Urban Age is a worldwide series of conferences investigating the future of cities

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This publication is the seventh and final edition in the series of Urban Age newspapers designed to coincide with a two-year cycle of conferences in cities around the world. Organised by the London School of Economics and Deutsche Bank's Alfred Herrhausen Society, the Urban Age conferences are an international and interdisciplinary investigation into the connections between urban form and urban society. Conferences have taken place in New York, Shanghai, London, Mexico City and Johannesburg, as well as the German city of Halle. This first cycle of urban research will conclude with the Urban Age Summit in Berlin on 10-11 November 2006. A book summarising the Urban Age findings will be published by Phaidon in summer 2007.

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LISTENING TO THE CITY

he city is a subject that is apparently about everything. It is about climate change and racial tolerance, social justice and economic development, culture and personal memory, national identity and civil liberty. But without some sort of focus, or some framework applied to the ways in which we think about it, the city as a subject that is so all-embracing can end up being about everything and so, in the end, about nothing.

Berlin, an atypical western European city, that, unlike the other places that the Urban Age caravan has examined in the last two years, is attempting to accommodate shrinking expectations, rather than expansion on an explosive scale. Here our ambition is to provide that framework, to move beyond the collection of data, and to put some of our cards on the table.

To help us we have the statistical lessons that we have tried to absorb over the journey charted by the LSE and the Alfred Herrhausen Society. We also have the impressionistic ones we have acquired that can be as important. Personally, I will take with me the view of Johannesburg from the 50th floor of the Carlton Centre, a perfect specimen of an SOM (Skidmore, Owings and Merrill) designed tower of the early 1970s, adjusting to the new realities of South Africa. I will remember the non meeting of minds of Rem Koolhaas and Peter Eisenman, in New York, where they demonstrated the difficulty that architects can have in communicating with a wider audience. I will not forget the sudden silence that spread over a terrace on the Bund in Shanghai when the news of multiple backpack bombs being detonated on the London underground filtered through from half a world away. I will remember the splendour of the room in Mexico City in which the conference met, built at the turn of the 20th century to house the boardroom of the ministry of public building and works with a grandeur that signalled the ambitions and dreams of a new republic, and now a museum piece.

It is chastening, but valuable for a critic to be confronted with how little they really know. I hadn't, before the Urban Age conference in Shanghai, understood that of its 18 million or so people, fully a quarter were illegal migrants, or that the city had levels of inequality of an order close to Manhattan's. Impressive, or a depressing change for the country that Mao clothed in monotonous

olive. I knew that Johannesburg was a city shaped by Apartheid, but I hadn't understood what it would mean to try not just to deal with inequalities, but to operate against a background of a Soweto that was deliberately built to exclude the possibilities of urban life. I could not have imagined what it is like for the city's transport officials to work with a suburban rail system which saw dozens of its employees murdered last year – until I met one of those officials. And until I had seen white South African planners use the word

A city is an à la carte menu, that is what makes it different from a village which offers so much less in the way of choice

comrade to describe the black ANC councillors whom they worked for in the way that their London equivalents might use the word Mr, I did not really appreciate the nature of politics in that city. Probably I still don't.

Before I went to Mexico City earlier this year, I had not grasped that it was no longer the untameable monster that the world has always assumed. Nor had I considered the significance of the networks linking its street traders with the factories in China supplying them.

In Mexico, it was Benjamino Gonzales' brilliant presentation on the Faro community arts project that stays in my memory most vividly. It was flagged up as being a talk about urban spaces. But in reality it was about something more important: self-organising urbanity. Then there is that mysterious quality of citiness that the Urban Age conference has been in pursuit of ever since it first met in New York two years ago.

The most salutary lesson from the privilege of being able to plug into the networks that shape a different metropolis every four months, is the understanding that no matter how much the world's cities operate as part of a single global system, acquiring the same kind of landmarks, museums, airports, freeways, and subject to the same quack remedies of tax incentives and marketing programmes, just how different and distinct they remain.

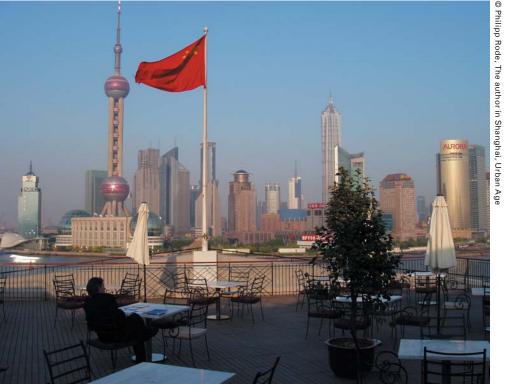
We do not belong to a generation that has

the shared faith that the pioneer architectural modernists had when they chartered a liner to cruise the Mediterranean in agreeable comfort, and draw up their vision of what the modern city must be, the charter of Athens. They divided it into functional zones, shaped by sunlight angles. That was a genera tion that was freed from the luxury of selfdoubt. We are not, and that is why we struggle now when we try to find a renewed sense of purpose about what cities should be. We are full of doubt, or at least we certainly should be. We are the witnesses to soured urban utopias that were invented by some of the architects on that liner, and propagated by a political system that measured success in the number of new buildings that it could deliver

nects the map makers, who parcel up packages of swamp land to sell to gullible purchasers, and the 'show' apartment builders who sell off plan, to investors in Shanghai who are banking on a rising market making them a paper profit before they have even had to make good on their deposits.

There are visions of cities as machines for making money, if not for turning the poor into the not so poor, which is what attracts the ambitious and the desperate to them in the first place.

But there are other less tangible kinds of visions too that no city can do without for long. In the end it is the vision of what a city is that gives it a shared sense of itself. A city is an à la carte menu, that is what makes it different from a village which offers so much



Politicians love cranes; they need solutions within the time frame of elections. The result is a constant cycle of urban demolition and reconstruction that is seen as the substitute for thinking about how to address the deeper issues. Engels and Ruskin reeled in horror at the impact of urbanisation in 19thcentury Manchester (a fraction of the scale of that in the 21st century Pearl River Delta). The great German architect, Karl Friederich Schinkel, went there to learn the secrets of industrial building: you can now see huge areas that were originally built up in the 1880s and demolished in the 1930s, and built up and demolished again twice since then.

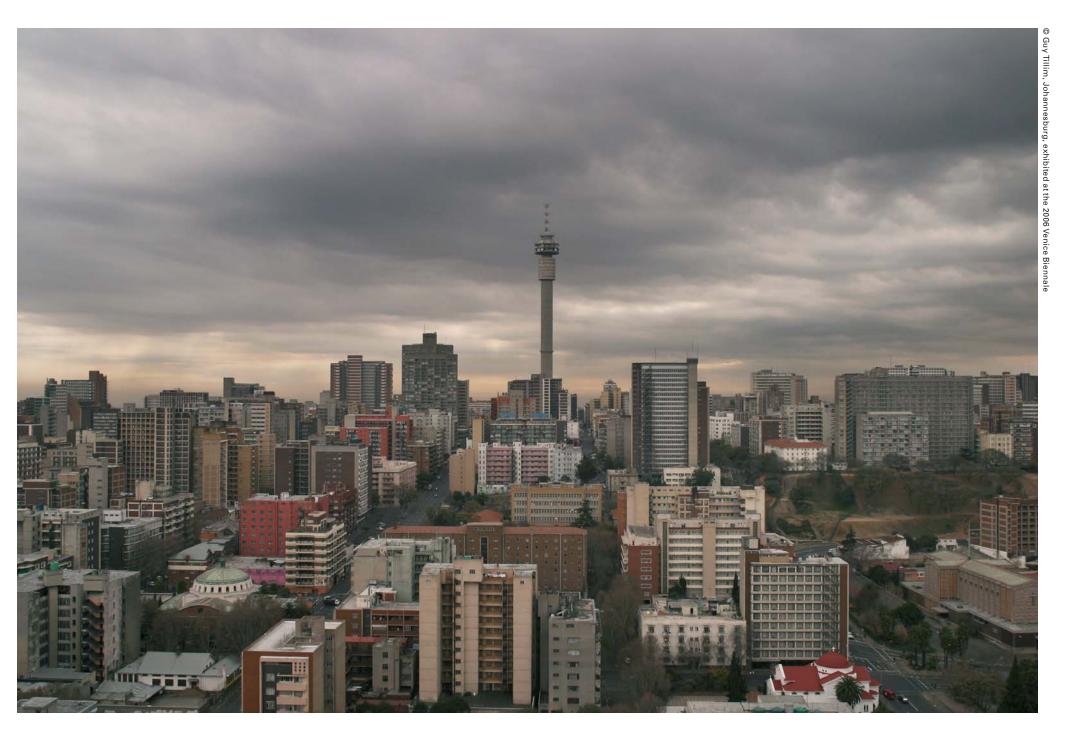
Visions for cities tend to be the creation of the boasters. City builders have always had to be pathological optimists, if not out-and-out fantasists. They belong to a tradition that conless in the way of choice. A positive vision of urbanity has to be based on ensuring that more and more customers can afford to make the choice.

Those who seek to understand the contemporary city have a lot to learn from novelists, and film makers. Architects and city planners are story tellers too, coming up with a narrative long before they ever build anything. They offer a story, or more often, a myth, of community, or of greenness: an image of modernity, or of tradition. It is the literary view of the city from Dickens and Zola onwards that allows us to understand its nuances of light and shade. They help us understand the flawed but rich nature of city life that does not survive the conventional response to urban reality, which is to try to sweep the dark underbelly of the city away. To sweep away the darkness is to risk the collateral damage that will destroy the very qualities that make a city work. It is to turn a city into a village, which is no place for the dis-

escape from poverty. In London the Urban Age discussed the area known as the King's Cross railway lands, gash in the urban fabric that has no healed since the canals and railways tore into it at the start of the 19th century. It reflects the reality of city life in the most brutal and extreme form. Hookers and addicts share the pavements with the commuters, skirting the vast swathe of canals and sheds, trapped between the Euston Road, and the residential streets of Camden Town. It is undergoing a paroxysm of development that irresistibly recalls the feverish transformation of this very piece of land portrayed by Charles Dickens in Dombey and Son. Dickens captured the surrealistic dislocation of houses left stranded by railway embankments, and roads that lead

possessed and the ambitious, desperate to





nowhere. Almost the same thing is happening again. The huge glass and white steel box tacked onto the back of Victorian St Pancras Station, designed to handle the high speed rail link to Paris and Brussels is nearing completion. It represents a construction project that matches those of the Victorians, in its scale if not in its confidence or architectural ambition. Negotiating the area, you thread your way through new viaducts that erupt from the mud, past tower cranes, and ancient warehouses and gasometers. The landscape is by turns pastoral, and derelict. As it is now, King's Cross is a mud-splattered, anarchic mess that reveals the shifting tectonic plates of urban life. The new King's Cross will be a polite, comfortable place for commuters to drink café latte on their way from the train to the office. But it is unlikely to be a city in the sense that Dickens or Zola would understand.

Urban space is something that Mexico City makes you aware of in some provocative and unexpected ways. The sheer size of the Zocalo, reminding us of the Aztecs who laid it out, and its mismatch with the colonial architecture that forms its rim catches you by surprise. It makes you think about Mexico's original builders, and their continuing, if sometimes submerged presence in the colonial period. When you come to think about it, the Zocalo is a public space defined as much by absence as presence. The Zocalo's continuing uses are also political. Demonstrators form up outside the offices of the federal district administration, their banners fixed, under the shadows of that enormous national flag, demanding to be heard.

You could see another kind of public space in Mexico presented in some of the diagrams seen in our sessions on mobility and transport. Professor Bernardo Navarro Benitez's uncanny diagrams looked like organic crystal

Visions for cities tend to be the creation of the boasters. City builders have always had to be pathological optimists, if not outand-out fantasists

forms, or art works, that seemed to be trying to tell us something important about how space works, how space can be brittle and fibrous, complex and multilayered. They looked almost like the circuit boards for Mexico City, the machine code revealed beneath the pixels on the surface. The nervous system underneath the skin.

It wasn't quite the same kind of space as that explored by Hermann Knoflacher with his provocative pedestrian walking machine, and its wry demonstration of the destructive capacity of the car; or the layer upon layer of bus circuits and parking lots for the National Autonomous University. Diagrams that tell us why a University city is not yet a city, precisely because it is too easy to map its movement patterns.

The diagrams are all telling us something important about the city, and how it moves. And of course public space without the possibility of movement in it is like a dead butterfly in a specimen case. Because movement means access, which is the real issue about space. And as the Zocalo tells us, in Mexico or London, Berlin, Shanghai, Johannesburg or New York, space is as much about the symbolic and the theatrical as it is to do with the technical.

There are other kinds of vision that start, as

so many urban visions have done, with an attempt to deal with the pathology of the city: modernism after all was probably as much about notions of hygiene as anything else.

The city is a complex interaction of issues and ambitions that are shaped by the everyday choices of its citizens as much as by their political leaders, and their officials. The development of a city involves oil companies and car builders, as much as the financial institutions that make house building possible. It involves the law, and investment regimes, as well as such apparently simple ideas as being able to take a breath of air without worrying about the harm it's going to do us, or our children. A city is a vision as well as a mechanism, in the sense that Bogatá's bus lanes represent easy movement for the masses, as opposed to a regulatory system to force through change on private car drivers. But given the costs and obligations that come with the privileges of urban life, a city is also a test of the limits of the power of persuasion, as opposed to compulsion. And in the end, a genuine city can only be about the persuasion and not the

Deyan Sudjic, Director, Design Museum,

IS THE CONCEPT OF PUBLIC SPACE VANISHING?

oes the gradual disappearance of public space have an impact on ar concept of the city? Public space is a complex otion. New York and London, in their voluntary endeavours to revitalise former derelict spaces, have progressively defined which users they envision will use future embellished spaces that look public but in fact are subject to control; either from private security guards (ie waterfronts, commercial malls), or from publicly hired security employees (semi-public parks), or by regular police officers. The problem does not arise from the transgression of laws, which would lead to sanctions, but from the very identity of people who are considered to fit the 'undesirable' category, and whose presence may generate a stop and search, or even a ban of spatial use.

