London Essays is a journal published by Centre for London and generously supported by Capital & Counties Properties PLC. It explores the economic, social, and environmental challenges facing London and other cities, together with ways of addressing these. Each issue of *London Essays* has a single theme, with contributors from varied disciplines offering different perspectives – writers and academic experts, business leaders and social entrepreneurs, policymakers and politicians. We hope you enjoy it.

Published by Centre for London
September 2017

Centre for London
Tel: 0203 757 5555
hello@centreforlondon.org
www.centreforlondon.org

Company Number: 8414909
Charity Number: 1151435

London Essays (Print) ISSN 2058-7953

Further information can be found
at essays.centreforlondon.org

Designed by Soapbox
www.soapbox.co.uk

CONTENTS

5
FOREWORD
Ian Hawksworth

7
INTRODUCTION
Geraldine Bedell and Ben Rogers

10
A HUMAN CITY IN A MACHINE AGE
Charles Leadbeater

14
CLIMATE CHANGE
The data

16
CITIES CAN DEFEND US AGAINST CLIMATE CHANGE
Mark Watts

19
PREDICTING THE UNPREDICTABLE
Corinne Swain

24
BACK TO THE FUTURE
Larry Ryan

27
THE HEART OF THE CITY
An interview with Ian Meikle

30
WHY DO ROBOTS ALWAYS MARCH?
Jamie Bartlett

34
TECHNOLOGY
The data

36
THE FUTURE IS NOT INEVITABLE
Ben Rogers

39
A TALE OF TWO FUTURES
Celia Hannon

44
DEMOGRAPHY
The data

46
A NEW AGE OF AGEING
Sarah Wigglesworth

49
FORM FOLLOWS FUNDING
Richard Brown

52
POPULATION PROJECTIONS
The data

53
RETHINKING THE GREEN BELT
Max Farrell

56
THE FUTURE OF EAST LONDON
Charles Saumarez Smith

58
WHAT WILL SURVIVE OF US
Susie Mesure

61
XXXX
Students

65
LONDON: WHAT THE FUTURE LOOKS LIKE?
Daniel Tapper

CONTRIBUTORS

Jamie Bartlett
Jamie Bartlett is the author of *Radicals: Outsiders Changing the World*, and Director of the Centre for the Analysis of Social Media, where he specialises in digital trends and machine learning.

Geraldine Bedell
Geraldine Bedell is Editor of *London Essays*.

Richard Brown
Richard Brown is Research Director at Centre for London. He was previously strategy director for London Legacy Development Corporation and ran the Mayor of London's Architecture and Urbanism Unit.

Max Farrell
Max Farrell is a Partner at Farrells, internationally renowned architects with offices in London, Hong Kong and Shanghai. An expert in public affairs and urban planning, he was Project Leader for the Farrell Review, commissioned by the UK Government.

Celia Hannon
Celia Hannon is a Director at Nesta, where she leads on futures and foresight for the foundation. She was previously a Fulbright Scholar in New York and a Fellow at the US innovation organisation the GovLab, and worked at Demos on citizenship, digital inclusion and family policy.

Charles Leadbeater
Charles Leadbeater is a leading authority on innovation and creativity and has advised companies, cities and governments around the world on innovation strategy. He is a Centre for London Associate, where his work includes *The London Recipe* and *Hollow Promise*.

Ian Meikle
Ian Meikle is Director – Infrastructure Systems at Innovate UK, where he leads the energy, transport systems and future cities programmes of work and sits on the board of four Catapults: Energy Systems, Offshore Renewable Energy, Transport Systems, and Future Cities.

Susie Mesure
Susie Mesure is a freelance feature writer and broadcaster. She was a senior writer at the *Independent on Sunday* and *The Independent* for 15 years.

Robert Phillips
Robert Phillips is the Co-Founder of Jericho Chambers and the author of *Trust Me, PR Is Dead*.

Ben Rogers
Ben Rogers is Director of Centre for London.

Larry Ryan
Larry Ryan is a writer and editor. He was the founding editor of *The Long + Short*, an online magazine about new ideas and innovation, and previously worked at *The Independent*.

Corinne Swain OBE
Corinne Swain OBE is a former Director and Head of Planning at Arup. She is now an Arup Fellow focusing on planning, economics, demographics, transport and the environment. She was one of eight experts steering the UK Government's Future of Cities foresight project (2013–16).

