicator of smog, the average of the top 30 daily peak one-hour readings across nine continuously operated monitoring stations declined 55% from 0.21 to 0.095 parts per million between 1980 and 2002. The number of days per year exceeding the federal one-hour ozone standard declined by an even larger amount—from about 150 days per year at the worst locations during the early 1980s, down to 20 to 30 days per year today.²⁰ Recent pollution gains are especially notable because Los Angeles County's population grew by 29 per cent between 1980 and 2000, while total automobile mileage grew by 70 per cent.²¹

Another example of the role of technology in green policymaking

and policy implementation is the use of GIS. Urban empirical research has been greatly aided by computerized maps employed to calculate land use patterns and measure physical distance of plots of land to urban features. For example, GIS allows a researcher easily to partition similar housing units into those that are close to green spaces and those that are not. Such information is crucial for testing whether homes near green spaces sell for higher prices than do similar homes far from green spaces.

By comparing land use patterns using satellite pictures at multiple points in time, researchers have also been able to measure which US cities are experiencing the most sprawl.²² This is not merely an academic exercise. Such land conversion dynamics provide useful information, and in particular an early warning system, for land trusts such as the Nature Conservancy that use private donations to purchase land and to protect it from development.

Industrial transition: manufacturing to services

Between 1969 and 2000, the number of manufacturing jobs in New York county, part of the New York City metropolitan area, declined from 451,330 to 146,291. Manufacturing accounted for 16.2 per cent of the county's employment in 1969, compared to only 5.3 per cent in 2000. Over the same period, service employment increased from 25.4 per cent of the local economy to 41.1 per cent. For 279 metropolitan areas in the United States, the share of workers in manufacturing declined from 25 per cent to 12 per cent between 1970 and 2000.

This trend is not unique to the United States. Over the last thirty years, London has lost 600,000 manufacturing jobs—and gained the same number back in business services, plus a further 180,000 jobs

in entertainment, leisure, hotels, and catering.²³ The industrial transition from manufacturing to finance and services has increased the number of city-dwellers who work in the retail, restaurant and hotel trades and who thus have an economic stake in keeping the city's quality of life high.

Service-based cities are much cleaner and greener than manufacturing cities.¹⁴ Urban air and water pollution problems recede when highly polluting industries such as steel and chemicals contract. This industrial transition has imposed costs, however. Research has documented that displaced workers can earn \$10 less per hour in the service economy compared to higher paying manufacturing jobs.²⁵ This suggests that income inequality may rise in cities experiencing industrial transition. Older, displaced manufacturing workers may not greatly value the improved environmental amenities and may yearn for the "good old days" when the city was polluted but offered high paying jobs to the low skilled.

In many cases past manufacturing activity still scars the urban landscape. Cleaning up noxious defunct industrial sites is an important part of the green city agenda; and billions of dollars have been spent in the US in recent decades to encourage infill development by converting past industrial sites into green areas under the Superfund and Brownfield programmes.²⁶

But these efforts in turn raise public policy issues. Do citizens trust the government to clean up the polluted sites? Which sites get cleaned up first? Hilary Sigman has documented how Superfund sites in richer communities are prioritized for earlier cleanup, raising issues of environmental justice. A benevolent but dispassionate social planner might rather focus on cleaning up sites in densely populated communities and in those where minorities are over-represented.

Sprawl

Over time, cities tend to grow in population size. Where within the city should this growth take place? In a mixed society where people differ with respect to their age, income and tastes for housing, a metropolitan area should offer a variety of different housing options to cater to the broader public. "Centre cities" that reduce their urban crime and improve their environmental quality will tend to attract singles and married couples without children. US research has documented that richer people demand newer, more spacious homes and these homes are more likely to be supplied in the suburbs.

How does the spatial pattern of population growth affect city "greenness"? Many urbanists hope that this growth will take place in areas of high population density near the city centre, since they will already be serviced with basic infrastructure. Such compact development protects fringe farmland from encroachment and increases the likelihood that new residents commute by public transport (a green technology) to work.²⁷

However, it is well known that much urban growth in the United States takes place at the fringe of cities. Such popular books as Joel Garreau's *Edge Cities* documented the growing employment centres popping up near suburban road connections. Suburban workers seeking newer, larger homes and shorter commutes are attracted to such suburban locations. Firms that want to build large corporate campuses are also attracted to areas featuring cheap land far from the city centre. For example, Microsoft's headquarters campus in Redmond, WA will be ten million square feet after it completes its expansion and there will be 12,000 workers there.²⁸ Google now has 5,680 employees and is adding 1 million square feet to the 500,000 it already occupies in Mountain View, California.

Suburbanites drive more and consume more natural resources than urbanites.²⁹ The environmental impacts of such differences in consumption hinge on the technologies used and the existence of markets. As in the case of Los Angeles above, new vehicle emissions technology has reduced the average vehicle on the road emissions by enough to offset the increased scale of driving. Open space initiatives, where local governments collect sales tax revenue and use this money to purchase and protect open space, have been implemented in cities all around the United States.³⁰ Nevertheless, the different ecological footprint of suburbs vs. centre cities raises important questions for future city development.

Do green cities outperform non-green cities economically?

One basic way to think of high performing cities is as cities with high per-capita incomes that are growing over time and are relatively unaffected by economic volatility and recessions. I sketched above why urban economists believe that green cities have such a robust future. In the United States, households are quite mobile, with more than 3% of households moving across state borders every year. In general, the population is migrating to warmer winter and to coastal areas.³¹ There are over 300 major cities in the US between which to choose. What happens to the colder Northeast centre cities that people are increasingly vacating?

In fact, there are several older centre cities in the United States such as Detroit and St. Louis and Philadelphia that are not performing well. In such areas, the centre cities are losing population and any growth is taking place at the suburban fringe. As middle class households leave the centre cities and employment follows, this hollows out the centre cities, producing "ghost towns" in some cases such as Detroit and St. Louis.

These cities suffer from cold winters and are not perceived to be green. As a result, to take one example, St. Louis's population has declined from 900,000 to 500,000 over the last 30 years. This matters because the housing stock is highly durable. As supply remains stable and demand for living in such brown cities declines, real estate prices have plummeted.³² Low property prices act as a poverty magnet exacerbating urban social problems, and increasing the segregation of the poor. In the UK, the same thing has been seen: for example, Glasgow has lost population over time, and relative poverty has grown. In contrast, Edinburgh's universities and remarkable beauty serve to attract the skilled.

All cities sometimes suffer recessions. For example, if a city such as Detroit is highly specialized in car production then national reductions in demand for new cars will especially hurt Detroit. Green cities have a measure of implicit insurance against such shocks, however. Even if a given industrial "golden goose" declines, the city remains attractive: people will still want to live there and this will pull in other industries over time.

Wall Street has remained in Wall Street despite the 9/11 terrorist attacks in 2001, and despite long-term improvements in information technology. One possible explanation may simply be that high powered executives gain from face-to-face interaction and deal-making and that these executives enjoy living in New York City. The skilled want to live close to each other to transact business but they face communication costs of agreeing where to locate. There is a co-ordination problem, and green cities represent a co-ordination device.³³

Again, green growth is not neutral between different economic and social groups. The typical macroeconomist focuses on trends in average well-being in determining whether a society's standard of living is improving. In a mixed society, this average may not be reflective of anybody's actual experience. The philosopher John Rawls made famous the notion of focusing on the well-being of the least-well-off in a society. Is it obvious that this group is made better off by greening a city and more generally improving its quality of life?

As I have noted, policies that improve urban quality of life will raise incumbent home prices but will reduce the ability of renters and recent immigrants to afford "decent" housing. The constraints on housing supply may be worsened by policy-makers in the service of what they see, sometimes questionably, as "greenness". For example, some cities such as Portland in the US have pursued "greenness" by limiting where developers can build new housing. London's Green Belt is a similar attempt to inhibit development in the name of environmental improvement. Other, harder-to-measure, constraints include a lengthy warranting or permitting process and regulatory uncertainty that may delay or prevent new construction. Neighbours may be able to limit new construction. Rules concerning building height or historic districts can also act to reduce the supply of housing.

A recent important line of housing research has examined whether housing supply regulations have raised home prices.³⁴ It shows that regulation in major cities in California and the Northeast, including Boston and New York City, has a significant impact on reducing the supply of housing.³⁵ For example, in New York City, opponents of new buildings sometimes appeal to local zoning boards to block construction, arguing that it would lower the value of their homes by cutting off sunshine and blocking their views of Central Park. The net result of such lawsuits is to reduce the supply of new housing and drive up prices relative to less regulated markets. Environmental regulation intended to protect critical habitats has had a similar effect in California.³⁶

Incumbent homeowners in the most desirable cities (such as San Francisco and Vancouver) gain the greatest home price appreciation from such supply restrictions because they own a scarce, valuable asset.³⁷ In such superstar cities, the finite number of housing units combined with the growing demand fuelled by the growth in the number of wealthy people, means that the middle class will be increasingly unable to afford living in the desirable cities.³⁸

Conclusion

Today, major cities around the world are investing large sums of money to "green" themselves. By the year 2016, New York City's planners foresee extensive redevelopment of the waterfront, removing past vestiges of defunct manufacturing. Even China, as it prepares for the 2008 Olympics in Beijing, has begun to invest heavily in greening its capital city.

I have argued that urban "greening" can be an effective investment in achieving long run sustainable growth because the skilled are attracted to cities with high quality of life. Cities that attract the skilled grow faster than other cities. A city's "greenness", moreover, depends not only on its climate and physical location but also on the choices made by consumers, firms and governments within the city. The pursuit of urban greenness (through growth controls and housing regulations) does have unintended consequences that introduce important issues of equity or fairness. The "economics of green growth" remains a wide-open research field. To conclude this essay, I would like to propose an interdisciplinary research agenda by posing three questions that merit future research. First, how far would a systematic attempt by, for example, London to pursue a "green city" agenda further raise housing prices? If this is the case, at what point could a city be "too green", or are there other policy levers – such as an increase in housing supply – that can be use to offset this problem? Second, the move of employment from centre cities in the United States has played an important role in accelerating suburban sprawl. How far is this occurring in the UK? Are major cities suburbanising at "too fast" a rate? Is this trend seriously threatening city greenness, or is it adding to wealth effects in other ways? Finally, in an integrated European economy will green cities have an advantage in luring the skilled to move across international borders? Will "brown cities" suffer a brain drain?

Further Reading

- Edward L Glaeser, *Four Challenges for Scotland's Cities*, The Allander Series, 2005 www.fraser.strath.ac.uk/Allander/Allander%20Papers/Glaeser.pdf
- Matthew E.Kahn, Green Cities: Urban Growth and the Environment, Brookings Institution Press, 2006 http://www.brookings.edu/press/books/greencities.htm
- Kent Portney, Taking Sustainable Cities Seriously: Economic Development, the Environment, and Quality of Life in American Cities, MIT Press, 2003

Martin Melosi, Garbage in the Cities: Refuse, Reform, and the Environment: 1880–1980, Texas A&M Press,1982; Martin Melosi, Effluent America; Cities, Industry, Energy and the Environment, University of Pittsburgh Press, 2001

² Michael Haines, "The Urban Mortality Transition in the United States, 1800–1940", NBER Historical Paper 134, Cambridge, MA, 2001

³ Edward L Glaeser, Jed Kolko and Albert Saiz, "Consumer City", Journal of Economic Geography, no. 1: 27–50, 2001

- 4 Edward L Glaeser et al, "Growth in a Cross-Section of Cities", Journal of Monetary Economics, 1995
- 5 Jane Jacobs, The Death and Life of Great American Cities, Random House, 1969
- 6 This literature has also examined the degree to which brown cities have to pay higher wages (i.e. "combat pay") to lure high quality workers relative to high quality of life cities
- 7 PM10 represents small particulate matter. The Chinese data source is http://www.zhb.gov.cn/english/air-list.php3
- 8 Kenneth Y Chay and Michael Greenstone, "Does Air Quality Matter? Evidence from the Housing Market", *Journal of Political Economy* 113, no. 2: 376-424, 2005
- 9 For a detailed reference list on empirical studies measuring the effects of green space see Thomas Nechyba and Randall Walsh, "Urban Sprawl", *Journal of Economic Perspectives*, 18(4): 177-200, 2004
- 10 Kaya Tajima, "New estimates of the demand for urban green space: implications for valuing the environmental benefits of Boston's Big Dig project", *Journal of Urban Affairs*, 25(5): 641-655, 2003
- 11 Edward L Glaeser, Four Challenges for Scotland's Cities, The Allander Series, 2005
- 12 Edward L Glaeser, "Are cities dying?", Journal of Economic Perspectives, 12(2): 139-160, 1998; Jess Gaspar and Edward L Glaeser, "Information Technology and the Future of Cities", Journal of Urban Economics, Elsevier, Vol. 43(1): 136-156, 1998
- 13 Enrico Moretti, "Cities and human capital", *Handbook of Urban Economics* (Vol. IV) ed. V. Henderson and J. Thisse, North Holland Press, 2004. See also James E Rauch, "Productivity gains from geographic concentration of human capital: evidence from the cities", *Journal of Urban Economics*, Vol. 34, no. 3: 380-400, November 1993
- 14 Jesse Shapiro, "Smart cities: quality of life, productivity, and the growth effects of human capital", *Review of Economics and Statistics*, May 2006
- 15 Gary Becker and Casey Mulligan, "The Endogenous Determination of Time Preference", *Quarterly Journal of Economics*, Vol. 112, 3: 729-758, 1997
- 16 See Moretti (2004)
- 17 Matthew Kahn and John Matsusaka, "Environmental Demand for Environmental Goods: Evidence From Voting Patterns on California Voting Initiatives", *Journal of Law and Economics* XL 40, 1: 137-1–73, 1997
- 18 Kent Portney, Taking Sustainable Cities Seriously: Economic Development, the Environment, and Quality of Life in American Cities, MIT Press, 2003
- 19 The other indicators include: eco-industrial park development, cluster or targeted economic development, eco-village project or programme, land use planning programmes, comprehensive land use plan that includes environmental issues, operation of inner-city public transit, car pool lanes, bicycle ridership programme; pollution prevention, household solid waste recycling, industrial recycling, hazardous waste recycling, air pollution reduction programme, recycled product purchasing by city government, superfund site remediation, asbestos abatement programme, lead paint abatement programme energy and resource conservation, green building programme, renewable energy use by city government, energy conservation

effort, alternative energy offered to consumers, water conservation programme, single government responsible for implementing sustainability, part of a city-wide comprehensive plan, and involvement of the city council, mayor, business community and general public involvement (Portney 2003).

- 20 Data source: California Ambient Air Quality Data CD, 1980-2002 (California Air Resources Board). This CD-ROM provides all air quality readings taken in the state during this time period. In this dataset, the unit of analysis is a monitoring station.
- 21 Matthew Kahn and Joel Schwartz, Urban air pollution progress despite sprawl: the 'greening' of the vehicle fleet, 2006 (forthcoming)
- 22 Marcy Burchfield, Henry G. Overman, Diego Puga and Matthew A. Turner, "Causes of sprawl: a portrait from space", *Quarterly Journal of Economics*, 121 (2), May: 587-633. 2006
- 23 For more details see the Mayor of London's "The London Plan" <http://www.london.gov.uk/approot/mayor/strategies/sds/london_plan_download.jsp>, accessed 4 November 2005.
- 24 Matthew Kahn, "The silver lining of rust belt manufacturing decline", Journal of Urban Economics, Issue 46, no. 3: 360-376, 1999; and Matthew Kahn, "New evidence on Eastern Europe's pollution progress", *Topics in Economic Policy 3*, no. 1: article 4 (www.bepress.com/bejeap/topics/vol3/iss1/art4), 2003
- 25 Derek Neal, "Industry-specific human capital: evidence from displaced workers," Journal of Labor Economics, Vol. 13, no. 4: 653-677, 1995
- 26 Hilary Sigman, "The pace of progress at Superfund sites: policy goals and interest group influence", Journal of Law and Economics, Vol. 44, no. 1: 315–44, 2001; Michael Greenstone and Justin Gallagher, "Does hazardous waste matter? Evidence from the housing market and the Superfund program", NBER Working Paper 11790, Cambridge, MA, 2005
- 27 Alain Bertaud, "Clearing the air in Atlanta: transit and smart growth or conventional economics?", *Journal of Urban Economics*, Vol. 54, no. 3: 379-400, 2003
- 28 See http://seattletimes.nwsource.com/html/microsoft/2002796093_microsoft10.html
- 29 Matthew Kahn "The environmental impact of suburbanization", Journal of Policy Analysis and Management, Vol.19, no. 4: 569–586, 2000; Also Nathaniel Baum-Snow and Matthew Kahn, "The effects of urban rail transit expansions: evidence from sixteen cities 1970 to 2000", in Brookings-Wharton Papers on Urban Affairs 2005, ed. by Gary Burtless and Janet Rothenburg Pack. Brookings, 2005
- 30 Matthew Kotchen and Shawn Powers, "Explaining the appearance and success of voter referenda for open space conservation", *Journal of Environmental Economics and Management*, 2005 (forthcoming)
- 31 Jordan Rappaport and Jeffrey D. Sachs, "The United States as a coastal nation", Journal of Economic Growth, Vol. 8, Issue 1, March 2003; also Edward L Glaeser and Jesse Shapiro, "Urban growth in the 1990s: is city living back?", Journal of Regional Science, February 2003
- 32 Edward L Glaeser, Joseph Gyourko and Raven Saks, "Why is Manhattan so expensive? Regulation and the rise in house prices", Journal of Law and Economics, 2005; also Edward L

Glaeser and Joseph Gyourko, "Urban decline and durable housing", Journal of Political Economy, 2005

- 33 Thomas Schelling shared the 2005 Nobel Prize in Economics for his work in applying game theory to the real world. http://nobelprize.org/nobel_prizes/economics/laureates/2005/ schelling-lecture.html. See also Paul Krugman "The New York Paradox", New York Times, 10 July 2006. Krugman discusses why corporate bosses are increasingly likely to locate in downtown Manhattan while sending their middle management to work at cheaper suburban office towers.
- 34 A frontier research question would be to split out the price premium into the part due to demand-side objective improvements in quality of life caused by growth controls, versus the part due to supply-side effects of inhibiting developers from building.
- 35 Gyourko, Glaeser and Saks (2005) argue that several factors have contributed to the man-made scarcity of housing. Judges and local government officials have become increasingly sympathetic to community and environmental concerns when considering new housing developments. Zoning has become more restrictive. Bribery, they suggest, has become a less effective method for persuading officials to permit development. The increasing share of Americans who own homes has given homeowners more political clout, and homeowners have an incentive to limit the supply of new housing. Finally, rising education levels and the lessons learned from other political battles, such as the civil rights movement, have made community members more adept at using courts and the press to battle development.
- 36 Jeff Zabel and R.W. Paterson, "The effects of critical habitat designation on housing supply: an analysis of California housing construction activity", *Journal of Regional Science*, Vol. 46, No. 1: 67-95., February 2006
- 37 In the case of Vancouver, in its downtown there is a 1,000 acre waterfront park. Perhaps not coincidently, this green city has the highest property prices in Canada with an average home costing \$466,000 (see "Growing Pains", *The Economist*, 8 July 2006).
- 38 On 29 July 2006, The New York Times published a letter by Brad Johnson of San Francisco, who wrote "Is Edward L. Glaeser ... suggesting that middle-class people who can't afford to live in the cities should just move out, live in the suburbs and shop at Wal-Mart? Perhaps families squeezed by rents in the city don't want to.