Such a process can be observed in Shanghai, where obvious public spaces like the Bund along the river or the public gardens, are inviting many kinds of *flâneurs* to stroll, among a pleasant diversity and density of people. However, although perhaps less apparent, control is nevertheless present, emanating from two sources: from undercover policemen in charge of order who mix with the crowds, and from society's internal social control system; which emerges when those who do not 'belong' are spotted by other citizens. Freedom yes, but under surveillance.

What about the two other large megapolises of the South that are part of the Urban Age selection?

In Mexico City, more than one million residents each gave one peso to bring reality to one of those numerous utopian visions of parks, meant to coalesce a great variety of visitors at the same time and in the same space. The park designers aimed for a social cohesion, transcending class divisions and they relied on universal needs for peace, entertainment and recreation within cities. Micro control systems are however at work; guards make sure that smooth processes, organising movements, will be respected. They act invisibly, they interpret situations, they make sense of them, and they suggest alternatives to CCTVs and other high-tech surveillance methods.

The most problematic case is probably Johannesburg, where so little public space is allocated to density and diversity, unlike Rio (Copacabana) or São Paulo (Avenida Paulista). It is indeed strange that, despite the efforts deployed by the city council, so many

That urban violence is used as an excuse to refuse to live together and that enclosures reinforce segregation cannot be ignored. Such attitudes are lethal to cities

public roads should still be barred from public access and that so many private guards (four to one public policeman – the second-highest proportion in the world) should turn neighbourhoods into fortresses, without any real public debate on the issue. We are aware that many changes are on their way and that the reformed country is only twelve years old. But, it seems that insufficient support and resources allocated to reforms slow the process of change.

That urban violence is used as an excuse to refuse to live together and that enclosures reinforce segregation cannot be ignored. Such attitudes are lethal to cities. An anti-urban

To summarise: cities have good news to tell, relative to ongoing mutations and to the ways they can thrive, working differently

discourse linking cities, fear and violence should be resisted. The answer to urban fear is not to exit the city, buy a gun and get shelter in a gated community. In Venice, Norman Foster courageously suggested that those who choose to get away from the rest of the world and contribute to the sprawl phenomenon should pay very high taxes. When the happy few require roads and power stations in order to live on the edge, they indeed detour resources and energies that should be allocated to the improvement of collective services

and spaces for the common good. More inclusive cities are the solution.

Solutions are complex and must be tailor-made for each city (sometimes the negotiations over 'turf' ownership are strenuous and costly), but they do exist. Teams of innovative architects, planners, scholars, mayors and community representatives expressing various residents' aspirations have learned how to weave back the social fabric and interplay into space and agency. It takes time, patience, imagination, skills and resources to bring failing neighbourhoods back to recovery.

Success exists and examples that should be publicly brought forward and shared — Urban Age's purpose — abound. Sometimes high-tech firms settle in an unlikely place, and subsequently public transportation improves and critical masses of affordable homes for the middle classes transform the identity of space. Sometimes an art institution in Mexico City, or a university and research centre providing top-quality expertise, or a new Court of Justice including social services in a poorer neighbourhood in New York, have a similar effect. Each of these 'solutions' reveals a mix-

ture of various imaginations, voices, expertise, trust and political will which link space and agency. Public space is in those cases (almost) synonymous with tranquillity. Invisible or more visible alchemists have acted to give each (resident, user, commuter, investor) the sense of his or her belonging in a shared urban space.

To summarise: cities have good news to tell, relative to ongoing mutations and to the ways they can thrive, working differently.

Sophie Body-Gendrot, Director and Professor of Political Science and American Studies, Center for Urban Studies, Sorbonne, Paris





CITIES AT THE INTERSECTION OF NEW HISTORIES

y the mid-20th century, many of our great cities were in physical decay, losing population, economic activity, key roles in the national economy, and share of national wealth. As we move into the 21st century, cities have re-emerged as strategic places for a wide range of projects and dynamics. The Urban Age project allowed us to establish this directly for a set of very diverse cities.

MAKING NEW ECONOMIC HISTORIES

Critical, and partly underlying all the other dimensions, is the new economic role of cities in an increasingly globalised world. The formation of inter-city geographies is contributing a critical infrastructure for a new global political economy, new cultural spaces, and new types of politics. Some of these inter-city geographies are thick and highly visible – the flows of professionals, tourists, artists and migrants among specific groups of cities. Others are thin and barely visible – the highly specialised financial trading networks that connect particular cities, depending on the type of instrument involved, or the global commodity chains for diverse products that run from exporting hubs to importing hubs.

These circuits are multidirectional and criss-cross the world, feeding into inter-city geographies with both expected and unexpected strategic nodes. For instance, New York is the leading global market to trade financial instruments on coffee, even though it does not grow a single bean. But a far less powerful financial centre, Buenos Aires, is the leading global market to trade financial instruments on sunflower seeds. Cities located on global circuits, whether few or many, become part of distinct, often highly specialised inter-city geographies. Thus if I were to track the global circuits of gold as a financial instrument, it is London, New York, Chicago and Zürich that dominate. But if I track the direct trading in the metal, Johannesburg, Mumbai, Dubai and Sydney all appear on the map. The number of cities that get drawn into these inter-city geographies is growing fast. For instance, the top 100 global service firms together have affiliates in 315 cities worldwide. Looking at globalisation through the lens of these specificities allows us to recover the particular and diverse roles of cities in the global economy.

While many of these global circuits have long existed, what began to change in the 1980s was their proliferation and their increasingly complex organisational and challenge of coordinating, managing, and servicing these increasingly complex, specialised and vast economic circuits that has made cities strategic.

MAKING NEW SPATIAL HISTORIES

It is perhaps one of the great ironies of our global digital age that it has produced not only massive dispersal but also extreme concentrations of top-level resources in a limited number of places. Indeed, the organisational side of today's global economy is located, and continuously reinvented, in what has become a network of about 40 major and not so major

global cities; this network includes all the Urban Age cities. These global cities need to be distinguished from the hundreds of cities which are located on often just a few global circuits: while these cities are articulated with the global economy, they lack the mix of resources to manage and service the global operations of firms and markets. The reason for this new strategic role can be captured in the following microcosm: the more globalised a firm's operations and the more digitised its product, the more complex its central headquarter functions become and hence the more their execution benefits from dense, resource-rich urban environments.

As a result, the interaction of centrality and density takes on a whole new strategic meaning in global cities. The urban footprint of the global corporate economy keeps expanding; we can measure this expansion in kilometres and in growing densities. The five Urban Age cities we have worked with thus far all show expansion and multiplication of central spaces along with physical density. This is the urban form hosting an increasingly complex set of activities for the management, servicing, designing, implementing and coordinating of the global operations of firms and markets. Architecture, urban planning and civil engineering have played a critical role in building the new expanded urban settings for this organisational side of the global economy. This is architecture as inhabited infrastructure.

The much talked about homogenising of the urban landscape in these cities responds to two different conditions. One is the consumer world, with homogenising tropes that help in expanding and standardising markets to the point where they can become global markets. But this is to be distinguished from the homogenising involved in the organisational side of the global economy – state-of-the-art office districts, airports, hotels, services, and residential complexes for the strategic workforces.

This reshaping responds to the needs associated with housing these new economies, and the cultures and politics they entail. I would say that this homogenised

The formation of inter-city geographies is contributing a critical infrastructure for a new global political economy, new cultural spaces, and new types of politics

environment for the most complex and globalised functions is more akin to an infrastructure, even though not in the conventional sense of that term. It is not simply a visual code that aims at signalling a high stage of development, as is so often posited in much of the commentary on the matter, and is the belief of many developers.

We need to go beyond the visual tropes

and the homogenising effect, no matter how distinguished the architecture. The key becomes understanding what inhabits this homogenised state of the art urban landscape that recurs in city after city. We will find far more diversity and distinct specialisations across these cities than the newly built urban landscapes suggest. The global economy requires a standardised global infrastructure, with global cities the most complex of these infrastructures. But the actual economic operations, especially their organisational side, thrive on specialised differentiation. Thus, as the global economy expands and includes a growing diversity of national economies, it is largely in the global cities of each of these that the work of capturing the specialised advantage of a national economy gets done. To do this work requires state-ofthe-art office districts and all the require-







much of this architectural environment is closer to inhabited infrastructure – inhabited by specialised functions and actors.

MAKING NEW URBAN HISTORIES

These conditions themselves have produced a variety of responses, from renewed passions for aestheticising the city, preserving the city and ensuring the public-space aspect of cities. The massive scale of today's urban systems has brought with it a revaluing of terrain vagues and of modest spaces – where the practices of people can contribute to the making of public space, beyond the monumentalised public spaces of state and crown. Microarchitectural interventions and informal architectures can bring built complexity into standardised spaces. This type of built complexity can in turn engage the temporary publics that take shape in cities in particular spaces at specific times of the day or night.



Expanded informal economies are emerging as part of these advanced urban economies, evident in all our Urban Age cities, whether in the global North or South. It is easy to think of informalisation as anomalous, as belonging to an older order. But in my reading it is part of advanced capitalism. Informality assumes a whole range of new meanings. At the most abstract level it can be seen as multi plying the range of practices – economic, artistic, professional – possible in these cities. Complex cities allow for this multiplication and diversifying in a way that neat suburbs do not. While at one end of the scale informality is a form of injustice and powerlessness, at the other end it enables actors to 'make' new economies - and is a form of survival but also of creativity. Many immigrant entrepreneurs start informally, because it allows a more

from Mexico to Berlin. The growing inequality and the massive concentrations of power now evident in major complex cities form a basic context within which some of these trends need to be situated. Cities have long had inequality, but what we see today alongside older forms is a new type of inequality. Homelessness has long been part of cities. But where it once concerned a single man – the hobo – now it is family homelessness, with children the largest group of homeless in large cities. These social and spatial inequalities probably assume their sharpest and most visible form in global cities.

experimental form of business we might say.

Many Silicon Valley tycoons started informal-

ly in garages. But we also saw informal archi-

tectural practices in all our Urban Age cities -

There are also new technical histories in the making. The city is one moment in often complex processes that are partly electronic, such as electronic markets, or part of hidden infrastructures, such as fibre optic cables. Embedded software for handling mass sys-

The urban footprint of the global corporate economy keeps expanding; we can measure this expansion in kilometres and in growing densities

tems, such as public transport and public surveillance, is an often invisible layer in a growing number of cities. Such embedded software is guided by logics that are not necessarily part of the social repertory through which we understand those systems. As the use of embedded software expands to more and more infrastructures for daily life, we will increasingly be interacting with the artefacts of technology. Technical artefacts become increasingly actors in the networks through which we move. Buildings are today dense sites for these types of interactions. These acute concentrations of embedded software and of connectivity infrastructures for digitised space make the city less penetrable for the ordinary citizen.

RE-INVENTING THE POLITICAL

The city is also potentially the site where all these systems can become visible, a potential further strengthened by the multiple globalities, from economic to cultural to subjective, that localise partly in cities. This in turn brings up political challenges: at various points in history cities have functioned as spaces that politicised society. This is, again, one of those periods. Today's cities are the terrain where

people from all over the world intersect in ways they do not anywhere else. In these complex cities, diversity can be experienced through the routines of daily life, workplaces, public transport and urban events such as demonstrations or festivals. Further, insofar as powerful global actors are making increasing demands on urban space and thereby displacing less powerful users, urban space becomes politicised in the process of rebuilding itself. This is politics embedded in the physicality of the city. The emergent global movement for the rights to the city is one emblematic instance of this struggle. In urbanising rights it makes them concrete: the right to public space, to public transport, to good neighbourhoods.

One question is whether a new type of politics is being shaped through these conflicts, a politics that might also make the variety of inter-city networks into platforms for global governance. Most of today's major social, political and economic challenges are present in cities, often in both their most acute and their most promising form: the sharpest juxtapositions of the rich and the poor, but also struggles for housing; antiimmigrant politics, but also multiple forms of integration and mixtures; the most powerful and globalised economies, but also a proliferation of informal economies; the most powerful real estate developers, but also the biggest group of builders in the world today – people making shanty dwellings. How can we not ask whether networks of cities can become platforms for new types of global governance?

Saskia Sassen, Centennial Visiting Professor, LSE and Ralph Lewis Professor of Sociology, University of Chicago



URBAN AGE SUMMIT BERLIN NOVEMBER 2006 **URBAN AGE SUMMIT BERLIN NOVEMBER 200**

MOVING PEOPLE, MAKING CITY

society can exist without the rement of people, goods and nformation, and it is generally regarded as a means for evolution, be it the facilitation of trade or most importantly for ıman interaction. Modern transport is what collapses the distances between two points and as such, it needs to be available to all equally. But transport is also deeply intrinsic and is often as much of an end in itself. It offers the most direct emotional experience of technical progress; it is a lifestyle marker, the physical representation of great political achievements and the *raison d'être* for the world's leading industrial sector. The consequences are obvious: transport is one of the most contested development areas, and while offering an endless number of solutions remains extremely controversial.

Cities initially promised high levels of ideas and product exchange by creating greater proximities. In doing so, they became a transport solution themselves, one based on the principle of avoiding transport or at least of reducing its necessity. Economic, geographic and cultural factors drove the evolution of cities over time, but it was not until the widespread use of the private motorcar that the most basic concept of the city, that of physical proximity and coexistence, was seriously challenged. Suburban sprawl – driven by the desire for more personal living space with direct car access, combined with elevated motorways, decentralised business parks, shopping malls and vast car parks – was indeed a radical shift in spatial development. It was the overall unconvincing outcome of the latter model and its enormous social and environmental cost that has, over the last 30 years, introduced the return to normative questions about the use of urban space in time. Why cities, why proximity and what are the right transport solutions?

This debate has made enormous progress and has resulted in extensive urban regeneration efforts in cities around the world. In addition, and differing from initial predictions, the latest transport revolution based on communication and information technology has turned out to be supporting the city with

its genuine character. The advantage of reduced commuting and less money spent on travelling is as critical in the developing world as are the benefits associated with urban living for the more individualistic and atomised society in the global North. Both require a compact city at a human scale that allows for extensive interaction, complexity and public life. The initial question about the right transport solutions bounced back as one about the city and its form, which ultimately is the question about how we want to live together. This new consensus looks at land use and rehabilitates the concept of dense urban environments with public transport as their backbone. It acknowledges that there is a threshold level of car use beyond which cities are seriously at risk; it puts pedestrian-friendly environments at the top of the agenda and regards walking and cycling as serious contributions to urban mobility.

