LSE**Cities**
REPORT

JULY 2012 – SEPTEMBER 2014

LSECities

AN INTERNATIONAL CENTRE SUPPORTED BY DEUTSCHE BANK

LSE Cities is an international centre supported by Deutsche Bank which explores how people and cities interact in a rapidly urbanising world, focusing on how the design of cities impacts on society, culture and the environment. Through research, conferences, educational programmes and public lectures, the centre aims to shape new thinking and practice on how to make cities fairer and more sustainable for the next generation of urban dwellers.

The Centre works with international organisations such as the United Nations Environment Programme and UN Habitat, as well as regional city governments and institutions. In addition to core funding from Deutsche Bank, LSE Cities has received grants from the Andrew Mellon Foundation, the MacArthur Foundation, the European Investment Bank, the ESRC and the European Union.

CONTENTS

LSE THE LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE ■

MISSION

LSE Cities' mission is:
· to improve our understanding of the interactions between the built fabric of cities and their social, economic, cultural and environmental dynamics
· to carry out high quality, interdisciplinary research on cities that connects the study of urban form with the core social science disciplines investigated at the London School of Economics
· to disseminate the work of the Centre to the next generation of urban leaders, designers and educators through conferences, seminars and outreach activities

DIRECTOR'S REPORT
July 2012 to September 2014

The last two years have witnessed a number of significant developments at LSE Cities on the academic, outreach and development fronts. LSE's Research Committee acknowledged the robustness of the centre's activities and significance of its intellectual programmes by approving the Centre's full review in June 2013. As part of the review process, Professor Nigel Thrift, Vice-Chancellor of Warwick University, noted: "The centre is internationally significant and it is a credit to LSE. It certainly adds value to the institution."

Following a constructive dialogue, future core funding of the centre was secured through a further generous extension of the Deutsche Bank's Alfred Herrhausen Society grant, marking a third major stage in the collaboration between the two institutions that will take us to the end of 2018. Additional grants and donations have contributed to an increased budget for the centre, with new staff recruited bringing the full-time equivalent to 20 researchers, teachers and administrators. A new management structure has been put in place to involve internal staff and colleagues from other departments across the School in the centre's activities and programming (a key recommendation of the Research Committee).

Over the period, LSE Cities delivered two Urban Age conferences: the 11th in the series was held in London on the complex Electric City and the 12th on the social and spatial issues raised by large-scale city transformations held in the Olympic city of Rio de Janeiro in October 2013. Preparations are well advanced for the next conference in Delhi in November 2014, which takes place during the tenth year of Urban Age.

Internationally and across the UK, LSE Cities' staff have been regularly invited to present findings and collaborate in joint research initiatives. LSE Cities was present at UN-Habitat's World Urban Forum in Medellin held in 2014 and was featured as one of the School's major centres of excellence at the high-level LSE Asia Forum held in Kuala Lumpur. Collaborations have been consolidated with three major US foundations – the MacArthur Foundation, Bloomberg Philanthropies and the Mellon Foundation – and a major project on the New Climate Economy as part of a major new international initiative of The Global Commission on the Economy and Climate chaired by Felipe Calderon. A number of high-level presentations of research undertaken by the centre has informed a major report 'Better Growth, Better Climate' recently submitted by the Commission to the United Nations and global leaders in the autumn of 2014.

The Theatrum Mundi project has held many events in London and abroad, culminating in a celebration of Alexander Kluge's documentary film series in Berlin, Edinburgh and London, organised in collaboration with the Haus der Kulturen der Welt, the Alfred Herrhausen

Society, the Edinburgh Book Festival and the Whitechapel Art Gallery. The Configuring Light programme has been successful in attracting grants and pioneering investigations in to a hitherto unexplored area, and the Ordinary Streets project has raised keen interest by the London Borough of Lambeth (the local authority within which the study area lies) and the Greater London Authority to establish what policy implications arise out of the original research work. Building on this pioneering ethnographic and spatial research, Suzi Hall, Assistant Professor in the Department of Sociology and Research Fellow at LSE Cities, has been awarded a prestigious ESRC Future Research Leaders grant for a comparative project on 'Super-diverse Streets: Economies and spaces of urban migration in UK cities'. The project will engage with questions of migration and societal reconfiguration through a detailed analysis of each street, and aims to provide a broader perspective of the role of migrants in making urban space.

Reflecting the interdisciplinary nature of our work, over 150 presentations have been given over the years by LSE Cities staff at a range of institutions including the Max Planck Institute, Humboldt University, World Health Summit, the Brookings Institution, European Investment Bank Institute, the Centre for Environmental Planning and Technology in Ahmedabad, the Venice Architecture Biennale, the Anthropological Association in San Francisco, the British Sociology Association annual conference in London, the Social Science Research Council in New York, the Graduate School of Design at Harvard University, New York University, Moscow Urban Forum, the Council of the European Union, TU Berlin, HafenCity University, University of Warwick, UCL, MIT, Durham University, World Urban Forum and C40.

Since July 2012, LSE Cities' staff and researchers have contributed to over 40 new books, academic publications, book reviews and reports. Fran Tonkiss published her latest book on 'Cities by Design' in 2013, while LSE Cities publications included the Routledge publication Transforming Urban Economies: Policy lessons from European and Asian cities, the Cities and Energy: Urban Morphology and Residential Heat Energy Demand, and Green Economy Leader Reports on Stockholm and Copenhagen. We are working with academic publishers Sage on a 'Handbook of Urban Sociology' (co-edited by Suzi Hall and Ricky Burdett) which will consist of 35-40 original chapters that give a comprehensive coverage and a state of the art review of the discipline. Articles in peer-reviewed journals included the American Ethnologist, Public Culture, Architectural Design, Environment and Planning Current Anthropology, City and Environment, and an increasing activity on blogs (such as British Politics and Policy at LSE, India@LSE and Public Books) and social media.

Apart from hosting events at the LSE, our website and social media presence has continued to grow over the last twelve months with us now averaging between 20,000 – 25,000 visits per month and around 45,000 views per

month of our pages. We also had over 12,000 Twitter followers (in August 2014) and over 10,000 subscribers to our newsletters, who receive regular e-bulletins and e-blasts. Media interest and coverage of our activities continues to be sustained, with us producing a number of podcasts for events that we hold at LSE Cities.

In the last two years significant progress has been made in researching changing forms of governmental thought and practice throughout the contemporary urban world. The 'Urban Uncertainty: Governing Cities' project, led by Austin Zeiderman (who became an Assistant Professor in the LSE Department of Geography and the Environment in September 2014), has been active with three researchers looking at case studies of Buenaventura, Karachi and Mbale. The workshop series created new intellectual and disciplinary connections that will lead to a publication and is informing thinking around the themes of the 2014 Urban Age conference.

Through all our research projects – from urban culture and ethnography, to cities and climate change - LSE Cities staff have established strong relationships to other centres of learning and research within the School including the departments of Anthropology, Statistics, Geography and the Environment, Social Policy, Sociology and Government; LSE Health, the Grantham Institute for the Economics of Climate Change, the Centre for the Analysis of Social Exclusion (CASE) and the Centre for the Analysis of Time Series (CATS).

Over the next 18-month period we will develop the Urban Age programme, continue or complete all projects under our three core research strands; continue to develop the cities and the humanities programme with the Mellon Fellowship and the start of the Urban Research Network; undertake a new Executive Summer School programme and prepare for an Executive Masters programme; continue mapping and data analysis of global cities; develop content and material for new books and a possible third Urban Age publication; consolidate and further develop the LSE Cities website and social media outlets; and develop and maintain a strong presence in the School and internationally through conferences, lectures and other outreach activities.

I would like to take this opportunity of thanking all the research and administrative staff at LSE Cities, and the continuing support we receive from external agencies and the School.

Ricky Burdett
Director, LSE Cities
September 2014

Photo credit: Phil Sayer

LSE CITIES STAFF
AS AT 30 SEPTEMBER 2014

DIRECTORS

Ricky Burdett
Director, LSE Cities and Urban Age

Ricky Burdett is Professor of Urban Studies and Director of LSE Cities and the Urban Age programme. His research interests focus on the interactions between the physical and social worlds in the contemporary city and how urbanisation affects social and environmental sustainability. Professor Burdett was Global Distinguished Professor at New York University from 2010 - 2014. He is currently a Visiting Professor in Urban Planning and Design at the Graduate School of Design, Harvard University as well as a member of the UK Government's Independent Airports Commission and a member of Council of the Royal College of Art in London. He has been involved in regeneration projects across Europe and was Chief Adviser on Architecture and Urbanism for the London 2012 Olympics and architectural adviser to the Mayor of London from 2001 to 2006. He is a judge in the Rockefeller Foundation's 100 Resilient Cities initiative and is a member of the Hurricane Sandy Regional Planning and Design Competition organised by the US Secretary of Housing and Urban Development. He was also a member of the Urban Task Force which produced a major report for the UK government on the future of English cities. He is co-editor of *The Endless City* (2007), *Living in the Endless City* (2011) and *Transforming Urban Economies* (2013).

Philipp Rode
Executive Director, LSE Cities

Philipp Rode is Executive Director of LSE Cities and Senior Research Fellow at the London School of Economics and Political Science. He co-convenes the LSE Sociology Course on 'City Making: The Politics of Urban Form'. As researcher and consultant he has been directing interdisciplinary projects comprising urban governance, transport, city planning and urban design since 2003. The focus of his current work is on green economy strategies in cities which includes co-directing the cities research programme of the Global Commission on the Economy and Climate. He has recently co-authored *Cities and Energy: Urban morphology and heat energy demand* (2014), *Going Green: How cities are leading the green economy* (2013), and *Transforming Urban Economies* (2012). He has previously worked on several multidisciplinary research and consultancy projects in New York and Berlin and was awarded the Schinkel Urban Design Prize 2000.

Fran Tonkiss
Academic Director, Cities Programme, LSE Cities

Fran Tonkiss is a Professor in Sociology, and directs the Cities Programme. Her research and teaching is at the interface of urban and economic sociology, with key research interests in cities and social theory, urban development and design, urban inequalities and spatial divisions. Publications in these fields include *Cities by Design: the social life of urban form* (2013), *Space, the City and Social Theory* (2005), and *Contemporary Economic Sociology: Globalisation, Production, Inequality* (2006). She is the co-author of *Market Society: Markets and Modern Social Theory* (2001, with Don Slater), and co-editor of *Trust and Civil Society* (2000, with Andrew Passey). She is managing editor of the leading critical journal, *Economy and Society*.

CENTRE STAFF

Sobia Ahmad Kaker
Researcher

Sobia Ahmad Kaker holds a postgraduate degree in Global Politics from the LSE, and is pursuing a cross disciplinary PhD in cities, infrastructure and political violence at Newcastle University. Her project analyses 'enclavisation' as a process that is closely tied to crises of governance and security in megacities of the global south. She has extensive professional experience as a researcher on governance, conflict and disaster management in Pakistan. She is also Visiting Research Fellow at the Center for Research and Security Studies, Pakistan. Her research interests and expertise include urban conflict and violence, governance and local and global security. She is working on a research strand focusing on governing risk and uncertainty.

Kiera Blakey
Communications Officer

Kiera Blakey is Communications Officer at LSE Cities, having joined the team in 2012 as Programme Coordinator of the Theatrum Mundi research project. She holds an MA in Philosophy and BA in Fine Art. She is a freelance curator and has worked with the New Museum New York, British Museum, Camden Arts Centre and Letchworth Heritage Foundation and regularly contributes to art magazines including *This is Tomorrow*. She is also founder and curator at Legion TV, a contemporary arts space in East London funded by the Arts Council England.

Hélia Costa
Research Officer

Hélia Costa is a Research Officer jointly at LSE Cities and the Grantham Research Institute. Her focus is mainly on urban climate adaptation, particularly on the project RAMSES (Reconciling Adaptation, Mitigation and Sustainable Development for Cities). Her general research interests are in the field of applied microeconomics, specifically in several areas of environmental economics and political economy.

Emily Cruz
London Manager, Theatrum Mundi

Emily Cruz is the London Manager of Theatrum Mundi, an LSE Cities research project and professional network of urbanists and artists in different cities. She is an experienced project manager specialising in publications, exhibitions, conferences and events and has delivered projects across architecture, urban design, art and photography. Previously she has worked as Publications and Events Manager for The Urban Age, in Liverpool Biennial's development team and at the Architecture Foundation as Exhibition Coordinator. She holds an MA in Curating from the Royal College of Art.

Nuno Ferreira da Cruz
Research Fellow

Nuno Ferreira da Cruz is a Research Fellow at LSE Cities and the Coordinator of the New Urban Governance project. Upon completing his MSc, he won a PhD Studentship awarded by the Portuguese Foundation for Science and Technology. After this, his research activities resulted in the publication of several journal articles on a wide range of policy issues, including local governance, transparency and sustainability indicators, performance measurement and benchmarking, management and delivery of urban services, public-private partnership arrangements and privatisation. His latest research efforts have been focused on assessing the quality of local governance.

Sarah Davis
Management Accounts Coordinator

Sarah Davis joined the organisation in June 2009. She manages and operates the finance activities of the programme, acting as accounts co-ordinator for all accounting and daily financial procedures as well as providing accounting support to management. She has previously worked as an accountant for National Air Traffic Services (NATS), the Automobile Association (AA), Thorn EMI and Foster Wheeler. She holds a BA (Hons) in Sociology from the University of Reading and is a qualified Chartered Certified Accountant.

Graham Floater
Principal Research Fellow

Graham Floater is a Principal Research Fellow and Programme Director of the Economics of Green Cities Programme. With Philipp Rode he leads the research strand on Cities, Environment and Climate Change which includes directing the New Climate Economy cities research programme by the Global Commission on the Economy and Climate. He is Director of the Climate Centre, a group of researchers and consultants who specialise in the low carbon economy, and has been an adviser to the UK government on environmental policy.

Bruno Friedel
Researcher

Bruno Friedel is a Researcher at LSE Cities for the New Climate Economy project. After working for state and federal Members of Parliament in Australia, he came to London to undertake the MA Sustainable Cities

Programme at King's College London. He graduated with distinction, winning the 'Best Thesis Award MA/MSc Sustainable Cities'. His dissertation analysed domestic energy efficiency, with specific focus on the UK Government's Energy Companies Obligation and its application to London council housing. Prior to that, he completed a BA (Hons) in Political Science at Melbourne University.

Alexandra Gomes
Research Officer

Alexandra Gomes is responsible for coordinating LSE Cites' spatial analysis across a range of projects. She is currently finishing her PhD at UCL Bartlett School of Planning in Urban Design and Spatial Planning where she was also a teaching assistant in sustainability, planning, urban design and research and learning modules. Prior to joining LSE Cities she also worked as a research assistant at The Bartlett School of Planning and Geography Departments at UCL. She holds an MSc (Res) in Sociology and Development Planning from ISCTE-IUL and a MEng in Urban Engineering from IST-UL (Portugal). In London she has previously worked in GIS at London Underground and TomTom. While in Portugal she worked in spatial planning, sustainable transport mobility and spatial analysis at CESUR IST-UL and as a development control planner for CCDR-LVT.

Adam Greenfield
Senior Urban Fellow

Adam Greenfield is Senior Urban Fellow at LSE Cities, concentrating his research on the interaction of networked information technology with urban experience, and particularly on the implications of emergent technologies for the construction of public space and the right to the city. In 2010, he founded Urbanscale, a New York City-based practice dedicated to "design for networked cities and citizens". Between 2008 and 2010, he lived and worked in Helsinki as Nokia's head of design direction for service and user interface design; and as lead information architect for the Tokyo office of internet consultancy Razorfish. He is the author of *Everyware: The dawning age of ubiquitous computing* (2006), *Urban computing and its discontents* (2007, with Mark Shepard) and *Against the smart city* (2013), the last of which constitutes the first part of a forthcoming book entitled *The City is Here For You to Use*.

Peter Griffiths
Researcher

Peter Griffiths has worked as a journalist and editor for over eight years. He has significant experience in developing accessible narratives, social media, and technology and is currently completing an MSc in City Design and Social Science at the LSE. He is currently writing a report on the Bloomberg Mayors' Challenge.

Suzanne Hall
Assistant Professor and Research Fellow
Suzanne Hall is an urban ethnographer, and has practised as an architect in South Africa. Her research and teaching interests include social and economic forms of inclusion and exclusion in the context of global urbanisation, where she currently focuses on the micro economies and spaces of urban migration. From 1997 to 2003 her practice engaged with the role of design in the context of rapid urbanisation in poor and racially segregated areas in Cape Town, and her work has been published and exhibited nationally and internationally. She was awarded an ESRC Future Research Leaders grant (2015-2017) for a comparative project on 'Super-diverse Streets: Economies and spaces of urban migration in UK Cities', which emerges out of her LSE Cities' research project on 'Ordinary Streets'. She is a recipient of the LSE's Robert McKenzie Prize for outstanding PhD research (2010) and the Rome Scholarship in Architecture (1998-1999). Her research monograph, *City, Street and Citizen: The measure of the ordinary* was published in 2012. She is an Assistant Professor in the Department of Sociology.

Catarina Heeckt
Researcher
Catarina Heeckt joined LSE Cities as a researcher in 2012 and has since worked on a variety of publications in the Cities, Environment and Climate Change research stream including Going Green and the Stockholm Green Economy Leader Report, as well as helping with the organisation and research for the Urban Age conferences in London and Rio de Janeiro. She holds an MSc in Environmental Policy and Regulation from the LSE. She is also the course coordinator for City Making: The Politics of Urban Form. Before joining LSE Cities, she worked as a sustainability consultant in London and New York and on the Cities Team at the Carbon Disclosure Project. She is currently coordinating LSE's input for the Bloomberg Mayors' Challenge.

Anna Livia Johnston
Administrator, Cities Programme
Anna Livia Johnston holds a degree in modern languages (Mandarin Chinese) from the University of Westminster and a Graduate Diploma in Law (City University). She has lived and studied in China and the US before joining LSE.

Tessa Jowell
Professor of Practice
Former Olympic Minister and Culture Secretary, Dame Tessa Jowell MP was recently appointed as a Professor of Practice working with LSE Cities and the Department of Government on a range of academic and outreach initiatives. She will stand down from UK Parliament at the next election in May 2015, having served as an MP for the London constituency of Dulwich and West Norwood since 1992.

Jens Kandt
Researcher
Jens Kandt's work focuses on the application of quantitative methods, including survey design and spatial analysis for urban geographical research. He is particularly interested in understanding dynamics of urban environments and their implications for people's health, transport and mobility through comparative research designs. He is also a PhD researcher at the Department of Geography, University College London, where he studies urban health disparities using geo-spatial and socio-epidemiological methods. He holds an engineering degree in planning from the German University of Dortmund and has research and work experience in the UK, India, Germany, Ghana and Hong Kong.

Madeleine Lee
Researcher
Madeleine Lee joined LSE Cities in 2013 after completing her MA in Public Administration in International Development. She holds a BA in International Management and has worked previously with the German Development Agency. Her interests include the fields of disaster management, migration and urban planning policies. She is working on the RAMSES project, quantifying the economic costs and benefits of urban adaptation to climate change, and the Urban Age Conference 2014.

Francis Moss
Information Designer
Francis Moss is an urbanist and architect interested in the social and environmental challenges of cities by negotiating the space between policy, projects and people. Francis practised architecture in Switzerland and led design projects at David Chipperfield Architects in London before undertaking an MSc in City Design and Social Science at LSE.

Tessa Norton
Communications Manager
Tessa Norton has over 10 years' experience of communications and publishing. Prior to joining LSE Cities she worked at the international NGO EveryChild, working on audience engagement and leading and redeveloping the largest individual funding stream in the organisation. She is particularly interested in culture and public space, and holds a degree in Law from Cambridge University and an MA in Cultural and Critical Studies from Birkbeck, specialising in public and participatory art. Her art writing has appeared in various exhibitions and publications.

Anne-Fabienne Raven
Urban Age Conference Manager
Anne-Fabienne Raven holds an MA in Cultural and Creative Industries from King's College London. She recently worked as Festivals and Events Coordinator for Asia House's Business and Policy and Arts and Learning departments, bringing to the public a range of established authors, diplomats, journalists, artists and business leaders who covered a wide variety of topics relating to current developments in the pan-Asia region, from Turkey to Japan,

via the Middle East. She has been organising events for the last 12 years within the performing arts industry in Europe, East Asia and the Middle East.

Emma Rees
Executive and Administrative Assistant
Emma Rees joined LSE Cities in 2010 and provides support to the Centre Director and Executive Director as well as wide-ranging administrative support to the Centre as a whole. Prior to this she has worked in an administrative capacity in the NHS and at the University of London. In 2006 she completed a BA in English and History at the University of Southampton and is now studying an MSc in Politics and Communications part-time at LSE.

Andrea Rota
Web Developer and Operations Manager/Researcher
Andrea Rota joined LSE Cities in 2009 as Web Developer and Operations Manager, creating and developing the Centre's software web infrastructure to bring legacy content in line with modern web standards and to make new research easily accessible to a wider public, as well as developing microsites for the Urban Age conferences. Since 2012 he has been creating interactive data visualisations for the web as a researcher in the Centre's European Metromonitor project. He is currently an MPhil/PhD student in the department of Sociology at LSE, focusing on the material culture of the internet in the everyday life of university students. Rota holds a BA in Philosophy (Milano, Italy) and a MSc in Methods for Social Research (Firenze, Italy).

Richard Sennett
Chair, LSE Cities Advisory Board and Member of LSE Cities Governing Board
Richard Sennett is Professor of Sociology at the London School of Economics and Political Science, and University Professor of the Humanities at New York University. His research interests include the relationship between urban design and urban society, urban family patterns, the urban welfare system, the history of cities and the changing nature of work. His books include *The Craftsman* (2008), *The Culture of the New Capitalism*, (Yale, 2006), *Respect in an Age of Inequality*, (Penguin, 2003), *The Corrosion of Character* (1998), *The Fall of Public Man* (1996), and *Flesh and Stone* (1994). He is a fellow of the American Academy of Arts and Sciences, the Royal Society of Literature, the Royal Society of the Arts, and the Academia Europea. He is past President of the American Council on Work and the former Director of the New York Institute for the Humanities. Recent honours and awards include The Schocken Prize, 2011; Honorary Doctorate from Cambridge University, 2010; The Spinoza Prize, 2010; The Tessenow Prize, 2009; The Gerda Henkel Prize, 2008; The European Craft Prize, 2008; and The Hegel Prize, 2006.

Priya Shankar
Research Officer
Priya Shankar is Research Officer working on the research and outreach strategy on urban governance issues for the Urban Age 2014 conference to be held in Delhi. She also continues to act as Senior Researcher and Project Developer at the Alfred Herrhausen Society and was previously Senior Researcher at Policy Network where she most recently managed the Foresight project on globalisation, governance and rising powers. From 2006-2008, she conceptualised and managed the Deutsche Bank Urban Age Award, a travelling prize for grassroots initiatives in cities. Her writings have appeared in *Internationale Politik, Global Policy, New Statesman, India Today, Times of India* and *Estadao São Paulo*.

Andrew Sherwood
Centre Manager
Andrew Sherwood has significant administrative experience within the higher education sector, having worked in programme management roles and more recently as European Institute Manager (LSE), before joining LSE Cities. He is responsible for the day-to-day operations and management of the Centre's activities. He holds an LLB Law (Kings College London) and an LLM Law, specialising in Public International Law (University College London).

Jonathan Silver
Researcher
Jonathan Silver is a geographer who specialises in urban infrastructure issues across African cities particularly in Ghana, South Africa and Uganda. He holds a PhD from Durham University, together with an MA from the University of Manchester. His research focuses on exploring political ecology approaches to the urban, in particular generating knowledges of postcolonial urban worlds. His PhD focused on a comparative study of electricity politics in Accra and Cape Town. He also worked at Durham University on a four-year investigation of urban energy issues in African cities and helped set up the Situated Urban Political Ecology Platform.

Mona Sloane
Programme Coordinator, Researcher
Mona Sloane is Programme Coordinator and Researcher at Configuring Light. She holds an MSc in the Culture and Society programme from LSE which she completed with distinction and for which she was awarded the Hobhouse Memorial Prize for outstanding performance. She is also a PhD candidate at LSE Sociology where she holds an LSE scholarship and works and publishes on the sociology of design and urban planning. Her research interests include material culture studies, aesthetic economies, urban atmospheres and ethnography.

Roxana Slavcheva
Researcher

Roxana Slavcheva is a recent graduate of MSc Urban Economic Development from University College London, where she gained practical experience for consulting projects commissioned by the Greater London Authority in the UK and Mekelle University in Ethiopia. Her dissertation concentrated on researching successful examples of economic development and low-carbon strategies in eco-cities. This interest in the intersection of environmental and economic sustainability led her to join the LSE Cities' New Climate Economy project, focusing on climate finance and green economy best practices around the world.

Nikolas Thomopoulos
Research Officer

Nikolas Thomopoulos is Research Officer on the New Climate Economy project. His research interests include the socio-economic and business impacts of ICT for transport, the review of economic and environmental assessment methods and the evaluation of urban and regional development plans. Prior to joining LSE he was lecturing and researching at the University of Leeds. He has acted as reviewer for several transport journals and as a member of the Expert Evaluation Panel of COST action project proposals. He studied economics at the University of Macedonia in Greece, then acquired his MSc in environmental policy from the University of Oxford and later completed his PhD at the Institute for Transport Studies at the University of Leeds, where he was also a Marie Curie EST fellow.

Shan Vahidy
Publication Manager

Shan Vahidy holds a BA (English & Politics) and a MA (Modern Literature). Prior to joining LSE Cities, she worked in the editorial department at Allen Lane, the non-fiction imprint of Penguin Books. She focused largely on history, politics, philosophy and economics, including projects with the British Museum and the BBC.

Savvas Verdis
Senior Research Fellow

Savvas Verdis is a Senior Research Fellow at LSE Cities and an infrastructure economist at Siemens. He currently manages the Executive Education programmes of LSE Cities, which include tailored in-house courses for private and public organisations and week-long programmes for senior and mid-career professionals. He previously worked in the advisory service of LSE Cities and led the research of the Urban Age conference in Rio de Janeiro. He has consulted numerous city and national governments on their urban infrastructure strategies in countries such as Brazil, Turkey, Russia, Germany, Austria and the Netherlands. He has taught on the LSE Cities Programme since 2001 and currently co-convenes a course with Philipp Rode. From 2009 to 2012, he was founder and CEO of Rankdesk, a property rating website for residential investors. He received his PhD from Cambridge University in 2007.

Austin Zeiderman
Research Fellow

Austin Zeiderman is an interdisciplinary scholar who specialises in the cultural and political dimensions of cities in Latin America, with a specific focus on Colombia. He holds a PhD in Anthropology from Stanford University as well as a Master of Environmental Science degree from Yale University and a bachelor's degree in Economics from Colgate University. Since 2012, he has been developing a new research project on how uncertainty about the future shapes cities and urban life. His forthcoming book, *Endangered City: The Politics of Security in Bogotá*, focuses an ethnographic lens on the governance of environmental hazard in the self-built settlements of the urban periphery. Aspects of his research have appeared in a range of places, including *American Ethnologist, Environment and Planning A, openDemocracy*, and *le Monde diplomatique*. He has received fellowships and awards from the Fulbright Program, the Wenner-Gren Foundation, the National Science Foundation and the Mellon Foundation.

VISITING APPOINTMENTS DURING 2012-2014

Andrew Altman

Andrew Altman was the founding Chief Executive of the Olympic Park Legacy Company in London, where he was responsible for leading the preparation of the post-games transformation of the 500-acre London 2012 Olympic Park - the largest regeneration project in the United Kingdom and Europe - into a new international growth centre. Prior to this, he was the Deputy Mayor for Economic Development and Planning and Director of Commerce for the City of Philadelphia.

Eve Annecke

Eve Annecke is the founding director of the Sustainability Institute. She is co-founder of Lynedoch Development and the Lynedoch EcoVillage. She has worked for many years in organisational learning, with a special focus on process facilitation, dialogue and leadership. She has been an early childhood development worker and is a Montessori pre- and primary educationalist. Her Masters in Management Learning through Lancaster University focused on the relationship between sustainability and the practice of leadership.

Zeynep Atas

Zeynep Atas is a research assistant at Istanbul Technical University (ITU), Department of Architecture. She holds an MArch from Rice University School of Architecture, Houston. She received her PhD degree from ITU in May 2013 with her thesis entitled *A Narrative for Housing Development in Istanbul between 1987-2007,* which proposes a nonlinear historical narrative to the processes of housing development in Istanbul, using relational analysis based on urban data analysis and visualisation. She has been tutoring First Year Architecture Design Studio at ITU since 2005. Her research interests include urban geography, urban economics, housing history, quantitative urban analysis methods and architecture design education.

Friederike Fleischer

Friederike Fleischer is Associate Professor at the Department of Anthropology, Universidad de los Andes, Bogotá, Colombia. Her research focuses on the urban environment and the everyday lives of urban residents in China and Colombia. She has worked on the socio-economic effects of suburbanisation in Beijing; the interrelations between spatial transformations and practices of social support in Guangzhou; and more recently on NGO work with rural-to-urban migrants in Shanghai. She is currently developing a new research project on spatial and socio-economic stratification in Bogotá, Colombia.

Gerald Frug

Gerald Frug is the Louis D. Brandeis Professor of Law at Harvard Law School. Educated at the University of California at Berkeley and Harvard Law School, he worked as a Special Assistant to the Chairman of the Equal Employment Opportunity Commission in Washington DC, and as Health Services Administrator of the City of New York. In 1974 he began teaching at the University of Pennsylvania Law School, before joining the Harvard law faculty in 1981. His specialty is local government law. He has published dozens of articles on the topic and is the author, among other works, of a casebook on *Local Government Law,* 5th edition (with Richard Ford and David Barron, 2010), *City Bound: How States Stifle Urban Innovation* (with David Barron 2008), Dispelling the Myth of Home Rule (with David Barron and Rick Su, 2004), and *City Making: Building Communities without Building Walls* (1999).

Jeroen van der Heijden

Jeroen van der Heijden is an assistant professor of environmental governance at the Australian National University (Regulatory Institutions Network) and the University of Amsterdam (Amsterdam Law School). His general research interest is in regulation and governance. He currently works on a five year research project on new environmental governance, funded through an early career researcher's grant by the Dutch Organisation Scientific Research. This project has resulted in a series of academic publications, with a book appearing in October 2014: *Governance for Urban Sustainability and Resilience.*
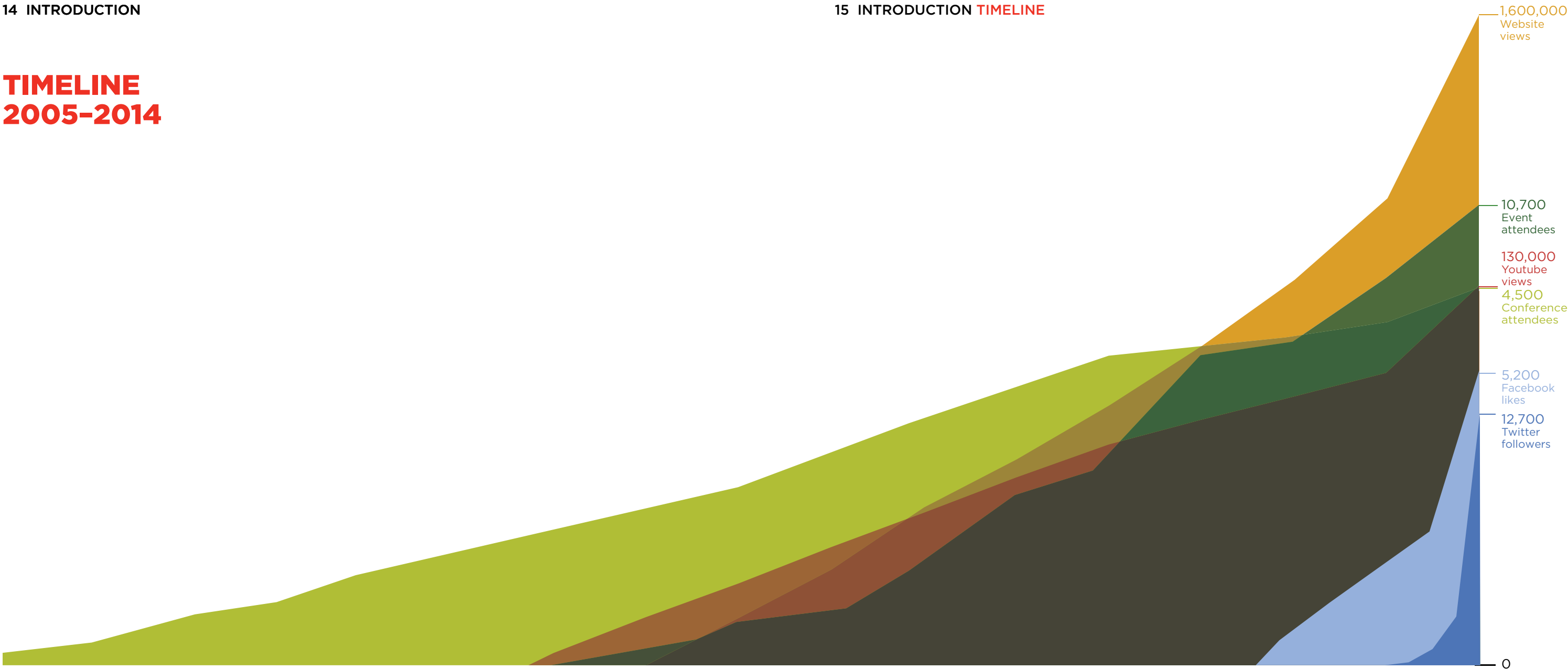
Laura Lima

Laura Lima holds a PhD in International Politics from Aberystwyth University. Her thesis will be published under the title *Worlding Brazil: Intellectuals, Identity and Security* (Routledge). She has three MA degrees (International History, Management in Human Rights, and International Politics) and a BA in History. She received a scholarship award for Afro-descendants with Vocation to Diplomacy from the Brazilian Ministry of Foreign Relations. She holds a postdoctoral research fellowship in the 'Drugs, Security and Democracy' Programme of the New York-based Social Science Research Council. Her current research is bringing together her academic experience and her NGO/activist background in the project 'Securing the City: Gender Mainstreaming in Urban Governance Programmes in Drug-Affected Communities in the Global South' (1994-2014).