3. The Urban Jungle Dirk Maxeiner and Michael Miersch

The German Serengeti

Biodiversity is not evenly spread. In every country there are regions in which many wild animals and plants have settled. In Brazil it is in the rainforests around the Amazon, in Tanzania it is in the grasslands of the Serengeti.

In Germany, it is in Berlin. Nowhere else in Germany can you discover as many different lifestyles side by side as among 3.6 million Berliners. But in the German capital, diversity is not just the norm for the human population. In the middle of the metropolis many non-human creatures have settled—far more than in the remote valleys of the Alps or the dense riverside woods of the Upper Rhine, more too than in any of the fourteen German national parks.

Berlin holds the national record for biodiversity.¹ In its residential areas one can find 424 different types of wild flower per square kilometre. Even in the densely built-up city centre there are still 380

varieties. And even this figure does not include plants that have been cultivated by man.

As for fauna, 141 bird species brood in the city—that is, twothirds of all bird species to be found in Germany. Walking through the streets of Berlin at night, one can encounter stone martens, foxes and even wild boars. Some Berliners claim that those wild boars have even learned to cross traffic lights when the lights turn green.

Germany is not alone. All industrial countries over the past few decades have seen a remarkable shift of biodiversity from the countryside to the cities. This migration from the land began timidly, but it soon became a mass movement. "Our cities have become natural paradises," says Josef Reichholf. Reichholf himself has caught and identified 350 different moth species in the urban area of Munich. In Italy, zoologists discovered that half of their bird species live in the cities. Professor Bernhard Klausnitzer, a zoologist from Leipzig, found out that, including insects and microbes, the typical European city accommodates some 18,000 different animal species.²

These animals are voting with their wings and paws on a large scale. They are leaving the monotonous maize fields and overfertilised high-yield farms in swarms. Martens and butterflies, toads and crows are turning their backs on the countryside. More and more animals are taking up residence between blocks of flats and streets. Gardens, cemeteries, parks and fallow areas of industrial land are coming alive. Animals that once dwelt in deciduous forests are now settling in green suburbs. Ornamental facades offer crevices. Desolated industrial estates host new and species-rich meadows. Gravel pits are substituting for riverbanks.

Plants and animals are conquering the cities simply because the country is becoming an ever-more inhospitable place for them. The

vast agricultural landscapes of central Europe no longer provide them space to live. The main problem is over-fertilised soils, on which only plants that can cope with high concentrations of nitrogen can thrive. One example of this is the dandelion, which has become the dominant flower in many areas. However, diversity and this is the fundamental rule of ecology—only develops through scarcity. Competition for scarce nutrients leads to the colourful flower meadows that are blooming in the scanty regions of the Mediterranean.

The enormous biodiversity of the tropical rainforests is also a result of scarcity. The nutrients of the thin humus layer are absorbed completely by the roots of the trees. This keeps in motion a perpetual cycle of deterioration and fresh growth. Because of this scarcity the leaves of the trees are so low in nutrients that only few plant eaters can survive on them. Tapirs are the largest of those plant-eating animals, but they need huge areas and have to keep on eating to get enough food.

The new ecology of cities

For as long as men have existed, they have changed the landscape and with it they have also affected the composition of nature. As early as the Stone Age, hunters not only hunted what was necessary for their survival. On the contrary, they did happily shooed entire herds over cliffs. This is well documented by bone excavations. Many palaeontologists believe that the meat hunger of early man was responsible for the extinction of many large animal species which had once inhabited the European tundra. After mammoths, woolly rhinoceroses and other plant-eating giants had disappeared, more and more species of tree could grow. Forests could spread, and with them a different kind of animal world. The ecological advantage was now with those creatures that lived in the shady thickets. Lynx populations were increasing, as were populations of birds that needed tree holes to breed.

The more efficiently our ancestors hunted, the fewer animals remained. The first energy crisis in the history of humankind was caused by a scarcity of big game. As a consequence, a new economics system developed: agriculture and stock farming replaced hunting and gathering. In turn, this meant yet another change for landscapes. Biodiversity increased. Steppe animals like roe deer, hares, storks and partridges were proliferating on the clearings, fields and meadows. Mediterranean herbs such as pheasant's eye, larkspur and shepherd's needle could sink their roots in the now-open landscape.

On the other hand, lynxes, bears and other inhabitants of the forests had to move back to remaining tree grove islands. At the same time, the pressure from hunting intensified, especially for those animals that were regarded as vermin—and there were many such vermin: mankind wanted to protect its chickens from goshawks, its lambs from wolves, and its fish from otters.

Today there are more forests again, as wood has ceased to be an important source of energy. Still, agriculture is dominating the face of Europe. Fifty per cent of Germany, for example, is used for farming. Cities, towns, villages and industrial estates only cover about ten per cent. However, farming today is very different from farming as it used to be a hundred years ago. While biodiversity in settled areas is on the rise, it is diminishing in agricultural areas.

Agriculture is responsible for seventy per cent of the decrease in biodiversity in Europe.³ Over-fertilised soils are only good for a few

plant species that provide food for a small number of insect species. Besides, in spring, the high nitrogen content of these agricultural soils creates a soggy, herbaceous and thick groundcover. This wet and cold microclimate harms many small animals and also the fledglings of birds breeding on the ground. In today's Central Europe dry, meagre meadows with a high diversity of plants and animals can mainly be found in the cities: on dumps, along railways and in industrial fallows.

In European cities the biomass of plants exceeds the human biomass by far. In Brussels, for example, all trees, herbs, grasses and flowers weigh about 750,000 tons—or 91.5 per cent of the city's biomass. Brussels' 1.075 million human inhabitants, on the other hand, only make up for 7.16 per cent of the biomass.⁴

Cities also provide a colourful variety of diverse habitats: gardens, parks, cemeteries, facades, roof timbers, industrial fallows and dumps. Each city tree is a small habitat in itself. An old oak tree can be home to up to thirty bird, forty-five plant bug and two hundred butterfly and moth species. Click beetle larvae live between the roots, and tiny moths hide in small cracks of the bark. They come out at night and fly around the branches. Oak leaves are a delicacy for cockchafers and butterfly caterpillars. The oak leaf roller, a weevil, uses the trees as a protective nest for its progeny.

For bigger animals life in the city confers a special advantage. In many countries it is forbidden to hunt in the cities. As it is too dangerous to use rifles in densely populated areas, wild animals in the cities remain unmolested by hunters. Hiking through German forests, for example, you will hardly ever encounter big game. Although deer, foxes and wild boars are common, they remain almost invisible. The constant threat from hunters has turned these animals into nocturnal species. During the day, they can be found hiding in the thickets.

But if the same species move to the cities, their behaviour changes after only a few generations. They lose their extreme timidness and begin to ramble come daybreak. In Berlin's city centre there is a fox that can often be seen strolling around Alexanderplatz in the twilight. As wild boars are causing more and more damage in the gardens, parks and cemeteries, the local administration issued a special permit to allow hunting them in the cities—under strong safety precautions, of course. In London, which is home to some 10,000 foxes, they have also allowed an inner-city cull. There, hunters go stalking at night. A welltrained specialist can kill or catch up to 120 animals per month. Those foxes caught alive are then taken to nearby forests. Homeowners wanting to get rid of these foxes, which undermine their houses and spread disease, pay the nightly foxhunters to catch them.

There are often more different species to be found in city parks than in the forests. Right in the centre of Munich, at Nymphenburg Palace Park, there are more animals to be observed than in rural Upper Bavaria. When the sun sets behind the Alps, the banks of the Nymphenburg park lake come alive. Goosanders, common pochards, red-crested pochards, tufted ducks and mallards glide on the reddish glimmering water. Wild geese graze along the shore. Grey herons look up into the trees, where they will be sleeping. Tireless swallows and common swifts hunt for insects in the last rays of light of the day. Noctule bats flutter around the treetops. Their harvest is bountiful: zoologists have counted several hundred species of moths. In the slowly fading concert of the birds the nightingale's voice stands out. The tawny owl's call rings through the twilight. Carefully, a few roe deer tread towards the lake to drink. But Nymphenburg park is not situated somewhere on the outskirts of town, but right in the centre of the Bavarian capital, Germany's third largest city. It is surrounded entirely by streets, residential areas and industrial estates.

Change and adaptation

Anyone who believes that only pigeons, sparrows and rats live in cities is seriously mistaken. Indeed, the bigger the city, the richer its life. In the village of Aigen in Lower Bavaria, which is idyllically situated near the woods beside the river Inn, 31 different bird species brood. Not far away, in the town of Passau, one can find 65 different bird species. The next biggest city is Regensburg, which is home to 98 bird species. Nuremberg, Bavaria's second largest city, has 105 and Munich, the state capital, 111. In Germany, only Berlin has more different bird species, with 141 as we have seen.⁵ The German capital holds some ornithological treasures: golden orioles, nightingales, cranes and even a couple of white-tailed eagles. Peregrine falcons that once were on the brink of extinction are now nestling in Berlin's town hall. They have started to go hunting at night—luminous advertising provides enough light for that. Altogether, there are about as many birds in Berlin as human inhabitants.

Right after Berlin's new central station was completed in the spring of 2006, it became a new home to house martins. During the construction period it had already become a place where many animals apparently felt comfortable. In the puddles and small pools that were created by the heavy building machinery natterjack toads were spreading like wildfire. Like many other species, these animals have in the course of evolution specialised in so-called succession areas: living spaces that develop through landslides, flooding, fire and other events. Construction sites create similar changes in the landscape, and specialists like the natterjack toads are more than happy to make use of them. Some amphibians prefer seasonal pools. Piles of sand, burrows and gravel heaps provide ecological niches for plants, insects and birds that specialise in them.

The construction site does not fit with our idea of a beautiful natural landscape. Yet habitats do not have to be beautiful to be accepted by plants and animals. They only have to fulfil certain criteria. Whether these criteria are fulfilled in "a natural way" does not matter. Some species even prefer technical installations and houses. Falcons and bats do not care whether they inhabit a romantic rock spur, a steeple or the space under the roof of an office building.

The sociobiologist and ant expert Edward O. Wilson wrote about his favourite animals: "They survive among environmental damage caused by humans, and they don't seem to care whether there are human beings around them or not as long as they find a bit of relatively undisturbed nature where they can build their nests, look for food and propagate."

An ecological study in Frankfurt revealed that it was actually a used car market which had one of the highest degrees of biodiversity. Ornithologists counted 250 breeding pairs of 29 different species when they examined a pharmaceutical factory situated at the river Rhine near Cologne. A further 22 different species were spotted occasionally in the same area.⁶ These were species that were visiting the factory in search of food. When Bavaria's high heavy current supply lines were surveyed, it was found out that the 285 square kilometres covered by the lines were a first class refuge for plants and animals. The biodiversity experts found many of the species most important for nature conservancy, among them snowdrop anemones, slipper and fly orchids. They also came to the conclusion that the survival of the common viper was largely owed to power and gas grids.

Meanwhile electricity poles have become the preferred hatchery for ospreys. In North-East Germany the majority of the breeding pairs of this species can be found on metal linkages. Biologists discovered that the raptors choose their nests very carefully. Those pairs brooding on electricity poles were eleven per cent more successful than members of the same species brooding on trees. The reason: the birds on the power poles had a smaller risk of falling down and their nests were more difficult for goshawks to attack. In the 1960s the osprey was thought to be extinct in Germany. According to ornithologists the new nests have contributed to a recovery of the osprey population.

Reviving the debate over biodiversity

"The new biodiversity of the cities," says Josef H. Reichholf, "has the potential of hope, which we as conservationists should use." But unfortunately most conservationists do not notice our biodiverse urban jungles. On the contrary: many nature-lovers think like Konrad Lorenz, one of the founders of the green movement. In his book *The Eight Deadly Sins of Mankind* he wrote: "One only has to compare the centre of any German city with its modern periphery or the sprawling cultural disgrace with those villages not yet attacked by them. Then

compare the histological picture of some normal human tissue with a malign tumour: You will find some surprising analogies."

Lorenz continued the anti-urban, anti-modern emotion that accompanied the German nature conservation movement from its beginning. Many of its protagonists were fond of an ideal image of an agricultural landscape cultivated by small farmers and they wanted to conserve this image. The transfiguration of the countryside was one of the leading motifs of the romantics of the 19th century and also had an influence on the back-to-nature movement of the 20th century. Nature conservation, vegetarianism, nudism and similar currents were thriving in the first decades of the 20th century. The Nazis, who also scorned modern cities, then absorbed many of these thoughts.

All of this had nothing to do with a genuinely scientific approach to nature conservation. However, it is interesting to note that to the present day those species that thrive in the cities are despised by ecoromanticists as wretched adapters, not worthy of their attention, after all what these people care for are true natural rarities only. Under this damning verdict falls one of the best singers in the world of birds, the Eurasian blackbird, but also the black-headed gull, the colourful mallard and the cute squirrel. If only they were rare or endangered: friends of nature would love them. But seen through the lenses of green orthodoxy their success is speaking against them.

Other countries, other species. In Australia's capital Canberra an action group was formed in the early 1990s. Its goal: to stop the invasion of kangaroos. British cameramen who wanted to produce a feature on foxes in Bristol also encountered problems: as the foxes did not have to fear any hunters in the city, they were so tame that they always tried to play with the camera.

When a BBC team travelled to Romania to film wolves in the Carpathian Mountains, they made a surprising discovery: even wolves can adapt to city life. They followed a bitch called Timish who could always be located as she was carrying a neckband with a small transmitter. The pregnant animal settled near Brasov, Romania's second largest city. At night Timish went hunting for sheep in the fields, but she also ransacked a dump for food. In the morning sun she strolled calmly through the road traffic. She was frequently seen at the zoo where she was looking for waste. However, wolves like Timish are not even the biggest animals going for walks around Brasov. The suburbs are frequently visited by brown bears from the nearby forests. They are often looking for food in dustbins. The residents do not seem to mind, and they have started to feed the bears with biscuits.

Swarms of rhesus monkeys are a common sight in New Delhi and other Indian cities. In some North American towns not only racoons are looking for eatable things in dustbins but more and more black bears are following their example. White-tailed deers have become so common in gardens, parks and golf courses that many residents now see them as a pest. San Francisco's harbour authority cleared Pier 39 in the yachting harbour after sea lions had used the area to rest. The yacht owners grudgingly accepted this decision, and flocks of tourists came. The urban sea lions have become one of the main attractions of the South Californian metropolis.

Human beings and animals living together does not always happen in harmony. Wild creatures can interfere with our technical civilisation. In 1988 a squirrel bit through a power line at the New York Stock Exchange. Trading was interrupted for 82 expensive minutes. In the 1990s a beaver brought Kansas City airport to a standstill and a member of the same species cut a fibre glass cable which was a main telephone trunk line for Washington DC. A stone marten actually made the dream of all militant nuclear protesters come true when it helped to temporarily shut down the nuclear power station of Würgassen. The animal had settled down in the power station where it was cutting one of the main cables.

How can it be that wild animals suddenly see nuclear power stations, factories or churches as their very own biotopes? Did they not learn at school that every animal has its fixed ecological niche on which it must depend? Josef H. Reichholf disagrees. He thinks that the idea of "ecological niches" is much too simplified and stereotyped. "What may be true for paramecia and other simple forms of life which very much depend on their specific environments, is certainly not true for highly developed animals. Birds have emancipated themselves from the dictate of nature. And this applies even more strongly to mammals." According to Professor Reichholf, it is impossible to speak of "ecological niches" for blackbirds. The blackbird lives on worms, but also on cherries and strawberries. It nestles in train stations, sings sitting on TV aerials and looks for shelter under parked cars. In winter, it travels south or it stays at home, just as the bird likes it.

Policy and the law of unexpected consequences

Reichholf has had some personal experiences with the adaptability of wild animals. He observed the process of returning the beavers to Germany and was surprised to see that after a short period of time the rodents had settled in regulated rivers, canals, drainage trenches and even wastewater treatment plants. When conservationists reintroduced the first beavers into Bavaria in the late 1960s all experts were convinced that environmental degradation, the straightening of rivers and creeks and water pollution would prevent a spreading of these animals. But the beavers obviously did not agree with this. They spread so fast that today there are more beavers in Germany than there were 200 years ago. Beavers have even started to build their lodges in Munich and Berlin. Farmers are not fond of beavers, as they can sometimes damage fruit trees and fields. So German farmers have called for a reduction of beaver populations. The example of the beaver shows that changing environmental conditions is not the decisive factor. It also matters what attitude human beings hold towards animals. If people tolerate wild animals they will find a new living space surprisingly fast and in the most flexible way.