Charles Saumarez Smith
Charles Saumarez Smith is Secretary and Chief Executive of the Royal Academy of Arts, where he has been responsible for the renovation of its building in Burlington Gardens. Portions of his blog (charlessaumarezsmith.com/blog) have recently been published as a book, *East London*, by Thames and Hudson.

Daniel Tapper
Daniel Tapper is an award-winning journalist and author of *Food Unwrapped*, exploring the culture, science and inner-workings of mass-produced food. Daniel owns a "nomadic brewery" called The Beak, and travels the country making bespoke small-batch beers.

Mark Watts
Mark Watts is the Executive Director for C40 Cities Climate Leadership Group. He was previously Director of Arup's energy and climate change team. As Climate Change and Sustainable Transport Adviser to the Mayor of London, he was described by the Evening Standard as "the intellectual force behind Ken Livingstone's drive to make London a leading light of the battle against global warming."

Sarah Wigglesworth
Sarah Wigglesworth MA Dip Arch RIBA RDI MBE is director of the London-based architectural practice she founded in 1994. Her work is acknowledged as a pioneering influence in British Architecture, and is charaterised by a rich spatiality and sensual material expression. Specialising in ecological solutions, Sarah Wigglesworth Architects has designed buildings for the educational, community, masterplanning, cultural, and housing sectors, and won many awards. As Professor of Architecture at the University of Sheffield, she led the DWELL research project, designing housing and neighbourhoods for older people.

FOREWORD

Ian Hawksworth, Chief Executive, Capital & Counties Properties PLC

Many of the world's megatrends collide in London, the world's greatest city. This eighth volume of *London Essays* – which Capco is proud to support – explores some of the 21st century challenges posed by the march of technology, the shift in demographics, social division, and the imperative of protecting the environment for universal wellbeing.

Together with our partners at Centre for London, Capco has been thinking deeply about good growth in the capital: for jobs and skills; transport and infrastructure; housing and homes; inclusion; and to maintain an authentic sense of place. We consider the city through the twin lenses of systems and empathy: systems to make everything work well, empathy that recognises people's real lives as the city's heartbeat. The harmony of systems and empathy is celebrated in Capco's two great estates, in Covent Garden and the new district for London that is emerging at Earls Court.

In autumn 2017, Centre for London and Capco will share insights from the recent *Growing Well: London 2040* workshop series, which has crowdsourced future ideas for London from over 100 distinguished experts. Our collaboration on Futures asks important and urgent questions. It addresses the consequences of growth, asking what kind of city do we want to live in and how can we make it work for the good of all? In the light of recent tragic events, these are urgent and sobering questions for us all. ■

LONDON ESSAYS

POPULATION PROJECTIONS

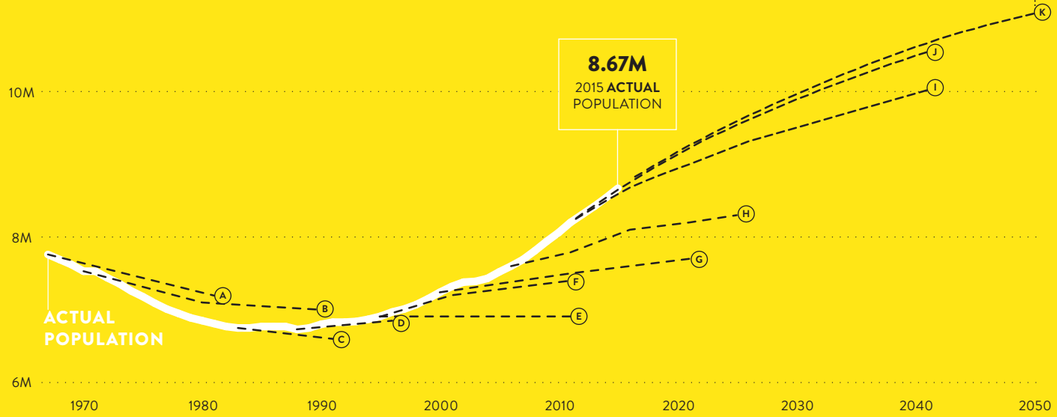
Those responsible for planning London's future naturally look to experts to tell them how the capital's population will change. But this graph, which tracks London's mid-year population estimates from 1967 to 2015, shows that most official projections have been wide of the mark. Early predictions underestimated the decline; more recent ones underestimated the rise.