Mark Swilling

Professor Mark Swilling is Programme Coordinator for the Sustainable Development programme in the School of Public Leadership, University of Stellenbosch and Academic Director of the Sustainability Institute. He is a rated researcher with the National Research Foundation (NRF) and is responsible for the design and implementation of a Master's Programme in Sustainable Development. He is also Project Leader of the TsamaHub and on the Management Board of the Centre for Renewable and Sustainable Energy Studies.

TIMELINE 2005–2014

1,600,000
Website views

10,700
Event attendees

130,000
Youtube views

4,500
Conference attendees

5,200
Facebook likes

12,700
Twitter followers

0

2005

New York Urban Age Conference

Shanghai Urban Age Conference

London Urban Age Conference

2006

Mexico City Urban Age Conference

Halle Symposium

Johannesburg Urban Age Conference

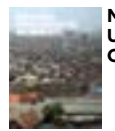Venice Biennale Exhibition

Berlin Urban Age Summit

2007

Learning from Mumbai Seminar

Tate Modern Exhibition

Deutsche Bank Urban Age Award Mumbai

Mumbai Urban Age Conference

2008

The Endless City Book

Integrated City Making Report

Deutsche Bank Urban Age Award São Paulo

São Paulo Urban Age Conference

2009

Cities and Social Equity Report

Mexico City Symposium

Le Grand Paris Exhibition
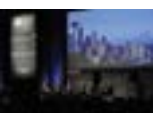
Istanbul Urban Age Conference

2010

UA Public Lectures
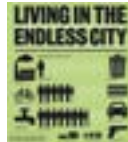
LSE Cities Expert Seminars Launched

Deutsche Bank Urban Age Award Mexico City

Global Metro Summit Change

2011

Living in the Endless City Book

UNEP Green Economy Report

LSE Cities on Facebook and Twitter

Cities, Health and Well-Being Urban Age Conference, Hong Kong

2012

World Bank Seminar

Deutsche Bank Urban Age Award Cape Town

Electric City Urban Age Conference London

2013

Transforming Urban Econ omies

Going Green

Stockholm Green

City Transformation Conference Rio de Janeiro

2014

Copenhagen: Green Economy Leader Report

Cities and Energy Report

RESEARCH

LSE Cities carries out research in three parallel yet intersecting strands that cover the following areas:

- Cities, Space and Society: urban culture and design; economic development and inclusion; health and well-being.
- Cities, the Environment and Climate Change: mobility and city access; urban form and resource efficiency; city design and technology.
- Urban Governance: politics and democracy in conditions of uncertainty; metropolitan and regional cohesion; urban infrastructure and change.

Photo credit: Lukas Krohn-Grimberghe

RESEARCH UNIT A:
CITIES, SPACE AND SOCIETY

Ordinary Streets

The Ordinary Streets research project has continued to develop its focus on the relationship between urban economy and urban space, with the primary investigation of:

- The ways in which accelerated global migration is expressed in the everyday spaces of the city;
- The 'ordinary', commonplace currency of the street, exploring emerging forms of economic transaction and cultural exchange;
- Whether these new urban configurations are visible to the lens of power, and what policy shifts are required to recognise how migrants transform the high street landscape.

The approach is primarily ethnographic but also spans across urban scales, from small shop interiors to the shared space of the street and to the ways in which the global city is remade through the circuits and restrictions of migration.

Two research investigations run in parallel: a case-study of the economic and spatial aspects of Rye Lane as an example of a vibrant retail street within an area of both high ethnic diversity and a comparatively high indices of deprivation; and the on-going involvement in and assessment of third sector, academic, local government and Greater London Authority understandings of 'the future of the British high street'.

The significance of this work for policy and planning is increasingly gaining recognition. Suzanne Hall, who leads the project, presented aspects of her research on London high streets at prominent academic and third sector conferences in 2012 and 2013. She also submitted, by invitation, two reports on high street futures to the London Assembly's Economy Committee (August 2012) and Planning Committee (January 2013).

In 2013 the research extended to a detailed statistical analysis of the 2011 Census, focusing on aspects of migration and ethnic diversity, and on-going ethnographic work. The research has developed through a series of workshops during 2013, culminating in a major international conference 'Word on the Street: City vocabularies of migration and diversity' and a public lecture 'Global migration and urban renewal', both of which were held at LSE in October 2013.

Key outputs: Multilingual Streets: London's Litmus Strips of Change public lecture (June 2013); Global Migration and Urban Renewal public lecture (October 2013); Word on the Street conference (October 2013).
Research Team: Suzi Hall, Antoine Paccoud, Thomas Aquilina, Hamza Siddiq.

Cities, Health and Well-being

The Cities, Health and Well-being research strand was initiated to inform the Urban Age conference held in Hong Kong in November 2011. Its focus was to bring an interdisciplinary lens to the physical and social aspects of urban health, identifying links between the shape of our urban environment and the health of urban residents. In Hong Kong, research focused on the links between building density and health and well-being in cities, identifying links between research, policy and practice.

The research project concluded in 2013 and a proposal for a new book is being developed in collaboration with Dr Ernestina Coast of LSE Health and Professor Sharon Friel (Australian National University).

Key outputs: Healthy African Cities public lecture (March 2013); Interdisciplinary Action for Urban Health, public lecture (April 2013); Book proposal in development.
Project team: Myfanwy Taylor, Cristina Inclan-Valadez, Jens Kandt, Victoria Pinoncely.

Urban intelligences, subjects and subjectivities

From 2013 – 2014 Adam Greenfield is Visiting Senior Urban Fellow at LSE Cities. His research project, 'Urban intelligences, subjects and subjectivities', focuses on developing a richer account of the affective and experiential dimensions of everyday urban life in the presence of networked informatic systems, challenging the dominant mainstream conception of technologised urbanity – the so-called 'smart city'.

Built on wide-ranging theoretical foundations, this work explores how the heavily technologised city is experienced and understood by its citizens, as well as what the encounter makes of them. The project is working towards developing a set of guidelines on how networked systems, services and interfaces could be designed as common resources for the greatest benefit of all.

The project considers the following areas:
- Legibility: do ordinary people understand the technological systems that do so much to condition contemporary urban life, from simple RFID based technologies such as the Oyster card to anticipatory policing built on the analysis of so-called 'big data'? What mental models of system function do we construct, and what place do we perceive for ourselves in these schemata?
- Agency: to what degree do we feel capable of intervening in the action of the technical systems we encounter? How can these systems be designed to enhance citizen agency while – equally importantly – conveying to users a resonant sense of that agency?
- Skilled use, competence and mastery: what measures are available to help city dwellers of all ages and backgrounds develop confidence in their own ability to negotiate highly technical urban interfaces?
- Being urbane, displaying savoir faire: how might we demonstrate such mastery in everyday life? How is it performed? Can it be used to develop social (or, indeed, other forms of) capital?
- Solidarity and collective experience: how might those that are technologically mediated join the shared urban experiences of previous generations in evoking a sense of belonging and connection to one another?

Key outputs: Urban Data: from fetish object to social object, workshop (March 2014); Elephant and Castle Walkshop, part of the London Festival of Architecture (June 2014); Public lecture and a pamphlet in development for Autumn 2014.
Project coordinator: Adam Greenfield

Theatrum Mundi

Theatrum Mundi (TM) is a research project aimed at exploring ways to revitalise urban culture. As a process, the project connects people working in the performing and visual arts with people engaged in urban design and analysis, architecture and planning. It focuses on the public realm and cultural institutions of cities, and explores alternative means to animate streets, squares, parks, libraries, and places for art and performance, along with expanding our understanding of where the 'public' happens.

The project is co-organised by LSE Cities and New York University and is currently funded in London by a donation from James Anderson. Previous funders include NESTA and the Mellon Foundation. Partners include the Barbican Arts Centre, Guildhall School for Music and Drama, Siobhan Davies Dance, NESTA, New York University, Columbia University, the American Institute of Architects, Brooklyn Public Library, New York Public Library and Queens Library, the Alfred Herrhausen Society, the Haus der Kulturen der Welt in Berlin, and the Weltkulturen Museum in Frankfurt.

An ongoing workshop series, Music and Architecture, was set up to consider the relationship between physical space and musical space. The workshops in 2012-13 were divided into four parts: Harmony, Rhythm, Melody and Narrative, and Porosity.

TM was a partner in the day-long performative conference, 'Currencies and Collectives', with the Weltkulturen Museum, and on the Architecture and Spatial Practice studio at the Staedelschule, both in Frankfurt. TM curated a programme at the temporary Dome of Visions on Copenhagen's harbour front for six days in April 2013, conducting an interdisciplinary design charette to imagine what can be done to repair the leftover spaces in this part of Copenhagen, in and around major cultural centres. In May TM organised a workshop and public debate with the Akademie der Künste in Berlin and collaborated with the lighting artist Leni Schwendinger, hosting an innovative public 'Light Walk' through the city. TM hosted a public screening of an Alexander Kluge film, 'Grapes of Truth', along with a post-film programme at the Edinburgh Festival. The project convened three panels on 'The Principle of Religion', 'The Principle of Capitalism' and 'The Principle of the City', and featured discussions with Richard Sennett and contributions from panel members including Saskia Sassen, Rowan Williams, Angela Zito and Robert Skidelsky.

Theatrum Mundi has published 10 thought-pieces on its blog from leading experimental thinkers. Topics ranged from the modern ruin of the library, to the concept of the commons in Palestinian refugee camps, to light and sound in the city, the post-ethnographic museum, and rethinking cultural venues.

Key outputs: Music and Architecture event series (2012-13); Music and Architecture publication (2013); Salon series (2013-14). Currencies and Collectives conference, Frankfurt (January 2013); Architecture and Spatial Practice, Frankfurt Staedelschule (January 2013); Dome of Visions, Copenhagen (April 2013); Akademie der Künste debate and light walk (May 2013); Screening and Film Programme at Edinburgh Festival (August 2014).
Project team: Richard Sennett (founder and director), Adam Kaasa, Kiera Blakey, Dom Bagnato.

Configuring Light/ Staging the Social

Configuring Light/ Staging the Social is a multidisciplinary research programme that forges an integral dialogue between social sciences, design, architecture and urban planning focused on light as one of the most fundamental features of social life. It is coordinated by Don Slater and Mona Sloane in collaboration with Joanne Entwistle of King's College London, and is affiliated with Theatrum Mundi.

Light has been largely invisible in social sciences. The largely technical literatures on light in architecture, design and energy studies make sociological assumptions that do not connect to the social science approaches that could help make sense of light as lived practices and understandings (e.g. material culture studies, science and technology studies, consumption studies).

Configuring Light/ Staging the Social aims to develop interlinked projects focused on the ways in which light as a material is configured into built environments. The project has been awarded seed funding by LSE to develop a series of research proposals; and it has recently launched an international seminar series funded by the ESRC to create a platform for both practitioners and academics to cross boundaries between social sciences, humanities, architecture and technology and develop new concepts, methods and information to understand light as material culture. Confirmed speakers of the seminar series include

professionals and academics from Qatar, New Zealand, USA, Denmark, Germany and the UK. A workshop, funded by LSE's HEIF5 funding and supported by Peabody, iGuzzini and the Social Light Movement will run in Autumn 2014.

Key outputs: Configuring the Urban Night session at World Urban Forum, Medellin (April 2014); Configuring Light/Staging the Social: Lighting London panel discussion (April 2014); Configuring Light night walk (May 2014).
Project team: Don Slater, Mona Sloane, Joanne Entwistle.

Measuring impact beyond financial return

LSE Cities project for the European Investment Bank University Research Sponsorship (EIBURS) programme 2013-2015.

The aftermath of the financial crisis has left governments throughout Europe with difficult social problems to face. Meanwhile, high and rising public debt restricts governments' ability to expand or introduce measures to tackle such problems. New forms of socially aware investment, such as 'impact investing', provide one answer to these problems. With these forms of investment, investors actively seek measurable benefits for society and/or the environment, as well as an adequate financial return.

Impact investing is already a major factor in sectors as varied as micro-finance, social housing, 'clean technology', and water purification – and huge government, third sector and finance sector interest suggests that impact investment could go much further in tackling social issues.

Yet currently impact investment is often unformed and uncoordinated. One of the main barriers to growth is the sheer difficulty inherent in measuring and assessing the non-financial returns that result from impact investing.

LSE Cities partnered with the Young Foundation to promote better understanding of common features and solutions to simplify and assist the growth of this field. This three-year research project (2013-2015), funded by the European Investment Bank University Research Sponsorship (EIBURS), developed an assessment of wider outcomes from impact investment, with a particular emphasis on:

- Activities that provide products or services to individuals in low-income communities and populations;
- Geographic focus on neighbourhoods and communities in urban areas.

Key outputs: Measuring Impact and Non-financial Returns in Impact Investing: A critical overview of concepts and practice (October 2013); Measuring Impact: Preliminary insights from interviews with impact investors (April 2014).
Research Team: Andrea Colantonio, Neil Reeder.

Access to the city: transport, urban form and social exclusion

Socio-spatial segregation and inadequate urban transport provision are critical factors in exacerbating income and wealth inequalities in cities. And they often represent major barriers for improving urban livelihood conditions for disadvantaged groups, particularly in the developing world. In addition, the poor are disproportionately affected by key externalities generated by transport, including road accidents, air pollution and displacement. As a result, contemporary urban development linked to conventional motorisation in cities tends to have socially regressive effects. At the same time, transport and urban form can have a positive direct effect on the poor and disadvantaged groups by increasing their ability to access goods, services, and economic opportunities, and by providing opportunities for participation in the supply of transport-related infrastructure and services.

A number of recent studies draw attention to the links between transport accessibility and urban poverty by examining differences in travel behaviour among different income groups. There is little research, however, that adopts a consistent methodology across a range of cities, allowing for comparison of urban spatial structure and transport provision and its impact on the distribution of accessibility among different socio-economic groups. This research project looks at accessibility levels across different socio-economic groups in three developing world megacities: Istanbul, São Paulo and Mumbai, and is testing methodologies for assessing distributional effects of new public transport infrastructure in the case of Bogotá, Rio de Janeiro and London.

Key outputs: Research began in 2014.
Research Team: Philipp Rode, Karl Baker, Jens Kandt.

Bloomberg Mayors Challenge

LSE Cities is research partner on Bloomberg Philanthropies' 2013-2014 Mayors Challenge, a competition to inspire European cities to come up with bold ideas that solve major problems and improve city life – and that ultimately can be shared with other cities. Modelled on the inaugural competition in the United States, the competition will award prizes to cities that come up with innovative policy initiatives that promote improved social cohesion, public engagement in municipal governance, efficient energy practices, and address the problems encountered by unemployed youth and ageing populations in European cities. The challenge is also supported by Eurocities and Nesta.

Key outputs: Evaluation of project submissions; development of city profiles; analysis of key urban trends and solutions; report to be published in January 2015.
Project team: Ricky Burdett, Philipp Rode, Catarina Heeckt, Peter Griffiths, Francis Moss, Tony Travers.

Mellon Fellowship Programme at LSE in Cities and the Humanities

LSE Cities secured funding through the Mellon Foundation to launch the Andrew W. Mellon Fellowship Programme at LSE in Cities and the Humanities. LSE Cities shares the Mellon Foundation's belief that many humanities disciplines – such as literature, philosophy, anthropology, film-studies, art and architectural history – have witnessed a 'spatial turn' and that there is an opportunity to contribute humanistic insights into the problem-solving questions that are found in schools of social policy, planning and architecture.

The intellectual objective of the Mellon Fellowship Programme and Urban Research Network is to mobilise an integrated mode of urban research that connects humanities scholars more closely to urban research and teaching at the heart of LSE and expand that knowledge to a growing international network of institutions embedded in cities in rapidly urbanising regions of the world.

The programme consists of two parts:
- The Andrew W. Mellon Fellowship Programme at LSE in Cities and the Humanities: The fellowship programme offers an early-to-mid-career nine-month fellowship to an emerging practitioner or scholar in the humanities and related disciplines.
- Urban Research Network: The Urban Research Network will provide an annual exchange organised around a central urban issue that engages the humanities with the reality of everyday urbanism, architecture and planning. Scholars based at LSE and other institutions in cities in the global north and south will work together on themes that shape, or are shaped by, contemporary urban life.

Key outputs: Both programmes are under development and the first Mellon Fellow will be appointed in November 2014.
Project team: Ricky Burdett, Richard Sennett, Suzi Hall, Shan Vahidy.

RESEARCH UNIT B: CITIES, ENVIRONMENT AND CLIMATE CHANGE

The Economics of Green Cities

The Economics of Green Cities has been developed collaboratively with LSE's Grantham Institute for Research on Climate Change, chaired by Professor Lord Stern. The programme examines the risk-adjusted costs and benefits of green policy frameworks on the sustainable economic growth of cities in different parts of the world. The purpose of the research is to provide robust, evidence-based recommendations for policy-makers and other stakeholders. Key research questions for the programme include identifying the economic rationale for cities to undertake early-action green policies in developed and

developing countries, and identifying the most promising programmes, institutions and tools that allow urban policy-makers to implement, measure and monitor green policies.

The programme launched in July 2011 with a scoping phase that identified potential cities and policy programmes for analysis, and data availability at a global level. Portland, Stockholm and Copenhagen were all identified as leaders in the transition to the green economy and these cities have been the subject of detailed investigation and analysis. The aim is to examine the process of change over a 20-year period, identifying the successes and challenges faced by city leaders, including Copenhagen's innovative transport policies, Stockholm's investment in eco-developments and Portland's pioneering use of sustainable planning policies such as the Urban Growth Boundary. The project has published Green Economy Leader Reports on Stockholm and Copenhagen in 2013 and 2014 respectively, in collaboration with Stockholm and Copenhagen's city governments. Our studies include a detailed assessment of the environmental and economic impacts in these cities by tracking GDP, innovation capacity, water quality, CO_2 emissions and other indicators – with a view to identifying the costs and benefits of undertaking early-action green policies.

The programme is jointly sponsored and run by LSE Cities and the Grantham Institute for Research on Climate Change, and is being developed in partnership with the city administrations of Stockholm, Copenhagen and Portland, as well as the Climate Centre in Brussels.

Key outputs: Stockholm: Green Economy Leader Report (June 2013); Copenhagen Green Economy Leader Report (May 2014).
Project team: Philipp Rode, Graham Floater, Dimitri Zenghelis, Catarina Heeckt, Duncan Smith, Karl Baker, Jens Kandt.

RAMSES: a European collaborative project on climate change adaptation in cities

Reconciling Adaptation, Mitigation and Sustainable Development for Cities (RAMSES) is a European research project which aims to deliver quantified evidence of the impacts of climate change and the costs and benefits of a wide range of adaptation measures, focusing on cities. LSE Cities is a project partner within a consortium of 13 public and private research institutions, led by the Potsdam Institute for Climate Impact Research, working across eight European countries.

The project is developing a set of innovative tools that will quantify the impacts of climate change and the costs and benefits of adaptation, providing evidence for policy makers to inform the design of adaptation strategies. It focuses on cities, as major centres of population, economic activity, greenhouse gas emissions and infrastructure. LSE's contribution includes leading the development of

a cost assessment framework for guiding decisions on climate change adaptation policy.

Key outputs: LSE Cities hosted the second RAMSES workshop in June 2013. Representatives from all 13 partner organisations attended, giving updates on progress over the first eight months of the project.
Project team: Graham Floater, Philipp Rode, Hélia Costa, Duncan Smith, Karl Baker, Catarina Heeckt, Madeleine Lee, Alexandra Gomes.

Cities and energy

This research investigated the impact of basic building configurations on a modelled, theoretical heat energy demand for the most dominant residential housing typologies in London, Paris, Berlin and Istanbul. The first phase of this project concluded in Summer 2011 with the completion of an internal report: 'Urban Morphology and Heat Energy Demand' by LSE Cities and the European Institute for Energy Research (EIFER) at Karlsruhe Institute of Technology focuses on heat energy efficiencies created by the spatial configuration of cities. The new report aims to better understand the heart-energy related performance of different types of urban form at a scale of 500 by 500 metres. As empirical basis of this study, samples of dominant urban typologies were identified for Paris, London, Berlin and Istanbul. In principle, three areas of intervention have the capacity to play equally important roles in reducing heat-energy demand. These include behavioural adjustments, technological advancement and design considerations. This study exclusively focuses on design related issues at their most fundamental level; urban form.

Key outputs: Cities and energy: urban morphology and residential heat-energy demand paper (December 2012); Cities and Energy: Urban Morphology and Heat Energy Demand Report (March 2014).
Project team: Philipp Rode, Pablo Viejo Garcia (EIFER), Ricky Burdett, Guido Robazza, James Schofield.

New Climate Economy

The Global Commission on the Economy and Climate is a major international initiative to analyse and communicate the economic benefits and costs of acting on climate change. Chaired by former President of Mexico Felipe Calderón, the Commission comprises former heads of government and finance ministers and leaders in the fields of economics and business.

The New Climate Economy (NCE) is the Commission's flagship project. The project has been set up to provide independent and authoritative evidence on the relationship between actions which can strengthen economic performance and those which reduce the risk of dangerous climate change, and to influence global debate about the

future of economic growth and climate action. The NCE report, 'Better Growth, Better Climate' was launched worldwide and is already available online. The three NCE Cities research papers are predicted to be launched in November 2014. The report recommends that in order to create better growth and a safer climate, action should focus on three key economic systems: Cities, Land Use and Energy; and three drivers of change: Resource Efficiency, Infrastructure Investment and Innovation.

LSE Cities is leading the NCE research programme on cities. The research programme is designed to be grounded in the priorities of economic decision makers. It therefore focuses on how cities can achieve core economic objectives in the context of increased climate risk.

Key outputs: The New Climate Economy Report. Synthesis Report (September 2014); The New Climate Economy Report. Summary Report (September 2014); Research papers to be launched in November 2014.
Project team: Graham Floater, Philipp Rode, Nikolas Thomopoulos, Bruno Friedel, Roxana Slavcheva, James Docherty, Peter Schwinger, Alexandra Gomes, Catarina Heeckt.

Urban Mobility Transitions

Urban Mobility Transitions incorporates an urban living and mobility survey: 'Gauging scope for new forms of urban mobility in London and Berlin'. The study – conducted in collaboration with InnoZ Berlin – investigates current public attitudes to future alternative forms of travel, with the aim of developing effective policy options to encourage sustainable travel by, for example, moving from the private car to an electric bicycle or shared car service and thereby facilitating the promotion of greener cities.

The study investigates behaviour and attitudes to mobility, urban living and information and communication technology use, in order to survey current patterns and gauge potential for future behaviour change. The foundation of the project is an in-depth phone interview survey of 1,000 residents, representative of the metropolitan regions of London and Berlin. The focus on new trends in urban mobility and the international comparison perspective of the study is the main novel contribution of the research project. Analysis has now been undertaken of the data, with the validation, general overview, and clustering of behaviour groups.

Key outputs: Survey; Workshop convened at LSE to share the findings with LSE experts and external experts (February 2014); a paper accepted for peer-reviewed publication was presented at an international scientific conference (May 2014).
Project team: Philipp Rode, Christian Hoffmann (InnoZ), Andreas Graff (InnoZ), Jens Kandt, Duncan Smith, Hélia Costa.

RESEARCH UNIT C: URBAN GOVERNANCE

Urban Uncertainty

The Urban Uncertainty project is a collaborative investigation into emerging ways of envisioning and governing the future of cities. Combining empirical research with theoretical exploration, it seeks to develop a set of conceptual tools for analysing and comparing the diversity of ways in which urban governments and populations orient themselves towards the uncertain and the unknown. The city of Bogotá features prominently due to its international reputation as a model of good governance, but it is compared with research on other cities from the global North and South. Its overall objective is to understand how future-oriented techniques are assembled and deployed by a range of urban actors, and how this influences the physical, social, political, and cultural fabric of cities. The project is divided into two interrelated initiatives: 1) a workshop series; and 2) case studies from a select group of cities.

The project advances a comparative analytical investigation of urban governance as it is assembled and deployed in specific locations. This project examines changing forms of governmental thought and practice throughout the contemporary urban world, advancing comparative analytical investigation of urban governance as it is assembled and deployed in specific locations.

Research into the case studies of Bogotá, Karachi, Accra and Cape Town has now been completed. The 'Urban Uncertainty' workshop series launched in April 2013, and has continued to look beyond conventional discussions of water, infrastructure and cities, in order to address the broader cultural and political questions raised by attempts to anticipate and prepare for future hydrological events (e.g. flood, drought, contamination, runoff) across a range of urban locations. The research is informing thinking around the themes and location selected for the 13th Urban Age conference in November 2014.

Key outputs: Urban Uncertainty workshop series: convened nine workshops between 2013-2014 and a tenth follows in Autumn 2014; Beyond Life and Death in Kinshasa public lecture (January 2014).
Research team: Austin Zeiderman, Jonathan Silver, Sobia Ahmad Kaker, Astrid Wood.

New Urban Governance: Urban complexity and institutional capacities of cities

New Urban Governance: urban complexity and institutional capacities of cities is a two-year LSE Cities research project co-funded by the John D. and Catherine T. MacArthur Foundation to examine multiple aspects of municipal planning, management and governance.

The point of departure for this collaboration is the common assumption that cities have to increasingly rely on advanced institutional capacities, democratic governance and effective management to address ever more complex and interrelated economic, social and environmental challenges, while tapping into the potential benefits of new technological opportunities.

The project further builds on a strong socio-spatial understanding of cities acknowledging that decisions on urban form and infrastructures remain a unique signifier of city-level governance with particularly long-term implications for urban resilience. Within this context the project aims to:

· Identify the most relevant areas of future research and related knowledge gaps.
· Examine the different requirements for new urban governance in a selected group of global regions.
· Provide an overview on the most innovative forms of urban governance and related key lessons.
· Test research methodologies for generating new knowledge that can potentially inform institutional change in cities.
· Build a network of academics and urban practitioners that are engaging with some of the fundamental questions affecting urban governance.

To address these goals, this two-year research and expert engagement project consists of four components:
1. LSE Cities research which documents the most pervasive urban governance challenges, a global survey of city governments in partnership with UN-Habitat and UCLG, and specific cases of innovative urban governance.
2. A series of papers focusing on regional perspectives on the evolution of urban governance regimes, related path dependencies and critical junctures. For this, LSE Cities has commissioned regional experts in the most relevant regions.
3. Four foresight seminars through which we explore key questions, scenarios and research opportunities related to urban governance futures which will have to address ever more complex and interrelated urban challenges as well as technological change.
4. The production of conference content and related outreach for the Urban Age 2014 conference 'Governing Urban Futures' in Delhi and to a potential MacArthur conference towards the end of 2015.

Key outputs: The programme will be split into four components: LSE Cities' research, research papers, a seminar series and a conference.
Research Team: Philipp Rode, Michael McQuarrie, Nuno Ferreira da Cruz, Priya Shankar, Madeleine Lee, Catarina Heeckt.
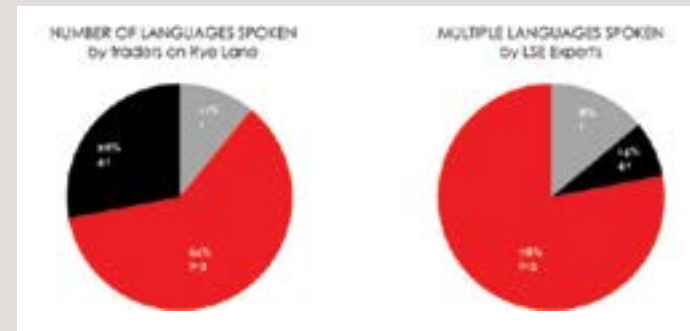
TEXTS

This section includes a selection of essays, texts and articles by LSE Cities staff, produced during 2012-2014. Full references and bibliographies can be found in the original publications.

Photo credit: Michael Wolf

MULTILINGUAL CITIZENSHIP

Suzanne Hall

HUMBER OF LANGUAGES SPOKEN
by traders on Rye Lane

MULTIPLE LANGUAGES SPOKEN
by LSE Experts

This article first appeared in the British Sociological Association's Discover Society, October 2013.

On the 'Research and Expertise' webpages of my university, the language proficiencies of its scholars are highlighted at the top of each individual resume. Language fluencies are listed upfront to signal an ability to interact with individuals, geographies and ideas beyond one's own origins. A brief analysis of the language proficiencies listed in the 'LSE Experts Directory' in 2012 indicates connections between scholarship, multilingualism and exchange in a fluid world: 8% of university experts were conversant in one language; 78% were conversant in two to three languages; and 14% in four languages or more. The status value of language and communication is plainly stated as a skill; an acquired expertise in international forms of engagement. It is difficult to imagine contexts in which multilingual competencies are not celebrated as desirable, even necessary, skills for navigating the cultural and ethnic diversities integral to our twenty-first century.

However, our fluid world is also a highly disparate one. Hierarchies of numerous kinds prejudicially rank the practices of engagement and adaptability integral to speaking outside of a mother tongue. Language is both a signifier and mode of belonging, and in the rising acrimony of migration-speak across the UK and Europe, language is frequently invoked as a symbol of preservation, rather than communication. In the inimitable words of the Right Honourable Theresa May, Home Secretary of the UK:

"With annual migration still at 183,000 we have a way to go to achieve my ambition to reduce that number to the tens of thousands [...] In particular, I want to talk about measures we're taking to make us more discerning when it comes to stopping the wrong people from coming here, and even more welcoming to the people we do want to come here [...] It takes time to establish the personal relationships, the family ties, the social bonds that turn the place where you live into a real community. But the pace of change brought by mass immigration makes those things impossible to achieve. You only have to look at London, where almost half of all primary school children speak English as a

second language, to see the challenges we now face in our country," (Home Office speech 2012).

The Home Secretary voices concern for an accelerated process of migration. Indeed, the 2011 Census evidences an increase in the extent and variation of the 'country of birth' category in England and Wales: 12% of the population were born outside its borders, and 173 out of the world's 229 nations now have at least 1000 residents in England and Wales (Paccoud 2013). Alongside long-established histories of migration and the ever-paradoxical categorisation of the 'first/second/third generation immigrant' in the UK, are reorientations within ethnic and racial categories. One in five individuals living in England and Wales identifies themselves as other than 'White British' and there has been a substantial increase in individuals identifying with the 'Mixed' or 'Other' ethnic categories (CoDE 2012).

It is the Home Secretary's view that migration compromises social bonds and local communities. Multilingualism in London schools – specifically speaking English as a second language – is perceived as an outright challenge to the process of learning and to the costs of educating. Undoubtedly, the diversifying societies that will be increasingly integral to twenty-first century life and politics will require different approaches to how citizens are resourced and how they learn and keep apace, both inside and outside of institutions. Being socially agile in a fluid and disparate world requires redefinitions of citizenship and exchange. What then, might we learn from the practice of language, specifically multilingualism, as a constitutive of expression, communication and belonging?

By way of contrast with the university, let's turn to the street. In 2012 a multidisciplinary team of architects and sociologists, whose origins spanned South Africa, Santiago and the US, undertook a survey of a multi-ethnic street in a comparatively deprived urban locality. Rye Lane in Peckham south London is a kilometre stretch of densely packed retail activity. One-hundred-and-ninety-nine retail units line the street edges, two-thirds of which are independent shops that are occupied by proprietors from over twenty different countries of origin, including: Afghanistan, England, Eritrea, Ghana, India, Ireland, Iran, Iraq, Jamaica, Pakistan, Kashmir, Kenya, Nepal, Nigeria, Somalia, Sri Lanka, Tanzania, Uganda, Vietnam and Yemen. In the absence of an 'expertise directory' for the street, we asked the proprietors to name the languages they spoke: 11% of street proprietors spoke one language; 61% spoke two to three languages; and 28% spoke four languages or more. The language proficiencies of proprietors on Rye Lane are as remarkable as those of the LSE experts, and in the proficiency category of four or more languages, the street excels.

What do the street proprietors use language for? The repertoires of multilingual communication are as strategic as they are sociable, and activate opportunism, solidarity, exchange and aspiration. Multilingual competencies on the street are more than simply verbal; they allow for

new forms of transaction and enterprise. One in four of the shops along Rye Lane practice a form of urban mutualism: a subdivision and subletting of space into small interdependent parts and activities, across ethnicity, origin and gender. Within one shop space, Armagan, who recently arrived from Afghanistan, occupies two square metres of space at the front of the store where he trades in mobile phones and software services. Umesh, who arrived from Uganda in 2003, runs a Western Union remittance store at the back of the shop. We ask Umesh who his customers are, and he replies, "All kinds of people, sending money to their countries, and changing money for travel. They are all ages, from everywhere – Africa, Europe, Asia, everywhere." Frances is from Ghana, and her space is allocated between the two micro-shops at the front and rear, leaving just enough room to stack rolls of cloth and accommodate her sewing machine. Together they must negotiate how toilets are shared, and how security is arranged. Within the shop interior, they share risk and prospect, and shape the textures and spaces of a multilingual street economy.

Sociolingual writers like Jan Blommaert and Ben Rampton remind us that language is both circumstance and ability. Fluency in multiple languages therefore emerges as much in the circuits of displacement imposed by migration as it does within the elite world of universities. Aahad, for example, has traded on Rye Lane for 32 years. He speaks English, Punjabi, Urdu, Guajarati and Swahili. His multilingualism reflects displacements and journeys through India, Pakistan, Tanzania and England. His fluencies also reflect an ability to converse in standardised

registers like Punjabi, with specialised inflections like Urdu, and in an east African lingua franca like Swahili, a language derived from Arabic and grown over many centuries, incorporating colonial influences of German, Portuguese, English and French.