For a very long time Professor Reichholf has observed the animal world of his home region along the river Inn, which is on the German-Austrian border. In the 1940s the Inn was already a regulated river, but then it was further changed with the construction of a hydropower plant for which the river had to be dammed up. This created many islands and oxbow lakes. The second-hand biotope soon looked like the river before it was regulated. Many water bird species began to return to the Inn region. Today the reservoirs along the Inn are regarded as one of the most ecologically valuable wetlands of Europe. But it was difficult for Reichholf to argue that this region should enjoy a special conservation status. Authorities and environmental campaigners did not want to believe that a man-made reservoir could be a home to so many bird species.

Building big dams is, however, not the only way of promoting biodiversity. Small-scale projects, too, can promote biodiversity. Private gardens are an excellent habitat for wild animals and especially birds. Biologists have found that the changing fashions of gardening can even support the introduction of new species. The common redpoll and the common rosefinch, two species that in former times could only be found in high mountains and in North East European forests, conquered Germany in the 1960s.

Why? Simply because gardening fashion at that time favoured coniferous trees because they are green all year around and look so neat and tidy. Although coniferous trees have now gone out of fashion, the bird immigrants still liked their new homes and remained in Germany. Blackbirds benefited from short-cut lawns as they make it easier to find earthworms. Hedgehogs love soils with a high nitrogen content for there they can find worms in abundance. They are the winners from over-fertilisation. There are even some urban foxes that manage to survive entirely on a diet of fat earthworms. In former times, when the soils were less rich in food, the foxes would not have been prepared to dig.

Biologists Kevin Gaston and Ken Thomson of Sheffield University are convinced that gardens are Britain's most important natural reserve. They examined 61 urban gardens in Sheffield that were very diverse in terms of their sizes, ages and gardening styles. There they collected samples of all invertebrates. They found no fewer than 800 different species but even that number, the researchers said, was only the tip of the iceberg.

The project showed that three things we usually think about gardens are all wrong. First, garden size does not matter. Even in very small gardens biodiversity can be high. Second, it does not make a difference whether a garden is located in the city centre or on the outskirts of town. And third, it does not matter whether gardeners prefer exotic or endemic plants.⁷

Although ecological facts speak against it, many Europeans hold a decidedly negative attitude towards the city and toward technological civilisation. They assume that the countryside represents an idyllic world, which in fact never existed, not even there. More than 95 per cent of European landscapes no longer accommodate the same plant species that used to live there before man appeared on stage and started changing things.⁸

"Is nature only nature where there are no human beings and where human beings have not caused changes?" Professor Reichholf asks. "Animals don't care about aesthetics", he says. "Only because many lovers of nature are fixated on certain landscape ideals, they want to preserve them and do not recognise the dynamics of nature. We should free ourselves from our static views and not cling to a backwards-facing romanticism about the landscape."

Further reading

Life Counts: Cataloguing Life on Earth, New York 2002

Website of Dirk Maxeiner and Michael Miersch: www.maxeiner-miersch.de

¹ Josef H. Reichholf, Der Tanz um das goldene Kalb: Der Ökokolonialismus Europas, Berlin, 2004, pp. 35-51

² Dirk Maxeiner and Michael Miersch, *Öko-Optimismus*, Reinbek bei Hamburg 1999, p. 233; Bernhard Klausnitzer, *Verstädterung von Tieren*, Wittenberg, 1989

³ Dirk Maxeiner and Michael Miersch, *Lexikon der Ökoirrtümer: Fakten statt Umweltmythen*, Munich and Zurich, 2002, pp. 213-217

⁴ Michael Gleich, Dirk Maxeiner, Michael Miersch and Fabian Nicolay, Life Counts: Eine globale Bilanz des Lebens, Berlin, 2000, p. 263; Dietmar Kalusche, Ökologie in Zahlen, Stuttgart, 1996

⁵ Josef H. Reichholf, op.cit., p. 38

⁶ Michael Miersch and Gerd Weiss, *Tierische Untermieter*, TV documentary for arte and WDR, 2003

- 7 Kevin Gaston and Ken Thompson, *Heaven or Hell for Wildlife: Evidence for Significance* (speech to the Royal Horticultural Society, 3 December 2002), http://www.rhs.org.uk/research/biodiversity/documents/evidence.pdf.
- 8 Josef H. Reichholf, "Evolution: Fortschritt durch Katastrophen", in: Gleich/Maxeiner/Miersch/ Nicolay, op.cit.

4. Safer Cities Jonathan Foreman

The problem of crime

You are more likely to be the victim of violent crime in the United Kingdom than in any European country, indeed than in any industrialized country in the world except Australia.¹ In recent decades crime rates have soared, while conviction rates—a significant measure of police and court effectiveness—are at a historical low.²

Moreover, crime is arguably the political issue of greatest concern to the British public, though it is a problem that currently receives less attention than issues more fashionable among the "chattering classes". Public relations campaigns by the Home Office and various police forces have failed to convince the public that its own experience and anecdotal evidence of increasing crime all somehow misrepresent reality, and that the "fear of crime" is a greater problem than crime itself.³ Government assertions that crime is "historically low" are often unreliable and buttressed by dubious statistics.⁴ For what it is worth, in 1972 there were 8,900 robberies in England and Wales; in 2002, there were 6,500 robberies just in the London borough of Lambeth. Serious woundings have more than quadrupled since 1980.⁵ Murders have risen by a quarter since 1997.⁶ In 2003, 164 people were mugged in the capital on average every day.⁷ Overall, there were more than ten times as many crimes recorded in 2005/6 (5,600,000) as in 1950 (461,000).⁸

In many of our cities the violent young impose an informal afterdark curfew on the elderly and the weak. Public spaces are too often unprotected by police, whose primary public role can be almost clerical: that of arriving at a crime scene to record the details. The common-sense notion that the presence of a police constable in the street is likely to deter crime is no longer shared by many British police chiefs. The resulting lack of police presence in urban areas has sometimes fostered the development of what one Harlem clergyman, his parish beset by crime before the Giuliani Mayoralty, denounced as a "pediocracy"—a polity ruled by children.

This chapter argues that it is possible to make Britain's cities safer. What is required are fundamental changes in policing culture and practice, a significant expansion in the numbers of police per citizen, a properly functioning probation and parole service, and more prisons. Contrary to myth and ruling ideology in British law enforcement, the elimination of poverty, inequality, and racial prejudice (though laudable goals in themselves) are not a prerequisite for safer streets.

Law enforcement in the UK requires genuine and thoughtful modernisation—rather than the cosmetic or wrong-headed form of

modernisation that has taken place. The current "reactive" model of policing in the UK is a product of the 1970s. It is based on a policing system that had become dominant in the United States in reaction to corruption scandals and budget cuts, but which has since been largely discredited and abandoned. The basic idea was that fewer policemen racing around in radio-equipped cars could replace the man on the beat. These "modern" reforms did indeed save money and cut down on the corruption of beat cops. But they coincided with a massive jump in crime, infuriated the law-abiding public and demoralised the force.

I will argue that Britain's cities should follow the path of New York, a city that has faced the same and other enormous economic and social challenges as London (including racial strife, mass immigration and recession) but which has experienced one of the greatest drops in crime in history—a round-the-board fall that dwarfs that of other US cities.

The reasons for this triumph are surrounded by myth and have been poorly reported, particularly in the United Kingdom where the Bratton-Giuliani reforms have sometimes been mischaracterised and misunderstood as mere "zero-tolerance". The precise reasons for their success deserve re-examination, however, and this—based on the underlying evidence and on my own personal experience—is my goal.

There is a certain sad irony in my overall recommendation. When the New York Police Department was founded in 1845 it was explicitly modelled on London's Metropolitan Police.

The Bratton-Giuliani system used in New York City today combines modern management and statistical techniques with traditional beat policing and the discoveries of the Broken Windows school of sociology. Using the CompStat system it brings accountability to every level of policing from the policeman on the street to the head of the force. It rejects the "reactive" model described above.

After its introduction, the New York model immediately came under ideologically motivated attack from activist groups, police unions, and the city establishment in the form of the New York Times and left wing academics. As crime dropped, exhaustive efforts were made to attribute the new model's successes to other factors (I deal with some these below).

However, despite the hostility from 'progressive' interests, there was nothing intrinsically reactionary about the Bratton-Giuliani revolution. Indeed, given that the sharpest drop in crime took place in the poorest quarters in New York, it can be (and occasionally was) argued that New York's policing revolution was profoundly progressive. After all, most victims of crime come from lower end of the social spectrum. Many ghetto and barrio neighbourhoods were effectively liberated from the day-to-day control of violent young men organized in street gangs. Public areas that had become no go areas for women, children and the elderly were essentially returned to the people.

My own neighbourhood in the 1990s—the area of Manhattan's East Village known as Alphabet City—was one such location. Tompkins Square Park, its principal green space and recreation area had long been the domain of drug dealers, "homeless" addicts and lunatics, slumming "crusty" travellers and truant teenagers. Crack vials and needles littered the ground. After it was cleaned up by the authorities—a process that began under Mayor Dinkins—there were articles in what we used to call the bourgeois press complaining about gentrification, "Disneyfication" and the area's loss of "edge"⁹

(an article in the *Village Voice* bemoaned "martial law", "quality of life overkill", and a "Ceausescu-like crackdown" in the park).

But the people who flooded into the park after this process took place were not "the gentry" but rather the poor, mainly black and Latino inhabitants of nearby housing estates. Unlike slumming columnists who regretted the passing of the area's scary reputation, these citizens had no country cottages or holiday homes to escape to in fine weather. Though there was a general drop in violent crime in cities around the USA during the late 1990s, New York's crime dropped the most—and it has continued to drop since 2000, unlike crime in other cities that have not adopted the same policing methodology.

British forces have failed or refused to adapt the approaches that have proved so successful in the United States—preferring to augment reactive policing with technological "solutions" like CCTV—despite the fact that American violent crime is dropping and British crime levels have risen so sharply.

Reform in the wrong direction

There have been a number of reforms in British policing in recent years, but they have often been of a pointless, politicised or counterproductive nature.

One vital but rarely noticed change in British policing practice is the ever-stricter enforcement of the police monopoly of lawful violence. Increasingly British police rigorously and ruthlessly prosecute civilians who defend themselves against criminal assault. This has made crime worse and is rightly resented by the public. Members of the public, already cowed by the likelihood that a young criminal may be carrying a knife or gun, are ever less inclined to step in and defend someone who is being attacked. Until very recently it was a cultural expectation that citizens would step in and "have a go" if they saw a woman or an old person being assaulted in a public place. (In France it is an offence not to come to the aid of another citizen in an emergency.) In former days if you shouted "stop thief" at a fleeing purse-snatcher, someone would likely tackle the apparent offender. No longer.

This would not matter if British police had increased their presence on the street, and if 999 calls could be guaranteed to result in the imminent arrival of a police car. Neither is the case. The risk that a criminal might sue members of the public for injuring him in the course of arrest acts as a further disincentive. The end result is that informal citizen participation in law enforcement has been curtailed without replacement by an equally effective substitute.

The most obvious visual change in British policing practice in the last two decades (and the one most obvious to someone like myself who has returned to this country after an absence of fifteen years) is of course the disappearance of the Bobby on the Beat. The second most obvious change, however, is the sudden nationwide adoption of a foreign uniform style. British police officers have in particular aped the way their US colleagues wear clunking paramilitary tool belts festooned with handcuffs, tear gas, truncheon and other gear. The traditional uniform of course also allowed for the carriage of truncheon and cuffs, but discreetly. Given the jump in crime over the last decade and a half it is far from clear that the adoption of American police gear—but not methodology—has served any useful purpose.

This cosmetic change has also coincided with the development of something of a grievance culture in many police forces, of greater bureaucratisation and of over-reliance on technologies like CCTV. Though it has its merits, CCTV is too often a means by which the police avoid committing human beings to a job that only human beings can do well. It tends not to cut crime as such, but to move it into non-CCTV neighbourhoods. Criminals and the public also know that all too often no-one is watching the camera screens, or it is not being recorded. And they know that the wearing of a hood makes identification difficult—it is one of the reasons hoodies became so popular in the criminal world.

Another change for the worse is the trend towards larger forces, a trend pushed by the government that—as recent work by Policy Exchange has shown—confers no advantages in aggregate, while undermining accountability, increasing bureaucracy and reducing the likelihood that local forces will discover new and effective policing strategies. As long as forces properly co-operate and share information, then more and smaller forces are probably better.

If the retreat into stations and cars and resulting surrender of the street is the worst error of modern British police forces, a close second may be the accompanying adoption of the convenient but false Marxian notion that levels of street crime are direct result of poverty and deprivation and can only be affected by curing poverty and deprivation. There are always academics who can be found to back up this notion and excuse for inaction.¹⁰ There is some correlation between acquisitive crime such as theft and poverty. But much poorer societies than our own often have suffered from much lower levels of violent crime; and some societies with larger gaps between rich and poor have lower levels of violent crime.

Furthermore, it is not the poorest who commit the most crimes. In the past, Britain itself had much greater poverty and deprivation than it does today and yet enjoyed lower levels of crime. We can use Marxian terminology to put the point at its most provocative: the fact that senior police officers have taken to chanting the dogma of deprivation is partly a result of traditional police class-based deference to the hegemonic culture of their masters. Today that culture takes the form of New Labour's ideological hostility to effective, local community-based law enforcement, and its preoccupation with drugs and drug culture.

Lies, damned lies, and statistics

One 1990s academic estimate had British police recording only one third of all crimes reported to them, though under government pressure some forces are now recording more reported crimes. This politicised tampering was one of the inspirations for the British crime victimisation studies. (The investigative journalist Harriet Sergeant has noted that her local police reported attempted car thefts as mere vandalism, because the latter is a less serious crime.)

Moreover, there is evidence that a despairing public sometimes does not bother to report crimes, in the knowledge that there will be little police follow-up.¹¹ Respectable research shows that 58% of muggings, 38% of burglaries, 42% of thefts from vehicles and 35% of violent attacks by strangers may go unreported to the police. As a result Home Office statistics on crime are problematic, to say the least. However, even according to those statistics, in the period of 1997 through 2001, homicide rose 19% in the UK while it fell 12% in the USA, violent crime incidents rose 26% in the UK while falling 12% in the USA, robberies rose 92% in the UK and fell 15% in the USA.

The 2003 European Sourcebook on Crime estimates UK crime rates at 9,817 per 100,000 population, more than double the European average of 4,333 per 100,000. The government prefers to use the problematic British Crime Survey. The survey is arguably more reliable than police records; and it shows crime having dipped since 1995 (the peak of the crack cocaine epidemic). However, the British Crime Survey does not include murder, rape, drug crime, shoplifting or crime against under-16s. In other words, it excludes about half of all crimes committed in the UK.

A historical perspective

Many factors have played a role in the transformation of Britain into the most violent and lawless society in Europe. There is, however, a view that the increase in criminal violence over the past quartercentury is a return to traditional norms. This point of view sees the low crime decades between the First World War and the 1960s as an anomaly rather than as a natural, normal state of affairs. It is certainly true that eighteenth-century Britons were notorious among other Europeans for their roughness, and that until the early Victorian era it was common for respectable citizens to carry swords, sticks and firearms when travelling by public highway.

Moreover, it should be conceded that even at the height of the Victorian social experiment there were some areas of Britain that were extremely dangerous: Cornish smuggling villages where no customs officer would venture alone and unarmed, and city slums and parks that no gentle person would dare enter after dark.

However, considering both the poverty and the social mobility in both directions of Victorian Britain, it was a society that overall enjoyed much lower rates of violent crime than our own. Indeed, British society was remarkably crime free from Victoria's reign all the way through to the end of the Second World War. As George Orwell pointed out, before the Great War you could buy a revolver in any bicycle shop in England.

A model that does not work

An anecdote from London illustrates neatly the failings of the current British policing model. In 2004 Harriet Sergeant surveyed her neighbours.¹² She discovered that 17 out of 20 households had suffered assaults. When she confronted her local police station with this list of crimes, the immediate response was denial. She was told that her neighbourhood was a low crime area and the real problem was "fear of crime".

Their statistics were very different, partly because, as she discovered from her interviews, many of her neighbours, frustrated at the lack of a helpful response, had stopped reporting relatively minor crimes to the police. Sergeant and her neighbours asked if a bobby could be assigned to make regular foot patrols down the street, in the old tradition of British, and indeed worldwide, policing. She was informed by her local police divisional commander that "the reality is that the lone policeman walking down the street is not the best use of the individual to fight crime." He also told her "we are so focused on reducing crime that we don't have the officers to patrol." Shortly after this, Sergeant and 50 of her neighbours hired a private security firm (for £1,000 a year each) to perform this task. Muggings, attempted car thefts, robberies, burglaries all declined. There may well be strong arguments for the privatisation of certain police functions. However, there is something wrong when citizens are forced to pay for policing twice, once through their taxes, and then a second time for a private contractor to make up for the failings of the authorities. It is of course a situation that is all too common in third world countries like Mexico, Colombia and India, where police are often badly paid, corrupt, poorly trained, publicly despised, and contemptuous of the law and its enforcement.

However, in the UK, police are generally well paid and well trained, and enjoy public support despite their failings. The reason why citizens sometimes have to pay private contractors to protect them from street crime is because police forces have made a policy decision not to perform this task themselves. In choosing not to take steps to prevent street crime, police forces are adopting different priorities than those favoured by the public. This not only represents a failure of democratic accountability, it also indicates a corruption of priorities within Britain's policing culture.

In the Soviet Union it was often said by Soviet citizens that "we pretend to work and they pretend to pay us." In Britain, one might say, the police pretend to be doing their best to protect ordinary citizens from harm, and the political class pretends to believe them.

The New York model

There has to be a better way-and there is.

When I moved to New York City in 1990, the city had an infamous reputation for personal danger. Everyone I met had been mugged. It was a fact of life that I too would eventually be mugged, even though I soon learned the self-protective tactics adopted by all New Yorkers: avoid the shadows, walk in the middle of the street at night, walk confidently, be aware and combat ready at all times, cross the street if someone walks deliberately towards you, never go in the park after dark and so on.

