

Edited by
DOMINIQUE LORRAIN

Governing Megacities in Emerging Countries



GOVERNING MEGACITIES IN EMERGING COUNTRIES

First published in French in 2011 by Presses de la Fondation Nationale des Sciences Politiques under the title *Métropoles XXL en pays émergents*, edited by Dominique Lorrain.

Governing Megacities in Emerging Countries

Edited by

DOMINIQUE LORRAIN
CNRS, France

 **Routledge**
Taylor & Francis Group
LONDON AND NEW YORK

First published 2014 by Ashgate Publishing

Published 2016 by Routledge

2 Park Square, Milton Park, Abingdon, Oxon OX14 4RN

711 Third Avenue, New York, NY 10017, USA

Routledge is an imprint of the Taylor & Francis Group, an informa business

Copyright © Dominique Lorrain 2014

Dominique Lorrain has asserted his right under the Copyright, Designs and Patents Act, 1988, to be identified as the editor of this work.

All rights reserved. No part of this book may be reprinted or reproduced or utilised in any form or by any electronic, mechanical, or other means, now known or hereafter invented, including photocopying and recording, or in any information storage or retrieval system, without permission in writing from the publishers.

Notice:

Product or corporate names may be trademarks or registered trademarks, and are used only for identification and explanation without intent to infringe.

British Library Cataloguing in Publication Data

A catalogue record for this book is available from the British Library

The Library of Congress has cataloged the printed edition as follows:

Governing megacities in emerging countries / edited by Dominique Lorrain.

pages cm

Includes bibliographical references and index.

ISBN 978-1-4724-2585-0 (hardback) – ISBN 978-1-4724-2588-1 (pbk.)

1. Metropolitan government–Developing countries. 2. Metropolitan government–Developing countries–Case studies. I. Lorrain, Dominique, author, editor of compilation.

JS241.G66 2014

320.8'5091724–dc23

2013049437

ISBN 9781472425850 (hbk)

ISBN 9781472425881 (pbk)

ISBN 9781315585574 (ebk)

Contents

<i>List of Figures, Tables and Boxes</i>	<i>vii</i>
<i>Notes on Contributors</i>	<i>ix</i>
<i>Acknowledgments</i>	<i>xi</i>
1 Introduction: The Institutions of the Urban Fabric <i>Dominique Lorrain</i>	1
2 Governing Shanghai: Modernising a Local State <i>Dominique Lorrain</i>	31
3 ‘Transforming Mumbai’ or the Challenges of Forging a Collective Actor <i>Marie-Hélène Zérah</i>	97
4 Governing Cape Town: The Exhaustion of a Negotiated Transition <i>Alain Dubresson and Sylvie Jaglin</i>	153
5 Santiago de Chile. Prototype of the Neo-Liberal City: Between a Strong State and Privatised Public Services. <i>Géraldine Pflieger</i>	217
6 Governing Under Constraints: Strategy and Inherited Realities <i>Dominique Lorrain, Alain Dubresson and Sylvie Jaglin</i>	269
<i>Index</i>	<i>297</i>

This page has been left blank intentionally

List of Figures, Tables and Boxes

List of Figures

1.1	Map of Shanghai	24
1.2	Maps of Cape Town, Mumbai and Santiago	25
3.1	Distribution of Mumbai's population (1961–2011) (in millions)	101
3.2	Institutional steering structure for urban public utility networks	105
3.3	Map situating Mumbai Metropolitan Region Development Authority Transport Projects	118
4.1	The Unicity construction	158
4.2	Cape Town urbanized area in 2008	172
4.3	MSDF nodes and corridors	176
4.4	Households socio-economic index in 2001	183
5.1	Regional territorial organisation	223
5.2	Average household income, by Greater Santiago municipality, 2001	224
5.3	Number of housing units built or subsidised by the state between 1970 and 1989, under the military dictatorship	231
5.4	Overview of the first phase of institutionalization, 1965–1981	232
5.5	Overview of the second phase of institutionalization, 1979–1995	241
5.6	Overview of the Third Phase of Institutionalization, 1994–2005	251
5.7	Overview of the current phase of institutionalization, since 2005	263

List of Tables

1.1	Four large cities: a few facts and figures	23
3.1	Parties dominating the Municipality and the State in 1997–2013	108
3.2	Main infrastructure projects	139
4.1	Municipal organization chart (2013)	164
4.2	Social stratification of Cape Town's residential spaces	185

5.1	Changes in population, density and employment in Santiago Metropolitan Region	221
5.2	Growth and trends in Santiago Metropolitan Region's GDP as a share of national GDP	222
5.3	Distribution by party of mayoral offices, before and after the coup d'état	229
5.4	Classification of drinking water distributors in Greater Santiago in 1985	237
5.5	Highway concessions in Santiago de Chile	246
6.1	Growth coalition factors	274
6.2	Three institutional levels	282
6.3	Three factors of convergence	283

List of Boxes

1.1	Fifteen megacities with populations of over 10 million in emerging countries.	4
2.1	Demography and densities	35
2.2	Pudong's zones	38
2.3	Container traffic at the Port of Shanghai	39
2.4	Bridges and tunnels	40
2.5	New cars on the road and prices of registration plates	41
2.6	Changes in water and wastewater tariffs (yuan/m ³)	52
2.7	Investments in fixed assets (IFA) for Shanghai Municipality (1991–2007)	65
2.8	Ranking of investment in infrastructure over the period 1991–2007	66
2.9	Comparison of proportion of household income spent on water (2006–07)	72
2.10	Proportion of monthly household income spent on essential goods, by socio-occupational class	75

Notes on Contributors

Alain Dubresson is Professor of Geography at the University of Paris Ouest Nanterre La Défense. His work focuses on local economic development in Sub-Saharan Africa, particularly on the relationships between economic trends and urban patterns in Southern Africa.

Sylvy Jaglin is Professor of Geography and Urban Planning at the University Paris-Est Marne-la-Vallée (France) and a researcher at Latts (Laboratoire Techniques, Territoires et Sociétés). She holds a PhD in urban planning (1991). Her research addresses the social and spatial issues associated with the regulation of, and reforms in, urban utility industries in developing countries. Her recent work has been on urban water management in Sub-Saharan Africa (*Services d'eau en Afrique subsaharienne: la fragmentation urbaine en question*, CNRS Éditions, 2005) and on metropolitan governance in Cape Town (Dubresson A. and Jaglin S. eds, *Le Cap après l'apartheid: gouvernance métropolitaine et changement urbain*, Éditions Karthala/IRD, 2008). Her current research focuses on urban energy issues in Sub-Saharan Africa.