The older, mature cities investigated by the Urban Age programme – New York, London and Berlin – include many examples of this paradigm shift. London is currently implementing its 100 public space programme, the number of cyclists has doubled within the last 5 years, and the city's congestion charge has reduced car use in central London by 15% while subsidising the 40% increase in bus use since 2001. New York City has made an enormous effort to upgrade its public transport system by investing more than €32 billion (\$40 billion) since 1982 and has seen a 13% decline in car ownership levels between 1990 and 2003. In Berlin, 32% of all trips are done on foot or by bicycle, and since 1990 its public transport infrastructure has been upgraded to cater for a potential extra 1 million inhabitants with its S-Bahn, tram and regional rail network. The city has also been active in promoting car sharing and multimodal transport. Regarding these trends it needs to be emphasised that innovation was led by smaller cities mainly in continental Europe. Barcelona, Copenhagen and Vienna informed public space strategies in London; Zürich and Karlsruhe were highly influential for the rehabilitation of tram lines as surface public transport in Berlin and around the world; while Amsterdam and Freiburg generally pushed the agenda for urban cycling.

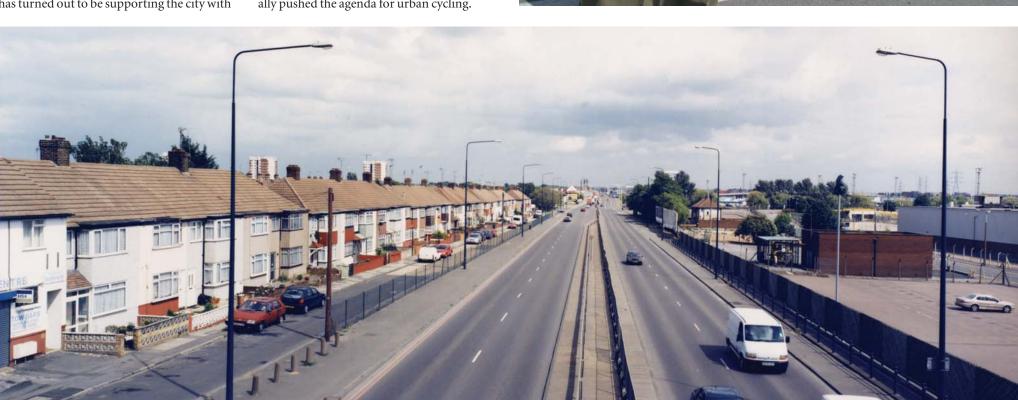
Apart from these trends, the status quo in these three mature Urban Age cities is still one of dominating car use at the metropolitan level, despite an extensive public transport system. The overall rising energy consumption for transport is best illustrated by a steep increase of Sports Utility Vehicles even within the city's boundaries.

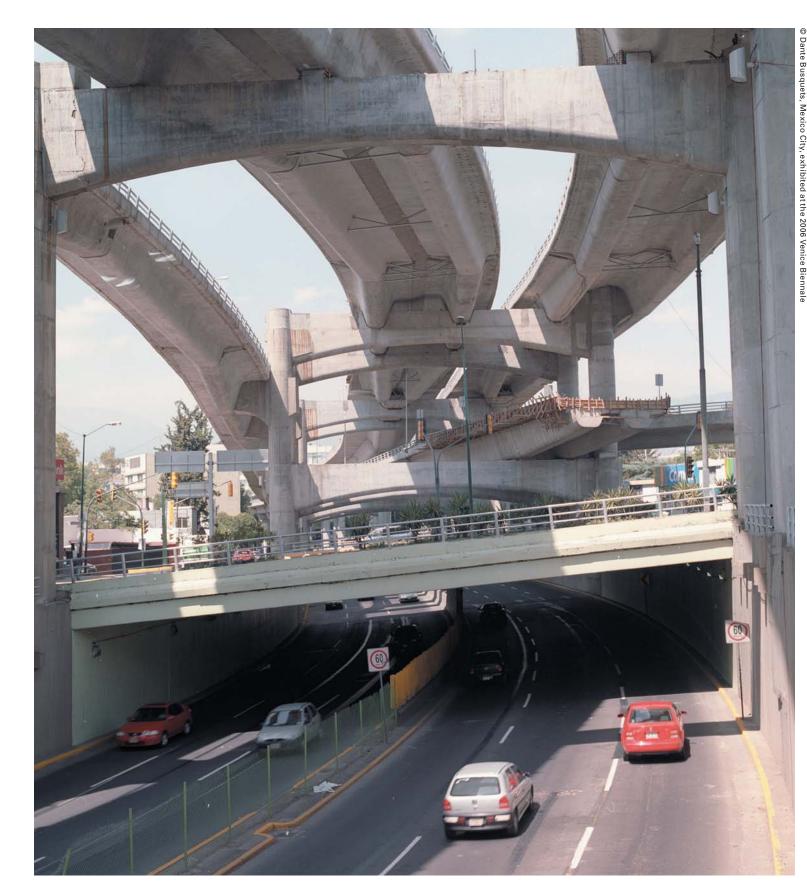
On the other hand, developments in the rapidly expanding cities investigated by Urban Age – Shanghai, Mexico City and Johannesburg – follow a distinctively different pattern. A vast majority of the population has long been and still is dependent on walking, cycling and public transport, the latter mainly organised by the informal sector. Access to private cars is still the preserve of a small minority. Historically these three cities have been different in many aspects. Shanghai invested heavily in its cycling infrastructure until the mid-1980s and it was only with the opening of China's economy that major changes of government policy were brought about. The central government in Beijing declaring car production as pillar industry is critical to understanding city level transport strategies that produce elevated highways, satellite towns and mono-functional districts while putting human scale transport infrastructure on the back burner. Shanghai is successful in attracting more car use which doubled between 1995 and 2004 leading to increased average commuting distances which also doubled. During the same period, the city's official policy to reduce cycling led to a drop from almost 40% to 25% of all trips. Similar decisions were taken in Mexico City. Here, around 50,000 minibuses and microbuses are handling the majority of the trips while 40% of the city's transport budget between 2000 and 2006 has been spent on its Segundo Piso, an elevated highway built exclusively for private cars and used by not even 1% of residents.

Johannesburg's public space has been taken over by traffic, shockingly illustrated by its accident statistics of 56 fatalities per 100,000 inhabitants per annum compared to 3 in London and 7 in Mexico City. The city seems to have surrendered to the safe and private environments of shopping malls. Marginalisation and containment planned under Apartheid has been perpetuated in the post-Apartheid period. The percentage of stranded people who walk to work for more than 30 minutes, often under dangerous circumstances and unable to afford any form of public transport, has increased. 46% of households are spending more than 10% of their income on daily commuting. The main public transport provision, the city's mini bus taxis, receives no operating subsidy while the provincial government is planning to invest €2.1 billion (\$2.7 billion) in a rapid

Clearly, car-based mobility solutions disproportionately dominate transport agendas and investments in the three rapidly expanding cities, mocking statements, intentions and policy goals on sustainability, resource management and social inclusion. If put forward, sustainable transport concepts are centred







around capital intensive systems like heavy rail which may not have an extensive catchment area, yet require enormous funding streams. Transport modes used by the majority of people in these cities, mainly walking, cycling and microbuses, receive far less attention.

Fortunately, land-use patterns in relation to transport are being looked at with increasing interest. In Mexico City, asentamientos irregulars [informal settlements] such as Ciudad Neza have been upgraded with public funding, transforming the traditional squatter settlement into a vibrant city of 1.5 million people. There is a healthy mix of housing and work places, and a large number of businesses have been integrated providing nearly 65% of city housing, Mexico City has also implemented its *bando dos* policy which requires higher residential density levels while restricting new housing in the outer districts. In Johannesburg, the debate about transport and accessibility focuses increasingly on the problems arising from the deliberately low density levels of the Apartheid city; this has led to first attempts for densification in townships like Soweto.

Over the last decade there have been serious efforts in all six cities to bring land-use and transport strategies closer together. However despite investments and expertise,

the process of moving towards more sustainable urban structures, where movement is based on public transport and non-motorised mobility, has been rather slow. If cities in the future will have to rely on sustainable transport, then we need to move rapidly towards understanding the forces that promote traditional car use with its vast need for space, particularly through parking. The consumption of cars is still on the national agenda for economic growth in five of the six countries to which the Urban Age cities belong, and only the UK's economy is largely independent from the production of automobiles. All six cities certainly face strong pressure from individual desires for motorisation and have only been successful in resisting these pressures when putting forward a widely accepted age da prioritising quality of life in cities.

We need to work out the governance structures and technology by which public transport can save rapidly expanding cities from simply adopting Western mobility cycles. We need to understand what forces are required to break the path dependencies in the mature Urban Age cities to move towards sustainable mobility in the near future.

The professional crisis of transport planning differs greatly to that of urbanism, which was humiliated by a complete loss of control during the last 30 years. The transport planning profession instead struggles first of all

with the fact that its subject is more about politics than about economics, engineering or any other scientific discipline. The second challenge results from focusing only on organising movement where, at least in the case of the city, it needs to organise movement and space. Still, it has been the professional community around the world that has advocated the most innovative urban transport solutions for more than 30 years before they were finally implemented as a result of strong political leadership. Bogotá's rapid bus system and cycle network, London's congestion charge and Berlin's multi-modal transport approach are just three examples. Ultimately, the future focus has to be the integration of land-use and transport strategies as well as while at the same time creating locations. Once again, this needs to be understood on a political level before it will begin to happen.

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THE OPEN CITY

The cities everyone wants to live in should be clean and safe, possess efficient public services, be supported by a dynamic economy, provide cultural stimulation, and also do their best to heal society's divisions of race, class, and ethnicity. These are not the cities we live in.

Cities fail on all these counts due to government policy, irreparable social ills, and economic forces beyond local control. The city is not its own master. Still, something has gone wrong, radically wrong, in our conception of what a city should be. We need to imagine just what a clean, safe, efficient, dynamic, stimulating, just city would look like concretely – we need those images to confront critically our masters with what they should be doing – and it is exactly this critical imagination of the city which is weak.

This weakness is a particularly *modern* problem: the art of designing cities declined drastically in the middle of the 20th century. In saying this, I am propounding a paradox, for today's planner has an arsenal of technological tools – from lighting to bridging and tunnelling to materials for buildings – which urbanists even a hundred years ago could not begin to imagine: we have more resources to use than in the past, but resources we don't use very creatively.

This paradox can be traced to one big fault. That fault is over-determination, both of the city's visual forms and its social functions. The technologies, which make experi-

ment possible, have been subordinated to a regime of power that wants order and control. Urbanists, globally, anticipated the 'control freakery' of New Labour by a good half-century; in the grip of rigid images, precise delineations, the urban imagination lost vitality. In particular, what's missing in modern urbanism is a sense of time – not time looking backwards nostalgically but forward-looking time, the city understood as process, its imagery changing through use, an urban imagination image formed by anticipation, friendly to surprise.

A portent of the freezing of the imagination of cities appeared in Le Corbusier's 'Plan Voisin' for Paris in the mid-1920s. The architect conceived of replacing a large swath of the historic centre of Paris with uniform, X-shaped buildings; public life on the ground plane of the street would be eliminated; the use of all buildings would be coordinated by a single master-plan. Not only is Le Corbusier's architecture a kind of industrial manufacture of buildings, he has in the 'Plan Voisin' tried to destroy just those social elements of the city which produce change in time, by eliminating unregulated life on the ground plane; people live and work, in isolation, higher up.

ways. The Plan's building-type shaped public housing from Chicago to Moscow, producing housing estates which came to resemble warehouses for the poor. Le Corbusier's intended destruction of vibrant street life was realised in suburban growth for the middle classes, with the replacement of high streets by monofunction shopping malls, by gated communi-

This dystopia became reality in various

ties, by schools and hospitals built as isolated campuses. The proliferation of zoning regulations in the 20th century is unprecedented in the history of urban design, and this proliferation of rules and bureaucratic regulations has disabled local innovation and growth, frozen the city in time.

The result of over-determination is what could be called the Brittle City. Modern urban environments decay much more quickly than urban fabric inherited from the past. As uses change, buildings are now destroyed rather than adapted; indeed, the over-specification of form and function makes the modern urban environment peculiarly susceptible to decay. The average lifespan of new public housing in Britain is now 40 years; the average lifespan of new skyscrapers in New York is 35 years.

It might seem that the Brittle City would in fact stimulate urban growth, the new now more rapidly sweeping away the old, but again the facts argue against this view. In the United States, people flee decaying suburbs rather than re-invest in them: in Britain and on the European continent, as in America, 'renewing' the inner city most often means displacing the people who have lived there thus far. 'Growth' in an urban environment is a more complicated phenomenon than simple replacement of what existed before; growth requires a dialogue between past and present, it is a matter of evolution rather than erasure.

This principle is as true socially as it is architecturally. The bonds of community cannot be conjured up in an instant, with a stroke of the planner's pen; they too require time to develop. Today's ways of building cities – segregating functions, homogenising population, pre-empting through zoning and regulation of the meaning of place – fail to provide communities the time and space needed for growth.

The Brittle City is a symptom. It represents a view of society itself as a closed system. The closed system is a conception that dogged state socialism throughout the 20th century as much as it shaped bureaucratic capitalism. This view of society has two essential attributes: equilibrium and integration.

The closed system ruled by equilibrium derives from a pre-Keynesian idea of how markets work. It supposes something like a bottom line in which income and expenses balance. In state planning, information feedback loops and internal markets are meant to ensure that programmes do not 'over-commit', do not 'suck resources into a black hole'—such is the language of recent reforms of the health service, familiar again to urban planners in the ways infrastructure resources for transport get allocated. The limits on doing any one thing really well are set by the fear of neglecting other tasks. In a closed system, a little bit of everything happens all at once.

Second, a closed system is meant to be an integrated system. Ideally, every part of the system has a place in an overall design; the consequence of that ideal is to reject, to eject, experiences that stick out because they contest or are disorienting; things that 'don't fit' are diminished in value. The emphasis on integration puts an obvious bar on experiment; as the inventor of the computer icon, John Seely Brown, once remarked: every technological advance poses at the moment of its birth a threat of disruption and dysfunction to a larger system. The same threatening exceptions occur in the urban environment, threats which modern city planning has tried to forestall by accumulating a mountain of rules defining historical, architectural, economic, and social context - 'context' being a polite but potent word in repressing anything that doesn't fit in, context ensuring that nothing sticks out, offends, or challenges.