By the time I left New York in 2005, such tactics were a distant memory. I knew no one that had been mugged during the last decade. The multiple locks on apartment doors—an effort to staunch the wave of burglaries and home invasions—that I had noticed in the 1990s were no longer to be seen. People no longer talked about crime. The tabloids were no longer filled with horror stories of respectable folk beaten, stabbed or shot. In the interim a revolution had taken place. What made the difference over the intervening years was the New York Model of law enforcement.

What I call the New York Model is an holistic one. It combines the Giuliani-Bratton reforms—themselves a combination of management techniques and new police strategy and tactics—with what are best-practice working assumptions of American urban planners, administrators and criminologists about the urban environment, about prisons, and about democratic accountability.

In New York the police chief is appointed by the Mayor. In other cities police chiefs are directly elected. In both systems police chiefs are more directly accountable to the publics they serve than their British cousins. The election of Rudy Giuliani in New York—a Republican in a Democrat City—came about largely because of the failure of his predecessors to deal with spiralling crime.

Broken Windows

Giuliani's police chief William J. Bratton initiated a new law enforcement strategy inspired by what became known as the Broken Windows theory of policing. The idea behind Broken Windows was that if police paid attention to minor crimes they could "reduce fear, strengthen communities" and prevent more serious crime. It was called the "Broken Windows" theory because of an observation by George Kelling and James Q. Wilson, the 1982 authors of the eponymous seminal article. They wrote: "consider a building with a few broken windows. If the windows are not repaired the tendency is for vandals to break a few more. Eventually they may break into the building, and if it's unoccupied perhaps become squatters or light fires inside." The originators were convinced that there is an indirect link between disorder and serious crime.

Graffiti, for example, acts on the public consciousness in much the same way as a dog's marking of a fire hydrant communicates to other canines. The person marking a wall is claiming control of the public space around it. The very fact that a gang of youths can take the time to so vandalize a wall without fear of the authorities makes it clear the elderly and the vulnerable that the gang can do *anything* it likes in this area. As a result, people use the street area less at night, it attracts more lawbreaking activity and soon a downward spiral is in progress.

If, on the other hand, the authorities clean the wall it shows that someone in the state cares about the area. If efforts are made to prevent it being graffitied again the message is communicated that the law-abiding community controls this territory. More people use it. The old people come out at night. With so many people around, crime drops. Similar processes occurred in New York's subways, in Times Square and in many areas of the city where pedestrian traffic, commerce and tourism had all been stifled by crime.

In his second administration Giuliani initiated a second wave of "quality of life" reforms inspired by Broken Windows. These involved enforcement of noise regulation and speed limits, and were designed to strengthen further a public perception that *somebody* was in charge. The enforcement of laws pertaining to public order told New York's citizens, in effect, that it is the public—the People that owns public spaces, not swaggering youths with loud boom-boxes.

Bratton and Giuliani tasked the New York Police Department with arresting fare-dodgers on the New York Subway, the city's underground railway system. To their astonishment this had an enormous effect on street crime on the surface. Many of the youths stopped and arrested for failing to buy a ticket turned out to be carrying guns or to be wanted for felony crime. It seems to be the case that while fare-dodgers are not necessarily hardened criminals, hardened criminals always prefer to jump the turnstile rather than pay for a ticket like a "chump". Because most casual violent crime is committed by a small number of malefactors, the incarceration of men caught carrying guns on the subway lead to an immediate drop in muggings, burglaries and other such crime. The authorities realised that they had initiated a virtuous cycle, and they extended the same idea—crudely characterized as zero tolerance—into other areas.

CompStat and police accountability

At the same time, Bratton modernised and reformed the way the New York Police department assessed crime, allocated resources and distributed responsibility. He did this largely through a system called CompStat. Short for Computer Statistics, CompStat is a multilayered approach to community policing that uses modern technology to ensure that central command gives precinct or station commanders the resources they need—while assessing their performance. Every week precinct commanders are summoned to strategy meetings at police headquarters and grilled about developments in their area of responsibility. The commanders have already compiled statistics on arrests and criminal activity and sent it to the CompStat unit. The results appear in a report and also on visual form on a giant electronic map.

The CompStat Report captures crime complaint and arrest activity at the precinct, patrol borough, and citywide levels, and presents a concise summary of these and other important performance indicators. The giant wall map allows officials to see where there has been a spike of burglaries or a spate of shootings. Extra resources can be sent to deal with the incipient problem. If things do not improve, then the responsible precinct captain has to explain why in front of his colleagues and bosses.

This management side of the NY model is the least well known in the UK. Decentralisation was a key element of it. To quote Bratton:

Police work is by nature decentralised and discretionary. The cop in the field, the front-line superviser, the precinct commander—these are the real decision makers in day-to-day police work. The only way you can control a police department from headquarters is if your aim is to prevent police from doing anything, rather than to have them function effectively—and for many years that was precisely the aim of the NYPD. The organisation didn't want high performance; it wanted to stay out of trouble, to avoid corruption scandals and conflicts in the community. For years, therefore, the key to career success in the NYPD, as in many bureaucratic leviathans, was to shun risk and avoid failure. Accordingly, cops became more cautious as they rose in rank, right up to the highest levels.

CompStat gave police both the big picture and a detailed picture of law enforcement reality in New York, and enabled them to react quickly and efficiently to new developments. It is worth quoting Bratton at some length on the uses of CompStat:

We could identify local crime increases almost immediately and respond to them rapidly with effective measures before they could add up to a big, citywide crime spike. You could see the clusters of shootings, robberies, burglaries, and car thefts. We mapped arrest and patrol activity and compared crime incidents with police response. If the two didn't match up, you knew you were doing something wrong. We compared our deployment patterns with time-of-day graphs that showed when crime spikes were occurring. CompStat's maps helped make sure that we were putting our resources where the problems were, and when they were happening. We could quickly assess whether new strategies and tactics worked or failed... Eventually, we used CompStat to manage everything from civilian complaints to overtime to police auto accidents.¹³

Why Freakonomics is wrong

Broken Windows and CompStat were so effective so quickly that commentators and opponents of Giuliani developed a range of alternative theories to explain the facts.

The immediate reaction was to assert that the NYPD was cooking its books. However, as the homicide rate plunged from 2,262 murders in 1990 to 650 in 2000, this line of argument became harder to maintain. As Police Chief Bratton and Broken Windows theorist George Kelling wrote, "it's hard to hide that many bodies."

Then there was the economic argument, favoured by opponents such as *The New York Times*. It claimed that the real reason for New York's drop in crime was national prosperity and an increase in jobs. The problem with that argument is that New York remained in recession longer than the rest of the country. In particular the unemployment rate in New York continued to grow until 1997, long after the big crime drops in 1995 and 1996. It is true that crime rates began to drop before Giuliani became Mayor. But most of that decline took place in mid-town Manhattan where "Business Improvement Districts" had begun funding their own anti-crime efforts.

A final alternative theory—my personal favourite—was that the explosion in violent video and computer games has prompted teenagers who would otherwise commit crimes to stay at home, hooked to their screens.

Abortion and crime

More recently, however, the best-selling popular economics book *Freakonomics* by Stephen D. Leavitt and Steven J. Dubner has made waves with another purported explanation. It claims that the New York policing revolution had little or nothing to do with the city's massive drop in crime. Rather, the drop was the product of two things: the availability of abortion after 1973 following *Roe vs. Wade*, and the growth of the New York Police Department that began under Rudy Giuliani's predecessor, David Dinkins.

Even before Freakonomics came out, the book's co-author Leavitt

had garnered publicity with his provocative assertion that an increase in abortion rates was largely responsible for the decline in US crime rates. I like to think that this claim was more a *jeu d'esprit* than a serious theory. For a start, it relied on an assumption that the classes of women most likely to have abortions would be those most likely to give birth to criminals, i.e. the poor and ill-educated. However, in the United States the lower down the social and economic scale you are *the less likely you are* to abort a foetus, and vice-versa. African-American women are among the least likely people in America to have abortions, for a variety of political, religious and cultural reasons. Indeed, since the 1960s Black Nationalists have claimed that abortion is really a genocidal plot against black people to reduce their numbers and political strength.

To put the matter at its broadest, it is college girls from middle class families who get abortions in the US, and poor minority high school dropouts who have babies on welfare. Moreover, the 1973 legalization of abortion in the United States by the Supreme Court decision *Roe v. Wade* in fact coincided with an *increase* in illegitimate births and single parent families. That increase is all too likely to have led to a corresponding increase in the number of people born into criminal milieux.

Furthermore, as Malcolm "Tipping Point" Gladwell has pointed out, if *Freakonomics* is right about abortion having diminished the number of eighteen year old criminals around in the 1990s, then the contraceptive pill ought to have had a similar effect eighteen years after it became legal and available in the mid-1960s. However, even though the pill led to a much greater drop in fertility than the advent of abortion, crime increased massively in the following generation. Other researchers have pointed out that homicide rates by perpetrators in age groups too old to have been affected by legalised abortion have actually declined faster than homicides committed by younger criminals.

Policing and prisons

Abortion is only one rickety plank in the *Freakonomics* countertheory about the crime drop in New York City. The other plank—which asserts that an increase in police numbers (and an increase in incarceration rates) accounts for New York's drop in crime, is based on a combination of dubious assumptions and incorrect statistics.

Leavitt dismisses the effectiveness of CompStat and Broken Windows, insisting that raw increase in police numbers is responsible for a drop in crime. He claims that if you adjust for a 45% expansion of the New York Police Department, the city's drop in crime is same as that experienced in the 1990s by other American cities like Los Angeles (where a tiny police force had tried neither CompStat nor Broken Windows policing).

However, the New York police department only grew 18% not 45% relative to the size of the city's population. Moreover, cities like Washington, D.C. and Newark have a much higher police-to-population ratio than New York, but also much higher crime rates. Even more damning, New York City's crime rates continued to plummet after 2000 (a 25% drop between 2000 and 2005) even though the New York Police Department shrank by several thousand people owing to budget cuts and a wave of retirements.

But perhaps the biggest and most basic flaw in *Freakonomics*' reasoning is that its claim is based on a meaningless or misleading

statistic—the gross number of police in New York City—rather than the number of police per head of population. (There is evidence that effective law enforcement becomes much less likely when the number of police per 1000 citizens drops below a certain level.) In New York, the population *increased* during the 1990s. And it increased at a higher rate than that at which the police department grew.

As for incarceration rates, as Malcolm Gladwell has pointed out:

The decreasing jail population has enabled the city to close its detention facilities in Brooklyn, Queens, and the Bronx, to close some wings in other facilities. Nationally, the number of criminals behind bars continues to grow. Only a handful of states managed to reduce prison populations over the past few years—and New York is one of only two to report fewer inmates in 2003 than in 1995.

The *Freakonomics* critique, then, should be dismissed alongside the other ideologically motivated attacks on the Broken Windows theory and the paradigm shift in New York policing. The New York model remains intact.

Britain: changing police culture

Reclaiming the streets

The key to safer streets in Britain is to get policemen and women out of cars and stations and back onto the street. It is not an easy or inexpensive task. Regardless of the public desire for more visible policing, and the academic studies proving the effectiveness of beat policing, it is and will be resisted by police unions and chiefs with a vested interest in the current dispensation. After all, it is hard work and the immediate results—the deterrence of crime—cannot be measured in arrests. There are, moreover, genuine risks of corruption linked to beat policing. But these can be handled in other ways: it is, I would argue, preferable to deal with occasional incidents of corruption than with an upsurge of crime caused by the absence of police.

One excuse for inactive and reactive policing—the burden of paperwork—can be dealt with as it was in New York. There civilians were hired to carry out form filling tasks, releasing trained professional police officers to do real policing. (Remarkably, in Britain civilians have been hired to do the opposite—to pound the beat as community support officers!) But it would take leadership to create a shift in Britain's dysfunctional police culture.

When William Bratton was appointed chief of the New York City Transit Police—a force that was subsequently merged into the NYPD in 1995—his first task was to tackle a worksheet culture among his officers not dissimilar to that which has seized many British forces. Notoriously, the transit cops were rarely seen riding the subway trains in the city or walking the platforms. Instead, they moved up to the surface and could be seen chatting at station entrances on the sidewalk. New York's subway stations are boiling hot in the summer (the train AC systems pump out heat) and chilly in the winter: it is understandable that officers would prefer to be outside, or better still sitting in the cosy comfort of a squad car.

In 1990, however, the notorious murder of a young tourist stabbed protecting his mother from a mugger as they queued for a ticket provoked public outrage and gave Bratton the leverage he needed to reshape the culture of the Transit Police.¹⁴ He began this task by ordering the Transit force's senior officers, all of whom commuted to work by car and travelled around the city by car, to take the underground trains they were charged with protecting.

Prison policy

Changes in prison policy would also have a dramatic impact on UK crime rates.

First, it should be noted that prison *does* work in terms of protecting the public. In New York it was discovered that a small number of habitual criminals committed a large proportion of crimes. If these "one man crime waves" are locked up, then crime rates drop. Length of incarceration can also make a difference to recidivism: American criminologists have discovered that convicts over the age of 35 are much less likely to reoffend. Crime is a physically demanding game played mostly by young men in their teens and twenties.

Secondly, Britain simply needs more prisons. It is often pointed out that Britain already imprison more people than our European neighbours. This ignores an important fact: we imprison fewer people per crime than they do. For example, Spain has 41 prisoners for every 1,000 crimes committed; Britain has only 12.1 criminals in prison for every 1,000 crimes. The "solution" chosen by the present government to prison overcrowding is letting dangerous prisoners out early into the non-existent "communities" under the failing eyes of the probation service. This is neither humane nor a solution.

Prisons can and should be made more humane and more effective institutions. One key to this is prison education. The US federal prison system has found that inmates who acquire educational qualifications are 33% less likely to reoffend than other prisoners. Prison works; what does not seem to work are half-hearted behavioural modification programmes like the prison "anger management" courses currently in vogue in the UK.

Moreover, Britain's prisons are awash with drugs. A Home Office survey in 2001 found that 39 per cent of prisoners admitted to taking drugs while in prison. Female prisoners in particular are likely to enter prisons as non-drug users and to leave as addicts. Prison regimes sometimes tolerate drug-smuggling and drug-taking because narcotised inmates are easier to deal with, and they are often short staffed. Drug addiction treatment should be made available to all prisoners.

The public often seems to resent the "softness" of prisons almost as much as it resents the various schemes according to which violent, dangerous criminals are released into the community after serving short sentences. Nevertheless, drug addiction treatment and education are different. They are humane policies which have a genuine chance of improving public safety.

Urban design and crime

It is often forgotten that Broken Windows crime prevention as practiced in New York incorporates much earlier thinking about street life and crime; in particular, the observations of Jane Jacobs, who pioneered what later became the discipline of crime prevention through environmental design (CPTED).

Jacobs saw that new forms of urban design made life easier for criminals and broke down traditional obstacles to criminal behaviour such as the ability of residents to watch the street and the presence of people using the street after dark. She insisted that the loss of "natural guardianship" promoted street crime. In her classic *The Life and Death of the Great American Cities*, Jacobs listed three preconditions for a safe city street: diversity of use, a clear demarcation of public and private space, and a high level of pedestrian use.

Jacobs's observations are today accepted by almost everyone involved in New York City government. An obvious example of CPTED is the use of street lighting to deter crime. Leave Kensington and Chelsea for Kensal Rise in the London Borough of Brent and you are suddenly in dark gloomy streets. Down these dark streets the elderly and respectable scuttle home, rightly fearing for their safety. Many high-crime boroughs in the UK discourage pedestrian use at night because their streets are underlit. Dark streets feel more dangerous and are more dangerous. (But security lighting that is too bright can also be problematic, because criminals can exploit both glare and deep shadows.) It is a simple and cost-effective crime prevention device to ensure that stairs, underground exits and entrances, subways, ATMs, bus stops etc. are properly lit—and yet too often local government fails to do so.¹⁵

Conclusion

The maintenance of law and order is the first responsibility of government. The freedom from physical threat makes possible other freedoms like those of speech and movement. It is the *sine qua non* of multiple public goods, including economic growth. Crime and the fear it produces are profoundly undermining of community social bonds, racial and class comity and political consensus. Crime is highly regressive, affecting the poor and disadvantaged far more than the wealthy and privileged.

If the political class in Britain continues to turn a blind eye to the

widespread perception that violent crime is rising rapidly, and that the police are increasingly ineffective in protecting British citizens, then the country is likely to see even more disillusionment with party politics and diminished political participation. There is even a danger that the refusal of middle-class political parties to confront the issue of crime will eventually fertilize the growth of extremist political alternatives and foment vigilantism.

If, on the other hand, either the new Conservative leadership under David Cameron or the Labour Party is able to convince the electorate that it genuinely cares about crime and has looked at humane and effective methods of crime reduction and prison reform, methods with a proven track record elsewhere, then they will not merely reap huge electoral benefits, but effect a huge and lasting beneficial change to British society and especially to its cities.