The combined multilingualisms on Rye Lane reveal the circumstance and ability to converse in more than one language, to read the cultural and economic landscape of a city, and to translate it into products, services and networks. Multilingualism is a 'citizenship' capacity of the twenty-first century, constituting a diverse social capital to interpret, to make do, and to renew. In political framings in the UK, citizenship is essentialised as an inheritance rather than a capacity, and the ideological commitment is therefore directed to forms of cohesion and assimilation. While there is broad political and cultural acceptance that universities, corporate boards and trading floors are 'international' in their outlook and composition, there is less inclination to engage with how a diversity of origins, languages and outlooks contributes to local life, or as May puts it, to "the personal relationships, the family ties, the social bonds that turn the place where you live into a real community."

What might the spoken, spatial and economic multilingualisms of the street lend to our sociological imagination? First, there is the on-going reframing of questions of belonging in a diverse and disparate world, shifting away from ideological categories or definitions of groupings – be it language, community, ethnicity, nationality – to questions of how groups or associations are

Photo credit: Sadia Toffa

renewed and updated through dialogue. While there is an extensive sociology of communication, multilingualism begs for a sociology of fluency: a conscious capacity of an individual or a network to understand and to be understood beyond a single or dominant cultural register. Fluency is therefore not only a practice of communication, but a process that is activated between people and things in order to connect or conduct or mediate exchange, and to foster transition, re-composition and renewal.

ELECTRICITY: A THING AND AN IDEA

Deyan Sudjic

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Cities are shaped as much by ideas as they are by things; in either case more often than not they are the result of unintended consequences. The car, which is clearly a thing rather than an idea, was meant to offer personal mobility rather than lead to the emergence of out-of-town shopping, toxic air pollution and traffic jams. The standard shipping container, also a thing, was meant to speed up loading, cut down handling costs and pilfering. It did all that, but, rather more visibly, it also wiped out every up-stream dock, wharf and warehouse in the world, and eventually resulted in Canary Wharf becoming London's second financial centre. The three-electrode vacuum tube, or thermionic valve as it is known in the United States, was developed as a switch and an amplifier. It has done more than either the car or the shipping container to change the urban world. It has put electricity to work.

As for ideas: there are the obvious ones, from the obvious sources. The urban theorists who believed in zoning, the modernists, who wanted a tabula rasa, and the followers of the picturesque, such as Camillo Sitte, who understood the city as a work of art. But there are also the kind of ideas that are less immediately obvious in their relevance to the nature of a city, but which may have the biggest impact in the long term. These might include the legal codes that result in certain kinds of leases, the political ideas about participation or centralisation that impact on how decisions about what to build and what not to build are taken. And the fuel subsidies that may encourage one form of transport over another, and thus favour some forms of urbanism over others. All of these are ideas that are perhaps just as responsible for the way in which our cities work as the things that we use to make them, and to move around in them. But perhaps because things are more visible than ideas, and because we have grown increasingly suspicious of big ideas about cities, we have concentrated perhaps too much on the way we use things rather than on thinking about their effects and their potentials.

Electricity is both an idea, and a thing. As a result it has had an unusually pervasive grip on our attitudes towards urbanism. It has not always been the same idea. For Benjamin Franklin, electricity was about understanding the nature of natural phenomena. Earlier scientists found that they could use electricity to give the appearance of resurrection to dead frogs. For over a century, electricity seemed closer to sorcery or magic than to production. It was only at the end of the nineteenth century that it began to offer solid industrial applications, and started to shape cities. Electricity morphed from the valve to the transistor and then the semi-conductor, triggering the digital revolution that quickly put paid to the analogue world. The digital revolution could be understood as the culmination of the electric age. From wireless connection to GPS navigation, it certainly seems to be offering what looks very much like magic.

As an idea, electricity is what the Soviet Union promised to adopt as the road to the future. Elsewhere, out of the grip of the totalitarians, electricity was the inspiration that showed a way forward out of the age of steam and heavy machinery. The dams built by the Tennessee Valley Authority offered electrification as the New Deal escape from poverty. The steam-age city was soot streaked, and smog bound. It depended for its mobility, its factories, and for its comfort on the begrimed stokers confined below ground and below deck, whose back-breaking toil fed the boilers. Electricity seemed as far removed from this sweat-soaked reliance on muscle power as the digital economy now is from the analogue. Some electric power might still depend on coal-fired power stations, but they are out of sight, and out of mind. At the point of delivery electricity seemed as if it was clean, manageable, and efficient.

In the early twentieth century, electricity as celebrated by the Futurists was equated with effortless power, with city streets blazing with light, and with an irreversible break with the past. Electricity made the city more connected, metaphorically as well as literally. The endless city can be understood as a force field, its energy crackling over huge areas of apparently unconnected fragments of urban tissue, and connecting them. It is notable in this context to remember that the London Underground map of 1931 owes its graphic language to an electric circuit diagram: not so much a metaphor as a tactical way of making sense of the navigation of a complex system.

Electricity was always a thing too. A thing that has had a massive impact on the form and density of cities. Otis lifts, streetlights, tramlines, air conditioning, neon and escalators changed the face of the first industrial metropolises. Berlin, London, New York and Chicago as they are today would not be possible without electricity. And not just in the physical sense, but in their political organisation too. For better or worse, electricity made possible the technology that sidestepped literacy, and allowed politicians to speak directly to the masses eighty years ago. There is nothing new about the impact of technology on civic strife, whatever the claims made for

Photo credit: Phil Sayer

Blackberry-fuelled mayhem in the streets of London's Hackney and Haringey last year, or of Twitter in the Arab spring. If Hitler's rise to power was aided by his skill as a radio broadcaster, it was also the transistor radios in the backpacks of the French conscripts in Algeria that allowed them to hear De Gaulle's order to them to disobey their mutinous officers and so put down their attempt at a coup.

In the last two to three decades we have been overwhelmed by the impact of all the things that electricity makes possible, without perhaps the perspective to go on seeing electricity as an idea. It is in part because we have lost the ability to be impressed or charmed by speculations about the nature of the future. The fading appeal of the Expo movement demonstrates the sense of ennui that we have acquired in speculations about the future and the place of technology in it. The Expo was once the most elaborate prototype for urban innovation. Joseph Paxton's prefabricated Crystal Palace, covering an awesome 800,000 square feet (74,322 m²) haunted the imagination of the nineteenth and twentieth centuries. Subsequently the Expo became a much less inspiring arena in which Robert Moses met Walt Disney, and where urban theory collided with popular culture. From the first Paris Exposition to the Brussels Expo of 1959, from the City Beautiful of Chicago to the starry-eyed futurism of New York in 1939, from the welfare state optimism of the Festival of Britain in 1951 to the grim corporate vision of New York in 1964, each of the fairs sloganised a particular view of urbanism that grew progressively more banal.

The live TV broadcast was introduced to America at the World's Fair. Norman Bel Geddes designed Futurama, the enormous General Motors display that proudly declared itself the city of tomorrow with its 500,000 scale-model buildings and its one million trees and 50,000 cars, 10,000 of which actually moved. They were exhibits that opened the way for Robert Moses to start driving expressways through the Bronx, and demolishing swathes of Manhattan. In 1964 New York staged a second Expo, once more under the direction of Robert Moses. Walt Disney offered his services to several of the big commercial exhibitors, and afterwards he returned the compliment. He hired William Potter, one of Moses's aides at the 1964 fair, to offer guidance on his own plans to build a city. Together they worked on Epcot, the Experimental Prototype Community of Tomorrow, which, to judge by Disney's ambitions, was mooted as a direct answer to Jane Jacobs' anxieties about the future of the city. "There will be no slum areas, because we will not let them develop. There will be no landowners, and therefore no voting control. People will rent houses, instead of buying them, and at a modest rental; there will be no retirees, everyone must be employed." We recoiled, or, worse, we sniggered at what dreaming about the future had been reduced to if Epcot was what it had become. If the Expo has declined into senility, it is all the more important to find ways to understand the impact of the electric city, not just as a deluge of things, but in its significance for our notion of what the city can be. We are far too dependent now on electricity to be able to do without it.

In less developed urban societies, the installation of electric street lighting, and the sense of security it brings at night to previously threatening streets, is still an early signal of infrastructure investment and the maturity that comes with it. Despite the breezy way in which we continue to take the efficacy of Moore's Law for granted, and assume that computing power will continue to double every year or two for a halving of the cost, the developed world cannot take it for granted that the lights will always stay on. Britain's reluctance to face the challenge of building a new generation of power plants, and German anathema to nuclear power are just two examples of the vulnerability of modern economies to electricity shortages. India's massive power cuts in the last year are another reminder that the future for the BRIC nations is also problematic.

To explore the idea of the electric city offers a powerful way of understanding urbanism as it is being reshaped. Using the word at all involves looking back at ideas about the future, which belong to a historical moment less jaded than our own. It is to take a perspective that has not been desensitised by decades of technological innovation so rapid and so relentless that we have lost the ability to wonder, or even be surprised about what it has to offer.

Electricity made the key elements of the modern city possible in successive technological generations. Early on it was the metro system. More recently it was the Internet. The impact of what electricity brought into being has changed fundamentally the geography of the city and the way we live in it, and the way in which we interact with each other. Now we need to see what it can offer for the near future. It can encourage both anti-urban developments and their antithesis. We need to find ways in which to emphasise the latter at the expense of the former. Electricity has made new spaces, both physical and virtual, possible. It has powered technologies that have shaped the grain of life in the city. The electric city could be taken to mean a city policed by number-plate recognition systems, kept moving by car-share schemes, with crowd monitoring on the Underground network and Oyster cards that track every journey taken on every bus and metro line in a city.

The electric city that they delineate is both infinitely more transparent and more opaque than urbanism in its more traditional form. An electric city is a city of rippling neon and LEDs at night. An electric city is one that is continually surveyed by surveillance cameras, a city navigated by GPS systems that make London taxi drivers' painstakingly acquired knowledge as nostalgically useless as the vinyl record some of us cannot bear to discard. The city's anonymity and privacy are under threat as never before from Google's cameras, Apple's location-based services and pervasive security. The iPhone leaves an indelible trail, as do the Oyster card and the cash machine. This is turning the city into a compound in which every action is known, every form of behaviour can be predicted, every dissident suppressed. The way in which we navigate and socialise has been transformed. So has the way in which crime, politics and consumption work. The discouraging thing about almost

every new technology is how what begins as radical and empowering so quickly turns into part of the apparatus, if not of repression then of consumerism. In urbanistic terms, if the impact of electricity-powered digital development is to undermine the physical city, the Internet, which, like all authentic cities has both its light and its dark side, must step up to the plate and stand in as the new public realm. Crime and vice hover at the edges of virtual space that also encompasses the great free library that is Wikipedia, the explosion of online archives, and the market stalls that are open source designs. It has become a polyglot mix of the inspirational and the banal. Meanwhile, Twitter is the twenty-first century equivalent of the lavatory wall, a place for the scurrilous and the anonymous to leave their mark, combined, if we are being generous, with an electronic version of the posters on Beijing's democracy wall.

Electricity has transformed our distribution systems, and working practices. If we have no need to work in an office, we are never really out of it now. We have no need for record shops, no need for bookshops soon, and no need for post offices. But there is plenty of call for big out-of-town sheds for distribution. All the things that people have been speculating about for a couple of decades have happened. John Lewis set about making a real investment in e-commerce only two years ago. In that time it has grown to represent £1 in every £5 it takes at its tills. Why would it think about the investment in bricks and mortar that a department store with the same turnover as its online sales would need? Christopher Bailey's fashion shows for Burberry are now instantly streamed across the globe: no need then for a front-row seat in the tent when you can watch on your smart phone in a bar, or on a beach.

Does the impact of immateriality of the electric city undermine urbanism, or reinforce it? The electric city offers the possibility of feedback loops, and of making political and technical decisions in real time. It is both an echo chamber for the global village idiot, and a genuinely liberating and empowering phenomenon. But for it to remain a positive force, we cannot turn into passive consumers.

SECURING BOGOTÁ
Austin Zeiderman

This essay first appeared in Open Democracy as part of the Open Security blog series, February 2013.

Bogotá's lauded transition from chaotic city of crime and violence to cosmopolitan hub of commerce and creativity belies the manner in which 'security' has been differentially mobilised over the past 15 years, to stigmatise and displace the city's most vulnerable residents.

Since the late 1990s, successions of charismatic mayors have adopted innovative strategies for securing Colombia's

cities. International observers now refer frequently to the 'Bogotá model' and the 'Medellín miracle' while celebrating the transformation of both cities from chaotic infernos of violence, fear, and criminality into cosmopolitan hubs of commerce, conviviality, and creativity. Common to discussions of this transformation is the assumption that security is a self-evident good that all city dwellers inherently desire–understandable considering the bomb blasts, political assassinations and drug wars of the eighties and nineties. This has meant relatively little critical analysis of the strategies municipal governments have used to protect the lives of urban citizens. How are threats to urban life defined and identified? What are the targets of security interventions? Which forms of political authority and technical expertise are favoured? Whose safety is prioritised and whose neglected?

Enrique Peñalosa was elected mayor of Bogotá in 1998, and immediately established a lofty set of goals for his two-year term. High among them was the recovery of public space, a necessary component of his plan to create a more inclusive, accessible, and secure city. At the time, his vision seemed somewhat farfetched; Peñalosa would have had to stroll only a few blocks from his new office in Plaza de Bolívar, the historic centre and political heart of the capital, to be reminded of the work he and his administration had cut out for themselves. The infamous barrio of El Cartucho was a stone's throw from City Hall. Few dared to set foot in an area that, over the course of 50 years, had become "a sinister urban myth of the capital".

The Bogotazo riots of April 1948, sparked by the assassination of populist presidential candidate Jorge Eliécer Gaitán, left the downtown in shambles. When residents started to flee the centre in the 1950s, its stately buildings and polite streets began to experience a half-century of precipitous decline. The mass exodus of gente decente to the north and west stimulated the conversion of spacious, respectable homes into working-class tenements; others were simply abandoned and left to fall into disrepair. By the 1980s, El Cartucho was the most unsafe part of downtown, which was the epicentre of insecurity in one of the most violent and dangerous cities in the world. So close to the city centre and the seats of both national and municipal government, this neighbourhood epitomised the dereliction of Bogotá's public space.

For Peñalosa's vision to become reality, this would have to change. As long as El Cartucho persisted, he later recalled, "It was impossible to envision the centre of Bogotá as dynamic, lively, and attractive to locals and visitors alike." El Cartucho was equally an anathema to Antanas Mockus, Peñalosa's successor, and his drive to instil a "culture of citizenship" (una cultura ciudadana) among those seen to be lacking civility and civic responsibility. Peñalosa began by creating the Urban Renewal Programme, which would continue under the guidance of the Mockus administration. The programme would eventually acquire and demolish 615 properties and relocate thousands of their former occupants, destroying the heart of the barrio. To symbolise

Photo credit: Anja Schlamann

Bogotá's commitment to a different future, El Cartucho would be replaced by the twenty-hectare Parque Tercer Milenio, or Third Millennium Park.

As the clearance of El Cartucho was getting underway, an unexpected event escalated the priority of securing the city centre. During President Álvaro Uribe's inauguration ceremony on August 8, 2002, mortar shells exploded a few hundred feet from where the newly elected leader was being sworn in. Uribe had won on a pledge to crack down on leftist guerrillas and his mano dura stance had been countered by the FARC (Revolutionary Armed Forces of Colombia) in the weeks leading up to the elections, with an escalation of bombings in both rural and urban areas (New York Times, 2002). The shells that detonated on inauguration day matched those used previously by the FARC, supporting the theory that this group was responsible. Although one of the missiles hit the façade of the presidential palace, at least two others went astray and landed in the midst of the still occupied El Cartucho (The Guardian, 2002). Once the damage was fully assessed, 21 people were found dead. Although the strike's origin remained unverified, the government's response to the bloodshed in El Cartucho resembled what might have occurred if the bombs had been launched from there. Immediately after the explosions, tanks and troops dispatched to patrol the city quickly sealed off its perimeter, attempting to regulate who and what flowed in and out. El Cartucho, in this case, was more victim than perpetrator of violence; nevertheless, it continued to be identified as a

security threat. If there was any doubt before the bombings that the neighbourhood would be erased from the map, this event sealed its fate.

The goal of transforming downtown Bogotá by demolishing El Cartucho and replacing it with Third Millennium Park was part of a much broader set of concerns. What began as an urban problem had now been promoted to the level of counterterrorism and national security. The inauguration day bombing fuelled latent fears that guerrillas, known for perpetrating violence in the countryside, were coming to terrorise Colombia's cities. Tapping into prevailing 'war on terror' rhetoric, Uribe saw the explosions as an early justification of his intent to govern with a firm hand and to increase military operations targeting rebel groups. He believed that FARC militias were forming in peripheral urban settlements throughout the country and that they were 'time bombs' waiting to go off. While the city centre required heightened protection, it was these impoverished, densely populated, and loosely governed neighbourhoods–and the possibility that they could become fertile ground for guerrilla recruitment–that presented the most fearsome threat.

This shift was encouraged by the progress of the Urban Renewal Programme in El Cartucho. In December 2003, the media celebrated the fall of the last house, drawing to a close what Semana called "forty years of embarrassment." The creation of Third Millennium Park brought 20 hectares of public space and recreational facilities to the city centre, symbolising the inauguration of a new era–what urban

planners, politicians, and the media now celebrate as its 'rebirth'. But while crime and homicide rates fell, fear abated, and the physical space of the city was transformed, the problem of urban insecurity did not disappear. There were still hundreds of thousands, if not millions, living in the city's shadowy peripheries.

In response, new policies emerged that would redefine security and reconfigure the rationalities and techniques of government through which it could be pursued. As the demolition of El Cartucho was coming to a close, the municipal government of Bogotá initiated a disaster risk management programme aimed at protecting the lives of vulnerable populations from environmental hazards such as floods, landslides and earthquakes. The Caja de la Vivienda Popular (Fund for Social Housing, or the Caja) was put in charge of the programme, which began with an inventory of zones of high risk among the two lowest socioeconomic strata. Studies found the highest concentration of vulnerability in Ciudad Bolívar–the largest and poorest of Bogotá's 20 localities. Though it would subsequently be illegal to settle in these areas, qualified existing residents would be granted housing subsidies conditional on their willingness to abandon their homes and relocate.

The sprawling, self-built settlements of the urban periphery–once seen as potential breeding grounds for urban insurgency, as threats to social order and political stability, as risks to the city–turned out to have the greatest concentration of families living at risk. Once evacuated, these areas would be patrolled by vigías ambientales, or 'environmental guards', in order to prevent their reoccupation. Logics of ecology and security conjoined to stop the spread of neighbourhoods long assumed to be fostering illegal and subversive activity.

We have, then, two approaches to securing Bogotá, each with different ways of defining problems and acting upon them. On the one hand, the demolition of El Cartucho responded to the threat of crime, violence and armed insurgency, and force was used to remove one of the most infamous sites of disorder from the capital city. The Urban Renewal Programme created Third Millennium Park and other public spaces as a means by which to promote public safety and political stability in a city once synonymous with insecurity. The disaster risk management programme, on the other hand, was more technical than political, more voluntary than coercive, more focused on environmental threats than human ones. Both initiatives required the relocation of poor and working-class bogotanos.

The Caja's primary objective was to protect the lives of vulnerable populations living in specific zones rather than defending the city or society at large. These zones were located on the urban periphery rather than in close proximity to downtown Bogotá and the municipal government, instead of evicting residents and demolishing buildings, encouraged households to relocate themselves. The strength of the military and the police was unnecessary, as the Caja turned to the technical
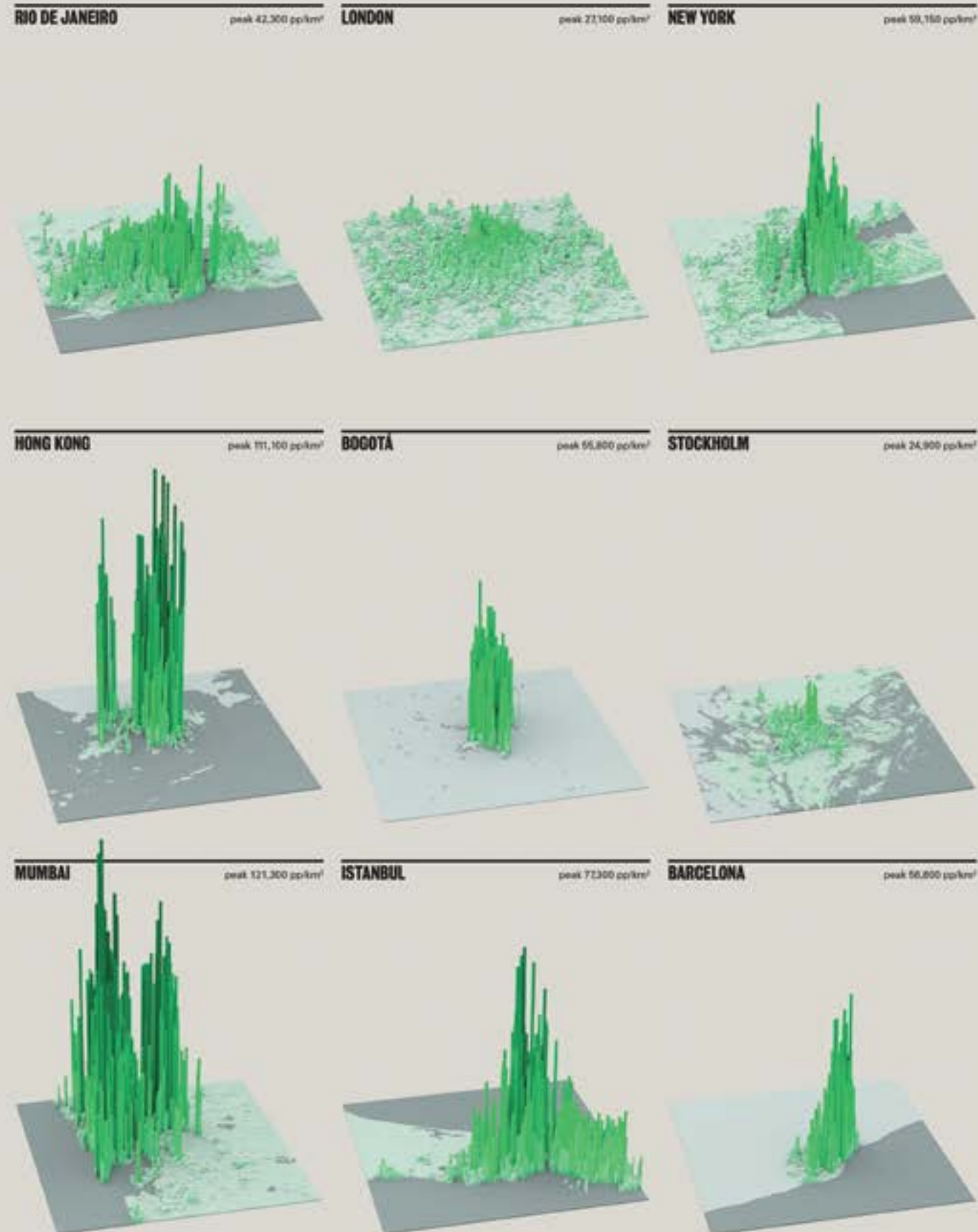
expertise of engineers, architects, and social workers. And while security logics motivated both slum clearance in the city centre and disaster risk management on the urban periphery, the definition of threat had shifted to floods, landslides and earthquakes.

Third Millennium Park remained quiet until March 2009, when close to 500 desplazados, or internally displaced persons, descended on it. Desplazados are victims of the armed conflict in Colombia who have been forced to leave their homes, and many of them arrive in Bogotá seeking anonymity and protection. While finding a foothold in the capital has always been a struggle for poor migrants, many hillside settlements of the urban periphery–once their most viable option–were now 'zones of high risk' and off limits. With nowhere else to go, these desplazados constructed makeshift shelters out of scavenged materials, and, overnight, the park was turned into a veritable refugee camp. By early May, their ranks had risen to 1,200 and their spokespeople were negotiating with the national and municipal governments over their rights to protection, housing, food, and employment. The national government was reticent to acquiesce to what it called an unlawful occupation of public space (El Tiempo, 2009). Mayor Samuel Moreno, however, promised them employment and offered temporary shelter while funds for additional support were sought. Three hundred of the demonstrators agreed to these terms, and City Hall was confident the others would follow (El Tiempo, 2009).
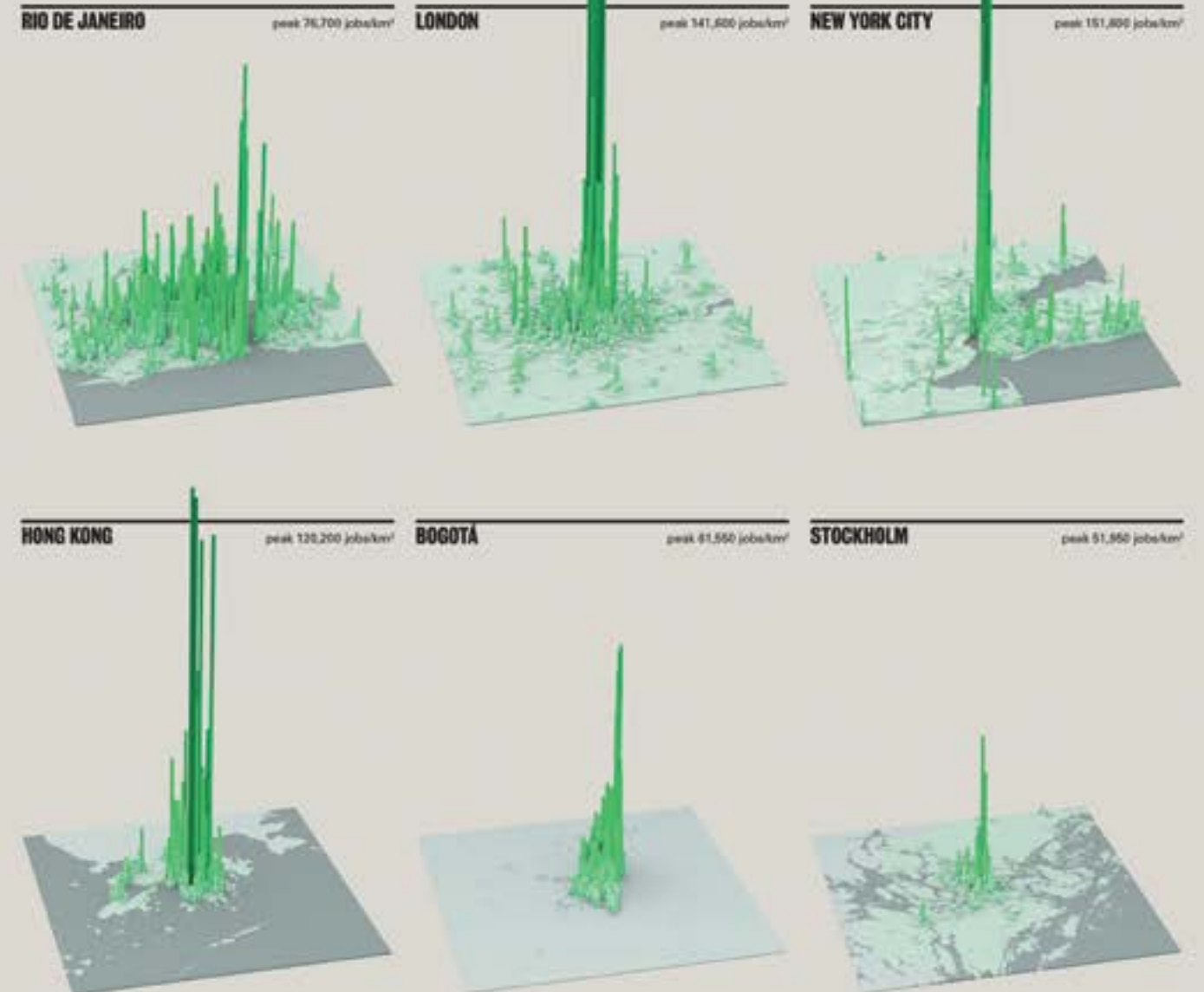
Then a crisis of global significance hit Bogotá and changed the fate of those still struggling to make their demands heard. On July 13, 2009 the National Institute of Health announced the appearance of gripa porcina, otherwise known as swine flu or the H1N1 virus. Bogotá's Secretary of Health expressed concern about the concentration of desplazados in the park, which, he feared, could become a "niche for the H1N1 epidemic". Although not a single case of swine flu had been detected among the displaced population, Zambrano said they "are highly vulnerable, both emotionally and physically, and their conditions of health and nutrition are not good. We are all aware that many efforts have been made, but these cases demand more forceful responses." Two days later, 300 uniformed policemen installed a cordon sanitaire around the encampment and, at its only entrance, set up a security checkpoint. A medical team began to administer daily exams and, at 2am, conducted a census to register each protestor and identify the most vulnerable among them (Caracol Radio, 2009). With the containment strategy in place, Mayor Moreno informed the media that the health department had found approximately 130 desplazados with acute respiratory symptoms. He declared a health emergency and appealed to the United Nations Refugee Agency (UNHCR) for mediation. The UN agency quickly brokered an agreement that provided temporary shelter, long-term housing solutions, employment assistance, food support, transportation subsidies, and security assurances. Four months after the occupation began, the desplazados called an end to their protest.

RESIDENTIAL DENSITY

RIO DE JANEIRO peak 42,300 pp/km²

LONDON peak 27,100 pp/km²

NEW YORK peak 59,150 pp/km²

HONG KONG peak 111,100 pp/km²

BOGOTÁ peak 55,800 pp/km²

STOCKHOLM peak 24,900 pp/km²

MUMBAI peak 121,300 pp/km²

ISTANBUL peak 77,300 pp/km²

BARCELONA peak 56,800 pp/km²

EMPLOYMENT DENSITY

RIO DE JANEIRO peak 76,700 jobs/km²

LONDON peak 141,600 jobs/km²

NEW YORK CITY peak 151,600 jobs/km²

HONG KONG peak 120,200 jobs/km²

BOGOTÁ peak 61,550 jobs/km²

STOCKHOLM peak 51,950 jobs/km²

Overall urban density is driven by topographical constraints, the provision of infrastructure and by inherited traditions of urban development. The highest density cities typically have grown around a harbour with limited land availability, as is the case in New York, Istanbul and Mumbai. Bogotá is constrained by a mountainous hinterland, while Rio and Hong Kong are bounded by both water and steep terrain.

Density is a fundamental measure of urban structure that can be used to quantify the immense diversity in urban form across the globe. Higher urban densities can improve service delivery efficiency, promote urban vitality and facilitate more sustainable public transport, walking and cycling. These advantages depend, however, on effective city management and urban design that minimises the negative costs of overcrowding and pollution. Here we map residential densities – where people live – for nine case-study cities (opposite) and employment densities – where people work – for six of these cities (above). Each diagram measures density at the square kilometre scale, using a standard region of 100 by 100 kilometres.

Rio de Janeiro has a peak residential density of 42,300 people per km² – higher than London (27,100 people per km²) and Stockholm (24,900 people per km²), but lower than Hong Kong (111,100 people per km²), New York (59,150 people per km²) and Bogotá (55,800 people per km²). Despite having areas of low but closely packed buildings and some high-rise developments, Rio is relatively unique in showing consistent density levels across a very large metropolitan region, compared to cities like New York and Istanbul where high densities are strongly focused in the urban core. Hong Kong stands out for its high-density development across the city, and extremely high peaks achieved by Mumbai reflect the large families living in overcrowded conditions in many of the city's neighbourhoods.

The mapping of employment densities provides a very different perspective on urban form, and offers insights into current trends in city economies. Some of the world cities documented here specialise in knowledge-economy sectors, such as finance and creative industries, where competitiveness is maximised by high-density environments. In these cities there is high demand for office space, and consequently high employment densities in the inner core areas of New York, Hong Kong and London. New York has the highest peak employment density at 151,600 jobs per km², while Hong Kong (120,200 jobs per km², much closer to the residential density peak) and London (141,600 jobs per km²) are not far behind. This level of density requires an extensive public transport network to enable millions of employees to flow efficiently in and out of central business districts on a daily basis. Rio de Janeiro and Bogotá also show high peak employment densities of 76,700 jobs per km² and 61,500 jobs per km² respectively, reflecting expanding service sectors, but given their significant industrial base both cities have more dispersed spatial patterns of employment, which, in Rio's case, is spread across the wider metropolitan region.

In the days that followed, government officials reflected back on the crisis. Secretary of Government Clara López clarified that the agreement reached with the desplazados was not the result of their prolonged occupation of the park, which was illegal, but, rather, the necessary response to "the extremely high risk (altísimo riesgo) of … an H1N1 pandemic," (El Tiempo, 2009).

In insisting that the situation was a health crisis, and that it was "in that context that we signed the agreement," López revealed something else. With the arrival of the H1N1 virus, the logic of security through which the city was governed had once again been transformed. This time, the threat shifted to a potential flu epidemic. Health professionals became the voice of expertise rather than the police and the military, as in the slum clearance effort, or engineers, architects, and social workers, as with disaster risk management. The space of intervention was identical to that of the Urban Renewal Programme, yet what had been a hotbed of drugs, crime, and violence was now a public park. The target population was neither the criminal underclass and the armed insurgents mingling among them, nor the vulnerable inhabitants of the self-built settlements of the urban periphery. The desplazados were both the threat and the threatened–at risk of contracting the H1N1 virus and a risk to the health of the city. As before, securing the city required relocating the urban poor. But in the crisis surrounding the occupation of Third Millennium Park, this imperative was framed by logics of biosecurity.

It is remarkable, as many have observed, that a city once known as one of the most dangerous and insecure places on the planet could now be celebrated as a model of urban governance and violent crime reduction. Acknowledging that Bogotá is now safer than it was a decade ago must not deter us from scrutinising the ways in which security has been pursued. After all, if our cities have any chance of becoming not just safe but also democratic spaces, we must examine and debate how political institutions go about protecting them from threat and danger. In the context of heightened global anxiety about natural disaster, financial crisis, disease outbreak, and other potential crises, such a task has never been more urgent. Denouncing security as an infringement on our rights and freedoms is a woefully inadequate response. There are certainly better and worse ways of making cities safe, and existing orthodoxies should not inhibit us from imagining creative alternatives. After all, a fundamental question remains: What is a genuinely democratic form of security?