The role of the radical planner therefore is to champion dissonance

Thus, the sins of equilibrium and integration bedevil coherence, for planners of education as much as planners of cities, as planning sins have crossed the line between state capitalism and state socialism. The closed system thus betrays the 20th-century bureaucrat's horror of disorder.

The social contrast to the closed system is not the free market, nor is a place ruled by developers the alternative to the Brittle City. That opposition is in fact not what it seems. The cunning of neo-liberalism in general, and of Thatcherism in particular, was to speak the language of freedom whilst manipulating closed bureaucratic systems for private gain by an élite. Equally, in my experience as a planner, those developers in London, as in New York, who complain most loudly about zoning restrictions are all too adept in using these rules at the expense of communities.

The contrast to the closed system lies in a different kind of *social* system, not in brute private enterprise – a social system that is open rather than closed. The characteristics of such an open system and its realisation in an open city are what I wish to explore in this essay.

THE OPEN SYSTEM

The idea of an open city is not my own: credit for it belongs to the great urbanist Jane Jacobs in the course of arguing against the urban vision of Le Corbusier. She tried to understand what results when places become both dense and diverse, as in packed streets or squares, their functions both public and pri-

vate; out of such conditions comes the unexpected encounter, the chance discovery, the innovation. Her view, reflected in the *bon mot* of William Empson, was that 'the arts result from over-crowding'.

Jacobs sought to define particular strategies for urban development, once a city is freed from the constraints of either equilibrium or integration. These include encouraging quirky, jerry-built adaptations or additions to existing buildings; encouraging uses of public spaces which don't fit neatly together, such as putting an AIDS hospice square in the middle of a shopping street. In her view, big capitalism and powerful developers tend to favour homogeneity: determinate, predictable, and balanced in form. The role of the radical planner therefore is to champion dissonance. In her famous declaration: 'if density and diver-

The result of overdetermination is what could be called the Brittle City. Modern urban environments decay much more quickly than urban fabric inherited from the past

sity give life, the life they breed is disorderly'. The open city feels like Naples, the closed city feels like Frankfurt.

For a long time, I dwelt in my own work happily in Jacobs' shadow – both her enmity to the closed system (though the formal concept is mine, not hers) and her advocacy of complexity, diversity, and dissonance.

Recently, in re-reading her work, I've detected glints of something lurking beneath this stark contrast.

If Jane Jacobs is the urban anarchist she is often said to be, then she is an anarchist of a peculiar sort, her spiritual ties closer to Edmund Burke than to Emma Goldmann. She believes that in an open city, as in the natural world, social and visual forms mutate through chance variation; people can best absorb, participate, and adapt to change if it happens step by lived step. This is evolutionary urban time, the slow time needed for an urban culture to take root, then to foster, then to absorb chance and change. It is why Naples, Cairo, or New York's Lower East Side, though resource-poor, still 'work' in the sense that

people care deeply about where they live. People live *into* these places, like nesting. Time breeds that attachment to place.

In my own thinking, I've wondered what kinds of visual forms might promote this experience of time. Can these attachments be designed by architects? Which designs might abet social relationships that endure, just because they can evolve and mutate? The visual structuring of evolutionary time is a systematic property of the open city. To make this statement more concrete, I'd like to describe three systematic elements of an open city: 1. passage territories; 2. incomplete form; 3. development narratives.

1. Passage territories

I'd like to describe in some detail the experience of passing through different territories of the city, both because that act of passage is how we know the city as a whole, and also because planners and architects have such difficulties designing the experience of passage from place to place. I'll start with walls, which seem to be structures inhibiting passage, and

then explore some of the ways edges of urban territory function like walls.

a. Walls: The wall would seem an unlikely choice; it is an urban construction which literally closes in a city. Until the invention of artillery, people sheltered behind walls when attacked; the gates in walls also served to regulate commerce coming into cities, often being the place in which taxes were collected. Massive medieval walls, such as those surviving in Aix-en-Provence or in Rome, furnish a perhaps misleading general picture; ancient Greek walls were lower and thinner. But we also mis-imagine how those medieval walls themselves functioned. Though they shut closed, they also served as sites for unregulated development in the city; houses were built on both sides of medieval town walls; informal markets selling black-market or untaxed goods sprung up nestled against them; the zone of the wall was where heretics, foreign exiles, and other misfits tended to gravitate towards, again far from the controls of the centre. They were spaces that would have attracted the anarchic Jane Jacobs.

But they were also sites that might have suited her organic temperament. These walls functioned much like cell membranes, both porous and resistant. That dual quality of the membrane is, I believe, an important principle for visualising more modern living urban forms. Whenever we construct a barrier, we have to equally make the barrier porous; the distinction between inside and outside has to be breachable, if not ambiguous.

The usual contemporary use of plateglass for walls doesn't do this; true, on the
ground plane you see what's inside the building, but you can't touch, smell, or hear anything within. The plates are usually rigidly
fixed so that there is only one, regulated,
entrance within. The result is that nothing
much develops on either side of these transparent walls, as in Mies van der Rohe's
Seagram Building in New York or Norman
Foster's new London City Hall: you have dead
space on both sides of the wall; where you
would expect life in the building to accumu-

late. By contrast, the 19th-century architect Louis Sullivan used much more primitive forms of plate glass more flexibly, as invitations to gather, to enter a building or to dwell at its edge; his plate glass panels function as porous walls. This contrast in plate glass design brings out one current failure of imagination in using a modern material so that it

The idea of a cellular wall, which is both resistant and porous, can be extended from single buildings to the zones in which the different communities of a city meet.

has a sociable effect.

b. Borders: Ecologists like Steven Gould draw our attention to an important distinction in the natural world, that between boundaries and borders. The boundary is an edge where things end; the border is an edge where different groups interact. In natural ecologies, borders are the places where organisms become more interactive, due to the meeting of different species or physical conditions. For instance, where the shoreline of a lake meets solid land is an active zone of exchange; here is where organisms find and feed off other organisms. The same is true of temperature layers within a lake: where layer meets layer defines the zone of the most intense biological activity. Not surprisingly, it is also at the borderline where the work of natural selection is the most intense. Whereas the boundary is a guarded territory, as established by prides of lions or packs of wolves. The boundary establishes closure whereas the harder function more like a medieval wall. The border is a liminal space.

In the realm of human culture, territories consist similarly of boundaries and borders – in cities, most simply, there is a contrast between gated communities and complex, open streets. But the distinction cuts deeper in urban planning.

When we imagine where the life of a community is to be found, we usually look for it in the centre of a community; when we want to strengthen community life, we try to intensify life at the centre. The edge condition is seen to be more inert, and indeed modern







planning practices, such as sealing the edges of communities with highways, create rigid boundaries, lacking any porosity. But neglect of the edge condition – boundary thinking, if you like – means that exchange between different racial, ethnic, or class communities is diminished. By privileging the centre we can thus weaken the complex interactions necessary to join up the different human groups the city contains.

The porous wall and the edge as border create essential physical elements for an open system in cities. Both porous walls and borders create liminal space; that is, space at the limits of control, limits which permit the appearance of things, acts, and persons unforeseen, yet focused and sited. The biological psychologist Lionel Festinger once characterised such liminal spaces as defining the importance of 'peripheral vision'; sociologically and urbanistically, these sites operate differently from those places which concentrate differences in a centre; on the horizon, at the periphery, at the border, differences stand out since one is aware one is crossing out of one territory into another.

2. Incomplete Form

This discussion of walls and borders leads logically to a second systematic characteristic of the open city: incomplete form. Incompleteness may seem the enemy of structure, but this is not the case. The designer needs to create physical forms of a particular sort, 'incomplete' in a special way.

When we design a street, for instance, so that buildings are set back from a street wall, the space left open in front is not truly public space; instead the building has been withdrawn from the street. We know the practical consequences; people walking on a street tend to avoid these recessed spaces. It's better planning if the building is brought forward, into the context of other buildings; though the building will become part of the urban fabric, some of its volumetric elements will now be incompletely disclosed. There is incompleteness in the perception of what the object is.

Incompleteness of form extends to the very context of buildings themselves. In classical Rome, Hadrian's Pantheon co-existed with the less distinguished buildings that

When the city operates as an open system – incorporating principles of porosity of territory, narrative indeterminacy and incomplete form – it becomes democratic not in a legal sense, but as physical experience

surrounded it in the urban fabric, though Hadrian's architects conceived the Pantheon as a self-referential object. We find the same co-existence in many other architectural monuments: St Paul's in London, Rockefeller Center in New York, the Maison Arabe in Paris – all great works of architecture which stimulate building around themselves. It's the fact of that stimulation, rather than the fact that the buildings are of lesser quality, which counts in urban terms: the existence of one building sited in such a way that it encourages the growth of other buildings around it. And now the buildings acquire their specifically urban value by their relationship to each other; they become in time incomplete forms if considered alone, by themselves.

Incomplete form is most of all a kind of creative credo. In the plastic arts it is conveyed in sculpture purposely left unfinished; in poetry it is conveyed in, to use Wallace Steven's phrase, the 'engineering of the fragment'. The architect Peter Eisenman has sought to evoke something of the same credo in the term 'light architecture', meaning an architecture planned so that it can be added to, or more importantly, revised internally in the course of time, as the needs of habitation change.

This credo opposes the simple idea of replacement of form which characterises the Brittle City, but it is a demanding opposition.

When we try to convert office blocks to residential use, for instance.

3. Narratives of Development

Our work as urbanists aims first of all to shape the narratives of urban development. By that, we mean that we focus on the stages in which a particular project unfolds. Specifically, we try to understand what elements should happen first, what then are the consequences of this initial move. Rather than a lock-step march towards achieving a single end, we look at the different and conflicting possibilities which each stage of the design process should open up; keeping these possibilities intact, leaving conflict elements in play, opens up the design system.

We claim no originality for this approach. If a novelist were to announce at the beginning of a story, here's what will happen, what the characters will become, and what the story means, we would immediately close the book. All good narrative has the property of exploring the unforeseen, of discovery; the novelist's art is to shape the process of that exploration. The urban designer's art is akin.

In sum, we can define an open system as one in which growth admits conflict and dissonance. This definition is at the heart of Darwin's understanding of evolution; rather than the survival of the fittest (or the most beautiful), he emphasised the process of growth as a continual struggle between equilibrium and disequilibrium; an environment rigid in form, static in programme, is doomed in time; bio-diversity instead gives the natural world the resources to provision change.

That ecological vision makes equal sense of human settlements, but it is not the vision that guided 20th-century state planning.

Neither state capitalism nor state socialism embraced growth in the sense Darwin understood it in the natural world – in environments which permitted interaction among organisms with different functions, endowed with different powers.

4. Democratic Space

When the city operates as an open system – incorporating principles of porosity of territory, narrative indeterminacy and incomplete form – it becomes democratic not in a legal sense, but as physical experience.

In the past, thinking about democracy focused on issues of formal governance, today it focuses on citizenship and issues of participation. Participation is an issue that has everything to do with the physical city and its design. For example, in the ancient polis, the Athenians put the semi-circular theatre to political use; this architectural form provided good acoustics and a clear view of speakers in debates; moreover, it made the perception of other people's responses during debates possible.

In modern times, we have no similar model of democratic space – certainly no clear imagination of an urban democratic space. John Locke defined democracy in terms of a body of laws which could be practiced anywhere. Democracy in the eyes of Thomas Jefferson was inimical to life in cities; he thought the spaces it required could be no larger than a village. His view has persisted. Throughout the 19th and 20th centuries, champions of democratic practices have identified these with small, local communities, face-to-face relationships.

Today's city is big, filled with migrants and ethnic diversities, in which people belong to many different kinds of community at the same time – through their work, families, consumption habits and leisure pursuits. For cities like London and New York becoming global in scale, the problem of citizen participation is how people can feel connected to others, when, necessarily, they cannot know them. Democratic space means creating a forum for these strangers to interact.

In London, a good example of how this can occur is the creation of a corridor connection between St Paul's Cathedral and the Tate Modern Gallery, spanned by the new Millennium Bridge. Though highly defined, the corridor is not a closed form; along both the south and north bank of the Thames it is generating regeneration of lateral buildings unrelated to its own purposes and design. And almost immediately upon opening, this corridor has stimulated informal mixings and connections among people walking the span within its confines, and has prompted an ease among strangers, which is the foundation for a truly modern sense of 'us'. This is democratic space.

The problem cities face today is how to create, in less ceremonial spaces, some of the same sense of relatedness among strangers. It is a problem in the design of public spaces in hospitals, in the making of urban schools, in big office complexes, in the renewal of high streets, and most particularly in the places where the work of government gets done. How can such places be opened up? How can the divide between inside and outside be bridged? How can design generate new growth? How can visual form invite engagement and identification? These are the pressing questions which urban design must address in the Urban Age.

Richard Sennett, Professor of Sociology, London School of Economics and Massachusetts Institute of Technology

GOVERNANCE AND LEGAL STRUCTURES

here are four key topics that
Urban Age has raised about city
governance in New York,
London, Shanghai, Mexico City,
Johannesburg, and Berlin: the
fragmentation of the metropolitan areas in which the cities are
located; the organisation of the
cities themselves as vehicles for the provision
of governmental services; the impact of the
concept of being a 'global city' on city decision-making; and the role of privatisation in
city planning and service delivery.

None of these cities is large enough to encompass its entire region, and none is ever likely to do so. But that doesn't mean that the region is already the 'real' city. Since no regional political organisation exists that can react to or help direct public or private decisions, the fragmented municipal governments – along with the national and (for some cities) state or provincial governments – make the necessary policy decisions. The questions are whether and how to change this.

The cities themselves can be seen not just as too small to be effective but also too large. Most, but not all, of them subdivide the city government to deal with local matters. But the organisation of these boroughs, districts, and sub-regions differs radically, and the question is how best to set them up. This issue and the need for regional thinking are not unrelated topics. The empowerment of a region with millions (in Shanghai tens of millions) of people would not allow for meaningful democratic participation by local citizens. The current boundaries of the principal cities are themselves inadequate to this task. Sub-city governments, by contrast, can enable citizens' participation in the daily governmental deci-

The cities themselves can be seen not just as too small to be effective but also too large

sion-making that affects their lives.