Dominique Lorrain is Director of Research at CNRS, (Latts, Ecole des Ponts ParisTech). He graduated from Sciences Po, has a Masters in Economics (Paris 1), a Masters in Urban Planning (Sciences Po), and a PhD in Urban Sociology (EHESS). He has worked on urban affairs since 1972. His work bears on the transformations of urban public action and more specifically on infrastructure policies. Some recent publications include: *Gestion de l'eau: conflits ou coopération? Entreprises et Histoire*, 50, April 2008. *Trous noirs du pouvoir Sociologie du travail*, 49(1), 2007, (with Pierre Lascoumes). *Urban Capitalisms: European Models in Competition. International Journal of Urban and Regional Research*, 29(2), 2005: 231–67. He teaches at Ecole des Ponts, Paris and its joint MBA with Tongji University (Shanghai). He is a member of the editorial board of three Journals as well as the scientific committee of the Institute for Delegated Management since its creation in 1997. From 2000 to 2005, Dominique Lorrain was an independent expert for the Public Private Infrastructure Advisory Facility (PPIAF-World Bank). Since 2007 he has been a member of the Suez Environment Foresight Advisory Council (FAC). He is the head of 'Chaire Ville' Ecole des Ponts ParisTech.

Géraldine Pflieger is Senior Lecturer in urban and environmental policies at the Institute for Environmental Sciences and at the Department of Political Science of the University of Geneva, since February 2010. She has been Visiting Scholar

at the University of California, Berkeley, in 2002, Senior Researcher at the Swiss Federal Institute of Technology of Lausanne from 2003 to 2008, and Assistant Professor in public policy and regulation at the University of Lausanne, from 2008 to 2009. She holds a PhD in Urban Planning from the Ecole Nationale des Ponts et Chaussées (Paris, 2003). As an urban and political scientist, she has undertaken research into the links between the management of network infrastructures, natural resources and the analysis of urban policies in various contexts (Chile, California, France and Switzerland). Since 2003, Géraldine Pflieger has developed her expertise on water, energy and urban utilities policies in Switzerland. Her current research projects cross the analysis of the regulation of network and natural resources and the transformation of metropolitan governance.

Marie-Hélène Zérah is a PhD holder in Urban Studies from the Paris Institute of Urban Studies. She is currently a Senior Researcher with the Institute of Research for Development (Paris) and is deputed to the Centre de Sciences Humaines of New Delhi. She previously worked with the Water and Sanitation Program of the World Bank and with Ondeo (Suez Group). She was also involved in projects and consultancy for a number of organisations, including the European Union. She has worked extensively in the area of water supply and sanitation in Indian cities as well as other urban services. Recently, her research interests concern the shifts in urban governance in India. She has published a book on the question of water access in Delhi and recently co-edited a book on the Right to the City in India.

Acknowledgments

This book is part of Chaire Ville's research program (<http://www.enpc.fr/chaire-ville>). It started as a small working group for the five authors to present their research on the cities they had been working on for several years. Other colleagues joined the 'club' and contributed to enrich the final result – Charlotte Halpern and Patrick Le Galès (CEE, SciencesPo), Frédéric Gilli (Chaire Ville) – and the editing work by SciencesPo Les Presses also improved the manuscript. Behind the scene are the infinite contacts and personal exchanges that each author has established in 'his' metropolis. Without this support, the interviews and open discussions, this book would have been impossible. Once published in French it received valuable comments from several colleagues: Christophe Defeuilley (EDF R&D), Juliette Galonnier (SciencesPo), Jean Philippe Leresche (Lausanne University), Pauline Prat (SciencesPo) and Eric Verdeil (CNRS, EVS, University of Lyon). It has also been discussed at several seminars: SciencesPo's 'Cities are back in Towns'; Lattis Ecole des Ponts; Fondation Braillard in Geneva; Agence Française de Développement's research seminar; and World Water Summit 2012 an event organised by Suez Environment and CGLU.

In terms of institutional support we acknowledge funding from our present partners in Chaire Ville – Agence Française de Développement, GDF SUEZ, Suez Environnement – and past partners, Caisse des Dépôts et Consignations, DATAR, Suez Environnement. Not only did they bring financial support, but also their interest in the substance of the research.

Karen George translated the introduction and the chapters on Shanghai, Cape Town and Santiago de Chile. Sharmila Sarkar and Vandana Kawlra were responsible for the translation of the chapter on Mumbai and the conclusion was translated by Amy Jacobs. Before delivery to the publisher, Jonathan Rutherford (Latt, Ecole des Ponts) performed a final English language quality check.

This page has been left blank intentionally

Chapter 1

Introduction:

The Institutions of the Urban Fabric

Dominique Lorrain

This book focuses on the government of megacities and large cities in emerging countries.¹ In 2008, the population of cities equalled the rural population for the first time in history (United Nations, 2008). This fact has been widely commented upon, but one partially hidden aspect merits particular attention, because it presents a major challenge: the formation of large cities with populations of more than 10 million. These megacities present challenges not only in terms of their numbers and the speed at which they are changing, but also because they need to develop the appropriate institutions. Like their pace of development, the fact that most of them are in emerging countries raises the stakes to a level never encountered before. How will the actors manage to develop appropriate institutions in these densely populated, built-up spaces that are constantly, rapidly changing? Will they be stable enough – and fair enough – to allow the organisation of mutually beneficial exchanges? The capacity to govern is meaningless unless it solves essential problems; will those who govern these large cities be able to bring progress for all, reduce poverty and protect the environment?

For better or worse, megacities – by virtue of their resources, their size and their impact – are at the leading edge of change in many countries. Reading the social science literature seems to tell us that this is for the worse. A very broad current in urban sociology has associated economic globalisation with the creation of a wider spectrum of jobs and with a challenge to traditional social ties, leading to more segregated societies (Castells 1989; Fainstein, Gordon and Harloe, 1992; Graham and Marvin 2001; Harvey, 1973; Marcuse and van Kampen, 2000). Many urban scientists and urban geographers continue to condemn gigantism. Lewis Mumford made the medieval town his ideal-type (Mumford, 1964); according to Paul Bairoch, half a million represents the upper population limit and, in the interests of preserving well-being, the size of a town should be no more than about 300,000 people (Bairoch, 1985). Given their size, these emerging megacities deviate totally from these ideals. So how can their existence and their continued development be explained? Are there internal regulation mechanisms in urban

1 Our subject, the government of large and very large cities, covers megacities above 10 million people (according to United Nations definitions) and large cities above 4 million: a total of 100 urban areas.

societies that these authors did not understand? Or are we seeing the prophecy of urban disaster described by Mike Davies and taken up by the cinema in *Blade Runner* come true? (Davis, 1997 and 1998; Soja, 2000).

The hypothesis that we develop here does not tackle these questions head-on; instead, we argue that the situation is not a scenario for disaster since large cities are being organised and *de facto* governed through their networked services. If these technical systems are to be built and managed, institutional issues must be tackled, consciously or otherwise, from the angles of their legal status, mode of organisation and mode of financing. Let us look at a megacity with its international airport, several railway stations, a public transport system (with metro lines, sometimes tramways and always buses), a system for producing and distributing electricity, another for drinking water and one for rainwater drainage; we can also add communications systems ranging from cell phones to high-speed cable networks. And so that this quick tour will be complete, we should also mention the major amenities that mark each era of the city's history. The pedestrian city was structured around symbolic buildings (citadel, palace, places of worship); the transition to megalopolis was expressed through the construction of the first urban highways and the development of department stores, big hotels, railway stations and high-rise buildings; the current stage of the very large cities – which I have also called the gig@city – has seen the advent of mega shopping centres and integrated leisure/conference centres. Large cities must provide this technical infrastructure, both in order to be machines of production and in order to be functionally habitable.