DESIGNING URBAN DEMOCRACY: MAPPING SCALES OF URBAN IDENTITY

Ricky Burdett

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Despite the increasing complexity and specificity of the global urban condition, the old "bottom- up versus top-down" model still frames the debate about how cities should be planned, managed, and governed. Cities today are being made and remade at a faster pace and at a larger scale than ever before, yet the discussion about their future is lodged in an intellectual impasse that is, at best, 50 years out-of-date and rooted in very Western preoccupations about urban change (aka Robert Moses vs. Jane Jacobs). Much of the discourse on the future of cities is trapped in a professional paradigm that focuses on the role of urban planners and policy makers, while everyday urban realities are being shaped by a very different set of informal processes and actors that are largely immune to planning and policy making.

The intensity of urban churn currently being experienced in areas of rapid urbanisation – from Dhaka and Mumbai to Lagos, Lima, Cape Town, and Cairo – presents a conundrum for both urban professionals and urban scholars that requires a reframing of the questions surrounding their spatial, social, and temporal dynamics. In fact, the planning and urban design professions seem to have lost the ability to conceptualise and implement robust spatial models that are capable of adaptation and change, at a time when city dynamics are both volatile and uncertain, choosing instead to opt for anachronistic, unidimensional, and rigid urban models that fail to live up to the social and environmental exigencies of twenty-first century urbanisation.

The reflections offered in this essay do not belong to the conventions of empirical social science or to the canons of planning discourse. They are based largely on the observation and analysis of projects, developments, and initiatives at a metropolitan level and "on the ground" in over 20 cities that have been the focus of research and direct involvement over the past decade. The intellectual underpinning of this inquiry is an investigation of the links between social and physical dynamics of urban life, focusing on urban form and human activity. As such, the observations are based on the analysis of the spatial qualities of urban environments – the structure and form of the city, streets, and buildings at different scales – and an ethnography of how people inhabit and adapt to new

urban realities, with a particular emphasis on informal processes of growth and development in different urban regions of the world. Apart from working on complex global cities for some time, my own impressions are informed by the examination of about 400 projects – and visits to over 50 projects – in five African, Latin American, and Asian cities as a member of a panel that gives an annual award to projects that recognise new alliances between stakeholders and make a contribution to the quality of life of urban residents.

The experience gained from these visits suggests that the potential for social integration and democratic engagement of socially excluded urban residents is often realised through small-scale "acupuncture" projects – some of which I describe below – that succeed in bringing people and communities together in ways that formal planning processes have so uniquely failed to do. What is happening on the ground can be described as a process of urban integration that both questions our role as urban designers and planners in terms of what we design and for whom and shifts the focus of analysis away from the rather blunt instruments of "top-down versus bottom-up" planning toward a more nuanced understanding of processes of urban "accretion and rupture," concepts that I return to later in the essay.

This crisis of contemporary urban planning and design also calls into question our ability to create urban frameworks, visions, or master plans that do more than respond to the short-term needs of the market, land speculation, and weak metropolitan governments concerned more with the deadlines imposed by a mayoral election cycle than with the long-term sustainability of their communities.

It is the tensions between these different scales and dimensions of urban form and infrastructure – the macro and the micro, the metropolitan and the local, the neighbourhood and the street level – and their adaptability to social and cultural engagement that inform these reflections on the spatial dynamics of contemporary urban life.

Spatial Dynamics of Global Urban Change

Before turning to the investigation of macro- and micro-scales of urban form, it may be helpful to remind ourselves of the magnitude of the problem facing new generations of urban dwellers. UN-Habitat (2008:30) has calculated that a third of the global urban population (over 820 million people) lives in "slum-like conditions," while urban dwellers will continue to swell cities of the global South by 2050. In both Mexico City and Mumbai, for example, the same number of people who today live in New York City, London, Paris, and Berlin combined live and operate in informal and unplanned environments, without access to basic services or infrastructure. There is some disagreement among scholars about whether negative terms such as slums, favelas, or barrios should

Photo credit: Nolli Map of Rome 1756. Copyright 2009 The Regents of the University of California

be used to describe these informal settlements that – to a lesser or greater degree – concentrate poverty but also act as repositories of human energy and ingenuity. In *Planet of Slums* (2006), Mike Davis is forthright in his accusation of what he considers an unacceptable human condition, while Doug Saunders in *Arrival City* (2010) rejects the term slum and its connotations of abjection, hopelessness, and stagnation. As Ash Amin (2012) notes, Saunders finds "even in these grimy and ill-serviced clearances a teeming populace with the rural skills and drive to get on and up: enduring adversity, mobilising entrepreneurship, working with others to form businesses, find work, make savings, build better homes, improve the fortunes of their children, send remittances home." In *Shadow Cities*, Robert Neuwirth (2005) also rejects the term slum for its denigrating connotations, arguing that residents of Rocinha in Rio de Janeiro, Sanjay Gandhi Nagar in Mumbai, and the gecekondus ("built overnight") of Istanbul have over the years improved their neighbourhoods by investing in local environments, developing forms of "associational life" that make the most of human potential. While these accounts do not define the role that space and design play in fostering greater integration and identity, they do bring into sharp focus the apparent paradox of co-dependency between the formal economy and informal development in many of these global cities, where homogeneous concentrations of "placeless" capital often sit cheek by jowl with the vibrancy of informal neighbourhoods, providing cheap labour close to centres of power and production (Sassen 2001). The social and political complexities raised by such volatile associations partly explain the inability of the planning professions to come up with credible solutions of how to deal with these informal repositories of human capability and their juxtaposition to the formal city. The "tabula rasa" approach, where entire neighbourhoods are demolished to make space for new, more salutary replacements, is still the preferred model of "progressive" city leaders of the global South, just as much today as it was in the 1970s when Jacobs fought her rear-guard action to protect New York from Moses's demolition cranes. Ultimately, there is little appetite among urban politicians and professional consultants for the messy process of "urban retrofitting" of spaces and communities that have been espoused by nongovernmental organisations, activists, and an increasingly engaged coalition of academics, designers, and community agencies.

The identification of these complex phenomena requires a forensic examination that goes deep into the substrata of urban and social form, often at the more localised scale where informal processes are at play. A few examples illustrate this point. Despite a recent slowdown, São Paulo continues its march toward endless sprawl fuelled by a planning ideology that finds four-hour commuting patterns acceptable in a city that absorbs about one thousand new cars on its streets every day. Brazil's economic engine is expanding horizontally, pushing the most deprived outward to its most peripheral areas that lack access to basic services such as sewers, clean water, and schools (Caldeira 2001). Nonetheless, concentrations of extreme wealth (often

in highly guarded gated communities) coexist in close proximity to squatter settlements, as in the relatively central district of Heliopolis where an established favela with little access to clean water encroaches on a complex of high-rise residential towers with private swimming pools on each terrace.

Many other metropolitan areas of the fast-growing economies would have similar stories to tell. Mumbai's cynical attempts to redevelop Dharavi – India's largest slum, located on valuable land near the centre – with large commercial and housing blocks, replacing the fine urban grain of one of the city's most sustainable communities, raises the spectre of 1960s "slum clearance" programmes that devastated the social life and urban structure of so many European and American cities. New residential or business districts on the fringes of Shanghai, Beijing, or Guangzhou or new towns on the edges of Hong Kong, Cairo, Istanbul, Mumbai, or Johannesburg possess similar characteristics: large, monochrome arrays of "cookie-cutter" buildings – with the occasional iconic signature structure – surrounded by asphalt and picturesque landscaping, designed to be "apart," new, and different. This is what Amin (2012) aptly describes as "telescopic urbanism," a form of intervention that relies on rapid implementation of buildings and spaces that have little to do with the scale, texture, and fabric of existing neighbourhoods and communities. Superblocks and "ground scrapers" that turn their backs on streets and alleyways and housing, commercial, or leisure enclaves disconnected from their contexts are the hallmarks of this new urbanism: a process of "rupture" rather than "accretion". It is the more organic process of slow and gradual adaptation that characterizes many of the cities that I have studied – including planned and unplanned cities of the global North and South – cities that absorb social and economic change without undergoing such radical shocks. In the next sections, I explore how different urban systems have been able to facilitate a greater sense of openness and democratic engagement by its citizens, through this process of adaptation and accretion at both the metropolitan and local scales.

Urban Life from Above

While scholars, planners, and architects continue to debate the connections between democracy and urban form, most would agree that time and appropriation are critical to the creation of a sense of collective identity (Virilio 2000; Wacjman 2008; Mehrotra 2011; Hall 2012). We know how difficult it is to create an "instant city," with the overlaying complexities of urban life that Richard Sennett (2006) so accurately defines in his defence of the "open" city and critique of "brittle" urbanism that is resistant to social and temporal change exemplified by the realities of New York's Battery Park City, London's Canary Wharf, Paris's La Defense, or South Korea's ultimate "smart city" of Songdo. This phenomenon is not new, nor is it exclusive to the modern age. Many ideal towns built

throughout the ages suffer from the same blandness and one dimensionality. Filarete's unbuilt concept of the star-shaped city of Sforzinda – the very first ideal city imagined for the ruling Sforza family in fifteenth century Milan – and Vincenzo Scamozzi's equally geometrically charged defence machine of Palmanova display an imposed order designed to keep in check the messiness of the medieval city. Several centuries later, Claude-Nicolas Ledoux developed "the" ideal model of a working town for the Royal Saltworks at les Salines de Chaux: a perfect closed urban system, incapable of modification or tinkering, not to mention tolerance of workers' unrest. Like the other instant cities of Brasília, Canberra, and Chandigarh, these urban systems appear suspended in aspic, unable to respond to the messy requirements of the everyday and the contingent. Yet other less formal but nonetheless "planned" ordering systems seem to have stood the test of time, adapting to economic and political cycles in ways that have enriched the urban grain, creating greater density and complexity in the everyday urban experience. A quick look at any page of the A–Z map of London, for example, speaks of the accumulated narrative of time and space at the local and metropolitan level. There is something about the configuration of streets and spaces, the distorted urban grid crisscrossed by meandering, linear, yellow high streets and the large green or white gaps carved out by Royal Parks or redundant railway freight yards that signify "Londoness". You could never mistake them as being part of New York City or Hong Kong, Dubai or Mumbai. The iconography of the map reveals the layering of time and negotiation that marks a broadly organic process of urban change that reflects London's reticence to "top-down," centralised planning. In a similar fashion, Giambattista Nolli's plan of Rome, drawn in 1748, captures the porosity and permeability of a historically multilayered city, where the interiors of public buildings (churches, palazzi, monuments) and the public spaces of the streets, alleyways, and squares intersect to create a seamless, open, and accessible system. This quintessential "figure-ground" map (Cornell University Department of Architecture 1982:118) describes the democratic spatial DNA of a city whose form has accumulated over time (under everything but democratic regimes).

New York and Barcelona provide other models of urban resilience. The 200–year-old Manhattan grid (Ballon 2012; Kimmelman 2012), a brutally honest piece of real estate subdivision carved out of earth and rock, has served the city well as New York grew from a small trading post to a major port and manufacturing hub and then on to become one of the world's top financial centres (with a few crises in between). The monumental, relentless pattern of streets arranged around 264 feet by 900 feet (80 metres by 270 metres) urban blocks, conceived by the Commissioners' Plan of 1811, has supported everything from corporate headquarters, department stores, and mansion blocks to warehouses, industrial buildings, and sweatshops. While Henry James condemned it a century ago as a "primal topographic curse," it is Rem Koolhaas's view that its two-dimensional form created "undreamt-of freedom for

three-dimensional anarchy" that has proved to be correct (Roberts 2011). The city has densified, rethought its zoning, adapted to economic restructuring, and become more mixed in parts, more homogenous in others. Warehouses have turned into lofts, factories into workplaces, and railways have become walkways – but the grid has remained constant. The combination of building typologies and continuous porosity has allowed (not caused) the city to adapt to extremes of economic and social transition, establishing an endemic connection to the democratic process of change in North American culture and society over the past two hundred years, a lesson that seems not to have been learned by the current generation of "city fathers" of expanding city regions.

Building on the New York experience, the nineteenth-century Catalan engineer Ildefonso Cerdá not only gave us the term urbanism but also created a spatial infrastructure of urban expansion that saw Barcelona through a period of extreme growth, violent repression by a fascist dictatorship, and political rebirth after the death of General Francisco Franco in 1975. Inspired by concepts of public health, in 1859 Cerdá organised the plan of the extension of Barcelona (Eixample) around a grid of streets with chamfered corners that provided gas, sewers, and public transportation to the new city residents, cutting across the vested interest of landlords and property owners. While the Cerdá grid has been revised, modified, and compromised – with land speculation leading to the infill of spacious internal courtyards of housing blocks – it remains a robust armature for adaptation and change. Pasqual Maragall and Narcís Serra, the socialist mayors who led the city out its dark period of Francist repression, continually referred to the democratic role of the Eixample in underpinning both the city's resistance and its renaissance. Like Manhattan, the openness of its street plan, the intensity of its street life, and the resilience of its built forms and high connectivity have allowed the city to reinvent itself many times over (Rowe 1999). Overly dense inner-city districts were opened up in the 1980s, with small parks and squares providing identity and sense of place to the new and old residents; the 1992 Olympics kick-started a reconnection between the city and the sea, a late twentieth-century extension of Cerdá's original plan; and the derelict industrial area of Poble Nou is still today being transformed, rendered more dense and complex, with new buildings and facilities that broadly follow the original city plan. No need for new towns or smart cities here, just careful retrofitting of an adaptable urban DNA.

Both New York and Barcelona reveal, in their own macrogeometric order, a degree of resilience: an urban form that has adapted to the process of gradual accretion and democratic change without the need for "telescopic urbanism". In effect these cities have been retrofitted over time. While Moses tried his best to plough new roads and freeways for the city's urban districts, the Manhattan grid remains largely intact, just as Barcelona has been able to continually reinvent itself without losing sight of its own metropolitan identity. In a less demonstrative way, London

has gone about its business of metabolic adaptation following an organic, unplanned path for the past centuries, providing another model of resilient urban design. In fact, ever since the faithful reconstruction of the City of London (the original urban money machine) after the Great Fire of 1666, London has never had a geometric order imposed upon it by kings, queens, commissioners, or engineers.

Despite growing from 1 million to 10 million inhabitants in the space of a century (from the early nineteenth century to the early twentieth century), the Royal Parks and the river Thames continue to define the mental map of the world's first megacity, far more so than its confusing array of linear high streets, landscaped squares, and suburban terraces. Only Patrick Abercrombie's Green Belt of 1944, which has successfully constrained growth, can be said to have substantially determined London's urban form and distribution. Yet behind this organic "dis-order" lies a spatial structure, captured in the specificity of the A – Z map, of immense resilience that bends and bows in response to a very British cocktail of market pressures, collective ambition, and sense of justice. Referring to the eighteenth century English urban tradition, the architectural historian John Summerson described this Anglo-Saxon compromise as "quintessentially pragmatic … a coincidence of intent and circumstance" (1949: 103), a sentiment that, to my mind, defines the sociospatial dynamics of London in the twenty-first century as much as in the nineteenth century.

What we have been observing in these examples is evidence of a malleable urban order that embraces change without causing fundamental disruption. A period of economic structuring, a change in political priorities, and the effects of migration and global competitiveness have all resulted in shifts and alterations, but the core urban structure has remained intact. As Suzanne Hall, a lecturer in sociology and a research fellow at LSE Cities at the London School of Economics and Political Science, has noted (pers. comm., October 2012), these urban structuring devices constitute a form of "democracy in built dimensions, a common literacy which provides clarity without prescription, allowing enrolment through interpretation which absorbs epochal shifts and ultimately both recognises and absorbs the small endeavour." It is through this smaller-scale urban lens that cities are showing signs of vibrancy and resilience, to which I now turn.

Urban Life on the Ground

On the ground, other dynamics seem to be at work. At the microscale of the backstreets of Istanbul, São Paulo, or Mumbai, there is evidence of creative ingenuity that both fosters identity and promotes a form of inclusion among the most excluded. There is a negative correlation between the human potential to innovate (and survive) and the level of infrastructure provided by national and metropolitan governments or international agencies. It is this emerging architecture of contingency rather than representation that,

I suggest, has a greater impact on the average Paulistano, Capetonian, or Mumbaikar than any metropolitan urban policy or government plan will ever have.

Despite Cape Town being a relatively wealthy city, its black population still lives in largely segregated ghettos in substandard conditions, many crammed together in a flat, relentless expanse of tin shacks with little or no public transportation, no easy access to jobs, and primitive plumbing and sanitary facilities. As Edgar Pieterse puts it, "Cape Town is a highly differentiated and malleable city, always filled with almost endless promise, but also continuously undermined by a variety of constraints and pressures" (WDC2014 2012). As part of the award process described above, the selection panel was exposed to over two hundred projects that built on the notion that improvement in the quality and experience of place is the gateway to urban opportunities and improved liveability in a city. Several projects simply occupied abandoned public land and transformed it into productive allotments in a city region where food security is a major concern.

Others, like the Mothers Unite initiative, addressed the need to protect and feed the youngest and most vulnerable members of the community by creating an elegant encampment of second-hand shipping containers that created a safe haven and space of dignity for preschool children and internal spaces for reading, learning, cooking, and resting. The power of such a project is the galvanising impact on local people, who see that spatial action can and does pay dividends, a process that can be replicated across this – and other – cities where public institutions fail to provide a basic human service.

The most outstanding project, though, was the judiciously named Violence Prevention through Urban Upgrading (Deutsche Bank Urban Age Award 2012), whose title says exactly what this project does. This is one of the most impressive "urban acupuncture" projects I have seen anywhere in the world. Based in Cape Town's "former" township of Khayelitsha, the project involves some strong and confident architectural interventions – well-designed, modern multi-storey beacon community buildings that stand out in a flat single-storey sprawling landscape; clear pedestrian routes that link the main residential areas to immensely popular rail stations; and play areas, overlooked by homes and public buildings, where children enjoy the outdoors unsupervised (a rarity in this violent neighbourhood). Together these interventions create a composite urban whole that literally transforms the sense of identity and well-being of the entire community, proving that careful attention to the quality of public spaces and mobility corridors, especially in the harshest environments, can dramatically change the experience and horizons of a neighbourhood. Most importantly, in the context of this essay, it is an initiative that both captures the "cityness" of Khayelitsha by building on its spatial DNA and recognises that its success will be determined by its adaptation over time. A model example, in many ways, of a process of intervention through accretion rather than rupture, it allows

its constituents to forge new identities around the public spaces and institutions of the project.

Across the Arabian Sea in Mumbai, a different set of interventions has resulted in similar results. Here the winner of a previous version of the award went to a simple but significant project for a community toilet in one of the city's poorest slums. As Suketu Mehta, author of *The Maximum City* (2004) and one of the panel judges, notes: It became a pretty disgusting place, as you might imagine. Because it was everybody's property, it was nobody's … the local residents came up with a solution: they put a couple of rooms on top of the building housing the toilet, and made it into an educational centre. They planted flowers around the toilet. The community centre offered simple English and computer classes, and became a social centre for the neighbourhood. To get to the community centre, you had to pass the toilet, and so people started taking responsibility for the cleanliness of it; nobody wants to use computers on top of a filthy place. Now the structure was no longer just a toilet, to be resorted to only when your need was urgent (2011: 106).

This simple architectural intervention – two rooms and an open space with flower beds – has become "the" social focus for the community, a place of identity that allows children and mothers to connect and make something out of their lives. Similar stories emerge from the favelas of São Paulo or the barrios of Mexico City. As Mehta (2011) reminds us, the poorest Mumbaikars (or any of the residents of these global cities) see their city as a "bird of gold," a place of fortune, where you can change your destiny and fly.

Hybrid Urbanism: The London Olympics

While East London is not referred to by its residents in such romantic terms, the opportunities afforded to many of its residents may have been lifted by the government-led $15 billion spending spree that funded the 2012 Olympic Games and its legacy ambitions. Building on its "Londoness" rather than opting for some novel "telescopic" intervention, the Olympics planning approach is a thinly concealed attempt at curing one of the city's most enduring spatial inequalities: the deep imbalance between London's relatively wealthy western half and more deprived eastern fringes where the Games have been located. Few cities could have attempted such an ambitious social operation on the back of a sports event, and I would argue that the city's inherent spatial flexibility has played an important role in developing the relatively delicate intervention that may – over a long period of perhaps twenty or thirty years – lead to a more durable impact on its urban metabolism. In this respect it is a hybrid example of urban innovation, where equal attention has been given to the overall spatial framework and its potential to adapt and absorb change at the smaller scale over time. Despite the quantum of public money and the benefit of its unchangeable deadline, the Olympics project does not stand alone in its desire to

rebalance London. It has simply accelerated the process by about half a century. Ever since the 1970s, government-led initiatives have been aimed at regenerating the Thames Gateway (located in East London), including the spatially isolated but economically successful Canary Wharf office complex (which has added 100,000 new jobs in London since the mid-1980s). The Olympics is part of this complex urban jigsaw, where private interests and public investment continue to piggyback on each other, trying to bring new jobs, housing, and infrastructure to a large swathe of the city that has suffered from chronic underinvestment. But the outcomes of recent regeneration projects in East London have not been positive, with largely piecemeal and fragmented development and ghettoized housing enclaves that benefit from expensive riverside views but turn their backs on existing communities. The Olympics project has at least been conceived in a different paradigm, one that starts with the intention of leaving behind a real "piece of city," that connects the new with the old, and that over time will bring about a sustained level of social improvement to existing and new communities. While it is of course too soon to tell whether the results meet these ambitious targets (the Olympic Park and first housing units will be occupied in 2014), the planning methodology embraced by the public authorities is founded on a far more open, less brittle urban design framework than similar projects of a similar scale and urgency have been.

Centred around Stratford, a typical down-at-heel yet versatile town centre with exceptional public transportation connections, the wider Olympics area in the Lower Lea valley encapsulates London's spatial DNA. Rows of neat terraced houses inhabited by diverse ethnic communities sit next to 1970s social housing blocks and run-down shopping streets with discount stores and fast-food outlets. A network of canals and waterways winds through a rough post-industrial landscape with empty gas cylinders and vacant railway sidings. Nearby, the streets are crowded with an increasingly cosmopolitan population made up of Asians, Africans, Caribbeans, and a new influx of Eastern Europeans who mingle with traditional native Londoners. The actual site of the Olympic Park was for decades relatively isolated, occupied by what became redundant railway freight yards and myriad semi-industrial, storage, and waste facilities including a massive durable goods dump that contributed to the high pollution levels of the land. The Olympics "urban" project is, in effect, a sophisticated grafting exercise that recognises the exigencies of time and space. Housing, office buildings, and hotels will soon follow where temporary facilities and sponsors' pavilions stood during the summer of 2012 but in a slow process that will take up to thirty years to complete – recognising the limitations of the market take-up and the need to allow time to create community and identity in an area where there was none. Between 35 percent and 50 percent of all new housing built on the site will be affordable, in line with current London policy, while up to 10,000 jobs have already been created by the new Westfield Shopping Centre (not an Olympics initiative) and the International Broadcast Centre is likely

to be converted into a data and technology cluster for new businesses in East London. University College London, one of London's most established learning institutions based in central London, is considering opening up an East London campus next to the Olympics site, taking advantage of the transportation connections, new housing, sports facilities, and schools, as well as the attraction of the Queen Elizabeth II (Olympic) Park.

With over 35 new bridges, footpaths, and links, the urban design of the Olympic Legacy plan is a topological distortion of London's spatial structure that has the real potential to stitch this formerly disconnected site back into the intricate web of East London. In my view, the flexible urban armature is already demonstrating resilience by allowing smaller-scale initiatives, temporary structures, and local activities to inform how the overall picture will take shape. It is, perhaps, an example of planning by accretion, rather than rupture, that provides a framework for growth without being overly prescriptive, building on London's Londoness just as the Manhattan grid and Cerdá's example interpreted and shaped the dynamics of change in New York and Barcelona.

Conclusion

The distance between the intimacy of the Mumbai communal toilet and the megascale of the London Olympics could not, it seems, be greater. Yet they are both witnesses to the fine-grained process of urban churn that is at work in these two global cities. This essay has argued that both small-scale interventions and metropolitan order play their part in structuring social cohesion and engendering a sense of urban democracy. They provide opportunities for people in cities to make the most of their circumstances, either by making small improvements that punch well above their weight in terms of quality of collective life, or through flexible and resilient open networks that optimise the democratic potential of their urban residents.

The evidence from small-scale acupuncture projects suggests that they have the potential to foster – rather than negate – capacity building and social cohesion. The evidence from large-scale metropolitan plans indicates that a malleable urban framework – broadly speaking, an open grid – lends itself to a process of gradual adaptation that "absorbs epochal shifts and … the small endeavour." This multi-scalar perspective informs us that social processes are the outcomes of often hidden spatial narratives, alongside more conventional social science considerations. It also suggests that both informal actors and professional agencies play their part in making cities more just and equitable. It is perhaps the role of urban scholarship to bring these two dimensions closer together, both through a theoretical reframing of the contemporary urban crisis and by the identification and explanation of projects and initiatives that are, by default or design, changing our urban world.

GOOD HOMES FOR ART
Richard Sennett

This text is based on a lecture, and first appeared in Theatrum Mundi's Music and Architecture e-book, April 2013.

In June 2012, I attended at the Barbican Centre in London a revival of 'Einstein on the Beach'. This five-hour, multi-media collage of music, dance, and scene-making first appeared at New York's Brooklyn Academy of Music in 1978, setting a Wagnerian standard for modern performance art. Among its other provocations, 'Einstein' encouraged people to wander in and out at will during its five hours – take a coffee or cigarette break or, today, check your mobile phone.

This invitation to the audience is a small signal of a much more sweeping idea about the experience of theatre. Today, we want to draw performer and public closer together than in the past; in particular, modern ideas of performance space seek to break the rigid, nineteenth century etiquette of a passive, silent, still spectator focused on the stage; instead modern performing stages celebrate informality. Dancers, musicians, and actors routinely do pre- and post-performance chats; again, when I was a working musician forty years ago, we never spoke to the audience during a performance, while today young musicians sometimes act like talk-show hosts onstage. Informality has a political undertow: because experience in the theatre is looser, it seems freer, and therefore more democratic.

There's an architectural side to loosening up, drawing closer the performer and the public. Informality is a quality designers seek by breaking down the boundaries between stage and street, by designing theatres which are intimately related to their surroundings in the city. I'm going to explore this informalising, melding impulse, both inside and outside the concert hall. I'll show how designers work with two issues to make relaxed homes for art; in technical jargon, achieving this goal involves the design of porosity and of presence. I'll show how these architectural concepts apply particularly to music venues. But I want to conclude with some reasons why, even so, a good home for art should not feel like your own home.

The Temple of Art

The first thing to be said about the impulse to experience art informally is that it is nothing new. In eighteenth century theatres people chatted amongst themselves or munched on the odd chicken-drumstick during the course of a performance, they wandered 'Einstein'-fashion in and out of theatres at will, yet were also deeply engaged with the drama or music performed whenever they attended to it, shouting out comments to actors or calling musicians to repeat a movement, aria, or even a particularly choice

phrase. Informal meant engaged, with the audience in control.

Performing artists increasingly took back control as the nineteenth century progressed. Even in Beethoven's day efforts were made to stop audiences talking while musicians were playing. The advent of gas-light in the nineteenth century meant it became easier to darken the hall and light up the stage, and so focus audiences on the performer rather than on each other. As the size of concert halls increased, so did their impersonality; by the time of the Palais Garnier in Paris and the Ringstrasse theatres built in Vienna, these halls were truly monumental edifices in which thousands of people attended in the dark, silent and unmoving, to the art of a relative few or to just a single individual.

Changes in the status of the performer were bound up with these theatres. The performer's status rose; this was particularly true by the 1830s for musicians, who in that age of high Romanticism were treated more as seers than as servants of the public. If you believed, as Victor Hugo did, that "music is our window on the soul," then it became possible to declare, as did Franz Liszt, that "the concert is … myself." The technical demands of music in the Romantic era helped widen the gulf between artist and public; an amateur pianist can sort of scrape his or her way through a Mozart sonata, but is defeated at the outset by the Liszt b-flat sonata: the artist inhabits a sound world you cannot. This gulf translated into theatre architecture like in the mystische Abgrund Wagner designed for Bayreuth; a leather hood covers the pit so that unseen and 'mystically' the orchestral sound floats into the hall.

For dramatists like Brecht early in the twentieth century, or choreographers like Tino Sehgal early in the twenty-first century, making performing spaces more informal is their refusal of the Romantic cult of the supreme artist; they want to take down the temple of art, and to return to the spectator his or her primacy, such as existed in the eighteenth century. For modern theatre architects, it's not so much a matter of either-or, a question of who is in control. Rather, informality has translated into two truly vexing problems, those of designing porosity and presence.

Porosity

In design, this word means making the skin of a building porous between the inside and outside; a sky-scraper with a ground-level entrance is not porous, a sky-scraper with many entries and exits on the ground is. Porosity has come to be associated also with flexibility, so that space inside and outside can be configured and reconfigured in many ways. That combination of permeable and flexible has particularly marked the modern design of performing-arts spaces.

An example comes from projects of the architect Andrew Todd, who has worked for a long time with the director

Peter Brook, and who recently made an enormous performing-arts space on the docks of Marseilles. Here's a prototype of a new, simple structure, made entirely of sheets of high-tech plywood, meant for dance, music, or theatre, flexible and porous in character, since the panels can easily be re-configured inside and outside and allow people to move around freely before, during, and after a performance. One virtue of this theatre is that you can dismantle the panels, load them on a flat-bed truck, and take the theatre anywhere. Florian Beigel's Half Moon Theatre in Mile End Road in London is a fixed structure similarly seeking to create a porous relation between the street and the stage.

When the doors are open in structures such as these, musical performance radically changes its character for those listening outside; reverberation return – the reflection from walls of sound coming back to the listeners – diminishes, and the music heard outside begins to mix with ambient sounds in the environment. If you are a composer like Brian Eno, who works with ambiance expressively, that's fine, but would you like to listen to Schubert's 'Winterreise' mixed in with honking autos or, more kindly, accompanied by birds singing at dusk? Perhaps indeed you would; my own most intense experience of this song cycle occurred lying on the grass outside a rehearsal studio with its doors open, looking up at the stars while the music floated out into the night. In any event, this is the kind of question that informal architecture poses to listening.

There are ways of creating a sense of visual porosity even while hewing to the theatre as an acoustically sealed space. A brilliant example is Eric Parry's new music hall made in Wells. Parry is perhaps best-known as the architect who has remade the St. Martins-in-the-Fields complex in London. In Wells, by sinking the stage below grade and surrounding the hall with windows at grade level, Parry seeks to make the listener aware of the outside even when insulated from its sounds.

The tie between inside and outside that modern design seeks is an urbanistic as well as architectural matter, which means the role a building plays in its surroundings. The Barbican Centre in London exemplifies ground-zero in this regard, a perfect example of how not to make a good modern home for art in the city. Its concert halls are buried deep inside a housing complex that in turn shuns any embrace of the surrounding city; these are dungeons for art. By contrast, the terracing surrounding the South Bank Centre in London, a renewal project of many hands, now embraces the outside, and promotes informal lounging about, eating, skate-boarding, shopping for books, and the like, even though the South Bank architect is of the same concrete-brutalist sort as the Barbican.

An exemplary American example of drawing in the public is the renovation done by Elizabeth Diller of Alice Tully Hall, the chamber music venue for Lincoln Centre in New York. The glasswork here is particularly impressive in dissolving the divide between inside and outside, even though Tully

Hall itself remains an artificially-lit closed chamber; a particularly nice touch is the 'prough' on the street which creates an outdoor sitting space looking in.

'Porosity' has become a visual benchmark for success in designing cultural centres; free-flow seems to be a card inviting the public to hang out on a Sunday afternoon at these places. Sponsors have hoped, moreover, that informal space will draw new audiences to artistic events within. Even in a rarefied venue like Tully Hall, devoted to classical chamber music, this can in fact happen, as when a young man encrusted with nose, lip, and ear studs told me at an evening devoted to songs of Duparc and Faure that he was ' checking out' what was on offer. But the design of 'presence' for a performing arts space works against such hopes; it involves technical issues which work against porosity.

The Design of Presence

'Presence' means feeling engaged right here, right now; in the theatre it can feel something like sitting expectantly on the edge of your seat; 'right here, right now' is the sensation philosophers name 'immanence'. In music, the technological revolution of our times seems to take away that urgent immediacy.

I've about 2,000 CDs downloaded on my Apple iTunes; this music is instantly available to me whenever I want to listen, which I do intently on airplanes, but casually when doing the dishes or reading the newspapers. To the critic Walter Benjamin, the modern 'age of mechanical reproduction' threatens to diminish the gripping power – what he called the 'aura' – of art, so that music in particular is reduced to mere ambient background, Mozart becoming like sonic wall-paper.

What does live performance do for us that Apple iTunes cannot? What is presence about in a live performance? One element is contrary to the ethic of relaxed informality. Anxiety rules many if not most performers back-stage before a performance: will he or she suffer a memory lapse? An equal, if more subterranean, unease pervades the audience: will someone suffer a heart attack, or just as bad, will a mobile phone go off? Paradoxically, tensions of these sorts contribute to the sense of occasion, of presence, on both sides of the footlights. Uncertainty plays a positive role in making performance come alive – which is why many musicians prefer to make live recordings, even though they could achieve more surgically-precise results in the recording studio.

For the designer, though, presence involves calculating certainties in the theatre. We've seen the problem of sound rebound appear in Andrew Todd's design for a knock-down theatre. More technically, in one aspect this involves the 'initial time-delay gap,' a phenomenon first studied by the mid-twentieth century acoustician Leo Beranek. This is the gap between the initial arrival of sound to a listener's ears

and its first reflections from the other surfaces in a room. The gap is good, since it provides us the sense of being enveloped stereophonically by sound, as one acoustician puts it by feeling 'inside' the sound rather than outside 'observing it through a window'.