Further reading

- George Kelling and James Q. Wilson, "Broken Windows", *Atlantic Monthly*, March 1982; http://www.theatlantic.com/doc/prem/198203/broken-windows (this is the original article that later inspired the 1996 book below)
- George Kelling and Catherine Coles, Fixing Broken Windows: Restoring Order and Reducing Crime in Our Communities, 1996
- Jane Jacobs, The Death and Life of Great American Cities, Random House, 1961
- William J. Bratton and William Andrews, "What We've Learned About Policing", City Journal, Spring 1999
- Jonathan Foreman, "After the Uprising", City Journal, Autumn 1997
- "Where Freakonomics Errs" by Steven Malanga, *City Journal*, 11 July 2004 http://www.city-journal.org/html/eon_07_11_05sm.html.
- "The Freakonomics Fiasco in Perspective" by Steve Sailer http://www.isteve.com/Freakonomics_ Fiasco.htm
- David Fraser, *A Land Fit For Criminals*, Book Guild Publishing. This is a critique of the prison and probation system by a retired prison officer. See also his article "Crime and Capitulation", *The Daily Telegraph*, 26 March 2006 http://www.telegraph.co.uk/news/main.jhtml?xml=/news/2006/03/26/nprob26.xml

Jonathan Foreman, "Toward a More Civil City", City Journal, 1998 http://www.cityjournal.org/html/8_1_a5.html

Barry Loveday and Anna Reid, Going Local, Policy Exchange, 2003

Barry Loveday, Size isn't Everything, Policy Exchange, 2006

Mark MacGregor, Manifesto for the Met, Policy Exchange, 2005

- 1 International Crime Victims Survey 2000 (the results of the 2005 survey will be released in November 2006). Jan van Dyk, head of analysis at the UN Interregional Crime and Justice Research Institute, has predicted that England, Scotland and Wales will likely top the European violent crime tables once again.
- 2 "Crime Rate Soars as Criminals Go Free", The Observer, 28 May 2006
- 3 See e.g. the bizarre August 2006 claim by Metropolitan Police Commissioner Sir Ian Blair: "People [in Haringey] are opening their doors...leaving them unlocked in a way they haven't done for 25 years." Unfortunately for Blair, this fantastic statement coincided with the murder by shooting in Canning Town, East London of Peter Woodhams, a respectable 22 year old engineer and father. Woodhams had been slashed across the face and almost killed by the same local youths eight months before—a crime that the Met failed to investigate. Officers didn't even collect his bloodstained clothes for examination.
- 4 The British Crime Survey relied on by the Home Office is flawed on a number of levels, not least in the fact that it now excludes crimes against persons under 16, thereby eliminating thousands of muggings, mobile phone robberies, stabbings and incidences of grievous bodily harm from the nation's primary crime statistics. It also excludes murder and sexual offences.
- 5 ibid
- 6 "Homicide Soars By a Quarter under Labour", Daily Telegraph, 9 July 2006
- 7 Report by HM Inspectors of Constabulary, Probation and Prisons, quoted in *Evening Standard*, 28 July 2003
- 8 Daily Telegraph, 25 June 2006
- 9 "After the Uprising", City Journal, Autumn 1997
- 10 See e.g. the claim that "poverty and deprivation are the causes of knife crime" by Chris Eades of the Centre for Crime and Justice Studies at King's London. This is mere chanting of dogma.
- 11 "Muggings Go Unreported in Despair at Police", Daily Mail, 6 April 2006
- 12 Civitas Review, December 2004 www.civitas.org.uk/pdf/CivitasReviewDec04.pdf
- 13 Bratton and Andrews, 1999
- 14 http://www.queenstribune.com/anniversary2003/brianwatkins.htm.
- 15 CPTED Crime Prevention Handbook for Architects and planners

5. Cities for Everyone: A Vision for Mixed and Inclusive Communities Chris Holmes

In the summer of 2001 an outbreak of clashes between different ethnic groups in several northern British cities sent shock waves through the British race relations establishment. The disturbances exposed the fragility of some community relations, with white and Asian residents living in racially segregated neighbourhoods, children attending separate schools, and strong resentments over perceived inequalities in access to community services.

How can we address these issues? What has been the effect of city design on community relations? Can it be improved?

In response to the 2001 disturbances the Home Office commissioned a review led by Ted Cantle, the then chief executive of Nottingham City Council. Their commission's report, *Community Cohesion*, commented that: Whilst the physical segregation of housing estates and inner city came as no surprise, the team was particularly struck by the depth of polarisation of our towns and cities. Separate educational arrangements, community and voluntary bodies, employment, places of worship, language, social and cultural neighbourhoods, mean that many communities operate on the basis of parallel lives.¹

This experience was pithily summed up in the words of one Muslim of Pakistani origin, who said:

When I leave this meeting with you I will go home and not see another white face until I come back here next week.²

In July 2005, by contrast, Lord Coe's speech to the International Olympic Committee, which clinched the 2012 Games for London, put forward a very different urban vision. London's bid featured children from different ethnic backgrounds, all inspired by the goal of Olympic success. A key participant was Amber Charles, a 14-yearold black basketball player from Newham in East London, who described what winning the Olympics could mean for her. She was accompanied by 30 other young East Enders sitting at the top table of the London team. In the presentation, diversity was celebrated as a source of community strength, not a cause of division.

The historical context

These two episodes represent sharply contrasting views of urban communities in Britain. Many factors have influenced where ethnic minorities live in Britain, including where immigrants have found work, where affordable housing is available, and what their perceptions have been of the safety and quality of life in different urban areas. New arrivals have headed for places where their fellow country people have already settled, and may have chosen to stay in areas where they have places of worship, faith schools, shops, restaurants and cultural activities provided by their ethnic community. However, sometimes they have stayed in these areas because of the hostility expressed by white residents in other neighbourhoods, and because of discriminatory local authority practices—such as restrictive housing allocation policies—which have excluded them from those areas.

Interestingly, some of the same factors have affected the white majority. A 2001 report on housing in Bradford found that the increasing racial segregation was partly the result of "white flight", with estate agents exploiting the fears of white residents to increase sales. They also found a strong desire amongst South Asians to be close to people from their own ethnic background, resulting in concentrations of those ethnic groups in certain areas of the city. The report concluded that "safety, closeness to community, family and friends, places of worship and Asian shopping facilities were consistently raised as important".³

As well as high levels of *racial* segregation, over the past half century Britain has experienced growing *social* polarisation. With rising incomes, over 70% of households have bought their own home, with many people moving to modern housing estates, residential suburbs or gentrified inner city neighbourhoods. Low income households, however, have not been able to make these choices. Most families rent their homes from local councils or housing associations, with a minority renting from private landlords. The highest levels of dissatisfaction of all types of housing are on inner city estates, where high levels of crime, failing schools, bad housing and a poor reputation all combine.⁴ In 1998 the Social Exclusion Unit estimated that there were more than one million households living in neighbourhoods of concentrated deprivation.⁵

Guiding principles

Policies are inevitably based on value judgements, tacit or explicit, whatever their actual goals and effects. Traditionally the decisions made by planners and housebuilders as to the location of homes, the layout of estates and residential densities have been seen as technical decisions, based on proposals by professional officers. In reality, those choices have been influenced by subjective judgements about how these professionals thought people wanted to live.

In his widely praised book "Happiness", Richard Layard identifies "community and friends" as being amongst the seven factors which most affect human happiness. He argues that the "quality of our community is critical for whether we make friends and how safe we feel", and also that "a high-turnover community is rarely friendly" and that "geographical mobility increases break-up and criminality".⁶

If that line of thought is valid, it poses some difficult challenges. Most economists would argue that geographical mobility is important in achieving economic growth. Many young people are drawn to cities to seek higher education, new job opportunities and the cultural attractions of urban life. The European Union has tried to create a free labour market across its member states, in the belief that this will lead to greater prosperity. Across the world millions of refugees flee persecution and torture and seek safe haven in other countries. But if Layard is right, whatever its economic and political benefits, geographic mobility is also serving to increase family breakup and criminality.

There is thus a cluster of tensions here: between liberal economics and a key component of community well-being; between centralism and localism; between diversity and uniformity; between our customary freedom to reside where we choose, and the social need to prevent certain ethnic groups from become marginalised. All the more so, given current concerns about the radicalisation of young Muslims.

The need for balance

I do not have a solution to these tensions, because no "solution" as such exists. All we can hope for is a well-structured balance between these different concerns, a balance that may well vary from one community or place to another. Our aim as a society should therefore be to develop models for urban communities that provide the critical elements of flexibility and stability, that integrate people from different backgrounds and lifestyles, and that celebrate the benefits of diversity.

We should be open and explicit about the social values which underpin the policy choices that are proposed, even where there is potential conflict between them: to strengthen *community cohesion*, to widen *choice* and to develop *socially mixed* and *inclusive communities*.

The potential for conflict is what rescues these goals from being mere motherhood and apple pie; it is what makes the policy mix, and the way in which that mix is arrived at, interesting. In practice, pursuing each of these different goals will set limits in some circumstances to the achievement of another. The aim of developing cohesive, socially mixed and inclusive communities, for example, may run counter to the choices of those who would prefer to live with people who are ethnically or socially like themselves.

The presumption is in favour of choice, yet the justification for limiting choice for some individuals lies in two things: first, here as elsewhere, it lies in the greater benefits for other individuals and the wider benefits for society as a whole. Second, however, it lies in the need to strengthen the cultural conversation, and so a better mutual understanding, between different groups. It is generally easier to believe ill of "other" people if you never actually encounter them.

Strengthening community cohesion

Let us take each of these values in turn, and try to unpack them further. I start with community cohesion.

Often ethnic minorities have chosen to live together in the same communities simply because they have been discouraged by racial hostility, or believe they have been so discouraged, from moving into mainly white areas. However, for the reasons discussed, the policy objective should be to discourage exclusive concentrations of a single ethnic group, by challenging racist attitudes and behaviour so that residents from black and minority ethnic groups feel safe living in all types of neighbourhoods.

Faith groups also have an important role in local communities. They can be a cause of division, of course, but they can also be a source of inclusion and integration by rejecting sectarian views, fostering the understanding of different beliefs and promoting interfaith activities. For these reasons the Cantle review recommended that at least 25% of the intake of faith schools should come from different faith backgrounds, to limit segregation. This reflected the imposition of a top-down quota, and so a measure of coercion. Other more liberal approaches might include the use of positive economic incentives or the encouragement of voluntary school pledges to increase diversity, as the Church of England has done for its schools.

The Cantle report also identified strong civic leadership, led by the local authority and by representatives of different ethnic and faith communities, as a critical ingredient in promoting cohesive communities. In contrast to the racial distrust in the areas where disturbances had taken place, the review team found evidence of good relationships in areas that had not experienced such conflicts. In Southall and Leicester, for example, there was pride in the community that was shown in the attitudes of many residents. They saw diversity as a positive attribute often displayed both in schools, where children learnt about different religions and cultures, and on the streets, where festivals of all faiths were celebrated. This approach was adopted by the political, civic and faith leaders who met regularly to discuss issues affecting the community.

Increasing choice: examples and ideas

If choice is important, it is so for everyone. Inevitably those with higher incomes will be able to afford more expensive homes, but it is important to widen the opportunities for both owners and renters. The critical issue for home buyers is to increase the supply of housing, as recommended by the Barker Review commissioned by the Treasury, so as to restrict increases in house prices and make homes more affordable, especially in southern England where pressures of demand have pushed prices upwards.⁷ A serious attempt to tackle the imbalance between supply and demand would also make renting from private landlords more affordable.

For people seeking to rent from social landlords, the supply of homes is no less important. But so is enabling tenants to have more choice in the homes available to them. During the last few years, policies for "choice-based" lettings have been adopted by many local councils to enable tenants of social landlords to have more say in where they live. Instead of people on the waiting list being "allocated" a tenancy by a housing official, vacancies are advertised in the local press, council offices and on the internet. Applicants can then choose a vacancy they want to bid for. Where there is more than one bid for a property, it is offered to the bidder who is assessed as having the highest priority. What "choice-based" lettings do is to shift a measure of control and responsibility away from officials and towards individuals.

There is evidence that such lettings are already proving effective. In Bradford, the City Council had been concerned at the serious under-representation of black and ethnic minority residents on their housing estates, an issue which had been highlighted following the racial disturbances in 2001. When a choice based scheme was introduced, there was an increase in lettings to black and ethnic minority tenants, from 10 per cent of all lettings to over 60 per cent.⁸

Previously many Muslim families had been deterred from moving to council estates in the city through fear of racial hostility. As they became more aware of the range of accommodation that was available and were able to make their own choices—including the possibility of moving to a new area with friends or other family relatives—there was a dramatic increase in the take-up of accommodation. The result has been a significant step towards more racially integrated communities in the city.

A more radical idea, however, would be for social landlords to give people an opportunity to choose where they would like to live, without limiting this to what the council or housing association already own. This is what the Ridgehill Housing Association, a stock transfer association in Hertfordshire, did. With the support of the Housing Corporation, the association developed the idea of a "choice to rent". Instead of offering the family with top priority on the housing register a vacant property that the association already owned, they invited them to go to an estate agent and choose where they would like to live.

The cover of their Annual Report showed the result: a delightful two-bedroom house, with flowers blooming on the front wall, in Borehamwood. It was done within the normal Housing Corporation cost limits, and more quickly than the average purchase of an existing property.⁹ In effect, the Association had become the commissioner as well as the provider of housing.

This type of initiative could be introduced much more widely. Local councils or housing associations could offer existing tenants the opportunity to choose a new home, provided it can be purchased for no more than the selling price of their existing accommodation. In some circumstances applicants for housing could also have the opportunity to choose the home where they wish to live, in the same way as with the Ridgehill initiative. An example of how the policy might work is that of an older couple occupying a three bedroom council flat in an inner London borough, who would like to move out. Possible options might be a flat in outer London, or a small terraced house in a town outside London, or a bungalow by the sea. A study of the market shows that properties could be bought in each of those areas from between $\pounds150,000$ and $\pounds200,000$. Their current three bedroom flat could be sold for as much as $\pounds250,000$.

That deal would not cost the council anything financially. However, by selling a vacant three bedroom flat it would lose a desperately needed family-sized property. A better alternative would be to re-house a family who urgently needed a transfer from an overcrowded one or two bedroom flat, and sell that to a first-time buyer, perhaps a key public service worker needing somewhere close to their work. Even the smaller flat could be sold for the price of the property the older couple had moved to. There would be no net capital cost to the council, but three households would have benefited—the older person moving out, the overcrowded family getting a transfer and the first time buyer. The key is to give councils and housing associations more autonomy and flexibility to operate, but within the guidelines already set out.

Socially mixed communities

Evidence is developing that socially mixed and mixed-income communities are more successful across all their component groups than low-income or mono-cultural ones.

In the 1970s a new generation of housing associations and some local authorities were buying street properties for regeneration in inner-city areas. In his study "London in the twentieth century" Jerry White commented of them that:

The combination in the same street of owner occupation and private renting, with some council owned 'street' properties, provided a more dynamic, adaptive and tolerant environment than the council estate. The mixture of classes seemed to make it easier to cope with a mixture of races too.¹⁰

More recently, a 2006 study by the Joseph Rowntree Foundation looked at the experience of a number of mixed income communities to learn what the ingredients are that make neighbourhoods work. The key findings were that those communities are more successful in a range of important ways than single tenure low income estates. In particular the level of "contentment" amongst residents is greater, the schools are likely to be better, the range of shops and services is wider and the mix of property provides opportunities for mobility and choice.¹¹

The experience of mixed income communities was that owners and renters regarded each other alike as "ordinary" people. This was demonstrated especially in a study of established mixed tenure developments, which looked at the experiences of three areas that were created as mixed tenure communities over twenty years ago in Peterborough, Middlesborough and Norwich.¹² It expressed itself in the attitude towards tenure mix, which was considered to be a "non-issue".

Interestingly, this sameness did not lead to most residents developing personal relationships across the tenures. This was because owners and tenants mainly occupied different social worlds. Nevertheless neighbours tended to "bump into" each other on an occasional basis. Owners and tenants described their relationships as "civil" and "polite". They mostly co-existed as neighbours rather than friends. This meant that inter-household cooperation took place but that it did so in relation to *practical* issues rather than *personal* issues.

People living on the mixed tenure-estates felt able to identify with each other and did not feel that they were surrounded by people that were significantly different from themselves, as the following quotations indicate:

"I personally would not think that anybody was very different whether they are renting their house off the council or buying and I really don't know why [there is] this great big emphasis" (renter).

"The man who lives in the council houses just across the road here... He's a smashing bloke you know, just ordinary people like us you know. People are people and you get good and bad everywhere don't you, in all walks of life" (owner).¹³

Another 2005 research study showed that mixed income communities could attract young families. It examined the experience of young families in private housing in four mixed income communities: two existing low income areas, Hulme in Manchester and the Gorbals in Glasgow, and two new developments close to the Thames in London, Britannia Village and Greenwich Millennium Village.¹⁴

Over recent decades families have led the exodus from cities, often in search of better schools and a healthier environment. From a policy perspective, this underlines the point that if cities are to thrive economically and socially they need to cater for better-off people who have children, and not just for single people, young couples and low-income families. A lot of mixing across social groups takes place between children—in playgroups, schools and public spaces—and these contacts provide opportunities for parents to meet and form relationships. Children often provide a common ground and shared interest between people in different tenures. Moreover, people with children have a high stake in the success of a neighbourhood and the quality of its services.

One of the keys to achieving successful mixed communities is therefore to ensure that city living is attractive to middle and higher income families. These are crucial to provide more balanced school intakes, and opportunities for contact between people in different tenures. The main factors attracting families to these areas were safe, clean and friendly neighbourhoods, good schools, and open spaces enabling children to play. A unified appearance across the buildings integrating socially rented and private housing was important. Community development also played a key role.

It might be thought that private developers were resistant to building mixed tenure estates. However, a recent survey of developers found that there was no major problem here. Their view was that potential purchasers were primarily influenced by the design, location and nature of the property they are buying and the development as a whole. There was no evidence that mixing tenures affected house prices.¹⁵

One example of a planned programme of tenure diversification is the SAVE programme (Selling Alternative Vacants on Existing Estates), which was introduced by the Rowntree Housing Trust in 1998 to combat and reverse the process of decline in its model village of New Earswick in York. The scheme allows for 50 per cent of re-lets to be offered on the open market for sale or shared ownership, in order to sustain a balanced income mix and to halt the trend towards the community becoming occupied largely by low income residents. The proceeds from sales are reinvested in rented homes elsewhere. As a result of this initiative there

has been a significant change in the perceptions of residents, and middleincome residents are keen to move onto the estate.¹⁶

There are also good US precedents for this approach. The policy aim of promoting socially mixed communities has been adopted by a major federal housing programme working in 166 cities across the United States. The HOPE VI programme was initiated in 1992, to tackle the high levels of social problems on public housing estates. A central premise of the project was that the over-concentration of profoundly poor, non-working households was a major contributor to the high levels of social problems.