Here we argue that these artefacts (major amenities and all the networks that are in fact often considered 'natural') should be viewed as representing a gateway to the issue of governing large cities. First, they form the city's 'bone structure', since they manifestly help to organise its spaces in such a way as to prevent it turning into an indistinguishable urban stew. They act as hooks or pegs that provide structure, while also allowing activities to go on. Second, these technical systems correspond to operations that are out of the ordinary, in terms of the amounts of money invested, their technical challenges or their architecture – and because they have irreversible consequences for the structure of cities. In order to create them, urban governments must solve numerous institutional problems. They must define who is responsible for them, who is going to operate them using what methods, and how to guarantee financing. This list of choices can be refined, but the main point remains: in order to solve these major functional problems, city officials must make choices that impact on the question of urban government. We all have a tendency to think spontaneously about these issues of government in terms of elected assemblies and democracy. This book maintains – although with an open mind – that policy issues can be tackled by asking how one designs a service for everyone, who is to coordinate it, who is to manage it and how would it be paid for. These practical questions come under the heading of everyday politics, although the decisions that have to be made are out of the ordinary. In our spontaneous representations, they occupy a less elevated position on the league table of public

activities than do 'grand politics'. However, choices made at these levels have consequences for the everyday lives of millions of city dwellers.

In terms of the theoretical landscape, we are approaching the urban question and the government of cities via an institutional history of technical systems that employs a few key words: problems, actors, institutions (North, 1990; Hughes, 1983). We think that actors react above all to problems; among these problems, the provision of essential services and major infrastructure occupies a significant place. This 'way in' through problems and through the material city also enables us to confirm the hyperconstructed nature of the environment in which the actors are evolving, and this in turn is a way of recalling the often-forgotten material nature of phenomena. There is a city, produced over the long term and through a largely irreversible process. The way in which it is organised has a direct bearing on the actor, through various parameters: how smoothly it runs, ease of access to it, whether it adheres to principles of equality or not. The organisation of this material city comes about through political choices that are expressed in institutions. These choices may be made with varying degrees of transparency and with varying levels of awareness of the political consequences; but it remains the case that, when they are made for all major amenities and utilities and then pieced together, these choices shape a public space and, in their own way, play a part in the government of cities.

In other words, in order to develop physical infrastructure it is necessary to define institutional infrastructure. The approach that we are proposing starts from problems, affirms the material dimension of the city and takes the view that the latter forces the actors to develop appropriate institutions, dedicated to solving practical problems, and that these – over time – allow them to evolve and – over the long-term – lead to the creation of 'models of urban services' with division of tasks between the public sector and the market and with formal institutions (the rules of the game), second-level institutions (tools and instruments) and informal institutions (culture and collective mentalities).

The Newness of Megacities.

The formation of megacities with populations of between 15 and 20 million represents a historic transformation. This is manifested first and foremost through numbers. The biggest cities in antiquity, in Mesopotamia and in China, had populations of around 500,000 (Bairoch, 1985: 292; Mumford, 1964; Nicolet, 2000). Byzantium, Rome and Teotihuacan, each with a million inhabitants, were exceptional (Soja, 2000: 68). According to Jacques Le Goff, in the thirteenth century, when European cities were becoming stronger, only Florence and Venice had populations of over 100,000 – except for Paris, which, with double that number, topped the mediaeval hierarchy (2003: 139). It was not until several centuries had passed, bringing the Industrial Revolution and later the spread of the automobile, that these levels were surpassed. After the Second World War, only New York and

Tokyo recorded populations of 10 million (Beaujeu-Garnier et al., 1966). These kinds of figures were exceeded dramatically in just a few decades at the end of the twentieth century. There are now 19 megacities with populations over 10 million, and seven of these have populations of 15 million or more: Tokyo with 35.7; Mexico City, 19.0; New York-Newark, 19.0; São Paulo, 19.0; Mumbai, 18.8; Delhi, 15.9; Shanghai, 15.0 (UN-HABITAT, 2008: data for 2007). By 2050, world population could reach about 8½ billion, and two thirds of these people would be living in cities. Forecasters expect a rise in the urban population of around 2.5 billion over 40 years – which means accommodating the equivalent of a new population of France every year.

These megacities are developing primarily in emerging countries. The latest United Nations statistics on this are absolutely clear (see Box 1.1). Fifteen megacities with populations of over 10 million are currently recorded in these countries; and the phenomenon is going to become stronger, by 2025, 22 out of a total of 26 megacities in emerging countries will have crossed this threshold. The new members of the club will be: Kinshasa, Lagos,² Djakarta, Guangzhou, Lahore, Shenzhen and Chennai. These megacities are changing at a much faster rate than anything that the industrial countries have experienced. Mumbai is on course for a population increase of 7.6 million over the 18 years from 2007 to 2025, Karachi 7 million, Delhi 6.6 million and Shanghai 4.4 million, while their counterparts in the industrial countries are progressing modestly, with less than a million for Tokyo, 1.2 million for Los Angeles-Long Beach and 1.6 million for New York -Newark. What is more, even in their accelerated growth phase, these Western cities never experienced such increases; New York took 50 years (1880–1930) to increase its population by 5 million and Chicago, 30 years (1870–1900) to go from a population of 300,000 to 1.7 million.

Box 1.1 Fifteen megacities with populations of over 10 million in emerging countries.

Mexico City 19.0	São Paulo 19.0	Mumbai 18.8	Delhi 15.9
Shanghai 15.0	Kolkata 14.8	Buenos Aires 12.8	Dhaka 13.5
Karachi 12.2	Rio de Janeiro 11.9	Cairo 11.3	Beijing 11.1
Manila 11.1	Moscow 10.5	Istanbul 10.1	

Source UN-HABITAT, 2008

To this numerical challenge, we have to add the challenge of institutions. This is obvious, since if these countries had stable, incentivising institutions, certain technologies, a well-trained labour force and capital, they would already be fully

2 The fact that these two megacities are located in ‘poor’ countries will present them with even greater challenges.

developed. Therefore, for each one to remain a viable whole – or, at the very least, viable enough to continue to attract people and money – the leaders of these megacities are going to have to fast-track two kinds of response: acting quickly to meet the challenge of urbanisation and developing appropriate institutional frameworks that will enable them to achieve a lasting policy regime. Collision between speed of change and inadequacy of institutions may lead to disaster. Some cities may function in a primitive accumulation regime in which one group of actors appropriates the city's rent-seeking opportunities for itself, controls its sources of profit and maintains a segregated form of social organisation. In order to avoid this worst-case sequence of events, the leaders of these large cities are going to have to design institutions that define the rules of the game: property rights, general planning regulations, fiscal rules, mechanisms for financing fixed assets. Institutions cannot take everything upon themselves, of course, but they are a precondition for any collective action (North, 1990). It is also through institutions that strategic leaders can act in order to guide social change; these rules allow individual energies to operate cumulatively.

