[Ricky Burdett](#) (ed.)

Istanbul: city of intersections

Report

ISTANBUL CITY OF INTERSECTIONS

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URBAN AGE ISTANBUL

Cities have always been global nodes where people, cultures and goods intersect. More than any other of the Urban Age cities, Istanbul has performed this function for several thousand years: a global 'hinge' city that connects civilisations and continents.

While it may not be growing at the dizzying pace of Mumbai or Shanghai, nor suffering from the widening social inequality and violence of São Paulo, Mexico City or Johannesburg, Istanbul faces many of the same challenges confronted by all Urban Age cities including London, Berlin and New York: economic stability, social cohesion and climate change.

At the Istanbul Urban Age conference, the ninth in an international investigation of cities, which started in 2005, we will be addressing these issues with urban experts and civic leaders from cities around the world, placing a mirror to Istanbul to reflect on shared problems and solutions – from the very real threat of flooding and earthquakes to the need to retain a clear sense of identity and cohesion in a fast-moving world.

Bringing to a close the first cycle of the Urban Age, Istanbul appropriately marks the beginning of a new phase of urban exchange with the creation of LSE Cities, an international centre supported by Deutsche Bank. From January 2010, LSE Cities will continue the work of the Urban Age together with the Alfred Herrhausen Society and expand into new areas of research, education and outreach centred on the links between the physical and the social, seeking the 'grammar of success' for cities of the twenty-first century.

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Urban Age is a worldwide investigation into 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.

THE CITY TOO BIG TO FAIL

As Urban Age changes its focus to Istanbul, **Deyan Sudjic** frames the city's urban history through cultural, economic and political comparisons with global cities around the world.

Cemal Emden

Playing host to several civilisations and empires, Istanbul's silhouette is defined by minarets, spires, columns and more and more tall buildings. The historical peninsula sits at the intersection of the Marmara Sea, the Bosporus and the Golden Horn.

Istanbul is a city as beautiful as Venice or San Francisco, and, once you are away from the water, as brutal and ugly as any metropolis undergoing the trauma of warp speed urbanisation. It is a place in which to sit under the shade of ancient pines and palm trees for a leisurely afternoon watching sun on water, looking out over the Bosporus. But also, in some parts, to tread very carefully. Istanbul has as many layers of history beneath the foundations of its buildings as any city in Europe. In 2010, it will become the European Cultural Capital. Depending on how you count, Istanbul has been the capital city of three, or perhaps four, empires. It is still shaped by the surviving fragments of Greek, Roman, Byzantine, Venetian and Ottoman civilisations. It has Orthodox Christian churches, Sunni mosques, and Sephardic synagogues. It has vast classical cisterns, ring upon ring of ancient fortifications, souks and palaces. It also has desolate concrete suburbs of extraordinary bleakness, urban terrorism, and a rootless, dispossessed underclass struggling to come to terms with city life.

It is the largest city in a state that emerged in 1923 from the chaos of World War I and the Versailles treaty, and the vision of modern Turkey's founder, Kemal Atatürk, who, though he was born in what is now Thessaloniki, and so unmistakably a European, moved his capital to Ankara, a city created almost from nothing. For the first few decades of modern Turkey's existence, the state devoted most of its resources to the new capital and its infrastructure. For a while it looked as if Ankara and Istanbul might become

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twin poles: one a European gate, the other a counterbalance in the heartland of Anatolia. As Turkey's urbanisation started to accelerate in the 1950s, the balance shifted overwhelmingly towards Istanbul. The rural poor poured into the big city and what used to be considered a cosmopolitan enclave, a demonstration of Turkey's tolerance of other ethnic groups and faiths, has also become the heartland of its most conservative constituency. It is a city in which 3,500 dispossessed gypsies, descendants of a community that has lived in the Sulukule district in the shadow of the Byzantine city walls for centuries, are systematically being moved out of sight and out of mind in an operation that recalls Robert Moses' determination to drive federally funded highways through the black and Puerto Rican neighbourhoods of New York City.

Istanbul is the largest and most febrile urban centre in a country with an army committed to secularism, which, in some extreme cases, shades away from Atatürk's ideals towards authoritarianism. If the generals miscalculate, it has the potential for an insurgency that could make Turkey

a kind of Algeria and Istanbul its Algiers. But Istanbul is also what is driving Turkey, toward Brazil, Russia, India and China, the new economic powerhouses. The collapse of the Soviet Union made Turkey in general, and Istanbul in particular, a vital new centre for services and expertise profiting from a rapid growth in the energy-rich former Soviet republics. It is a phenomenon that is reflected in the array of carriers at Istanbul's greatly enlarged airport, from Uzbekistan Airways, and Dniproavia, Tajikistan Airlines, Air Astana, Donbassaero and Tatarstan Airlines, their hulls painted in gaudy colours, more like busses than Boeings.

It is also visible in the stream of ships that clogs the Bosporus day and night, a continuous double file of tankers and freighters flows past the minarets and the suspension bridges that define the city. Istanbul is the base for the architects, the construction companies, the advertising agencies, and the banks that are reshaping Kazakhstan and Azerbaijan, and the Ukraine and even Russia. It has banks and television stations; it has manufacturers that are shooting rapidly up the value chain from generic products to designer label kitchen sinks.

Istanbul is Turkey's passport into the European Union. It sees itself as part of a group of cities on an axis running from Dubai to St. Petersburg. If London is Europe's first global city, Istanbul sees itself as its second. It's a city whose influence is shaped by both culture and commerce. Istanbul has a thriving approach to contemporary art, although surprisingly perhaps, given the close personal interest that Ataturk himself took in architectural issues, importing

Austrians to plan Ankara, it has not as yet developed a distinctive architectural culture of its own in the way that Mexico or Australia have. Its geographic size and population mean that Istanbul has a strong claim to being regarded as the largest city in Europe, even if it partly lies in Asia, where a third of its citizens now live. In the European suburb of Levent, one of Istanbul's main business districts where banks cluster, you can find facsimiles of smart London Chinese restaurants and mega shopping centres. But Istanbul is also a place with settlements within its limits, in which Kurdish migrants from rural Anatolia tend flocks of sheep under the gaze of prefabricated concrete apartment blocks.

It is a city like no other and yet it is a city that has things in common with many other cities, even if it does not always recognise it. While Cairo's population has doubled, Istanbul's population, like Lagos, has quadrupled since 1980. It straddles two continents, in a way that is very different from, but inevitably also reminiscent of, the twin cities of El Paso and Ciudad Juarez straddling the Rio Grande, blurring Mexico with the United States.

Istanbul is home to nearly 13 million people, governed in a recently created unitary jurisdiction, which saw the city's land area nearly triple from approximately 1,800 km² to 5,300 km². Even now, it still pulls in another 1.5 million workers every day, swelling its peak time population to 15 million. The city administration is attempting to limit its population to 16 million, fearing that if it is allowed to spread unchecked it will reach an impossible 25 million, in

Istanbul is Turkey's passport into the European Union. It sees itself as part of a group of cities on an axis running from Dubai to St. Petersburg.

a country that has currently 71 million people. But this is really in the hands of the national government, rather than the city, given that the GDP of the poorest regions in Turkey is just 20 per cent of that of the richest areas of the country. With such an imbalance, it is no wonder that Istanbul has become a magnet for the rural poor. Turkey's internal migration has had the effect of making the inequalities of Istanbul grow more acute, rather than less, even as it has prospered over the last decades. And it is not the master of its own fate. There is the TOKI state housing programme, run by the Prime Minister.

Very few cities have such a compartmentalised geography. The vast majority of Istanbul's citizens never make the crossing from one continent to the other. But the 10 per cent who do cross from one half of the city to the other every day amount to a still huge total of 1.2 million. And to accommodate them, there is a plan to build a third bridge across the straits. However, it is feared by some that this will destroy the reservoirs that feed the city. Ask civic leaders if there is an environmental problem for Istanbul.

The first thing that they talk about is August 17, 1999, when a serious earthquake hit the city, causing 20,000 deaths. Natural resources, population growth, and civil equity barely figure.

But there are ambitious plans to create linear sub centres, both on the east and the west sides of the city, allowing the two sections to function better. The one on the Asian side of the city, at Kartal, is being shaped in its early stages by a dynamic masterplan prepared by Zaha Hadid. Among such privately financed developments, Istanbul has been investing heavily in its infrastructure. A metro system is gradually taking shape, the trams are being revitalised. There is a new rail tunnel under the Bosporus, which will allow the realisation of the ancient goal of one of Europe's empires: to create a direct rail link from Berlin to Baghdad.

In a world in which an accommodation between competing power blocks is essential for both cultural and political reasons, Istanbul is a key bridge between them. It is a city with more than enough of the usual urban problems, but that also has the energy and the resources to stand a chance of addressing them. It's in nobody's interest that they should fail.

Deyan Sudjic is the Director of the Design Museum in London, co-chair of the Urban Age Advisory Board and co-editor of The Endless City*, published by Phaidon. Sudjic curated* Design Cities*, which opened at Istanbul Modern in 2008.*

Accommodating at once centuries of history and an expanding urban modernity, Istanbul acts as a microcosm patchwork of Turkey's diverse settlement typologies.

THE IMMUTABLE INTERSECTION OF VAST MOBILITIES

A key factor in the development of compelling and competitive cities is the flow of capital and people to and through them. With a focus on regional and global intersections in the political economy, **Saskia Sassen** outlines the trends that place the future of Istanbul at the forefront of these flows.

From a distance, Istanbul is the immutable intersection of vast and diverse mobilities. It reaches across the East-West and the North-South axes of the world, and all their possible variants. Out of these histories of intersections comes the need to develop specific capabilities for handling and enhancing network functions; it is not simply a question of location at intersections. It seems to me that developing such capabilities across diverse histories and geographies is a particularity of Istanbul's deep history. It is also one of growing importance in today's networked world. Several major trends make this visible. Here I limit myself to three.

A first trend concerns the flows of capital: Istanbul is at the centre of a geography of capital flows that stretches both East and West. Even though the EU is Turkey's dominant trade and investment partner, current post-Cold War geopolitics make Asian countries increasingly important.

The second trend concerns the in- and outflows of people, and here again we see a remarkable bi-modality between Europe and Asia. The diversity of people migrating to and through Istanbul raises a question about the specific forms of knowledge that arise out of these intersections, about the contents at the heart of networked flows at a time of growing worldwide articulation among diverse complex cultures.

The answer, perhaps, is reflected in a third trend coming out of a study of the top 60 cities in the world in terms of political and cultural variables. Istanbul, that city of intersections and mobilities, sits in the top 30, specifically as a global policy nexus, and as a city for human capital and talent. Below, I will work through each trend in more detail.

In terms of capital flows, Turkey's dominant trade and investment partnership is with the EU. In 2007, trade between Turkey and the EU stood at US$ 12.4 billion, an

astounding thirty-fold increase over the 1990 to 2000 annual average. Of all EU countries, the Netherlands' US$ 5.7 billion made it by far the largest single investor in Turkey, with a group of smaller EU countries together accounting for another US$ 4.9 billion. The long history of economic interactions with Europe since World War II and during the Cold War has fed this overwhelming dominance.

But Asia is rising fast. At the end of 2007, by far the two largest recipients of Turkish foreign direct investment (FDI) were the Netherlands and Azerbaijan, a striking juxtaposition that fully captures Turkey's geographic articulation of East and West. They were followed by Malta, Luxembourg, Germany, the US, and Kazakhstan. As for the major sectors of this FDI, the Construction and the Real Estate industries together account for 20 per cent of the foreign firms operating in Turkey. Turkish construction companies work in a large number of foreign countries too, with the most significant concentration of cumulative value from 1980 to 2009 in Italy (US$ 102 billion), Libya (US$ 50 billion), and Ukraine (US$ 21 billion). A number of countries follow, with cumulative investments ranging between US$ 10 and 16 billion, including Switzerland, Luxembourg, Russia and Sudan, once again highlighting Turkey's bridging of different historical geographies.

Along with a trade orientation that spans its geopolitical region (see 'Regional Context' on page 38 of this newspaper), there has been a dramatic increase in Turkey's total FDI stock abroad. By 2007, Turkey's FDI stood at US$ 12.2 billion, an eleven-fold increase compared to 1990 (US$ 1.1 billion) and three-and-a-half-fold compared to 2000 (US$ 3.7 billion). Similarly, while capital began flowing out of Turkey at exponential rates, by 2007 the inward flow of FDI stood

at US$ 146 billion, a thirteen-fold increase over 1990 (US$ 11 billion), and seven-and-a-half fold compared to 2000 (US$ 19.2 billion). It is the combination of capital flowing in and out, to and through the region that marks the intersection of capital mobilities in Istanbul. Such a dramatic increase in capital relations across and within the region within two decades has led to the developing capacity of Istanbul's changing manufacturing, financial and service industries, now a magnet for human capital and innovation.

The draw of Istanbul is not lost on foreign firms looking for a city in which to locate their headquarters. Of the more than 19,000 foreign firms operating in Turkey, well over half are headquartered in Istanbul. About 10,700 are EU firms, including 3,100 from Germany and 1,800 from Britain. At the other end, 4,300 foreign firms are from Asia, including 910 from Iran, 450 from Azerbaijan, and 300 from China. While EU firms are still dominant, the rise of Asia and the changing geopolitics of its immediate region put Istanbul at the centre of a vast space now characterised by the co-presence of multiple and diverse firms and projects from all over the world. According to a study of the future of European cities, Istanbul is one of the key cities in what is considered to be emergent Europe, a geographic space that runs between Western Europe and West Asia.

While capital flows are one way of identifying economic relations extending to and through the city, the flow of people brings skills, inventiveness, and cultures. These are all elements easily overlooked in debates about migration. The fine grain of cultures shaped by people on the move and by the intersections of global and local get wired into cities, and feed 'cityness'. All of this has inflected Istanbul's unique geopolitics and cultures.

As of 2006, Turkey's global emigration map was still dominated by one recipient country: Germany. Whether we are counting the 1.7 million Turkish nationals, the 2.7 million born in Turkey, though not necessarily holding Turkish nationality, or the even larger number of second and third generation Turkish-Germans who now, thanks to a recent change in Germany's naturalisation law, no longer hold an ambiguous citizenship status, the Turkish presence in Germany is very strong. The next largest foreign resident Turkish populations are in France (229,000), the Netherlands (171,000), Austria (150,000) and Belgium (111,000), followed by a large number of countries with smaller numbers: from Sweden with just under 100,000 to Russia with 2,000.

The global geography of Turkish emigration is changing. Mirroring the flows of capital that move East and West, major destinations of people leaving Turkey continue to be European, but in addition we see growing, although still smaller, flows to Asia. Cumulative departures from 2000 to 2006 were 322,000 to Germany, 57,000 to France, and 55,700 to Austria, followed by smaller numbers to a variety of other countries. But the dominance of Turkey's relationship with the EU can mask the shifting geography of its migrations. In 2006, for example, departures for Germany numbered 30,000, followed by 20,000 to Saudi Arabia, 8,300 to France, and a number of smaller, but significant, flows to the post-Soviet Asian republics.

Migration into Turkey is small, with only 1.9 per cent foreign-born among the total population, a figure that includes return migrants from Germany and elsewhere. But also here we see new geographies of origin, beyond the EU. In 2006, 191,000 foreigners moved into Turkey, mostly from Bulgaria and Azerbaijan. These two nationalities also dominated the cumulative inflow from 2000 to 2006, with 373,700 from Bulgaria, 73,000 from Azerbaijan, while only 48,400 migrated from Germany. These dominant in-flows were followed by smaller, but significant populations coming from Greece, Russia, the US, Iran, Iraq, the United Kingdom, and elsewhere. The origins of migrations are shifting from West to East. Most of the in-flow comes from Bulgaria and Azerbaijan, while most of the out-flow goes to Germany and France.

FOREIGN DIRECT INVESTMENT AND INTERNATIONAL FIRMS IN TURKEY

	FDI INTO TURKEY 2004–2008 (MILLIONS US$)	TURKEY FDI OUTFLOWS 1980–2009 (MILLIONS US$)	INTERNATIONAL FIRMS OPERATING IN TURKEY IN 2007
European Union (27)	44,245	8,679	10,720
Germany	2,992	665	3,125
The Netherlands	13,043	4,266	1,419
United Kingdom	2,957	536	1,831
France	3,633	105	-
Italy	1,191	120	-
Other EU Countries	20,429	2,986	4,345
Other European Countries (Excluding EU)	2,401	1,016	1,691
Africa	111	426	309
USA	6,048	702	834
Canada	242	2	120
Central-South America and Caribbean	595	17	105
Near and Middle Eastern Countries	6,381	3,826	3,072
Azerbaijan	-	3,420	453
Iraq	-	7	511
Iran	-	162	910
Gulf Arabian Countries	5,722	56	-
China	-	26	300
South Korea	-	-	134
Japan	-	-	-
Other Asian Countries	1,058	867	796

POLICY INFLUENCE

Washington
New York
Brussels
Paris
London
Tokyo
Beijing
Istanbul
Vienna
Cairo
Mexico City
Buenos Aires
Bangkok
Berlin
Taipei
Singapore
Los Angeles
Shanghai
Seoul
Chicago
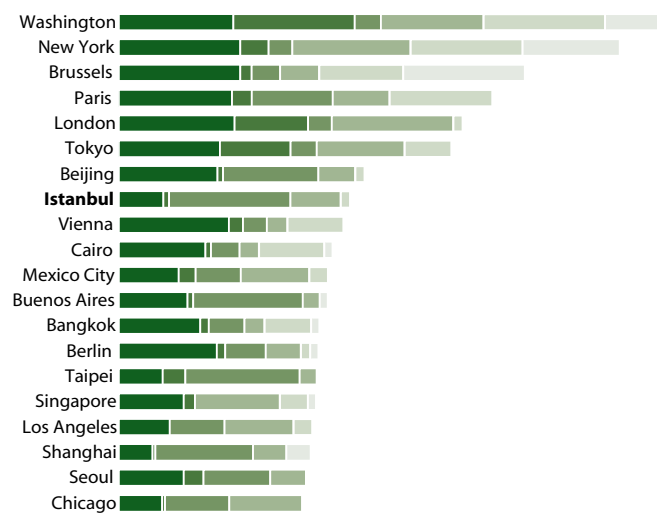
- ■ Embassies, consulates and trade missions
- ■ Think tanks
- ■ Partner cities
- ■ Local organisations with international reach
- Headquarters of international organisations
- Political conferences held in the city

HUMAN CAPITAL

New York
London
Chicago
Los Angeles
Hong Kong
Tokyo
Singapore
Sydney
Boston
Toronto
Paris
San Francisco
Istanbul
Bangkok
Moscow
Buenos Aires
Washington
Madrid
Dubai
Zurich

- ■ Foreign-born population
- ■ Inhabitants with university degrees
- ■ International students at the tertiary level
- ■ International schools at the primary and secondary level
- Top global universities

Source: The Global Cities Index by A.T. Kearney with the Chicago Council on Global Affairs and Foreign Policy.

TOP 10 EMERGING EUROPEAN CITIES

RANK	CITY	COUNTRY
1	Budapest	Hungary
2	Warsaw	Poland
3	Moscow	Russia
4	Istanbul	Turkey
5	Sofia	Bulgaria
6	Bucharest	Romania
7	St. Petersburg	Russia
8	Ankara	Turkey
9	Kiev	Ukraine
10	Yekaterinburg	Russia

Source: Ernst and Young, *Reinventing European Growth: 2009 European Attractiveness Survey.*
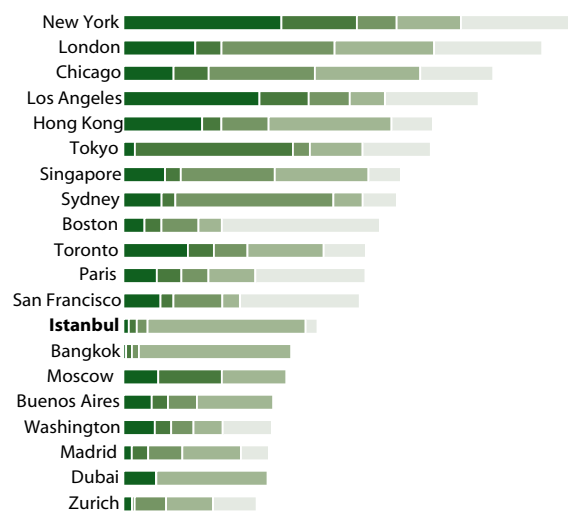
Another important, but more temporary, intersection of work and national cultures occurs on short-term trips. As is the case in most countries, migration figures are dwarfed by the numbers of foreigners entering Turkey for various short-term purposes as well as citizens coming for short-term visits. In 2006, the largest single purposes for coming were travel, entertainment, culture, and visits to family and friends. And yet people do travel to Turkey for work. In 2006, the largest single groups of foreigners were the 7 million managers and professionals, and another 1.1 million in secondary service professions.

Entries of foreigners reached 19.3 million in 2006, up from 13.7 million in 2004, and 11.3 million in 2001. Between 2001 and 2006, over 23 million people visited Turkey from Germany, nearly 9 million from Russia and the United Kingdom each, 7 million from Bulgaria, and 4 million from Iran. These are far from insignificant numbers. They represent the incredibly diverse range of people moving in and out of the country, each carrying with them specific histories and cultures, feeding Istanbul's cosmopolitanism.

Some of these emergent geographies of the flows of capital and of people feed into the two final variables I want to discuss. One is the significant role of Istanbul as a centre for global policy exchange. Kearney's 2009 study of 60 cities along five variables (business activity, human capital, information exchange, culture, and policy engagement), finds Istanbul in the top ten cities worldwide on the policy engagement variable, along with Washington, Beijing, Paris, Cairo, London and Brussels, among others. The study defines the policy engagement variable as 'influence on global policy-making and political dialogue.'

The second, which is not unconnected, is the fact that the study finds Istanbul in the top 15 cities on the human capital variable – defined as a city that 'acts as a magnet for diverse groups of people and talent'. Along the other cities in the top group are Tokyo, New York, Hong Kong, Chicago, Sydney and London. In the case of Istanbul, the key factor feeding its high rank is the large number of international schools, which functions as an indicator for characteristics of the parents of these children.

It is worth noting that of the five factors measured, the most important one feeding the top ranking cities is the presence of a foreign-born population: it is the single largest factor by far, feeding New York's top rank on the human capital variable, and one of the two largest factors in Hong Kong's fourth place ranking. Istanbul is well positioned to gain ground here: even though it is still a country with a very small foreign-born population, it is clear that it has benefited from an enormous variety of origins among its immigrants.

I see both of these prominent positions, in policy engagement and human capital, as having to do with Istanbul's strategic role at the intersection of diverse economic and geopolitical geographies. In an increasingly networked world, this role and the capabilities involved have taken on growing importance.

Cities have long been at the intersection of cross-border circuits – flows of capital, labour, goods, raw materials, merchants, travellers. Asia and Africa have seen some of the oldest and vastest of these flows, and Europe some of the densest. Cities were strategic spaces for the economies and cultures that arose out of these flows, for making the capabilities needed to handle and govern these intersections, and for the housing of power – economic, political, cultural.

These circuits are multidirectional and criss-cross the world, feeding into inter-city geographies. The formation of inter-city geographies is today 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.

The vast expansion of the geographies of these flows in the current period has further brought out the importance of cities at these intersections. For some cities, such as Istanbul, this is an old history, for others, such as Miami, a new one. The ascendance of Asia on the world economic and geopolitical map has brought added strategic importance to some of these cities, among which most prominently Istanbul.

Saskia Sassen is the Lynd Professor of Sociology and Member of The Committee on Global Thought at Columbia University, and an Urban Age Advisor. Her recent publication is 'Territory, Authority, Rights: From Medieval to Global Assemblages' (Princeton University Press 2008).

MIGRATION AND SHORT TERM VISITS TO TURKEY

	CUMULATIVE ARRIVALS FOR SHORT TERM VISITS (NATIONALS AND NON-NATIONALS 2000–2006)	CUMULATIVE INFLOW OF MIGRANTS INTO TURKEY 2000–2006	CUMULATIVE OUTFLOW OF MIGRANTS 2000–2006
Germany	23,933,415	48,400	322,000
Russian Federation	8,959,822	46,200	-
United Kingdom	8,724,427	32,300	-
Bulgaria	6,872,570	373,700	-
Netherlands	6,335,209	-	30,900
Iran	4,089,853	41,500	-
France	3,869,890	-	56,900
Austria	2,809,797	-	55,700
USA	2,671,226	41,900	-
Greece	2,569,173	45,800	-
Belgium	2,552,993	-	23,100
Israel	2,270,623	-	-
Italy	2,104,938	-	-
Ukraine	1,931,396	-	-
Azerbaijan	1,836,595	73,300	-
Georgia	1,824,789	-	-
Sweden	1,774,612	-	7,200
Romania	1,429,198	-	-
Switzerland	1,331,262	-	18,400

GLOBAL POWER CITY INDEX 2009

COMPREHENSIVE POWER RANKING

The Global Power City Index (GPCI) introduces a new angle for global city rankings: Comprehensive Power. Whereas most of the existing city rankings are based on conventional urban functions such as business or financial indicators, the cities' comprehensive power is evaluated by analysing 68 indicators representing 6 urban functions. This allows the evaluation of cities from the perspective of those who are living, working, studying, visiting or creating art in the city, defined as 'Global Actors', as well as six urban functions: the Economy, Research & Development, Cultural Exchange, Liveability, Environment and Accessibility.