How does one understand the impact of their global city status on the power of these cities? More precisely, what is the role of the city government in producing, or at least furthering, the process of becoming a global city? There is little doubt that government officials in all of the cities now seek to promote their global city status. But none of them can easily control such a development, let alone rethink or redirect city policy away from such a goal. Yet many city residents have no connection to the global business network or even to the peighbourhoods where it is located. And tra ditional city services (education, sanitation, housing, policing) have to compete for resources against those seeking to support the global city policy from a limited city budget. Should the national (or state) governments delegate greater power to these cities to revise their current global city focus?

The city efforts to promote being a global city are but one example of the trend towards privatisation in these cities. Perhaps the most significant illustration of this trend is the current emphasis on 'governance', rather than government, as the vehicle for public policy decision-making. This emphasis and the

Making government work better, and making it more responsive to its citizens, strengthens the role of government as it seeks to develop a 'partnership' with private and non-profit institutions

focus on being a global city reinforce each other. Governance imagines 'stakeholders' being 'at the table', working with city officials and others to formulate policy through consensus. It's unimaginable that representatives of global business enterprises will be excluded from such a meeting. It's quite imaginable, on the other hand, that there will no one there from the floating population, the informal economy, or representing the poor newcomers who have recently immigrated from another country. Given the embrace by city officials of a globally oriented policy, the invited stakeholders can easily think that the overall direction of city policy is uncontroversial – indeed, is a worldwide phenomenon that no one in the room could conceivably resist.

The issues of privatisation and of the fostering of the global city are intimately connected with the first two topics listed above:

regional planning and sub-city democracy. The latter two topics focus on the nature and power of government institutions, not on privatisation or public-private structures of governance. Making government work better, and making it more responsive to its citizens, strengthens the role of government as it seeks to develop a 'partnership' with private and non-profit institutions. Creating regional and sub-city structures is one way to do so. A change in the current method of governing cities can thus have an impact, not only on government but also on governance – on the role of democracy in the world's major cities. If public-private partnerships are the wave of the future – at least, the wave of the near-term future – it is important to re-invigorate the 'public' half of the arrangement. Doing this in the six very different con-

texts we have examined would be carried out by six different policies. Some cities encompass a sensible subdivision of their region (London, Shanghai) and some don't (New York, Mexico City, Berlin). Some are controlled directly by the national government (Mexico City), some by state government (New York), and some are simultaneously cities and states (Berlin, Shanghai). Some have subdivisions that may be too powerful (London), some that may be too weak (Mexico City, Berlin), and some don't have effective subdivisions at all (New York). Some have vigorous democracies and one (Shanghai) does not have an elected government. It's possible to outline a subdivision and regional structure – and a conception of city power – in general terms. But their application in each of these contexts will differ enormously. The same can be said about governance and the focus on being a global city: New York and London, on the one hand, and Mexico City and Johannesburg on the other, are not similarly situated on either score. And Berlin and Shanghai are not comparable to any of the other four – or to each other.

Gerald Frug, Louis D Brandeis Professor of Law, Harvard University





FEELING THE URBAN AGE

wo years. Six cities. New York, Shanghai, London, Mexico City, Johannesburg and Berlin. Together they offer a cross-section of our Urban Age in the very year that more than half of the world's population has moved to urban areas. In one generation's time, by 2050, three quarters of the planet's 8 billion people will be urban, while only a century ago 90% of humanity was living in villages and fields. Today, one million people a week move in the opposite direction – from the fields to the city. Behind the dramatic statistics lie very different visceral realities that link urban form to urban society, shaped by the homogenising impact of global flows of capital, people and energy. And each city form – compact, high-rise, lowrise, hyper-dense, sprawling, dispersed, polycentric, mono-centric, organic, geometric, informal or unplanned – brings with it its own set of social, economic and environmental consequences.

Of the six cities visited, Mexico City epitomises the tensions between spatial and social order. Its endless low-rise spread, with 60% of its 20 million inhabitants living in illegal and informal housing, conceals a fast developing landscape of difference exacerbated by the dominance of the car in a city where petrol is cheaper than mineral water. Investment into two-tier motorways, rather than into the type of sustainable public transport that has so successfully transformed Bogotá or Curitiba, are pulling the city even further

apart, lengthening commuting times for its workers and pushing the poor to the far fringes of this seemingly limitless city. Here the rich seek protection in golf-course residential typologies in armed and gated communities, or the emerging vertical ghettoes of Santa Fe with their shimmering high-rises overlooking the organic but well-established shanty towns, where the vibrant informal sector constitutes 60% of the city's economy. Despite the high quality of the city's early 20thcentury well-planned, compact neighbourhoods of Condesa and Roma, architects and planners are struggling to convince their civic leaders that intensification of the city's central districts is the solution to its massive infrastructure deficiencies - poor public transport, lack of water, crumbling terrain and lack of open space - while the absence of any form of growth boundary or development control outside the city's legal boundaries makes any attempt at city planning meaningless. Yet. architecture and urban design are still managing to play a significant social role. Even the controversial private sector led regeneration of the recently abandoned Centro Historico, with street improvements, pedestrianisation and city centre housing, reflects the impact the built environment can have on the image and identity of a city struggling to establish its credentials as a democratic and economically thriving city, in a period of intense political and economic change. Having perhaps reached a natural limit to its horizontal expansion, Mexico City needs to untangle its messy governance structures and recognise

that parallel policies of region-wide growth containment coupled with a re-densification of its more central neighbourhoods and extensive rail-based public transport are the only way forward in responding to the city's seemingly intractable spatial problems.

only way forward in responding to the city's seemingly intractable spatial problems. The civic leaders of Johannesburg face similar but more extreme challenges in tackling the radical demise of its Downtown. Home to the city's major financial institutions up to the end of Apartheid in 1994, the central, gritty district of Hillbrow has become a no-go area to black and white residents alike in the space of a few years. At night the Downtown area is eerie, with flickering lights of makeshift kitchens in multi-storey apartments indicating the presence of a new, disenfranchised urban subclass. The effect of this transformation has been profoundly spatial. A large percentage of the city's business institutions have moved out – recently completed hotels and office blocks remain empty or boarded up in the centre – to the anodyne suburban centres of Sandton and Rosebank, surrounded by a fast expanding sea of walled shopping centres and gated residential communities - inhabited by white families and the new emerging class of 'economically empowered' blacks. Soweto and Alexandra, the formerly segregated black townships with single-storey shacks or two-storey homes laid out on a regular grid, remain physically, if not politically, segregated, with little or no public transport except for the unreliable and expensive communal taxi service which constitutes the only lifeline to jobs. In a region that will become one of the most populous in Africa – the twelfth largest in the world by 2050 despite the effects of the HIV/AIDS epidemic and an average life expectancy of 52 – and has set itself the target of becoming a 'global city region', Johannesburg's 3 million plus

population is growing at a significant pace, creating a physical landscape that celebrates difference over inclusion - behind gates, cameras and barbed wire – where public space fails to perform its democratic potential as a place of interaction and tolerance, and where a non-existent public transport system reduces the possibility of economic progress. As a new generation of civic leaders begin to tackle these complex urban questions, only twelve years after the birth of a new South Africa, Johannesburg is in a position to redirect its considerable economic power towards the construction of a more compact and integrated environment, through policies and actions that prioritise public transport and investment in the centre, retro-fit its disenfranchised communities with social spaces and facilities and contain the proliferation of out-of-town shopping malls and gated communities, preparing the ground for a new phase of development that will inevitably follow as the region continues to expand.

Like all the other cities of the Urban Age, with the exception of Berlin, New York is also growing, once again, having experienced and recovered from a period of relative conflict, crime and economic decline. Today the densest city in the USA is building on its 'melting pot' status as the only American 'majorityminority' city, where over half of the 8 million people living in the city's five boroughs are of non-white, non-Hispanic origin. Its compact urban core, with residential blocks arranged along a tight and regular urban grid and active street frontages lined by shops, has

London is also juggling with the interplay of private interests and public intervention

demonstrated resilience, accommodating waves of colonisation by different ethnic groups, artists and cultural entrepreneurs, and varying forms of economic activity – from garment sweatshops to corporate head quarters – underscoring the importance of built form in sustaining cycles of urban change. Despite the growth in business and services, New York's less affluent residents still suffer from an acute shortage of affordable housing, high levels of crime and poor inner city schools in one of the world's richest cities, where the average GDP per person is \$40,000. The sheer density of the city and its physical distribution between the Hudson and East rivers supports what is one of the most efficient public transit systems in the world, used by over half the population to go to work (in Los Angeles it is only 20%). Despite huge investment in its transport system over the last decades - over \$40 billion - the 'city' of New York suffers from a flawed system of governance where the budget of the Mass Transit Authority is determined hundreds of miles away in the state capital of Albany – rather than by the Mayor of New York – resulting in poor strategic coordination, best illustrated perhaps by the ongoing Ground Zero débâcle Together with a string of new housing projects on the edges of Manhattan, Brooklyn, Queen's and the Bronx, a series of linear parks and open spaces are being developed on derelict industrial sites that have the potential of creating a 'Blue Belt' around Manhattan, providing an urban lung for its high density residents. While this large scale, private sector 'urban retro-fitting' initiative responds to overheated market demands, it risks fuelling an inevitable process of gentrification of the next generation of 'target areas' which, without the appropriate policies that determine social mix of people and uses, or

public investment in facilities and open spaces, could end up with environments that lack the vibrancy and urbanity of the city's diverse neighbourhoods.

Leaving New York in a snowstorm after a four-hour taxi ride to JFK airport and taking the 373 km/h, fifteen-minute Magnetic Levitation (Maglev) train journey from Shanghai airport to the 'centre' is bracing at many levels. New York feels delicate and even fragile in contrast to the heroic scale and pace of change in China's febrile mercantile city – where over 5,000 towers with more than 8 storeys high have been built within 25 years. The raised Maglev monorail flies over a landscape of serial duplications of cookie-cutter gated communities - regimented apartment blocks neatly aligned at equal distances – with vast billboards advertising the very same real estate opportunities, and isolated reflecting glass skyscrapers that constitute Shanghai's urban experiment-in-the-making in a city of over eighteen million people. The drivers behind this hyper-scale residential development are not only the high levels of in-migration typical of so many cities of the global South, but also the overpowering demand by the city's residents, especially its emerging professional class, for more space and facilities inside their homes. Only fifteen years ago, the average space available to a single person in Shanghai was six square metres, roughly the size of small car. Today, that size has at least doubled, fuelling the housing boom that marks the skyline, and, more significantly for its negative impact on the public realm, the ground level in every corner of the city. The decision to accommodate growth by building high, with single point blocks surrounded by car ramps and empty open space, is damaging the subtle urban grain of a city of immense character and dynamic street life – so visibly threatened by the design and typology of the

vast majority of new developments.

Shanghai's city planners are aware that in the pursuit of economic progress, 'mistakes' are being made that at some point in time will need to be 'corrected'. Forced relocation of inner city dwellers (to remote highrise estates), the banning of bicycles and motorcycles on selected streets (because they cause congestion), the construction of more elevated motorways (to supposedly relieve conges tion), and the cynical appropriation of prime sites by corporate behemoths (especially along the Hung Po River) are indicators of an unsustainable development pattern balanced by significant public investment in the underground system with the addition of 218 kilometres (over half of New York City's entire network) in the next years. The much celebrated policy of eleven new satellite towns on the fringes of Shanghai's vast metropolitan area, each themed according to national flavours - the 'German' Town, the 'Italian' Town, the 'Scandinavian' Town, and so on has been quietly abandoned in favour of a more pragmatic response to the needs of a rampant real estate sector - one of the many ambiguities of this independent Socialist city which has recently witnessed the effect of Beijing-directed Communist Party purges among its ruling élites.

among its ruling élites.

London is also juggling with the interplay of private interests and public intervention, as it once again – like New York – faces a period of intense growth after decades of decline.

While a mere 750,000 people will be added to London's current total of 7.3 million by 2015 – a modest figure in comparison to the growth rates of Shanghai or Mexico City – most new Londoners will be from outside the UK and many from the enlarged European Union attracted by 400,000 new jobs in the city's strong service and business sectors. The city's spatial configuration – a dispersed,

At night the Downtown area is eerie, with flickering lights of makeshift kitchens in multi-storey apartments indicating the presence of a new, disenfranchised urban subclass

multi-centred, green organic urban structure

unevenly distributed on both sides of the winding River Thames, which flows from the affluent west to the poorer east – has in many ways determined the shape of its future development. One of the first decisions taken by the new Mayor of London in 2001 (the Mayoral Office, itself a new institution in the history of governance of this 2,000-year-old city) was to accommodate all growth within the city's existing boundary – the so-called Green Belt. The combination of a demographic and economic growth, a strong property market and the availability of brownfield sites – ex-industrial areas, old railway goods yards, redundant gas and electricity depots has kick-started an unprecedented process of urban retro-fitting that is transforming the image as well as the reality of living and working in London. Clusters of highrise buildings are springing up around existing and new business hubs, while the townscape of the Thames is filling up with a new generation of office and residential structures that add little to the urban quality or grain of the city, reemphasising the lasting value of London's

traditional stock of terraced housing, which, like Berlin's perimeter housing or New York's mansion block, has demonstrated enormous capacity for change and adaptation as the city undergoes cycles of economic, social and cultural change. London still has one of the oldest and most expensive underground systems in the world, which is about to undergo a massive facelift through a controversial public-private finance initiative that will affect travel in London for the next decades. To protect Londoners from spiralling prices – according to UBS, London in 2006 is the world's most expensive city – there is a requirement that 50% of any new housing project must consist of affordable housing, not only for families on 'waiting lists' but for key-workers like firemen, nurses and policemen who are otherwise being progressively priced out of the market. The reality in many of London's inner city areas is still bleak, where over half of all children live in poverty (52%), and across the city 85,000 children live in temporary housing, many in 150,000 officially 'overcrowded' households. The new generation of housing typologies currently being designed for London's new communities – with a large concentration in the Thames Gateway in the ex-Docklands areahas the potential for relieving pressure on housing demand, but risks polarising the relatively diffuse distribution of wealth in London, that determines its diverse character.