How long should this gap be? In great nineteenth century venues like Boston's Symphony hall it was more than 2.2 seconds; in a small venue like King's Place in London, it can be reduced to under 1.5 seconds. New materials in the walls, ceiling, and floors today help acoustic designers like Paul Gillieron manipulate the 'initial time-delay gap'; others who remade the New York State theatre in 1999 provided compensating resonance by hidden electronic means, a much-debated 'wired live' technique.

The point here is that we are designing presence in ways which are flexible yet anything but informal. Artifice provides the sensation of immediacy; calculation produces presence. Once his or her nerves are conquered, I'd say a great singer is as much the designer of presence, of the gripping moment, as is the acoustician. In theatre design, moreover, we are trying to manipulate phenomena like the initial time-delay gap to unify time and space in the hall; you feel in your ears more fully what you see onstage. With the result that the players loom larger in our experience, as close to us sonically as visually.

Seeing clearly is the other way architects seek to design presence. Rather than perforating a membrane, as in porous design, the goal here is to make all visual obstacles between disappear, to remove any hint of a membrane or visual filter. As with acoustics, the designer needs to cope with the propensities of the spectator's body, notably its cone of vision. Human eyes can focus on objects as coherent ensembles within a 60-degree cone but stages permit people to use only the upper half of this cone, seeing 30 degrees around. Still, were an auditorium entirely and evenly lit, the eye would take a lot of material extraneous to the stage. We can use lighting to focus the view; by seeing less fully, they can concentrate more. Yet there is a more difficult issue of visual intimacy which architects deal with in terms of sight lines.

The interior of the Royal Opera House, Covent Garden is a prime example of the traditional horse-shoe theatre; by the late seventeenth century in northern Italy this kind of theatre became nearly synonymous with opera as an art form. The social idea embedded in the horse-shoe is that the audience has as clear a sight of itself as of the stage – but only some of itself. You were meant to see rulers in a high, central royal box, aristocrats in lesser boxes ringing them; stalls in the seventeenth and eighteenth centuries were for fashion-spectators of a lesser rank; no one looked up to the masses of poor people in the amphitheatres, who had poor views of the stage and no view of the kings, aristocrats, and fashionables below.

One extreme corrective to the status-bound sight-line is the Teatro Della Compagnia designed by Adolfo Natalini

for Florence in 1987. The sight-lines here are all orientated forward rather than laterally, giving an equally clear view of the stage and no view of your neighbour; the few boxes to the side are the cheapest seats in the house because vision is restricted. It's in my judgement a bare, grim space of visual equality, rescued outside by its discrete insertion into the street-fabric of Florence. An opposite extreme is theatre in the round– more usually today theatre in the square – where audiences sit on three or four sides and players either fill in the centre space or complete the fourth side, as a modern adaptation of the old Elizabethan thrust stage. In this solution to the socially-exclusive sight-lines, the audience is put on an equal footing, seeing each other equally clearly, but at a price; the experience of connection is diminished, at least in musical performances. Whereas actors and dancers can feel comfortable filling up the central space theatre, moving around constantly, musicians are stationary creatures. Thus, if you are performing dead-centre, half the audience sees you in profile, or worse, has a clear sight only of your back. If you perform at an open slide, many in the audience will have to twist their necks to see you, which is not comfortable for long periods of time; people start to twist and squirm in their seats.

Banishing social hierarchy is a good idea in general, but is visual democracy what theatre is all about? Natalini's theatre is a rigidly uniform version of equality; there's no mutual awareness. Theatre in the square is looser in form, and the audience is much more aware of one another on the same footing, yet in a musical performance the players as well as the audience pay a price for this kind of equality; the difficulties of sight-lines diminish his or her own presence.

The design of porosity and of presence show that intimacy is full of ambiguity and inconsistency – this is as true onstage as it is in bed. Moreover, there's an argument to be made against drawing performer and audience too close, not a Romantic argument about the supremacy of art, but one based on the ordinary, universal experience of performing. I'll conclude by showing what it means in the design of stages.

Distance

The eighteenth century philosopher Denis Diderot was the first to argue that a certain distance between performer and public is necessary for a musician or act to do his work well. Diderot advances this view in a brief essay, 'The Paradox of Acting'; he writes that the performer has to learn to manage his or her own emotions, listening to the music he or she makes and judging it, without being swept away as an audience might be. Which is perhaps just to say, performing requires self-control. But Diderot goes a step further: the musician needs to learn to relax on stage, to banish nerves; that, too, can be achieved only by stepping back from the public, forgetting that a thousand people are listening – a matter of feeling alone with oneself on stage, free from self-consciousness. These two elements, listening to oneself critically and banishing nerves, combine to create Diderot's

paradox, embodied in the phrase 'expressive distance'. It's a phrase which translates into action. People fortunate enough to hear Arthur Rubinstein play saw a man who put everything into his hands, made no facial grimaces, conveyed, as he once said to me, that "in public I am still alone with the music; the audience is both there and far away." Diderot's paradox. Pianists who move around a lot when they are playing, like Martha Argerich, are releasing tension; she says she does it to relax her body rather than show the audience how much she is feeling. Diderot's paradox.

For actors, the wearing of a mask is an artifice which can particularly aide in relaxing the body. The mime/dramaturge Jacques Lecoq explored how to make this happen in modern theatre by contriving a neutral mask for performers. He trained first fellow mimes and then actors like Ariane Mnoutchkine to release their bodies by wearing this mask, pouring all their energy into hand, arm, and leg movements – the actor's equivalent of Rubenstein at the piano. The formal, rigid mask enabled them to perform more expressively.

The current ethos of informality and intimacy treats such impersonal behaviour as cold. But if formality distances people, it also can join them together in rituals, which are a kind of shared performance. Think of taking Communion; anyone can do it, but they have to do it just right; the rules of the ritual have to be rigorously observed. In secular rituals, too, distance and rigour rule, as in the dressing up for a performance. Though traditional concert tuxes for men are a nightmare, with their vented armpits and strangling bow ties – still, we want to dress up in some way for the occasion; dressing up is part of the ritual of performing. Indeed, the rituals of dressing up, silence, and stillness are behaviours which link the audience to the performer, and these formalities heighten the experience of music; no one puts on a suit to listen to a CD at home, and in that ritual-less state the music is less gripping.

These, then, are reasons for thinking of the theatre or concert hall as a special place in which Diderot's paradox comes to life and in which a formal ritual envelops our experience of art. The cult of informality, with its dark sister 'accessibility' – so favoured by arts administrators – may actually do damage to art. This view would argue against much of the current effort in design to make good homes for the performing arts. How could the alternative, art as ritual, translate into physical space?

One stunning traditional model haunts the modern imagination of how to create such a space: Richard Wagner's creation of a theatre at Bayreuth, a temple devoted to his own operas designed to lift the audience out of its everyday pre-occupations. Let's glance briefly at one physical move he made to create this temple to art: it is the leather-covered hood he placed over the orchestra pit, a device he named mystische Abgrund, the mystical abyss. This device creates a physical, impenetrable distance between audience and orchestral performer;

the orchestral sound comes from somewhere un-seeable, seeming to envelope the theatre magically. The Wagner hood was a musical equivalent of the Lecoq mask. Indeed, the hood has Lecoq-like effects on the performer. Playing underneath this hood was in my day an almost unbearably sweaty experience; still, protected from the public, we felt a certain freedom to do the arduous work Wagner demanded of us, focused on the music alone. Bayreuth also created a physical mise-en-scene for audiences, like its hard benches, which made people feel that they were at a demanding occasion; unlike the 'Einstein' performances, there was no physical relief.

The temple of art is the traditional model, and I'm not arguing that we should return to it, either in its physical details or its mystique. I am saying that there are good reasons for thinking that the porous, informal spaces designers want to make today may miss something essential about the experience of performance. There must be a way to combine the visual virtues of porosity and the clarity of sight lines with Diderot's idea of expressive distance, combine these architecture virtues with the ritual character of musical performance. I'd like to conclude by showing just one musical space which does in fact reconcile the visual virtues of openness and informality with the peculiar experience of making and listening to music.

This is Hans Scharoun's Philharmonie in Berlin. The sight-lines problem is brilliantly resolved so that the audience can see one another equally, yet focus on the stage. Acoustically, the hall is a marvel; without Wagnerian trickery, the sound appears to come from everywhere. Perhaps the most experimental aspect of Scharoun's design is its version of porosity; the theatre can be entered in many ways, and the building reaches tentacles, as it were, to the outside, yet, for ease of access, a clear differentiation is made between stage and street. Like Frank Gehry's Disney Hall in Los Angeles, which is the architectural child of the Berlin Philharmonie, the specialness of an open, easily penetrable space is emphasised.

As an urbanist, I believe that informal, often messy conditions are key in bringing streets to life. As a one-time performer and now listener, I've come to appreciate that music requires more formal and hermetic space. The architectural issues touched on here reflect a much greater problem: what kind of community do we experience in art? Perhaps, opposed to the dictum of the more informal, the more mutually engaged, we need to contemplate another version of community in the performing arts: the more formal the roles of performer and spectator become, the more they are bound together.

CITIES AND THE NEW CLIMATE ECONOMY: THE TRANSFORMATIVE ROLE OF GLOBAL URBAN GROWTH

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2. URBANISATION IN THE 21ST CENTURY

2.1 Global urbanisation

Around 3.9 billion people now live in urban areas (UN DESA 2014a). Between 2014 and 2050, the urban population share is projected to increase by around 2.5 billion, reaching 66% of the global population (UN DESA 2014a; Figure 1). In 30 years, the percentage of the population living in urban areas in China has risen from 23% to 55% (UN DESA 2014a). This same process took 100 years in Britain and 60 years in the United States (The Economist 2014). Furthermore, urban growth in China and other emerging and developing countries is set to continue on a large scale and at a rapid pace. By 2030, China's cities alone will be home to nearly 1 billion people or 69% of its population (UN DESA 2014a).
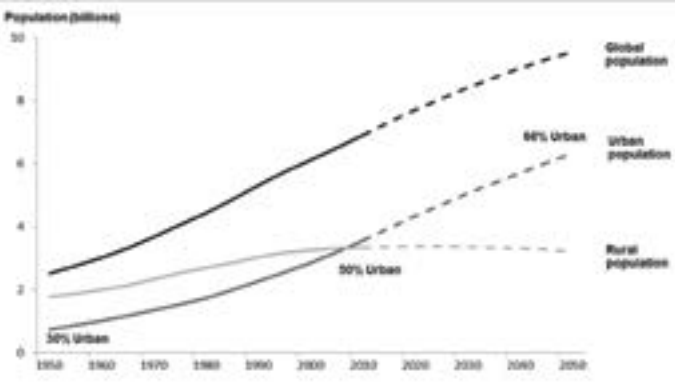

Figure 1: Global urban and rural population, 1950–2050
Source: LSE Cities based on United Nations World Urbanisation Prospects, 2014 Revision

This rapid urbanisation is also taking place at earlier economic development stages than in previous decades, occurring largely in lower- and middle-income cities in Sub-Saharan Africa, South and East Asia. Over the next 20 years, the urban population of South Asia and Sub-Saharan Africa, which includes some of the poorest people in the world, is expected to double. Nearly 90%of the world's

urban population growth will occur in cities in Africa and Asia (UN DESA 2014a). Less developed countries will need to make room for an additional 1 billion urban residents, while developed countries are expected to add 68 million people to their cities by 2030 (UN DESA 2014a). Urban poverty is still a major challenge, with the number of people living in informal settlements projected to rise globally from 1 billion to 2 billion by 2030, primarily in Sub-Saharan Africa, South Asia and Latin America (UN-Habitat 2003). Growing urban poverty will be particularly acute over the next 30 years and further exacerbated by insufficient institutional capacity in cities.

Countries may not capture the benefits of urbanisation equally. Following urban growth in the twentieth century, urban areas now account for around 80% of global economic output (Grubler et al. 2007; GEA 2012; IPCC 2014d; World Bank 2014c). However, while some cities and countries have grown strongly, others have stagnated. While the world's largest 150 metropolitan economies represent only 13.5% of the global population, they account for 40% of global GDP. [1] At the other end of the spectrum, the combined economic output of the 220 largest metropolitan areas in low income countries is around US$1.54 trillion, which is lower than that of Tokyo alone at US$1.97 trillion. This suggests that cities and countries that manage urban growth well can benefit from substantial economic gains. However, if urban growth is managed poorly – or unmanaged – countries and cities are likely to miss the opportunities for higher growth and productivity.

2.2 Urbanisation in rapidly growing regions

Many regions of the world are already highly urbanised. In 2014, urban dwellers represented 81.5% of the population in North America, 79.5% in Latin America, 73.4% in Europe and 70.8% in Oceania (UN DESA 2014a). In contrast, populations in Africa and Asia remain largely rural, with levels of urbanisation in 2014 at 40% and 47.5% respectively (Figure 2, Box 1). These two regions, today representing 90% of the world's rural population, will experience the most rapid rural to urban shift over the next two to three decades, reaching urbanisation levels of 56% in Africa and 64% in Asia by 2050 (Figure 3). In this section, we discuss the patterns of urbanisation in these rapidly growing regions.

Box 1: Urbanisation Trends in Different Regions and Countries
In July 2014, the Population Division of the Department of Economic and Social Affairs at the United Nations (UN DESA) published its 2014 Revision of World Urbanization Prospects. The latest figures show that the urban populations in Africa and Asia are projected to grow rapidly out to 2050. The countries with the highest rates of urban population growth are China and India, followed by Nigeria and Indonesia. Figures 2, 3 and 4 below summarise the impact that these rapidly growing regions will have on the world's urban population.
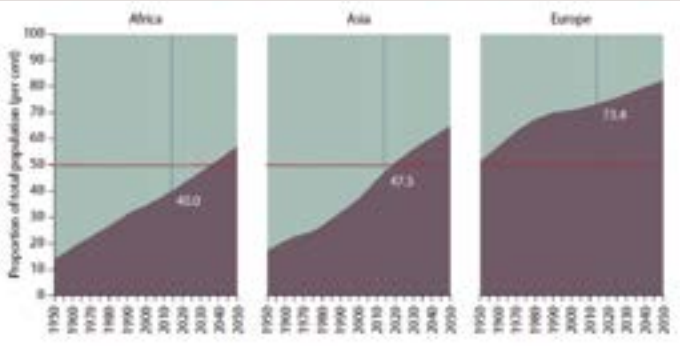

Figure 2: Urban and rural population in Africa and Asia compared to Europe, 1950–2050
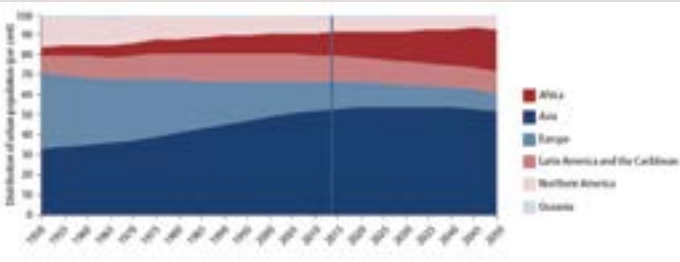Source: UN DESA 2014a

Figure 3: Distribution of urban population across world regions, 1950–2050
Source: UN DESA 2014a

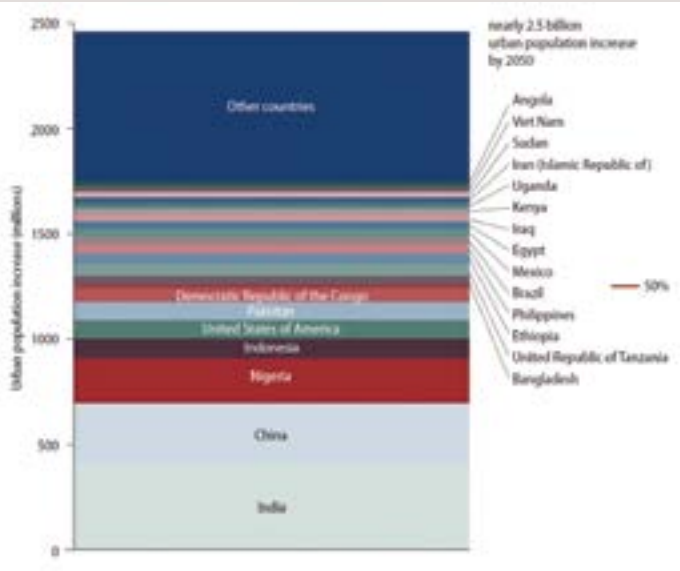[1] From analysis by LSE Cities 2014 using data from Oxford Economics for this paper.

Figure 4: Contribution to the increase in urban population by country, 2014–2050
Source: UN DESA 2014a

2.2.1 China

China's urbanisation represents the largest rural to urban transition in human history, with nearly 500 million people moving into cities in the past 30 years (World Bank 2013a). Over the course of three decades, the urban population of China has nearly tripled, increasing from 23% to 55% in 2014 (UN DESA 2014a). In 2014, the urban population of China is estimated at 758 million – the largest urban population in the world (followed by 410 million in India) (UN DESA 2014a).

This trend of rapid urbanisation in China is set to continue over the next three decades. Between 2014 and 2050, China's urban population is projected to grow by 292 million (UN DESA 2014a). At the end of this period, China will have over one billion urban dwellers, representing 66% of the national population.

These rapid rates of urbanisation have also contributed to a rise in income for millions of Chinese residents. Over the period 2000–2010, the Chinese urban middle class increased rapidly, from almost 3.5% to 19.5% (World Bank 2013a). By 2030, the middle class could total one billion people, corresponding to approximately 70% of China's total projected population (EY 2013). The majority of these middle-class consumers will be concentrated in the country's urban centres.

2.2.2 India

Over the last two decades India's urban population has increased from 217 million to 377 million, bringing the urban share to 31% in 2011 compared to 26% in 1991 (Ahluwalia 2014). While the proportion of India's population living in urban areas is currently lower than many other emerging economies, urban growth is projected to accelerate over the next 20 years, reaching 600 million or 40% of the population by 2031 (Ahluwalia 2014). India already has 53 cities each with a population of over one million, up from 35 in 2011 and projected to grow to 87 by 2031 (Ahluwalia 2014).

The most rapid urban population growth in India is taking place in its secondary cities with populations of between one and five million. Between 2001 and 2011, these cities grew by over 45% and, together with other million-plus cities, are home to 43% of the urban population (Ahluwalia 2014). Approximately 20% of growth in the urban population can be attributed to rural to urban migration, but a large proportion also comes from internal growth and the annexation of small neighbouring towns and urban outgrowths (Ahluwalia et al. 2014). Besides these secondary cities, rapid growth is taking place in the urban periphery and in census towns. Overall 2,774 new towns were added between 2001 and 2011, of which 91% were 'census towns', defined as towns lacking the statutory status of a municipality (Tewari et al. 2014). These towns often have no urban laws or urban budgets. Small cities with a population of over 100,000 are home to 70% of India's urban population and this proportion is rising rapidly (Tewari et al. 2014).

Growth is also substantial on the urban periphery of large cities. These areas are generally not accounted for in urban statistics and incompletely accounted for in rural data. Yet rapid expansion is taking place in these peri-urban areas, much of it unmanaged, ad hoc and outside city codes and byelaws (Tewari et al. 2014). Unlike Chinese peri-urban areas, where local governments have been the main drivers of rural land conversion, Indian peri-urban growth is the result of private actors and household decisions rather than government intervention (APN 2010).

2.2.3 South East Asia

Urbanisation rates in South East Asian countries – apart from Singapore and Brunei Darussalam – are low compared to many other regions in the world, but they are growing rapidly. In 2010, the share of urban population in South East Asian countries was 45% (compared to 46% for less developed regions overall), and by 2050 this share is expected to grow to 65%, surpassing the less developed region average (63%) (UN DESA 2014b). In absolute terms, the region will add 100 million new urban residents between 2010 and 2025, and by 2050 the urban population will reach over 500 million, close to double the figure of 266 million in 2010 (UN DESA 2012b). The region displays a lot of heterogeneity, with the highest urbanisation rates in 2010 occurring in Singapore (100%), Brunei (76%) and Malaysia (71%). At the other end of the scale, Cambodia is home to the smallest share of urban population (20%) and several lower- and middle-income countries are clustered around 30%: Vietnam (30%), Myanmar (31%) and Lao

PDR (33%). Thailand (44%), the Philippines (49%) and Indonesia (50%) are close to the regional average (UN DESA 2014b).

Urbanisation rates can underplay the importance of cities in some countries. For example, while urbanisation rates are relatively low in Vietnam and Myanmar, roughly 25% or more of the population resides in cities of over 5 million people (UN DESA 2012a). Indonesia is home to the greatest cluster of cities: in addition to Jakarta, it has six cities of between 1-5 million people and 11 cities of between 0.5-1 million people (UN DESA 2012b). Estimates of city sizes based on administrative boundaries (including UN data) tend to underestimate the size of urban areas that are agglomerations of multiple municipalities, rendering estimates based on labour markets and related criteria more useful. For example, according to estimates of metropolitan area populations, greater Jakarta is currently estimated to have 26.8 million inhabitants and greater Manila 22.4 million inhabitants, dwarfing the next largest urban areas of Bangkok (14.8 million) and Ho Chi Minh City (8 million) (Brinkhoff 2014).

2.2.4 Sub-Saharan Africa

In 2014, urban dwellers totalled 346 million people in Sub-Saharan Africa, representing only 37% of the population (UN DESA 2014a). In some African countries the proportion is substantially lower, such as Ethiopia (19%), Malawi (16%) and Burundi (12%). Countries in Western Africa tend to have higher urbanisation levels than other sub-regions south of the Sahara, ranging from 29% in Burkina Faso to 65% in Cape Verde. The largest cities in Sub-Saharan Africa in 2014 are Kinshasa (Democratic Republic of Congo) and Lagos (Nigeria), each with over 10 million people. Other large and growing cities include Dar es Salaam (Tanzania), Johannesburg (South Africa) and Luanda (Angola).

Partly as a result, the highest urban population growth in the world between 2020 and 2050 is expected in Sub-Saharan Africa, with the number of urban dwellers tripling. By the end of this period, Africa (including North Africa) is expected to represent 21% of the world's urban population (UN DESA 2014a). Furthermore, the rural to urban shift is expected to continue beyond 2050 for the rest of the century (Hoornweg and Pope 2014).

2.3 The role of cities in the global economy and climate

In this paper, we use the term cities to mean metropolitan areas above 0.5 million people. This follows the distinction made by the United Nations between cities (above 0.5 million) and urban areas below 500,000 (UN DESA 2014a). However, our analysis is based on the Oxford Economics 750 database of metropolitan areas which has been developed independently of the UN's own database

(see Appendix for data sources and methods). Using metropolitan areas results in fewer, larger cities above 0.5 million compared to UN definitions.

The results of the analysis demonstrate that cities play a critical role in the global economy and climate. With a combined population of 2.4 billion in 2012, cities (including their metropolitan regions) represent around 65% of the world's urban population in 2012. They are projected to contribute 34% of population growth, 64% of urban economic growth, and 56% of carbon emissions growth between 2012 and 2030. In this section, we provide the results of analysis that shows the relative importance of cities in the global economy and as sources of carbon emissions.

2.3.1 Population growth in cities

In 2012, there were over 700 metropolitan regions in the world with a population of over 0.5 million. Their total population is around one third of the global population; a proportion projected to remain unchanged up to 2030. Figure 5 shows the cumulative population of these cities (by population size, from largest to smallest) for 2012 and 2030 as a percentage of the global population; and it suggests a relatively static pattern of population distribution of cities over the period up to 2030. In 2012, the 50 largest cities had a global population share of 10%, similar to that projected for 2030. The contribution made by cities to global population growth between 2012 and 2030 (Figure 6) indicates that cities are expected to represent around one third of this growth, with the 20 largest cities contributing to approximately 10% and the largest 88 cities to 20% of global population growth respectively.
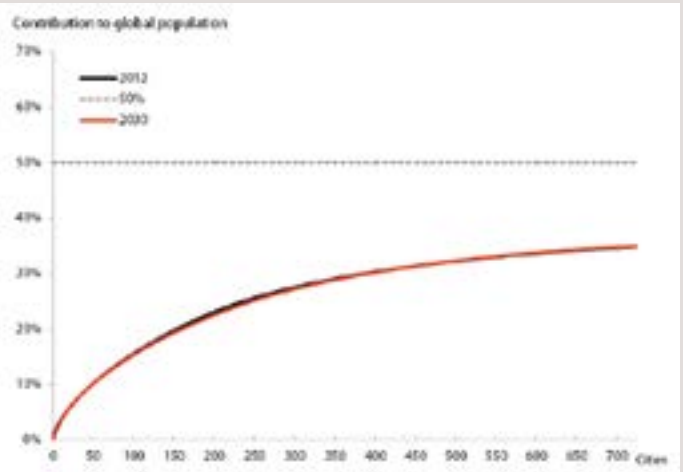

Figure 5: Contribution to global population of cities above 0.5 million. The cumulative curves for 2012 and 2030 are very similar
Source: LSE Cities 2014 (based on LSE Cities analysis using data from Oxford Economics)
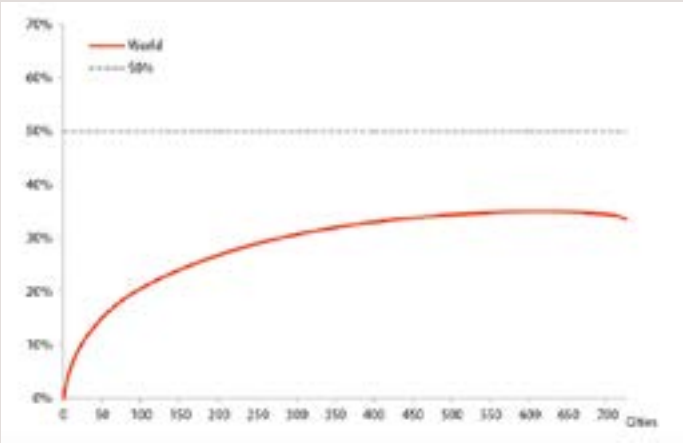
Figure 6: Contribution to global population growth of cities above 0.5 million, 2012–2030
Source: LSE Cities 2014 (based on LSE Cities analysis using data from Oxford Economics)

Figure 7 shows the relationship between population size and population growth (annualised over the period from 2012 to 2030) for all cities. Overall, the range of population growth rates is greatest for cities of a population between 0.5 million and 5 million. This group includes cities with a strong population growth of between 2.5% and 6%, as in the case of Sub-Saharan cities, as well as those with declining populations of up to -1% in several European cities. The larger the city, the more population growth rates converge around a population increase of about 1% annually. In terms of regional patterns, the highest population growth rates of Sub-Saharan cities are followed by those in India and South East Asia. Many Latin American cities, while smaller in size, display higher population growth rates compared to Chinese cities. China has the largest number of cities above 5 million people, with moderate population growth rates of around 0.5%.
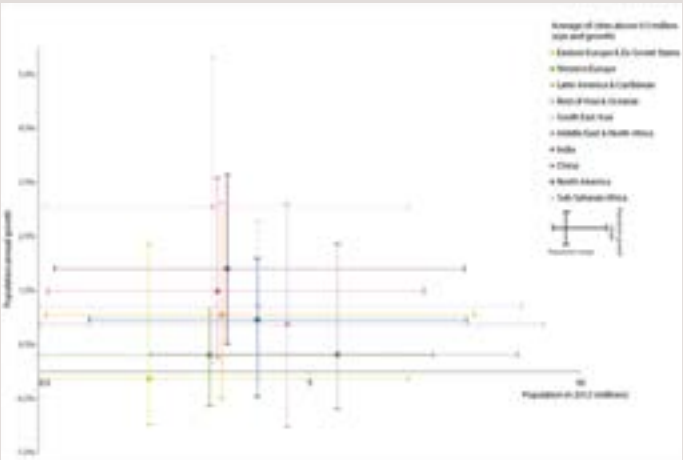
Figure 7: Population size (2012) and annualised population growth (2012-2030) of cities above 0.5 million
Source: LSE Cities 2014 (based on LSE Cities analysis using data from Oxford Economics)

2.3.2 Contribution of cities to the global economy

Cities (metropolitan areas above 0.5 million) have a particularly important role in the global economy. In 2012, cities represented more than 55% of global GDP, a share that is projected to increase to 60% by 2030. At the same time, cities are projected to contribute 71% of urban GDP growth and 64% of total global GDP growth between 2012 and 2030.

Not only do cities play a major role in global GDP levels and growth, but GDP is also concentrated in a small number of these cities. Figure 8 illustrates the cumulative contribution of cities to global GDP and shows that 309 cities alone contributed to 50% of global GDP in 2012, with 71 cities contributing to 30%. Between 2012 and 2030, the relative share of economic output is projected to decrease slightly among the top 50 cities, while the share of the top 250 cities during the same period will increase further. Overall economic growth between 2012 and 2030 is even more concentrated than the total global economic output (Figure 9). Ten cities alone are responsible for 10% of global economic growth during that period, with 31 cities responsible for 20% and 201 cities for 50%.
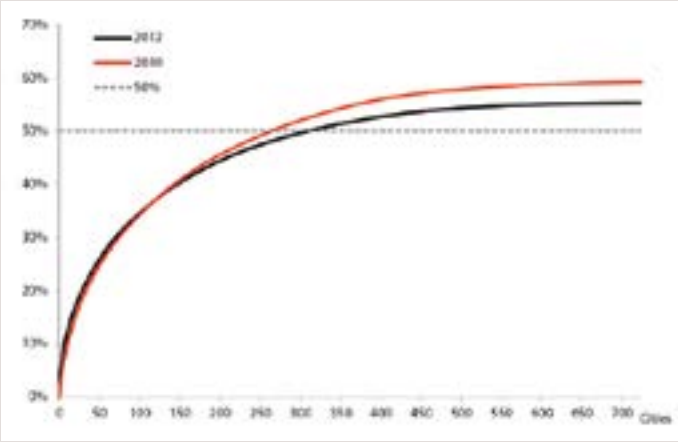

Figure 8: Contribution to global GDP of cities above 0.5 million
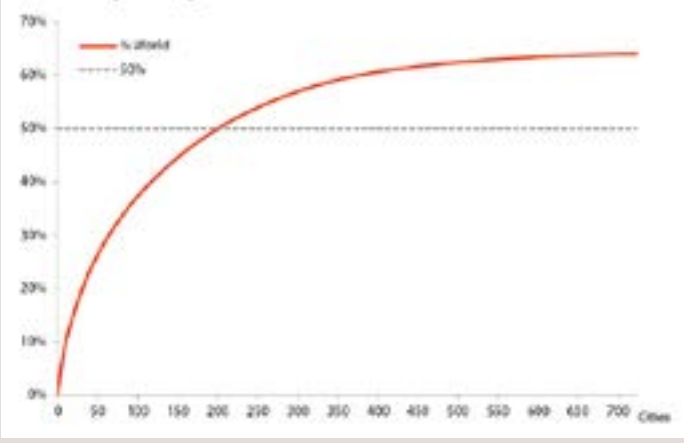Source: LSE Cities 2014 (based on LSE Cities analysis using data from Oxford Economics)

Figure 9: Contribution to global GDP growth of cities above 0.5 million, 2012–2030
Source: LSE Cities 2014 (based on LSE Cities analysis using data from Oxford Economics)

In terms of the growth distribution of cities across global regions, Figure 10 and Figure 11 illustrate China's substantial concentration of population growth (nearly 70 million people between 2012 and 2030) and GDP growth (US$17.6 trillion over the same period). While other regions display relatively high population growth in cities, their contribution to GDP growth under business as usual is projected to be substantially lower than in China. In Sub-Saharan Africa, while cities are projected to grow by 99 million people, GDP growth is estimated to be as low as US$0.7 trillion. Cities in India are projected to grow by over 70 million, and the Middle East and North Africa and Latin America and Caribbean by over 40 million people each, with GDP growth rates ranging from US$1.1 trillion in India to US$2.3 trillion in Latin America and the Caribbean. A different story is unfolding in North American and European cities; although population growth will be relatively low between 2012 and 2030 (33 million people in North America and 10.4 million people in Western Europe), GDP growth is projected to remain strong (US$7 trillion in North America and US$2.7 trillion in Western Europe).
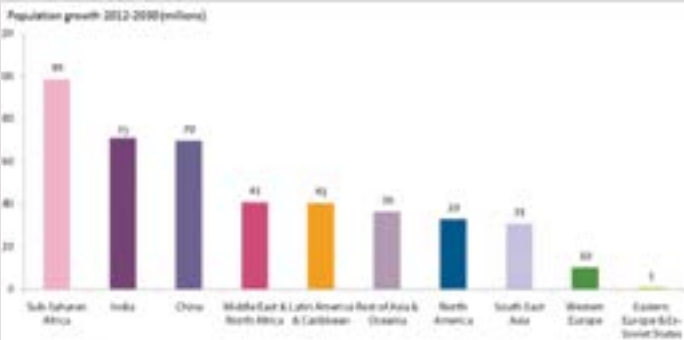

Figure 10: Population growth of cities above 0.5 million by region, 2012–2030
Source: LSE Cities 2014 (based on LSE Cities analysis using data from Oxford Economics)

Figure 11: Income growth of cities above 0.5 million by region, 2012–2030
Source: LSE Cities 2014 (based on LSE Cities analysis using data from Oxford Economics)

It is important to recognise that although cities in lower income regions are projected to contribute less to global GDP growth over the next two decades, the individual growth rates of these cities tend to be higher. The relationship between income levels (GDP/capita) of the world's cities and their projected economic growth rates (annualised over the period 2012 - 2030) is shown in Figure 12. As might be expected, the economic growth rates of cities are highest in cities with lower levels of income. Sub-Saharan African cities lead this group, with economic growth rates typically between 5% and 8%. Indian and Chinese cities both display projected growth rates typically between 6% and 8%. Latin American cities have typical income levels slightly above those of Chinese cities but substantially lower economic growth rates of around 3%. Among higher income cities, North American cities have the highest projected growth of between 2% and 3%, while most Western European cities are projected to grow their economies by between 1% and 2.5%. This illustrates that despite having lower GDP growth rates than Sub-Saharan African cities, cities in China, North America and Europe nonetheless contribute more to global GDP growth due to their higher starting levels of income in 2012.
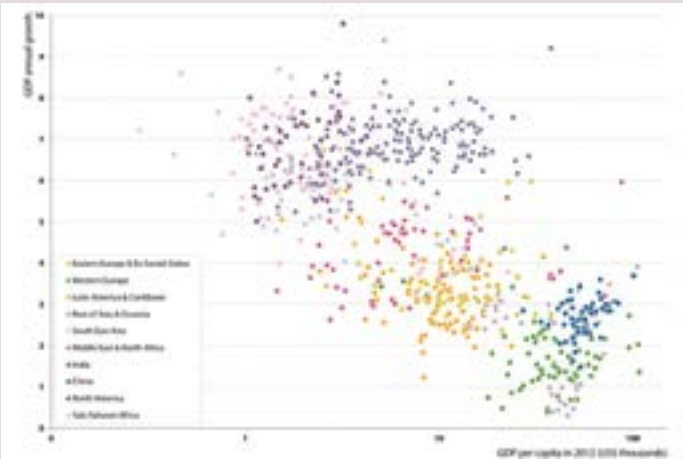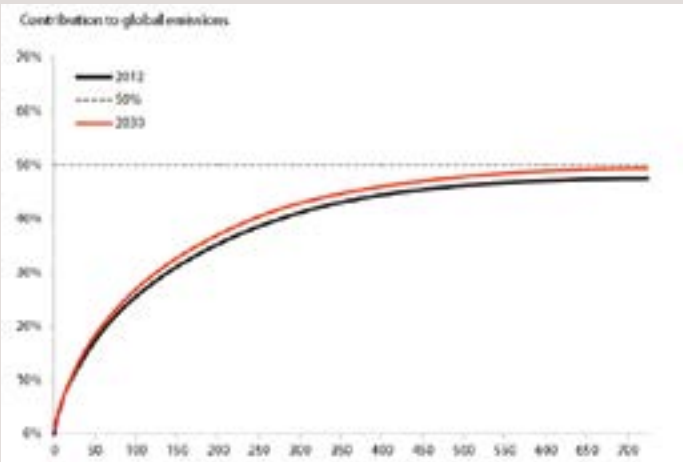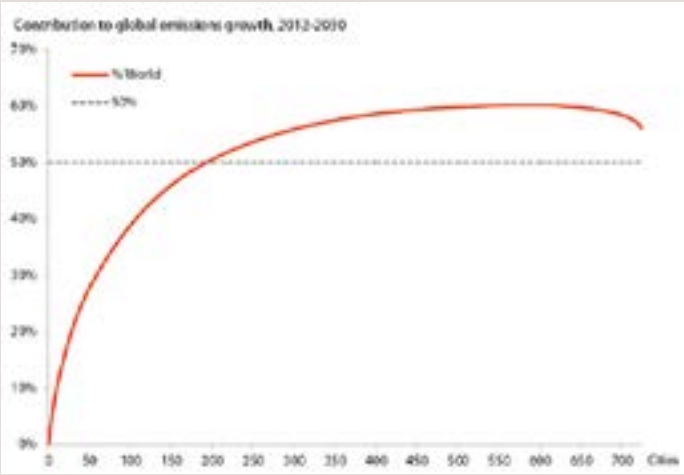

Figure 12: GDP per capita (2012) and annualised GDP growth (2012–2030) of cities above 0.5 million
Source: LSE Cities 2014 (based on LSE Cities analysis using data from Oxford Economics)

2.3.3 Contribution of cities to global carbon emissions

In order to identify key groups of cities across global regions that are of particular importance to a transition towards a new climate economy, this section – in addition to the population and economic analysis above – is based on a carbon emissions study of cities globally. In 2012, cities (metropolitan areas above 0.5 million) were responsible for around 47% of global carbon emissions (Figure 13). Under a business as usual scenario, this share of emissions is predicted to increase slightly to 49% by 2030. Similar to population and economic output, the distribution of emissions is highly concentrated, with the 21 highest emitting cities contributing 10% of global energy-related carbon emissions, 64 cities contributing 20% and 139 cities contributing 30%.