In 2009, New York ranked as the most powerful among 35 cities, followed by London, Paris and Tokyo. New York ranks first in the Economy, Research & Development, and in the actors' rankings for Researchers, Artists, Visitors, and Residents. Still, New York ranked in the lower half of all cities when it came to Liveability and the Environment, confirming it is a city with plenty of opportunities, but that they come with compromises. The Environment function measures the ecology, pollution, and natural habitat using ten sub-indicators, and its effect is most visible in North-American cities in whose cases it is pulling down their overall score.
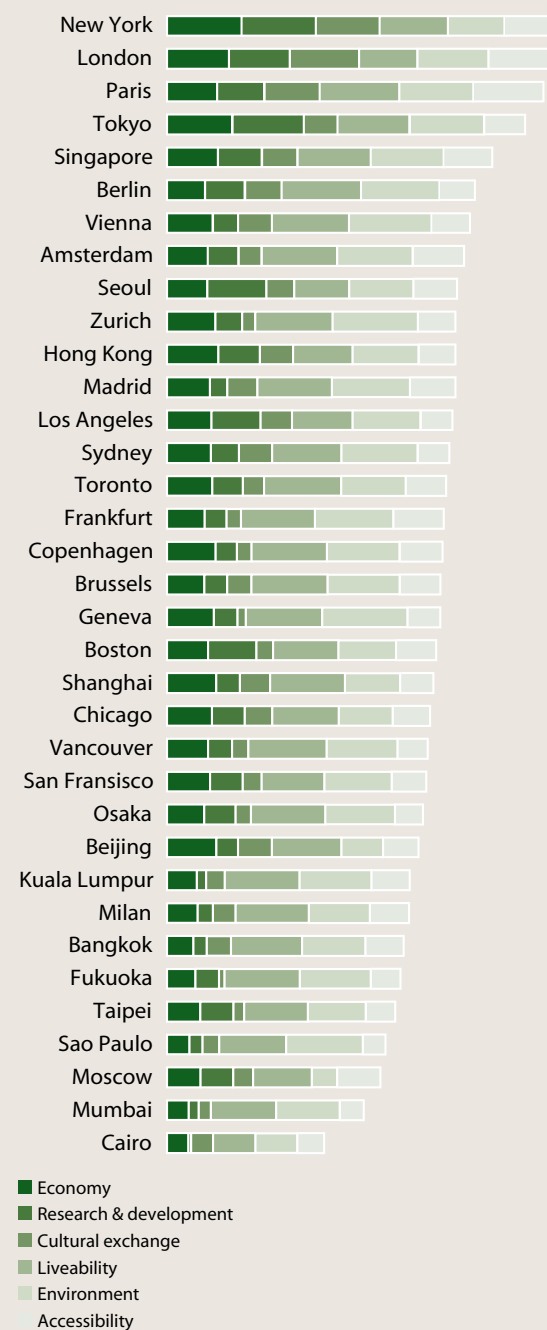
While London shows similarity to New York, Paris is a different story. It ranked first in Liveability and Accessibility, and second for Artists and Residents, whereas the rankings in Economy, Research & Development, and for Managers were relatively low. The result mirrors that of New York: Paris is a liveable city, but comes with economic compromises. Meanwhile Tokyo, which is in fourth place, has the second highest score in Economy and Research & Development, and yet ranks relatively low on the Managers' rating. The other weak point for Tokyo is Accessibility: despite its sophisticated public transport systems at the inner- and intercity level, it is ranked

relatively lower because of its comparatively poor connection to the international airport.

Singapore ranked fifth overall, confirming its status in South-East Asia, followed by a host of European cities. Berlin maintains its popularity among most of the actors, besides Managers, with a high score in Liveability, echoing Paris in its focus on quality of life. Beijing and Shanghai ranked lower in Comprehensive Power, and yet ranked relatively high in both the Economy and Managers' indicators. In terms of business development, it seems these cities have the capacities required to be Asian financial centres.

Researching the ranking of global cities uncovers how these cities interact with each other on an industrial level, creating relationships of dependency, competition and cooperation. One of the extensive analyses of these hidden global circuits shows the connection between headquarters, worldwide corporations and cities, and is based on a survey of the top companies in the world. Lines connecting city to city are showing the circuits of the companies' head and affiliated offices. As the line becomes bold, the sum of the circuits between cities increases. The diagram below identifies the flows of global finance, where the striking triad of New York, London, and Tokyo remains. Other studies show the different circuits created by manufacturing companies, a more diverse set of cities including New York, London, Paris, Madrid, Tokyo, and Seoul. Other sectors are set to be analysed, and will uncover the world's hidden global circuits, representing the age of global cities.

The Global Power City Index at the Institute for Urban Strategies is researched under the direction of Sir Peter Hall, at the Mori Memorial Foundation, a non-profit organisation funded by Mori Building in Tokyo and the Mitsubishi Research Institute. Researchers include Saskia Sassen, Richard Bender, Heizo Takenaka, Hiroo Ichikawa, Takayuki Kubo, and Manabu Mineo.

New York
London
Paris
Tokyo
Singapore
Berlin
Vienna
Amsterdam
Seoul
Zurich
Hong Kong
Madrid
Los Angeles
Sydney
Toronto
Frankfurt
Copenhagen
Brussels
Geneva
Boston
Shanghai
Chicago
Vancouver
San Fransisco
Osaka
Beijing
Kuala Lumpur
Milan
Bangkok
Fukuoka
Taipei
Sao Paulo
Moscow
Mumbai
Cairo

■ Economy
■ Research & development
■ Cultural exchange
■ Liveability
■ Environment
□ Accessibility

GLOBAL FINANCE CIRCUIT

━━━ 13 + connections between two cities
─── 7 - 12 connections between two cities
······ 4 - 6 connections between two cities

Number of affiliates of the top 50 banking and insurance companies*

● 1 - 9
● 10 - 19
● 20 - 29
● 30 +

Number of headquarters of the top 50 banking and insurance companies*

● 1 - 3
● 4 - 9

Fortune magazine's 2009 list of the top 500 global companies, ranked by revenues.

This map represents the number of banking and insurance headquarters and affiliates in cities around the world, and the number of connections between them.

GREEN ECONOMY FOR AN URBAN AGE

Pavan Sukhdev outlines the changes a green economy would have on cities, and the possible city solutions for climate change.

Cities are our society's centres of human creativity, interaction, economic activity, knowledge, diversity and culture. Over half the world is now urban, and according to the 2006 State of the World Cities report, urban-based economic activities account for 55 per cent of the gross national product in the least developed countries, 73 per cent in middle income countries, and 85 per cent in the most developed countries. Cities are precious.

Cities are also critical geographical units in the formulation and implementation of sectoral policies – in water, transport and communications, energy, waste management and construction – that will shape our future for better or worse. Over the next few decades, climate change related disasters will have a significant economic and human impact on cities, in developing as well as in the most developed countries. Cities are at risk.

Cities are also where a range of environmental and developmental challenges find their crude expression – air and water pollution, greenhouse gas emissions from transport or energy consumption, social exclusion and slum developments, poverty and criminality. When we realise that cities emit three quarters of pollutant emissions worldwide, we should think that cities are the place where the 'big push' should be undertaken, to use Jeffrey Sachs' expression. Greening our cities can not just have immediate multi-dimensional economic benefits, but also long-term positive effects as it will reduce the impact of cities on climate change, and de facto the impact that climate change will have on cities.

The cluster of human settlements is embedded in our postmodern culture, especially in developing countries, where a total of 145,000 new urban dwellers are introduced into the urban age every day. It is absolutely necessary to generate a global action plan for mayors to improve sustainability locally, and promote the sustainable green development of their cities. Local Agenda 21 enshrined in the 1992 Rio Convention led to a proactive engagement of mayors from around the world to drastically reduce their city emissions. While there is evidence that implementing Local Agenda 21 has proved challenging, even in some developed countries, there is a general recognition that it contributed to setting the stage for local authorities to take up the challenge of improving the environment in their cities.

The time has now come to take a step further, and to think of the myriad challenges laid out in Local Agenda 21 in the context of an Urban Age seeking its way towards a Green Economy. Cities will be central in bringing about tomorrow's economic benefits and welfare, the provision of decent jobs and human well-being within an environment liberated from the risks and threats of climate change, pollution, resource depletion and ecosystem degradation.

Part of the multi-billion stimulus packages being enacted around the world to face today's multi-dimensional crises are destined to boost green infrastructure, maximise energy use and materials efficiency, stimulate the use of renewable energy, and generate new kind of jobs, all of which will help create cleaner, greener and richer economies. Nonetheless, key questions remain: will the 16 per cent of green stimulus allocated in climate change investments be sufficient to restructure the global economy? Will all this work and what can 'greening' do for the world cities and the world economy, for employment and for poverty?

Achieving the transformative change in cities requires that we urgently integrate urban design in our planning policies, co-integrate nature and human economic development harmoniously, building and designing with

> It is absolutely necessary to generate a global action plan for mayors to improve sustainability locally, and promote the sustainable green development of their cities.

While China is set to become the world's leading buyer of wind turbines, it opens several coal power plants every week. Climate change needs multi-faceted urban solutions that target both technologies and behaviours.

nature. In order to give birth to a green urban age, we need to reduce our consumption patterns, change our habits, and base our production dynamics on resource efficiency and recycling. Many of these indicative criteria depend on the way cities have been shaped. In US cities, David Satterthwaite has noted how people use six times more cars than in wealthy Asian cities, mostly because of the urban sprawl and the lack of connectivity to public transport. In International Energy Agency 'business as usual' scenarios, CO_2 emissions from the transport sector are expected to grow by 120 per cent by 2050 compared to 2000 levels. The global car fleet will triple, and more than 90 per cent of this growth will take place in non-OECD countries. In order to curb greenhouse gas emissions from transport, we must reduce automobile dependence, foster a rapid modal shift towards less carbon intensive forms of transport such as rail, and improve fuel and motor efficiency.

Cities can catalyse a modal and efficiency shift by targeting investment for well-planned, greener transport infrastructure that meets the needs of all users – both motorised and non-motorised. The planning of urban centres and their peripheries according to mixed-use and smart growth design principles must be part of a sustainable transport future. Urban development along these principles will serve to lower dependence on personal vehicles and support the increased use of public transport systems and non-motorised transport for short distances and daily commutes. Together with integrated transport planning and demand management, low-carbon fuels and greater electrification of transport are needed to meet short- and long-term economic and sustainability targets. The efficiency of light-duty vehicles in OECD countries is already capable of being improved by 30 per cent over the next 15 to 20 years. A widespread adoption of this efficiency in non-OECD countries and greater hybridisation and electrification of fleets could deliver a 50 per cent improvement in vehicle efficiency.

Policies promoting densification in the design of cities can reduce demand for long-distance transport. Planning and high density developments are totally compatible, as can be seen in the successful examples of planning green, dense cities that exist in some major wealthy Asian cities. In addition, land use regulations can ensure that habitations are located in places that provide greater efficiency in the use of energy and materials. For instance, many environmentalists want to limit development in Californian coastal cities, even if households there consume less energy due to geographical reasons than elsewhere in the US. Yet restricting construction in California could mean more houses in Houston, Texas, where households consume more energy for heating and people have to drive more because of the urban sprawl.

Incentives and regulations in the building and construction sector offer opportunities for cities and local governments to leverage their authority in the setting of standards and the issuing of building permits. These measures, including mandatory investments in energy-efficiency or the installation of renewable energy technologies in buildings, can make a substantial impact. Many countries are already heading in this direction. Germany, for instance, launched a programme retrofitting existing housing stocks to improve energy efficiency. So far, retrofitting over 200,000 apartments has created 25,000 new jobs and sustained 116,000 existing jobs. A worldwide transition to energy efficient buildings would create millions of jobs as well as the 'greening' of existing jobs for the estimated 111 million people already employed in the sector. Investments in improved energy efficiency in buildings could generate an additional 2 to 3.5 million green jobs in Europe and the United States alone. The potential is much higher in developing countries and in countries in transition. The latter often have large stocks of inefficient buildings. Investments in green buildings have already been proposed for inclusion in a number of

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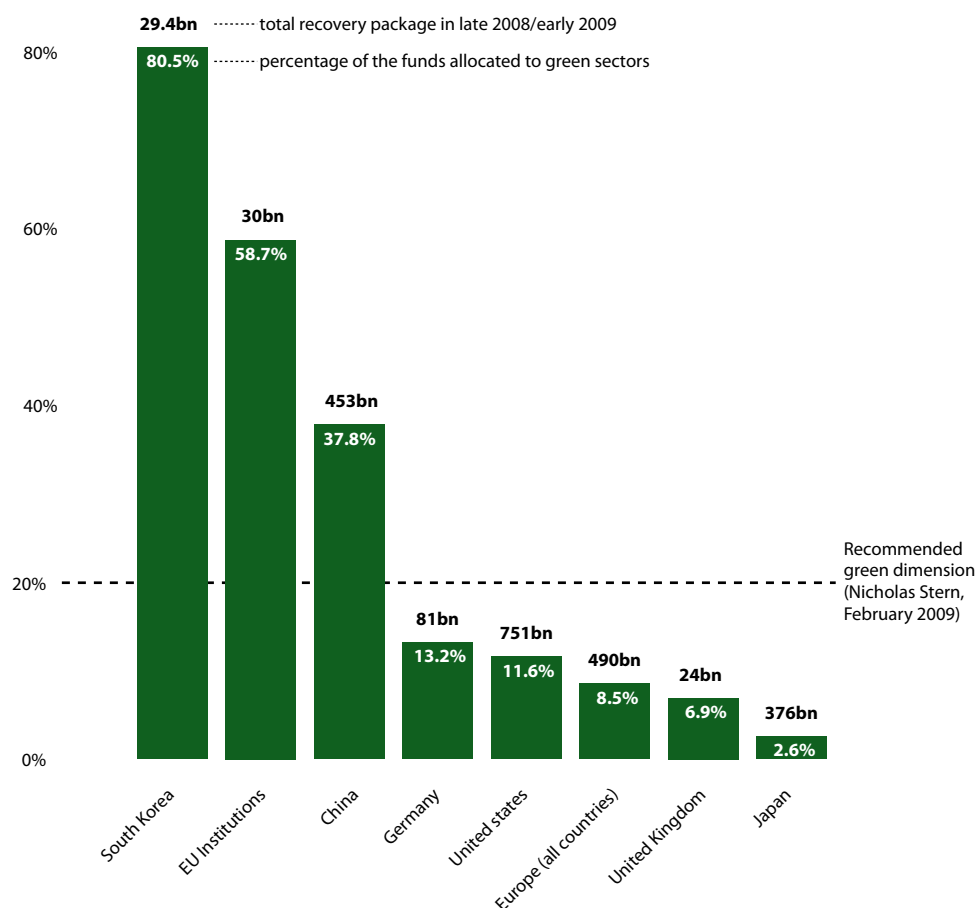
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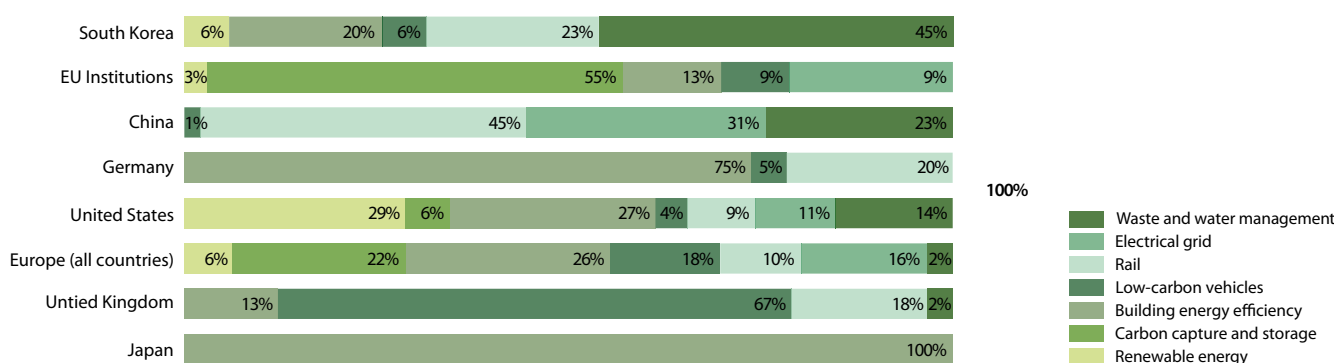
A Green Urban Age will have to recognise and confront the social and developmental challenges facing cities today head on.

economic stimulus packages, including France, Germany, Japan, the Republic of Korea and the United Kingdom. Technologies and materials to improve the efficiency of buildings are commercially available at competitive prices. Using current building technology, we can already cut energy use by around 80 per cent compared to conventional designs. In order to achieve a wide adoption of these technologies and materials in new construction and renovation, however, there is a need for large-scale investments in skill development and capacity building. This is essential for increasing the supply of, and access to such technologies and materials, particularly in developing countries.

A Green Urban Age will have to recognise and confront the social and developmental challenges facing cities today head on. We now realise that urban dwellers are not only those who fully benefit from cosmopolitan urban lifestyles, but they are also the two billion people without access to safe drinking water and sanitation, victims of all kinds of inequalities. Beyond good planning and carbon-free technological solutions, the postmodern sustainable city should also be a well-organised place with low

unemployment, social equality, green open space, social interaction platforms and universal education with provisions for basic needs.

Sustainable cities can partly be achieved by increasing participation in planning and decision-making in and around cities. Participatory budgeting as developed in Porto Alegre, Brazil is an accurate social solution to allocate public money, avoid money leaks and increase spending efficiency. The green urban revolution will occur through the joint collaboration of local community based organisations, international organisations and governmental agencies.

Will the world have to wait for the right mix of political will and coordinated policy actions to take place before sustainable growth can begin? Perhaps not. 'There is already a green economy breaking through what is breaking down', as Lawrence Bloom, chief of the Green Economy Initiative's sustainable cities' sector group puts it. Our hope is that the successful models we have already seen will be given the opportunity to scale up and succeed the world over. Our vision is no less than a society living in harmony with nature, thriving on a truly global green economy.

Pavan Sukhdev is the Project Leader for the Green Economy Initiative (UNEP), Study Leader for the G8+5 commissioned report on The Economics of Ecosystems and Biodiversity (TEEB), and Chairman of the Global Markets Centre Mumbai (Deutsche Bank).

CITY MAKING AS CLIMATE POLICY

With cities contributing disproportionally to global carbon emissions, **Philipp Rode** describes how focusing on the core qualities of the compact city is the key to fighting climate change.

Carrying almost 440,000 passengers a day over 40.4 kilometres of designated bus lanes running on one of its busiest motorways, Istanbul's Metrobüs has successfully reduced travel times, and increased the use of public transport.

In 1986, one of the editions of the German news weekly *Der Spiegel* depicted a severe warning on its cover: Cologne's famous gothic cathedral was shown half submerged in an endless sea of water with not a single other building visible. The issue was titled 'the climate catastrophe' and linked the global environmental crisis not only to the great aspirations of mankind – Cologne's cathedral was the tallest structure in the world in 1880 – but also to the disappearance of a city, exposing its vulnerability to the forces of nature.

The cover was of course an exaggeration at a time when the public knew little about carbon emissions, climate change and rising sea levels. Yet it was in the mid-1980s that humanity's ecological footprint surpassed the earth's capacity. Since then, our massive ecological debt has continued to increase. Despite the establishment of the Kyoto Protocol in 1997, global carbon emissions have shot up by another 26 per cent and the global sea level is now expected to rise up to one metre by 2100.

We now know that cities and climate change are inextricably linked. The widespread acknowledgement of the risks associated with global warming and the need for urgent global action coincides with the global shift from a rural to an urban global population. Cities are vulnerable to a range of effects, of which the rise of sea levels, freak weather conditions and water shortages are among the most prominent. The United Nations estimates that no less than 400 million urban

> At their most basic level, cities follow the logic of any larger organism: they consume less energy per unit than smaller ones.

dwellers are exposed to risks associated with sea level rise. But although urbanisation brings a disproportionate hunger for development and consumption of the planet's scarce natural resources, well designed cities can offer a viable answer to the search for more sustainable lifestyles.

Urbanisation is accompanied by excessive material consumption, more energy-intensive food supplies and ever-increasing flows of goods and people. Between 1950 and 2005, the urban population grew globally from 29 to 49 per cent, while global carbon emissions jumped from 1,630 to 7,985 million tonnes. It is now frequently stated that cities emit around 75 per cent of all carbon emissions. Some cities emit so much that they rank among entire countries, as is the case with Shanghai, which would place 25th in a global ranking of carbon output per country. While such statistics fail to recognise the complexity of linking emissions to a specific territory, they also mask how locally produced,

exported and indirect carbon emissions are differentiated. It is true that most statements about city specific carbon production fail to recognise the complexity of assigning emissions to specific territories and how to differentiate locally produced, exported and indirect carbon. However, most estimates suggest that cities are responsible for a disproportionately higher share of global carbon output. Indirect emissions can have a particularly strong impact: for example when including the emission from air travel to and from London, aviation is the city's largest single source of carbon emissions, calculated at approximately 34 per cent.

About two-thirds of global greenhouse gas emissions are energy related, of which the top two sources, heating and electricity for buildings comprise 25 per cent, while transport and industry are responsible for 22 per cent each. By comparison, emissions from buildings in high-income cities typically account for 60 per cent, and transport for 30 per cent. It is transport emissions that are particularly worrying. Even within the European Union and its ambitious carbon reduction policy, transport-related carbon emissions have increased by a staggering 36 per cent between 1990 and 2006 while other key sectors have at least achieved modest reductions.

What is worse, carbon emissions from transport are increasing more rapidly in the world's fastest growing metropolitan areas. This is partly because some cities are

pursuing conventional models of modernisation, creating an infrastructure legacy matching those of the cheap oil period of the 1950s and 1960s. This politics of concrete and steel, celebrating urban motorways, flyovers and tunnels not only ignore the vast evidence that road construction leads to more traffic and longer travel distances rather than a reduction in congestion, but they can eventually result in the destruction of the city itself. According to empirical estimates for metropolitan areas in the United States, each new highway penetrating the urban core has led to a decline of central city residents by 18 per cent. Metropolitan regions that once embraced the automobile have become endless cities with cars demanding more space than ever before. Today, the São Paulo metropolitan region has more than 6 million cars, an amount that supersedes the total amount of cars in India in 2005; at the same time, the overlooked city centre, with its direct access and public transport links, has been abandoned by most middle-class residents and the city's leading corporations.

In cities, high standards of living do not necessarily entail consumption of an equally high level of natural resources. At their most basic level, cities follow the logic of any larger organism: they consume less energy per unit than smaller ones. By concentrating people, processes and interactions, cities not only vastly increase social and economic opportunities but, up to a certain size, they benefit from the economy of scale in infrastructure and can optimise the efficiency of a broad range of services. A recent comparison of German cities has shown that on average, the amount of road surfaces or the length of electric cables increase only by 80 to 90 per cent when the population doubles, instead of the expected 100 per cent.

This translates into a better environmental performance of cities compared to their regional context: New York City produces only 1 per cent of the country's overall greenhouse gases, but is home to 3.7 per cent of its population. Even when considering all indirect and embedded carbon emissions, urban living outperforms suburban and rural lifestyles in rich nations, as the Stockholm Environment Institute has recently shown for the United Kingdom. There are also enormous differences between cities: most cities in the United States have three to five times the gasoline consumption of European cities, despite offering at least the same quality of life.

A closer look at specific factors contributing to carbon efficiency reveals the dynamics of how a certain compact urban territory can outperform its hinterland or sprawling

spatial configurations. Two decisive factors are reducing energy consumption associated with buildings and transport. The amount of energy per square metre needed for heating and cooling a building is highly dependent on the basic building configuration. For example, joint research by Urban Age and the European Institute for Energy Research has shown that detached houses with the same insulation standards and location in moderate climates require more than three times the energy per square metre compared to multi-storey city blocks.

In the case of transport, the positive 'urban effect' is two-fold. Firstly, it means a closer proximity, and, secondly, it equates with a shift towards more environmentally friendly modes of transport. Compact city configurations generate high levels of accessibility while reducing travel intensity. Barcelona and Atlanta, for example, have similar populations but their built-up territory is vastly different at 162 and 4,280 km^2 respectively; the longest travel distance between two points in the city is almost four times longer in Atlanta. Generally speaking, three key spatial factors – density, mixed-use and poly-centricity – influence the creation of proximity in cities. No single factor reigns supreme. Considered equally, they can also play an important role in increasing the use of sustainable transport modes such as walking, cycling and public transport.

A city's ability to accommodate more environmentally-friendly lifestyles is linked to a range of interrelated factors, from high rates of apartment living to low car dependency. But the primary appeal comes from the potential to link these two factors to social services, cultural amenities and economic opportunities unknown to territories that are characterised by the opposite.

Ever since economist Nicholas Stern referred to climate change as 'the greatest market failure the world has ever seen', the critical role of governments in tackling the global environmental crisis has become more obvious. New regulations, taxes and emissions trading will all have to play a key role before a more dynamic private sector fully embraces green development. At the city level, long-term strategies which utilise the inherent characteristics of cities, including their competitive advantage as energy efficient systems, will have to focus on urban form and concentrating activities, uses and functions. The spatial structure of cities is the result of a complex interaction of market forces with taxes, regulation and infrastructure: while proactive intervention for these three in particular is possible in principle, it will require integration with overall city-wide

strategies at each level of governance if they are to have the desired impact. Any endorsement will also have to recognise the critical role of urban building typologies and that of accessibility based on proximity, mobility and connectivity rather than simply expanding transport infrastructure. A city's expansion into its rural hinterlands is an especially important consideration: once land is developed, it is almost impossible to convert back to open space. Thus planning will have to be reinvented as an essential component of what Anthony Giddens refers to as 'the politics of the long term', avoiding reverting to the unsuccessful models of the past.

Such successful models of change can only be brought about with, and not against, citizens. Over centuries, cities have been progressive environments embracing individual changes in behaviour – a central prerequisite for the emergence of more sustainable lifestyles. As dynamic and reflexive organisms, cities can be quickly mobilised to implement and test new approaches while receiving immediate feedback from residents. The long list of recent transport innovations is a revealing one: strategies such as congestion charging (London, Stockholm, Milan), urban cycling (Copenhagen, Bogotá, Paris), bus rapid transit systems (Curitiba, Bogotá, Istanbul) and temporary street use (Rio de Janeiro, New York, Tokyo) are paving the way for world-wide application. And they have already reduced green house gas emissions: each year Calgary's new light rail saves about 590,000 tonnes, London's Congestion Charge 120,000 tonnes and Paris' Velib bike-sharing scheme 18,000 tonnes. These instructive examples illustrate the enormous potential for political convergence around a climate policy with socio-economic urban objectives. Low carbon cities will significantly improve the quality of life long before reductions in carbon emissions will limit the effects of global warming.

To underline the urban potential of greening our societies, we must clearly differentiate between resource-intensive urban agglomerations and energy-efficient cities – not all settlements of a certain size or within a metropolitan region exhibit the core qualities of a city. But if a city can prioritise the sharing of resources, widespread use of public amenities and ultimately an energy-efficiency combined with social opportunity, city making will help provide solutions to the global environmental crisis.

Philipp Rode is Executive Director of the Urban Age Programme and Associate of the Cities Programme at the London School of Economics.

New York City's 'Green Light for Midtown' is changing the way the city views its streets. These images of Herald Square show mixed–use pedestrian and cycle ways contributing to green transport corridors.

NYC Department of Transportation

ISTANBUL WITHIN A EUROPE OF CITIES

If Turkey joins the European Union, what would happen to Istanbul? **Richard Sennett** describes the defining features of modern European cities, exploring the dual phenomena of a European network of cities and the status of hinge cities around the Mediterranean.

It is often said that a Europe of cities has emerged in the last generation, cities whose ties to each other weaken the bonds of each city to its own nation state. This proposition is both true and untrue. Just to make the matter more complicated, new membership in the European Union, as in Poland and Hungary, did integrate cities like Warsaw and Budapest into the network of European cities; economic and political integration, however, also stimulated social and cultural withdrawal from Europe.