Two years of urban travel and investigation have – as Saskia Sassen has put it – turned a group of urban 'nomads' into an urban 'tribe'. Together we have felt and observed how underneath the skin of at least these six world cities lie deep connections between social cohesion and built form, between sustainability and density, between public transport and social justice, between public space and tolerance, and between good governance and good cities that matter to the way urban citizens live

In one generation's time, by 2050, three quarters of the planet's 8 billion people will be urban, while only a century ago 90% of humanity was living in villages and fields

their lives. Perhaps more so than ever before, the shape of cities, how much land they occupy, how much energy they consume, how their transport infrastructure is organised and where people are housed – in remote, segregated environments behind walls or in integrated neighbourhoods close to jobs, facilities and transport – affects the environmental, economic and social sustainability of global society.

Ricky Burdett, Director, Urban Age, LSE





BERLIN: A PROFILE

tepping out from underneath the glass arches of Berlin's orand new main railway station, the Hauptbahnhof, one is greeted by a plethora of grandiose architectural gestures set against the backdrop of a vast expanse of undeveloped ground. One's gaze may come to rest on the Federal Chancellery, designed by Axel Schultes, or on the 'Band des Bundes', the 'Federal Belt' of newly constructed government buildings; one may take in Norman Foster's Reichstag cupola or the completely redeveloped Potsdamer Platz and recall that, a mere fifteen years ago, none of these structures existed. What is even more striking from this vantage point is that the city, as people's living space, does not seem to intersect with the Berlin that is the new representative centre of Germany. City dwellers and citizens evidently inhabit two decidedly distinct spheres. Unlike many other European cities, Berlin has no clearly defined city centre complete with market square, city hall and cathedral. Such central space simply does not exist here. More than ever, Berlin is a conglomeration of parallel worlds, a hotchpotch of stages on which long-established residents, newcomers and tourists make their respective entrances.

The Berlin Wall saved the Western part of the city from the fate that, after the War, had typically befallen so many other West German cities with their emptying town centres and fraying edges, their populations slowly spilling over into the surrounding countryside. Yet there was a price to pay for this in Berlin, namely the destruction of a coherent urban structure. The bombings of World War II and the subsequent partition had carved up Berlin's infrastructure, its canalisation, its network of roads and its railway system. Vast areas of derelict land soon became a hallmark of this fragmented city.

When the Berlin Wall fell and Berlin

became, albeit by a narrow parliamentary majority, the capital of the newly unified Germany, expectations ran high and grand visions abounded. Surely, the city would soon be home to six million people, and all manner of fanciful plans were drawn up for this new metropolis: Berlin was to become the powerhouse of the new Republic, the focal point for an entire 'Generation Berlin', the 'hub' that would connect East and West, a veritable 'laboratory of unification'. Such promises were directly rooted in the rhetoric and practices of the Cold War, when, thanks to huge subsidies provided by the two respective German states, West Berlin had been established as a 'Window on Freedom', while East Berlin stood proud as the 'capital of the first Workers and Peasants' State on German soil'. On either side of the Wall, Berliners themselves tended to view such labels – which bore precious little relation to the realities of their everyday lives – with a healthy amount of scepticism. While others were certainly welcome to entertain illusions of grandeur, Berliners' first loyalties lav with their neighbourhoods and their lovingly tended urban allotments.

Since the early 1990s, Berlin has, above all, been a huge building site, and architecture often had to grapple with paradoxical expectations: on the one hand, the 'Planwerk Innenstadt', a decidedly anti-modern reurbanisation and city-centre revitalisation directive, decreed that the 'historical city' should be recovered; on the other hand, politicians and residents alike expected the

architectural fraternity to create a metropolis of the future. As a result, a lot of sound yet middling designs, but few masterpieces, were realised. Bold and innovative architectural statements are indeed very few and far between in this city. Today's general sense of disappointment with this state of affairs has less to do with the buildings themselves than with the hopes and expectations of the 1990s. People had once more been prepared to put their faith in the redemptive power of good architecture, only to discover yet again that redemption is the one thing architecture cannot offer. Most importantly, however, the new government buildings or the redeveloped Potsdamer Platz failed to project an image that Berliners could recognise. The city remained as fragmented as ever. In the midst of this unparalleled building

activity, and while ever more grand expectations were projected onto Berlin, the city's economy collapsed: the Eastern part of the city as well as its Brandenburg hinterland were labouring under the consequences of deindustrialisation, while the Western part of the city grappled with the effects of the end of subsidisation. Since 1994, population figures have been steadily declining, and today, an entire suburban belt is economically dependent on Berlin. Meanwhile, in the city itself, more than 100,000 apartments stand empty. For years, both commercial and residential properties have been in plentiful supply and remarkably cheap to get hold of. Compared to Paris, Warsaw or London, this seems an anomaly.

Maladministration and wastefulness have left the city¹ crippled with debt and effectively bankrupt since 2002. The state of Berlin has withdrawn from all major building projects, which are now exclusively in Federal hands. The attempts at regenerating the city's urban infrastructure have been largely successful and, for the most part, the effects of war and partition have been overcome, but there is a painful lack of resources when it comes to maintaining the city's libraries, schools, theatres and universities. Berlin is a poor, economically weak city that is terrifically cheap to live in.

Contrary to initial expectations, no new urban élite has emerged post unification. A bourgeoisie, in whatever shape or form, that would set the tone, function as a social barometer, speak out on behalf of the wider public and take the lead on issues of common concern, simply does not exist in Berlin. Berlin is a city of ordinary people, students, newcomers fleeing the provincial backwaters of their childhoods, and a fast living and mercurial bohemian crowd made up of artists, intellectuals, journalists, freelancers and plain drifters. This latter set shapes the mood and lifestyle that dominates Berlin's inner city districts. Most of these people lead rather precarious and uncertain lives but they have certainly made Berlin the only German city in which a carefully chosen witticism, a surprising gesture or an ingenious performance count for more than status and income. Indeed, money plays an astonishingly minor role in the social life of the city. And Berliners like to take things slowly – a fact that surprises even Swiss visitors to the city.

This bohemian scene has found a perfect form of expression in the 'intermediate utilisation' of disused buildings. There are many such empty structures all over Berlin, and squatters are swift to move in and put them to creative use – dissolving traditional bound-

aries between art and entertainment, aesthetic ambition and nightlife fun. The first such project was the 'Tacheles' on Oranienburger Straße, and eventually even the 'Palace of the Republic', the former cultural-centre-cumseat of the East German parliament, (now in the process of being demolished) was turned into a temporary arts venue. Three old armchairs and a hastily cobbled together installation usually suffice to transform the fleeting moment into a memorable one. This culture of the transitory, a legacy of our love affair with everything crumbling, seems uniquely suited to the character of the city, and Berlin owes much of its attractiveness for tourists to precisely this idiosyncrasy. It has put Berlin firmly on the map in the European imagination and proves that, here at least, everything is possible and anything goes, no matter how limited your resources. A spirit of freedom is indeed key to people's life in this city.

Berlin's economic plight, its poverty, its lack of an effective élite, its fragmentation and abundance of disused spaces, the weakness of its administration and the continuing East-West divide – all these are the very conditions of Berlin's intellectual as well as real life character. Three factors will determine the city's fate over the coming years: immigration from Eastern Europe, a brain drain among the young, and the continuing lack of a city centre in the good old European sense of the word.

For most of its history, Berlin has been a rather dismal one horse town. It became the capital of Germany because it had been the capital of Prussia. Since the dissolution of Prussia, it has become apparent that the city is barely able to survive by its own efforts, surrounded as it is by an impoverished region that is gradually being abandoned by its inhabitants. The political task of countering this state of affairs with strong and effective institutions is currently tackled only hesitantly and without much energy or conviction.

What Berlin teaches architects and urban planners is, above all, humility. The building and planning frenzy of the 1990s showed that architecture cannot be expected to counteract the provisional and temporary nature of this city, nor relieve its social frailty. What it can do, however, is continue to create stages and project images. Good metropolitan architecture has much in common with good stage design – a fact more apparent in Berlin than anywhere else in the world.

Jens Bisky, journalist, Süddeutsche Zeitung

Translated from German by Alexa Alfer

¹ Like, for example, Bavaria or Hesse, Berlin is a federal



AN ALTERNATIVE TO THE GLOBAL CITY?

ermany is currently rediscovering the city. The themes of crises and decay, which have long dominated discussions on the city, are being superseded by a new passion for the city. For some decades, German cities have been losing population and jobs. This problem affected cities in East Germany the hardest after unification, as the loss of jobs, the decline in population and the moving away of young people with qualifications meant that they were faced with dramatic levels of negative growth. However, from the beginning of the 21st century, there have been clear signs pointing to a change in urban development trends.

Some profound economic changes occurred in cities, further accelerated by the enormous effects of globalisation and digitisation. The change from an industrial to a service-led economy, based on science and culture, particularly in the large West German urban regions of Munich, Frankfurt, Cologne and Hamburg, meant the development of a new urban dynamic. We can now see a reurbanisation in terms of employment as well as population, and even in East German cities such as Leipzig, Dresden and Berlin the population is once more increasing.

The urban system in Germany, as in many other countries, shows that globalisation and digitisation do not lead to a disintegration of the city, as predicted by many experts, but to a re-evaluation of the city and the development of a new form of urban centrality, which, in Germany, takes the form of a process of urbanisation.

While in most other countries, dominant global cities have emerged, Germany has none, but instead has a multi-polar urban

system. As presented very convincingly by Saskia Sassen in various publications, the new type of global city takes on a strategic role. The control, integration and management functions of the commodity chains that are spread throughout the world are concentrated in the global cities. At the same time, the global city is a central location for production and a transnational market place for high quality, knowledge-based services.

How can we explain the absence of a German city high up in the hierarchy of global cities, even though Germany has held the position of 'export champion' for many years and has been exceptional with regard to the integration of its economy into the world market?

In answer to this question, the peculiarities and interruptions in German history are often referred to. Germany only gained one common capital city when the Prussian democratic empire was founded in 1871. Berlin became the seat of government and developed into Germany's dominant economic and cultural city but never achieved the centrality of London or Paris. After the historic disasters of the Nazi regime and the Second World War, Berlin's central role was totally destroyed by the break-up of the German Reich and the splitting of Germany into four occupation zones. Many companies moved their headquarters from Berlin to West Germany. Following a resolution by the American occupation government, the new Bank Deutscher Länder (Bank of German States), which was the predecessor of the Deutsche Bundesbank, was founded in Frankfurt after the closure of the Reichsbank in Berlin. As a consequence, the Deutsche Bank and the Dresdner Bank moved their headquarters to Frankfurt. At the same time,

the American occupation government decided to develop Frankfurt airport to be the central base of the US Airforce in Germany. Frankfurt's function as a gateway and an international financial centre was a direct result of these decisions. Similar historical decisions led to the specialisation of other cities: Munich became Germany's high-tech metropolis; Hamburg, its news and media centre; and, with the creation of the German Federal Republic in 1949, the seat of government was moved to Bonn. Although the role of political capital was given back to Berlin after unification, it is unlikely that Berlin will

ever regain its former central economic role.

This historical sketch implicitly classifies
Germany's urban network as a special case in
the hierarchy of the global urban system. Can
Germany really be considered to be a special
case that shows deficits?

An alternative explanation can be found in the discussion on 'Varieties of Capitalism' (Hall/Soskice). If it is true that modern capitalism is not a homogeneous entity, but that different models of capitalism have developed under different historical conditions, then it is not unlikely that these different models also have correspondingly different patterns of urbanisation. The 'belated' industrial nation of Germany had already developed an alternative to the liberal production system at the end of the 19th century, which can be characterised as a form of regulated, corporate market economy. This model of 'Rheinian Capitalism' combined with strong federal structures formed the basis for the economic and social system of West Germany. It is very likely that Germany has not only created an alternative model of production, but also an alternative and effective model of urbanisation.

Characteristic of this model of urbanisation is both the polycentrality of the urban system with its distinct complementary division of labour between individuals cities, and the phenomenon of regional 'manufacturing service districts'.

Whereas globalisation in the 1980s and 1990s led to a strong global dispersion of industrial functions in Anglo-Saxon countries, the urban regions in Germany still have a strongly interactive dynamic of developing knowledge-intensive industries. Furthermore, the German urban system is connected to the European and global networks of cities. The individual cities can only develop their capacity and innovativeness in their specialisms with the help of very effective networks and cooperation.

As Saskia Sassen rightly points out, a global city is by definition part of a network. This applies even more strongly to the urban system in Germany, whose multi-tiered networks are of a regional, national, European and global nature. Thus the German urban system could prove to be a valid future alternative to the highly centralised model of the global city.

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Translation from German by Anne Rigby

a worldwide series of conferences investigating the future of cities

organised by the Cities Programme at the London School of Economics and Political Science and the Alfred Herrhausen Society, the International Forum of Deutsche Bank



Alfred Herrhausen Society
The International Forum of Deutsche Bank

URBAN AGE SUMMIT BERLIN NOVEMBER 2006

URBAN AGE: GLOBAL OVERVIEW

URBANISATION OF THE WORLD



The relentless pace of contemporary urban growth becomes particularly evident in a number of rapidly expanding cities, where the number of new city residents increases by the hour. As is the case with other indicators of contemporary urbanisa-

tion, the fastest growing cities in the world are located outside the advanced capitalist core. Lagos is adding an average of 67 new residents every hour, putting enormous strains on its already challenged urban infrastructure. Cities in the Indian subcontinent are also expanding rapidly: New Delhi adds 64 residents an hour, Mumbai 49 and Dhaka 61.

HUMAN FOOTPRINT

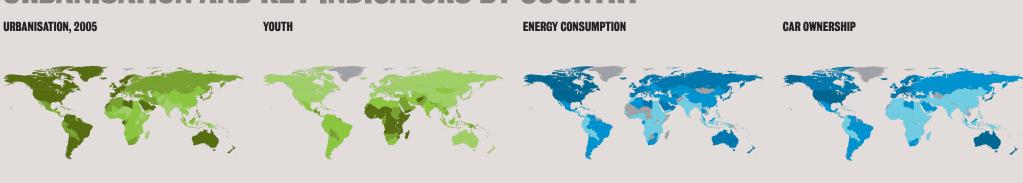


In the contemporary urban age, the spatial effects of city-based economies, cultures and societies are being felt in virtually every corner of the planet. Beyond the massive expansion of urbanised areas and the consolidation of regional cities reach-

ing continental scales, it is estimated that over 80% of the Earth's land surface is influenced by the human footprint. Activities as diverse as agriculture, industrial development and tourism are spreading across the world linked to urban centres

through thick networks of production and consumption. There is a strong interconnection between an urban agenda of sustainable development for cities and a global environmental agenda.