The twin aims were to create healthier mixed income communities in place of the "distressed" public housing developments, while also helping some tenants to re-locate to better neighbourhoods. The programme adopted the explicit policy that "if mixed communities are to be an effective response to growing economic segregation, they must represent a policy objective across the full range of places... no community should be the exclusive province of either the rich or the poor."

Over the past ten years the Federal Government has awarded 446 grants to 166 cities across the United States, financing the demolition and redevelopment of more than 80,000 dwellings, and the re-location of approximately 50,000 residents. While most tenants have moved to other public housing projects, a third have re-located using housing vouchers that subsidise their rents for private market units.¹⁷

Inclusive communities

Overall, the evidence shows that mixed income communities lead to higher-achieving schools, lower levels of crime and more satisfied residents. However, it is possible to have such communities where all the people who live there are able-bodied, healthy and conform to the dominant norms of society. Whether deliberately or unintentionally, they may exclude people with disabilities or mental health problems or minority life styles. The public policy challenge now is to extend the model of inclusiveness to include these other groups as well. It may well be that, again, greater diversification has the effect of increasing community well-being and mutual understanding.

Inclusive communities value diversity, where people of all ages and types of household live together. They do not achieve stability by the homogeneity of all their residents, but find ways of integrating different groups. They respond to the activities of disruptive residents by positive ways of resolving conflict, such as mediation and restorative actions, where perpetrators and victims meet together. Newcomers are welcomed whether they are young people who have just bought their first home, or offenders being released from prison, or refugees fleeing from violence in their home country. Vulnerable people are able to live in small hostels or supported housing in ordinary neighbourhoods. Frail older people can live in a residential care home in the community, or receive the care which enables them to stay in their own home. The support and care is provided in ways which are sensitive to racial and cultural differences.

Inclusive communities should also be responsive to different housing needs. For example, between 1991 and 2001 there was a huge increase in overcrowding in London, with striking differences between ethnic groups. Overcrowding was three times greater amongst ethnic minority than white British households, and Bangladeshi households were five times more likely to be overcrowded than white British households. In response it was decided that 35% of all new homes developed by housing associations in London will be three bedrooms or larger, so as to tackle the acute shortage of larger family homes.

Over the past thirty years specialist black and ethnic minority (BME) housing associations have played a significant role in meeting the needs of people from racial minorities. With support from successive governments they have responded to the racial discrimination and inequalities in housing documented by authoritative reports and investigations. Whilst BME associations also provide housing to white tenants, and work in partnership with generalist housing associations, they are able to focus on the distinctive and frequently acute needs of black and ethnic minority residents.

A story of hope

Understandably, many media stories, research studies and political speeches focus on what has gone wrong. The headlines are captured by the reports of the race riots, the "sink" housing estates and the conflict between different religions. Yet it is also important to tell different stories, which recognize the realities of community divisions, and the tragedies which happen, and yet also report how understanding and trust can be built.

In the summer of 1994 a young white teenager was murdered in Somers Town, the neighbourhood north of London's Kings Cross. The perpetrators were a gang of young Asians, who were later convicted for the killing. This murder could also easily have led to a race riot, in an area where there were acute tensions between the different ethnic groups. We never hear about the race riots which do not happen. In this case the risk of a serious racial conflict was averted by an immediate response by civic and community leaders. The local MP, Frank Dobson, lobbied the local council to do everything possible to prevent any violent response. For example, caretakers on council housing estates were instructed to make a special search to find and remove any objects which could be used in violent attacks.

A public meeting was convened, where the local police Chief Superintendent, senior local authority officers and community leaders described the action that was being taken and responded to questions from the local community. Despite the fears of further racial conflict, there were no further racial disturbances.

Three years later I attended a community festival in Somers Town. On a sunny summer's afternoon an enormously diverse range of community organisations took part in the activities ranging from an Afro-Caribbean band to stalls staffed by Somalian refugees, the Girl Guides and the Salvation Army. It was an impressive expression of a diverse and inclusive local community. It had come a long way from the divided and distrustful area where the murder had taken place.

To some people the vision of mixed, inclusive and cohesive communities may seem a utopian fantasy. Certainly it cannot be achieved without a great deal of change—in attitudes to people from different backgrounds, in a willingness to reach out and make new friendships, and by giving time and energy to welcoming, sharing and supporting.

Yet rejecting this vision has huge costs, not only to individuals but to society as a whole. It means creating a polarised and exclusionary society: one where geographical separation breeds distrust between different ethnic groups; where old people finish their lives in loneliness and isolation; where prisoners are discharged into shoddy and unsupported lodging houses; where people with mental health needs find refuge in run-down ghettoes; and where the least skilled and poorest are trapped in neighbourhoods of concentrated deprivation, with no belief that their future will ever be different.

Building community cohesion should be at the heart of a new vision for cities.

2 Ibid

- 4 Roger Burrows, Unpopular Places: Area Disadvantage and Geography of Misery in England
- 5 Strategy for Neighbourhood Renewal, Social Exclusion Unit, 1998
- 6 Richard Layard, Happiness, Penguin Press2005,
- 7 Kate Barker, Review of Housing Supply, HM Treasury, 2004
- 8 Bradford City Council, 2003

- 10 Jerry White, London in the 20th Century, Penguin, 2001
- 11 Mixed Communities, Joseph Rowntree Foundation, 2006
- 12 Chris Allen et al., Mixed Tenure 20 Years On, 2005
- 13 Ibid

- 15 Rob Rowlands et al., More than Tenure Mix, Chartered Institute of Housing, Joseph Rowntree Foundation, 2006
- 16 Mixed Communities, op. cit.
- 17 Alan Berube, Mixed Communities in England: a US Perspective

¹ Community Cohesion: A Report of the Independent Review Team, Home Office, 2001

³ P. Ratcliffe et al., *Breaking Down the Barriers: Improving Asian Access to Social Rented Housing*, Chartered Institute of Housing, 2001

⁹ Ridgehill Housing Association, Annual Report, 2002

¹⁴ Emily Silverman et al., A *Good Place for Children?*, Chartered Institute of Housing/Joseph Rowntree Foundation, 2005

6. Healthy Cities, Dream Estates: An Architectural Perspective Crispin Kelly

Introduction

The suburb has long been identified with Sir John Betjeman. In his autobiography *Summoned by Bells*, he wrote of how "Metroland beckoned us out to lanes in beechy Bucks." In *Metroland*, his 1973 documentary of London's northern suburbs, Betjeman developed this wistful musing further, to give us a vision of leafy avenues with neighbours busy in their gardens, mowing and watering.¹

As a place, however, the suburb has long been ridiculed by an urban architectural elite, and the city has traditionally been the focus of their efforts of reform and improvement. We all agree our cities need to be healthy. By contrast, the suburb's health has not generally been seen as worthy of the same attention. Little has been said to praise suburban values, and less still on suburban plot ratios. Now the suburbs and what they offer are under threat. Suburban virtues are different from city virtues, however, and both must coexist in order to prosper. Government policy should release its grip on the suburb, and allow more development, especially when it is the product of small scale, local and independent initiatives. In return, the suburb needs to smarten up its act. It needs to discover what good architects can deliver, and we as the consumers of architecture, as punters, as those who live in and see these buildings, need to get sensitised. We need to put ourselves in a position to judge quality. With a better pattern book, the suburbs can improve, and improve their reputation.

Urban prejudice

We start with analysis, and end with manifesto. All the cultural commentators view life as from the city. Our starchitects, Lords Foster and Rogers, live across the Thames from each other in Battersea and Chelsea. The Commission for Architecture and the Built Environment (CABE), the government's design guru and enforcer, is based in gritty Holborn. The city has always been the arena for the solutions they hawk—for Urban Task Forces, for regeneration projects, for icons. It is about urbanism, not sprawl.

Urbanism, a term imported from France in the late nineteenth century, is a belief in the managed growth of the city as the sort of development that best fulfils our cultural and economic needs—and leads to the making of successful places. From the urbanist viewpoint, suburbs are by definition inferior and incomplete. They cannot supply the rich texture of encounter and experience so valued by the urbanist in our inner cities.

Instead, suburban development is seen as unplanned; it is growth that has taken place outside the virtuous circle of the city walls. The suburb is morally and intellectually distasteful: it is a world of selfishness, small-minded and stupid behaviour, and ignorance of the public realm; it is filled with people who just get up, go to work (by car, to boot), come back, watch TV, and go to bed. For the urbanist, these petty drones cannot even see that there is anything wrong with their failure to engage with the meat of urbanism. True citizens live, naturally, within the city walls.

In the past the suburb may have been insulted, but at least it was left in peace. Now, however, the new orthodoxies of urbanism—density of development, mixed uses, design quality, transport infrastructure and ecological awareness—are headed for the suburb too.

The initial impetus was provided by a newly revised government policy of March 2000: Planning Policy Guidance Three (PPG 3).² The axe to the neck of traditional suburbs was the statement that every hectare of developed land had to provide 30 homes or more as opposed to the traditional density of about 20 homes per hectare.

In 2004 the Residential Density Direction sharpened the axe.³ It provided that any scheme falling below 30 homes per hectare would be called in by the Government for review. Without independent recognition of its virtues, the traditional suburb's future is now apparently indefensible: redevelopment and incorporation into the world of the city is pencilled in for its future.

Defending the countryside

Part of the new orthodoxy is that the city should have a definite edge. Instead of petering out at its periphery, smudged by the suburb, what the city needs to mark its boundaries is contrast: that is, protected ploughed fields. The policies which are to achieve this are summarized in Planning Policy Statement One (PPS 1) 2005, "Delivering Sustainable Development", as well as the second revision of PPG 3.⁴ They focus unavoidable development on brownfield land, which has previously been developed (likely to be in the city), and forbid development on precious agricultural land. This resolve to defend the countryside from being "concreted over" is as much about shaping the city as keeping fields green.

The target that 60 per cent of all new homes should be on brownfield land is now being met.⁵ The result has been growing pressure on the availability of land to develop more suburbs. With the very strong demand for housing—particularly houses, and particularly in the South East—housebuilders have been forced to outbid each other for the scraps that the planners allow to squeeze through their approval system. This has pushed land prices up to record levels, and left a smaller and smaller slice of the sales value available for actually building the homes. Naturally, the industry is doing what it can to protect its margins: building smaller houses with postage stamp gardens, cramming together units in the available space—and it is doing so with little or no pressure to improve the product because of the huge pent-up demand. Architects' fees do not feature in the housebuilders' budgets, because housebuilding is in effect a misdescription: the business is really about successful plot buying.

Damage to the suburbs

Terrified by the NIMBYism of the local electorate, and by the diktat of the urbanists, planners now insist on one thing only when it comes to design in the suburbs: that the new homes must above all "fit in". Guidance is available in the form of design codes: local context has been discovered and documented, even in Slough and Swindon, and a new style has been born: the neo-vernacular.

Neo-vernacular design translates into such things as putting a two-storey coach house (in brick and tile) next to a three-storey town house (in render and slate). A small manor house can mark the street corner. These are the commonplaces of the urbanist design codes being promoted by local planning authorities. Thus a "place" comes into being: ignoring the newness, it could perhaps always have been there, so the hope is that its arrival will be more acceptable than anything new. The volume housebuilders, keen to get on and build anything they can, use lay-out architects to trim these parodies of past patterns to suit. Thought is not present.

As this centralised mentality has taken hold, we have learned to be wary of new government-led initiatives. John Prescott's much publicised competition for an "affordable" £60,000 house is a case in point.⁶ Not only did it ignore the basic problem by excluding the cost of land, but it also promoted modular construction, a way of building that has caused us grief before, even if in its newest incarnation it will be able to take on the clothes of the neo-vernacular. There was nothing very impressive about the £60,000 either, as more than 40% of the houses built by volume housebuilders is done on that budget anyway.

The urbanist critique of the suburb perhaps bites most viciously in its attack on the car. Always at the heart of suburban life, the car is anathema to the urbanist, who is proud to establish his high moral ground from the saddle of his bicycle or his seat on a bendy bus. For the suburbanite, new planning rules, pushed by this anti-car agenda, have meant the restriction of parking provision in new developments, and the banning of parking on estate access roads. Parking is now corralled in 'closes' (in conformity to the model at Poundbury) so as not to sully the streetscape. The roads must now be built narrow, so that any on-street parking would obstruct the flow of traffic.

A suburb like Church Langley outside Harlow offers a case study of regulatory change over the past fifteen years. The most recent phases have faithfully reproduced the narrow roads and the parking closes of the present regime. The entirely predictable though unintended result has been that the residents, with three cars to a household rather than one and the desire to park right outside their front doors rather than a walk away to a close, have turned their streets into virtually impassable alleys.

The greater densities the planners now insist on for those sites where development is permitted have also threatened the archetypal suburban home, the two bed house. Simply put, the two-bedder does not fit any more. Instead, and on a smaller plot, it has morphed into a three-storey house, with the lounge on the first floor. At Kennet Heath on the outskirts of Thatcham, this has meant the housebuilders have had to produce a special leaflet explaining the advantages of this unlooked-for mutation, simply to counter understandable consumer resistance.

Suburbs, under the new dispensation, also need to be sustainable communities. CABE, the Government's adviser on architecture and design, has reviewed and graded the housebuilders' efforts in its Housing Audit 2005.⁷ It expressed particular disappointment at the lack of popularity of the sustainable community agenda. When asked why they will not use the green transport strategy's hopper

bus, residents said they much preferred their cars—after all, avoiding the need to use inconvenient and downmarket buses was one of the reasons for leaving the city in the first place. Just as bad was the British resistance to making friends with the neighbours: instead people made clear they already had their friends, and could go and visit them by car when they wanted to see them, rather than live in each other's pockets. Instead of wanting permeable communities, residents wanted the traditional *cul de sac*.

On the face of it, CABE's vision of sustainable communities sounds warm and friendly, and just what a suburban housebuyer might want. In reality, it means brownfield land redeveloped at high density, often as flats—not at all on the unreconstructed buyers' shopping list.

What's good about the suburbs?

Under these governmental and market pressures, then, the suburbs may soon no longer be able to deliver what people have long wanted from them. But what is that? What is distinctive and good about suburbs?

The advantages can be simply stated: your own house, preferably detached, at an affordable price; access to a good road network, offering a chance to commute; decent schools and local services; gardens, and a feeling of space, perhaps with views of fields; safe places for children to play.

These may not be the permanent requirements for every home maker, but they have strong appeal at certain periods in life, particularly when young children are part of the family. The suburbs offer a certain feeling of being in control, of privacy and security, away from the powerlessness and anonymity of the city dweller and the constant threat of crime.

In 2004 CABE produced its report *What home buyers want.*⁸ It reviewed 25 recent consumer surveys, and commissioned its own research. The report showed, contrary perhaps to its intention, that the suburban advantages listed above were what people wanted. Rather than acknowledge this, however—and the severe critique this implied of the urbanist agenda—the author chose to conclude that "consumer preferences cannot dictate policy", and that "not all individual aspirations can be met", stressing the need for trade-offs.

What it's like to live there was published by CABE in 2005, and was a survey of residents' views on the design of new housing actually available.⁹ It concluded, infuriatingly, that homebuyers still wanted the things government policies were trying to wean them off: "The problem we must face is that if everyone was to get what they wanted, the social, environmental and economic repercussions would be untenable".

No. There should be no need to apologise for suburban homebuyers' desires, or to devote energies to frustrate them. They should be encouraged and satisfied, not attacked and undermined by government and planners. The city should have more than the countryside as its contrast. The suburb offers another model, which should be able to cohabit with the city in a fruitful and symbiotic relationship, each profiting from the other's existence.

The suburb does not condemn the city. It lets the urban type get on with the explicitly cultural experiences that are enjoyed and best delivered there. The excitement of crowds, variety, the clashes of difference that vitalize the city: these can be savoured according to the vision of the Urban Task Force, sipping their cappuccinos in cafes on newly regenerated waterfronts. But it does not have to be for everyone, always.

The suburban counterrevolution: facts and reforms

The suburb needs to defend itself and fight back.

First, it must counter the charge that it is causing the concreting over of the countryside. In fact, only 11 per cent of England is classed as urban. Areas of outstanding beauty now make up 16 per cent of the countryside in England, and have special protection. A further 12 per cent is green belt, and 8 per cent is made up of national parks. Of 1.65 million hectares of green belt, just 0.02 per cent has been recently lost to residential development, and half of that had been in some form of urban use before. Areas of green belt that are very poor arable land are perfectly reasonable candidates for satisfying the aspirations of suburban house hunters, particularly when poor arable land needs the greatest subsidy and fertilizer.¹⁰

Even after development, the suburb can be proud of its healthpromoting green environment, and the contribution its well-tended gardens make to a diverse ecology of flora and fauna, habitats which are in fact much richer than the protected farmers' monocultures. It is gentle rather than fashionable, a staging post as much as a resting place.

Secondly, the suburb needs to address the negative perception of its dependence on the private car. The car has given huge freedom, and the future is not to abolish it but to make it more efficient. City dwellers undermine their virtuous weekday use of public transport with their car use at the weekends, and some suburbs sustain public transport through heavy commuter use. Thirdly, it must vigorously promote reform. The cumulative effect of PPG 3 and PPS 1 is directly to frustrate the suburban home buyer. These policies are not only focusing development on brownfield sites, but their density targets are also producing flats rather than houses. The supposed evils of less dense development have been overstated, and we need to provide more land for development, and make available the product people most want to buy. But we do not necessarily have to do this with great tranches of green belt. Our approach should be that of salami-slicing: we need to loosen controls to enable a number of different sorts of sites to come forward.

Centrally imposed quotas have produced battlegrounds for local activists. Permitted development, currently enjoyed by individual householders, could be extended to villages and towns. Ten per cent growth, perhaps every fifteen years, could be the subject of local choice, with promoters advancing rival proposals, and the results decided locally. Can this be sustained?