An even greater concentration can be observed for carbon emissions growth from 2012 to 2030 (Figure 14). In total, cities are projected to be responsible for 56% of the global increase in carbon emissions during that period, with 10 cities contributing 10% of global emissions growth, 28 cities contributing 20% and 193 cities contributing 50%.

Figure 13: Contribution to global carbon emissions of cities above 0.5 million
Source: LSE Cities 2014 (based on LSE Cities analysis using data from Oxford Economics)

Figure 14: Contribution to global carbon emissions growth of cities above 0.5 million, 2012–2030
Source: LSE Cities 2014 (based on LSE Cities analysis using data from Oxford Economics)

In 2012, China had the highest contribution of energy-related carbon emissions from cities at almost 6 gigatonnes. North American cities followed, emitting around 2.9 gigatonnes, with Western European cities emitting 1.1 gigatonnes (Figure 15). The projected carbon emissions growth of cities under business as usual is also dominated by China (Figure 16). With a total projected increase of 2.9 gigatonnes, China is estimated to represent 48% of emissions growth in cities worldwide. However, at 6.3 tonnes in 2012, per capita carbon emissions from Chinese cities are still substantially lower than those in the United States (15.6 tonnes) and Eastern Europe and Ex-Soviet States (9.9 tonnes) but similar to those in Western Europe (6.5 tonnes) and the Middle East and North Africa (5.9 tonnes). Sub-Saharan cities had the lowest per capita emissions (1.8 tonnes) followed by India with 2.8 tonnes (Figure 17).
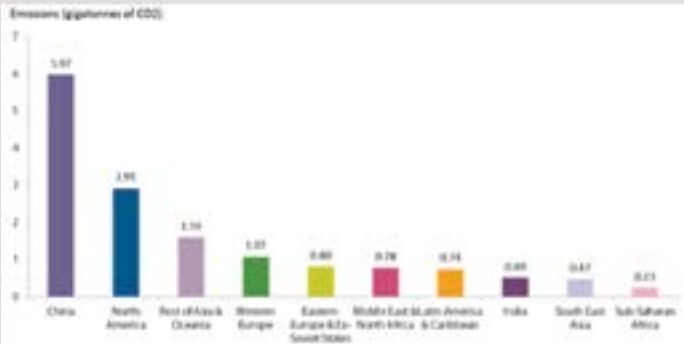

Figure 15: Total carbon emissions of cities above 0.5 million by region in 2012
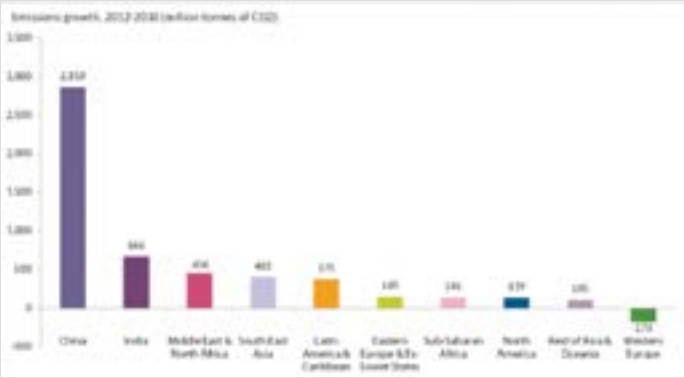Source: LSE Cities 2014 (based on LSE Cities analysis using data from Oxford Economics)

Figure 16: Carbon emissions growth of cities above 0.5 million by region, 2012–2030
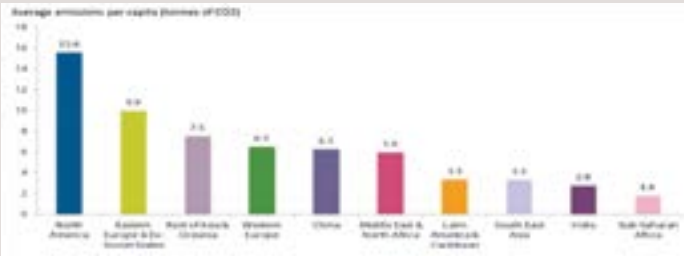Source: LSE Cities 2014 (based on LSE Cities analysis using data from Oxford Economics)

Figure 17: Average carbon emissions per capita of cities above 0.5 million by region in 2012
Source: LSE Cities 2014 (based on LSE Cities analysis using data from Oxford Economics)

Figure 18 shows the relationship between annual growth of carbon emissions for all cities between 2012 and 2030 and emissions per capita in 2012. Under a business as usual scenario, emissions growth is highest (around 4 to 6%) for cities that are the least polluting today. These include cities in India, with an average 2.8 tonnes of CO_2 equivalent per capita, and many Sub-Saharan cities that have per capita emissions below 1 tonne. Emissions from Chinese cities, already around 6.3 tonnes, are projected to increase by around 2% per year. The highest absolute emissions are registered for most North American cities, with around 16 tonnes per capita and growth rates ranging from -1% to about 1.3%.
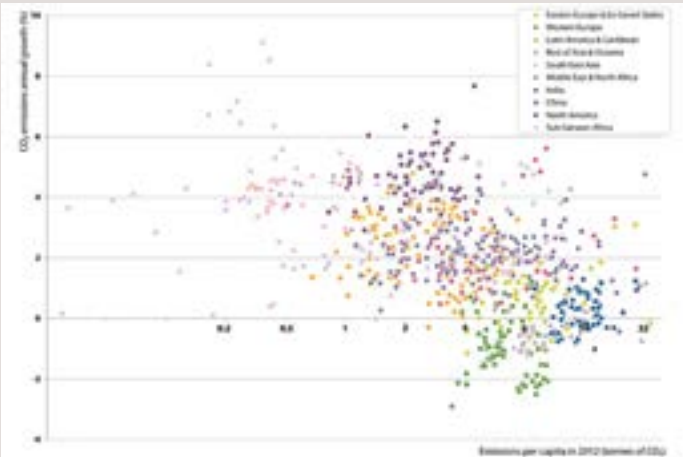

Figure 18: Carbon emissions per capita (2012) and annualised carbon emissions growth (2012–2030) in cities above 0.5 million
Source: LSE Cities 2014 (based on LSE Cities analysis using data from Oxford Economics)

2.3.4 The under-representation of small urban areas

The analysis above suggests that any identification of subgroups of cities of particular relevance to a new climate economy will have to consider the uneven and highly concentrated nature of economic output and carbon emissions in a relatively small number of cities. It is important to note, however, that the key role of cities does not imply that smaller urban areas are not relevant. In absolute terms, small urban areas include a substantial share of the global population, economic activity and carbon emissions (see section 2.4). The latest estimates from UN DESA suggest that almost half of the world's urban population lives in settlements with fewer than 0.5 million inhabitants, while this share differs greatly across global regions (Figure 19).
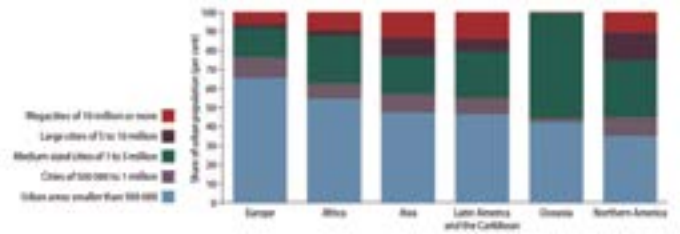
Figure 19: Urban population distribution by settlement size across global regions
Sources: UN DESA 2014a

However, cities will contribute substantially more to future growth than small urban areas below 0.5 million (including towns, large villages, peripheral industrial zones and other urban areas). The population growth of small urban areas is projected to be around 15% up to 2030 compared to 40% for cities (UN DESA 2014a). As a result, the proportion of the urban population living in small urban areas is projected to decline to about 45% by 2030. Similarly, only about a quarter (26%) of global income and 13% of global carbon emissions growth between 2012 and 2030 will take place in small urban areas.

Furthermore, the shape of the cumulative curves above (see Figures 5, 6, 8, 9, 13 and 14) suggests that there might be little value added in increasing the number of (smaller) urban settlements as part of related analysis, as this would only make a substantial contribution if these places numbered in the thousands rather than hundreds. It might also challenge the city level as the appropriate unit of analysis given the enormous increase in diversity that would result, making comparisons and generalisations more difficult and less meaningful. Little is known about this diverse assemblage of small cities, towns and urban settlements, which may include 2,500 smaller 'cities' below 500,000 people along with countless towns and urbanised villages. Analysing small urban areas might instead require a national or even regional level of analysis.

2.4 NEW CLIMATE ECONOMY CITIES: THREE KEY GROUPS

As the analysis in the previous section shows, a small number of cities will have a disproportionate impact on the global economy and climate over the next two decades. In this section, we identify three broad groups of cities that will be particularly influential: Emerging Cities, Global Megacities, and Mature Cities. These new climate economy cities are medium to large (above one million in population) and middle to higher income (above US$2,000 per capita). Under business as usual, these groups will account for over 60% of global income growth and over half of energy-related greenhouse gas emissions growth between 2012 and 2030, rising from over 14 gigatonnes of emissions in 2012 to nearly 19 gigatonnes by 2030. Table 1 shows the distribution of these new climate economy cities in terms of population size and income per capita compared to all urban areas worldwide.

Table 1: Population size and income per capita of cities above 0.5 million. Numbers refer to the number of cities (metropolitan areas) in each category. Under this categorisation, 291 cities are Emerging Cities, 33 are Global Megacities and 144 are Mature Cities. The number of small urban areas is unknown. Population and GDP are based on metropolitan area.
Source: LSE Cities 2014 (based on LSE Cities analysis using data from Oxford Economics)

2.4.1 Emerging Cities

We define Emerging Cities as middle income, medium to large cities (based on metropolitan areas), with populations in 2012 of between 1 million and 10 million and per capita income levels between US$2,000 and 20,000. Sometimes loosely termed 'tier 2 and 3 cities' (being smaller than megacities), these are rapidly expanding middle-income cities in China, India, and other emerging economies. A total of 291 Emerging Cities exist worldwide, with examples including Kunming, Ulaanbaatar, Pune, Puebla and Kuala Lumpur.

One of the defining features of this group is the rapid rate of urbanisation expected over the next two decades. Under business as usual, they will contribute more than any other group of cities to global economic growth and carbon emissions. These 'cities of tomorrow' will account for 15% of global urban population growth, over a quarter of global income growth and over a third of energy-related emissions growth worldwide between 2012 and 2030. Average per capita emissions in these cities are estimated to grow from 5.2 tonnes of CO_2 equivalent in 2012 to 7 tonnes of CO_2 equivalent in 2030.

For example, in India, Chennai is projected to grow by almost 4 million people from now to 2030, while 14 cities in China are expected to grow by 1 million or more. Cities such as Dongguan and Foshan could experience annual GDP growth of 7.7% and 8% respectively, while 20 cities with the highest emissions growth in China are projected to contribute nearly 40% to the country's overall emissions growth, representing a combined increase of over 1 gigatonne of CO_2 equivalent.

Many of these cities will be high-growth industrial economies, requiring major investments in infrastructure along with planning for the connection of residential and industrial areas over the next two decades. By 2030, industry will be valued at US$11.2 trillion in these cities, representing 44-49% of their economies (see Figure 20). Other sectors are also projected to grow strongly, including

transport, storage, information and communications at 5.9%, financial and business services at 6.3%, consumer services at 6.1% and public services at 5.4% (see Figure 20).

Figure 20: Income of Emerging Cities in 2012 and 2030 (measured as Gross Value Added)
Source: LSE Cities 2014 (based on LSE Cities analysis using data from Oxford Economics)

2.4.2 Global Megacities

We define Global Megacities as major economies with populations above 10 million and per capita income of over US$2,000. A total of 33 Global Megacities exist worldwide, with examples including Delhi, Beijing, Shanghai, Bangkok, Rio de Janeiro, Mexico City, Jakarta, London, New York and Tokyo.

While this is a diverse group of cities, they share a number of important features: all are very large economies, often hubs of regional economic growth, and with a strong international outlook. They tend to attract population growth within their urban core as well as on their periphery. Global Megacities also tend to be increasingly services based with strong growth in the financial, business and other services sectors. These urban economies will rely increasingly on agglomeration effects which are greater in denser cities. For example, high-end service jobs and research and development jobs in Beijing are, respectively, 14 and 12 times more concentrated than the national average . In addition, given their size, economic weight and knowledge spill-overs, Global Megacities often act as leaders in innovation, with other cities worldwide following them.

Global Megacities will continue to play a key role in the global economy and climate. Between 2012 and 2030 under business as usual, while these 33 megacities will represent only 8% of the world's urban population growth, they will contribute 16% of global income growth. Furthermore, their share of global urban GDP will remain broadly the same, rising slightly from 17.6% in 2012 to 17.8% in 2030. Under business as usual, these 33 cities will represent 11.5% of global carbon emissions growth and 10.5% of total world emissions in 2030. Average per capita emissions in these megacities are estimated to grow from around 6.2 tonnes of CO_2 equivalent in 2012 to 7.1 tonnes in 2030. Given the large share of carbon emissions in Global Megacities,

substantial potential exists for carbon abatement in these cities. While Global Megacities share common features, they display a range of dynamics from relatively slow to high growth. For example, population growth in these 33 agglomerations ranges from an estimated -0.3% to 4.4%, while economic growth and carbon emissions growth range from 0.6% to 7.9% and from -2.2% to 4.8% respectively. Overall, Global Megacities are projected to display steady growth in financial and business services at 3.6%, as well as industry at 4.3%, transport, storage, information and communications at 3.8%, and consumer services at 3.5% (Figure 21).

Figure 21: Income of Global Megacities in 2012 and 2030 (measured as Gross Value Added)
Source: LSE Cities 2014 (based on LSE Cities analysis using data from Oxford Economics)

2.4.3 Mature Cities

We define Mature Cities as higher income, medium to large cities, with populations in 2012 of between 1 million and 10 million and per capita income levels above US$20,000. These 'tier 2 and 3 cities' form the backbone of regional economic networks in countries in North America, Western Europe and OECD countries in other parts of the world. A total of 144 Mature Cities exist worldwide, with examples including Stuttgart, Minneapolis and Hiroshima.

Population growth in Mature Cities will be relatively low over the next two decades. As a group, their contribution is projected to be 4% of global urban population growth, compared to 15% for Emerging Cities. Nevertheless, Mature Cities will continue to experience significant urban change. These changes range from cities that are attracting more populations to their urban core to cities that are experiencing an overall decline in population. This will provide a different set of opportunities and challenges to those faced by Emerging Cities and Global Megacities. Mature Cities play an important role in the global economy. As a group, they represent around 26% of global GDP and 15.5% of global energy-related carbon emissions. They also contribute the highest per capita emissions of any city group, at an average of 12.5 tonnes of CO_2 equivalent. And while they will not experience the rates of growth shown by Emerging Cities, their contribution to global economic growth will be substantial. Between 2012 and 2030, Mature Cities will drive 17.9% of global income growth. Although

carbon emissions growth in Mature Cities is projected to be relatively low under business as usual (4.3%), average emissions levels in these cities are already high. Mature Cities will continue to have substantially higher per capita emissions than Emerging Cities and Global Megacities, projected to be 12.1 tonnes of CO_2 equivalent in 2030.

While Mature Cities share common features of a medium to large size and high levels of productivity, the group represents a very diverse assemblage of cities. It includes key innovation leaders such as Stockholm, Copenhagen, Portland, Singapore and San Francisco, as well as economically stagnant cities such as Detroit and Cleveland. For example, Hong Kong and Seattle's economies are both projected to grow by over 70% between 2012 and 2030, averaging 3% growth per year based on strong service sectors. However, Cleveland is projected to grow by less than 1.5% per year over the same period, while Turin is expected to grow at only 0.4%. These cities tend to have traditional industry sectors that are facing increasing global competition, particularly from high-growth cities in emerging economies.

On average, all major sectors in Mature Cities are projected to grow strongly. This includes average annual growth rates of transport, storage, information and communications at 3%, financial and business services at 2.8%, consumer services at 2.4% and public services at 1.7% (see Figure 22). However, given the diverse range of cities in this group, sector-specific growth (and decline) will vary widely from city to city.

Figure 22: Income of Mature Cities in 2012 and 2030 (measured as Gross Value Added)
Source: LSE Cities 2014 (based on LSE Cities analysis using data from Oxford Economics)

2.4.4 City groups compared

Overall, the contribution of the three groups of new climate economy cities to economic output and carbon emissions is considerable. While representing around 29% of the global population, these 468 cities contributed an estimated 52.4% of global GDP and 45% of global energy-related carbon emissions in 2012 (Figure 23). Mature Cities were the highest contributors to the global economy at 25.7%, followed by Global Megacities at 14.9% and Emerging Cities at 11.8%. In contrast, the remaining 256 cities above 0.5 million contributed only 3% to global GDP in 2012, and 3% to global emissions.

New climate economy cities will have an even more pronounced impact on economic and carbon emissions growth over the next two decades. Overall, the 468 cities will contribute 61% of global GDP growth and 51% of global energy-related emissions growth between 2012 and 2030 (Figure 24). Emerging Cities are projected to have the greatest impact, with 27% contribution to the global economy. This is followed by Mature Cities with an 18% contribution and Global Megacities with 16%. Emerging Cities will also contribute the most to global energy-related emissions growth at 35%, followed by Global Megacities at 11.5% and Mature Cities at 4%. In contrast, the remaining 256 cities above 0.5 million are projected to contribute only 3% of global GDP growth, and 5% of growth in energy-related emissions.

These results strongly suggest that a unique opportunity exists to concentrate policy interventions on a relatively small number of cities which at the same time will have a disproportionate effect on the global economy and climate. As discussed in section 2.3.4, it is important to note that although small urban areas will contribute considerably less to GDP and emissions growth than the 468 new climate economy cities, policy makers should not ignore their development over the next two decades. This assemblage of small urban areas represents a vast number of small entities, ranging from prosperous large towns/small cities such as Aberdeen to small groups of houses in Sub-Saharan Africa, industrial areas outside city boundaries to large village communities. Shaping the future development of these areas will, in many cases, require national or regional level policy intervention at an aggregate scale, rather than focused policies directed at individual cities. This is a particular challenge in low income countries.
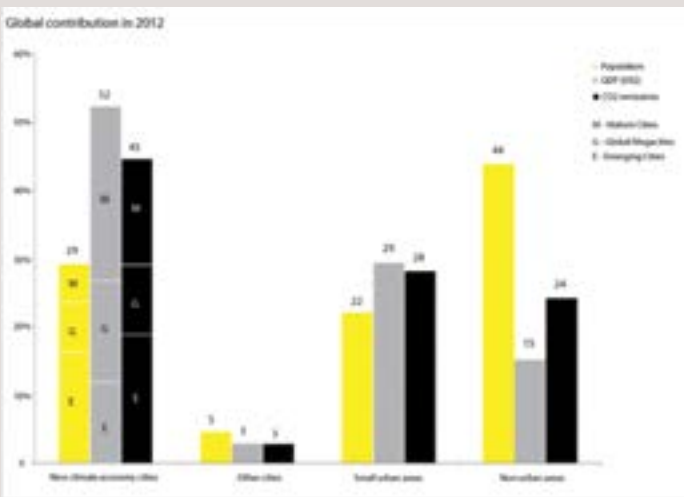

Figure 23: Contribution of different settlement types to global population, GDP and energy-related carbon emissions in 2012
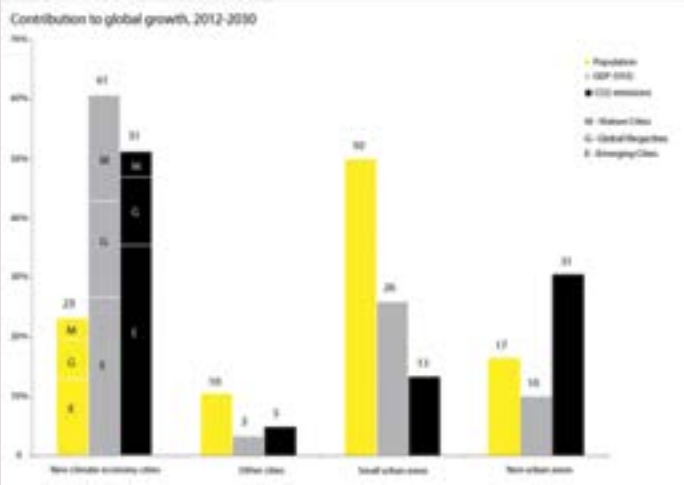Source: LSE Cities 2014 (based on LSE Cities analysis using data from Oxford Economics)

Figure 24: Contribution of different settlement types to growth in population, GDP and energy-related carbon emissions, 2012–2030
Source: LSE Cities 2014 (based on LSE Cities analysis using data from Oxford Economics)

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Juliet Davis

Uffer, S., Davis, J., (2012). *What and Who Makes Urban Form Resilient? An Analysis of Historic Developments in Berlin and London. New Urbanity. Cities vs. Global Challenges.* International Symposium on Sustainable Development and Planning, 26-28 April, Belgrade.

Graham Floater

Floater, G., Rode, P., and Zenghelis, D., (2013). *Stockholm Green Economy Leader Report.* LSE Economics of Green Cities Programme, London.

Floater, G., Rode, P., and Zenghelis, D., (2014). *Copenhagen Green Economy Leader Report.* LSE Economics of Green Cities Programme, London.

Rode, P., Floater, G., (2013). *Going Green. How cities are leading the next economy. A global survey and case studies of cities building the green economy.* Final Report. London: LSE Cities, ICLEI and GGGI.

Adam Greenfield

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Suzanne Hall

Hall, S., (2012). *London's High Streets: Bringing empty shops back into use.* Report submitted by invitation to the Economy Committee, London Assembly.

Hall, S. (2012). *City, Street and Citizen: The measure of the ordinary.* Routledge: London.

Hall, S., (2013). Book Review: Bremner, L., (2010), *Writing the City into Being: Essays on Johannesburg 1998-2008,* and Murray, M.J., (2010) *City of Extremes: The spatial politics of Johannesburg, Antipode,* vol.44, no.2, pp. 1569-1571.

Hall, S., (2013). Blogpost: *For the future good of our high streets,* British Politics and Policy at LSE, 2013.

Hall, S., (2013). *Multilingual Citizenship,* Discover Society, launch issue of the British Sociological Association online magazine.

Hall, S., (2013). *The Politics of Belonging.* Identities: Global Studies in Culture and Power, Special Issue: Settling Differences in a Land of Strangers, 20 (1), pp. 46-53.

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Hall, S. (2014). *London's High Streets: The value of ethnically diverse micro-economies.* Report submitted by invitation to Just Space, in response to the London Plan.

Hall. S., (2014). Book Review: Millington, G. (2011): 'Race', Culture and the Right to the City: Centres, Peripheries, Margins. Basingstoke and New York: Palgrave MacMillan, in the International Journal of Urban and Regional Research, vol. 38, no. 1, pp. 368-70.

Hall, S., (2014). Essay: *World Wide Street,* in Anderson, B., and Keith, M. (eds.), *Migration: A COMPAS Anthology,* COMPAS: Oxford.

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Sobia Ahmad Kaker

Kaker, S. A. (2013). *Towards an Urban Geopolitical Analysis of Violence in Lyari* Blog entry for Centre for Research and Security Stues, Islamabad. July 12 2013.

Kaker, S. A, (2014). *Enclavisation and Violence in Karachi.* Blog entry for India at LSE, February 7 2014.

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Antoine Paccoud

Paccoud, A., (2012). *Paris, Haussmann and property owners (1853-1860):* Researching temporally distant events. In: Kaasa, A., Gassner, G., Robinson, K (eds) *Writing Cities 2.* London: LSE in collaboration with the MIT School of Architecture and Planning, Harvard Graduate School of Design and Harvard Law School.

Paccoud, A., (2012). *A politics of regulation: Haussmann's planning practice and Badiou's philosophy.* PhD thesis, LSE.

Paccoud, A., (2013). *Country of birth in the 2011 Census: a view of migration in London and English local authorities,* Ordinary Streets Working Paper, London: LSE Cities.

Priya Shankar

Shankar, P., (2013) *At a crossroads? China in a multi-polar world,* Foresight report, Foresight Project.

Fran Tonkiss

Tonkiss, F., (2012). *Informality and its discontents, in Angélil, M. and Hehl, R. (eds) Informalize! Essays on the Political Economy of Urban Form.* Berlin: Ruby Press.

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Sabina Uffer

Uffer, S., Davis, J., (2012). *What and Who Makes Urban Form Resilient? An Analysis of Historic Developments in Berlin and London. New Urbanity. Cities vs. Global Challenges.* International Symposium on Sustainable Development and Planning, 26-28 April, Belgrade.

Savvas Verdis

Verdis, S., and Burdett, R., (2013) *Accelerated City Transformations.* Urban Age Programme, LSE, London.

Austin Zeiderman

Zeiderman, A., (2013). *Arts of Security.* Review of Harvey Molotch's *Against Security: How We Go Wrong at Airports, Subways, and Other Sites of Ambiguous Danger.* Public Books (on-line affiliate of Public Culture), 14 February 2013.

Zeiderman, A., (2013). *Living Dangerously: Biopolitics and Urban Citizenship in Bogotá, Colombia.* American Ethnologist, 40 (1).

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Zeiderman, A., (2013) *Living Dangerously: Biopolitics and Urban Citizenship in Bogotá, Colombia.* American Ethnologist 40(1):71-87.

Zeiderman, A., (2014). *Security Laboratories.* Review of Paul Amar's *The Security Archipelago: Human-Security States, Sexuality Politics, and the End of Neoliberalism* in Public Books (on-line affiliate of Public Culture), 15 March.

Zeiderman, A., (2014). *For Bogotá's desplazados, living in a high-risk zone is a very mixed blessing.* The Guardian, 28 March.

Zeiderman, A., (2014). Commentary on *Pandemic Prophecy: Or, How to Have Faith in Reason* by Carlo Caduff in Current Anthropology 55(3):311-312.

Zeiderman, A., (2014). Endangered City: *The Politics of Security and Risk in Bogotá.* Durham: Duke University Press (Forthcoming).

Zeiderman, A., (2014). *Uncertainty and Urban Life,* Public Culture (lead author; co-written with Ahmad Kaker, S., Silver, J., and Wood, A.). (Forthcoming)

Zeiderman, A., (2014). *Zones of Uncertainty: Governing Urban Environmental Hazards.* In Samimian-Darash, L., and Rabinow, P., (eds.): *Modes of Uncertainty: Anthropological Cases,* Chicago: University of Chicago Press (Forthcoming).

OUTREACH

Photo credit: Paul Clarke

URBAN AGE

LSE Cities' outreach activities span a range of events in London and abroad. Each year an Urban Age conference is held in a different world city, focusing on a research theme that connects the physical and social dimensions of cities strongly linked to the research activities being pursued in the centre. In addition, a series of public lectures at the LSE contributes to the School's rich calendar of events, bringing urban debate to the heart of the LSE and London's design, policymaking and academic communities. Academic seminars and workshops are hosted on a regular basis for experts in specific urban fields.

Since its inception, the Urban Age has studied the spatial and social dynamics of over 30 cities in the developed and developing world, collaborated with over 50 academic institutions and municipal authorities and been attended by over 6,000 speakers and participants from urban design, policymaking, research and practice. Held since 2005, previous conferences have taken place in New York, Shanghai, Mexico City, Johannesburg, Berlin, Mumbai, São Paulo, Istanbul, Chicago, Hong Kong, London and Rio de Janeiro.

Urban Age Electric City conference
London, December 2012

On 6-7 December 2012, the eleventh Urban Age conference took place at the Shoreditch Electric Light Station in central London – a building that in its own history reflects the connections between power and the city. The focus of the conference was the 'Electric City' – a detailed investigation of how the combined forces of technological innovation and the global environmental crisis are affecting urban society. Organised by LSE Cities at the London School of Economics and Political Science and Deutsche Bank's Alfred Herrhausen Society, and supported by the Mayor of London, the two-day event explored a number of themes that connect technology, the environment and cities. Speakers tackled the social dimension of technological change, addressing questions of adaptation and change in individual and collective behaviour. The objective of the Urban Age Electric City conference – and the research leading up to it – was to provide a fresh perspective on how to accelerate the current sociotechnical transition of cities in order to more effectively respond to the urgent environmental and economic challenges.

The conference featured presentations and contributions from David Cameron, Boris Johnson, Ed Glaeser, Saskia Sassen, Richard Sennett, Richard Rogers, Bjarke Ingels, Enrique Peñalosa, Joan Clos, Nicky Gavron, Geoff Mulgan, Tessa Jowell and David Willets. The conference welcomed over 350 participants, with over 60 speakers drawn from cities and institutions in Asia, Africa, North and South America and Europe. It was watched online by 3,746 people. The Twitter hashtag #UAElectric was used in more than 4,150 tweets originating from 57 different countries,

and was trending during the conference. The conference received worldwide press coverage on the BBC, The New York Times, The Guardian, The Times, The Independent, and The Huffington Post.

Urban Age City Transformations conference
Rio de Janeiro, October 2013

The 2013 Urban Age conference investigated the impact of large scale urban development projects on the social, economic, political and physical make-up of cities, building on the Urban Age's network established through previous conferences.

The conference was held in the Olympic City of Rio de Janeiro in October 2013 and acted as a platform for exchange and debate amongst policy-makers, academics, urban designers, architects, representatives of NGOs and local community groups. Over 150 participants from 40 cities facing major urban transformations explored issues of designing, governing and financing urban change.

International speakers and local representatives from Rio de Janeiro exchanged experiences on the design, governance and delivery of a number of significant projects in a range of world cities – including São Paulo, Santiago, Medellín, Bogotá, Antofagasta, Mexico City, New York, Detroit, Washington DC, Cape Town, Mumbai, Hong Kong, London, Hamburg, Barcelona and Stockholm. City mayors and policymakers reflected on the best models of ensuring sustainable urban governance, and delegates found common ground - many of the issues Rio faces are mirrored in cities across North America and Europe, who continue to struggle with participatory planning and long-term public sector commitment to complex social issues such as health, education and housing.