The models used by London's demographers have become increasingly complex – these days they tend to offer a range of projections, based on different assumptions, rather than a single forecast. A recent set of projections from the Greater London Authority in 2012 demonstrates this. For one projection, they used a trend-based model (J), resulting in a higher population trajectory than another based on housing and household formation data (I). The increasing complexity of models should lead to more accurate projections, although it seems likely there will always be unknowns.

What does the future hold? Some early indicators suggest Brexit is suppressing immigration to London, which could reduce population growth – although this may be offset by increased migration from within the UK. If past experience teaches us anything, however, it's that population projections are extremely unreliable.

LONDON'S MID-YEAR POPULATION ESTIMATES 1967–2015

PROJECTIONS FROM DIFFERENT BODIES VS ACTUAL POPULATION



(A) Greater London Development Plan (GLDP): Report of Studies (1967)
(B) Greater London Development Plan (GLDP): Evidence (Stage 1) (1970)
(C) Greater London Council: Draft Alteration to GLDP (1983)
(D) London Chamber of Commerce and Industry: ERP (1988)
(E) London Research Centre (1995)
(F) Office of Population Censuses and Surveys (OPCS) (1995)
(G) London Research Centre / Office for National Statistics (2000)
(H) Transport for London (2005)
(I) Greater London Authority: Using SHLAA Housing Data and DCLG Household Formation Rates (2012)
(J) Greater London Authority: Trend-based (2012)
(K) Greater London Authority: Interim 2015-based projections (2016)

SOURCE: Actual population from GLA (2016). Projections from indicated documents, assuming linear change between contemporary and projected population where necessary.

RETHINKING THE GREEN BELT

Max Farrell

Not all of the green belt is working for us.
We need a more radical approach.

The quality of landscape and ecological diversity of London, which set it apart from other world cities, have come about as a direct result of man-made interventions.[1] There is now a campaign to make London the world's first National Park City, which we at Farrells enthusiastically support. Its premise is that we need to improve the accessibility and integration of our green and wild spaces so that they can be used to their full potential for education, recreation, healthy living, and food production, as well as to ensure the preservation of natural habitats.

The green belt has played a positive role in shaping the growth of our capital city since its existence was guaranteed by legislation over 60 years ago, powerfully protecting the countryside from urban sprawl and helping retain the character and vitality of the city. In 1995, further policies were introduced, aimed at providing more attractive and recreational landscapes; retaining farming and forestry; and improving damaged and derelict land.[2] The natural capital contained in green belt land is often underestimated or simply not understood. The ecosystem services it provides, including potential for flood mitigation and food production, will become even more significant as the population grows and the threat of climate change becomes more profound for all of us living on this small island.

Over the years, there has been discussion as to whether we need to use a small percentage of green belt land to build a large percentage of the housing we so desperately need. The debate has been a binary one. The majority of Londoners, and, as a result, the majority of politicians, consider the area designated green belt sacrosanct. Developers, conversely, argue that parts of the green belt are poor-quality land – and that where there is close proximity to transport connections, it should be released to build housing.

What is not widely understood is that much of the green belt land is not merely poor quality, it is actually highly damaging to our environment. As a result of the fertilisers used in modern methods of agriculture, the water we drink in London has to be piped in from as far away as Wales and the Lake District then blended with the more contaminated water from the south east in order to reach regulatory standards. This is hugely costly, and defies logic.

The widespread assumption is that we are preserving the green belt to improve the environment and our quality of life, yet in practice the opposite is true. I have even heard it said that an acre of car park is better for the environment than an acre of the green belt on which fertilisers are used.

Agricultural intensification affects water quality through soil management, including fertiliser application and the release into water of other chemicals like pesticides; and by the erosion of soil, which is washed off from farmland. In the UK, it is estimated that around 60 per cent of nitrates in bodies of water, and 75 per cent of the sediments polluting water have derived from farming.