The background to a Europe of cities lies in how most European cities dealt with the huge damage done in World War II. Recovery meant, largely, restoring the central-city fabric that existed before. New buildings filled in an old grain, one usually established before the Industrial Revolution, which meant in turn that the periphery of cities became the key site for new forces, the thinly populated or un-built periphery the receptor for new immigrants, new forms of industrial production and offices. Profound consequences followed: the human settlements on the periphery became isolated from, and invisible to, those who lived in the centre, while the economic activities at the edge followed a different path from economic renewal in the centre. The seats of national power were restored, following an old European pattern, to the compact city centre – a matter of re-linking centralised power to the fortunes of the urban centre.

This path of restoration in London, Manchester, Frankfurt, Hamburg, Warsaw, and Milan contrasted with the post-War decades in American cities, whose middle-classes abandoned the central city; again, in a different way, to São Paulo and Johannesburg, places which in the growth years that began half a century ago, developed patchwork enclaves of race and class, cities which became archipelagos of poverty and wealth.

The Urban Age conference in New York addressed the hollowing out of the central city. William H. Whyte first plotted the movement of executive jobs from the city streets to isolated corporate campuses in the 1960s and 1970s, and he explored the worrying tendency of such companies to implode shortly afterwards. Ex-urban locations, he suggested, had the effect of isolating corporations from the face-to-face economy of the city, and thus further weakened companies that were already vulnerable. In Johannesburg, the work of the Urban Age found an equal hollowing out of its urban core. Here the driver was exclusively racial; the economics of large-versus-small business playing a weak role.

These very different ways of evacuating the centre contrast with the European city in the last half century. Rebuilding the distinction between centre and edge,

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The hinge city is a city of migrants rather than immigrants, a place of location rather than a destination, a city of mobilities.

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privileging again the centres, marked Europe's path of urban growth. The image of a 'Europe of cities' concerns the networking of those centres, not of the cities as a whole. Movements of populations from one periphery to another are quite rare: few Turkish families pushed to the edge of Frankfurt are prompted to make a beach-head migration to the edge of London, and there is little movement between the peripheries of London and Paris. All the same time the centres grow ever more tightly bound: the financial trade routes between the City of London and Frankfurt are stronger than, and largely divorced from, the financial activity each city does with its own nation. Similarly, the trade route of foreign tourism – a principle source of central-city wealth – is marked by a fixed London-Paris-Rome path rather than by dispersal from the monumental urban centre into the rest of the nation.

These are familiar facts which, however, many working for the European Union hoped to alter. In the 1990s, Brussels' officials in both the labour sector and in urban planning wanted cities in new member states, particularly Poland and Hungary, to break the post-War pattern of Western European growth. Through investment policy and the application of a common labour-law, Brussels sought to create more internally cohesive cities, less segregated from and more integrated with smaller towns in the same nations. This has not occurred, at least not in financial services, high-tech, and creative industries – the drivers of the new economy; more integrated into Europe, Warsaw and Budapest are increasingly withdrawn from their nation-states.

Many would argue that global capitalism is the source of centralisation and withdrawal, that this pattern of urban growth can be seen also in Mumbai, Tel Aviv, or São Paulo, that it is not distinctively European. At the Urban Age conference in São Paulo, Saskia Sassen argued that the rebuilding of central areas in cities, whether downtown or at the edges, is part of their new, global economic role. Rebuilding key parts of these cities as platforms for a rapidly growing range of global activities and flows, from economic to cultural and political also explains why architecture, urban design and urban planning have all become more important and visible in the last two decades. And more standardised. Related to this sweeping economic change is the fact that modern urban development has

Boğaziçi Bridge, the 'First' bridge, carries part of an estimated 420,000 cars every day, added to hundreds of thousands that cross the continents via ferries and sea buses.

Paolo Rosselli

homogenised building forms, the poured-concrete and glass box becoming ubiquitous.

One reason standardisation has progressed lies in the fact that such buildings can be globally traded: like money, they are equally the same in all places. The social consequences of standardisation can also be taken to be global rather than European: homogeneity in built form abets segregation – that is, it becomes much quicker and easier to erect entire communities destined for particular social groups, to sort people out, than if planning has to adapt to the quirks and complexities of local buildings. This marriage of homogenisation and segregation is an issue Urban Age addressed in Mumbai. If true, then the prospect for Istanbul as a city in the European Union would mean that the machinery of the Union – its codes of labour and building practice, its banking rules on investment, its assertion of citizen-rights of free movement – abet the process of inclusion in a capitalist rather than a European order. 'Europe' lays down just a marker of how this larger inclusion will occur through accentuating the distinction between centre and periphery.

But that distinction matters in large measure because it is not static. Exclusion is not a fact that people accept passively. Much of the dirty work of rebuilding and maintaining European cities was done by immigrant labour; immigrants worked on building sites, cleaned the streets, staffed hotels and hospitals. Now, in the second and third generation of these immigrant families, continued existence as peripheral peoples is no longer acceptable. Nor has the concentration/withdrawal occurring in the centres of cities become naturalised as a fact of life among 'native' Europeans. The resurgence of cultural nationalism in the last decade signals in part a refusal of people outside the centre to be side-lined, their invisibility taken for granted, the local seen as mere decor. The centre/periphery distinction generates profound social dissonances. This is a large issue, one faced by any city like Istanbul entering a period of expansion.

The dissonances of centralisation appeared in places as diverse as Mexico City and Shanghai in our study of global cities. But a more focused version of this problem might appear in Istanbul because it is a 'hinge city', an urban form which has had a particular shape in Europe. Venice is the European prototype of the hinge city. Renaissance Venice was built on trade with very distant places, dealing in spices from India, slaves from what is now Morocco, cloth and rugs from the countries along the Asian Silk Road, and sending to the East goods finished in Europe. Filled with foreign traders, Venice sought to contain them through the most rigid residential segregation confining Jews to the three ghetto islands, Turks, Germans, and others to fondaci, gated communities in which people were checked out for the day and checked in at night. The fondaci failed as containing institutions: foreigners gradually installed themselves everywhere in the spaces of Venice.

What makes Venice the prototype of a hinge city is the impermanence in time of these foreigners inhabiting a cosmopolitan space. They seldom stayed more than a few years. And this has been largely true of hinge cities around the Mediterranean. We imagine that places like İzmir, Barcelona, or Casablanca are cities where different groups lived together generation after generation, but the statistical reality is that the internal composition of each community shifted from generation to generation. The Mediterranean hinge city earned its reputation for mutual tolerance only because much of its population used the city as a transit camp, a site for deals and work, by peoples of an entrepreneurial bent who were willing to move whenever they sensed opportunity elsewhere. Mutual ethnic tolerance thus rested on a lack of permanent identification with local life. The hinge city is a city of migrants rather than immigrants, a place of location rather than a destination, a city of mobilities.

Streets are places of commercial activity, providing much valued face-to-face contact and autonomous public spaces while keeping the city on a constant move.

The virtue of informal public space in hinge cities requires us, in other words, to challenge ideas that emphasising spatial order and purpose in urban design, ideas realised in practice, produce an over-determined environment.

Constantinople had, during the era when Venice dominated the Mediterranean, something of this character as well. In the wake of historical research by Fernand Braudel and William H. MacNeil, we now understand better than an earlier generation – which viewed the Sultanate as a closed society – just how dynamic the movement of people as well as goods through Constantinople was along the eastern and southern rim of the Mediterranean, even as Europe sought from the sixteenth century onwards to seal the northern rim.

In function, the urban 'hinge' addresses a basic problem in most crossroads cities. This is that the strength of commercial activity attracts more in-migrants than the cities can provide with jobs or opportunities. Rather than rooting misery to one spot, the contacts and information flows which the hinge generates allow people to look and to travel elsewhere. In urbanistic terms, this means that public spaces for sociability acquire great importance: talk in the cafe or in the market is how people find work or opportunity.

It is sometimes thought that the advent of cyberspace communication will replace the physical public spaces of the classic hinge, but economically the case has not been proven. Face-to-face contacts and connections remain vital, because they generate personalised trust in what is being communicated, and such personalised trust is especially necessary for poor people to act on information. Without fat bank accounts or institutions to support them, the knowledge they have to act upon resides largely in how they assess the people who impart it.

If the 'informal' public realm is crucial for survival in the over-crowded, under-resourced crossroads city, a great

planning tragedy is occurring today in cities around the Mediterranean. The hinges are, as it were, beginning to rust. Along the northern European rim, informal movement and informal labour are becoming criminalised. In my view, the European Union has wrongly conspired with rather than contested the nationalist impulse to make informality illegal. Along the eastern and southern rims of the Mediterranean, the hinge of mobility is rusting due to issues that more directly concern us as urbanists.

Much of the urban development occurring in Lebanon, Egypt, Algeria and Morocco is eliminating or weakening informal public space. In Beirut, for instance, post civil-war reconstruction has forced small-scale enterprises away from the seafront. In Alexandria, the renovation project around the library is replacing informal places usable by poor people with clean, controlled public space meant mostly for tourists. Some of this erasure and expulsion can be traced to economics, but basic issues of urban design are also involved in the weakening of the informal public realm. Informal public space requires under-determined urban planning, that is, an architecture which allows flexibility of use and admits physical gaps and indeterminate relationships between buildings. It is in these liminal spaces that informality can flourish – the cafe built into a parking lot or the market stall outside a loading dock. The virtue of informal public space in hinge cities requires us, in other words, to challenge ideas that emphasising spatial order and purpose in urban design, ideas realised in practice, produce an over-determined environment.

Whether this is also a danger in Istanbul is an issue I hope will be raised by the Urban Age. If it is a danger you are facing, we ought to explore what we, as policy-makers, planners, and architects can do to protect and promote informal public space. Both the challenges of centralisation and informalisation could be put as a question: does Istanbul in the future want to look more like modern Frankfurt or Renaissance Venice?

Richard Sennett writes about cities, labour, and culture. He teaches sociology at New York University and at the London School of Economics, and is co-chair of the Urban Age Advisory Board.

IT'S ISTANBUL (NOT GLOBALISATION)

Hashim Sarkis offers an overview of the political, cultural and economic complexities underlying the changing relationship between Istanbul and the greater region.

In July 2008, I could not find a seat on a plane from Beirut to Istanbul. Fearing that I would miss my appointment with Mayor Topbaş, I asked a travel agent to find me alternative routes via Damascus or Amman. She laughed and explained that tourists were flocking to Istanbul from all over the Arab world because of *Noor*, a highly popular Turkish soap opera, dubbed in Syrian Arabic dialect and broadcast across the Arab world via a Saudi satellite network. Travel agencies were organising guided tours to the villa and to the different neighbourhoods where the series was shot. Some 100,000 Saudis visited Istanbul in 2008, up from 30,000 the year before. Their itinerary included the city's historic monuments, but the Byzantine churches and Ottoman palaces were not the main attraction. The Arab public may have finally rediscovered the capital of an empire that controlled the region for over 500 years, only their focus has been diverted.

The 'Noormania' of 2008 represented more than a fleeting infatuation. The attraction was to the blissful rendition of Istanbul, to a higher level of social tolerance within Islam, to the glitz of a city with 35 billionaires, and to the cosmopolitan lifestyle of a young couple living beyond the confines of their traditional values. Whereas the soap operas of Hollywood, Brazil, and Mexico have already disseminated their own portrayals of glamour and passion to Arab satellite televisions, observers of the 'Noor' phenomenon contend that the Turkish soap opera unfolds too close to home to be dismissed. The love between a young Muslim couple, a woman's career drive supported by her husband, and the possibility of moving from a village in Anatolia to a villa on the Bosporus within the span of one life time captivated about 80 million Arab viewers in the last episode. This also unleashed a negative, visceral reaction from religious leaders who wanted to ban the show.

While social scientists debate the gender, class, and ethnicity impact of the Istanbul-based soap opera on the Arab world, the spatial and geographic terms of this relationship may be worth exploring as well. How could it be possible that Istanbul's pull has not been felt in the Arab world until now, given the physical proximity, the historic connections, and the large overlap between the Arab and Turkish traditions, cuisines, music, and languages?

From Hollywood, the answer would be 'What is the difference?' A video clip of the famous tune 'Istanbul not Constantinople', rendered by the Tiny Tunes animators, conflates stereotypes of Istanbul with those of the Arab world. Deserts and tents form the backdrop of the city's minarets and domes. Lumping everything East of the Marathon planes together, however, is not a new mistake in American popular culture. Orientalist prejudices notwithstanding, cultural similarities are to be expected where there are geographic proximities. In this case, the recent Arab attraction to Istanbul may have more to do with the city's ability to shun off such affinities; it is these evolving geographic relationships which help to explain Istanbul's cosmopolitan profile.

The dynamics underlying Istanbul's exponential growth in the past 20 years have been consistently ascribed to the advent of globalisation. Whether describing the financial and gold markets, the textile and fashion industries, or the construction and real estate enterprises, the city's reach is increasingly beyond the immediate geography of Turkey and the confines of a national territory – Istanbul's economic influence stretches to a second ring of regional, geographic proximities in Central Asia and the Balkans, and also to the world. As is the case with many global cities, Istanbul's economic activities are rooted geographically and historically. For example, the construction industry's link to Central Asia is based on geographic proximity but also on affinities with reawakened Turkic cultures in former Soviet nations. In globalisation discourse, however, emphasis is placed on transcending these connections and attaining a role, scale and scope that situate the city somewhere outside its immediate geography. In this respect, Istanbul dutifully obliges. As the capital of an empire that ruled over an extended territory, Istanbul illustrates the continuities between empire and global city through its current relationship with its first (national) and second (regional) territorial rings.

In this transition from geographic confines to a regional and then global role, it is significant to recognise which geographies have been suppressed. Istanbul's connections to the Balkans, Central Asia, and Western Europe have all fuelled its ascent to a global city. European standards (and aspirations) guide its transport, infrastructure, and environmental standards. Its urban work force is increasingly Balkan. Yet its location in the Eastern Mediterranean region has largely been ignored. Thus until recently, it would seem that connections to and within the Middle East remain confined to the geopolitical space of the Cold War era. Certainly tensions in the Eastern Mediterranean between Greeks and Turks, Arabs and Israelis, Turks and Armenians, Cypriots and Cypriots, Turks and Arabs, Arabs and Arabs, etc. have hindered free trade and stronger cultural connections between Turkey and the Arab world. Lebanon, for example, has always had good trade relations with Turkey, but until recently prejudices against the Ottoman past and the strong cultural and political presence of Greek Orthodox and Armenian communities have prevented this connection from manifesting a more conspicuous cultural exchange.

Throughout the period of Ottoman rule between 1516 and 1918, Istanbul exerted varying degrees of influence on cities in the Arab world. The models most frequently used to describe this influence are the triad of cities (Istanbul, Cairo and Aleppo) in the sixteenth and seventeenth centuries, and the network of ports (Istanbul, Izmir, Haifa, Beirut, Thessaloniki and Alexandria) in the nineteenth century. In both models, Istanbul held primacy as a distant first, but was never obsessed with its centrality. In the early-sixteenth and seventeenth centuries, the relationship between the imperial centre and its provinces tightened compared to the earlier Ottoman nomadic-state apparatus that maintained strategic distance as a means of exercising power. Even when Istanbul controlled the administrative organisation and institutional buildings in sixteenth-century Aleppo, the structure of *waqf* organisation, or religious holding of land, tended to reflect local practices and elite rule. In the nineteenth century, the discreet train lines connecting the network of ports to Turkey's agricultural hinterlands further reinforced this loose relation between centre and periphery as the train system failed to create a network within the hinterlands. Ethnic groups, merchants and bazaars traded heavily with each other across the Mediterranean in an exchange of goods and ideas, but they held on to their respective hinterlands with loose reins.

A structural shift in the spatial organisation of the Ottoman Empire occurred in the late nineteenth century, particularly after its loss of the Balkans, when Istanbul sought to impose a more centralising presence in the Arab provinces. This translated into heavy investment in agricultural and irrigation reforms, new road networks, and the introduction of railroads, tramways, and waterworks into the major cities of the Eastern Mediterranean. Many of these projects were financed through private concessions to European companies, reflecting each countries' growing interest in the region. Still, the image of the city-empire prevailed over these equalisation efforts. The clock towers and fountains planted in the centres of many Levantine cities have been interpreted as signs of modernisation, while the establishment of decentralised networks of trains and public spaces were seen as signs of the ubiquitous image of the centre, the Sultan of Istanbul. Despite these large investments aimed at equalising the regional territories through modernisation, the disparities between Istanbul and the Eastern Mediterranean remained vast until 1918 when the Ottomans finally withdrew from the region.

The subsequent creation of Arab nation-states, complete with their own exclusionary identities and prejudices, exaggerated their severance from the Ottoman past, and not only because the Arab states equated this past with the Turkish present. The perceived contradiction between Arab nationalism and the rise of Turkish nationalism further widened this cultural rift. Despite recent joint efforts between the governments of some Arab countries and Turkey to revise the history books, this past continues to be portrayed as a long, dark era. A second point of divergence surrounded Turkey's decision to join the Baghdad Pact's sphere of American influence in the 1950s, while Egypt led the Arab world towards a non-aligned position.

Between the World Wars, Istanbul lost both its ethnic populations to the nascent nation-states around it as well as its political primacy to Ankara. In 1927, the year of the first national census, Istanbul had a population of 690,000 whereas Turkey counted 13 million. That same year, Cairo, the second city of the Ottoman Empire, reached one million and superseded Istanbul. Cairo would continue to rise as the regional political and demographic centre. The independence of the Arab countries after World War II led to a period of rapid urbanisation around their capital cities: Beirut, Baghdad, Kuwait, Amman, and Abu Dhabi all witnessed exponential growth during this period while achieving primacy within their own national territories. Riyadh would have to wait until the mid-1970s to surpass the port city of Jeddah; only Damascus would remain rivalled in its demographic and economic primacy by the regional capital of Aleppo.

When Istanbul again regained its prominence as the centre of industry and trade in Turkey, particularly during the liberalisation period under Prime Minister Adnan Menderes between 1950 and 1960, it set itself on a different path of growth and development than the Arab capitals. Before other cities in the region were feeling the effects of rapid urbanisation, Istanbul was challenged by the need to erect motorways to link its expanding metropolis, the growing 'misery belts' on its periphery, and the stagnation of its inner city. It also went through the processes of urban renewal and building of edge city centres earlier than the others. The historic preservation movement in Istanbul also achieved immense powers in the 1980s, leading to its being listed as a World Heritage site by UNESCO in 1985. Significantly, this came six years after Cairo and Damascus gained a similar status, but the scope and depth of preservation policies in Istanbul far exceed that of either. Istanbul has managed to curtail the growth of its informal sector more successfully than other metropolitan centres in the area. Amman, Beirut, Damascus, and even some of the wealthier cities like Jeddah, continue to struggle with the presence of large informal sectors. In 1996, as much as 75 per cent of Cairo's residents lived in informal housing.

Despite the growing rift, the Arab world and Turkey shared some of the planning and design formulas circulated by

Tahtakale, a neighbourhood with some of the best preserved urban grain, hosts dynamic commercial activity with goods coming from near and far.

the Bretton Woods development agencies, the United Nations, and individual experts. For example, in 1938 the French planner Henri Prost, who worked in North Africa on the plans of Fez and Casablanca, is credited with the consolidation of Istanbul's depopulated areas and the introduction of industry inside the city. Similarly, the Swiss architect-planner Ernst Egli, who worked between Ankara and Beirut throughout the 1930s and 1950s, proposed administrative reforms corresponding to the new metropolitan order of these cities.

Perhaps one of the main commonalities between Istanbul and the wider region is in the urban administration of cities with mayors and cities with *walis* (governors), a challenging and conflicting system that sometimes leads to bizarre reporting structures and to delayed decision making. Since 1984, however, Istanbul has managed to create a metropolitan municipality with an elected and relatively powerful roster of mayors to lead the city. Since then, the city has undertaken urban improvements, including those to increase control over informal development, which could be attributed to a strengthened local government. This is in contrast to most of the Arab cities, where central administrations continue to exercise relatively strong control over the budgetary and administrative responsibilities of their mayors, many of whom continue to be appointed, not elected.

The 1970s marked a significant overture between Turkey and the Arab world: blocked out of the European market, Turkish workers migrated to the Arabian Gulf. Today some 100,000 Turkish workers live in the Middle East, around 95,000 of them in Saudi Arabia, and the numbers continue to grow as Turkish engineers and construction companies move to the Gulf.

The twenty-first century rapprochement between Turkey and the Arab world, which has culminated in the 'Noormania' of 2008, is often attributed to the political ascendency of Turkey's Islamic AKP (Justice and Development Party). Interestingly, this is seen both as a gesture towards the Islamic world in defiance of continued snubbing by Europe, as well as an expansion of regional markets and economic powers that are strengthening Turkey's bid for membership in the European Union. A clear indicator of such improved relationships is trade. Exchange between Turkey and the Arab world increased from US$ 11 billion in 2002 to US$ 62 billion in 2008. In 2005, a Turkish Arab Economic Forum was established with Istanbul as its permanent base, and in 2006 Turkey was invited to become a permanent guest in the Arab League. Since 2002 Arabs have invested about US$ 30 billion into Turkey, mostly in Istanbul. Beyond trade, political rapprochement has accelerated during the past eight years and Turkey has graduated from nervous neighbour to trusted mediator and peace keeper between Arabs and Israelis. Talks

Whether describing the financial and gold markets, the textile and fashion industries, or the construction and real estate enterprises, the city's reach is increasingly beyond the immediate geography of Turkey and the confines of a national territory.

to share electricity and water via under-sea conduits between Turkey and Israel and Turkey and the Arab World have taken this new cooperation to a futuristic level.

It is in this recent period that a particular Turkish brand of large-scale real estate development and project management and construction merged with a finance and development brand from the Gulf. These brands have created a network of exchanges and an unusual margin of excess in the development of these cities. The United Arab Emirates has tried to build towers that bear its name over the precious skyline of the Bosporus. The British-Iraqi architect Zaha Hadid is designing the new district of Kartal on the southern Asian tip of the city. Most of these projects are private developments sponsored and supported by the city's government. Timothy Mitchell suggests a similar phenomenon of excessive iconic mega-projects in Cairo where projects such as the 1990s 'Dreamland' operate beyond the sphere of governmental fiscal restraints and grow instead from the sale of cheap public land to generate a real estate market and finance public expenditure on infrastructure.

The gentrification and rebuilding of historic centres in Riyadh, Beirut, Aleppo, and now Jeddah and Doha, has reinvigorated interest in Ottoman architectural heritage, but not without transliterations and occasional misinterpretations. The developers of downtown Beirut preserved very few of the Ottoman era buildings but they countered with an overblown Ottomanesque revival style, including a new mega-mosque that dominates the downtown skyline. The restoration of Aleppo fared much better in preserving the Ottoman urban fabric and monuments by linking them to an economic revitalisation project. The destruction of an Ottoman fortress in Mecca in 2002 by Saudi authorities to pave the way for a housing project only serves as a reminder of the deep ideological tensions that remain between the two countries.

The rage against *Noor* by religious leaders was the latest

expression of these tensions and may have led to the collapse of a new niche of tourism in Istanbul. And yet moderation finally prevailed: the flights to Istanbul continued to be full.

I finally found a flight to Istanbul. I met with the Mayor in his summer offices on the Malta Kiosk in the Yıldız Palace gardens, where a member of his foreign relations staff addressed me in perfect Arabic. He and other staff members had studied Arabic in Jordan at the University of Zarqa as part of an exchange programme. The mayor does not speak English, but used his English translator in order to speak to me, an Arab professor from the United States, while I spoke in Arabic to his foreign relations staff.

From the Yıldız Palace gardens, the seat of power in the nineteenth century, endless panoramas open up in front of your eyes, and you can see across the Bosporus deep into the interiors of the city. Some of these interiors resemble edge cities and gated communities to be found elsewhere in the world, including Dubai, Beirut, Cairo, and Riyadh; so far, they have not overwhelmed this city's unique beauty and its ability to seduce. No city in the world exhibits as much face as Istanbul. The expanse and extent of visibility weave a world of their own, inviting and forbidding at the same time.

How insignificant Beirut and Cairo must have been to Abdul Hamid II, the main occupant of Yildiz, against this opera (no soap here) of seduction. How unattractive they still fare in comparison. During our conversation, the mayor repeated after Napoleon that if the world were one country Istanbul would be its capital. Napoleon was no doubt exuding strategy, the mayor pride. I was trying not to be distracted by the beauty of the place and not to make much of the fact that my family name, Sarkis, was the same as the first name of the Armenian architect, Sarkis Balyan, who designed the Malta kiosk in the nineteenth century. The mayor must have known this, having been in charge of the restoration of the city's palaces in his earlier career. What he did not know was that on the same grounds as we were having tea, Midhat Pasha, my wife's great-great-grandfather, was tried for treason against Abdul Hamid II in 1881. Whether Arabs, Armenians, or Turks, we seem to be perpetually returning to this place to project our renewed desires on its unfolding geographies.

Text written in memory of Wissam Ezzeddine.

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CITIES IN MODERN TURKEY

İlhan Tekeli offers a narrative about the history of the city and Turkey's urbanisation by analysing the impact of modernism on urban planning.

This essay offers a comparative analysis of the development process of the three largest cities in Turkey – Istanbul, Ankara, and Izmir – emphasising not the differences in their urban development within a nation-state but the similarities. While the roots of this narrative go back to the 'shy modernity' period from the second half of the nineteenth century to the proclamation of the Republic, the focus will be on three phases of political transition in Turkey: the period of 'radical modernity' from 1923 to 1950; the period of 'populist modernity' from 1950 to 1980; and the 'erosion of modernity' which has occurred since the 1980s.

World War I saw the disintegration of the Ottoman Empire into nation-states. The proclamation of a Turkish Republic in 1923 involved both continuity and rupture from certain aspects of the past. The challenge was to transform a pre-industrial empire into a state that represented 'radical modernity' and liberated citizens from the constraints of the Ottoman Empire by placing trust in science and technology. The leaders of the Republic implemented institutional reforms that did not, however, adhere to a consistent or comprehensive political theory; instead they conceived the construction of a nation as a socio-spatial process defined by four clear strategies.

The first was the proclamation of Ankara as the capital city of a republic founded on the belief that a sense of national unity could not be developed within the cosmopolitan atmosphere of large port cities. It was hoped that an emerging middle class could establish new standards and values which would serve as an example for the whole country. In doing so, the success of Ankara as a modern capital became linked to the fate of a new political regime.

The second strategy was the construction of a railroad system to integrate the Turkish internal market. During the period of 'shy modernity', railroad construction had been carried out by foreign companies charged with connecting rural areas to port cities. This opened up more land to colonial powers, however, and resulted in the disintegration of the internal market instead of its integration. The new Republic's administration was determined to implement an integrated rail network and thus doubled its size and, more importantly, converted the existing tree-like system based on port cities to a hub-and-spoke network, with Ankara at its hub.