In addition to investigations of on-going projects in Rio surrounding the Olympic sites, the Bus Rapid Transit system and favelas improvement programme, the conference featured international projects, including the Olympic Games and Legacy projects in London, Barcelona and The Netherlands; the HafenCity and IBA initiatives in Hamburg; The High-Line and East River waterfront redevelopment in New York City; the Transmilenio bus system and ciclovías in Bogotá; and the cable-car and arts projects in Medellín. Debates also looked at the causes for the current wave of large-scale city transformations and their impact on local communities, noting that participation by local communities and agencies on new projects is absolutely key.

The conference featured presentations and contributions from Andrew Altman, Sophie Body-Gendrot, Amanda Burden, Washington Fajardo, Adam Greenfield, Tessa Jowell, Eduarda La Rocque, Suketu Mehta, Henk Ovink, Edgar Pieterse, Enrique Peñalosa, and Anthony Williams. The conference welcomed over 300 participants to the conference, with over 70 speakers drawn from cities

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URBAN AGE CONFERENCE ATTENDEES

Boris Johnson
Mayor of London

Thomas Matussek
Managing Director,
Alfred Herrhausen Society

Soraya Silveira Simões
Deputy Director, Research, IPPUR,
Universidade Federal do Rio de Janeiro

Justin McGuirk
Critic and author, London

David Cameron MP
Prime Minister

Edgar Pieterse
Director, African Centre for Cities,
University of Cape Town

Craig Calhoun
Director, London School of
Economics and Political Science

Maria Olivia Recart
Vice President, BHP Billiton Chile

Alejandro Zaera-Polo
Architect,
AZPML

Ute Weiland
Deputy Director,
Alfred Herrhausen Society

Anthony Williams
CEO and Executive Director, Federal City
Council of Washington, DC

Dame Tessa Jowell
Member of Parliament

Rohan Silva
Senior Policy Adviser to
the Prime Minister

Nicky Gavron
Deputy Mayor, London 2000-2008,
London Assembly Member and Chair,
Planning Committee

Frauke Behrendt
Senior Lecturer in Media Studies,
University of Brighton

Anshu Jain
Co-Chairman, Management Board
and Group Executive Committee,
Deutsche Bank

and institutions in Asia, Africa, North and South America and Europe.

It was watched online by more than 20,00 people, and during the conference month, the LSE Cities website received 22,277 visits compared with its average 15,000 visits, and 11,193 of these visits were to the conference microsite. The conference was once again covered worldwide in the press and on social media.

European Metromonitor

The European Metromonitor is an interactive website funded by the LSE HEIF5 Programme which shows the impact of the economic recession and recovery in over 150 of Europe's largest metropolitan areas.

Launched in 2013, the project draws on LSE Cities' current research on the economic resilience of European Cities to create an interactive map offering users the chance to browse data visualisations showing how the financial crisis has affected these European cities. The platform aims to allow public, private and third sector stakeholders to share their local perspectives on the impact of the economic recession to further explore best responses and adaptation strategies of cities to the crisis.

Since launching, the site has had over 21,000 visits including from the UK, USA, Italy, Spain, Greece, Portugal and Switzerland.

http://labs.lsecities.net/eumm/home/

COMMUNICATIONS

The LSE Cities website, www.lsecities.net, continues to be a key channel for disseminating the Centre's work. The site acts as a portal for the full range of activities undertaken by the Centre. Over the last academic year the communications team have developed the research pages of the LSE Cities site to provide overviews of key news, events, and publications for each project.

Throughout 2013, the LSE Cities website received around 10,000 to 15,000 visits a month. This figure rose during the Urban Age conferences: during the City Transformations conference month, the LSE Cities website received 22,277 visits, and 11,193 of these visits were to the conference microsite. Since the 2013 Urban Age conference, visits have remained at this higher level, averaging around 20,000 – 25,000 a month during term time, which may indicate that the Urban Age conferences are a powerful hook which encourage the public to keep returning to the site.

Social media is an important way to communicate with the various audiences who follow the Centre's work, and its 12,800 Twitter followers on the @LSECities account are kept regularly updated with news of lectures, publications and speaking engagements. Twitter is also used to offer live coverage of all our public lectures and events, including the Urban Age conference. This ensures that they are accessible to people who can't make it to the actual event and therefore that these events have an impact beyond the school. Using Storify, archives of tweets are made publicly accessible after events and lectures, ensuring that all our conferences and events become a publicly available resource that everyone can engage with. In addition, our 5,100 Facebook followers are kept updated with news of the Centre's work, in addition to an active YouTube presence and contributions to relevant academic blogs.

LSE Cities' research outcomes and events are regularly featured in press and media comment on urban growth, urban society and the environment. In the last two years the Centre's work has been featured in The Times, The Economist, BBC radio and online, the Guardian, Der Speigel, Deutsche Welle, The Financial Times, The Independent, the Huffington Post, Dezeen, The New York Times, The AP, The Daily Herald, The Architects Journal, Building Design, Architecture Today, Wired, Domus and many more.

SELECTED LECTURES AND PRESENTATIONS

Ricky Burdett

Speaker at the Smart City Expo World Congress 2012 Barcelona, November 2012.

'Making better places', Session Chair at the London Conference 2012, Centre for London. London, November 2012.

'Introducing the Electric City', Session Chair at Electric City Urban Age Conference. London, December 2012.

'London: challenges and opportunities of shaping a global city', Keynote, La Poste Seminar. Paris, February 2013.

'Living in the Endless City', Keynote Speaker at the Symposium on 'Innovative Metropolis: Fostering Economic Competitiveness through Sustainable Urban Design'.

Brookings Institution, Washington DC, February 2013.

'London Going East', Urban Design Studio at the Robert F. Wagner Graduate School of Public Service, New York University. New York, 18-21 March 2013.

'The Change in Global Cities and Where Can London Look for Lessons About Its Future Growth and Performance as the First (and Now the Oldest) World City?', Land Aid Annual London Debate, Greater London Authority. London, March 2013.

'Designing for Legacy', City Transformation through Mega-events, Metropolitan Solutions, Hannover Messe, Hannover, Germany, April 2013.

'Urban Development', keynote speaker at ELCA congress on 'Urban Green Spaces in Europe'. European Landscape Contractors Association, Hamburg, 30 May 2013.

'2012 London Olympics', talk to team of undergraduate business students from the College of Business Administration, Abilene Christian University, Texas. London, 7 June 2013.

'Introducing megacities', presentation and session chair, Deutsche Bank Global Summit, The Grove, 27 June 2013.

'Introducing LSE Cities', keynote speaker, LSE Benefactor's Board Event, LSE, London, 16 September 2013.

'Global cities in an Urban Age', keynote speaker, 'Leading speakers in a global economy', Barcelona City Council, Barcelona, 10 October 2013.

'Understanding city transformation from London to Rio', keynote speaker, 'Cities in Transformation', LSE Cities

Urban Age Transformations Conference. Rio de Janeiro, 23-25 October 2013.

'Mega-events: drivers of change', co-chair, LSE Cities Urban Age Transformations Conference. Rio de Janeiro, 23-25 October.

'Comparing strategic plans: What should our cities be like?', The Economist's Future Cities Summit. London, 29 October 2013.

Jury member and participant, 100 Resilient Cities, Rockefeller Foundation and Financial Times 2013 Innovation Forum and Awards Ceremony. New York, 3 December 2013.

'Moscow reforms: implementation experience, assessment of results and significance for success beyond the centre', panel member, Moscow Urban Forum. Moscow, 6 December 2013.

'Designing Urban Legacy', public lecture, Moscow Urban Forum. Moscow, 7 December 2013.

Lord Richard Rogers Freedom of the City of London Ceremony, chair, City of London Corporation. London, 7 February 2014.

'Broken Edges: Cities and Other Ruins', LSE Cities public lecture, chair, LSE, London, 12 February 2014.

'Infrastructures of Integration', public lecture, Institute of Public Knowledge, New York University. New York, 20 February 2014.

Public lecture at Harvard Graduate School of Design, Cambridge, USA, 25 February 2014.

'The Ecobuild Debate: do we have a blueprint for the resilient city of the future?', session speaker, Ecobuild Conference 2014. London, 6 March 2014.

'Megacities and city mobility concepts in the future – implications for the economy', session speaker, Deutsche Bank Symposium, Stromburg Germany, 22 March 2014.

'Cities and Urbanisation', plenary session lead speaker, LSE Asia Forum. Kuala Lumpur, 3 April 2014.

'Introducing megacities', presentation and session chair, Deutsche Bank Global Summit, The Grove, 27 June 2013.

Panel discussion on 'public lighting in London', Configuring Light/ Staging the Social: Lighting project, chair, LSE. London, 24 April 2014.

'Expulsions: Brutality and Complexity in the Global Economy', LSE Cities public lecture, chair, LSE. London, 13 May 2014.

Rio de Janeiro session speaker, Social Sciences Research Council Conference on 'The Decent City'. New York, 19-20 May 2014.

'Urban and new social dynamics and production' workshop, keynote speaker, Area Metropolitana de Barcelona. Barcelona, 28 May 2014.

'Cities 2030: The future for post-industrial cities – lessons from the UK and US', speaker, Policy Exchange Conference, London, 3 June 2014.

'Infrastructures of Integration', keynote speaker, MAK and the Museum of Modern Art Uneven Growth: Tactical Urbanisms for Expanding Megacities workshop / Conference, Vienna, 14 June 2014.

Space for Architecture public lecture, chair, LSE Cities public lecture, LSE, London, 16 June 2014.

London and Global cities: Governance, Planning and Design, LSE Cities Executive Summer School, facilitator and speaker, LSE, London, 30 June – 6 July 2014.

Transforming Cities; Transforming Lives British Embassy Paris event speaker, Paris, 3 July 2014.

Philipp Rode

'Green Growth Panel Discussion', participant, 'Take Lead 2012' Symposium and Council Meeting, Monday Morning, Green Growth Leaders Meeting. Copenhagen, 4 June 2012.

'Take Lead 2012' Symposium and Council Meeting, participant, Monday Morning, Green Growth Leaders Meeting. Copenhagen, 4 June 2012.

'Hamburg HafenCity', panelist and critic, HafenCity Architecture Debate. Hamburg, 6 June 2012.

'Stadtverkehr der Zukunft. Der Versuch einer Prognose', presentation, Deutsche Bahn Innovation Workshop. Berlin, 14 June 2012.

'Transport Equity', presentation, 'Urbanisation Day', Technical University Braunschweig. Braunschweig, 4 July 2012.

'LSE Cities and Urban Age Research', presentation, LSE Alumni and InnoZ Reception. Berlin, 5 July 2012.

'The Governance of New Urban Mobility: London and Berlin', presentation, Reinventing the Urban Commons Workshop, Innovation Centre for Mobility and Societal Change (Innoz). Berlin, 5 July 2012.

'Cities Driving Sustainability', presentation, McKinsey Cambridge Workshop, Cambridge University. Cambridge, 10 July 2012.

'Reviewing the Amsterdam-Almere Transport Strategy', presentation, LSE Cities Almere Workshop. Almere, 17 September 2012.

'Contrasting Urbanisation', presentation, 'Urbanisation – Infrastructure, Planning and Administration'. 21st meeting of the Indo-German Consultative Group. Frankfurt, 29 September 2012.

'Going Green: How cities are leading the next economy', presentation, 'Greening cities – policy to practicalities'. CIRIA Network, London, 25 October 2012.

'Continuity or Disruption: The impact of new urban technology', Session Chair, Urban Age Electric City Conference. London, 6 December 2012.

'Facilitating Green Transformation: A global survey of city governments', presentation, Urban Age Electric City Conference. London, 7 December 2012.

'Global Urbanisation and the Dynamics of Urban Change', presentation, La Poste Senior Management Seminar. Paris, 13 February 2013.

'University Climate Challenge: Are universities equipping us for the future?', Chair, LSE Climate Week Event. LSE, London, 6 March 2013.

'Urban Mobility: The role of the automobile', presentation, Urban Mobility Workshop, Bavarian Ministry of Economic Affairs, Infrastructure, Transport and Technology. Siemens Crystal, London, 5 March 2013.

'Cities and Energy Efficiency – The Role of Urban Form', presentation, German-British Environment Forum. Wilton Park, Shoreham by Sea, 8 March 2013.

'Stadt als Ausgleich. Stadt und Stadtgesellschaft im 21. Jahrhundert', Key Note, Evangelischer Kirchentag. Hamburg, Germany, 2 May 2013.

'Stockholm Green Economy Leader report' presentation with Graham Floater. Stockholm, Sweden, 4 June 2013.

'Facilitating Green Transformation: How Cities are leading the next economy' presentation at German Friends of LSE Alumni event. Bonn, Germany, 18 June 2013.

Panellist at the Deutsche Welle Global Media Forum 2013 on 'Towards Sustainable Cities: Urban Governance and City Leadership'. Bonn, Germany, 19 June 2013.

Lecture on 'urbanization and energy transitions in a changing climate' at Global Sustainability Summer School 2013. Potsdam, Germany, 2 July 2013.

Session speaker on 'London Strategic Planning and the Olympic Legacy: Review and Discussion' to the Taipei City Government visiting delegation. LSE, London, 22 July 2013.

Panelist for ' Zwischen Standorten und Nischen: Ein Berliner Wirtschaftsmodell' at the *Stadtentwicklungskonzept Berlin 2030* on Berlin: ökonomisch prosperierend. Was lässt

die Stadt wachsen? Berlin, Germany, 7 August 2013.

Presentation on 'Retos y oportunidades para el desarrollo sostenible urbano a nivel internacional' at the Conferencia Modelos de ciudad modelos de desarrollo. Bogota, Columbia, 22 August 2013.

C40 & Siemens Cities Climate Leadership Awards - facilitator for Intelligent City Infrastructure session, 5 September 2013.

Participant at the City-level decoupling Meeting of the International Resource Panel and its Cities Working Group, International Resource Panel and UNEP. Nantes, France, 24-25 September 2013.

'Green Cities', Key Note, Annual Meeting, German Academy for Spatial Planning (DASL), Hamburg, 27 November.

'How Cities are Facilitating the Green Transition', presentation, EcoSummit, London 15 October 2013.

Presentation and round table participant in session on 'Technologies and Concepts for Sustainable Energy Development' at the Megacities Conference on Clean Energy Generation & Smart Use. Rio de Janerio. Brazil, 22 October 2013.

Presentation on 'Equity by urban form and transport access: A comparative perspective' for session on 'Rebalancing the city by design' at the Urban Age City Transformation Conference. Rio de Janeiro, Brazil, 24 October 2013.

'Going Green: How Cities are leading the next economy', presentation. Berlin Smart City Working Group, Berlin, 1 November 2013.

'Going Green: How Cities are leading the next economy' seminar. Presentation, LSE, London, 4 November 2013.

Chair for 'One Planet Communities' LSE Public Lecture. LSE, London, 12 November 2013.

Chair for Nisha Singh Lecture, LSE, London, 25 November 2013.

'Sustainable cities and the green economy' session speaker, SOAS University of London 'Industrial upgrading and reform, Industry policies and development training course, London, 29 November 2013.

'Creating the Sustainable City' session moderator, RE:WORK Cities Summit, London, 13 December 2013.

Future Cities Catapult workshop participant, London, 23 January 2014.

'Cities and the Green Economy' presentation, La Fabrique de la Cite, The City Factory seminar, Paris, 30 January 2014.

New Urban Mobility workshop participant, Berlin, 14 February 2014.

'Going Green: How cities are leading the next economy', fortnightly Cities Seminar, keynote speaker, Kings College London, London, 6 March 2014.

'Megacities and city mobility in the future – implications for the economy' session speaker, Deutsche Bank Symposium, Stromberg, Germany, 22 March 2014.

Innoz – LSE Cities Mobility Workshop, participant, London, 25 March 2014.

Isher Ahluwalia seminar, participant, LSE, London, 2 April 2014.

'Cities and the New Climate Economy' session speaker, World Urban Forum, Medellin, 10 April 2014.

'Urban Governance Futures: Scenarios for London', Chair, LSE Cities / Mac Arthur Foundation Foresight Seminar, LSE, London, 16 June 2014.

'Mapping Urban Governance', Presentation, United Cities and Local Governments Executive Meeting, Liverpool, 17 June 2014.

'Cities and the Green Economy', Presentation, Rotterdam Architecture, Rotterdam, 19 June 2014.

'Compact Urban Growth in London', Presentation, Urban Vision Leaders Seminar, LSE, London, 09 September 2014.

Ömer Çavuşoğlu

'What the Eye Does Not See', This is Not a Gateway Festival, Bishopsgate Institute, London, 26 January 2013.

'A National Discourse on Urban Intervention, and Istanbul's Changing Landscape'. Politics Exposed series at London Metropolitan University, Aldgate, London, 26 February 2013.

Andrea Colantonio

'EFAP - European Forum of Architectural Policies', EIB platform and project presentation, Cyprus Presidency of the Council of the EU. Nicosia, 21-23 November 2012.

'EIB Project', presentation, 6th Annual Meeting, European Investment Bank Institute's Knowledge Programme. Luxembourg, January 2013.

'European Forum of Architectural Policies', organised by the Cyprus Presidency of the Council of European Union in Nicosia, Cyprus, on 21 - 23 Nov 2012.

'Shaping the Future. A Forum on Architecture: Culture's contribution to sustainable development', organised by the Irish Presidency of the Council of European Union in Dublin, 8-11 May 2013.

'Public Interest in Architecture', organised by the Lithuanian Presidency of the Council of European Union in Vilnius, 12 -14 September 2013.

Graham Floater

'Case studies in Transport and Emissions Standards', lecture at the Annual Conference of the European Association for Forwarding, Transport and Logistic Services.

'Emission Reductions Across 20 Million Households in the UK: Targets and Delivery.' LSE Cities seminar.

'The Sustainability Challenge: How it is Set to Impact on Business', presentation at Sustainability and Organisational Change Conference, Ashridge Business School.

'Energy and Climate Change Policy: Risks and Opportunities', presentation at KPMG Climate Leaders Workshop.

'Low Carbon Society', presentation at Solent PUSH (Partnership for Urban South Hampshire) with Secretary of State for Energy and Climate Change.

'Local Communities and the Low Carbon Economy', presentation at the House of Commons, UK Parliament. 'Going Green', Report Presentation, Global Green Growth Forum. Copenhagen, October 2012.

'Low Carbon Society: A Vision for Growth, Jobs and Innovation', Keynote Lecture, Portsmouth University.

'Energy, Food and Climate Change: Major Challenges of the 21st Century', The Caritas Annual Public Lecture, City of Edinburgh.

Adam Greenfield

'Toward an Internet of Þings', Keynote presentation, IoT Week, Venice, June 2012.

'Another city is possible: Networked urbanism from above and below.' Keynote presentation, Emerging Technology conference, Langley VA, July 2012.

Keynote presentation, Copenhagen Institute of Interaction Design, Copenhagen, July 2012.

'Toward an Internet of Þings.' Keynote presentation, Open Internet of Things Assembly, London, July 2012.

'Another city is possible: Networked urbanism from above and below.' Keynote presentation, Computational Cybersecurity in Compromised Environments conference, United States Military Academy, September 2012.

Keynote presentation, Audi Urban Future Initiative/Ideas City conference, Istanbul, October 2012.

Presentation, Urban Age conference, London, December 2012.

Presentation, Webstock conference, Wellington NZ, February 2013.

Keynote presentation, Merck Displaying Futures Symposium, Seoul, October 2013.

Untitled brief presentation, Urban Age conference, Rio de Janeiro, October 2013.

'Another city is possible: Networked urbanism from above and below.' Presentation, Ideas City conference, The New Museum at SESC Pompeia, São Paulo, October 2013.

'Alternatives to the smart city: An evening with Adam Greenfield.' Keynote presentation, The New Museum/ Architectural League of New York, New York City, November 2013.

'Another city is possible: Networked urbanism from above and below.' Keynote presentation, ESRC Cities and Urban Transformations conference, London, February 2014.

'Toward transmobility: The making of mobility from the bottom up.' Presentation, Transport Futures conference, Imperial College London, March 2014.

'Another city is possible: Networked urbanism from above and below.' Keynote presentation, Provisional University, Dublin, March 2014.

Presentation, Programmable City conference, NUI Maynooth, Maynooth, March 2014.

'Fireside chat with Adam Greenfield,' FutureEverything 2014, Manchester, March 2014.

'Toward transmobility: The making of mobility from the bottom up.' Presentation, Mobilities in Cities conference, Columbia University GSAPP, New York City, April 2014.

'Another city is possible: Networked urbanism from above and below.' Keynote presentation, Smart Cities and Big Data conference, Aarhus University, Aarhus, April 2014.

'At the end of the world, plant a tree: practices and considerations for the twilight of human time.' Keynote presentation, Dutch Electronic Arts Festival, Rotterdam, May 2014.

'Practices of the minimum viable utopia.' Presentation, Personal Democracy Forum 2014, New York City, June 2014.

'Another city is possible: Networked urbanism from above and below.' Keynote presentation, Digital Clouds and Urban Spaces conference, Vienna, June 2014.

Presentation, reSITE conference, Prague, June 2014.

'Rise of the smart city.' Panel discussion. London Festival of Architecture 2014, London, June 2014.

'At the end of the world, plant a tree: practices and considerations for the twilight of human time.' Keynote presentation, Lighthouse, Brighton, August 2014.

Suzanne Hall

'City, Street and Citizen', public book launch, LSE Cities and LSE Sociology Forum, 12 June 2012.

'Association of Town Centre Management', Invited Speaker, Summer School, University of Bristol. Bristol, 3 July 2012.

'Ethnography and Place', Invited Presenter, ESRC Research Methods Festival, University of Oxford. Oxford, 5 July 2012.

'The Evolving High Street', Invited Speaker, High Street Futures, co- hosted by RIBEN (Retail Industry business Engagement Networks), Tesco, ESRC and the University of Southampton. Southampton, 25-26 September 2012.

Keynote: 'Street Commons: Crisis and Loose Cohesions ', Keynote Address, Post-Crash City conference, University of York. York, 14-15 December 2012.

'Ordinary Streets: Cultural diversity/economic diversity', The Brixton Exchange, University College London and Anchor and Magnet, 1 February 2013.

'Rescaling the Transnational City': Centre on Migration, Policy and Society, Oxford, 14 February 2013.

'City, Street and Citizen', Public Lecture, London Southbank University. London, 11 March 2013.

'Rescaling the Transnational City'. British Sociology Association (BSA) annual conference, London, 3 April, and BSA Theory Symposium, London, 2 April 2013.

'Establishing Thought Leadership in the Evolution of Town and City Centres', roundtable discussion hosted by the All Party Parliamentary Group for Town Centres, House of Commons, 5 April 2013.

Association of Convenience Stores Global Summit, invited panellist, Birmingham, 15 April 2013.

'Rescaling the Transnational City'. Humboldt University, Think and Drink Public lecture, Berlin, 29 April 2013.

'Invisible Infrastructure: Land subdivision as power'. Visiting Einstein Fellow, Seminar at Humboldt University, Berlin, 30 April 2013.

'Ordinary Streets', presentation to the Southwark Council Overview and Scrutiny Committee, Southwark Council Offices, 23 April and 7 May 2013.

'Parallel Cosmopolitanisms: The (mis)alignments of Bellenden Road and Rye Lane', Rethinking Centres and Peripheries ESRC Research Seminar, Goldsmiths, University of London, 31 May 2013.

'Multilingual Streets: London's litmus strips of change', public lecture, London Festival of Architecture, 5 June 2013.

Keynote: 'Cities in the Global Era: Global migration and multilingual streets', Cities in the Global Era Postgraduate Conference, Department of European and International Studies, Kings College London, 14 June 2013.

'City, Streets and Citizens', invited presentation, UN Conference on Future of Places, Stockholm, 24 June 2013.

'The Creative Life of Rye Lane: Ecosystems of economic and cultural diversity', Peckham Town Centre Workshop on Parallel Economies, Peckham Vision community group, All Saints Church Hall, 8 July 2013.

'Author meets critic', panel discussion of 'City Street and Citizen', Research Committee 21 annual conference on Cities, 31 August 2013.

Organiser: 'Word on the Street: City Vocabularies of Migration and Diversity', international conference hosted by LSE Cities, 10 October 2013.

'Locating Urban Migration', Seminar Series, Department of Sociology, University of Warwick, 6 November 2013.

'Learning Street Economies', two part public seminar, Learning from Kilburn project, 14 and 21 November 2013.

'The Future of an Inner City Town Centre', invited presentation to the London Borough of Southwark planning and regeneration officers, Southwark Council offices, 22 November 2013.

'Locating Urban Migration', Department of Geography, University of Southampton, 22 January 2014.

'Locating Urban Migration: From Census to street', LSE London series on 'Migration and the Transformation of London', 10 February 2014.

'The Social Life of Adaptable Space', Adaptable Suburbs Conference, Bartlett UCL, 28 April 2014.

'Locating Urban Migration', IGK Public Lecture Series, Centre for Metropolitan Studies, TU Berlin, 6 May 2014.

Keynote: 'Ordinary Mobility: Framing social complexity, exploring migration', Everyday Life and Ordinary Geographies Workshop, UCL, 10 June 2014.

'Super-diverse Street: Towards a trans-ethnography', MPI MMG Lecture Series, Max Planck Institute for Religious and Ethnic Diversity, 19 June 2014.

'Super-diverse Capital: Spatial networks in migrant cities', IRIS conference on Superdiversity, University of Birmingham, 24 June 2014.

Keynote: 'Super-diverse Capital: Migration and city-making', LSE Groups 2014: Identity and place research conference, 4 July 2014.

Adam Kaasa

'Building an Urban Future: Temporal rhetoric in Mexico City modern', Paper Presentation, Workshop on Time and Globalization. Institute on Globalization and the Human Condition, McMaster University. Ontario, Canada, 19-20 October 2012.

'Designing for Politics', Organiser and Chair, 'Common Ground: Between Art and Urban Practice', Venice Biennale for Architecture, 3 November 2012.

'Urban Elegies: The case for mourning as collective urban politics', Organiser and Speaker, 'Making Collective Values Visible', Finnisage of the Venice Biennale for Architecture, 24 November 2012.

'Chromazone: Colour and the City', Invited Chair, RIBA. London, UK, 27 November 2012.

'Lighting the Future', Invited Speaker. Southbank Centre, London, 27 February 2013.

'Between Curatorial and Urban Practice', Chair and Organiser, LSE Literary Festival. London, 2 March 2013.

Post-show Q&A for *Shield*, Invited Chair, The Ovalhouse, London, 18 June 2013.

Sobia Ahmad Kaker

'Unravelling Enclaves' presented at Annual Conference of Urban Geography Research Group, Kings College London, 29-30 September 2012.

'Security in the Enclaved City', guest lecture in course titled 'TCP 8934 Cities, Security and Resilience'. School of Architecture, Planning and Landscape, Newcastle University, 31st January 2013, 25 February, 2013.

'The Geopolitics of Enclaved Urbanism: a case study of Karachi' presented at the 'Geopolitics and Security' Seminar Series, Geopolitics and Security Group, Royal Holloway University, 5 March 2013.

'Tensions of Space and Security in an Enclaved Megacity: a case study of violence in Karachi' presented at 'Urban land and Conflict in the Global South' Workshop, University of Manchester, 13-14 March 2013.

'Security Governance and Urbanisation in Karachi' presented at the 'PhD Roundtable' at the Foreign and Commonwealth Office, London, 13 June, 2013.

'Performing Security, Embodying Difference or Spatialising Violence? Urban enclaves as geopolitical sites' presented at Annual Conference of the British International Studies Association, Birmingham, 20-21 June 2013.

'Uncertainty and Urban Life' presented at Interrogating Urban Crisis Conference, De Montfort University, 9-11 September 2013.

'The Messy Realities of Security Governance in Karachi' presented at 'Comparative Approaches to Security Sector Reform' Workshop, Sao Paulo, 13-14 March 2014.

'Living the Security City: Navigating Karachi's Enclaves' presented at the 'Cambridge City' Seminar Series, CRASSH Research Group, Cambridge University, 20 May 2014.

'Circulating Uncertainty: The role of security information in Karachi' presented at the 'PhD Roundtable' at the Foreign and Commonwealth Office, London, 4 July, 2014.

Antoine Paccoud

'Comparing the Health and Wealth Performance of Metropolitan Regions', Conference Paper, IAOS Conference. Kiev, 12-14 September 2012.

'What Constitutes a Metropolitan Health Advantage?', conference paper, 6th Urban Research and Knowledge Symposium. Barcelona, Spain, 8-10 October 2012.

'Attacking the Sanctity of Property: Haussmann's Planning Practice Conceptualised through Badiou's Philosophy', presentation, the Research Seminar in Cities, Space, and

Development 2012-13, LSE Geography and Environment. LSE, London, 6 November 2012.

Priya Shankar

Presentation at panel discussion on 'Handmade Urbanism: The Role of Grassroots Initiatives in Cities'. The India International Centre, Delhi, 10th July 2014.

Fran Tonkiss

'From austerity to audacity', Chair of Architecture and Urban Design, Technical University, Berlin, October 2012.

'The post-capitalist city', City for Sale conference, Museum of Modern Art, Warsaw, October 2012.

'The individual and society: finding one's place in the contemporary city', La Ville: Mode d'emploi, Villa Gillet, Lyon, November 2012.

'The political economics of sustainable development', Prince's Foundation for the Built Environment, London, November 2012.

'Does it matter how the "politics of place" works?' Seminar, Centre for Sustainable Communities, University of Hertfordshire, UK, June 2013.

'Density, diversity and sustainability', Masterclass, Prince's Foundation for the Built Environment, London, UK, October 2013.

'Urban expansion', Expert panel, CITYLAB conference, Bloomberg Foundation/Aspen Institute/The Atlantic, New York, USA, October 2013.

'Ecologies of inequality', lecture, Faculty of Architecture, University of Plymouth, UK, November 2013.

'Urban cultures, public space and everyday life', public lecture, Faculty of Architecture and Planning, Technical University, Vienna, Austria, November 2013.

'On architects and other designers', lecture, Faculty of Architecture, University of Sarajevo, Bosnia, May 2014.

'Socialising design?', Keynote lecture, University of Hamburg, Germany, May 2014.

'The restructuration of space', Closing plenary, Technical University, Berlin, June 2014.

Nikolas Thomopoulos

Session 'Innovation in smart cities' and Panel Chair, RSA workshop. Greece, 5-6 June 2014.

Invited expert, Imperial College/ifmo workshop, ICT and physical mobility, 16 July 2014.

Savvas Verdis

Urban Age Cities Transformations Conference, Co-chair, Rio de Janeiro, 24-25 October 2013.

UNFCCC COP19 conference, Warsaw, Panel member on Urbanisation, November 2013.

Keynote at the launch of Veolia's Future Gazing report on urban lifestyles in 2050, November 2013.

Austin Zeiderman

'Constructions of Citizenship: Housing Politics and Urban Assemblages in Bogotá, Colombia'. Paper presented at the Annual Meeting of the Society for Social Studies of Science (4S) and the European Association for the Study of Science and Technology (EASST), Urban Assemblages and Cosmopolitics. Copenhagen, 19 October 2012 .

'Living Dangerously: Vital Politics and Urban Citizenship in Bogotá, Colombia', seminar participant, Department of Geography and Environment, Research Seminar in 'Cities, Space, and Development', LSE. London, 30 October 2012.

'Risk in Retrospect: Prognosis Politics and Disaster Preparedness', paper presented, American Anthropological Association Annual Meeting, 'Prognosis Politics: Visions of Resource Futures'. San Francisco, 16 November 2012.

'Millennial City: The Bogotá Model and the Futures of Urbanism', paper presented at the Conference, 'Mobile Urbanisms', UGRG Annual Conference, King's College London. London, 29 November 2012.

'Cities and Risk', seminar participant, Urban Research Group, Sciences Po (Institut d'études politiques de Paris). Paris, 30 January 2013.

'Taking Place', research seminar participant, Centre for the Research in the Arts, Social Sciences and Humanities, University of Cambridge. Cambridge, 25 February 2013.

'Apocalypse Foretold: The Politics of Catastrophe in Colombia', paper presented at the Workshop, 'Urban Controversies', LSE. London, 6 March 2013.

'Threatened Cities: Urban Dystopias in Latin America, Past and Present'. Paper presented at the conference, 'Latin American Utopian Visions: A Critical Look for the 21st Century', University of Cambridge, 20 April 2013.

'Constructed Citizenship: Housing Politics in Bogotá, Colombia'. Paper presented at the Annual International Conference of the Royal Geographical Society-Institute of British Geographers, London, 28 August 2013.

'Submergence: Fluid Futures in Colombia's Presumptive Port City'. Invited Seminar at Royal Holloway, University of London, Department of Geography, 22 October 2013.

'Cities and Security: Latin American Urbanization, Past and Present'. Lecture given at the Stanford Center at Peking University, 'New Urban Formations: Comparative Urbanisation' Conference, 15 November 2013.

'Land, Dispossession, and Urbanization in Colombia'. Paper given at the Stanford Center at Peking University, 'New Urban Formations: Comparative Urbanisation' Conference, 16 November 2013.

'Submergence: The Politics of Vulnerability in Colombia's Pacific Port City.' Paper presented at the American Anthropological Association Annual Meeting, 'A Fragile Republic: Vulnerability and Political Life After Liberalism' (co-organiser), Chicago, 21 November 2013.

King's College London, Department of Social Science, Health & Medicine, 20 January 2014.

Massachusetts Institute of Technology, Anthropology Program, 3 February 2014.

LSE Department of Sociology, 5 February 2014.

'The Rising Tide of Global Urbanism: A View from Colombia's Future Port-City.' Paper presented at 'The Challenges of Global Urbanism', Durham University, 20 March 2014.

London School of Economics and Political Science, Department of Anthropology, 16 May 2014.

Humboldt University, Department of Urban and Regional Sociology and the Georg Simmel Centre for Metropolitan Studies, 26 May 2014.

'Submergence: Fluid Futures in Colombia's Presumptive Port-City.' Paper presented at the workshop, 'Spaces of Ambiguity and Possibility: Democracy, Decentralisation and the State in Latin America', Institute of Latin American Studies, University of London, 25 June 2014.