URBANISATION AND KEY INDICATORS BY COUNTRY



Out of the four indicators urbanisation, energy consumption, car ownership and youth, higher levels of the first three are generally indicating more advanced economies and only youth with its extreme concentration in Central Africa appears as a

proxy for the developing world. This far, higher levels of urban populations are accompanied by higher energy consumption and car use but not with youth.



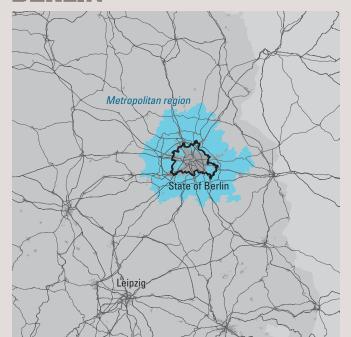
Urbanisation of the world / Source: Urban agglomerations, UN Population Division Human Footprint / Source: Center for

Energy consumption / Source: International Energy Agency (IEA), 201 Urbanisation, 2005 / Source: World Urbanisation Prospects, 2003 Revision UN

Youth / Source: World Urbanisation
Prospects, 2003 Revision, UN

THE SIX CITIES: REGIONAL OVERVIEW

BERLIN



Today the population of Berlin stands at approximate- country's GDP and a limited ly 3.4 million. During the last centrality within the German century, Berlin's growth, rela- economy. The city's embattive to other large European cities like London, has been fairly slow. In fact Berlin pres- and limit its employment and ents an anomaly in a world of development policies. cities that are rapidly expanding. By the end of the 20th cen- ly 892 square kilometres, tury, the city's population showed a mere 72% increase from its level in 1900. Even more striking, in the past decade of increased investments to Berlin there was a

population decline of 1.5%. At €23,354 per capita, Berlin's Gross City Product is substantial. Yet this, the largest city in Germany, has

BERLIN COMPARED TO GERMANY

only a 3.5% share of the tled public finances complicate its economic recovery

Berlin covers approximatestretching out along the Spree River and its plateaus. In Berlin, open space has not been an afterthought to city planning; open and recreational space accounts for 45% of the city's surface. The gross residential density of Berlin is about 3,800 people existing urbanised area through structural densifica-

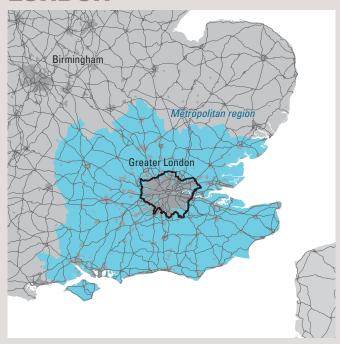
One person households

Car ownership

Unemploymen

6.9%

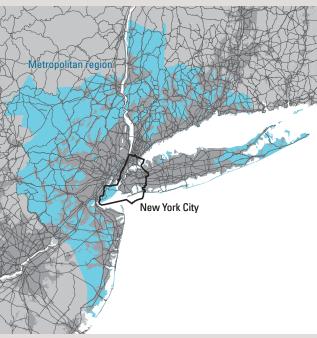
LONDON



After a decade and a half of In recent times London, a significant population service-led urban economy growth, Greater London curwith a global orientation, has rently has about 7.5 million experienced what is perhaps residents; projections indian unprecedented economic cate that this figure will reach bonanza. Currently its Gross 8 million within the next City Product is estimated at decade. Greater London cov-€34,500 per capita accounting for almost 20% of the ers approximately 1,600 UK's national economy. Yet a square kilometres of land area hard core of poverty lingers in at a gross residential density Inner London, particularly in of about 4,700 people per sqkm. However, almost half its eastern and southern of this surface is comprised of areas. open and recreational space. The city has decided to accommodate the expected population growth within its

One person households

340 cars/1,000 people



For the first time in its history, New York City's population passed the 8 million mark in the year 2000 after a decade of strong growth. Since then, the city has continued to add residents, and this trend is expected to continue over the next ten years. Regional growth outside the city has also continued apace.

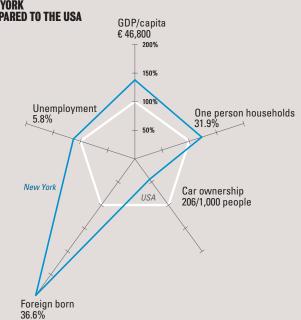
With a Gross City Product of approximately €39,500 per capita, New York is one of the world's richest cities. This juggernaut urban economy generates up to 4% of the entire US GDP. It has been pointed out often that even with the enormous wealth generated by the city, there is

a persistent level of poverty in New York.

New York City covers

approximately 830 square kilometres, of which 25% is dedicated to open and recreational space. The gross residential density of New York City is about 9,600 people per sqkm, by far the highest in the United States. However, this density level drops significantly outside the city. Also, densities across New York are unevenly distributed, and vary widely from peaks in parts of Manhattan to the relatively low densities in the outer boroughs with a notably suburban character.

NEW YORK COMPARED TO THE USA



POPULATION GROWTH

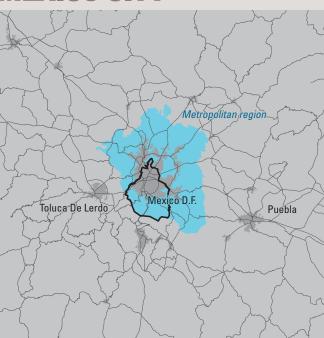
Population growth in the six Urban Age cities follows a variety of different patterns. London, New York and Berlin had their period of exponential growth at the beginning of the 20th century; Mexico City, Shanghai and Johannesburg did not start to grow at similar rates before the 1950s. By 1910, London

Foreign born 13.7%

and New York had already a total population of above 5 million and share a period of decline followed by growth in recent years. It was not until 1990 that populations of Mexico City and Shanghai crossed the 15 million mark.

20 mi Mexico City Shanghai Berlin Johannesburg

MEXICO CITY



The current population of Mexico City Metropolitan Area is estimated at 18 million, of which 8.6 million live within the Federal District. Both the population and Metropolitan Area have expanded dramatically since the mid-20th century. Both continue to grow in complex patterns – whereas the urban core has regained some population, suburban sprawl continues apace, fuelled by lowcost mortgages and a lax reg- Its Gross City Product ulatory framework.

The Federal District covers about 1,488 square kilometres. In the urbanised northern portion, open and recre-

ational space is scarce. The gross residential density in this part of the district is about 2,090 people per sqkm. Expanding the amount of recreational space and the urbanised area of Mexico City number of cultural facilities for the residents of this highdensity area is considered a fundamental priority among many Mexican town

> mount importance for the Mexican national economy. (€105,000 million) contributes 22% of Mexico's

Mexico City is of para-

SHANGHAI



growth, and it is expected to

continue, expanding by more

than 10% annually for at least

another decade. The urban

approximately half of the

labour force now works in the

employed in a diversified set

able within a three-hour drive

of industries. The Yangtze

River Delta – Shanghai's

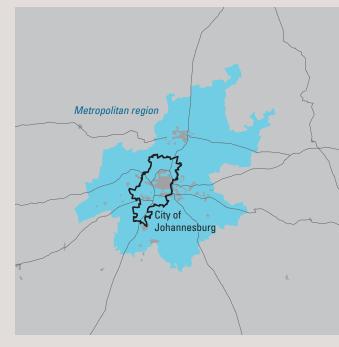
from the city – comprises

capacity and generates 30%

Within China's current legal framework, Shanghai can be understood as a city-state: it extends over 6,300 square kilometres and has more than economy is also modernising: 18 million inhabitants. Whereas its traditional city boundaries demarcate an area service sector, while 36% are of 289 square kilometres, in which 6.5 million people live at very high residential densities, most of Shanghai's terriwider economic base reachtory is now considered urbanised and reaches an average density of 2,900 peo-22% of China's productive ple per sqkm, arranged in a seemingly chaotic patchwork of its exports. of agricultural, residential and industrial land uses.

Since 1992, the Shanghai economy has shown rapid

JOHANNESBURG



The current population in the Africa's total economic out-City of Johannesburg is ca 3.2 million. It is estimated that the city grew 4% per year on average in the late 1990s and some projections present a growth scenario in which metropolitan Johannesburg will reach almost 15 million people by 2015. The urban core of Gauteng province is expected to become the world's twelfth largest cityregion, behind Lagos yet larger than Los Angeles.

Johannesburg is considered the economic engine of South Africa and its urban economy has a growing continental and global reach. In 2003, its share of South

put was c 17%. Johannesburg is a service-oriented economy: 74% of people are employed by services, businesses or the real estate sector.

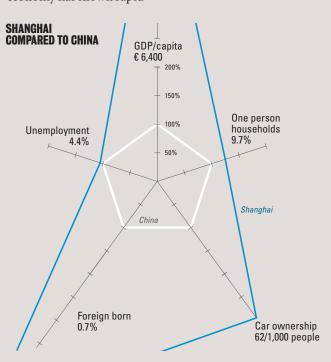
With Johannesburg's new boundaries, the city now stretches over 1,600 square kilometres, reaching a gross residential density of ca 1,900 people per sqkm. This is a low urban density by international standards, yet the highest of all urban areas in South Africa. Densities vary widely across the metropolis, reaching peaks in both disadvantaged inner-city neighbourhoods and the peripheral township of Alexandra.

MEXICO CITY COMPARED TO MEXICO One person households 9.7% Foreign born 0.7% Car ownership

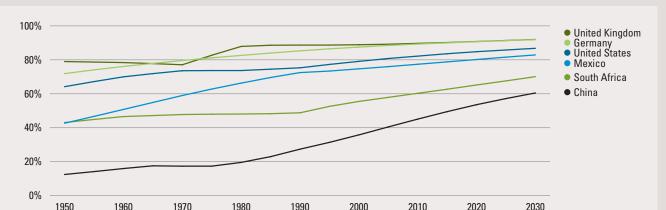
URBANISATION BY SELECTED COUNTRIES

All three countries with advanced economies including the US, Britain and Germany were already largely urbanized by 1950. Since then, the proportion of urban population in these countries is a phenomenon of the have only grown from between 65 and 80% to levels between 80 and 90%. Mexico

and South Africa started with similar levels in 1950 of about 43% but Mexico urbanized more rapidly and is about to pass 80% within the next decade. The case of China is one of extreme change where the key phase of urbanisation



JOHANNESBURG COMPARED TO SOUTH AFRICA GDP/capita One person household Unemploym 37.4%



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HOUSING AND URBAN NEIGHBOURHOODS: DENSITY

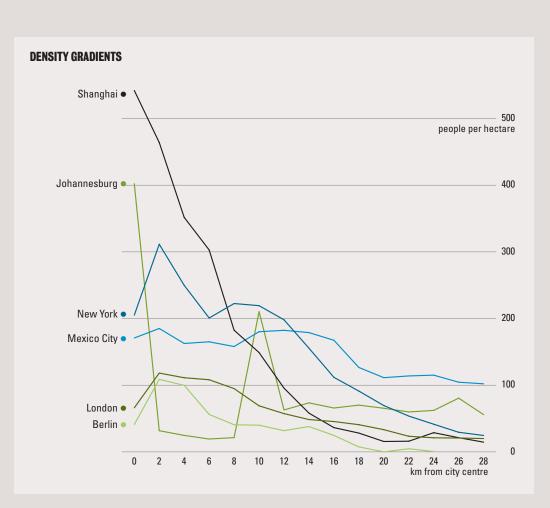
divergent distributions of urban density, land-use arrangements and growth models. The highest gross resony of urban sprawl. idential density peak is reached in some central city neighbourhoods of Shanghai demographic pressures leadwhich accommodate over 600 ing to rapid urban growth. people per hectare. However, Densification rather than Shanghai as a whole is not the horizontal expansion is how densest city in the group as growing cities can take more density falls abruptly as soon as one leaves the city centre. With 96 people per hectare on opment paths. Achieving this average, New York occupies that position. Mexico City comes close, but without reaching Manhattan-like peaks in its centre and maintaining a more homogenous high density throughout the and broad attractiveness of entire urban area. The European cities, London and going processes of densifica-Berlin, show the flattest densition. More research is needed ty curves, nevertheless achiev- to understand the varying ing a higher overall density than Johannesburg. In this

The world cities studied by the Urban Age project present extreme high density in the treatment of the Urban Age project present extreme high density in the treatment of the Urban Age project present extreme high density in the treatment of the Urban Age project present extreme high density in the treatment of the Urban Age project present extreme high density in the treatment of the Urban Age project present extreme high density in the treatment of the Urban Age project present extreme high density in the treatment of the Urban Age project present extreme high density in the treatment of the Urban Age project present extreme high density in the treatment of the Urban Age project present extreme high density in the treatment of the Urban Age project present extreme high density in the treatment of the Urban Age project present extreme high density in the treatment of the Urban Age project present extreme high density in the treatment of the Urban Age project present extreme high density in the treatment of the Urban Age project present extreme high density in the treatment of the Urban Age project present extreme high density in the treatment of the Urban Age project present extreme high density in the treatment of the Urban Age project present extreme high density in the treatment of the Urban Age project present extreme high density in the Urban Age project present extreme high density in the Urban Age project present extreme high density in the Urban Age project present extreme high density in the Urban Age project present extreme high density in the Urban Age project present extreme high density in the Urban Age project present extreme high density in the Urban Age project present extreme high density in the Urban Age project present extreme high density in the Urban Age project present extreme high density in the Urban Age project present extreme high density in the Urban Age project present extreme high density in the Urban Age project present extreme high density in the Urban Age project present extreme inner-city and underserved areas in black townships break the low-density monot- household space. Sufficient

> Cities throughout the world need to respond to the environmentally sustainable and socially inclusive develgoal requires a careful mix of infrastructure investments, land-use coordination, social policies and urban design. The latter is particularly crucial to maintain the liveability urban environments undercapacity of different street grids and block layouts to

and insuring adequate amounts of personal and amounts of open and green space are another necessary component of sustainable densification.