The third strategy was the development of a government-sponsored industrialisation programme aimed at reducing imports of foreign goods through construction of factories in small towns along the rail network. It was expected that these three strategies of 'radical modernity' taken together with a fourth to build public houses (*halkevleri*) in most cities across the country would penetrate all of Turkey from these focal points.

When Ankara was made the capital, Istanbul lost all administrative functions and the jobs that went with it. Although Istanbul maintained its position as Turkey's largest city, Izmir was overtaken by Ankara, which soon became the second-largest city.

Like many developing countries, Turkey faced rapid urbanisation following World War II with Ankara and most other cities experiencing six per cent annual growth rates. During this period of 'populist modernity' there was also a shift to formal employment opportunities, housing, and infrastructure to accommodate the growing urban population. But provision of these elements depended on a high rate of capital accumulation which did not yet exist. Another key challenge was that the education and skills of rural migrants were insufficient to sustain them in the city. Finally, rapid population growth increased land speculation, raising prices beyond the means of middle-income groups and expanding cities beyond their municipal boundaries. During these early years of rapid urbanisation, Turkey also moved from a single-party regime to a multi-party democracy – one in which populist tendencies increased and patron-client relations became dominant. This all coincided with an industrialisation programme that increased the demand for cheap labour in cities.

Although the urban middle classes, which included professional planners, supported implementation of the modernist legitimacy framework, in the face of rapid urbanisation, initially these groups insisted on sending migrants back to their villages. As incoming migration reached levels where such measures would be absurd, the middle class 'imprisoned' these new urban citizens in their minds as 'peasants in the citys'. It was expected that with time, these migrants would learn to live within the modernist legitimacy models. This expectation, however, runs contrary to premises of acculturation theory. These groups expected that in the case of two cultures coming face to face, one would be transformed into the other. Such an expectation may have removed the need to search for a new legitimisation alternative.

In order to understand Turkey's urban development in this era, it is necessary to consider the ways in which the central government's planning ideology was undermined by the spontaneous actions of these new migrants as well as the middle classes. Planning ideology entailed implementation of a plan prepared with scientific methods. This plan of the city's future would be announced to society and was meant to avoid development activities presented as a fait accompli. This would apply at the scale of individual buildings, for example by requiring formal permits for construction and for occupancy. It also involved establishing the Ministry of Construction and Resettlement (İmar ve İskan Bakanlığı), which functioned like a ministry of urbanisation. During this period laws were passed to protect the historical urban fabric and urban planning education was institutionalised. Metropolitan planning offices were also established in each of the three cities to help them comply with a key requirement from the Provincial Bank (İller Bankası): in order to secure funding for urban infrastructure, applicants needed to provide a city plan.

The first serious impact of rapid urbanisation was a shortage of housing, and two types of spontaneous solutions were developed to overcome this problem. Government regulations did not offer the multitudes that had left rural areas the chance to sustain their lives, and soon the cities were encircled by the informal *gecekondu* settlements. Recognising the need for new housing, the populist democratic regime was tolerant of this phenomenon, especially when compared to dictatorships. It is for this reason that the *gecekondu* neighbourhoods of Turkey have always been superior in quality and appearance to their Latin-American counterparts.

In order to reconcile this informality with the planning regulations born from the modernist legitimacy framework, the government passed a series of amnesty laws which retroactively legitimised some of the illegal *gecekondu* settlements. Yet the building of new *gecekondus* continued. In time, they would become partially integrated with the formal housing market until finally it became impossible for new migrants to build *gecekondus*. This was because land was controlled by radical political groups which provided *gecekondus* in exchange for political loyalty.

The second response to provide spontaneous housing entailed a 'build-and-sell' (yapsatçı) strategy. It was developed by the middle classes who also faced a housing shortage when rapidly rising land prices eliminated the practice of registering a single building on a single parcel of land in a single name. The 'build-and-sell' solution enabled the middle classes to share the cost of a single parcel of land through fragmentation of ownership. It grew out of a process by which small-scale developers would acquire land from landowners in exchange for a selected number of apartment units in the multistory housing to be built on the land. The units remaining after the allocation to landowners were put on the market; not surprisingly, values were the highest in older parts of the city. This led to the formation of residential areas with inadequate infrastructure and densities far higher than those foreseen in plans. As it was easier to present this spontaneous development as congruent with modernist legitimacy models compared to *gecekondus*, the government put forward a law allowing for the registration of a building in more than one name, including rules organising the management of apartment buildings. With new development plans increasing the number of stories in the three big cities, building densities were increased, so 'build-and-sell' housing seemingly remained consonant with modernist legitimacy models.

Post-war urban planning in Istanbul opened up large boulevards for roads, like here in Şişli, replacing mansion houses with mid-rise mixed-use apartment buildings.

Another spontaneous development was the *dolmuş*. Municipalities were unable to expand public transport to meet this increased demand and the *dolmuş* – a privately operated shared taxi service provided by small-scale entrepreneurs whereby old taxis were modified to accommodate more passengers – filled the gap. Since the *dolmuş* fares were shared, they were affordable to middle- and low-income riders. As local administrations could not hinder development of the *dolmuş* since the supply of public transport was inadequate, instead they organised the *dolmuş* system along particular lines in the city.

Such emergent solutions resulted in the three largest cities displaying similar growth patterns: expansion of the city along intercity motorways, high-density inner-city development, and growth of the central business district toward high-income neighbourhoods. In this model of growth, provision of social services in the high-density city centre remained inadequate, green areas were overtaken by development, traffic congestion increased, and cities began losing their identities as the historical urban fabric was replaced by 'build-and-sell' apartment blocks. *Gecekondu* settlements were also encircling these cities. The populations of the three big cities increased greatly, making Istanbul, Ankara, and Izmir metropolitan cities. But cities that grow in this way do not possess the structural characteristics of metropolises of industrial economies; it is perhaps thus more appropriate to call them overgrown industrial cities.

Confronted with this situation, attempts to sustain the modernist legitimisation framework could have included new planning approaches since planning was considered a legitimate political solution at the time. Implementation of partial development plans by local actors, however, challenged this framework. Large-scale developers with significant capital had also not yet appeared. Instead, development of large sites was carried out by a myriad of small-scale projects. These were undertaken by private real estate interests functioning as a fait accompli mechanism undermining urban development plans. The small-scale capital owners who took part in these partial development plans often made use of political channels within the context of populism while powerful political actors seeking prestige through large scale projects also undermined urban planning.

In executing these 'development operations', priority was given to solving everyday problems of the people even if it meant sidestepping planning oversight or the rule of law. These large-scale development operations occurred only in Istanbul – for example the Bosporus Bridge and beltway project in 1967-73 by Prime Minister Süleyman Demirel – but they could not be sustained for long periods of time, and were typically abandoned within four or five years given growing resistance within professional circles.

Beginning in 1980, a new and open development policy oriented towards exports would define the Turkish economy. As state entrepreneurship waned, priority was given to the private sector. This transformation brought about a radical change in how Turkey established relations with the rest of the world. About ten years later, the disintegration of the socialist block and the end of the Cold War also provided important opportunities for Turkey to open its economy. Most important of all was the worldwide transformation following the economic crisis of 1970. This transition from industrialisation to a knowledge-based economy – from the Fordist type of production organisation to a more flexible type and from the world of nation-states to a globalised world – constituted the main dimensions of this transformation from modernism to postmodernism.

Istanbul began to regain functions it had lost in the 1920s after the Soviet and Turkish revolutions. These transformations would give Istanbul the status of a global city alongside the megacities of the world, although at the time urban planning circles in Turkey preferred to apply the concept of 'world city'.

After 1980, the processes determining the structure and expansion of Turkish cities also underwent an important

Haliç (the Golden Horn) lost its significance as a harbour, port and shipyard under changing political structures, but remains a major cultural and historical site.

Although it is possible to control and plan for a city's future expansion, the best way of doing so is through incremental growth.

change: instead of growing through the addition of individual buildings and decisions by individuals or small-scale developers, cities were being transformed by the actions of large organisations and powerful actors. Cities could now grow by the addition of large built-up areas through institutional arrangements and new building-supply methods. The most important of these was a mass housing model derived from the 'build-and-sell' method. Mass building was not reserved for residential development but was applied to business needs as well. This included industrial zones and sites for warehouses, wholesale trade centres, transport services, specialised production and free trade zones. In each, small-scale developers or even individuals were organised into cooperatives or other institutional bodies to realise such large-scale operations.

The creation of new self-contained business centres with all the necessary facilities and infrastructure undermined the role of the historical central business districts. The most prominent example was seen in Istanbul, where the old city centres of Eminönü and Beyoğlu could not meet the new control and management requirements. In constructing the new central business district of skyscrapers located along the Mecidiyeköy and Maslak axes at the western ridges of the Bosporus, access was provided to high-income residential areas in the North thanks to Istanbul's new found capacity to mobilise large amounts of capital.

During this period of growth, Turkey's three main cities did not rely exclusively on a pattern of expansion to new areas; important transformations were also taking place in the old urban zones. Three key factors determined this transformation. The first was the new development dynamics that transformed Istanbul and, to a lesser extent, Ankara and Izmir, from overgrown industrial cities to city-regions. This transformation prompted important functional changes in the city centres. For example, although Eminönü, the city's oldest centre of business, lost several of its production and service functions, it gained important touristic and cultural roles. A similar process has taken place in Beyoğlu.

A second change took place in the provision of transport infrastructure whereby all three cities borrowed large amounts of capital to realise public transportation projects. This led to gentrification of some neighbourhoods near the city centre, as in the cases of Cihangir and Kuzguncuk. The third factor was environmental and attempted to address the risks from earthquakes. For example, recently there has been

increased pressure to upgrade the poor construction of older *gecekondu* and other substandard buildings.

But what to make of the modernist legitimacy in these cities? As their development extends further into the periphery and central districts continue to be transformed, unauthorised construction is no longer specific only to *gecekondu* housing. Informal construction is increasing, even in the wealthier parts of Istanbul. Thus instead of *gecekondu* settlements becoming more in tune with the framework of modernist legitimacy models, the reverse is happening.

This is a natural consequence of a growth trajectory which adds large built-up areas en masse to a city's existing fabric. Although it is possible to control and plan for a city's future expansion, the best way of doing so is through incremental growth. In Turkey, development is controlled by powerful actors who do not mind paying the high costs involved. Thus a fait accompli occurs the moment a large parcel of land is bought.

Developed democracies have realised that it is no longer possible to control urban development using modernist plans representing a city frozen in time; instead strategic plans prepared through public participation and a deliberative, democratic process direct a city's growth. Implementation of plans in Turkey, however, should not be confused with the transparent processes of developed democracies. In Turkey, a mayor's use of authority is not always transparent. Meanwhile, the demands on behalf of civic groups for increased municipal authority in the name of national decentralisation and participatory democracy have at times exacerbated this misuse of discretionary powers. This is because Turkey's city administrations have not been completely democratised yet, and strong municipal authority has created, in most cases, local fiefdoms rather than widespread civic engagement.

Like the lifespan of a human being, this urban narrative covers 80 years of development of Turkey's three largest cities – it is a story of modernisation, democratisation, and urbanisation that has taken place in a far shorter time and with a less efficient form of capital accumulation than one finds in other European cities.

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THE DNA OF CITIES

A few decades have passed since we first became aware that the world is a single system, integrated and synergetic but also small and fragile. We now know, for the first time in human history, that the majority of people on the planet are living urban lives. Despite the current global recession, projections tell us that this trend will continue. Seventy-five per cent of the global population is expected to concentrate in cities by 2050 – in megacities of several million people, or massively urbanised regions stretching across countries and continents. This relentless pace of urban change is likely to be fuelled by the environmental impacts of climate change, with more people – climate change refugees – abandoning exposed agricultural areas in favour of the relative protection and promise of the city.

The scale of today's urban context is difficult to grasp. While only 186 million people lived in cities of over a million or more in 1950, this figure reached one billion in 2000 and will grow to 1.8 billion by 2025. For megacities of ten million or more, the increase is twice as fast: from 23 million in 1950, to 229 million in 2000, and 447 million by 2025. Yet whereas Europe, North America and Oceania became mostly urban before the 1950s and Latin America during the 1960s, Asia will only hit that mark in 2024 and Africa in 2030.

Even more challenging is the fact that today's urban growth is concentrated in areas where poverty and deprivation are rife, where cities have the potential to either integrate or separate. According

to the United Nations, Mumbai – India's dynamic powerhouse – is set to overtake Tokyo as the world's largest city by 2050. Shanghai, meanwhile, continues to grow at a breathtaking pace in both height and breadth with more than 10,000 buildings over eight storeys high compared to just over 100 such buildings only 25 years ago. But rapid urbanisation is not always paralleled by the exponential economic growth and comprehensive infrastructure investments of the Asia Pacific region. Nowhere is this more true than in the two megacities of sub-Saharan Africa: with each passing hour, Lagos will add 67 new residents and Kinshasa 34 by 2025. Post-apartheid Johannesburg and Cairo face different problems. While Johannesburg struggles with crime, fear, segregation and AIDS, over 60 per cent of Cairo's population lives in informal settlements and there is only one square metre of open space per person. Each Londoner, by contrast, has access to 50 times that amount.

The information contained in this data section summarises research undertaken by Urban Age since 2005. It includes an overview about urban trends in Istanbul and places it in a comparative context with other world cities, including New York, Shanghai, London, Johannesburg, Mexico City, Berlin, Mumbai and São Paulo. By investigating differing patterns of urban density, transport and governance, together with a wide range of social and economic indicators, the information provides unique insight into the DNA of cities today.

URBAN POPULATION BY WORLD REGION
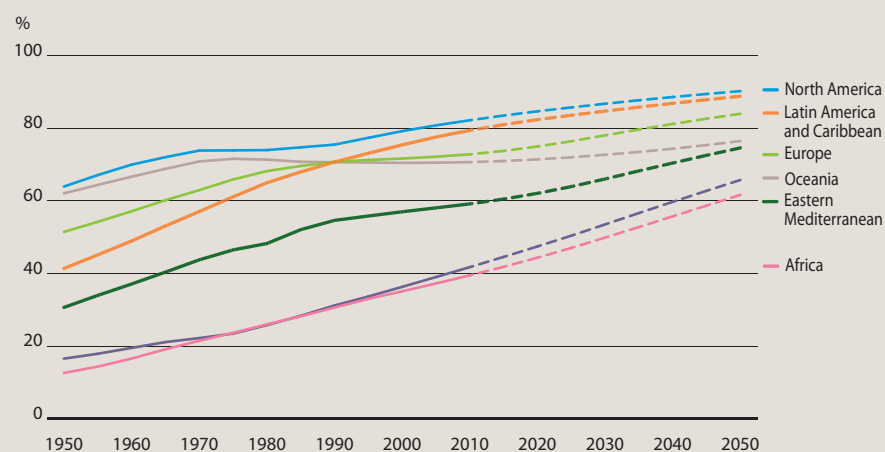
POPULATION GROWTH IN THE URBAN AGE CITIES
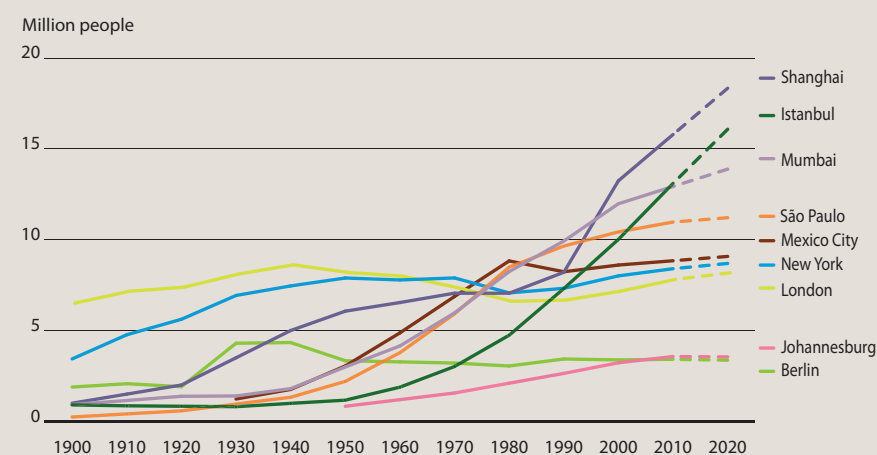
URBAN POPULATION GROWTH AROUND THE WORLD

10 Total projected population by 2025 (in millions)
- Projected population by 2025
- Population in 2005
- Population in 1950
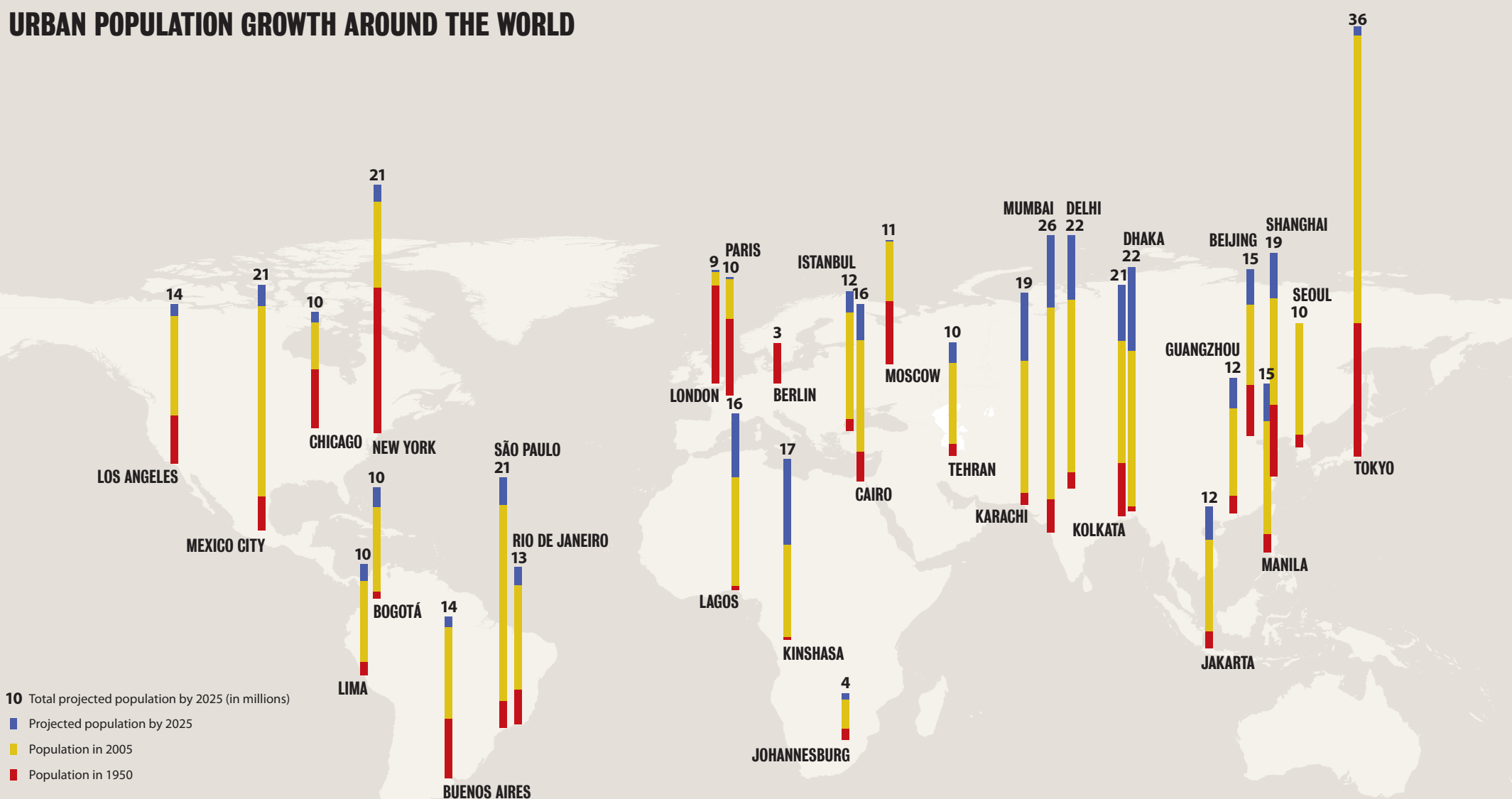
This world map shows the evolution of population growth and the United Nations' projected population for the urban agglomeration in 2025 for the Urban Age cities and some of the largest and fastest growing urban centres around the world.

URBAN AGE CITIES COMPARED
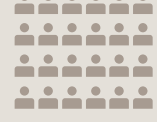
Behind the statistics of global city growth lie very different patterns of urbanisation, with diverse spatial, social and economic characteristics that dramatically affect the urban experience in cities around the world and in addition to standard measures of population growth and density, economic weight and transport use, the Urban Age has assembled data from a range of official sources on energy consumption to global CO_2 emissions, allowing a preliminary assessment of how these nine world cities compare to each other on key performance indicators.

A graphic summary of these results offers some striking differences, especially when it comes to their speed of growth. While São Paulo has grown nearly 8,000 per cent since 1900

and London by only 16 per cent (having experienced its major growth spurt in the previous century), it is Mumbai that is now growing the fastest of the nine with 47 new people expected to move into the city each hour by 2025. London, instead, will only gain one person per hour and Berlin will remain static. These trends mask different patterns of age distribution: close to a third of the residents of Mumbai, Johannesburg, São Paulo and Mexico City are under 20 years old, while in Shanghai and Berlin the younger generations shrink to 20 per cent or less.

Patterns of habitation also differ significantly. The high residential densities of New York's Manhattan (53,000 people per km²) are nearly doubled in Shanghai

(96,000 people per km²) and Mumbai, where, despite the fact that most people live in low-rise structures, residential densities reach over 100,000 people per km². By contrast, Berlin peaks at only 21,700 and London struggles to reach 17,200. São Paulo, Johannesburg and Mexico City prove to be the more dangerous places to live – ranging from 13 to 21 murders per 100,000 people – while Istanbul and Mumbai have very low levels of serious crime with only 3 murders per 100,00 people, slightly worse than Berlin and Shanghai. These findings are paralleled by the level of income inequality indicated by the GINI index – a measure of income distribution with a higher number representing greater inequality – in each of these cities: Johannesburg, São Paulo

	Population in 1900 in the administrative city	Current population in the metropolitan region	Population growth since 1900	Projected growth 2005–2025 (people per hour)	Peak density (people per km²)	Central Area Density (people per km²)	GDP per capita (US$)	Percentage of national GDP produced by each city	Percentage of the country's population residing in each city
ISTANBUL	903,482	12,697,164 2008	1,305%	14	68,602	20,116	$12,856* 2008	22.0%* 2008	17.8% 2007
NEW YORK	3,437,200	18,815,988 2007	447%	11	53,000	15,361	$55,693 2008	3.3% 2008	2.8% 2008
SHANGHAI	1,000,000*	18,150,000 2006	1,715%	28	96,200	24,673	$8,237 2005	5.0% 2005	1.0% 2005
LONDON	6,506,954	7,556,900** 2007	16%	1	17,200	7,805	$60,831 2007	16.4% 2007	12.4% 2007
MEXICO CITY	415,000*	19,239,910 2005	4,536%	13	48,300	12,541	$18,321 2006	21.5% 2006	8.4% 2006
JOHANNESBURG	829,400 1950	3,888,180** 2007	369% 1950–2007	4	38,500	2,270	$9,229 2005	14.8% 2005	8.1% 2005
BERLIN	2,712,190	4,300,000 2002	59%	0	21,700	7,124	$34,017 2007	3.4% 2007	4.2% 2007
MUMBAI	927,994	19,280,000 2005	1,978%	47	101,066	34,269	$1,871 2006	2.9% 2006	0.9% 2006
SÃO PAULO	239,820	19,223,897 2007	7,916%	18	29,380	10,299	$12,021 2006	11.9% 2006	5.8% 2006

* Estimated

** London and Johannesburg represent the current population in the administrative city as they do not have a corresponding metropolitan region.

*** PM10 refers to the amount of pollution in each city's atmosphere. This index has been developed by the World Bank to measure the annual average concentration of heavy particulate matter in micro grams per cubic metre.

This data has been derived from various official statistical sources, including the United Nations Statistics Division and census for each city and country. Complete data sources available at www.urban-age.net

The 'DNA of Cities' presented above is adapted from originally published work in *The Endless City*, Phaidon Press (2008).

and Mexico City are the most unequal cities, followed closely by New York, with London being the most equitable. Despite the fact that Mexico City's per capita income is less than a third of New Yorkers' (US$ 18,321 versus US$ 55,693), residents of Mexico City own nearly twice as many cars (360 per 1,000 people versus 209) and use roughly the same amount of water per person as Londoners (324 litres per day). While Johannesburg, London, Berlin and Mexico City contribute similar levels of CO_2 emissions per person, the number doubles in Shanghai, where over 10,000 kg per person are produced every year owing to the presence of heavy manufacturing industry in its vast metropolitan region. This can be contrasted to Istanbul: with close to 38 per cent of its workforce in the manufacturing sector, the highest of the Urban Age cities, it only produces 2,720 kg of CO_2 per person. Mumbai's residents contribute only 371 kg per person – less than ten per cent of that compared to residents in other global cities. Given India's economic and population growth rate, the future choices that cities like Mumbai make in terms of sustainability will have a dramatic impact on the ecological balance of the planet.

All cities, except for Berlin, punch above their weight in terms of the economy. Istanbul, with 17.8 per cent of the national population, contributes 22 per cent of Turkey's GDP, while Mexico City's 8.4 per cent drives Mexico's economy with 21.5 per cent of national GDP. In New York City the figures comprise a smaller share: the city delivers only 3.3 per cent of the United States' GDP while hosting 2.8 per cent of the nation's population. Londoners, on the other hand, contribute over 16 per cent to the UK's economy, but its residents are faced with the highest public transport costs across the sample, with the typical price of a journey costing three times more than in New York and 37 times more than in Mexico City or Mumbai.