These megacities form *worlds in themselves*. Perhaps this is putting it a bit strongly, since – like all the actors – they still have linkages to the state and are embedded in inherited institutions and social relations (Dupuy and Halpern, 2009); nevertheless, their size and the diversity of their activities give them a capacity to bring together things that were separate. We have not really got the measure of them yet, since our imaginations are still bound up with a hierarchy that runs from the small town to the capital city. This is a reading in terms of continuities; there is no difference between the nature of a medium-sized town and that of a large city – there has simply been an increase in numbers. With megacities, this historical interlocking no longer holds good: there has been a structural change. In order to clarify these ideas, let us first consider Paris, which has a population of two million in the 'city proper', lying within its inner ring road. Including both the inner and the outer suburbs, its metropolitan population rises to 10 million. At first glance, the Municipality of Shanghai has double this number of inhabitants; starting from Pudong in the east and running across to the western administrative boundaries, its built-up space stretches for almost 90 kilometres. However, large agricultural spaces are not to be found beyond that (as they are in the Ile de France region): the urban region continues towards Nanjing; the urbanised expanse stretches for almost 200 km and there are about 70 million urban dwellers. Even though the numbers are different, the phenomenon remains the same when we look at Mumbai and its linear suburbs, at Mexico City – which extends far beyond the Federal District alone – and at the urban regions of São Paulo and of Guangzhou³.

3 The authorities in Guangzhou, Hong Kong and Macau are working on highway and rail infrastructure schemes that would link these three focal points in a vast urban triangle and, thereby, the cities in between (Shenzhen, Zhuhai, Foshan) to form an urban complex with a population of about 27 million.

Megacities and large cities have specific properties that relate just as much to their economic base and the intensity with which they function as to the invention of new lifestyles. From an economic point of view, some of these properties are conflicting ones. On the one hand, they concentrate into one space functions that in the past were divided between several towns or cities which gives them a certain autonomy. In contrast, when they trade in goods or services, they function more through linkages with other hyperurban spaces than with their own 'hinterland'; in a global economy, they function as hubs and their technical networks allow them to organise exchanges.

In many respects, these large cities are the leading edge of a society. They are more subject than other cities to the forces of globalisation and they raise the stakes, increasing the pace of the changes (Marcuse and van Kempen, 2000). By comparison with the calm, settled life of so many well-ordered, sophisticated, medium-sized cities in old Europe, these megacities are melting pots for opposing forces. They bring intensity to everything. They attract migrants who are ready to put up with a great deal in order to advance in life. In these cities, fortunes are made in industrial production, in trading on the markets or in the production cycle of the built environment. They concentrate loci of economic and political power. They act as gigantic accelerators of social forces. They are places of innovation where new urban technologies are implemented and where soaring buildings mark the spirit of the times. The scenario is almost the same everywhere, with buildings that testify to their investors' ambitions: high-rise office buildings rising ever higher, giant multi-functional shopping centres, luxury hotels and business centres; and to these must be added public buildings (a city hall) and public amenities (a museum, a stadium).

All these factors combine to make megacities places where lifestyle change is accelerated. The city has always represented freedom. In the Middle Ages, it enabled people to break the bonds of feudalism – indeed, we talk about 'free cities' (Le Goff, 2003: 137). By comparison with rural societies, they offered freedom: going to the city meant that people could shrug off the influence of previous generations and try out a new way of life (Handling, 1979). In every country, the large city has always been the port of entry for rural migrants in search of a better, modern way of life. '*Stadt Luft macht frei*'. It is the same story whether we are talking about the migrants who have settled in Paris since the eighteenth century (Le Bras, 1986) or the English and Irish peasants pushed out by enclosures, who flocked to the ports and migrated to the colonies (Rediker and Linebaugh, 2001). Nowadays, it is the peasants of Cappadocia who converge on Istanbul and those from the plains of Uttar Pradesh and Bihar who descend on Mumbai. Shanghai draws in a flow of peasants from the central provinces of Hubei and Henan, or from distant Sichuan; they come to sell their labour to construction companies. They earn a bit of money – certainly more than they would if they stayed in their villages – and they discover a new world. As they sit smoking during their breaks, they observe the stream of passers-by and express their astonishment at this fresh new world. This too is what the large city represents.

In the *longue durée* of migrations to cities, the present moment represents a discontinuity. As Michel Serres evokes,

in the early 20th century, 60% to 65% of people in the West were peasants; in the year 2000, there are just 1.8% left. This abrupt fall ... marks the end of a period that started ... with the Neolithic. ... Therefore it is a significant upheaval, the consequences of which are only now beginning to be felt. The rural animal is not the same as the urban animal – not the same ‘being in the world’.⁴

Already in the early twentieth century, Georg Simmel (1900, 1903) and Werner Sombart (1902) in Germany, and subsequently the Chicago School, were investigating the impacts of the large city on lifestyles (Bruhns, 2001: 68; Joseph, 1990; Gottdiener and Budd, 2009: 1–10). Perhaps we are now seeing the emergence of *Homo urbanus*. The formation of megacities is transforming an age-old cycle from several points of view, and the strength of the impact is greater because the transition from a traditional rural society to the very large city is taking place within a compressed timeframe. The first point is that the recognition of the individual has transformed various kinds of collective solidarity; this phenomenon relates not only to the West and is not explained simply by the immediate political circumstances of the late twentieth century and the extension of market principles. Next, sociability which for a long time was organised on a face-to-face basis (proximity) has been enriched by connectivity. Gigantism, increased travel and the advent of new communications techniques are transforming relations to the other and introducing the principle that in order to communicate, you have to be connected to a network; technology is supplementing the old face-to-face ways. Finally, ties to the natural world are loosening. Someone who lived in a small or medium-sized city was able to maintain a close bond with nature. But in megacities, which have to be seen as gigantic constructs, the natural elements are disappearing or have in fact been created by human beings. This helps to make technical networks a strategic element in preserving various kinds of balance, as is highlighted by disaster situations (Harris and Keil, 2008; Zimmerman, 2001) or challenges to law and order (Gandy, 2005 and 2006; Graham, 2010).

A New Kind of Object, to be Viewed with an Open Mind ...

All this invites us to move away from our usual frames of interpretation and to approach megacities as new objects waiting to be discovered. In many respects, the large cities in emerging countries represent a new object that shakes up some of our knowledge about the city. The history of urban ideas and of the policies pursued in industrial countries – as it is described by Peter Hall (2002), for example – illustrates this property perfectly. In the nineteenth century, there was

4 Michel Serres, interview, *Le Monde* 22 December 2009, p. 5.

general thinking on the urban, inspired by Greco-Roman antiquity, but institutions largely remained to be built. Nor was there a real 'city industry', with developers and major network operators. When the urbanization phenomenon began, the world was feeling its way forwards, experimenting. Politicians were reacting to problems or to crises, while entrepreneurs were trying to construct a market. In the industrial countries, urban public policy formed part of a long sequence: construction in stages led to the contemporary landscape. Emerging countries do not have to make the whole of this journey. They can take the world as it already is, with megacities, technologies and feedback from other countries' experiments; firms are ready to engage with them and international development institutions to advise them. The city is no longer an unknown territory that can be only reached by following a given sequence. They can tackle it head-on by setting out all the options on the same level. The result is an eclecticism of choices and architectures.