I would like to argue for a more proactive approach to planning. In 2009, the Labour government established the criteria for creating large-scale housing developments that would be designated 'eco towns'. These included a minimum of 30 per cent affordable housing, 40 per cent green space, one job per household, and 50 per cent shift from car to accessible public transport walking or cycling. As is often the way, the policies were scrapped when a new government came to power – in this case, only a year later. The one surviving project for which the eco-town principles were specifically kept in place was the scheme that we, at Farrells, have masterplanned at NW Bicester, now under construction and due to provide 6,000 zero-carbon homes.

We have found that these kinds of positive planning policies can help facilitate high-quality development.

If, as many people have argued, we have to look at releasing, say, 3 per cent of the green belt for new housing, how could we use the planning system so that the net effect would be the increased quality and productivity of the remainder?

One way would be to apply rules similar to those used to create social benefits, such as affordable housing or transport improvements, which are enforced through section 106 contributions.

What if developers were asked to ensure that, for every acre of green belt developed, another five acres of low-quality and environmentally harmful green belt were converted into cleaner agricultural land or high-quality green space for leisure and recreation?

Land that is currently detrimental to the environment would have to be upgraded and replaced with multi-functional green infrastructure – orchards, grazing land, nature reserves and recreation space, for example. New developments would contribute to the landscape, rather than detracting from it.

Significant landscape improvements would go hand-in-hand with mixed-use developments of new communities. Clearly, the devil would be in the detail, and complex land ownerships, combined with objections from existing communities, would undeniably make it difficult to achieve. But we have to do something, and brownfield land alone cannot provide the answer, given that we need to more than double our rate of housebuilding. The prioritising of quality over quantity in the green belt is a particularly persuasive approach, considering that the quantities of land we are talking about are so small as a proportion of the green belt as a whole.

At the same time, there should be an understanding that only land close to transport corridors should be considered for development. In this way, we could make more use of land by building at higher densities – with apartments and terraced housing – as opposed to low density, which is less sustainable and leads to the kind of urban sprawl that the green belt has been so good at preventing.

With the advent of electric-powered vehicles, we will be able to reclaim a good deal of land along existing motorways, which will become far cleaner and less noisy. (In the same way, clean rail has revolutionised our ability to build on and above railway infrastructure.) The key to generating support for mixed-use development along transport corridors will be the commitment to improve the quality and accessibility of the landscape in between – the green spokes, if you like. London is well served by the Chilterns, the Cotswolds, and the South Downs, and we at Farrells are continuing to make the case for the Thames Gateway to be redesignated the Thames Estuary Park.

Ebenezer Howard, in his proposals for a Garden City, believed that five-sixths of the land allocated for settlement should be open landscape, retained for agriculture, recreation and other landscape infrastructure such as water conservation and treatment. So in a way these proposals would remain true to his original vision, through a more pragmatic and contemporary approach. Another key part of his Garden City proposals, not fully realised, was for control of the surrounding landscape to be given to the community. With the creation of Local Management Partnerships or Community Trusts to create a wider vision for the landscape and so future-proof it, this idea is now gaining momentum.

The green belt should contribute more to healthy lifestyles, not simply be a barrier that creates pockets of property value and separates communities. It should be an active landscape, putting health at the heart of new neighbourhoods, towns and villages. Future-proofing our existing and new communities for the health and care challenges of this new century is a vision promoted by NHS England in Healthy New Towns; and in NW Bicester, we have designed landscapes with the aim of preventing illness and keeping people independent.

With a positive, landscape-led design approach we can also use development to mitigate flood risk; create permeable areas; store water on site naturally; and create woodland or permaculture assets of value for biodiversity and recreation. We need a holistic "landscape first" approach that brings together landowners, developers, agencies, government and insurance. We have tried, for example, to put the landscape first in our own proposals for Dissington Garden Village, in Northumberland, providing upstream flood attenuation for the surrounding areas of flood risk.

Arguments promoting natural capital need to be overlaid with the kind of strategic planning principles that Ebenezer Howard would, I think, have approved of. We currently face a housing crisis, in which owning a home is becoming an unachievable goal for many, while the private rented market is also becoming unaffordable. We have to be more creative and more courageous in tackling the green belt. ■

Notes

1. See Terry Farrell's essay, *Biodivercity*, in London Essays, Green issue, December 2015, http://essays.centreforlondon.org/issues/green/biodivercity/

2. *Planning Policy Guidance 2: Green Belts (point 1.6)*, www.cambridge.gov.uk/sites/default/files/documents/rd-gov-120.pdf