Income inequality (measured by the GINI index)	Murder rate (homicides per 100,000 inhabitants)	% of the population under 20	Car ownership rate (per 1,000 inhabitants)	Metro ticket price in 2009 (US$)	% of daily trips made by walking and cycling	Daily water consumption (litres per capita)	Annual electricity use (kWh per capita)	Annual waste production (kg per capita)	Annual CO_2 emissions (kg per capita)	Pollution levels in 2004 (measured by the PM10 index)***
43 (2003)	3 (2007)	32 (2008)	138.5 (2008)	$1.0	45.0% (2008)	155 (2008)	2,267 (2007)	383 (2006)	2,720	55
50.4 (2007 Metropolitan Region)	6.3 (2008)	25.6 (2007)	209.4 (2008)	$2.3	11.4% (2007)	607 (2005)	6,603 (2007)	529 (2005)	7,396 (2007)	21
45 (2001)	1.4 (2005)	20.2 (2000)	72.6 (2006)	$1.3	54.4% (2006)	439 (2005)	6,357 (2005)	343 (1999)	10,680 (2003)	73
31.7 (1995)	2.2 (2007)	24.2 (2005)	344.7 (2008)	$7.4	21.7% (2007)	324 (2005)	4,539 (2000)	459 (2005)	5,599 (2005)	21
55.7 (2005)	13.2 (2007)	31.9 (2005)	360.0 (2007)	$0.2	n/a	343	n/a	228	5,862 (2000)	51
75 (2005)	15.7 (2007)	30.9 (2001)	205.7 (2000 Gauteng Province)	n/a	31.1% (2002)	378	3,388 (2007)	558 (2007)	5,025 (2007)	33
n/a	1.2 (2007)	16.6 (2007)	319.0 (2008)	$4.1	35.0% (1998)	171 (2000)	3,880 (2005)	497 (2007)	5,821 (2005)	22
35 (2004)	3 (2005)	36.3 (2001)	35.9 (2006)	$0.2	56.3% (2007)	90 (2005)	579 (2007 Maharashtra State)	193 (2001)	371 (2000 Maharashtra State)	63
61 (2005)	21 (2006)	31.7 (2007)	368.0 (2007)	$1.4	33.9% (2007)	185	1,954 (2006)	504 (2007)	1,123 (2003)	40

CLIMATE CHANGE AND THE URBAN ECONOMY

Cities are engines of growth, centres of consumption and production. They promote economic vitality, cultural exchange and social integration. However, urban economies are also fragile. Their high reliance on the service sector makes them vulnerable to financial instability, as the current global recession shows. Yet, due to the high concentration of wealth and related consumption patterns of urban lifestyles, cities contribute to a high percentage of global CO_2 emissions – up to 75 per cent according to some estimates – the main component of greenhouse gases. As these gases are emitted much faster than they can be absorbed by oceans, plants and soils, they have been building up in the atmosphere, trapping more and more heat. As a result, global mean temperatures have risen dramatically; by 0.76 °C compared to pre-industrial times. Higher temperatures increase the risks associated with rising sea levels, flooding, desertification and droughts. In 2002, the World Health Organisation estimated that 150,000 people died every year from the consequences of climate change, a figure that has been recently adjusted to 300,000 to reflect the fact that illness spreads much faster in warmer weather. These initial estimates were based on a warming

of just 0.6 °C. Yet if these greenhouse gas emission trends continue, global temperatures could rise 6 °C by the end of the twenty-first century.

However as can be seen in the map of flood risks below, the impacts of climate change are not evenly distributed across the globe. Residents of low income countries are often more vulnerable, partly because of their exposed geographic locations but also because they lack the resources to retrofit their environments to adapt or mitigate such risks. As is highlighted by the pie charts on the opposing page, developing countries emit far less carbon emissions than developed nations. Thus there is an inverse relationship between a nation's role in accelerating climate change and its exposure to the environmental impacts associated with climate change. This can also be said of cities. With the exception of Shanghai and Mexico City, the urban centres that are most at risk tend to emit less CO_2 per capita than cities in high income countries. Today, cities such as São Paulo and Mumbai do not damage the environment as severely as their more advanced counterparts, yet they are not able to prevent and mitigate the risks. The energy-intensive forms of development that cities

of the global South are pursuing – increased car dependency, segregated planning, out-of-town shopping centres, reliance on fossil fuels and air-conditioning – will invariably increase pollution levels over time.

When it comes to linking urban development to climate change, city dwellers are more efficient than their national populations. In the nine cities under investigation, only Shanghai and Mexico City have higher per capita CO_2 emissions than their respective nations. Well designed cities, which feature a dense urban fabric connected by an efficient public transport system, have the potential to play an increasingly critical role in balancing the equation between resource consumption and global sustainability. As long as sprawl is contained and the natural environment is protected, cities could have a positive impact on global ecology. But this can only be brought about through investments in green technologies and more energy-efficient buildings fostered by environmentally conscious policies, economic incentives and a change in lifestyles.

FLOOD RISK AND CARBON EMISSIONS

This world map shows the potential mortality rate from flood risks as compared to annual per capita and total carbon emissions in the Urban Age cities. Risks are the greatest in the darker shaded areas, which indicate where the death toll from floods is likely to be the highest. By contrast, lighter shaded areas indicate where floods will have the least impact on human lives.

GDP OF CITIES AND COUNTRIES (US$ BILLION)
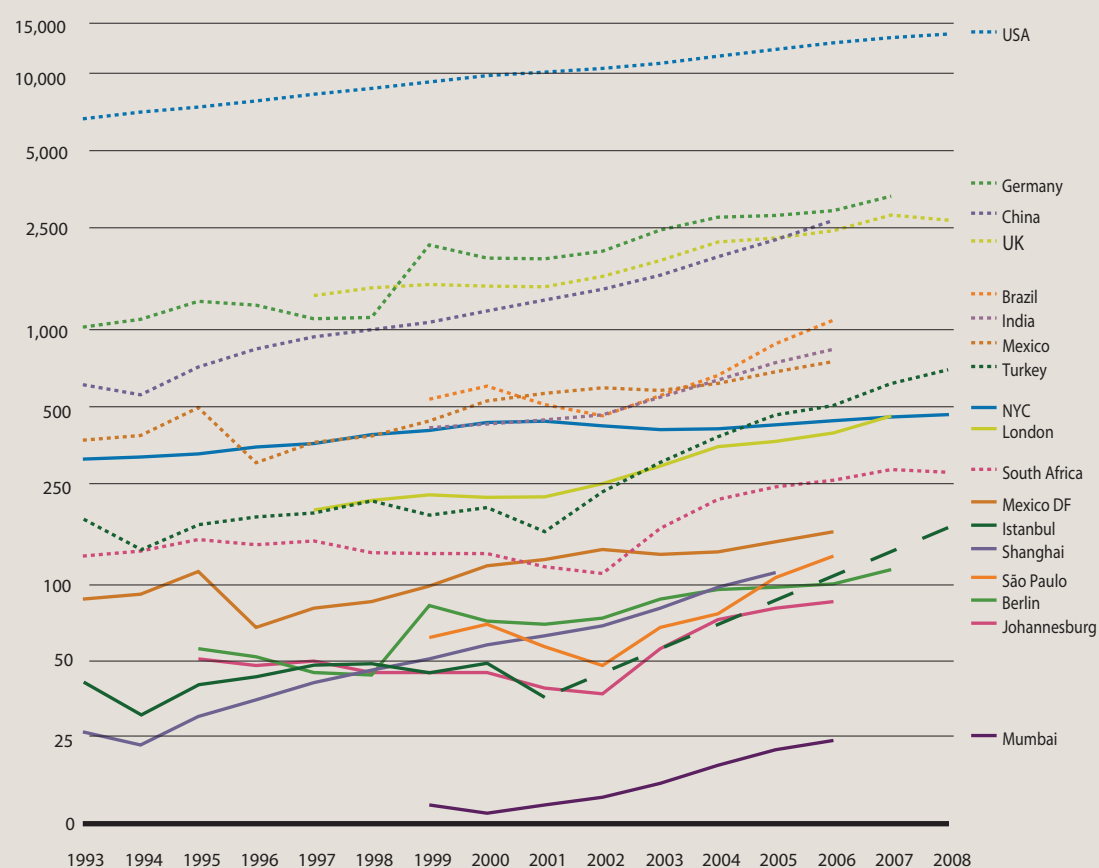
The above graphic shows how the Gross Domestic Product (GDP) measured in billions of current US$ has changed from 1993 to 2008 for the Urban Age cities and their nations. Data for Istanbul is available only until 2001. Then, Istanbul contributed 20 per cent of Turkey's GDP and as the 2008 value has been estimated to be 22 per cent, the change between 2001 and 2008 has been interpolated. Even so, the economic performance of these cities mirrors that of their respective nations and the economic weight of New York and London is clearly visible: both produce much more than South Africa, and New York produced as much as Mexico in the late 1990s and as much as India in the early years of the twenty first century. Shanghai and Istanbul are by far the fastest growing economies – having overtaken Johannesburg and Berlin, they are now similar to that of São Paulo. Even though it has a larger population than New York, Mumbai produces 20 times less wealth and is faced with a much higher flood mortality rate.

CARBON EMISSIONS (KG PER CAPITA)

This chart shows CO$_2$ emissions per capita for the Urban Age cities and their respective nations. Istanbul, São Paulo and Mumbai (represented by emissions for residents of the State of Maharashtra), have the lowest per capita emissions compared to the very high levels of New York and Shanghai. Mexico City, London, Johannesburg and Berlin all have similar and relatively high per capita carbon emissions. However, these cities perform very differently than their respective nations. While Shanghai residents produce 250 per cent more emissions than the average Chinese, residents of Mumbai and New York produce only a third of the emissions of a typical American or Indian. London, Johannesburg, Berlin and São Paulo are also more efficient than their nations, producing just 60 per cent of their national per capita averages.

CARBON EMISSIONS

WEALTH

POPULATION
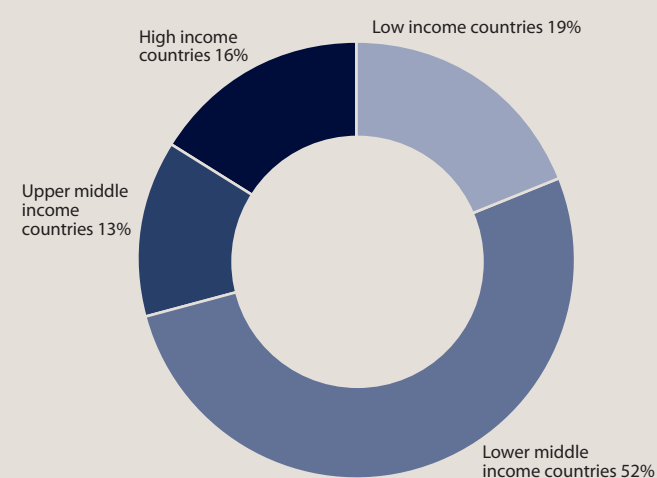
These three pie charts illustrate the share of global CO$_2$ emissions, wealth and population attributed to low income countries, middle income countries (lower, upper) and high income countries. These four classifications have been determined by the World Bank according to each country's 2008 per capita Gross National Product. Low income countries have a per capita GNP of US$ 975 or less, lower middle income countries between US$ 976 and US$ 3,855, upper middle income countries between US$ 3,856 and US$ 11,905, while the per capita GNP of high income countries is greater than US$ 11,906. These groupings illustrate the relationships between countries at different stages of economic development and their impact on the environment. For example, while low income countries – such as Bangladesh, Somalia, Niger and Vietnam – make up close to a fifth of the world's population, they contribute just 3 per cent of the world's CO$_2$ emissions. Economic powerhouses such as India and China, meanwhile, belong to the subset of lower middle countries which contribute just under one quarter of the world's wealth and over one third of global carbon emissions. The share of carbon emissions (16 per cent), wealth (15 per cent) and population (13 per cent) among upper middle income countries such as Brazil, Mexico, South Africa or Turkey is more proportional. Most strikingly, while half of the world's population live in middle income countries (upper and lower put together), they emit half of the world's CO$_2$ but produce less than 40 per cent of the world's wealth. Not surprisingly, it is the high income countries of the United States, the United Kingdom and Germany, which comprise a small percentage of world population and produce more than 60 per cent of global wealth and almost half of all CO$_2$ emissions.

URBAN FOOTPRINT

These maps identify the built-up area, shown in grey, of nine world cities drawn to the same scale (200 x 200 km). They have been drafted using analyses of satellite images that capture the precise location of any built form or structure on the ground. They give an accurate and up-to-date account of the real shape of the urban footprint in these metropolitan regions today, offering a new perspective of settlement patterns across a range of global cities.

Two phenomena immediately stand out. The first is the clear misalignment in some cities between the administrative boundaries and where the majority of people live and work, highlighting the fact that cities are dynamic while urban governance is static. As cities have grown, many municipal boundaries look increasingly outdated and unrepresentative of the functional extent of the city. While this is not the case for Istanbul and Shanghai, whose vast administrative boundaries encompass nearly all the continuous built-up

area, most of the Urban Age cities spill out beyond their municipal boundaries. The extreme cases are Mexico City, New York City, São Paulo and Mumbai. In these four cities, the administrative cities contain only 44, 46, 57 and 65 per cent respectively of their metropolitan populations. This means that in Mexico City, the Mayor of Mexico DF is responsible for only 8.8 of the 19 million people who are a part of the city's functional metropolitan region (which includes parts of the State of Mexico). On the other hand, London demonstrates the effectiveness of its 'Green Belt' – revealed by the white circle around its periphery – that has acted as an effective urban containment boundary for the last 50 years, without hampering its integration within the densely-populated South-East region. Berlin and Johannesburg also display a closer correlation between built-up area and municipal boundaries.

The second significant finding is the extreme variation in 'land-take' of cities in response to their geographic locations and differing population densities. Mumbai, with a population size comparable to São Paulo and Shanghai, is densely packed in a relatively small footprint within its natural contours between the Arabian Sea and the Thane Creek. São Paulo, on the other hand, has been able to expand horizontally along its high plateau, encroaching on natural features and water reservoirs to the South. The same pattern can be observed in Mexico City and in New York's metropolitan region. Shanghai reveals a pattern of organic 'satellite towns' along radial routes feeding to the heart of this Asian megacity, with the bulk of development in central areas close to the Huang-Po River. Historically, Istanbul's footprint has grown inwards from the European and Asian edges of the Bosporus strait and now covers around 16 per cent of the Province.

HISTORICAL EVOLUTION OF ISTANBUL'S URBAN FOOTPRINT

■ Built-up area – – – Istanbul provincial boundary

Pre-fifteenth century

Nineteenth century

1950

1970

1990

2000
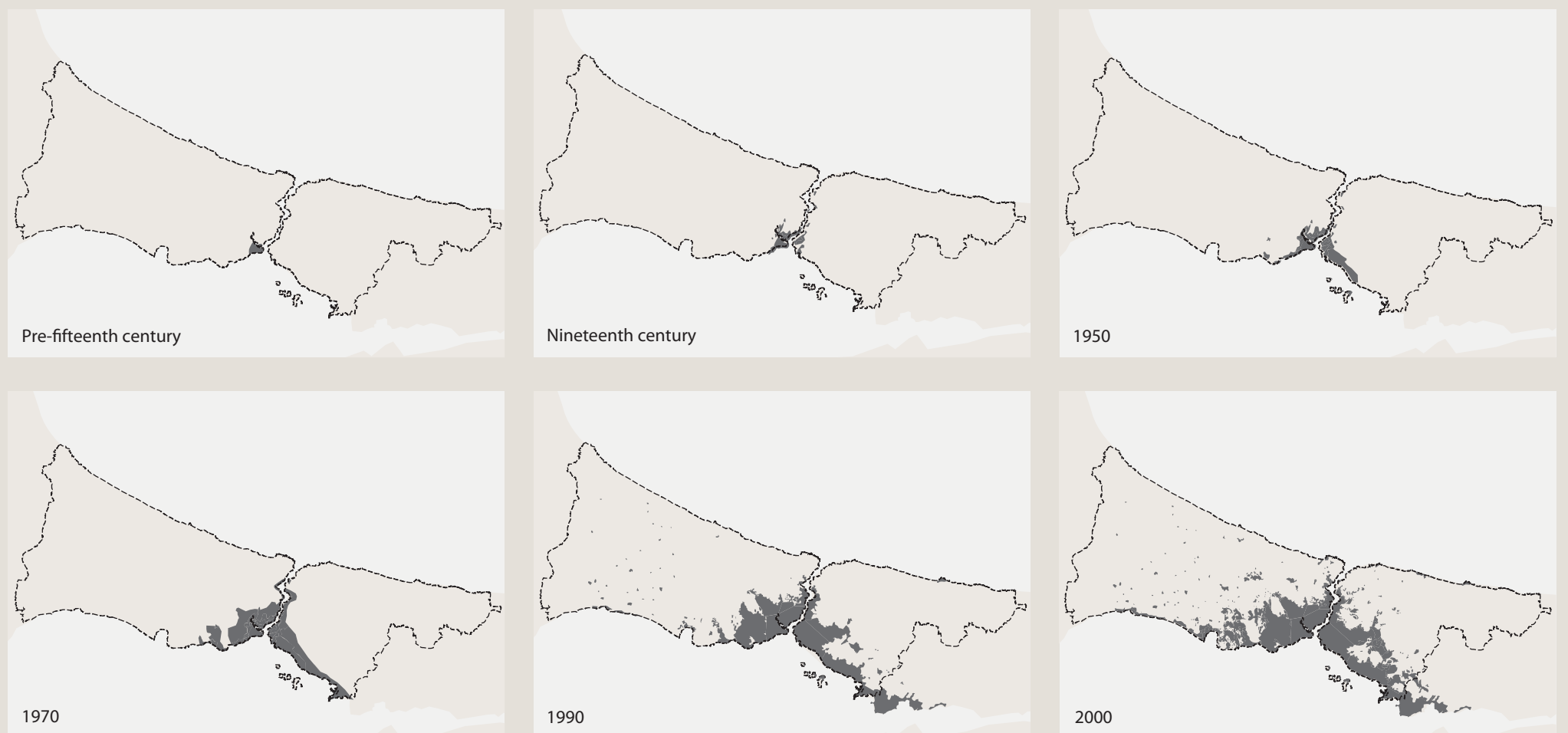
BUILT-UP AREA

	ADMINISTRATIVE UNITS	ADMINISTRATIVE CITY (KM²)	% BUILT-UP AREA	METROPOLITAN REGION (KM²)	% BUILT-UP AREA
ISTANBUL	39 ilçe	5,343	16%	5,343	16%
NEW YORK	5 boroughs	833	88%	27,065	13%
SHANGHAI	18 districts	6,341	18%	6,341	18%
LONDON*	33 boroughs	1,572	53%	28,030	7%
MEXICO CITY	16 delegaciones	1,484	36%	4,979	25%
JOHANNESBURG*	11 regions	1,644	18%	17,010	5%
BERLIN	12 bezirke	892	38%	5,370	11%
MUMBAI	24 wards	438	53%	4,355	15%
SÃO PAULO	31 subprefeituras	1,525	56%	7,944	21%

These graphics show how Istanbul's built-up area has expanded from the pre-fifteenth century up to 2000. In the late Ottoman era, the city started to develop from the historical peninsula on the Bosporus. By 1950, the built-up area expanded along the East-West axis, covering most of the Marmara Sea's coast on the Anatolian side. Between 1950 and 1970, the first wave of large-scale migration brought with it *gecekondu* (informal) settlements occupying large areas on the peripheries. Industrial development continued to promote migration, and by 1990, the forest and water reservoirs began to be threatened by uncontrolled development, further fuelled by the opening of two bridges spanning the Bosporus. In 2000, the built-up area spread even further outwards on the European and Asian sides. A significant portion of this recent expansion can either be tied to the development of gated communities for the wealthiest of the city's population or to mass housing for its middle classes.

* London and Johannesburg do not have corresponding metropolitan regions and are instead represented in relation to the South East of England and Gauteng Province.

Built-up area

Metropolitan region

Administrative city

ISTANBUL PROVINCE
12,697,164 people

ISTANBUL
12,697,164 people

Taksim Square

ISTANBUL

SOUTH EAST OF ENGLAND
19,025,740 people

GREATER LONDON
7,556,900 people

Trafalgar Square

LONDON

BERLIN METROPOLITAN REGION
4,300,000 people

BERLIN
3,416,255 people

Brandenburg Gate

BERLIN

NEW YORK METROPOLITAN REGION
18,815,988 people

NEW YORK CITY
8,274,527 people

Central Park

NEW YORK CITY

MEXICO CITY METROPOLITAN AREA
19,239,910 people

MEXICO CITY
8,815,319 people

Zócalo

MEXICO CITY

MUMBAI METROPOLITAN REGION
19,280,000 people

GREATER MUMBAI
12,717,000 people

Chatrapathi Shivaji
Railway Terminus

MUMBAI

SHANGHAI PROVINCE
18,150,000 people

SHANGHAI
18,150,000 people

Pudong

SHANGHAI

GAUTENG PROVINCE
10,451,713 people

JOHANNESBURG
3,888,180 people

Downtown

JOHANNESBURG

SÃO PAULO METROPOLITAN REGION
19,223,897 people

SÃO PAULO
10,886,518 people

Praça da Sé

SÃO PAULO

GOVERNING CITIES

Districts:
1 Çatalca
2 Silivri
3 Büyükçekmece
4 Arnavutköy
5 Esenyurt
6 Beylikdüzü
7 Başakşehir
8 Avcılar
9 Küçükçekmece
10 Eyüp
11 Sultangazi
12 Esenler
13 Bağcılar
14 Bahçelievler
15 Bakırköy
16 Güngören
17 Gaziosmanpaşa
18 Bayrampaşa
19 Zeytinburnu
20 Sarıyer
21 Şişli
22 Kağıthane
23 Beşiktaş
24 Adalar
25 Beyoğlu
26 Fatih
27 Beykoz
28 Üsküdar
29 Kadıköy
30 Ümraniye
31 Ataşehir
32 Maltepe
33 Çekmeköy
34 Sancaktepe
35 Kartal
36 Sultanbeyli
37 Şile
38 Pendik
39 Tuzla

☐ Istanbul administrative boundary since 2004
- - - Istanbul administrative boundary before 2004

TURKEY CENTRAL GOVERNMENT

| PUBLIC WORKS AND SETTLEMENT | FINANCE | TRANSPORT | ENVIRONMENT AND FORESTRY | EDUCATION | CULTURE AND TOURISM | HEALTH |

ISTANBUL DEVELOPMENT AGENCY [1]
Investment Orientation, Socio-Economic Development

GOVERNOR OF ISTANBUL
National Primary Education, Local Health Authorities, Police Force, Traffic Management, Disaster Management, Industry and Commerce, Social Services

METROPOLITAN MUNICIPAL COUNCIL [2] — METROPOLITAN MAYOR* OF ISTANBUL — PROVINCIAL COUNCIL [3]

| URBAN DEVELOPMENT | FINANCE | TRANSPORT | INFRASTRUCTURE | SERVICES | UTILITIES |
Housing, City Planning, Earthquake Risk Management | Budgeting, Real Estate, Purchasing Fire Brigades | Road, Rail, Public Transport Systems, Transport Planning, Transport Coordination | Construction, Environmental and Historical Sites Protection, Waste Management, Parks and Gardens | Cultural and Social Affairs, Tourism Support Services | Cultural and Social Affairs, Tourism Support Services,

İLÇE COUNCILS* — İLÇE MAYORS (39)* — İLÇE GOVERNORS(39)

| URBAN DEVELOPMENT | LAND REGISTRY | ENVIRONMENT | SERVICES |
Development and Urbanisation, Plans and Projects | Registry and Audit, Real Estate and Expropriation | Environment Protection, Parks and Gardens | Cultural and Social Affairs, Support Services, Health, Sanitary Services and Maintenance

* Directly elected
1 Recently established, not yet fully implemented
2 Formed by selected members of District Councils and all District Mayors
3 Headed by the centrally appointed Governor of Istanbul, it is the council of the Provincial Special Authority

BRAZILIAN CENTRAL GOVERNMENT

| CITIES | ENVIRONMENT | CULTURE | JUSTICE | EDUCATION | HEALTH | TRANSPORT |

SÃO PAULO STATE GOVERNMENT
SÃO PAULO STATE ASSEMBLY - - - - GOVERNOR*

| HOUSING | PLANNING | DEVELOPMENT | POLICE | EDUCATION | HEALTH | METROPOLITAN TRANSPORT |
State Housing Enterprises, Affordable Housing, Construction of New Houses | Coordination, Urban Development | Economic Development, Industry, Commerce | Military and Civilian Police Forces | Universities, Secondary Education | Policy Adaptation | Strategic Transport Planning, Motorway, Regional Rail and Buses, Metro

SÃO PAULO CITY COUNCIL - - - MAYOR OF MUNICIPALITY SÃO PAULO*

| HOUSING | PLANNING | UTILITIES | SECURITY | EDUCATION | HEALTH | TRANSPORT |
City Housing Enterprises, Affordable Housing, Urbanisation of the Favelas | Urban Development Policies | Public Services | Municipal Guards, Securing Public Buildings and Space | Primary Education | Hospitals, Local Health Services | Local Roads and Buses, Car Parking and Taxis

SUBPREFEITURAS (31)

| PLANNING | SERVICES | TRANSPORT |
Enforcement of Zoning, Urban Regulations and Building Codes | Waste and Local Services | Street Maintenance

* Directly elected

ISTANBUL

Istanbul's government functions within a unitary national framework with 'federal' ministries, based in the capital Ankara, providing health care, primary education, policing, some housing and transport, among others, in the city. The ministries' involvement in city affairs is coordinated by a governor, who is directly appointed by central government. Some central governmental bodies such as the Mass Housing Administration have direct links to the Prime Minister, while the Transport Ministry's involvement in Istanbul is coordinated by the Governor of Istanbul. One of the most important political figures in Turkey is the Metropolitan Mayor of the Istanbul Metropolitan Municipality (IMM), who is directly elected by the city's population for a five-year term and shares executive power with a Municipal Council formed by selected members of the city's 39 District Municipalities and their District Mayors. District Mayors are also directly elected and lead the District Municipalities. The IMM enjoys extensive powers and a significant budget for citywide planning, transport, housing and environmental services, among others.

The governance of Istanbul does not, however, happen only at the municipal and central levels. Partly to comply with the European Union accession process, Turkey recently created the Istanbul Development Agency, one of 26 regional bodies assisting coordination between the municipal and central bodies as well as civic institutions for budgeting and planning of large-scale urban projects. In addition, there are provincial authorities for each of Turkey's cities which have significant areas of responsibility, including masterplanning, although in Istanbul this responsibility has been transferred to the IMM.

In 2004, the IMM's administrative boundaries were extended to coincide with the larger provincial boundary. The administrative boundary increased threefold, from an area of 1,831 km² to 5,343 km², one of the largest municipal footprints in the world. As a consequence of this boundary overlap between the Provincial authority and the IMM, the Metropolitan Mayor's power has increased considerably while the powers of the Provincial Special Authority have been reduced.

In an effort to enhance coordination between the various departments of the Metropolitan Municipality to help develop the city's masterplan, the Mayor set up the Istanbul Metropolitan Planning and Design Centre (IMP) in 2005. The IMP was established through funding from BIMTAS, a public private partnership that serves as an affiliate company of the Metropolitan Municipality. Initially consisting of 400 experts, academics and key municipal members, the IMP has reduced in size in recent years.