'Submergent Politics: Security and Vulnerability at the Urban Edge.' Paper presented at the workshop, 'City Materialities', City Securities, Open University, 27 June 2014.

PUBLIC
LECTURES

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**Land of the seven rivers:
A brief history of India's geography**

17 January 2013
Sheikh Zayed Theatre, New Academic Building, LSE
18:30-20:00

Speaker: Sanjeev Sanyal (Global Strategist, Deutsche Bank)

Chair: Anshu Jain (Co-Chairman of Deutsche Bank's
Management Board and Group Executive Committee)

Globalisation, fear and insecurity

11 February 2013
Wolfson Theatre, New Academic Building, LSE
18:30-20:00

Speaker: Sophie Body-Gendrot (Researcher at the French
Scientific Research Centre/CESDIP/Ministry of Justice,
Emeritus Professor at the University Paris-Sorbonne)
Respondent: Richard Sennett (Professor of Sociology,
LSE, University Professor of the Humanities, New York
University)

Chair: Professor Ricky Burdett (Director, LSE Cities)

Between curatorial and urban practice

Theatrum Mundi/LSE Literary Festival
2 March 2013
Sheikh Zayed Theatre, New Academic Building, LSE
17:00-18:30

Speakers: Clémentine Deliss (Director of Weltkulturen
Museum, Frankfurt am Main),
Elke Krasny (cultural theorist, curator, urbanist and author),
Maria Lind (curator, critic, director of Tensta Konsthall,
Stockholm), Justin McGuirk (journalist and critic)

**LSE Cities and LSE Health public lecture – healthy
African cities**

7 March 2013
Hong Kong Theatre, Clement House, LSE
18:30-20:00

Speakers: Ama de Graft Aikins (African Initiative Fellow at
LSE Health and Associate Professor, University of Ghana),
Gora Mboup (senior demographic and health expert, Chief
of Global Urban Observatory of UN-HABITAT), Vanessa
Watson (Professor and Deputy Dean of the Faculty of
Engineering and the Built Environment at the University of
Cape Town)

Chair: Ernestina Coast (senior lecturer in Population
Studies, LSE Health)

Interdisciplinary action for urban health

26 April 2013
Thai Theatre, New Academic Building, LSE
18:30-20:00

Speaker: Sharon Friel (Professor of Health Equity at the
National Centre for Epidemiology and Public Health,
The Australian National University)
Respondent: Julio Dávila (Professor of Urban Policy and
International Development, Development Planning Unit)

Chair: Stephen O'Brien (Chairman of Barts Health NHS
Trust)

**Multilingual streets: London's litmus
strips of change**

5 June 2013
Alumni Theatre, New Academic Building, LSE
18:30-20:00

Speaker: Suzanne Hall (Lecturer in the Department of
Sociology, LSE, Research Fellow, LSE Cities)

Chair: Adam Kaasa (London Manager, Theatrum Mundi)

Global migration and urban renewal

10 October 2013
Sheikh Zayed Theatre, New Academic Building, LSE
18.30 – 20.00

Speakers: Philip Kasinitz (Professor of Sociology, City
University in New York),
Michael Keith (Director, Centre on Migration, Policy and
Society, University of Oxford)
Respondents: Rob Berkeley (Director, Runnymede)
Tim Finch (Director of Communications, Institute for
Public Policy Research),
Sharon Zukin (Professor of Sociology, Brooklyn College
and City University Graduate Center, New York)

Chair: Mike Savage (Professor of Sociology, LSE)

The metropolitan revolution

29 October 2013
Hong Kong Theatre, Clement House, LSE
18:30-20:00

Speaker: Bruce Katz (Vice President, Brookings
Institution and founding Director of the Brookings
Metropolitan Policy Programme)
Respondent: Anne Power (Professor, Centre for Analysis
of Social Exclusion, LSE)

Chair: Ricky Burdett (Professor of Urban Studies,
Director of LSE Cities)

**Going green: how cities
are leading the next economy**

4 November 2013
Wolfson Theatre, LSE
18:30-20:00

Speakers: Philipp Rode (Executive Director, LSE Cities,
Senior Research Fellow, LSE), Dimitri Zenghelis (Senior
Visiting Fellow, Grantham Research Institute, LSE)

Chair: Tony Travers (Director, LSE London)

**Renewing Indian cities:
challenges of urbanisation
and development**

25 November 2013
Lecture Theatre 2.06, New Academic Building, LSE
15.00 – 17.00

Speaker: Nisha Singh (Joint Secretary, Indian Ministry
of Urban Development and Mission Director of the
Jawaharlal Nehru National Urban Renewal Mission)

Chair: Philipp Rode (Executive Director, LSE Cities,
Senior Research Fellow, LSE)

**Transformative design for
social integration**

28 November 2013
Thai Theatre, New Academic Building, LSE
18:30-20:00

Speakers: John McAslan (Architect, Director John
McAslan & Partners), Hannah Lawson (Architect, John
McAslan & Partners), Aidan Potter (Architect, John
McAslan & Partners)

Chair: Ricky Burdett (Professor of Urban Studies,
Director of LSE Cities)

Between life and death in Kinshasa

30 January 2014
Hong Kong Theatre, Clement House, LSE
18:30-20:30

Speakers: Filip De Boeck (Professor of Anthropology,
University of Leuven, Belgium),
Jennifer Robinson (Professor of Human Geography,
University College London)

Chair: Deborah James (Professor of Anthropology, LSE)

Broken edges: cities and other ruins

12 February 2014
Sheikh Zayed Theatre, New Academic Building, LSE
18:30-20:00

Speakers: William Mann (Partner, Witherford Watson
Mann Architects),
Stephen Witherford (Partner, Witherford Watson Mann
Architects)
Respondents: Anna Keay (Director, The Landmark
Trust), Richard Sennett (Professor of Sociology, LSE
and University Professor of the Humanities, New York
University), Abraham Thomas (Director, Sir John Soane's
Museum)

Chair: Ricky Burdett (Professor of Urban Studies,
Director of LSE Cities)

**Transforming Indian cities:
challenges and opportunities**

3 April 2014
Lecture Theatre TW1.G.01, LSE
18:30-20:00

Speaker: Isher Judge Ahluwalia (Indian economist,
author, and Chair of Board of Governors, the Indian
Council for Research on International Economic
Relations)

Chair: Nicholas Stern (IG Patel Chair, Chair of the LSE
Asia Research Centre)

Saskia Sassen: Expulsions

13 May 2014
Sheikh Zayed Theatre, New Academic Building, LSE
18:30-20:00

Speaker: Saskia Sassen (Robert S. Lynd Professor of
Sociology and Co-Chair, The Committee on Global
Thought, Columbia University)
Respondent: Ash Amin (1931 Chair of Geography at the
University of Cambridge)

Chair: Ricky Burdett (Professor of Urban Studies,
Director of LSE Cities)

Space for architecture

16 June 2014
Saw Swee Hock Student Centre, LSE
18:30-20:00

Speakers: Sheila O'Donnell (Partner, O'Donnell + Tuomey), John Tuomey (Partner, O'Donnell + Tuomey)

Chair: Ricky Burdett (Director, LSE Cities)

Kapital architecture: commodity

19 June 2014
Wolfson Theatre, New Academic Building, LSE
19:00-20:30

Speakers: Alex de Rijke (Dean of the School of Architecture, Royal College of Art, and founding Director of the architectural practice dRMM), Katie Lloyd-Thomas (Lecturer in Architecture, School of Architecture Planning and Landscape, Newcastle University)

Chair: Oliver Wainwright (Architecture Critic, The Guardian)

SEMINARS AND SYMPOSIA

Theatrum Mundi seminar
The sense of presence:
Can the temporary leave a trace?

25 June 2013
The Shed, National Theatre
15.00 – 17.00

Speakers: Eleanor Barrett (Founder and co-director, The Brick Box), Amica Dall (Assemble, design & architecture collective), Rosie Freeman (Co-director, The Brick Box), Amaara Raheem (Choreographer), Matthias Sperling (Choreographer), Steve Tompkins (Haworth Tompkins Architects)

Chair: Adam Kaasa (London Manager, Theatrum Mundi)

The pandemic city:
Governing urban health and disease

26 June 2013
32 Lincolns Inn Fields, LSE
9.00 – 13.00

Speakers: Carlo Caduff (Lecturer, Department of Social Science, Health and Medicine at King's College London), Javier Lezaun (James Martin Lecturer in Science and Technology Governance, Deputy Director of the Institute for Science, Innovation and Society, at the University of

Oxford), Marta Magalhães Wallace (Research Associate in Social Anthropology, University of Cambridge), David Reubi (Lecturer in Geography at Queen Mary)

Chair: Austin Zeiderman (Research Fellow, LSE Cities)

Networked futures:
The politics of urban infrastructure

27 August 2013
New Academic Building, LSE
14.00 – 16.00

Speakers: Adriana Allen (Senior Lecturer, Development Planning Unit of the University College London), Nikhil Anand (Assistant Professor of Geography, University of Minnesota), Idalina Baptista (Nigel Mobbs Research Fellow for the Oxford Programme for the Future of Cities, University of Oxford), Lindsay Bremner (Director of Architectural Research, University of Westminster)

Chair: Austin Zeiderman (Research Fellow, LSE Cities)

Theatrum Mundi seminar
The sense of presence: design for learning

3 October 2013
Open School East, London
17.00 – 19.00

Speakers: Bahbak Hashemi-Nezhad (designer), Ken Worpole (Emeritus Professor in the Cities Institute, London Metropolitan University), Adam Murray (Senior Lecturer in Photography, University of Central Lancashire, co-founder of Preston is my Paris and TENT), Suzanne Hall (Lecturer in the Department of Sociology, LSE, Research Fellow at LSE Cities)

Chair: Kiera Blakey (Programme Coordinator, Theatrum Mundi)

Word on the street:
City vocabularies of migration and diversity

10 October 2013
32 Lincolns Inn Fields, LSE
10.00 – 17.00

Speakers: Mariana Valverde (Professor in and Director of the Centre for Criminology and Sociolegal studies at the University of Toronto), Susanne Wessendorf (Postdoctoral Research Fellow at the Max Planck Institute for the Study of Religious and Ethnic Diversity), Suzanne Hall (Lecturer and Research Fellow, LSE Cities), Jan Rath (Professor of Urban Sociology at the University of Amsterdam), Iris Hagemans (PhD researcher, University of Amsterdam), Christine Hentschel

(postdoctoral fellow, Institute of Urban Sociology, Humboldt University), Talja Blokland (Humboldt University), Sophie Watson (Professor of Sociology at the Open University), Philip Kasinitz (Professor of Sociology at the City University of New York), Sharon Zukin (Professor of Sociology at the City University of New York) and Ash Amin (Professor of Human Geography at the University of Cambridge)

Chairs: Claire Alexander (Professor of Sociology at the University of Manchester), John Solomos (Professor of Sociology at the University of Warwick) and Fran Tonkiss (Reader in Sociology, and Director of the Cities Programme)

Shifting ground:
The precarity of land on the urban periphery

Co-hosted with LSE Anthropology
30 January 2014
LSE Cities, LSE
09:00-13:00

Speakers: Hyun Bang Shin (Associate Professor of Geography and Urban Studies, LSE), Filip De Boeck (Professor of Anthropology, University of Leuven, Belgium), Ayona Datta (Senior Lecturer in Geography, University of Leeds), Vandana Desai (Senior Lecturer in Human Geography, Royal Holloway, University of London), Deborah James (Professor of Anthropology, LSE), Kamna Patel (Lecturer at the Development Planning Unit, University College London)

Policing the possible:
Governing potential criminality

23 February 2014
9.04, Research Meeting Suite, LSE
14:00-18:00

Speakers: Pete Fussey (Professor of Sociology, University of Essex), Rivke Jaffe (Associate Professor at the Centre for Urban Studies, University of Amsterdam), Gareth Jones (Professor of Urban Geography, LSE), Robert Samet (Visiting Assistant Professor of Legal Studies, University of Massachusetts, Amherst), Jonny Steinberg (Lecturer in the Criminology of Africa, Oxford University)

Urban data:
From fetish object to social object

14 March 2014
Room 9.04, Research Meeting Suite, LSE
10:00-15:00

Speakers: Yaşar Adnan Adanalı (Development specialist at the University of Stuttgart), Rachel Binx (Data

Visualiser, Meshu and Gifpop), Arlindo Pereira Jr (Web Developer, Ciclo Rotas Centro), Nithya V. Raman (Amnesty International, the Hazards Center and the Unorganized Workers' Federation), Paula Z. Segal, Esq. (Founding Director, 596 Acres, Inc., New York), Farida Vis (Research Fellow, University of Sheffield), Even Westvang (Principal at Bengler, Oslo)

Chair: Adam Greenfield (Senior Urban Fellow at LSE Cities)

Caught in the crossfire:
Urban violence, inside and out

3 April 2014
Room 9.04, Research Meeting Suite, LSE
13:00-17:00

Speakers: Javier Auyero (Joe R. and Teresa Lozano Long in Latin American Sociology, University of Texas-Austin), Jaideep Gupte (Fellow of the Institute of Development Studies, University of Sussex), Danny Hoffman (Associate Professor of Anthropology, University of Washington, Seattle, USA), Marta Magalhães Wallace (Research Associate in Social Anthropology, University of Cambridge), Wendy Pullan (Senior Lecturer in the History and Philosophy of Architecture, University of Cambridge), Dennis Rodgers (Professor of Urban Social and Political Research, University of Glasgow), Gareth Jones (Professor of Urban Geography, LSE)

Cities and the new climate economy

10 April 2014
World Urban Forum (WUF7) in Medellin, Colombia
16:00-18:00

Speakers: Luis Fernando Ulloa (Sustainability Director at Financiera del Desarrollo on Colombia's Sustainable Cities Programme), Edgar Pieterse (Director, Centre for Cities in Africa, University of Cape Town), Eduarda La Rocque (President of Pereira Passos Institute of the City Hall of the Rio de Janeiro (IPP)), Philipp Rode (Executive Director of LSE Cities and Senior Research Fellow at the LSE)

Configuring the urban night

10 April 2014
World Urban Forum (WUF7) in Medellin, Colombia
18:00-20:00

Speakers: Carlosfelipe Pardo (Colombian psychologist), Leni Schwendinger (Associate Principal at Arup), Don Slater (Associate Professor in Sociology at the LSE and Director of the Configuring Light Programme at LSE Cities), Leon Jaime Restrepo (GTTP Programme Colombia), Inés Helena Vélez Pérez (Vice President of Energy Distribution, Medellín Energy Company (EPM))

City religion capitalism

3 April 2014 to Saturday 5 April 2014
Haus der Kulturen der Welt, Berlin

Speakers: José Casanova, David Chipperfield, Alexander Kluge, Angelika Neuwirth, Saskia Sassen, Richard Sennett, Joseph Vogl

Configuring light/staging the social: Lighting London

24 April 2014
Room 9.04, Research Centre Meeting Suite, LSE
10:30-12:00

Speakers: Keith Bradshaw (Light Designer, Speirs+Major), Eric Parry (Architect, Eric Parry Architects), Peter Rees (Head Planner of the City of London)

Chair: Ricky Burdett (Director, LSE Cities)

Configuring light night walk

7 May 2014
Central London
19:00-21:00

Speakers: Mark Major (Co-founder, Speirs + Major), Satu Streatfield (Senior Designer, Speirs + Major), Jack Wates (Assistant Designer, Speirs + Major)

Cities, fragility and conflict in an uncertain world

11 June 2014
Thai Theatre, New Academic Building, LSE
14:00-16:00

Speakers: Aisa Kirabo Kacyira (Deputy Executive Director and Assistant Secretary-General for UN-HABITAT)
Respondents: James Putzel (Director of LSE's Crisis States Research Centre, and Professor of Development Studies in the LSE's Department of International Development), Austin Zeiderman (Research Fellow, LSE Cities)

Chair: Philipp Rode (Executive Director, LSE Cities)

Urban governance futures: Scenarios for London

16 June 2014
Room 9.04, Research Centre Meeting Suite, 9th Floor, LSE
13:30-17:00

Speakers: Vernon Everitt (Managing Director of Customer Experience, Marketing & Communications from Transport for London), Nicky Gavron (London Assembly Member and former Deputy Mayor, London), Alaina Harkness (Program Officer at the MacArthur Foundation), Eve Mitelton-Kelly (Director of the LSE Complexity Group), Tony Travers (Director, LSE London)

Moderator: Philipp Rode (Executive Director of LSE Cities)

Elephant and Castle walkshop

16 June 2014
Elephant and Castle, London
15:00-17:00

Speaker: Adam Greenfield (LSE Cities Senior Urban Fellow)

Petro-urbanisms: Urban futures on the oil frontier

8 July 2014
Room 9.04, Research Centre Meeting Suite, 9th Floor, LSE
14:00-18:00

Speakers: Andrew Barry (Department of Geography, UCL), Chloé Buire (Department of Geography, Durham University), Nelida Fuccaro (Department of History, SOAS), ThienVinh Nguyen (Department of Geography, UCL), Gisa Weszkalnys (Department of Anthropology, LSE)

Chair: Jonathan Silver (Researcher, LSE Cities)

A city worth fighting for

16 September 2014
Hong Kong Theatre, Clement House, LSE

18:30-20:00

Speakers: Adam Greenfield (Senior Urban Fellow at LSE Cities), Leo Hollis (Senior Editor, Verso Books)

Chair: Judy Wajcman (Department of Sociology, LSE)

Lighting the Local

22 September 2014
Room 9.04, Research Centre Meeting Suite, 9th Floor LSE Tower 2

09:30-12:00

Speakers: Pranali Parikh (Principal Regeneration Manager, Derby City Council), Don Slater (Associate Professor in Sociology at the LSE and Director of the Configuring Light Programme at LSE Cities), Satu Streatfield (Senior Designer, Speirs + Major)

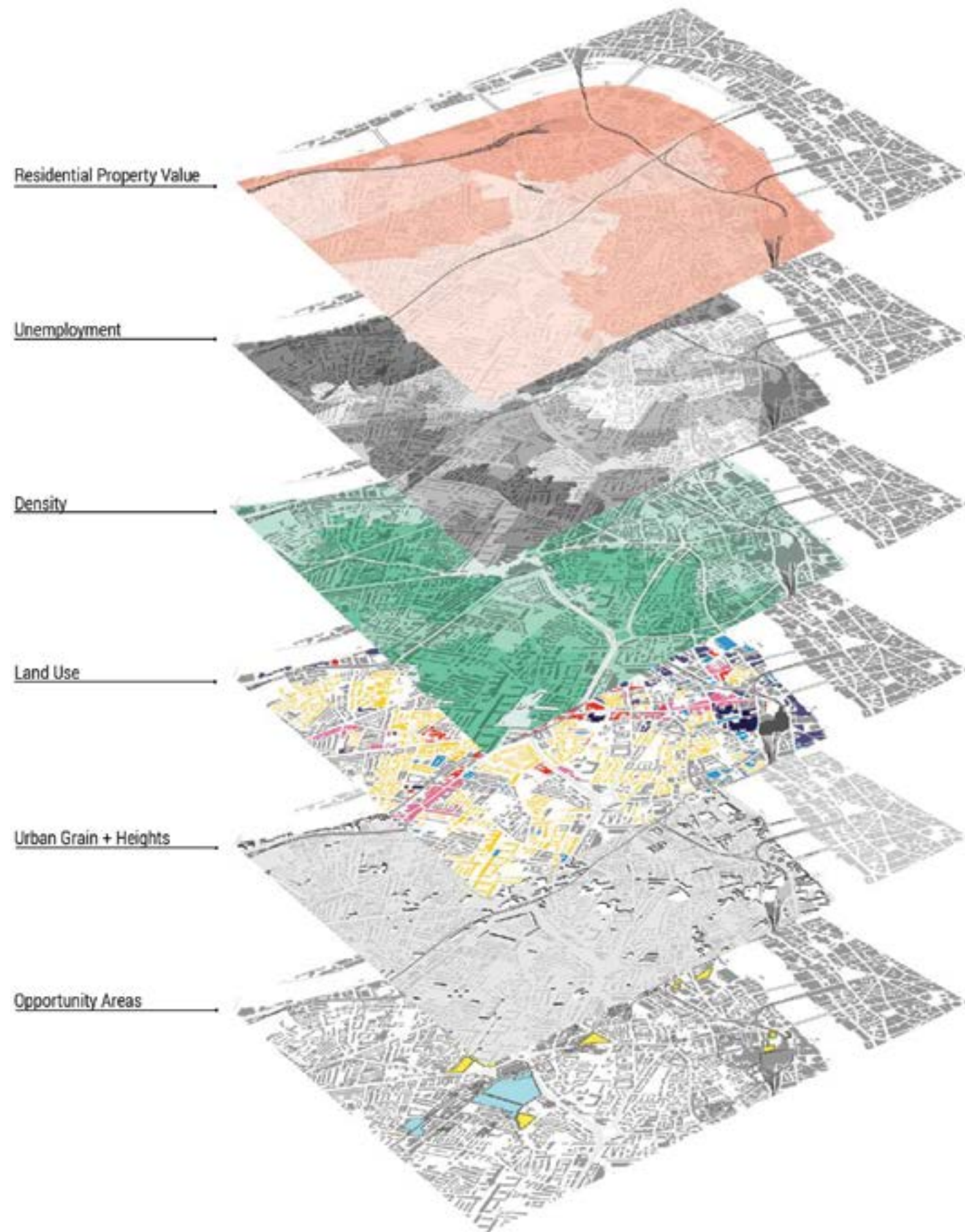Chair: Fran Tonkiss (Reader in Sociology, and Director of the Cities Programme)

Residential Property Value

Unemployment

Density

Land Use

Urban Grain + Heights

Opportunity Areas

EDUCATION

CITIES PROGRAMME

The Cities Programme focuses on the relation between the physical and social structuring of cities and urban environments. The MSc City Design and Social Science aims to support the development of critical and committed urbanists who can work across disciplinary boundaries and have a positive impact on the making of cities in the future.

The Programme is the graduate education branch of LSE Cities, which is hosted by the Department of Sociology and offers degree courses at MSc and PhD level. The MSc City Design and Social Science includes an annual international fieldtrip to undertake an intensive study of development and design issues in a critical urban context and launches an annual studio publication as a result of studio research.

In 2012-13 the City Design Research Studio asked: What does it mean to be 'local' in a global city? The studio exploration addressed this question from the base of a dense, inner city area in east London: Hackney Central. Hackney sustains established and emerging forms of economic and social vitality, while simultaneously surfacing contestations around urban transformations and rupture. Hackney's local worlds exemplify the convergence of working-class histories, urban multicultures, and gentrification. In their studio explorations, our students engaged with these concerns, paying close attention to the lived realities within Hackney Central and the Pembury Estate to propose strategies for urban intervention. Their analyses, insights and propositions formed the basis of the 2013 studio publication, *Local City*.

In 2013-14, the City Design Research Studio focused on the Elephant and Castle in south London as a site for thinking about the potential of the 'resourceful city'. Against the backdrop of large-scale redevelopment in the area, and amid the wider rhetoric of the 'smart' city, the students aimed to explore in more critical ways the assets, resources and capacities of such an urban context. Focusing on the central regeneration site and on the local streets and spaces that run out from it, the Studio groups analysed the connections and disconnections, diverse actors and interests, problems and potential that characterise this complex piece of city. The Studio was led by Dr Suzi Hall, Dr David Madden and Professor Fran Tonkiss. This basis of this research formed this year's publication *Resourceful City*.

International Fieldtrips

The MSc City Design and Social Science fieldtrip builds on the Programme's engagement with processes of city-making via a range of international case studies. In March 2013 MSc City Design and Social Science students visited Bucharest, accompanied by faculty members

Dr Suzanne Hall and Dr David Madden and guided by Gruia Badescu, a graduate of the MSc City Design (2009) who worked for two years at the Integrated Urban Development Plan for the Centre of Bucharest and is now pursuing a PhD at the Urban Conflicts Research Centre at the University of Cambridge. In May 2014, the students visited Sarajevo with Professor Fran Tonkiss and Dr David Madden, at the invitation of the Faculty of Architecture and the Centre for Refugee and IDP Studies (CESI), Institute for Social Science Research, University of Sarajevo. Students explored the city and took part in workshops with faculty, research students and staff.

Guest Practices and Masterclasses

The MSc City Design benefits from contributions from industry and academic experts through our guest practitioner network, expert seminars and master classes (some of which are open to Cities PhD students as well as other students at LSE). Participating organisations and individuals in 2012-13 and 2013-14 included Gehl Architects, muf art and architecture, Joseph Robson (AVR London), barrister Sarah Sackman (Francis Taylor Buildings), Professor Richard Sennett (LSE/NYU), Professor Edward Soja (UCLA), Witherford Watson Mann architects, Professor Sharon Zukin (City University, New York) and Eva Neitzert (Just Economics).

More news from the Cities Programme, including news from previous alumni, can be found at: http://www.lse.ac.uk/LSECities/citiesProgramme/alumniAndCareers/home.aspx

PhD Programme

Four doctorates were awarded to candidates in the PhD Cities Programme: Caroline Donnellan for 'Establishing Tate Modern: vision and patronage', Günter Gassner for 'Unfinished and unfinishable: London's skylines', Adam Kaasa for 'Writing, Drawing, Building: The Architecture of Mexico City, 1938-1964', and Daniel Kilburn for 'Together, apart? Situating social relations and housing provision in the everyday life of new-build mixed-tenure housing developments'.

NYLON (New York – London) seminars

LSE Cities continues its collaboration with NYLON. Founded by Professor Richard Sennett and Professor Craig Calhoun, and hosted at New York University (NYU), the LSE and Goldsmiths College, this international network of young researchers shares a broad interest in culture and qualitative research methods; seeking to integrate cultural analysis with an understanding of politics and political economy. The group convenes annually for a conference that brings together members from across a global network and

runs a series of seminars throughout the year; regularly including a number of LSE Cities' researchers. In March 2013 NYLON held its 11th annual conference in London at LSE and Goldsmiths.

Executive Summer School

This five-day course was an intensive exploration and analysis of how London is governed and managed, drawing parallels with other major cities. Participants spent a week understanding the 'London model' of governance and urban development that has helped transform the city over the last 30 years. Led by Ricky Burdett, Tony Travers, Philipp Rode and Savvas Verdis, the course drew on LSE Cities and LSE London's research work.

Key themes included governance, planning and design, infrastructure, transport, housing and economic competitiveness.

The course was designed to appeal to a wide range of early-to-mid career professionals in the public and private sector engaged in managing urban change. Eighteen senior executive and mid-career participants from 11 countries including US, Canada, Australia, Brazil, Chile and Nigeria attended the course. They represented both the public sector (with representatives from city governments) and the private sector (property development, ICT, automotive and infrastructure sectors). All participants attended classes given by the core teaching group, guest lectures by key members of London's political, development, transport and housing sectors, and visited some of the city's most dynamic developments. Guest speakers included Isabel Dedring, London's Deputy Mayor for Transport, and Ben Page, Chief Executive of IPSOS Mori.

Teachers on the course were Ricky Burdett, Tony Travers, Philipp Rode and Savvas Verdis.

GOVERNANCE

LSE CITIES STAFF

The following people were employed by LSE Cities between 1 July 2012 and 30 September 2014.

Director
Ricky Burdett *Professor of Urban Studies, LSE*
Executive Director
Philipp Rode, *Senior Research Fellow, LSE*
Academic Director
Fran Tonkiss, *Director, Cities Programme and Professor in Sociology, LSE*

Research and Academic Staff

Sobia Ahmad Kaker, *Researcher*
Thomas Aquilina, *Research Assistant*
Karl Baker, *Researcher*
Kiera Blakey, *Communications Officer*
Anne-Marie Brady, *Researcher*
Marina Montero Carrero, *Researcher*
Ömer Çavuşoğlu, *Projects Coordinator*
Andrea Colantonio, *Research Fellow*
Hélia Costa, *Research Officer*
Flavio Coppola, *Conference Assistant*
Emily Cruz, *London Manager, Theatrum Mundi*
Nuno Ferreira da Cruz, *Research Fellow*
Kerwin Datu, *Researcher*
Sarah Davis, *Management Accounts Coordinator*
Graham Floater, *Principal Research Fellow*
Bruno Friedel, *Researcher*
Günter Gassner, *Teacher, Researcher*
Alexandra Gomes, *Research Officer*
Louisa Greenbaum, *Urban Age Conference Manager*
Adam Greenfield, *Senior Urban Fellow*
Peter Griffiths, *Researcher*
Suzanne Hall, *Assistant Professor and Research Fellow*
Catarina Heeckt, *Researcher*
Eileen Herden, *Conference Co-ordinator, Researcher*
John Hemmings, *Personal Assistant to Richard Sennett*
Danielle Hoppe, *Conference Coordinator*
Anna Livia Johnston, *Administrator, Cities Programme*
Tessa Jowell, *Professor of Practice*
Adam Kaasa, *Research Officer*
Jens Kandt, *Researcher*
Madeleine Lee, *Researcher*
Francis Moss, *Information Designer*
Tessa Norton, *Communications Manager*
Antoine Paccoud, *Research Officer*
Thomas Poesner, *Web Developer*
Anne-Fabienne Raven, *Urban Age Conference Manager*
Neil Reeder, *Research Officer*
Emma Rees, *Executive and Admin Assistant*
Andrea Rota, *Web Developer and Operations Manager/Researcher*
Priya Shankar, *Research Officer*
Jonas Schorr, *Communications and Outreach Assistant*
Andrew Sherwood, *Centre Manager*
Hamza Siddiq, *Researcher*

Jonathan Silver, *Researcher*
Roxana Slavcheva, *Researcher*
Mona Sloane, *Programme Coordinator, Researcher*
Duncan Smith, *Research Officer*
Myfanwy Taylor, *Research Officer*
Nikolas Thomopoulos, *Research Officer*
Adam Towle, *Urban Designer*
Sabina Uffer, *Research Officer*
Shan Vahidy, *Publication Manager*
Savvas Verdis, *Senior Research Fellow*
Katherine Wallis, *Centre Manager*
Astrid Wood, *Researcher*
Austin Zeiderman, *Research Fellow*

Cities Programme

Fran Tonkiss, Director, *Cities Programme, Professor in Sociology and co-convenor SO448 City Design Research Studio*
Ricky Burdett, *Professor of Urban Studies, convenor SO451 Cities by Design*
Gunter Gassner, *teacher SO451 Cities by Design*
Suzanne Hall, *lecturer and co-convenor SO448 City Design Research Studio*
Anna Livia Johnston, *Cities Programme administrator*
David Madden, *lecturer and co-convenor SO448 City Design Research Studio*
Philipp Rode, *co-convenor SO465 City-making: the politics of urban form*
Savvas Verdis, *co-convenor SO465 City-making: the politics of urban form*

Visiting Appointments

Andrew Altman, *Visiting Senior Fellow, LSE Cities*
Eve Annecke, *Director, Sustainability Institute*
Zeynep Atas, *Visiting Fellow, LSE Cities*
Friederike Fleischer, *Visiting Fellow, LSE Cities*
Gerald Frug, *Visiting Professor*
Jeroen van der Heijden, *Visiting Fellow, LSE Cities*
Laura Lima, *PhD in International Politics, Aberystwyth University*
Mark Swilling, *Professor and Coordinator, Sustainable Development Programme, University of Stellenbosch*

Associates

Melissa Fernández Arrigoitia, *Research Officer*
Alasdair Jones, *Assistant Professor, Department of Methodology, LSE*
David Madden, *Assistant Professor Sociology, LSE*
Michael McQuarrie, *LSE Cities*
Max Nathan, *Research Fellow, LSE and NIESR*
Kathleen Scanlon, *Research Fellow, LSE*
Don Slater, *Reader in Sociology, LSE Cities*
Christine Whitehead, *Professor, LSE*

LSE CITIES GOVERNING BOARD

Paul Kelly (Chair), *Professor of Political Theory and Pro-director for Teaching and Learning, LSE*
Ricky Burdett, *Director, LSE Cities and Professor of Urban Studies, LSE*
Thomas Matussek, *Managing Director, Alfred Herrhausen Society*
Rahul Mehrotra, *Professor and Chair of the Department of Urban Planning and Design, Graduate School of Design, Harvard University*
Philipp Rode, *Executive Director, LSE Cities and Senior Research Fellow, LSE*
Richard Sennett, *University Professor of the Humanities, New York University and Professor of Sociology, LSE*
Nicholas Stern, *IG Patel Professor of Economics and Government, Grantham Research Institute on Climate Change and the Environment, LSE*
Ute Weiland, *Deputy Director, Alfred Herrhausen Society*

LSE CITIES ADVISORY BOARD

Richard Sennett (Chair), *University Professor of the Humanities, New York University and Professor of Sociology, LSE*
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Alejandro Aravena, *Executive Director, ELEMENTAL S.A.*
Amanda Burden, *Former Commissioner, New York City Department of City Planning*
José Castillo, *Principal, Arquitectura 911 SC*
Joan Clos i Matheu, *Executive Director of United Nations Human Settlements Programme (UN-Habitat)*
Job Cohen, *Mayor of Amsterdam 2001-2010*
Marcelo Ebrard, *Mayor of Mexico City 2006 – 2012*
Richard Haryott, *Trustee, Ove Arup Foundation*
Anshu Jain, *Co-Chairman of the Management Board and Group Executive Committee, Deutsche Bank*
Julian Le Grand, *Richard Titmuss Professor of Social Policy, LSE*
Enrique Peñalosa, *Urban Vision and Strategy Consultant; former Mayor of Bogotá (1998-2001)*
Edgar Pieterse, *Director, African Centre for Cities, University of Cape Town*
Richard Rogers, *Founder, Rogers Stirk Harbour + Partners*
Saskia Sassen, *Robert S. Lynd Professor of Sociology, Columbia University*
David Satterthwaite, *Senior Fellow, Human Settlements Group, International Institute for Environment and Development (IIED)*
Deyan Sudjic, *Director, Design Museum*
Alejandro Zaera Polo, *Dean, School of Architecture, Princeton University; Director, Alejandro Zaera Polo Architects*