The problems to be settled are not those of industrial countries, which have a long history and a legacy of fixed assets and institutions to rely on and where growth follows a gentle curve. In this 'first world', fashionable writers can concern themselves with the role of a creative class, since everything else is already available there; the result is that cities are advised to get involved in 'branding' (Florida, 2002). In the second, emerging world, accumulation remains primitive, as it was at the beginning of Western capitalism (Goody, 1996: 55–6). There are pressing problems, and although some social groups are getting richer by leaps and bounds, the hopes of many remain focused on simply acquiring the essentials: access to decent housing and to an unrestricted supply of electricity, gas and water at reasonable prices. What is just ordinary for the first world represents hope for many people in the second. The forces involved are not of the same intensity. So we should not be surprised to observe that the solutions found in these countries take liberties with our model.

Our view of forms of government is based on the idea of *political democracy*, with an elected assembly that runs a local administration in charge of city affairs. This representation first became weaker as more or less independent public or private institutions contributing to urban public policy increasingly came onto the scene. The terms used to describe these at first were 'quangos' (in the UK) or '*secteur paramunicipal*' (the French 'paramunicipal sector'), before the academic community settled on the general expression 'governance'.⁵ Through their size, megacities challenge these models of government or governance, which are inspired to a greater or lesser degree by Greek democracy: assemblies made up of small numbers of people who debate in a public space, a model that has led to our delegate assemblies. But do these really work in identical fashion? It is far from the case that the majority of emerging megacities have accountable, elected governments. However, since not all of them have sunk into chaos, it must be the

5 For France, Le Galès (1995), Jouve and Lefèvre (2002), Lorrain (1989); in the United States, Stone (1989 and 1993); in the UK, Dunleavy (1980), and see Sellers' overview (2002).

case that these metropolitan areas are *de facto* governed. What kind of government mechanisms do not arise from a perfectly democratic regime, but are nevertheless still accepted by the population? And on the other hand, are large cities that have prioritised reform of their political institutions actually any better governed?

Our *view of the shape of the city* corresponds to a historic centre surrounded by its suburbs, and it is this whole that is governed. The spatial development of megacities is often uneven, combining a primary centre, newly structured spaces ('edge cities') (Garreau, 1991) and fringe areas with few or no amenities. In terms of both surface area and speed of change, the megacity is constantly pushing beyond its administrative territory. The dominant model is polycentric in form, and no longer hierarchical; the old division between city and countryside, on which the geography of the West was based, is being blurred by a new kind of interdependence. Three questions arise in emerging countries much more strongly than in industrial countries. First, what balance will emerge between the administered territories and their urban fringes? Are the latter just spaces waiting to be integrated or do they represent 'other' towns and cities that are going to be permanently self-regulated (Agier, 2002)? In that case, what are the forces at work? Are voluntary-sector NGOs going to take over failing institutions, or will it be major private-sector operators who function as quasi-organisations, or will bits of the city fall into the clutches of gangs and cartels? Second, steering these vast constructs always involves multiple administrative territories, and these may include the state level, the provincial level and the regional level. In these large cities, complexity is part and parcel of public policy; the political sciences talk about 'multilevel governance' (Sellers, 2002). Can these multilevel urban institutions be effective? Third, size favours spatial specialisation; planning also strengthens this tendency, in the name of efficiency. All this carries a risk of segregation. This has been urban sociology's most dominant theme⁶. But are these megacities moving solely towards communities behind barricades? Even if there are separation factors at work, can we also identify opposing agglomerative forces which are substantively laying the foundations for belonging to the whole of the large city?

Differences are also to be found in choices made in relation to *utilities*. The option used in industrial countries since the late nineteenth century has been that of the single technical network, managed by an integrated monopoly company and operating a single tariff (Stoffaës, 1995; Curien, 2000; Coutard and Rutherford, 2009). This solution enabled the urbanised space to be provided with amenities, while reducing unit costs by sharing the fixed costs across the largest number of people. In megacities, this approach is far from universal. These cities develop very quickly; land occupation may precede the provision of technical networks. Alongside the city that is equipped with systems and amenities, we also have to consider the urban fringes, where institutional and infrastructure density is looser. This shows us another dimension of the very large city, with entire sections that are situated outside official channels and where residents cobble together their

6 See references at the beginning of this text.

own solutions as best they can (Kennedy and Ramachandraiah, 2006; Jaglin and Bousquet, 2008; Blanc and Botton, 2010).

So emerging megacities bring their own unusual responses to urban challenges, and this is true for several underlying factors: political regime, spatial organisation and utilities model. They invite a specific study approach – an approach that thinks of them as worlds in themselves, to be investigated in several dimensions.

The Urban Dimension of Economic Accumulation

The very large city can also highlight properties that are less often taken into account in studies of economic accumulation phenomena, and this relates not only to emerging countries. It makes the place of cities in the production of value more perceptible. If we start from the Marxist distinction between production and reproduction (Boccaro, 1974; Castells, 1972; Castells and Godard, 1974; Palloix, 1978) or from the two circuits of capital (Lefebvre, 1970: 206 and 212; Harvey, 1978), the factory represents the locus of production of surplus value, while consumption and reproduction of the labour force corresponds to the built environment; the whole political problem is knowing how to switch the surplus from the first circuit to the second. This view has been totally changed by the globalisation of production systems, their reorganisation according to a principle of flexible specialisation (Piore and Sabel, 1984; Storper, 1997) and the new importance of technical networks. The city now plays a direct part in the production of value. With the emergence of a ‘city industry’, it can be thought of as an economy in itself (Brenner and Theodore, 2002; Brenner, 2004; Lorrain, 2002 and 2008a).

For a long time, the primary explanation was through the production economy and, first and foremost, economists stressed markets in their orthodox definition (atomised, competitive). It took many years for the local dimension of trade and of production systems to be taken into account. Urban geographers and industrial economists helped to demonstrate the importance of spatialised production relations.⁷ In both these schools, there was to be an insistence on cooperation, on embeddedness in social relations⁸ and on the importance of class relations. So we were moving away both from the microeconomics that takes the factory as the starting-point and from the macroeconomics of supply-demand adjustment models. However, in this view, what happens in the production process remains primary to understanding the economic order.⁹ As Manuel Castells sums it up, the innovations that are going on there are transforming the space of flows and they

7 See in particular Bagnasco, Maurice, Piore and Sabel, Scott, Storper, Trigilia, Veltz. One writer, Aydalot, coined and developed the concept of ‘innovative milieu’.

8 See also, for a less spatialised approach, Polanyi (1944).

9 See the vast literature on the topic of the new international division of labour (NIDL), published since the mid-1980s by the *International Journal of Urban and Regional Research*.

bring us an understanding of the space of places (Castells in Pflieger 2006, p. 165). Fundamentally, this reading sets up a non-equivalence in which the production part (production relations, factory, technology) carries greater weight than the reproduction, collective consumption and city side.