At the local level, the administrative geography of the Istanbul province was rearranged in 2008 to have a single level of subdivisions or districts (ilçe). The number of districts has increased to 39 through the consolidation of 41 first-level municipalities into eight new districts and the merging of the former district of Eminönü into Fatih (now the only local district authority exerting power over the entire historical peninsula).
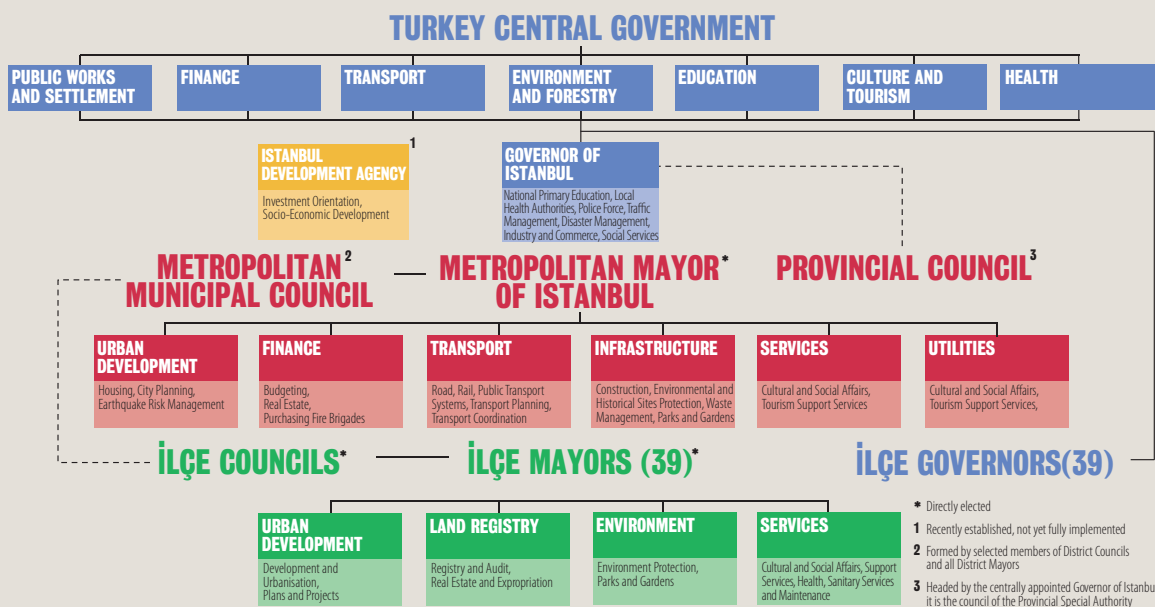
SÃO PAULO

São Paulo's city government is led by a directly elected mayor, and São Paulo State is led by a directly elected governor. The mismatch between São Paulo's municipal boundaries and the extent of the city requires these two levels to work very closely together. In terms of transport, the city government controls part of the urban transport system while the state is responsible for integrated transport planning across the metropolitan region. With respect to housing, both levels have housing enterprises with specific responsibilities. As concerns security, the military and civilian police forces fall under the State's authority, while the city maintains a local police force. In the field of education, responsibilities are divided between the state and the city governments, while an institutionalised management structure exists for health care that distributes responsibilities among federal, state and local governments. A third, decentralised level also exists under the municipality: 31 subprefeituras are the main point of contact for the population. They manage local public services and have some planning and transport responsibilities.
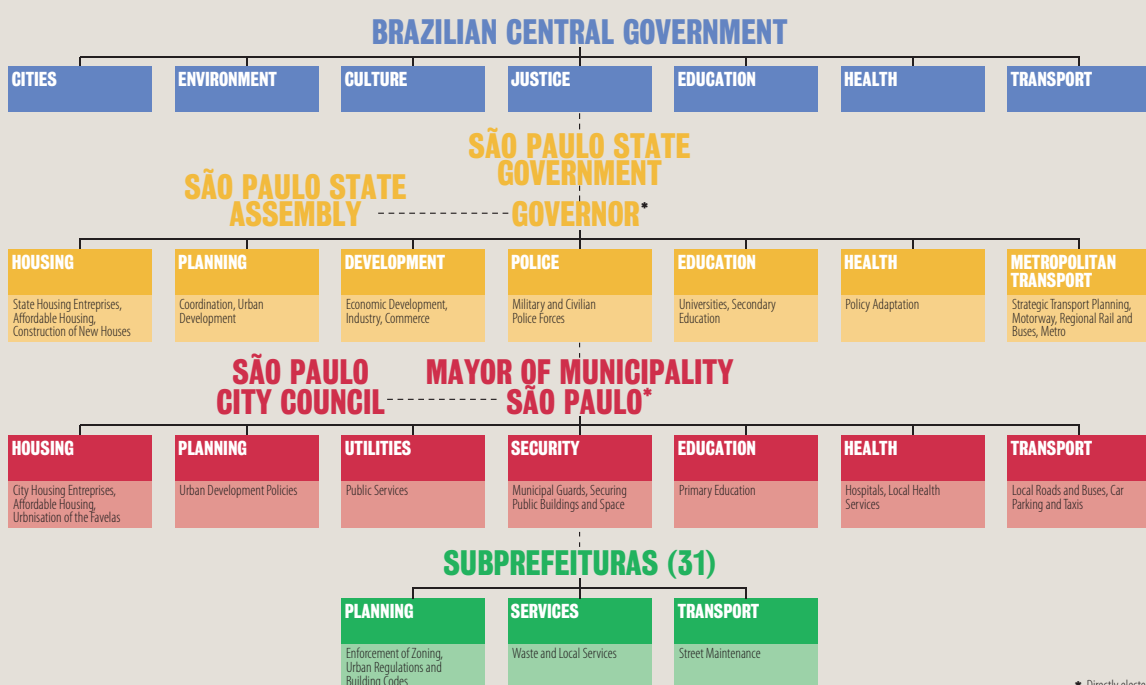
These five charts are illustrative indications of how government structures are organised in Istanbul, São Paulo, New York, London and Mumbai. They are designed to give a crude impression of how the basic responsibilities are organised within each of these cities, identifying some of the key functions carried out at central, state and local government level. While they offer a useful comparative overview, they are not intended to give an accurate account of the detailed systems of accountability, which can only be explained comprehensively on a case-by-case basis.

NEW YORK

US FEDERAL GOVERNMENT

| LABOUR | FINANCE | TRANSPORT | HIGHWAYS | INDUSTRY | ENVIRONMENT | TAXATION |

NEW YORK STATE ASSEMBLY - - - - **NEW YORK STATE GOVERNMENT GOVERNOR***

TRANSPORT	DEVELOPMENT	HOUSING	AUDITS	EDUCATION	HEALTH	ENVIRONMENT
State DOT, Metropolitan Transit Authority, Port Authority	Empire State Development	Division of Housing and Community Renewal	Office of the State Comptroller	Universities and Higher Education	Health Department, Medicaid Inspector	Environmental Conservation

NEW YORK CITY COUNCIL - - - - **MAYOR OF NEW YORK CITY***

PLANNING	ENVIRONMENT	HOUSING	EDUCATION	EMERGENCY	HEALTH	TRANSPORT
Zoning, Land Use	Environmental Protection, Parks	Housing and Buildings	Schools, Universities and Libraries	Police Department, Fire Department		Streets, Sidewalks, Bicycle Paths, Road Repairs

NEW YORK CITY BOROUGHS (5)

CONSTITUENTS	COMMUNITY BOARDS
Constituent Services	Public Hearings on Land Use

* Directly elected

New York City's government operates within a legislative framework determined at state level (the Federal State of New York). Federal government in the United States has no direct powers to direct or legislate for 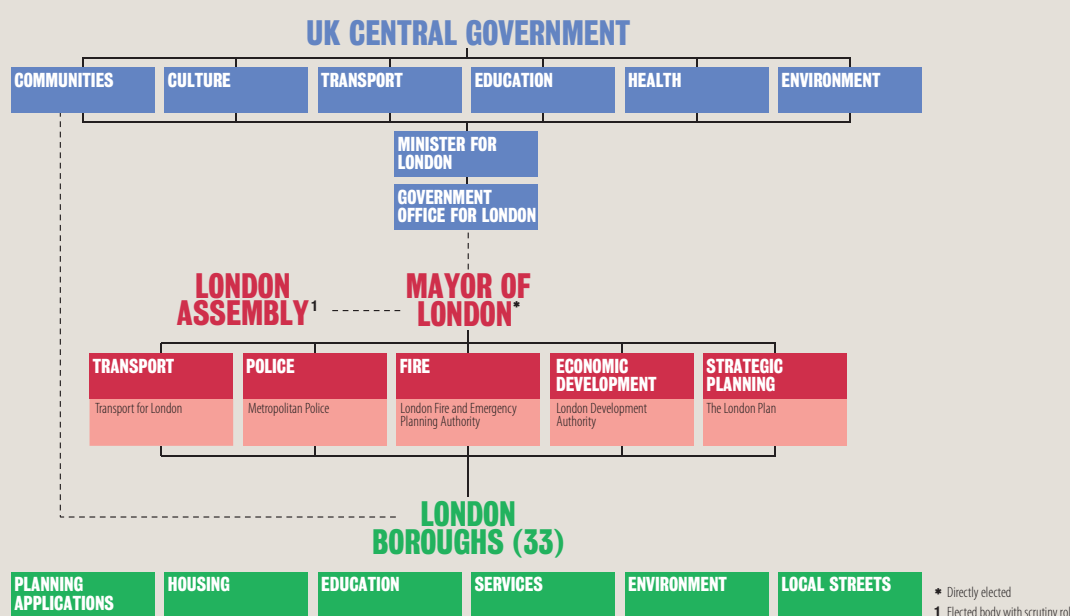the actions of individual cities, though federal agencies operate in all parts of the country. However, the state level of government is important both as a legislator and because of its powers of budgetary supervision. The state also runs the major transport systems, is co-owner of the city's airports and oversees some elements of the city's economic development. Within this framework, the city is powerful by international standards: the Mayor of New York is one of the most important elected officials in the United States. Even so, local legislation is the responsibility of the City Council. New York City government is responsible for public education, public hospitals, social care, the environment, planning and some local transport. There are five boroughs, each headed by an elected Borough President which has rights to be consulted though they provide no services. There are also 59 Community Boards which provide advocacy for neighbourhoods.

LONDON

UK CENTRAL GOVERNMENT

| COMMUNITIES | CULTURE | TRANSPORT | EDUCATION | HEALTH | ENVIRONMENT |

MINISTER FOR LONDON

GOVERNMENT OFFICE FOR LONDON

LONDON ASSEMBLY[1] - - - - **MAYOR OF LONDON***

TRANSPORT	POLICE	FIRE	ECONOMIC DEVELOPMENT	STRATEGIC PLANNING
Transport for London	Metropolitan Police	London Fire and Emergency Planning Authority	London Development Authority	The London Plan

LONDON BOROUGHS (33)

| PLANNING APPLICATIONS | HOUSING | EDUCATION | SERVICES | ENVIRONMENT | LOCAL STREETS |

* Directly elected
1 Elected body with scrutiny rol

London's government operates within a relatively centralised, unitary state. Several central departments have responsibilities within the city, including health care, the regulation of commuter railways and as final arbiter for major planning decisions. Central government also has a number of regulatory powers over the mayor and the city's boroughs. The Mayor of London is the elected executive for a number of major city-wide services, notably public transport and spatial planning. The mayor is overseen by an elected, non-legislative assembly. There are also 32 elected borough councils whose responsibilities include schools, social care, the environment, local transport and local planning. The City of London, the UK capital's financial and business hub, has the powers of a borough but also several additional responsibilities. The government of London has been reformed on several occasions since the late-nineteenth century, most recently in 2000 to allow Londoners to vote for a mayor for the first time in their history.

MUMBAI

INDIAN CENTRAL GOVERNMENT

| URBAN DEVELOPMENT | HOUSING | INWARD INVESTMENT | HEALTH | ENVIRONMENT | TRANSPORT |

STATE ASSEMBLY - - - - **MAHARASHTRA STATE GOVERNMENT CHIEF MINISTER**[1]

TRANSPORT	URBAN DEVELOPMENT	HOUSING	EDUCATION	HEALTH	ENVIRONMENT	POLICE
State Road Development Corporation (MSRDC), Road Transport BEST	Mumbai Metropolitan Region Development Authority (MMRDA)	Housing, CIDCO, MHADA, Slums SRA	Higher and Technical Education	Public Health, Medical Education and Drugs	Environment, Revenue and Forests, State Pollution Control Board	Police Department

GREATER MUMBAI MUNICIPAL CORPORATION - - - - **MAYOR OF MUMBAI**[2]

Municipal Commissioner

TRANSPORT	ENVIRONMENT	UTILITIES	EDUCATION	EMERGENCY	HEALTH
Bus Transport, Street Lighting, Road Repairs	Parks	Drainage and Sewage	Key Agencies	Disaster Management	Maintenance of Parks

1 Elected by state assembly
2 Mayor elected by councillors of the Municipal Corporation

Mumbai's government involves interventions at national, the state of Maharashtra, and local levels. The national government has a number of powerful departments that provide services and resources for the city. There is a significant level of state government, headed by a Chief Minister, which operates many services within the city, including roads, housing, education, health care, environmental services and policing. The city government is headed by an elected mayor with limited power. The real executive power lies in the hands of the Municipal Commissioner and the Secretary for Special Projects, both civil servants appointed directly by the Maharashtra State government. The state government has constituted a Metropolitan Planning Committee for the Metropolitan Area as required by the Jawaharlal Nehru National Urban Renewal Mission (JNNURM). There is significant overlap between responsibilities at state and city levels. Overall, the city government is relatively less powerful than the state, as required by the JNNURM.
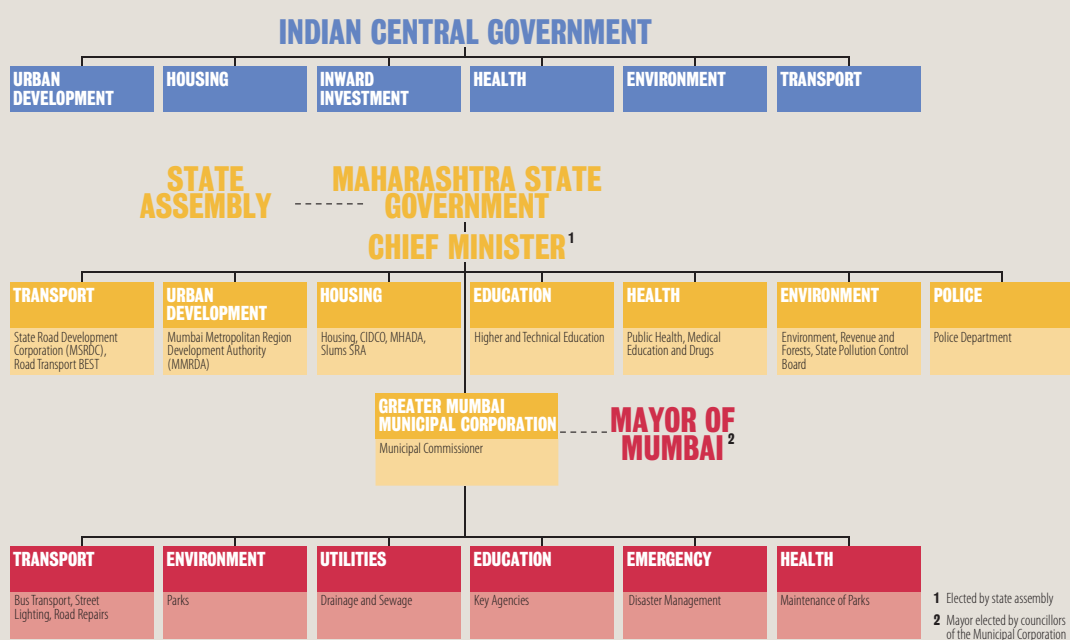
DENSITY

Urban density is illustrated below in terms of the number of people living in each km² of a 100 x 100 km urban area. Density is largely driven by topographical constraints and the location of public transport and other infrastructure, but also by each city's inherited traditions of urban planning and development. While high density is sometimes associated exclusively with poor and overcrowded urban environments, it can also enable a higher quality of life and reduce the environmental impact of cities by facilitating walking and cycling. In doing so, high density urban areas can enhance a city's vitality and make the provision of public transport and other amenities more viable.

Urban Age cities demonstrate a wide range of differing density patterns – from the very high densities in the centres of Mumbai and Shanghai to the much lower density development patterns of Berlin and London. Johannesburg shows limited areas of high density set around a downtown

that no longer has a residential population, in the midst of a very low-density sprawl. The pattern displayed by New York, on the other hand, shows how the constraints of waterways drive densities that rise to a 'spike' in Manhattan and parts of the Bronx, Brooklyn and Queens, while the rest of the metropolitan region has a lower density.

São Paulo is multi-centred and similar in its overall density pattern to Mexico City. This is a striking comparison given that the two cities are very different in terms of their urban form – São Paulo's skyline is dominated by high-rise apartment blocks, while Mexico City's is consistently low-rise. It proves that urban form and density are different concepts. Furthermore, their similar density profiles shows how high-rise buildings do not necessarily create higher density in comparison to more tightly planned low-rise development, especially when individual towers are surrounded by large areas of motorways or unused space.

In Istanbul, density levels are high, particularly when compared to other European cities. The city's peak density of 68,602 people per km² is well above Manhattan's extreme, and the average within a radius of 10 km is at least 30 per cent higher than that of any of the other American and European Urban Age cities. Istanbul also displays a distinct difference between the European and Asian sides: while density levels on the European side vary considerably – the highest and also some of the lowest densities within the built-up area can be found here – the Asian side is much more homogeneous and is dominated by mid-range densities around 20,000 people per km².

DENSITY LEVELS FROM THE CITY CENTRE
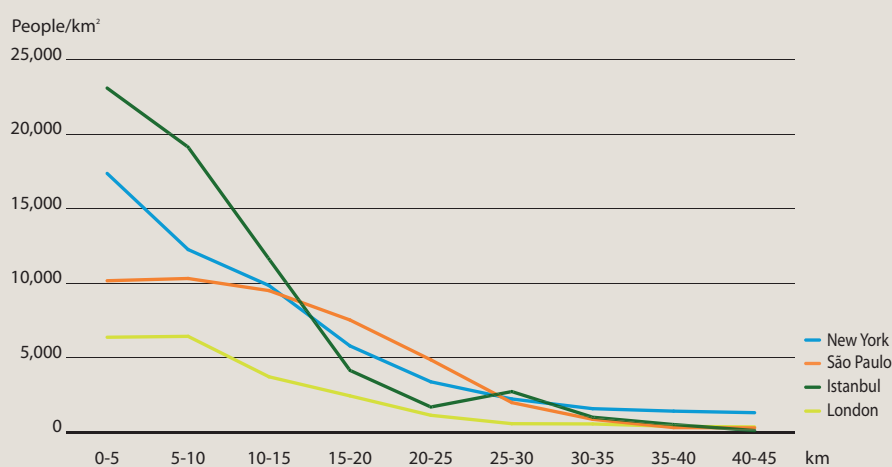
The line graph above shows how density levels change from the peaks in the city centre as one moves outwards towards the periphery. It highlights the differences that exist in terms of density patterns in four major cities. While New York and Istanbul both exhibit a rapid decrease in density as one reaches a distance of 10 km from the city centre, density levels in London and São Paulo decrease more gradually. São Paulo is the city in which density levels remain the most constant, reaching half their maximum value around 25 km from the centre, while in New York and Istanbul this occurs at a distance of roughly 15 km from the city centre.

QUALITY OF LIFE (HDI INDEX)
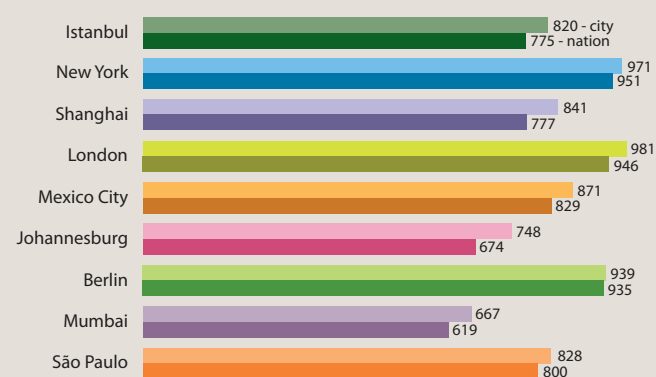
All Urban Age cities have a higher Human Development Index (HDI) than their national hinterlands. The HDI score combines life expectancy, literacy rate, educational enrolment ratio with its per capita Gross Domestic Product to provide a snapshot of the quality of life in each city. London, New York and Berlin have the highest scores, followed by Mexico City, Shanghai and São Paulo. Johannesburg and Shanghai show the largest gains over their national averages, while living conditions in Berlin are roughly identical to the German average. Istanbul's relatively low HDI can partly be attributed to a significant gender inequality for education levels in Turkey – while the adult literacy rate for men is 95.3, it is only 79.6 for women. This data highlights that there is no direct relationship between a city's density and its quality of life. While Mumbai has the highest density and the lowest HDI score, New York City proves that high density and high quality of life are not mutually exclusive.

RESIDENTIAL DENSITIES OF CITY AND REGION (pp/km²)

Population Density (people/km²)

	0 – 1,000
	1,000 – 5,000
	5,000 – 10,000
	10,000 – 20,000
	20,000 and over
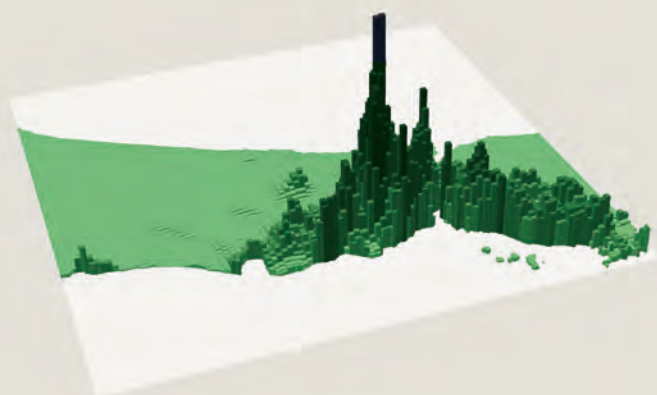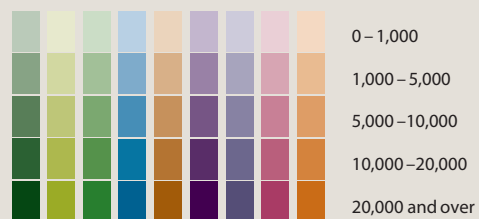
ISTANBUL PEAK 68,602 pp/km²
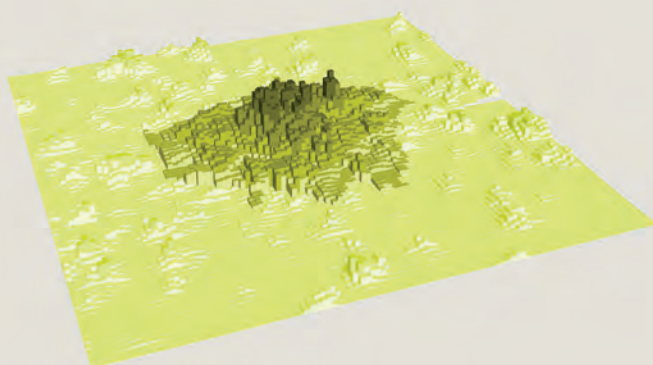
LONDON PEAK 17,200 pp/km²

BERLIN PEAK 21,700 pp/km²

NEW YORK CITY PEAK 53,000 pp/km²

MEXICO CITY PEAK 48,300 pp/km²

MUMBAI PEAK 101,066 pp/km²
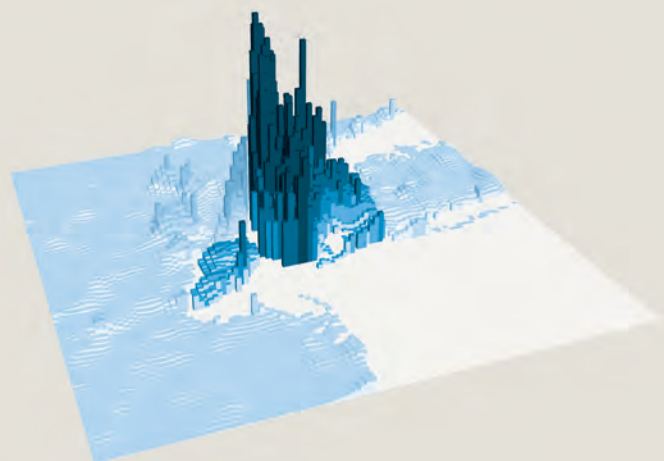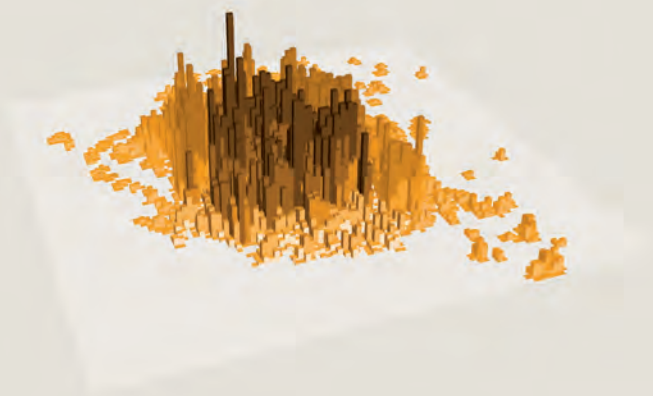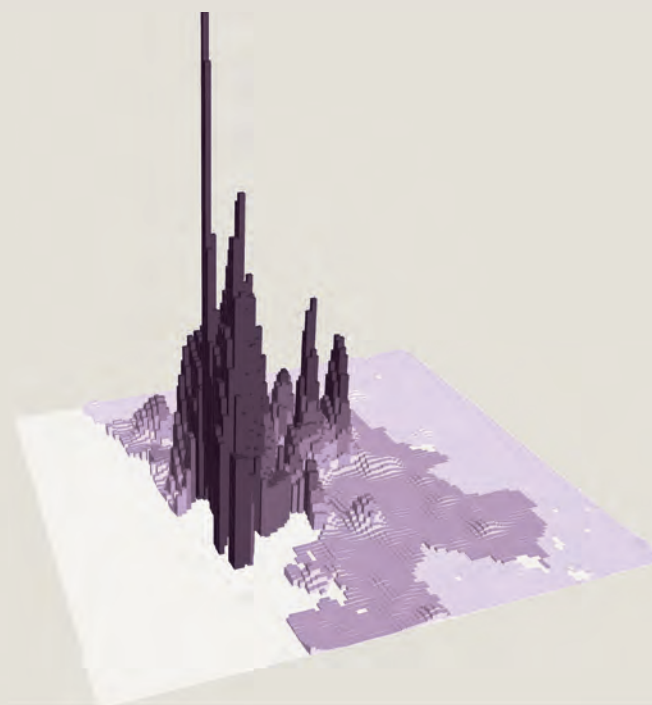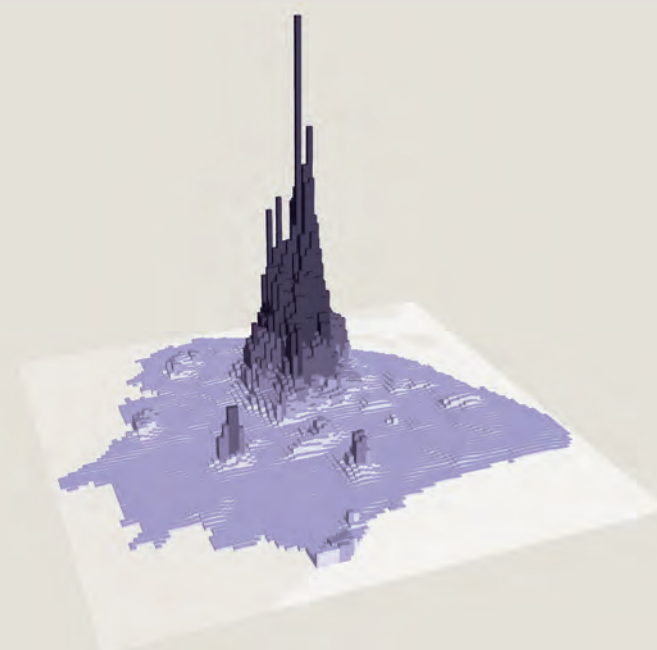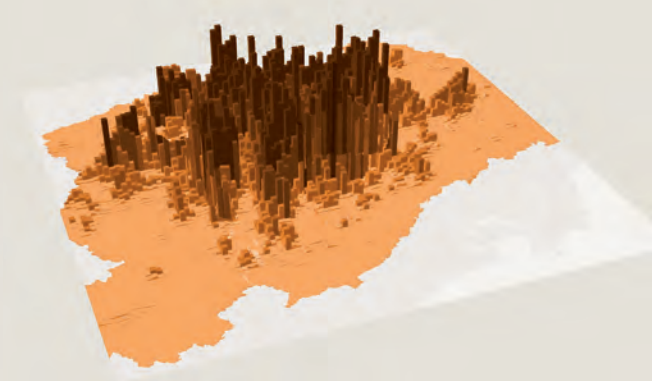
SHANGHAI PEAK 96,200 pp/km²

JOHANNESBURG PEAK 38,500 pp/km²

SÃO PAULO PEAK 29,380 pp/km²

TRANSPORT AND MOBILITY

Transport infrastructure is a critical driver of urban form, enabling centralisation of economic functions and the accommodation of a growing population along metropolitan rail and bus routes. Where public transport infrastructure is not in place, space-hungry motorways dominate, usually resulting in more sprawling forms of development and congestion as private car use persistently runs ahead of road building. The Urban Age cities offer varying levels of transport infrastructure. The most extensive metro systems have been put in place in London, New York and Berlin, while Istanbul, São Paulo and Shanghai have the smallest public transport network of the nine cities under investigation, leaving many areas without any access to either rail or metro. In Istanbul, construction is currently underway to expand the existing 76 km-long metro network to 231 km by 2015 – although funding to complete this construction is not yet secured. At the same time, 9 km has recently been added to the Metrobus (BRT) to increase the system's total length to

50 km. The city's BRT opened in 2007 and operates along a dedicated lane crossing the Bosporus Bridge between Avcılar on the European side, to Kadıköy on the Anatolian side. The extension will continue the BRT from Avcılar to Beylikdüzü on the European side and is expected to increase the current daily use to 1,170,000 passengers per day.