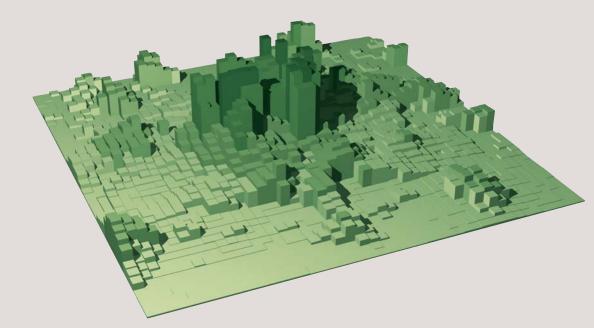
Even in cities experiencing demographic decline, as in the case of Berlin, designbased interventions have the potential to manage change, re-adapting existing structures to new conditions and even generating an attractiveness of place that could lead into an urban turnaround.



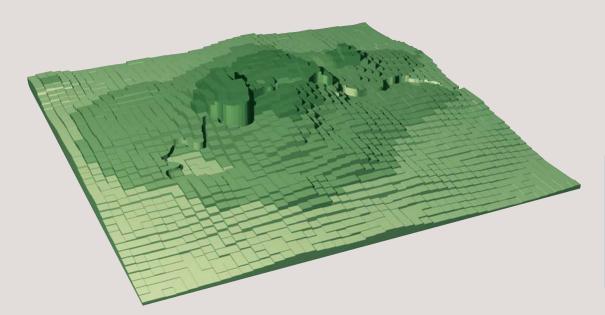












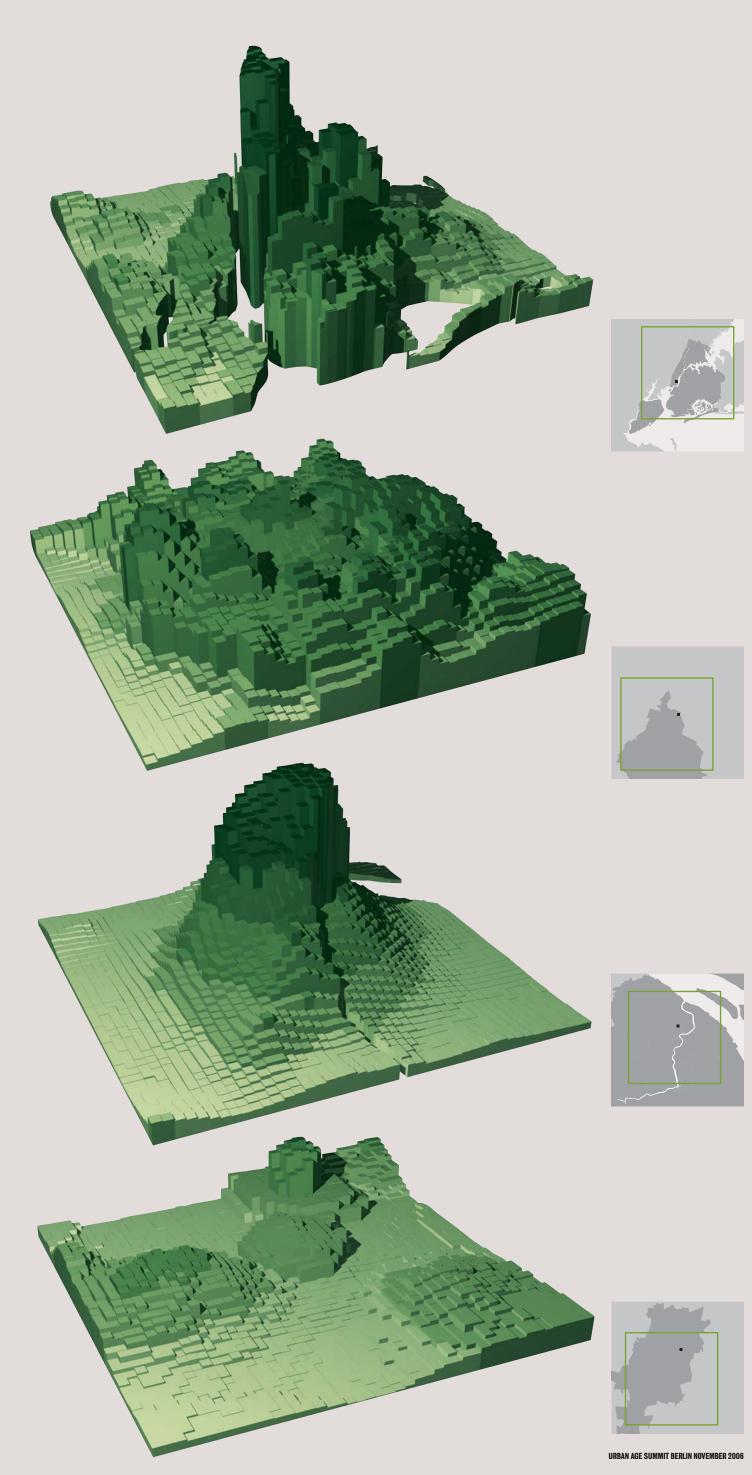












TRANSPORT AND MOBILITY

The transport infrastructure and mobility patterns of the six Urban Age cities offer a striking illustration of very specific geographic, historic

and political conditions. Regardless of the differences between the six cities there is clearly one identifiable subgroup that includes the older, mature cities like New York, London and Berlin. All three are characterised by an extensive urban rail system. Berlin's U- and S-Bahn system extends over 396 km within the city. New York's subway is 370 km long and was strongly influenced by the administrative landscape that cut off the system from urbanised areas west of the city's core. London's 480 km of underground rail mainly serves

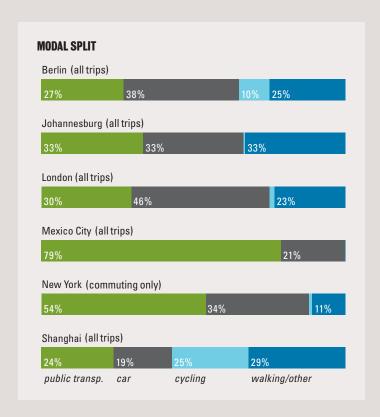
itations of early 20th-century technology to deal with geological constraints south of the River Thames. In addition, all three cities rely on an extensive network of regional rail servicing their metropolitan regions while being sufficiently connected to intercity rail. Mobility patterns reflect this extensive availability of public transport with modal split shares of over 50% for work-related trips in New York, and around 30% of all trips in London and 27% in Berlin. Public transport affinity in the three cities comes along with similarly high levels of walking and biking: 32% in Berlin and 25% in London. In Manhattan walking to work is the mode of

North London due to the lim- choice for more than 22% of its residents.

Transport patterns in the three rapidly expanding cities - Shanghai, Mexico City and Johannesburg – are more diverse. In all three the period of exponential growth and infrastructure building came much later. Mexico City was the first of the three and started building its underground in the late 1960s and today operates an efficient 200 km long network. Despite being a reliable system, it is only used by 14% of the city's population. Meanwhile, minibus services account for more than half of all trips. Johannesburg has no underground rail system and most of the 120 km of surface rail serves only the older areas of

LONDON

the city. The majority of new affluent developments rely on the private car. The 12,500 privately run mini taxis are used for 20% of journeys to work while 40% of all journeys to work are still done by foot. Shanghai's first underground metro line was opened only a decade ago. The total length of the current metro system is 65 km, but another 10 lines totalling 218 km are under construction, reflecting the scale of growth and reach in the city's infrastructure. The share of public transport is rapidly growing with 23% of daily trips to work using some form of public transport, including rail, metro and bus.

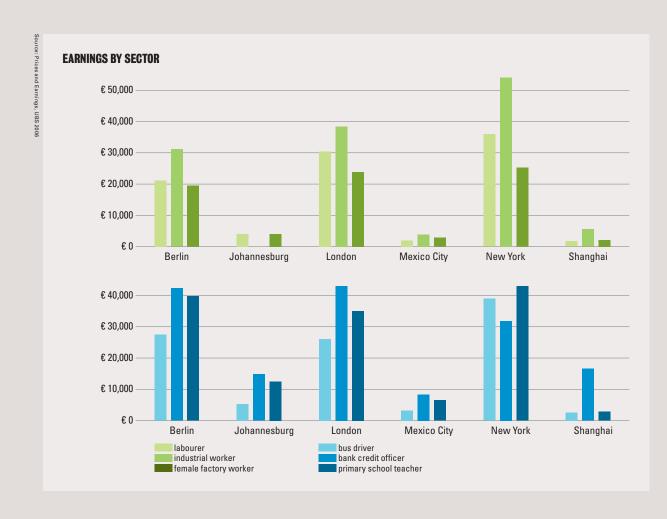


LABOUR MARKETS AND WORK PLACES

The distribution of employment by sector in all of the Urban Age cities shows the extent to which cities have changed into service-based economies. For all of the cities, the service sector employs more than half of the urban labour force. This transition appears the most far reaching in New York and London where less than 10% of the urban labour force is engaged in industrial activities. Yet cities are far from becoming mono-cultural 'office economies', in fact financial and business services are the main employment category only in London. Even in New York, it is 'other services' that make up almost half of the city's employment base. This broad category includes a diverse range of urban activities including personal, social, health, educational and entertainment services. All of these niches

require specialised work places from where they can contribute the most efficiently to the urban economy.

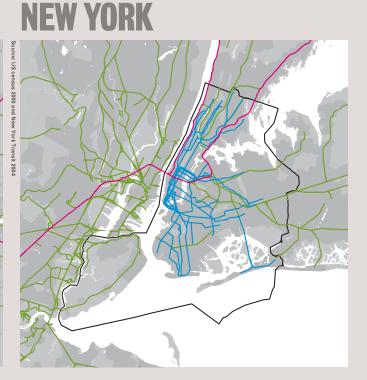
The reduced employment share of urban manufacturing does not diminish the importance of this sector within urban production complexes, supporting leading sectors of a city's economy. Moreover, Shanghai, which is one of the fastest growing urban economies in the world, retains an important manufacturing base. Shanghai's various industries employ up to a third of the city's labour force and are seen as one of the pillars of this rapidly expanding global economic node.

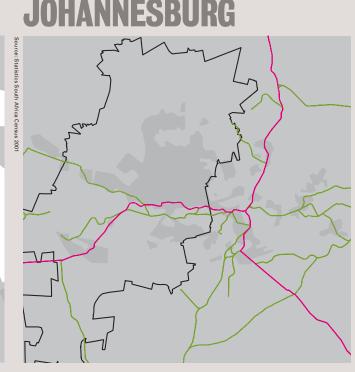


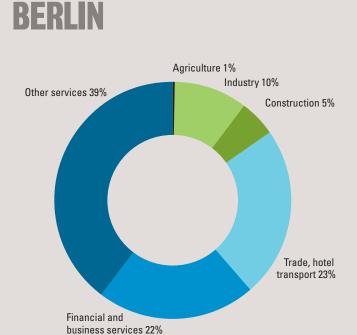
BERLIN











Agriculture 1%

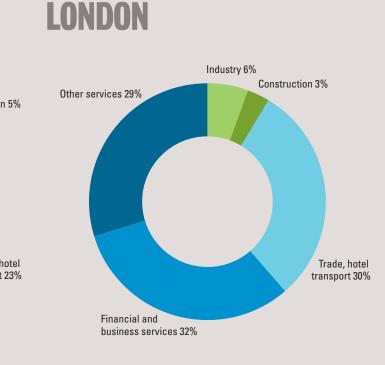
Industry 13%

transport 36%

MEXICO CITY

Other services 32%

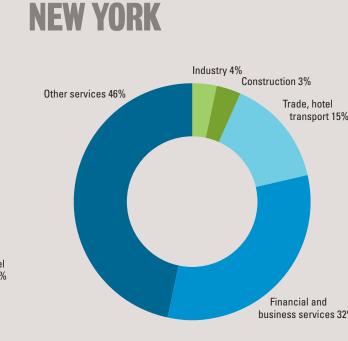
Financial and business services 129

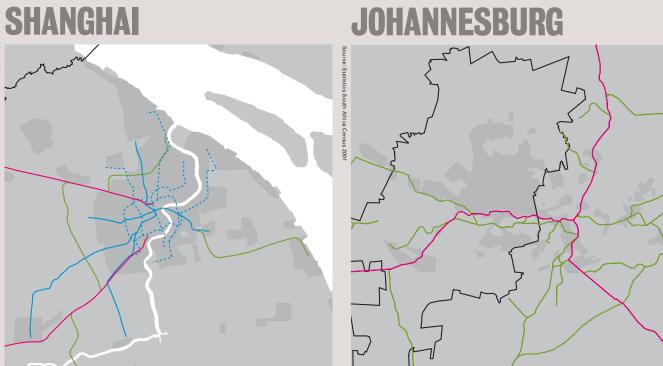


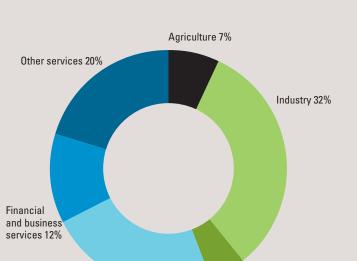
SHANGHAI

Trade, hotel

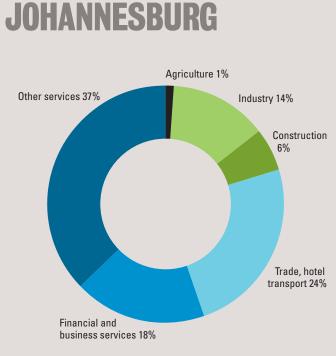
transport 24%







Construction 5%



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SOCIAL DISADVANTAGE

Social inclusion is one of the most important challenges for contemporary cities. All of the six cities – Berlin, Johannesburg, London, Mexico City, New York and Shanghai – present significant concentrations of socially disadvantaged populations, even though most of them are in a period of economic expansion and sustained physical development. Urban concentra-

tions of social disadvantage appear in manifold geographical patterns. Some cities are characterised by their socially and physically decayed inner cities, as can be seen in parts of East and South London and parts of New York City's boroughs outside Manhattan. Others relegate their disadvantaged populations to underserved metropolitan peripheries as is the case in

Shanghai and Mexico City. Berlin and Johannesburg present a combination of both patterns, each of them showing a specific geography inherited from their unique development histories and recent transformations.