Megacities enable us to reconsider this reading, because they highlight the specifically urban properties of production. They give visibility to the respective significance of the production economy and of the services that make it possible. Megacities are subject to three sets of linkages in relation to the functioning of the economy and to the production of value:

- With the globalisation of trade, the functions necessary for exchange take on greater importance. Large technical networks contribute directly to the movement of goods along increasingly extended value chains. In a globalised economy, the large city functions as a 'switching system'. In order to guarantee that it can function as a hub in this way, it must develop fixed assets.
- These assets can have two faces: they are directly linked to production, but are also fixed assets that serve the domestic economy (utilities, buildings, major amenities). They represent markets for private-sector firms and their performance impacts on other firms since they have an influence on the cost of goods and services as well as on the free flow of trade. In many industrial countries the economy of the urban fabric represents on average between 7 and 10 per cent of the active population. Since the 1980s, with liberalisation policies, these activities have been increasingly financed and managed by large private-sector firms (Lorrain, 2002).
- The service economy (finance, leisure/conferences, education) is largely tied up with the large city and with the functional resources that it can bring. Their concentration within one dense space generates economies of agglomeration. They are at the heart of the development of cities and of innovation functions. In the future, with increasing attention paid to sustainable development (environmental protection and conservation of finite resources), there will certainly be a growing role for technical networks since they deal with the environment.

In explaining these properties, a graphic form of expression converges with the historical explanation. In its descriptive form, a flow is represented by an arc that joins two points; a network (a major technical system) corresponds to the arc, while a single place (a gas terminal, for example) or an urban space can correspond to a point (Dupuy, 1991; Offner and Pumain, 1996). Because of their cost, large technical systems are limited in number and concentrated in a few places: network nodes. Nodes that draw together several technical networks become hubs. These hubs, or large cities, agglomerate large populations and develop other networks in order to provide them with services: utilities networks. The economy therefore becomes more infrastructure-based. The space of technical networks directs the movement

of flows and so represents an explanatory factor in the value chains of goods and services. This is the outcome of a long process that was ignored for a long time.

In a study of the economic development of the United States over the period 1790–1860, Douglass North maintained that development starts through the success of an export sector. In order to run smoothly, this requires ‘transport, warehousing, port facilities and other types of social overhead investment’ infrastructures (North, 1966: 5), which go on to create externalities favourable to the development of other activities. So a development cycle gets underway. This export sector goes on to generate a surplus; if this is distributed unequally and leaves the territory in order to be reinvested elsewhere, its impacts are weak. Conversely, when it is distributed equitably, household consumption creates a demand on the domestic market, from which industry and services benefit; the economic base becomes bigger and more diverse. The nature of the institutions also plays a part. The export base and the productivity changes are ‘a nearly automatic response’ because they are an intrinsic part of ‘an acquisitive society under competitive market conditions The structure of a competitive market provided important rewards for successful innovation in a society whose value system prized such activity’ (op. cit.: 8). Finally, there is a very important general factor relating to the dimensions of markets. Greater size leads them towards specialisation and division of labour, both of which increase efficiency; the economic actors move from an integrated form of organisation to a disintegrated form.

At the start of the Industrial Revolution, most of the building-blocks that would later become the basis of the big hubs were already in place together in rural America. As a general rule, the principle of efficiency and its corollaries of specialisation and trade, which North discusses, require the infrastructures (port, road – and later – highway, railway, airport, telephone and internet) that all form the basis of the large modern city (World Bank Report 1994: 3). In turn, the formation of a domestic economy leads to demand for other urban networks and for the construction of a built environment.

Early twenty-first-century large cities now represent a sizeable accumulation of investments in fixed assets. No society could possibly abandon these places and rebuild them elsewhere – the cost would be prohibitive. The cities built by the Romans in order to conquer Germany, like Genghis Khan’s capital cities and his nomadic towns (Inoue, 1990), disappeared because they were not very dense in accumulated capital; their network level was low. The transition from pedestrian city (*polis*) to megalopolis and then to very big, very network-dense metropolis (*gig@city*) has set the large city once and for all on a path along which there is no going back (Tarr and Konvitz, 1981; Lorrain, 2001 and 2008a). So megacities and large cities are here to stay, established in their territories, and they are certainly going to continue to grow. Equipped with infrastructure, human resources and institutions, as ‘hyperdense bodies’ they capture both capital and people. They act as giant magnets.

This property raises several questions. Firstly, are they politically acceptable for those who live in them? Doesn’t their gigantic size damage the fragile bond

between governors and governed? Secondly, is it always to society's best advantage that they are so attractive? The megacity captures many activities because it has the capital and the political backing – but is this optimal? Wouldn't these activities be better located elsewhere – in other regions or in smaller cities? Thirdly, are they sustainable? This question can be stated in a number of ways, taking land consumption (areas covered), energy consumption or volumes of pollutants discharged (greenhouse gases, untreated wastewater, waste) as its starting-point.

This material reading of the large city establishes that in some cases actors invest in activities to develop the built environment; and here we find growth coalitions (Logan and Molotch, 1987). Some are driven by public-sector actors who are both strategists and developers, as in Singapore (Haila, 2002), Hong Kong (Castells, 1985) and a large number of Chinese cities (Logan 2002). In other cities where the local authorities are less involved, the driving force is provided by large private-sector actors, as in Latin America or India. In addition to these sophisticated coalitions, we also find primitive accumulation regimes; the city represents a means of laundering and protecting surpluses that arise from war, expropriation or various kinds of illegal or semi-lawful trafficking. This reminds us that regulated growth regimes have sometimes found their origins in a wild untrammelled, primitive form of accumulation.

In essence, our argument involves bringing together results from several separate bodies of research. We have the literature of the 'new economic geography' which puts forward the idea of globalisation of exchanges and at the same time their embeddedness in spatialised factors; we intend to draw on their conclusions while also taking into account the infrastructures that enable these global movements and these local services. This approach is backed up by literature from the Science, Technology and Society current which specifically tackles technical networks through their morphological, social and economic properties¹⁰ (Dupuy and Offner, 2005; Coutard et al., 2004; Summerton, 1994). Finally, our argument is completed by consideration of the vast corpus of economics literature on infrastructure liberalisation policies. This establishes that types of financing and management previously guaranteed by the public authorities (and thought of under the headings of public services or utilities) are now provided by private-sector firms. Therefore, the large city viewed as a locus of fixed-assets accumulation no longer represents just a place determined by direct production as it was considered by theory. It must also be viewed as another place of accumulation, producing the value that forms an integral part of economic performance – the city as a meta-means of production. The urban fabric has necessarily led to the formation of a 'city industry'.