How people travel within cities – the 'modal split' – reflects the public transport infrastructure in place, but also local economic development, climate and urban form. Walking dominates as a form of transport not only in cities designed to be pedestrian-friendly, but also as a result of proximities created by high levels of urban density or when access to public transport and private motorised modes is limited. Therefore walking accounts for a massive 56 per cent of journeys in Mumbai, 45 per cent in Istanbul and around 30 per cent of journeys in Johannesburg and Shanghai. Walking also accounts for a relatively high modal share in London and Berlin (20 and 25 per cent respectively).

Cycling, on the other hand, is only a significant mode of transport in Shanghai (25 per cent) and Berlin (10 per cent). In all other cities, it accounts for less than 2 per cent of trips.

Around 40 per cent of residents in New York's midtown Manhattan walk to work and over 90 per cent of affluent business workers use public transport in journeying to London's financial hub. Shanghai has experienced rapid growth in public transport use, while cycling remains prevalent. Although Berlin has high rates of cycling, its relatively uncongested roads allow high levels of car use – despite the presence of a high-quality public transport system. In some other cities, even where there is a good metro system like that of Mexico City's, informal transport by mini-bus often dominates, reflecting a mismatch between commuting patterns and infrastructure as well as the relatively high cost of public transport.

ROAD FATALITIES
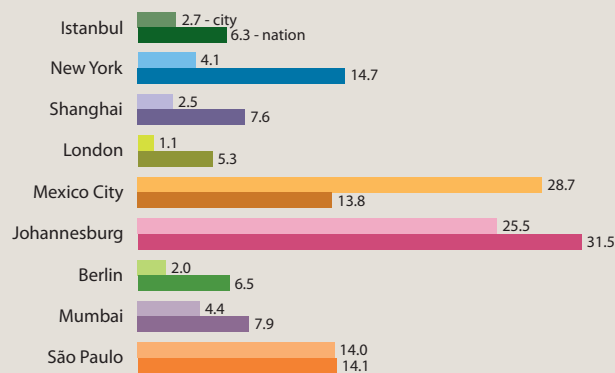
Road deaths per 100,000 residents are extremely high in Mexico City (29) and Johannesburg (26). They are lowest in London, Berlin, Shanghai, Istanbul, New York and Mumbai, with figures ranging between 1 and 4.4. São Paulo falls between these two extremes with 14 fatalities per 100,000. With the exception of Mexico City, road fatalities are lower than the national average in all cities.

CAR OWNERSHIP
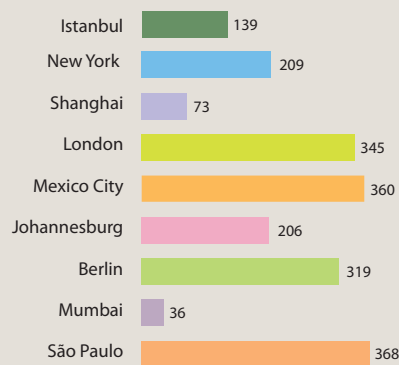
The above chart shows car ownership expressed as the number of cars per 1,000 residents in each city. The data for Johannesburg refers to the Gauteng Province. Mumbai, Shanghai and Istanbul have the lowest levels of car ownership with 36, 73 and 139 cars per 1,000 residents respectively. This is in stark contrast to 368 in São Paulo, 360 in Mexico City, 345 in London and 319 in Berlin.

SYSTEM LENGTH (KM)
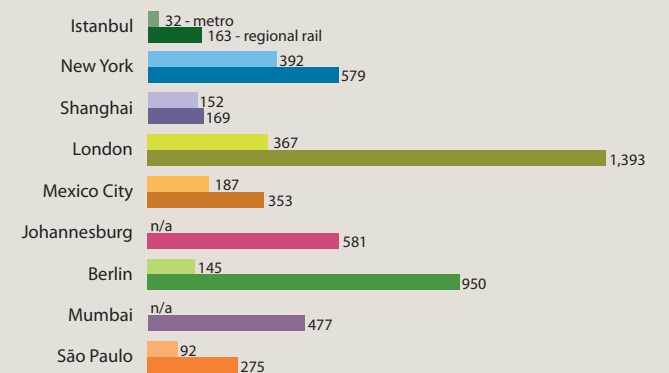
Besides metro systems – most developed in mature cities such as Berlin, London and New York – regional rail is a significant component of rail transport in the nine cities. The estimated GIS figures for the regional rail network of each city within a 70 x 70 km area emphasise the extensive amount of rail infrastructure in London and significant levels in Berlin, Johannesburg, New York and Mumbai.

MODAL SPLIT

	PUBLIC TRANSPORT	WALKING	CYCLING	PRIVATE MOTORISED
ISTANBUL	41%	45%	n/a	14%
NEW YORK	56%	11%	1%	30%
SHANGHAI	19%	29%	25%	22%
LONDON	37%	20%	2%	40%
MEXICO CITY	79%	n/a	n/a	16%
JOHANNESBURG	32%	31%	<1%	37%
BERLIN	27%	25%	10%	37%
MUMBAI	36%	56%	1%	5%
SÃO PAULO	32%	33%	1%	29%

METRO TICKET PRICE (US$)
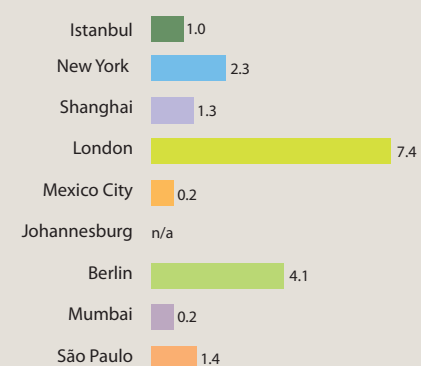
The figures above refer to the ticket prices for a similar one-way metro journey in each of the Urban Age cities. London has by far the most expensive metro ticket (US$ 7.4): in Mumbai and Mexico City, the cost of a ticket is 37 times cheaper, reflecting the importance of the metro systems as an inclusive mode of transport there. Prices range from US$ 1.0 to US$ 1.4 in Istanbul, Shanghai and São Paulo, while in New York and Berlin they are US$ 2.3 and US$ 4.1 respectively.
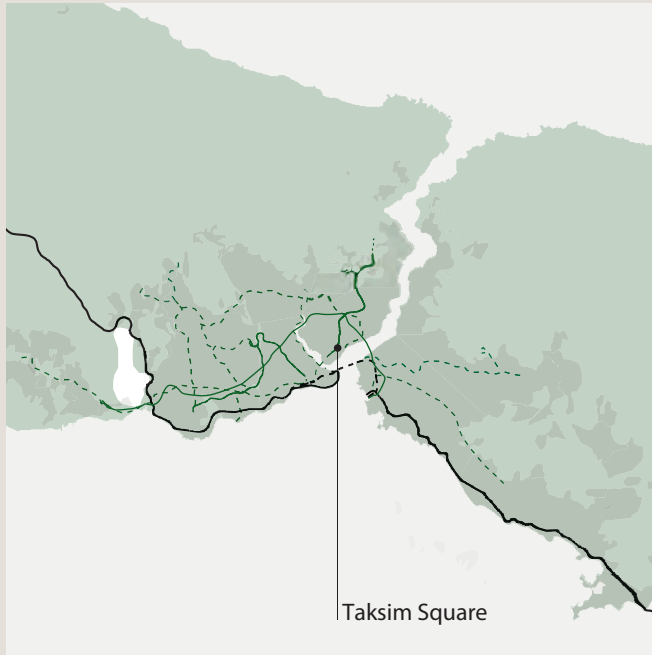
Administrative city
Intercity rail
Regional rail
Underground/Metro/BRT
Planned extensions

Taksim Square

ISTANBUL

Trafalgar Square

LONDON

Brandenburg Gate

BERLIN

Central Park

NEW YORK CITY

Zócalo

MEXICO CITY

Chatrapathi Shivaji
Railway Terminus

MUMBAI

Pudong

SHANGHAI

Downtown

JOHANNESBURG

Praça da Sé
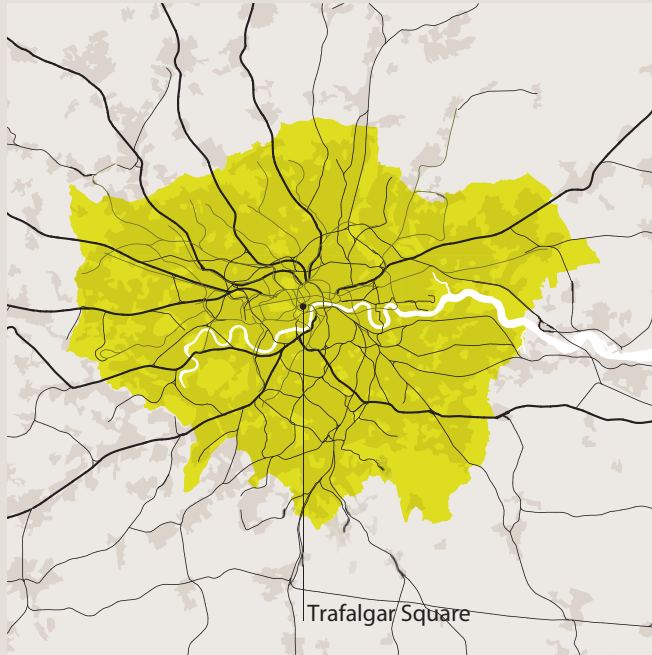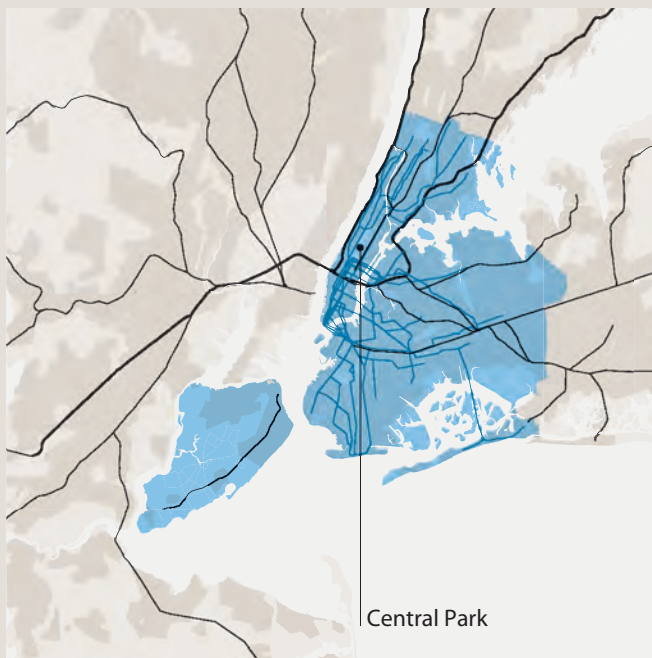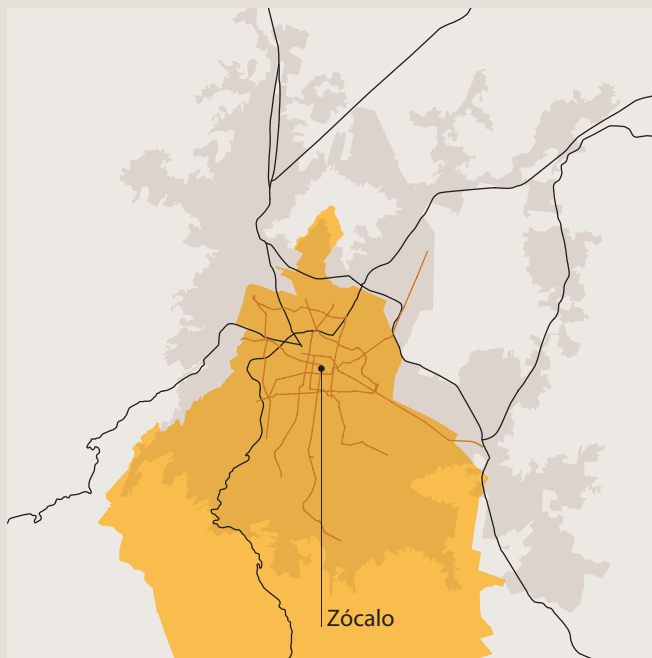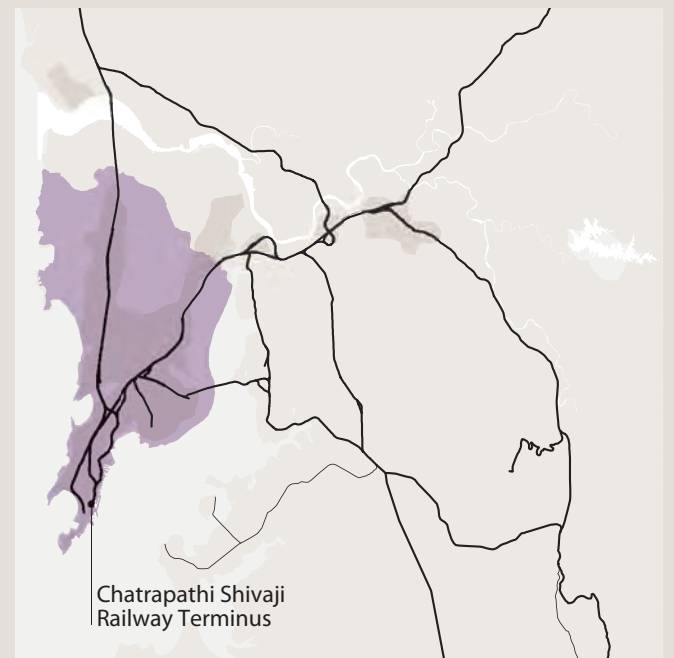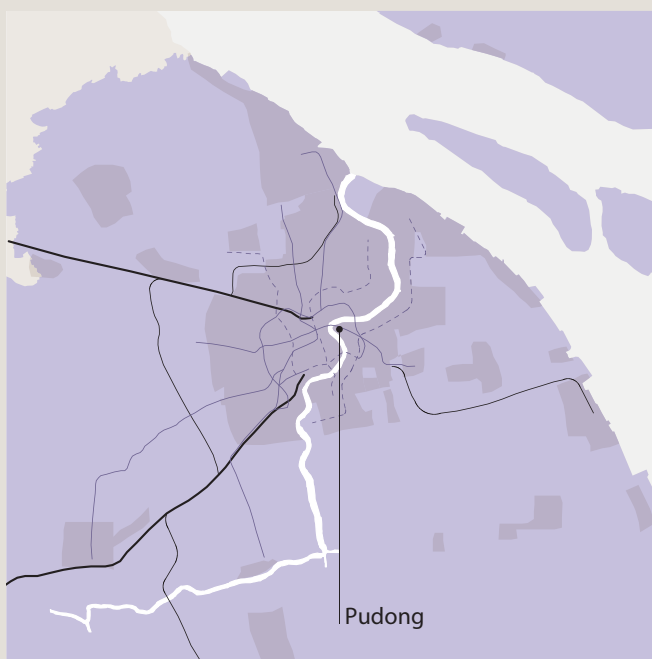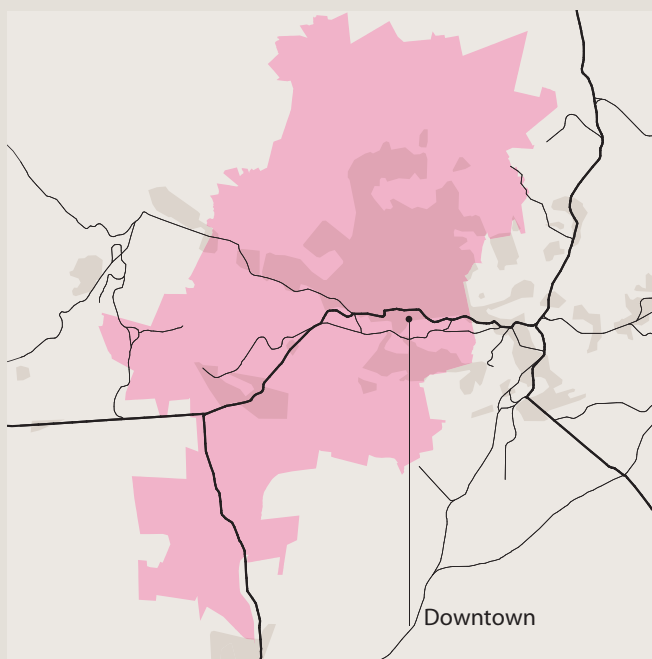
SÃO PAULO

URBAN WORKFORCE

Nineteenth-century urbanisation was originally a by-product of the Industrial Revolution. Cities are now at the forefront of a new transformation: the shift to a knowledge-based service economy. The nine Urban Age cities are at different stages of this transition. The employment figures presented here show that London and New York are the cities that have advanced the furthest towards this economic transformation, although neither city has an economy based exclusively on financial and business services; retail, leisure, social and personal services continue to be major sources of employment in both cities.

Most of the other Urban Age cities retain 10 to 20 per cent of their secondary sector employment – dominated by manufacturing, industry, and construction. In some cases, a small agricultural sector also remains. Istanbul's situation closely mirrors that of Shanghai – both cities have retained an extensive manufacturing base (38 and 35 per cent respectively). With respect to the other Urban Age cities, this difference originates from the fact that they are municipalities as well as provinces with large territories (usually in the periphery) where manufacturing and agricultural activities dominate.

The shift towards a service-based economy has far-reaching implications for urban government. Office development has created new urban districts often away from the traditional city centre, as is the case in London (Canary Wharf), Mexico City (Santa Fe) and Johannesburg. In some cases, these new developments have been criticised for their sterile quality as well as their lack of public infrastructure, for engendering social segregation, and for draining life from the traditional central business districts.

The success of an urban economy is ultimately determined by its level of inclusion. A city that features high levels of unemployment within delimited sections of its built-up area will expose itself to the pernicious effects of unequal life chances and relative deprivation. The provision of effective social systems and universal education and healthcare are therefore essential elements for fostering a successful and inclusive urban economy. Without these, cities may increasingly operate two parallel economies: one populated by a highly mobile, highly educated elite; the other dominated by people who lack the skills to share in the prosperity that the knowledge economy can bring.

AGE PYRAMID

ISTANBUL

LONDON

NEW YORK CITY

The graphics above show the distribution of the population in Istanbul, New York and London in age groups and gender. Istanbul's population is mostly dominated by people below the age of 30, with those aged 20-29 years old representing close to 20 per cent of the overall population. In New York and London, by contrast, just 40 per cent and 41 per cent respectively are under 30 years of age. The similarities extend also to the elderly: around 16 per cent of the populations of London and New York are above 60 years of age, versus 8 per cent in Istanbul.

UNEMPLOYMENT

Taksim Square

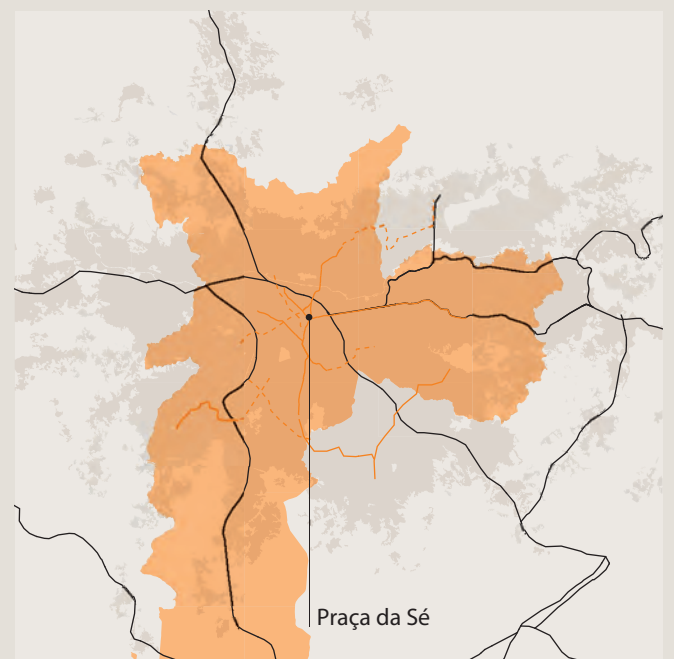### ISTANBUL

Trafalgar Square

LONDON

Central Park

NEW YORK CITY

New York, London and Istanbul demonstrate varied distributions of jobs across their urban terrains, with unemployment often connected to areas of relative social exclusion and urban decay. London presents high unemployment rates in its older industrial core relatively close to the centre while New York's more complex pattern can be explained by economic restructuring and residential segregation. Istanbul's configuration of unemployment is characterised by much higher overall unemployment numbers. Low unemployment is clustered along certain segments of the coastlines while pockets of very high unemployment can be found in some neighbourhoods of the core areas of Beyoğlu and Fatih.

Unemployment rate

- 0% – 4%
- 4.1% – 8%
- 8.1% – 12%
- 12.1% – 25%
- above 25.1%

Legend:
- primary sector
- seconday sector
- tertiary sector

ISTANBUL

- Other 0.9%
- Services 14.3%
- Transport, storage and communication 8.5%
- Manufacturing 37.9%
- Commerce 34.6%
- Construction 3.8%
- 58% / 42%

LONDON

- Agriculture 0.3%
- Manufacturing 6.8%
- Construction 6.3%
- Electricity, gas, water and sanitary services 0.3%
- Services 50.9%
- Commerce 27.4%
- Transport, storage and communication 8%
- 13% / 86%

BERLIN

- Agriculture 0.4%
- Manufacturing 11.3%
- Construction 4.6%
- Electricity, gas, water and sanitary services 0.9%
- Services 40.7%
- Commerce 35.5%
- Transport, storage and communication 6.5%
- 16% / 84%

NEW YORK CITY

- Other 0.5%
- Manufacturing 3.2%
- Construction 3.2%
- Electricity, gas, water and sanitary services 5.7%
- Services 55.8%
- Commerce 24.4%
- Transport, storage and communication 7.2%
- 6% / 94%

MEXICO CITY

- Mining and quarrying 0.3%
- Manufacturing 15.8%
- Construction 3.5%
- Electricity, gas, water services 1.6%
- Services 35.3%
- Commerce 33.5%
- Transport, storage and communication 10%
- 19% / 80%

MUMBAI

- Other 0.4%
- Agriculture 0.3%
- Manufacturing 17.8%
- Construction 0.6%
- Electricity, gas, water and sanitary services 0.3%
- Services 28.7%
- Commerce 41.9%
- Transport, storage and communication 10%
- 18% / 81%

SHANGHAI

- Agriculture 0.4%
- Manufacturing 35.4%
- Construction 3.9%
- Electricity, gas, water and sanitary services 1.6%
- Services 33.6%
- Commerce 14.1%
- Transport, storage and communication 11%
- 39% / 60%

JOHANNESBURG

- Other 8.7%
- Agriculture 1.3%
- Mining and quarrying 0.7%
- Manufacturing 12.1%
- Construction 6%
- Electricity, gas, water services 0.7%
- Services 27.8%
- Commerce 37.1%
- Transport, storage and communication 5.6%
- 18% / 80%

SÃO PAULO

- Agriculture 0.3%
- Manufacturing 11.8%
- Construction 2.5%
- Services 19.5%
- Commerce 61.3%
- Transport, storage and communication 4.5%
- 14% / 85%

ISTANBUL

For some 2,500 years, Istanbul has developed and re-developed itself, creating a city of multiple layers which are sometimes complementary and sometimes dissonant in response to its dramatic vertical topography and varied terrain along both side of the Bosporus Straits. Following the decision to make Ankara the national capital in 1923, Istanbul suffered a major decline in population and would not reach the one million mark again until the 1950s. Since then, the population has increased twelve-fold, creating a city of new typologies, new densities and new urban geographies. Rapid urbanisation brought with it the challenge of combining integrated planning with a careful consideration of both the city's traditional delicate urban grain and the natural resources that have been supplying the city throughout its long history, including its busy waterways. The construction of two bridges over the Bosporus provided an opportunity to further integrate the two continents, but also allowed for an unprecedented intensity of residential

development – both informal and formalised. Similar concerns have surrounded the debate over the construction of a third bridge, publically announced by the Mayor in late August 2009. The graphic below illustrates the complexity of some of these challenges by depicting interweaving but varied urban typologies (informal settlements and gated communities) with the city's vital natural resources, historical monuments and green spaces.