There is no need to segregate and differentiate residential and B1 (commercial) use. Uses that do not harm residential amenity like B1 should be interchangeable: we should let the market decide what building uses need to be provided for, rather than relying on our current plan-based system. This tries to predict and provide every-thing we need with five year plans, but these are generally out of date before they are adopted. Planning authorities should be zoning land for development, and describing appropriate building bulk, rather than saying it has to be for specific uses.

Since 1947, when the first Planning Act was passed, we have done the most damage to our countryside. By trying to protect it, we have done it harm. Planners should no longer have any control of how buildings look; we have no reason to trust them, forcing as they now do, pastiche styles on us like the neo-vernacular. They have a terrible track record, from tower blocks to the volume house-builder box. To qualify as a planner, you do not need any design training, and so it is hardly surprising that they show no design skill. Our suburbs should not be left in their hands.

The quid pro quo

But there is a quid pro quo. With new power comes new responsibility. The suburbs we are getting have faults, and if we are going to have more of them, they need to improve. We are not caring enough about our ordinary buildings in suburbs and on the edge of towns: it is there that we risk doing the greatest damage to the environment, as well as stoking the prejudices of the urbanists.

Our satisfaction has come far too cheaply. We suffer from a lack of understanding: not enough to inspire us, no confidence that our views will make any difference, and no affinity with the way architectural possibilities are communicated to us.

In return for being allowed to build the sorts of homes people want, we need to make sure they are not blots on our landscape. We cannot force developers to use good designs, nor can customers be forced only to choose designs of which we approve. This is not appropriate territory for government or planners. It is for developers and architects to show what can be done, and for the market to demand it.

The suburbs of 18th Century London, such as Camden or Islington, are now lovingly restored and listed. They are conservation areas. But do we really believe that our new suburbs, like Kennet Heath, will be attracting English Heritage's interest in 200 years' time?

We have lost touch with what architecture has to offer. Concern with our new houses seems to be limited to adding a conservatory, or putting out the Christmas lights. Philip Larkin wrote that his choice of a new house had been made "blindly, deafly and dumbly … I can't say it's the kind of dwelling that is eloquent of the nobility of the human spirit."¹¹

The volume housebuilders have relied on their pattern books for too long, with their "wink points" (such as the attractive step down from the master bedroom to the *en suite* bathroom) and "gob ons" (prefabricated porch assemblies, tiles and flashings all cast in plastic), and we have not felt any need to question them. But they are simply not offering us enough.

How can our suburbs be made better? We need to use the same energy here that we devote to buying a car or doing a makeover. We need to challenge our good architects to show us their skills, not in a revolution, but in an evolution which can reveal advantages to us, using the components they have always worked with: light, materials, volume and place. We have to achieve this on the same budget as Barratts, but thinking instead of repeating. We need a new rug for our picnic.

Walter Benjamin for the suburbs

I have a radical suggestion: that we learn from Walter Benjamin. Benjamin was a critic and philosopher active between the world wars and dying in 1940. His "Arcades Project" investigated the covered shopping arcades of nineteenth century Paris. He put together a collection of disjointed insights, culled everywhere with sections covering urban phenomena such as prostitution, conspiracies, and iron construction.¹² The purpose of the great work is unknown, but it suggests a desire to wake up his readers, to jolt them into an awareness of the falsities of consumerism.

We also need an awakening, another series of jolts, a resensitisation, not perhaps to class consciousness, but to suburban consciousness, so that we can take note of what could be around us. We need to be put in a position where we can have an opinion and enthusiasm for what architecture might propose for the suburban home and street. It is not enough to say we like it or hate it. When it comes to cars or interiors, we understand what's on offer, and make our judgement. Why not with houses themselves?

However, the project would also need to touch on the space outside the house: the role of fences, marks made in parks, the skateboarder who uses a pavement wall as a launch pad. The yellow lines in Southwick Mews in Paddington are a case in point: these lines forbid parking—except that the residents have put out arrays of big garden pots, so that when relining comes to be done, it will have to snake around these private obstacles in the public realm.

The glimpses provided by the project might excite our awareness, and make us ready to see and appreciate. We seem to have lost a sensitivity to our built environment, such as that which we have preserved to—for example—our food. Jamie Oliver did not need to explain what was wrong with school dinners, nor what tastier food could be. We need more of an education; our good architects have to take some time out from designing art galleries and public buildings and attend instead to the possibilities of the humble house.

This must be done in a way which can fit in to the economics of

volume housebuilding. There is no point in collecting together grand designs. These will never be built for £90 per square foot—what the housebuilders are currently investing in our new homes.

Instead, our chosen architects need to ask a new question: not what their design might cost—it will be too much—but what can manufacturers, building contractors and suppliers offer which will only cost £90 per square foot? Conclusions might be that the existing envelope of a three-bedroom house can be better planned in section—a higher ground floor ceiling, and no roof trusses for the first floor, providing a different experience from the same envelope; or cheaper bricks might be acceptable, if they have a coat of mineral paint.

New pattern books

Our suburbs still provide us with much of what we want, but there is so much more we could be achieving. We have to do this working within an industry, a business of volume housebuilding that exists to make money not poetry. So we have to resist what is given without thought, and insist on improved pattern books, the products of more understanding of what design can offer.

In the 18th century, we deferentially received the educated taste of our superiors, patrons and taste makers. Now we have only ourselves to trust. We cannot rely on the box ticking regime of the planners, nor on the fantasies of architects dreaming without budgets. What our new pattern books must offer are improvements which have been the result of architects and builders working together: building to a price which we can afford. With the benefit of such patterns we may also be able to address the urbanist's charge that places outside the city walls are either dead or hopelessly limited. The dormitories might, with new patterns, be leavened with garden sheds in new uses.

We would be foolhardy to continue to let government or planners decide the future of our suburbs: our opportunity is to insist on change ourselves, exercising our responsibility, in the same way as we decide to make the biggest investment most of us ever make—in our dream home. Some deregulation is warranted to make permitted uses more flexible, and provide more land for building; we need to become better informed as consumers so we can demand a better product—and implementation should be left to the enterprise of builders and developers, freed from urban orthodoxies.

7 CABE Housing Audit, CABE

10 Richard Ehrman and Crispin Kelly, Building More Homes, Politeia, 2003

12 Walter Benjamin, The Arcades Project

¹ John Betjeman, Summoned by Bells, 1960; John Betjeman, Metroland. BBC Broadcast, 1973

² PPG 3, The Stationery Office, March 2000 or www.planningportal.gov.uk

³ Residential Density Direction, The Stationery Office, 2005

⁴ PPS 1: Delivering Sustainable Development, The Stationery Office, 2005; PPG 3 (2nd Revision), The Stationery Office, 2005 or www.planningportal.gov.uk

⁵ First outlined in *Planning for the Communities of the Future*, February 1998; then incorporated in PPG 3 in 2000

⁶ Design for Manufacture Competition, Department for Communities and Local Government, April 2005 www.designformanufacture.info

⁸ What home buyers want: Attitudes and decision making among consumers, CABE, 1 March 2005 www.cabe.org.uk/publications.aspx

⁹ What it's like to live there, CABE, 2005 www.cabe.org.uk/publications.aspx

Selected Letters of Philip Larkin 1940-1985, ed. Anthony Thwaites, 1992: Letter to Judy Egerton, 17 February 1974

7. A Manifesto for X-listing James O'Shaughnessy

Not just a matter of taste

For me it is the Trellick Tower,¹ Erno Goldfinger's brutalist residential monster, which looms over West London with the A40 humming along virtually underneath. I cannot even begin to imagine why anyone in the world would want to live in such a carbuncle but, amazingly (to me), they do. In their thousands. Two-bedroom flats go for nearly £300,000, and the building itself has achieved Grade II listed status.² It now teems with metropolitan couples, architects and media professionals—so I hear, since I am unable to bring myself actually to go there—and is considered one of the funkier places to live in London.

Not that I am against modernist architecture *per se*—I love the Barbican, for example—but tastes differ. I would happily knock down Trellick Tower in a second. But others cherish it, are devoted to it in fact, and just as importantly it is a fully-functioning

building. So before outlining what X-listing is and how it could help to improve local environments, let me explain what X-listing is *not*.

X-listing is not a way for obsessed enemies of buildings that still function, and which retain some level of purpose and popularity, to get them knocked down. Nor is it a charter for some unaccountable, bureaucratic "taste police" to roam around the country imposing their views on what is acceptable and riding roughshod over other people's private property. The truth is that we are very good at preserving and celebrating our best buildings but terrible at sorting out our worst. And that is where X-listing comes in—as a fast-track way to repair or replace Britain's failing buildings, driven by those most badly affected.

Why X-listing?

X-listing is the brainchild of architect, developer and former President of the Royal Institute of British Architects George Ferguson,³ and has been promoted by Kevin McCloud and Janet Street-Porter in the Channel 4 series *Demolition.*⁴ Policy Exchange,⁵ together with the ippr Centre for Cities,⁶ has helped to develop the initial idea into a manifesto for action. Most significantly, support for the concept from the public has been incredible—over 10,000 viewers responded to Channel 4's request for people to name and shame Britain's worst buildings—displaying the passions that bad buildings excite, and showing why a proper plan for dealing with this problem is a political necessity.

But X-listing is not just about buildings. It is also about stimulating participation and debate. The whole point of it is to give citizens and their communities the power, from the bottom up, to improve their local environment. It is a positive, democratic idea which aims to turn Britain's eyesore places and spaces into opportunities. After all, the built environment affects everyone. Its quality can determine our happiness and sense of well-being. Yet while we can change our own homes and maybe even improve our own street, it is almost impossible for local people to take action against the bad buildings and public spaces that blight our towns and cities, and which profoundly damage our communities.

Many buildings are simply not good enough. Take Westgate House in the heart of Newcastle's historic Grainger Town.⁷ It is the archetype of the drab, 1960s concrete office block. After five years of dedicated work it is actually being demolished, and George Ferguson was invited to cast the first blow. Buildings like this are often poorly designed, badly built or derelict. In this case, the office block actually cuts into one of Newcastle most beautiful streets, dominating and depressing the landscape.

But it is not merely their aesthetic impact; the important thing is that these places have a powerful negative impact on their surroundings. Crucially, Westgate House is disused, emphasising the point that not only are these kind of buildings ugly, but their very ugliness and poor design means companies are loathe to use them. They fail in every sense. They depress people and often stifle the economic vitality of their neighbourhood. X-listing aims to give real power to that democratic imperative, helping people make their villages, towns and cities better places to live.

The *status quo* is not good enough. We need to act, for three reasons:

Bad buildings are a drag

There are too many poor and ugly buildings in our towns and cities—not just ugly but useless as well. Often it is not merely the buildings themselves but the quality of the public space they impose upon and the absence of care or usage. They drag down our towns and impede our local economies.

Local leadership is not delivering

Bad buildings are there because of bad decisions: by central government, local authorities, developers, tenants, architects and planners. They all need to improve the services they provide, and need to take more notice of the views of the people who are affected by their decisions. The intransigence of North Lanarkshire Council in the face of public dissatisfaction with Cumbernauld's crumbling shopping centre,⁸ for example, exemplifies the problem perfectly. Strong leadership and vision are needed to turn these eyesores into opportunities. Politicians and bureaucrats will be shocked into action if the public are given a voice.

People feel left out

Political alienation is becoming a fact of modern life. This applies as much to our built environment as to anything else. We may care passionately about our everyday buildings—our homes and shopping centres, offices and trains stations—but it is extremely difficult to get anything done about the bad ones. Despite new duties to consult local people, the planning system can seem—and be—far too complicated and long-term to engage people's energies. It also reflects the institutional view that development and redevelopment are problems to be dealt with, rather than opportunities to improve quality of life.

What is X-listing?

X-listing puts people first, giving them a direct say in shaping their own environments by identifying the worst buildings in Britain and speeding up their makeover or even demolition. X-listing of bad buildings is in effect the mirror-image of the listing of heritage ones; but rather than seeking to conserve, it looks for radical transformation. The places listed can be a single building, its surroundings or a group of buildings. These could range from a single supermarket, like Lodges in Holmfirth, Yorkshire⁹ (of *Last of the Summer Wine* fame), to the massive—and Grade II listed—Park Hill housing estate in Sheffield.¹⁰ Larger areas or neighbourhoods, which should be dealt with through other mechanisms within the planning and regeneration process, would not be included.

A possible approach is set out in detail below. But the broad idea is that the public would nominate buildings they wished to see on the X-List. These would then be evaluated and decided upon by the X-List Jury; and endorsed by the Department for Communities and Local Government (DCLG). Local authorities with an X-listed building in their area will be required to make sure action is taken.

X-listing is a positive force for change. The existing condition of the building should be transformed and might include remodelling the public space around the building, refacing or refurbishing the exterior facades, making it fit for modern use, identifying new uses, remodelling the interior or external spaces, or partially or even completely demolishing the building. Whatever the action, it must result in a place that is widely agreed to be more attractive, contributes to the local context, is better used and more economically viable.

It is crucial, however, to understand that X-listing is not just about design or personal taste. To get on the X-List, a building will have to meet *all three* strict criteria. They will have to look bad, feel bad and work badly:

- *Physical*—they will have no architectural merit (e.g. buildings regarded as part of our heritage would not be eligible)
- *Social*—they will have a distressing and anti-social impact on local people
- *Economic*—they will be underused or damaging to the local economy and job market

How could X-listing work?

Nominations

X-listing could work like this: anyone can nominate a building for the X-List, just like anyone can propose a building for heritage listing. Nominators, when submitting to the X-List Unit, will have to explain why the building is so bad—physically, socially and economically.

Website

Nominations are then vetted and filtered to avoid duplication. Those that meet the three criteria are placed on the X-List website (e.g. www.xlisting.gov.uk) for three months. The public can then vote for the nomination—one person, one vote. Local authorities and property owners can explain what they are already doing to deal with the problems. Local media will also get involved, helping raise awareness and push for action.

Assessment

Following the three month period, a long list of nominations is drawn up. Selection for this list will be driven by:

- Level of popular support for change
- Support for change among local people
- Inactivity among owners and authorities
- · Negative impact of building or place on residents

Those on the long-list will have been thoroughly assessed by an X-List Unit, which could be set up inside the Commission for Architecture and the Built Environment.¹¹ The X-List Unit will visit the nominated sites and make recommendations to the national X-List Jury, which will include experts (architects, urban designers, planners, property developers, architectural historians) as well as representatives from the public.

Shortlist

The X-List Jury chooses a priority list (20 nominations in Year 1), and passes it to the Department for Communities and Local Government. DCLG then asks the relevant local authority and the owner of the building to prepare an X-List Action Plan and to take charge of improving or replacing the X-listed building.

Monitoring

All X-listed buildings are monitored by the X-List Unit, to make sure the Actions Plans have been followed through. After two years, the local authority will have to report back to the X-List Unit. The lessons learnt from all the nominations and the stories behind them will be collected and shared each year through the website.

Dealing with the objections

X-listing is a deliberately radical attempt to improve the built environment and stimulate local community action. It will naturally arouse strong feelings on all sides. Yet the key objections can be met, I suggest.

This is just another government attack on private property rights. If a building's owner doesn't want to improve it that's their business.

All buildings, public and private, impose on public space and the local economy. In doing so they create externalities—either they positively affect the local area, through their beauty or usefulness, or they bring it down. In this sense all private property has a public element to it, over which it is appropriate that there is some local democratic influence. Not control, but influence. The order of action is crucial, however, and it must flow from the people up rather than from government down.

Furthermore, many property owners are desperate to refurbish or rebuild their defunct buildings. They face huge opportunity costs for leaving them empty, but are often hamstrung by the planning system. The redevelopment of Battersea Power Station¹²—which noone wants to knock down, but everyone wants to renovate—has been bogged down in planning disputes for decades. It could have been transformed years ago, but a sclerotic and ever-changing planning regime has resulted in gridlock. X-listing would have meant something was done, to the benefit of the owners *and* Londoners.

A building may be ugly but people live or work in it, and they wouldn't appreciate it being torn down

In which case it fails the test outlined above. A building or set of buildings must look bad, feel bad and work badly. Whether it does or does not will become apparent during the nomination process. Those that are demonstrably failing and attract a lot of public support for change will go forward for X-listing. But if they still function, and the users and owners are happy with them, then they will not qualify.

Several of the buildings looked at during the making of *Demolition* fall into this category. Even the Scottish Parliament was nominated! And while local Edinburghers might not like its design, it is a fully functioning building and was not put forward for change.

Using petitions puts too much power in the hands of a few people—there ought to be some sort of local referendum

The whole point of X-listing is to remove power from the hands of a few politicians and bureaucrats and put people in charge of their local environment. Too many bad buildings were constructed precisely because these elites imposed their views on the public, rather than listening to what the public wants. The vast housing estates around Elephant and Castle in London are classic examples of when this has happened—popular terraced housing torn down and replaced with idealistic but useless buildings that have ruined the quality of life of many residents. The Government's plans to wreak the same destruction in the Pathfinder "renewal" areas of northern England are the modern manifestation.¹³

Paying for X-listing

X-listing will cost money. The Unit will need to be funded. To make things happen two different levels of intervention are likely, which should be identified in the Action Plan.

Where the refurbishment or redevelopment of buildings is financially viable, the local authorities should focus on how to get things moving. For example, they could carry out design and cost studies on how a building could be transformed, assist with compulsory purchase, use existing regeneration funding to give incentives to developers, or streamline their planning policies and decisions.

Where the transformation of a building is not currently financially attractive to developers, however, then the public sector (central and local government) should identify new powers and funding to make something happen. Public agencies may need new statutory powers to ensure they can compel action, possibly the widening of CPO powers to deal with X-listed buildings. X-listing could provide the opportunity to test new forms of public sector funding, for example, local authorities' ability to keep some of their business rate revenues, or using Business Improvement Districts, where they exist.