10 See the journal *Flux* or the *Journal of Urban Technologies* for this line of research.

A Way in Through Institutions

Clearly, the large city in emerging countries questions several elements of our established knowledge: accumulation regime and speed of development, forms of government, social relations, the relationship between city and countryside. It is an enormous and enormously rich object in many different regards. We have chosen to enter this city by starting from the issue of institutions of government and steering. There are several reasons for this. Like the neo-institutional economists, we think that the issue of institutions is primary in the *organisation* of a society; they are the rules of the game that allow the actors to cooperate (North, 1990; Vietor, 2007). Moreover, these institutions represent a raw material on which proactive actors can act; they are not imposed by the laws of nature but are the product of human action. Finally, when we consider this question about institutions in relation to urban affairs, we get an interesting result – one that underlines the importance of second-level institutions, alongside the classic distinction between formal and informal institutions (Lorrain, 2008b). Formal institutions lay down property rights, define general rules and provide incentives to the actors, but they do not explain everything. In order to act, the actor draws on a stock of informal institutions (culture, values, behavioural norms) and also relies on the more casual, familiar institutions that we call ‘second-level institutions’ (instruments). The idea is that between the two general categories of formal and informal, each policy sphere has produced instruments that guide the actor in the detail (Bezes et al., 2005; Lascoumes and Le Galès, 2004). To put this another way, there is a ‘lower order of institutions’ (Cattaneo cited by Ingold 2008: 31) that lies between legally defined property rights and loose custom.

The study of cities and in particular of large cities in emerging countries enables us to highlight this genealogy in the development of institutions. First come problems that cannot be avoided. Spatial development presupposes investment in major infrastructure and city dwellers need basic services; rainwater drainage and transport issues must be solved, otherwise disasters can ensue. These ever-present problems can be tackled first of all from a technical angle but it is not long before institutional choices must be made. Therefore, faced with problems, actors take decisions based on technical constraints and then supplement them with institutional choices. These are not major choices, like those that are made within the articles of a constitution; they are second-level choices. However, in this way, institutions for steering technical systems are invented and they have some of the attributes of political institutions. So there are several ways of building institutions. The political route and the formal institutions have been the most studied. In large cities, it is worth focusing attention on the more low-profile route of second-level institutions with their starting-point in urban networks. It is by starting from this institutional approach and reconsidering it through the prism of technical issues and second-level institutions that we intend to tackle the issue of governing megacities.

Generally speaking, the approach that we are proposing in this book consists of tackling the urban question through its 'hard' or permanent nature, through its material basis, since we believe that, in the end, choices made at this level help to structure the everyday existence of millions of urban dwellers. This material city can be thought of both as the framework that structures the space of movements and possible movements and as the medium for building numerous institutions. The fact that these choices may be forgotten, become naturalised and disappear over the long term cannot be seen as proof of their secondary nature. By inserting technology and the network into our reading of the city – in brief, by 'ballasting' our approach to the urban question – we also want to shift several of our habitual keys to interpretation.

By comparison with the debate on *the postmodern city* embodied by Los Angeles (Soja, 2000; Gottdiener and Budd, 2005: 121), our reading of urban history through material changes – the city of nomads, the polis, the megalopolis, the gig@city – suggests that there is no end of history, no impassable horizon of which we are to be the guardians. There are simply cities that are changed by human will, according to the available techniques and the customs of the day. This will continue and the emerging cities will probably surprise us.

As far as the urban economy is concerned, before advancing the idea that *the global city* is a site of innovation (Sassen, 1991), it is not irrelevant to point out that the actors will be all the more innovative if they are working in well-equipped, well-governed cities. This means re-establishing the importance of 'back-office jobs' and support functions; of course they are less glamorous, but they represent the first stage on the road to progress that affects everyone.¹¹ It is a way of reminding ourselves that the 'genius' of the creatives, of the financial aces and the high-flying designers, could not be expressed without the work of other, smaller hands (to use Pierre Sansot's turn of phrase, *les gens de 'peu'*). They drive the metro trains, guard and maintain the power stations, collect the waste, manage the drinking-water production plants and work in the hospitals. Large cities form a whole, whose different parts remain indissociable. If we focus too much on global cities, making London, New York and Tokyo our models, we shall end up producing a deformed picture of the world.¹²

The question of *institutions* is central to the development of emerging countries, which suffer a combination of pressure from problems and incomplete development of their legal and regulatory frameworks. Our argument is that these arrangements do not arise *ex nihilo*, even if some heads of international development organisations take the view that they can be exported (Bafail, 2006; Boyer, 2001; Fukuyama, 2006). Our hypothesis is that the actors build the institutions above all in order to provide solutions to practical problems. They experiment with trial-and-error processes; they seek compromises between the rational solution and

11 See, for example, Michael Harloe's observations on London and the differences between the Boroughs and the City (2003).

12 See Hammett's 1994 critique, in Gottdiener and Budd (2005: 41).

existing interests. Therefore, in order to retrace their path, we too should start from the problems. This reading diverges from the dominant bodies of literature on more than one account. First, it reintroduces technical phenomena, often forgotten by the social sciences. Cities offer us a powerful invitation to integrate this component, since issues linked to the built environment occupy a central place in any city. Second, this reading introduces necessity into action, in a context where many people see only a proactive, strategic actor. Our approach is to move away not just from the standard economics fiction of the mathematical exchange of pure, perfect markets, but also from the strategic-actor reading and even from the city-as-collective-actor reading shared by organisational sociologists and political scientists (Friedberg, 1993; Le Galès, 2002: 37 and 323 et seq.). In both cases, the actor seems to move in a flat world where the constraints on him are so weak that he can map out his path with ease. Yet, when it comes to the built environment or to institutions and when the existing laws, norms and rules that organise any action are taken into account, cities are above all inherited constructs. In this reading, action becomes less flamboyant (Lorrain, 2004): the actor must conduct himself more modestly – and if he has a strategy, he must come to terms with this legacy city and integrate the variable of the *longue durée*.

Four Research Sites, One Method

In order to deal with these questions, my first preference was for a small number of extended essays, rather than quantitative surveys; we already have UN-HABITAT research and World Bank databases to provide us with a quantitative framework. It was also essential to stick to a limited number of case studies, since these very large cities are obviously complex objects; we needed to be able to describe and to demonstrate. Therefore I contacted several colleagues who work on cities in emerging countries. We shared several of the hypotheses put forward – sufficiently, at least, to adjust to one other quickly and with ease.

Approaching our topic through individual chapters does carry the risk of idiosyncrasy; nothing lends itself to a cumulative approach, and it is not possible to produce results of general significance. The solution that we have adopted is an intermediate one, somewhere between complete freedom for each writer on her or his own terrain and a highly structured framework for analysis. My preference was to offer a series of questions and a flexible analytical framework. This choice reflected a desire not to box things in and so risk finding that we had set up *a priori* conceptions; instead, I wanted to let each place speak for itself. Each of these cities exists on a site that positions it in its neighbouring territory and in major global flows; each city has its own – sometimes tragic – history, economic base and social groups. All this gives the city an identity, sets an agenda and allows us to draw out a common theme that acts as a starting-point for linkages between a large number of issues. The account given in these four chapters is an illustration of this property of the city. Any attempt at literal comparison would flatten out this reality. The use

of a few comparative indicators is only meaningful once the overall organisation of each city, on which its singularity is based, is understood.

So we worked in a threefold register: i) sharing common questions and hypotheses that have their origins in a fairly long research practice, ii) tackling each city in detail and organising each chapter in a particular layout, iii) finally, a comparison.