Government actions

What, then, can central government do? Here are four immediate steps it could take to support X-listing:

- Set up an X-List Jury and Unit, with an initial target of X-listing 20 buildings in Year 1—and 50 buildings a year after that. Endorse the X-List and compel local authorities to prepare and take ownership of the X-List Action Plans.
- Empower local authorities to sort out X-listed buildings. In some instances, this will mean giving them additional powers and cash to compel and provide incentives for action. This could include giving them more financial freedom to sort out their X-listed buildings.
- **Reform the planning system** to provide incentives to speed up the repair or removal of ugly buildings that are detrimental to their local area.
- Review X-listing after two years and formalise it, if it is working. This means making the X-listing statutory.

X-listing is about putting power in the hands of people. It should be seen as part of a wider move to direct democracy. Nothing can happen without the express support of a large number of those affected by a building or its environs. Everyone is more than entitled to simply ignore or campaign against a nomination. The whole point of X-listing is to reach a local consensus on the need for change. It would harness social action at the local level, and give everybody the opportunity to improve their local environment.

¹ en.wikipedia.org/wiki/Trellick_Tower

² English Heritage www.english-heritage.org.uk

^{3 &}quot;Vile buildings that should be demolished", Daily Telegraph, 16 August 2004

⁴ For more information go to www.channel4.co.uk/demolition

⁵ Policy Exchange www.policyexchange.org.uk

⁶ ippr Centre for Cities www.ippr.org.uk/centreforcities

138 Living for the city

- 7 www.newcastle.gov.uk/gttv/westgate.htm
- 8 www.scottish.parliament.uk/sch/motion.page?clause=WHERE%20(motionid=9469)
- 9 www.area5.co.uk/holmfirth/planning/sortit.htm
- 10 www.sheffield.gov.uk/in-your-area/planning-and-city-development/housingregeneration/park-hill
- 11 Commission for the Architecture of the Built Environment www.cabe.org.uk
- 12 www.thepowerstation.co.uk
- 13 www.fightforourhomes.com

8. City of the Future: Is Dongtan a New Urban Development Paradigm?

Herbert Girardet and Peter Head

Setting the scene

What are the conflicts, if any, between economic growth and environmental development? How should "green" issues bear on urban development? As public debate about these issues grows in Britain, there are fascinating lessons to be drawn from an unlikely source: China.

China is constantly in the news. Statistical superlatives come easily to mind. It is the world's most populous country with the fastest growing economy, most rapid urbanisation, the fastest growth in car ownership, the largest dam projects, the most rapid programme of power station construction—30 nuclear reactors are on order and one new coal fired power station is being completed every week. Between 1990 and 2001, consumption of petroleum increased by 100 per cent, natural gas by 92 per cent, steel by 143 per cent, copper by 189 per cent, and aluminium by 380 per cent. In 2003, China consumed two and a half times more steel than the USA—a total of 258 million tons. In the words of the World Watch Institute, "It is as if all of Europe, Russia and North and South America were simultaneously to undertake a century's worth of economic development in a few decades."¹

Over the last 25 years, the richer countries of the world have done everything they could to persuade China into going down this break-neck development path. The results are staggering: over this period China's GDP increased ten-fold to over \$1.4 trillion—an annual growth rate of 9.4 per cent; its foreign trade grew more than forty-fold to \$850 billion—an annual growth of 16.1 per cent. It is the only developing country to have succeeded in reducing poverty significantly in recent years.²

But China is also in the news because of growing national and international environmental concerns. It has 16 of the world's 20 most polluted cities and the the world's highest sulphur dioxide emissions. 300,000 people a year die prematurely from respiratory diseases. CO2 emissions levels are fast catching up with those of the US. Urban sewage, fertiliser run-off from farms and industrial chemicals are poisoning its lakes and rivers. Water tables are falling rapidly, and deserts are advancing and blowing eroded soil across the world. Zhenhua Xie, Minister of State, Environmental Protection Agency, said recently: "China's current development is ecologically unsustainable, and the damage will not be reversible once higher GDP has been achieved."

There is a growing realisation in China that the benefits of its world record economic growth could be effectively undone by the ever-growing costs of resource depletion, pollution and damage to human health. "China's environmental problems have the potential to bring the country to its knees economically", says Elizabeth Economy, author of a recent book on China, *The River Runs Black*.³

Awareness of these problems is not confined to outside observers. Since 2004, China has introduced the concept of "scientific development". It has introduced a "green GDP" measure that adjusts the country's GDP to account for the exploitation of natural resources and the degradation of the environment. China's decision makers are beginning to realise that annual "gross national damage" could be greater than actual GDP growth.

New policy measures in China have partly resulted from growing local discontent and even rioting over projects imposed from above that are affecting local living conditions. Major infrastructure projects such as road construction and dams, and the land required for building new power stations and factories has provoked anger across much of China. The vigorous environmental movement is also responding to the damage to crops caused by air pollution from factories and power stations.

Pan Yue, Deputy Minister, State Environmental Protection Administration, said in November 2004: "China can no longer afford to follow the West's resources-hungry model of development and it should encourage its citizens to avoid adopting the developed world's consumer habits... It's important to make Chinese people not blatantly imitate Western consumer habits, so as not to repeat the mistakes by the industrial development of the West over the past 300 years."⁴

Industrial and urban growth

Chinese concern is not only focused on the impacts of industrial development but also on urbanisation and its environmental

impact. Again, the numbers are astonishing. China is currently experiencing the fastest urban growth of any country in history. According to Guanming Daily, China's urban population is expected to reach 1.12 billion by 2050—a shift of more than 600 million people, or nearly half of China's current population, from rural to urban.⁵

At present, the Chinese mainland has more than 660 cities and 19,000 towns. By 2050, 80 per cent of towns will have grown into small or medium-sized cities. By then, China will have 50 ultra-large cities of more than two million people, 150 big cities, 500 medium-sized cities and 1,500 small cities. The urbanization rate in China would rise from the current 36 per cent to 70 per cent, boosting China's economic growth and creating new jobs.⁶

China's ever-growing demand for resources is not just being met from its own territory—it is being increasingly felt across the world. The environmental price for this is not just a national, but an increasingly global, issue. China is becoming a major importer of timber from other parts of Asia and Siberia. And, increasingly, timber as well as soya beans are being imported from ecologically vulnerable regions such as the Amazon to meet ever-growing urban demands.

"What if China reaches the U.S. consumption level per person?" asks Lester Brown, CEO of the Earth Policy Institute. "If China's economy continues to expand at eight per cent a year, its income per person will reach the current US level in 2031. If at that point China's per capita resource consumption were the same as in the United States today, then its projected 1.45 billion people would consume the equivalent of two thirds of the current world grain

harvest. China's paper consumption would be double the world's current production. There go the world's forests."⁷

A new beginning? The example of Dongtan

When Hu Jintao became president in 2003, his administration started to ask searching questions about the trajectory of China's industrial and urban development. Since then a new policy emphasis on "harmony between man and nature" and on "building a conservation-oriented and environment-friendly society" has emerged. China's political leaders started to insist that "economic development must consider its impact on the environment and on society".

In a recent speech Hu Jintao said: "The historical experience of human progress shows that we should never seek development at the cost of wasting resources and damaging the environment. Otherwise, mankind will have to pay a high price and ultimately the development itself will be threatened. Development should be promoted along the road of high technological content, sound economic efficiency, low resource consumption, little environmental pollution and full use of human resources."⁸

There are now clear indications that China is serious about taking vigorous steps towards sustainable development, and is doing so much more quickly than other countries. It has started to initiate bold projects that could set new patterns in China itself, as well as across the world.

Probably the world's most substantial sustainable development project now being implemented anywhere on earth is Dongtan Eco-City. This is being designed and planned at the cutting edge of environmentally-friendly urban development. But it is also set apart by the single-mindedness and energy of the Chinese authorities in implementing the project in a fully "green" way.

The new city has been commissioned by Shanghai Industrial Investment Corporation (SIIC) from Arup, the global design and business consulting firm with which the authors are both associated. Arup is responsible for the integrated master-planning of the built environment in Dongtan. It is providing services like urban design, planning, sustainable energy management, waste management, renewable energy process implementation, economic and business planning, sustainable building design, architecture, infrastructure and even the planning of communities and social structures.

Dongtan will be built on Chongming Island in the Yangtze River Delta, 15 kilometres North of Shanghai on an area of land 86 square kilometres in size, nearly the size of Manhattan Island. It is intended to become the world's first true Eco-City, deliberately designed to be carbon-neutral and to have a minimal ecological footprint. By 2010 it should be a city of 30,000 people, and by 2040 one of 500,000 people. The goal is to create a beautiful, innovative and truly sustainable city, and if the experiment is a success, to use the concepts incorporated in Dongtan's design as a template for urban development elsewhere in China.

The Dongtan project is a highly ambitious one. Its primary purpose is easily stated: to provide 21st century living conditions for up to 500,000 people with no significant damage to the environment. Dongtan aims to achieve sustainable environmental, social and economic development simultaneously, and to ensure that improvement of one will not be detrimental to another.

The Dongtan masterplan

Dongtan is designed to be a vibrant, diverse, mixed-use, inclusive and safe urban environment. It is being designed as a city consisting of compact villages set in undulating parkland intersected by canals and lakes. It will provide its people with economic opportunities, good services and a healthy lifestyle. It will assure efficient use of energy and resources, and protection of the natural environment. It aims to set new standards in sustainable, carbon-neutral urban development. To give some idea of scale: the cost of building Dongtan will dwarf that of the 2008 Beijing Olympics and will run into billions of dollars.

Dongtan will be a city made up of pedestrian-friendly villages and towns, linked together by cycle tracks and innovative, fuelefficient public transport. Dongtan's design is intended to assure that all its citizens can be in close contact with green open spaces, lakes and canals. Its buildings will be highly energy efficient, and the city will be largely powered by renewable energy—the wind, the sun and biomass. Dongtan will be a truly green city both in appearance, as well as in the way it functions. Linear earth mounds that double up as nature parks will ring the villages that make up Dongtan.

But it is important to emphasise that Dongtan will not be a city in "splendid isolation". A significant aspect of it is that it will become a garden city for Shanghai that will enhance its overall urban quality and international competitiveness. Dongtan will be linked to Shanghai's Pudong district by a bridge and a tunnel. The road system on Chongming Island will then link Shanghai with the neighbouring province of Jiangsu, creating an urban nexus that could become China's primary financial and commercial centre.

Chongming Island

Ironically Dongtan is being built on an island in the Yangtze Delta that is, in itself, a product of environmental catastrophe. In the last 50 years Chongming Island has doubled in size and has become the world's largest alluvial island, due to eroding soil from deforestation in the headwaters of the Yangtze washing down the river. Chongming grew from the 600 square kilometres in 1950, to 1290 square kilometres today.

One reason for the decision to create a city of minimal environmental impact on Chongming Island is the existence of a huge wetland area on the southern part of the island, a reserve for migrating birds, the largest of its kind in China, and a site governed by the 1971 Ramsar convention on wetlands. A conventional urban development, with little concern about the pollution being discharged into the surrounding environment, has long been regarded as unacceptable. Instead, the wetlands are expected to be a strong visitor attraction. And vegetation from the wetland reserve will also permeate Dongtan, to try to ensure that it is part of the island's natural habitat rather than a barrier to it. The bird sanctuary, a rich variety of leisure activities and exhibitions, as well as locally produced food in hotels and restaurants, should make Dongtan attractive to people from Shanghai and further afield.

Architecture

Dongtan will be a low-rise development of apartment buildings, most of which will be no more than six stories high. Many buildings will be for mixed use, combining work opportunities and residential functions to minimise commuting. Every urban district will also have cafes, schools, hospitals, workshops and office buildings. All buildings will be designed to high aesthetic and build-quality standards, as well as for maximum energy efficiency.

Energy and transport

Most buildings will also have their own photovoltaic solar panels. Large wind turbines outside the city, and smaller ones located within the city, will meet about 20 per cent of Dongtan's energy needs. Biomass energy production, using rice husks that are currently dumped as waste, will produce a large proportion of Dongtan's electricity. Dongtan's energy system will be controlled from its dome-shaped Energy Centre that will also be a scientific and environmental education centre.

As a series of pedestrian-friendly villages, Dongtan will teem with footpaths, cycle routes and canals. Dongtan's layout will minimise the need for petroleum-driven transportation. The cars, trams, buses and boats that will be used within the city will be powered by electric motors or hydrogen fuel cells. The transport system as a whole will assure high energy efficiency as well as good air quality and minimal noise pollution.

The economy

It is expected that Dongtan will be a vibrant and diverse economy that will generate a rich variety of employment opportunities. It is intended to attract people from a broad socio-economic spectrum who will play their part in a wide range of businesses within the city. Dongtan will contribute to the region's sustainable prosperity by integrating economic development and environmental protection.

A large proportion of the people who live in Dongtan will also work there in a variety of service industry clusters. Dongtan is also expected to have a number of research institutes focused on sustainable development. Eco-industries will be a major component of Dongtan's economy. There will be thousands of jobs in solar and wind technology, and in waste management.

Agriculture

Roughly 40 per cent of Chongming Island will be urbanised, while 60 per cent will remain agricultural. Sophisticated organic-farming techniques linked to the waste and sewage recycling system are designed to create a sustainable cycle of local food production. Much food will be produced in innovative multi-storey greenhouses lit by low-energy LED lights.

The integrated approach to Dongtan's development should also mean that Chongming's existing local farming and fishing communities will have significant new business opportunities, whilst enhancing the island's long-term environmental sustainability at the same time. Food will be processed on the island for added local value, and restaurants will also be major feature of the local economy.

Waste management

Dongtan is being conceptualised as a zero waste city, with waste seen as an important resource. Most of Dongtan's solid waste output will be recycled and remanufactured. The bulk of its organic wastes will be composted and returned to the local farmland to help assure its long-term fertility and its capacity to produce much of the city's food needs.

Water

Dongtan will be a city permeated by canals, lakes and reservoirs that will be an important feature of flood management. Green rooftops will collect, filter, and store water as part of the city's water systems. Sewage will be cleaned mainly using decentralised biological treatment systems that also have the purpose of capturing the nutrients contained in the waste water.

Green spaces

Whilst Dongtan will be a compact urban development, it will have as much green space as the world's greenest cities, such as Berlin. As an eco-city it will also assure that its parkland is rich in biological diversity. There will be many more trees in Dongtan than are currently to be found on the island.

The first phase of Dongtan

Dongtan is not some distant dream. On the contrary, it is already a work in progress, albeit a long-term one. It will be developed in several stages in the next 30 to 40 years. The first phase, to be completed by 2010, is a town designed for some 30,000 people on the southern end of the site, facing the Yangtze. The tunnel and bridge that will link Chongming Island to Pudong is already under construction.

The first phase will include three pedestrian villages, each with its own distinct character. Dongtan will then continue to grow as a collection of towns connected by cycle routes and public transport corridors. The masterplan will ensure that people will take no more than seven minutes to walk from any part of the city to a bus or tram stop.

A significant part of Dongtan's first phase will be eco-tourism, with many weekly visitors from Shanghai and elsewhere. In 2010,

Shanghai will host the World Expo, and Dongtan is intended to demonstrate that environmental sustainability is a very important concern in modern China.

Future prospects

Dongtan is a local project. But its global implications are very great. For China, it will be an important statement of its commitment to ecologically friendly growth. But more widely, it is intended to set a new standard in—and to contribute in its own right to the emergence of—a world of ecologically sustainable and economically vibrant human settlements.

It is becoming clear that the planet will not be able to cope if 1.3 billion Chinese (plus 1.2 billion Indians) do what only a few hundred million people have done so far: burn fossil fuels, extract resources, consume and pollute. As Asia's high-population countries catch up with Europe, North America, Japan and Australia, sustainable development is the only way to go.

Dongtan will offer China an opportunity to be seen as creating a pioneering zero-emission Eco-City that could become a template for sustainable urban development, in China itself and elsewhere in the world. It holds great promise as an attractive, high-efficiency, smallfootprint urban design. Already there are several other similar schemes on the drawing board—for China as well as other developing countries.

Dongtan shows that the Chinese are beginning to embrace a bold sustainable development paradigm. Quite apart from the demographic and environmental pressures, there are commercial incentives, too. The world already has the technologies to produce a place like Dongtan, but the Chinese are the first to bring them together in one place.

And there is also a commercial aspect. If Dongtan proves to be successful, the concepts underpinning it could be sold to the rest of the world. This city has the potential to become an important showpiece for the rest of the world. The 2010 Shanghai World Expo, where Dongtan will be showcased, will offer a major opportunity to recruit international clients. If all goes well, Dongtan will be both a compelling model for sustainable urban development worldwide, and a lucrative source of Chinese post-industrial commercial leadership.

Further reading

Shanghai Dongtan: An Eco-City, edited by Zhao Yan, Herbert Girardet, et al

¹ Vital Signs: The Looming China Syndrome, World Watch Institute of Washington, 2005

² Global Governance Initiative Fact Sheet, World Economic Forum, 2004

³ The Economist, "A Great Wall of Waste: China's Environment", 21 August 2004

⁴ New York Times, November 2004

⁵ Guangming Daily, 19 July 2004

⁶ China's Urbanization Rate Tipped to Rise, Chinese Embassy, Washington 19 July 2002

⁷ Lester Brown, Plan B 2.0, Earth Policy Institute, Washington DC, 2006

⁸ Hu Jintao, Speech at the APEC CEO Summit, Santiago, Chile, 19 November 2004

Michelangelo claimed he loved cities above all, finding no salvation in nature. For many people, though, today's cities mean overcrowding, pollution, congestion and yobbery.

But how do we live in cities today? How does city design affect our lives? How can we make cities not just bearable but healthy and vibrant places to live for all their inhabitants?

These are the topics of this book. It highlights the deep flaws in the current consensus on cities. But it also brings out a crucial and unexpected linkage between three things: 'direct democracy' or greater citizen participation in community action and local decision-making; greener, healthier and safer city environments; and improved economic growth. It thus sets the scene for a new centre-right agenda for cities.

£10

ISBN 0-9551909-7-5

Policy Exchange Clutha House 10 Storey's Gate London SW1P 3AY Tel: 020 7340 2650

www.policyexchange.org.uk