With a population of around 23 million, *Shanghai*, China's economic capital, is emblematic of the emerging megacities. What holds the attention first and foremost are issues relating to the speed of change and the leaders' capacity to elaborate a new institutional architecture; enacting policy through infrastructure plays a primary foreground role in this city. When President Deng Xiaoping embarked on the economic modernisation of China in 1978, the urbanised part of Shanghai was no bigger than 300 km², the city was dominated by industry and had lost its international role, Pudong New Area did not exist and the other districts (some 5,500 km²) were still rural. As in the rest of China, urban government was a matter for direct administration. There was a pyramid system of interlocking commissions and bureaux – all part of the public sector. Their resources came from taxes and public subsidies, tariffs played little part in financing public services and overall coordination depended on central planning.

From the mid-1980s, with the support of central government, the Municipality of Shanghai instigated a modernisation plan. This of course related to economic infrastructures (industrial zones, a financial city development, technology zones) but it was also backed up by a very ambitious programme of investment in urban infrastructure – a programme for spatial change. According to Dominique Lorrain's description, modernisation of primary infrastructures – the metro, sanitation, electricity – was to play a very significant role in this process of change. Faced with major challenges in terms of finding technical solutions, financing and project control, local officials decided to undertake experiments that would lead them towards a different management model. The old bureaux were converted, in small stages, into shareholder companies; some of the instruments of a market economy were introduced. Partnerships were formed with the World Bank, its consultants and foreign firms. These exchanges, modest to begin with, acted as an incubator. Shanghai's elites are learning; they test the options and try out partnerships; they travel all over the world and compare different institutional choices ranging from deregulated markets to more contract-based formulas. And in the end they have forged their own doctrine. In the period roughly from 1999 to 2003, the solutions found in these first experiments were generally extended to most infrastructures – highways, bridges and tunnels, the port, the drinking-water system, waste treatment and the organisation of a chemical industrial park. The result was that, in 15 years or thereabouts, this city was able to move from a direct administration regime that was fairly broadly autarkic to a socialist market economy – an economy that opened up to the world. This translated into a separation between directive functions and management functions, into the adoption of shareholder company status for the bureaux and into a proliferation of

partnerships with foreign firms. At the end of this process, municipal government has emerged with a very different face.

Lorrain argues that this institutional history represents the invisible, essential side of economic success. Shanghai has been materially transformed because its elites have built a new institutional framework and new institutions that have borrowed from both Chinese tradition and Western market economics. It is thanks to these quiet reforms that the city has been able to carry through its enormous material transformation successfully. A large number of technical networks that structure the space are less than 20 years old. The city has provided amenities, its offer to residents has seen marked progress and Shanghai has broadly escaped the ills suffered by a good number of emerging cities. This success is explained partly by its strategic position near the mouth of the Yangzi and partly by the support of central government, but also by engagement on the part of its elites. This is a metropolis governed by a 'public-sector growth coalition', where political leaders and administration officials draw in and work alongside major private-sector companies. This limited decision-making group has accumulated a large part of the city's political and economic resources and this enables it to lead major projects while avoiding the usual obstacles (detailed public enquiries, opposition through the courts, criticisms in the press, etc.) and the costs of coordinating these. This case study is certainly intended to feed into debates on social change and, conversely, on path dependency theory. Shanghai's elites have been able to get off their existing track and drive a new way forward. But this accumulation regime has its own weaknesses. How long can the megacity go on developing once the environmental impacts and the growing inequalities of income and wealth are taken into account? In the present schema, 'the city is paying for the city': it is the increase in land values that allows state-owned development companies to fund the new infrastructures that, in their turn, feed growth. What are the forces that are going to moderate this coalition's ambitions and enable it to make the transition into a more sustainable regime?

Mumbai is a megacity with a population of 12 million (above 20 million in the whole urban region) – and one which combines extremes. As Marie-Hélène Zerah emphasises from the outset, it is India's economic capital, cosmopolitan and opulent, yet at the same time it is a poor city with a large informal economy. It appears to be a modern city, open to the world, attracting migrants from Maharashtra and other parts of India; its elites dream of making it a world city, but it is also a city organised on the basis of caste, unequal and underequipped. It functions on a twofold economic base, of which one element is part of the globalised economy and the other governed by the informal economy – and the first needs the second in order to succeed. These two elements also make Mumbai a melting-pot, bringing together heterogeneous social micro groups; at the local level, it is a ferment of cultures. Everything is jostling together and this creates a stir – occasionally even a riot. Mumbai is energetic and violent. Now it is suffering from the defects of its infrastructure and is seeing competition from Chennai, Bangalore and Hyderabad to the south and Delhi to the north. The situation is problematic, and not just for

the poor: there are difficult transport conditions, water and power cuts, an endemic shortage of social housing. One international consultancy has advocated that the city should undertake a massive programme of investment in infrastructure. This policy is seen as a lever for economic growth and as a way of improving living conditions. The ambition is to haul the city up into the ranks of global megacities by reproducing the elements that have created Shanghai's success; but there is a risk that this strategy will come up against several stumbling-blocks: i) an unstable political system, ii) a growth coalition without any utilities and large construction firms, iii) major social inequalities expressed in the form of endemic poverty.

This megacity is difficult to govern and Zerah's description of the institutions gives us the first reason why. Responsibilities are divided between a powerful State institution (Maharashtra), with authority over a lot of strategic issues, and the Municipal Corporation of Greater Mumbai (led by a Municipal Commissioner¹³ and a Municipal Council) which appoints the Mayor. In this architecture, the Mayor has very few resources when it comes to political legitimacy, budgets, technical expertise or knowledge. Where there are opposed interests between institutions at different levels, he is not in a position to impose his own choices. To this factor must be added the dynamic of the political arenas, with the extreme fragmentation of a caste society and of migrant groups, strengthened by the British legacy of political democracy – the same situation as is found in Cape Town. The mixture of a political system that guarantees individual rights and a socially fragmented society leads to an unstable system, both in the interplay of political parties and in the conduct of public policy. Unregulated confrontations between interests lead to extreme volatility in public policy; and this reflects Lester Thurow's analysis of the difficulties faced by pluralist societies in coordinating their interest groups, with the risk of 'the zero-sum society' (1981). In Mumbai, this situation is not balanced out by a growth coalition largely driven by professional practitioners in the urban development field who would act as strategy leaders. This metropolis does not fit in with the '3S' schema – Shanghai/Singapore/Santiago – where urban actors declare themselves publicly as the leaders of major projects. We may seek them in the infrastructure groups or among developers, but in Mumbai such actors still remain silent. In fact, it is the large industrialists and their institutions who carry projects forward. So Zerah gives us an account of the tribulations of investing in electricity or drinking water and of disputes around bridges and urban highways. The issue of a viaduct bridge led to a confrontation between two figures in the industrial establishment, the Ambani brothers, which received a great deal of media attention – however, the surprising thing was not the family dispute but the fact that one of them controls the country's leading petrochemical group and the other is at the top of the telecomms industry (Reliance). Their activities in spheres where other countries would see major construction groups becoming involved simply serve to tell us that Mumbai – and probably India as a whole – lacks a 'city industry' capable of meeting its urban challenges.

13 The equivalent of a city manager in a North American city.