More than many other global cities, Istanbul is a city of extreme typological variation, as can be seen in the aerial photographs on the opposite page. A regular street grid layout dominates the traditional grain in the Pangaltı district, where a strong sense of neighbourhood community pervades, albeit without the former mix of Muslim and non-Muslim populations. Tarlabaşı offers a much more complex spatial picture; formerly the heart of the Pera district, it was cut off from its surroundings in Beyoğlu by the creation of the major Tarlabaşı Boulevard in 1980s. Since then,

its houses, once occupied by the Greek community, have decayed through neglect or overcrowding, creating a pocket of urban deprivation cheek-by-jowl with Taksim Square and the city centre.

The Anatolian side offered a vast amount of unspoilt land before it was opened to development as a result of new planning regimes and the construction of two bridges over the Bosporus, in 1973 and 1988. Many of the newer typologies of high-end luxury houses and gated communities started spreading on the hills immediately behind the well-conserved Bosporus shores. Although only about 10 per cent of the population commute daily over the bridges, new residences such as the ones in the hills of Anadolu Kavağı provide a higher quality of life for those with the means to commute between work and home. *Gecekondu* settlements sprouted in large parts of the city, many near the industrial sites along the Marmara Sea, such as Gülensu in the Maltepe district on the Anatolian side.

Rumelian Castle

Anatolian Castle

Taksim Square   Hagia Sophia

Istanbul municipality
Built-up area
Informal settlement
Green
Conservation area
Water
Bridge (existing)
Bridge (in discussion)
Historical monument
Gated community

20 km
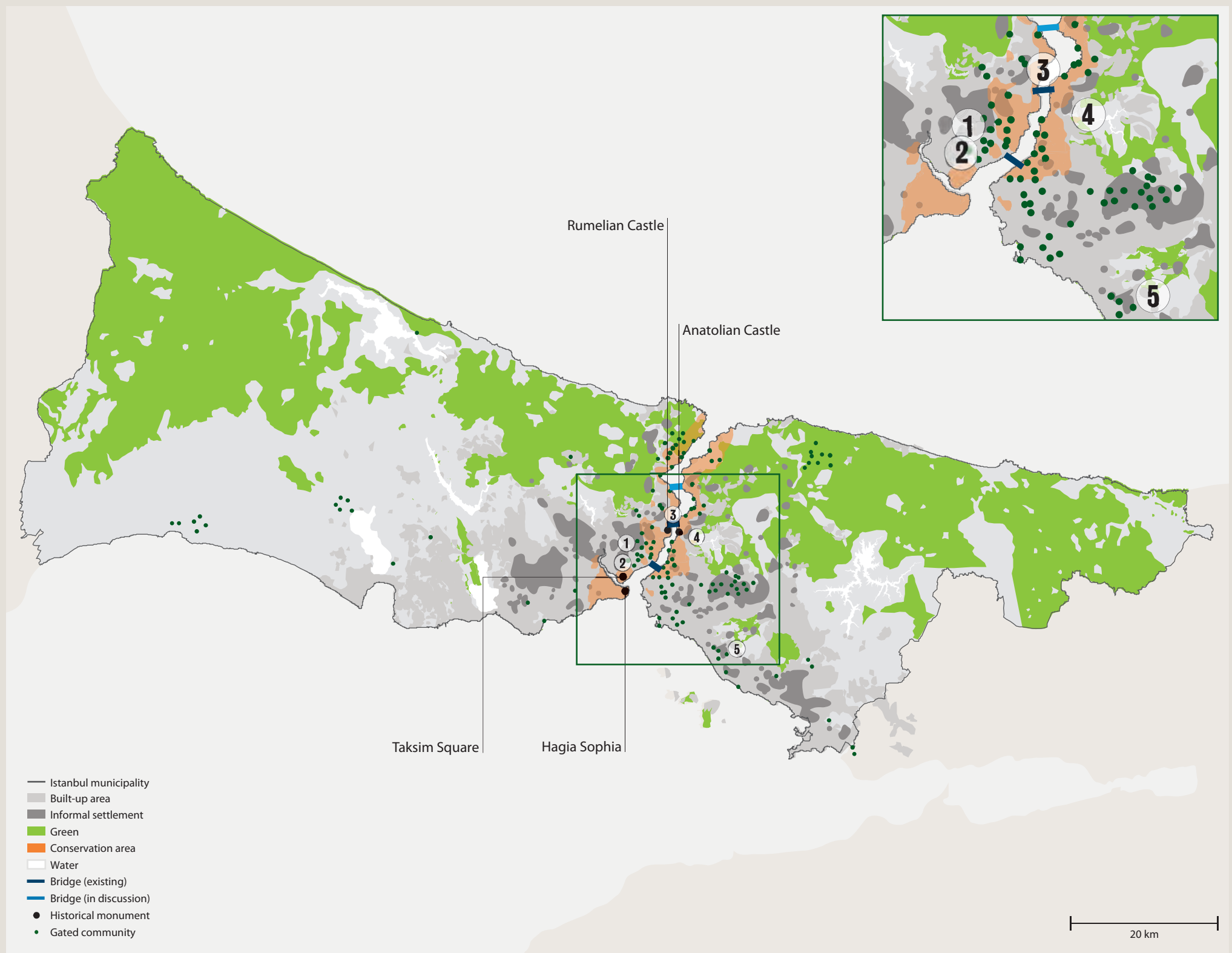
1 PANGALTI

2 TARLABAŞI

3 FATIH SULTAN MEHMET (2ND) BRIDGE
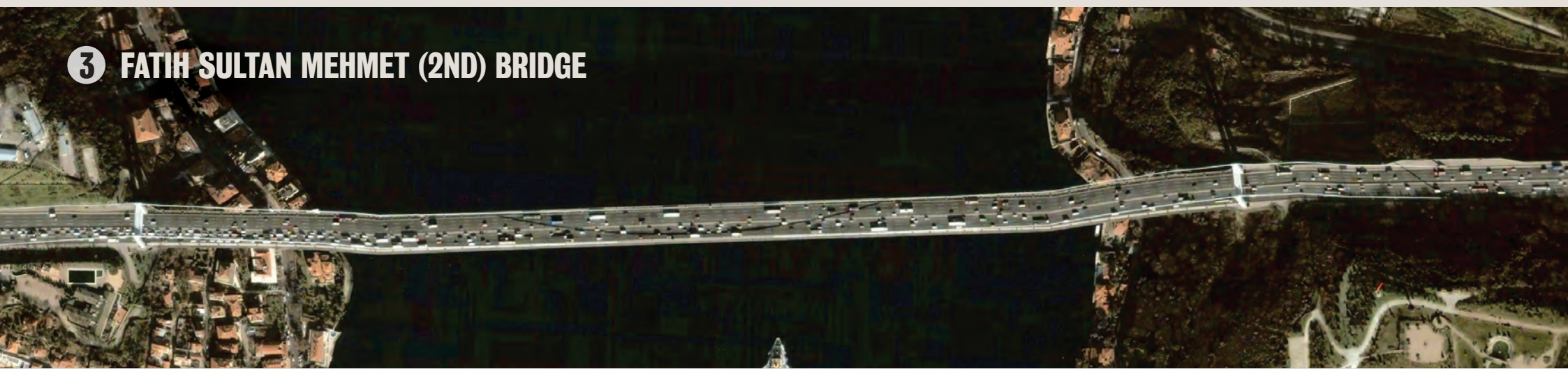
4 ANADOLU KAVAGI
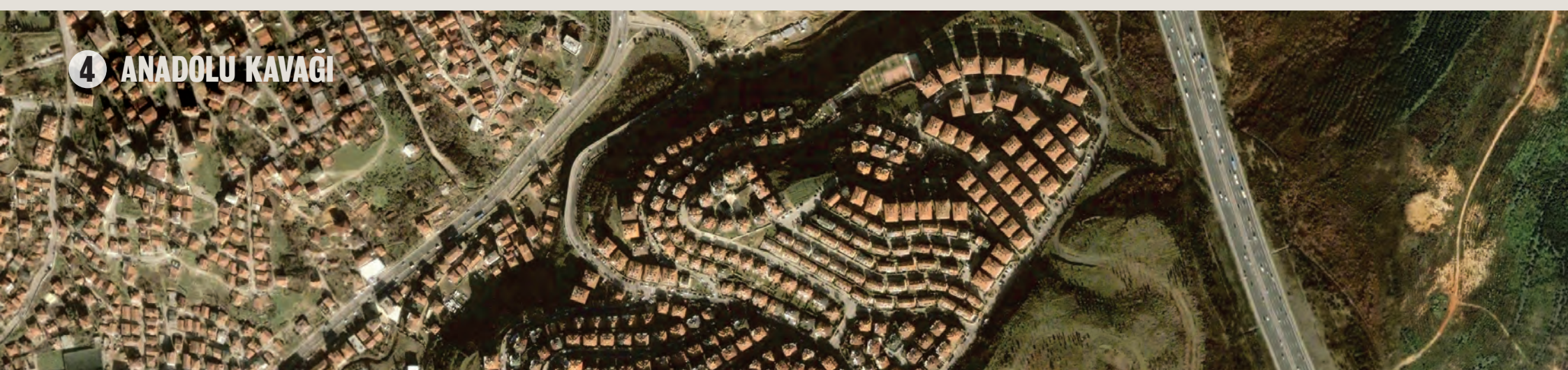
5 GÜLENSU

URBAN GRAIN

The layout of streets, buildings and spaces form the spatial DNA of urban growth, the patterns through which city life can develop and cities can grow. These spatial arrangements are critical to the liveability of cities, to the quality of life that they can offer their residents, to the density that they can accommodate, and to their flexibility in adapting to change and growth.

The images presented here help to visualise the micro-structure of urban neighbourhoods, how buildings (in black) and open spaces (in white) come together to create an integrated urban whole. The maps presented here illustrate the relationship between urban form and density in Istanbul in three neighbourhoods – high density, mid-level density and low-density – each covering one km^2.

The first neighbourhood is Nenehatun in the Esenler district, located on the European side and boasting the city's peak density (68,602 people per km^2). With a population of over half a million, the district was settled between the 1960s and the 1990s and is composed of densely packed five- to six-storey apartment blocks.

The second neighbourhood is Çukurcuma in the Beyoğlu district on the European side. Separated from the old city by the Golden Horn, this district is the arts, entertainment and night-life centre of Istanbul. It is home to a quarter of a million inhabitants, features a density of 23,383 people per km^2 and is mostly composed of historical city blocks.

The third neighbourhood is Acarkent in the Beykoz district, a low-density area in the north-western reaches on the Anatolian side. A newly developed residential area, it features rows of identical detached single-family homes with swimming pools and gardens. At 1,320 people per km^2, its urban fabric is 18 times less dense than Çukurcuma and 52 times less dense than Nenehatun.

1 **NENEHATUN** ESENLER 68,602 pp/km²

2 **ÇUKURCUMA** BEYOĞLU 23,383 pp/km²

3 **ACARKENT** BEYKOZ 1,320 pp/km²

REGIONAL CONTEXT

Copenhagen Perm Yekaterinburg
Moscow Nizhniy Novgorod Kazan Ufa Chelyabinsk
Hamburg Minsk Samara
Berlin Warsaw
Cologne
Prague Kiev Kharkov
Munich Vienna Dnepropetrovsk Volgograd
Zürich Budapest Donetsk Rostov-on-Don
Milan Belgrade Odessa
Turin Bucharest Black Sea Caspian Sea
Rome Sofia Istanbul Tbilisi
Naples Bursa Ankara Yerevan Baku
Izmir
Athens Tabriz
Adana Gaziantep Karaj Tehran Mashhad
Mediterranean Sea Aleppo Mosul Erbil Qom
Homs Esfahan
Beirut Damascus Baghdad
Tripoli Haifa Amman Ahvaz
Benghazi Tel Aviv Shiraz
Alexandria Kuwait City The Gulf
Cairo Dubai

Total trade volume with Turkey in 2008 (millions of US$)

- 0 – 1,000
- 1,001 – 5,000
- 5,001 – 10,000
- 10,001 – 25,000
- above 25,000

Population

- 1 million
- 2.5 million
- 5 million
- 7 million
- 10 million

Medina Riyadh
Red Sea
Mecca Jidda

The map above shows Istanbul in its regional context, highlighting all cities of over a million inhabitants and showing Turkey's trade relationships with other countries in the region. Istanbul is among the top five largest cities in the region, with all of the other major cities to its east. With the exception of Iran, Turkey does not have significant trade relationships with its immediate neighbours: its major trading partners are Russia, Germany, China, Italy and the United States.

ISTANBUL

- 1,000 per cent population increase since 1950, the highest of the OECD's 78 metro-cities.

- 12.7 million people in the area governed by IMM (Istanbul Metropolitan Municipality), over 15 million in the metropolitan region.

- Net migration rate has slowed from 10.76 per cent in 1990 to 0.2 per cent in 2008, compared to a 1.57 per cent projected growth rate between 2008 and 2023.

- Main internal immigration is from the Black Sea and the middle and south-eastern Anatolian regions.

- Istanbul has the highest residential density in Europe: 68,602 people/km² peak density; 20,116 people/km² central area density.

- The city is run by the IMM (Istanbul Metropolitan Municipality), with a directly elected mayor.

- 27 per cent of national GDP, 38 per cent of national industrial output, more than 50 per cent of national service output and 40 per cent of national tax revenues come from the functional metropolitan region.
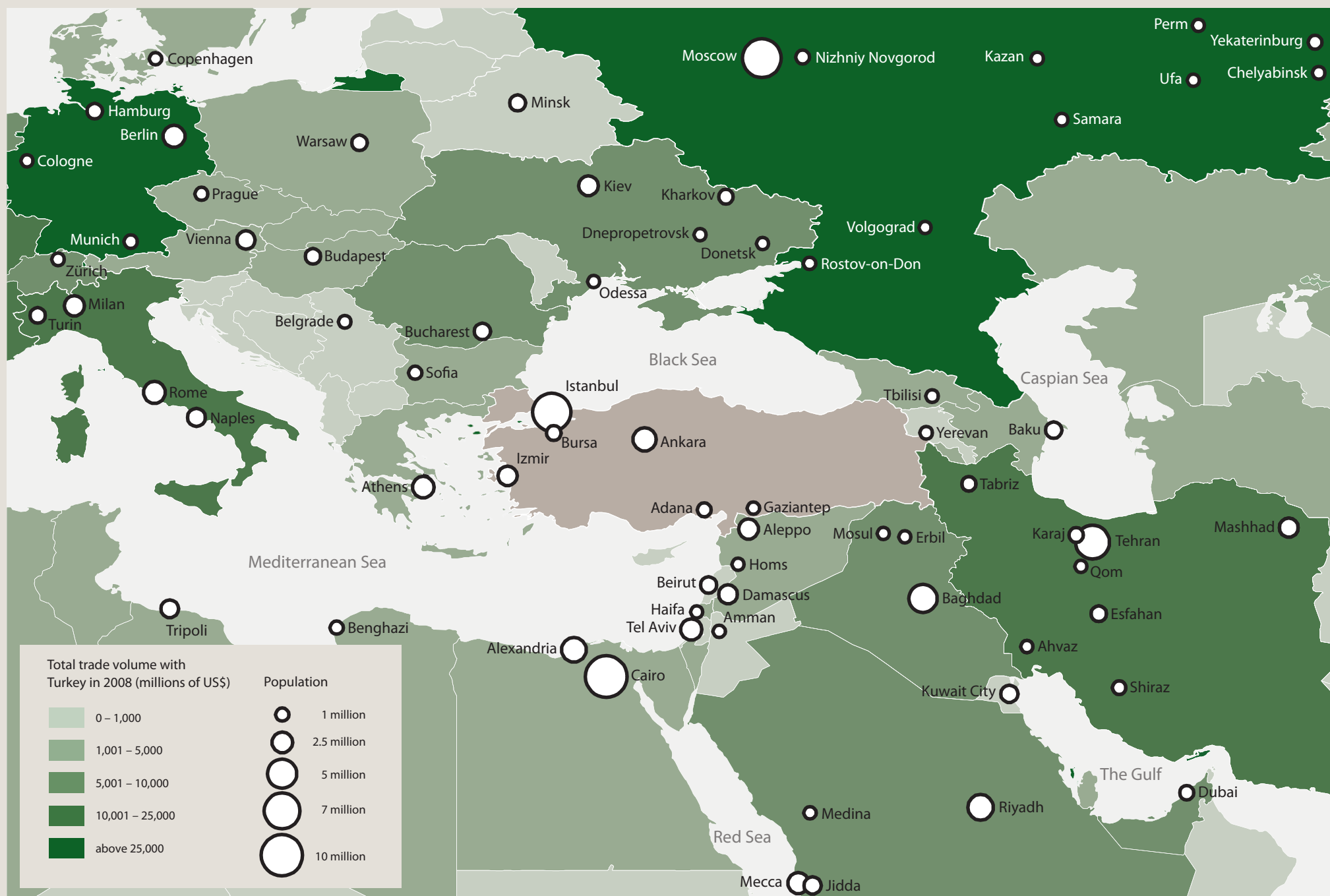
- 50 per cent higher productivity than the national average.

- 60 per cent of Turkey's total trade goes through Istanbul.

- 11.2 per cent unemployment rate in 2008.

- 60 per cent of the population works in the service sector.

- 30 per cent of the population works informally.

- 37 per cent of the population works in manufacturing, producing 80 per cent of the city's exports.

- 50 per cent of housing is or was informal.

- 99 per cent of the population has access to municipal services.

- 6.4 m² of green space per person in the province, compared to London's 26.9 m², New York's 29.1 m² and Stockholm's 87.5 m² but only 1 m² of green space per person within the central built-up area.

- 2.72 tonnes of carbon emission and 383 kg of waste produced per person per year.

- 2,267 kWh of electricity and 56,575 litres of water consumed per person per year.

- 148.2 km of rail, with a further 160 km due in 2015, in the core of Istanbul province.

- 138.5 cars per 1,000 people in Istanbul, 45 per cent of the population walks; average commuting time of 48 minutes.

- 3 murders per 100,000 people but 44 per cent of the population is concerned about security and crime.

TURKEY

- Turkey is among the top five fastest growing OECD economies between 2000 to 2008 (measured by GDP at Purchasing Power Parity) alongside Slovakia, Ireland, Norway and Spain.

- 24 per cent of the national population worked in agriculture in 2008, producing 8 per cent of national GDP.

- 27 per cent of the national population worked in manufacturing and construction in 2008, producing 24 per cent of national GDP.

- 50 per cent of the national population worked in services in 2008, producing 58 per cent of national GDP.

- Differences in growth rates among regions in the same country were larger than 6 percentage points in Turkey, Poland, Hungary, Greece and the United Kingdom, suggesting that national performance has been driven by the dynamism of a limited number of local regions. Between 1995 and 2005 Turkey had the largest regional differences in GDP growth of all OECD countries.

- Like Greece and Portugal, 10 per cent of the regions with the highest output contributed to over half or more of the national GDP.

- Turkey has by far the greatest specialisation in construction industry in the OECD countries, followed by Mexico, Germany, France and the UK.

- 95 cars per 1,000 people, the lowest private car ownership rate of all the OECD countries.

This data is drawn from the OECD International Reviews: Istanbul, Turkey and other Urban Age Research.

URBAN AGE CITY SURVEY

As part of the 2009 research, Urban Age again commissioned Ipsos, the global research company, to undertake a survey about quality of life in Istanbul to look at what residents really think. **Ben Page, Luci Oliveira, Özlem Bulut, Burak Evren** and **Burçin Bakkaloğlu** highlight the survey's major findings, and place it in a comparative context with Ipsos' previous studies for Urban Age in London and São Paulo.

Located in a dynamic emerging market economy, Istanbul is the economic and financial heart of one of the world's 20 largest economies. A modern megacity, full of contrasts, it has had rapid growth with relatively little effective planning, bringing major problems – high unemployment, an increasing informal sector economy, uncontrolled and illegal land occupation, the spread of slums, bad transport congestion, and air and water pollution. We are talking about Istanbul, but could well be talking about São Paulo, or indeed Mumbai. Despite Istanbul being over two millennia old, whereas São Paolo was essentially shaped in the nineteenth and twentieth century, it is more similar to São Paulo than to many other European or Middle Eastern cities in terms of its social, economic and urban development. Both cities are located in countries that have similar positions in most of economic and social indicators: HDI (Human Development Index), life expectancy, adult literacy rates, unemployment and poverty. Is Istanbul also more similar to São Paulo than to London on most of the indicators in quality of life and in people's perceptions of the urban environment?

In terms of income inequality Istanbul is in a much better position than São Paulo. The Gini coefficient for Istanbul is 0.43, while for São Paulo it is 0.61 – one of the highest levels of inequality in the world. In terms of economic development, São Paulo does better; it is considered the 19th richest city in the world in terms of GDP at purchasing power parity – London occupies the 6th position, and Istanbul the 34th.

The present survey lets us put this raw data in the context of citizens' views, priorities and expectations on key quality of life issues, letting us compare how citizens living in three major cities of the world experience their city. Overall, Londoners are more satisfied with their city than people in Istanbul or São Paulo. Given that we find a strong correlation between income and perceived quality of life, this is perhaps to be expected, although it also reminds us that other things

	UK	TURKEY	BRAZIL
Gross Domestic Product (GDP)	Rank 6 ($2,168 billion)	Rank 15 ($886 billion)	Rank 9 ($1,845 billion)
GDP per capita	Rank 19 ($35,601)	Rank 62 ($12,865)	Rank 80 ($9,747)
Unemployment rate	5.30%	10.30%	8.20%
Inflation rate (consumer prices)	3.60%	10.40%	5.70%
Human Development Index (HDI)	Rank 21 (0.942)	Rank 76 (0.798)	Rank 70 (0.807)
Life expectancy at birth (years)	Rank 18 (79.2)	Rank 87 (71.6)	Rank 81 (72)
Adult literacy rate (% aged 15 and over)	-	Rank 99 (88.1)	Rank 95 (89.6)

matter too, including inequality and physical capital. When we look at what citizens see as the best and worst things in each city, we get many clues as to why Istanbul scores closer to São Paulo than to London.

In all three cities the top best aspects include job opportunities and education. For Paulistanos and Londoners, the range of shops comes as a third mention. In contrast, for people in Istanbul, heath services are mentioned more often as a key strength of the city.

Among the worst features of the cities, we find a single common worry everywhere: crime, with remarkably similar levels of concern, despite vastly different crime rates. Istanbul and London also identify other major problems, like traffic and the cost of living.

Traffic congestion stands out as a major issue in Istanbul, in contrast to São Paulo, where thousands of people stay stuck in traffic jams and waste hours every day, but seem to have accepted the problem whereas in Istanbul it is felt intensely. Istanbul's geography may explain the difference – there are only two bridges to cross from the eastern to the western side. The OECD estimates that more than 380.000 vehicles cross

the Strait every day – while the designed capacity of the bridges is only 270.000 vehicles per day.

It is interesting to note how diversity and migration are reflected in people's perceptions of their city. In London, 32 per cent see ethnic diversity as one of the most exciting aspects of the city. In more homogeneous Istanbul, 8 per cent consider it to be a bad aspect while only 3 per cent see it as good – a surprising fact for a city that has recently been nominated the 2010 European Capital of Culture. When it comes to things that would improve the quality of life, major differences can be found between the three cities. By some margin, education stands out as an issue for Istanbul in a way that is not visible elsewhere. Similarly there is a major concern over environmental issues for Istanbul's inhabitants – partly linked the threat of natural disasters, like the risk of earthquakes. In contrast, in São Paulo all the top issues are related to the social dimension: crime, health care and education, whereas Londoners prioritise both the economic (housing price), social (crime) and physical (traffic).

What do people like most about the city?

	Istanbul	London	São Paulo
Job opportunities	53%	31%	27%
Health services	45%	17%	13%
Schools	40%	17%	23%
Universities	20%	6%	5%
Transport	19%	30%	18%
Range of shops	10%	34%	27%
Parks and open spaces	10%	25%	12%
Sports and leisure	9%	12%	20%
Museums/art galleries	9%	26%	3%
Nightlife	5%	19%	7%
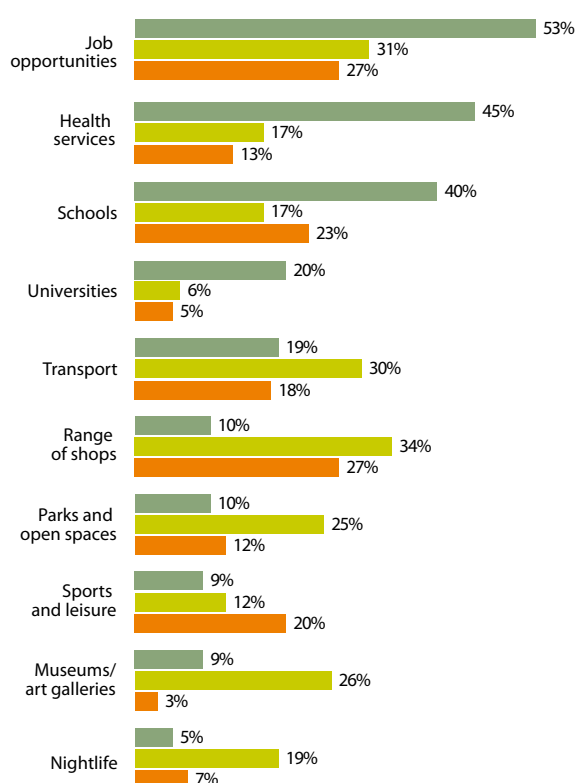
What concerns people most about the city?

	Istanbul	London	São Paulo
Traffic congestion	55%	43%	16%
Crime rates	44%	45%	43%
Cost of living	42%	49%	16%
Safety/security	38%	45%	34%
Transport	20%	33%	33%
Job opportunities	13%	6%	21%
Cost of housing	8%	45%	7%
Diversity of people	8%	5%	1%
Over crowded	5%	n/a	n/a
Range of housing	4%	8%	2%
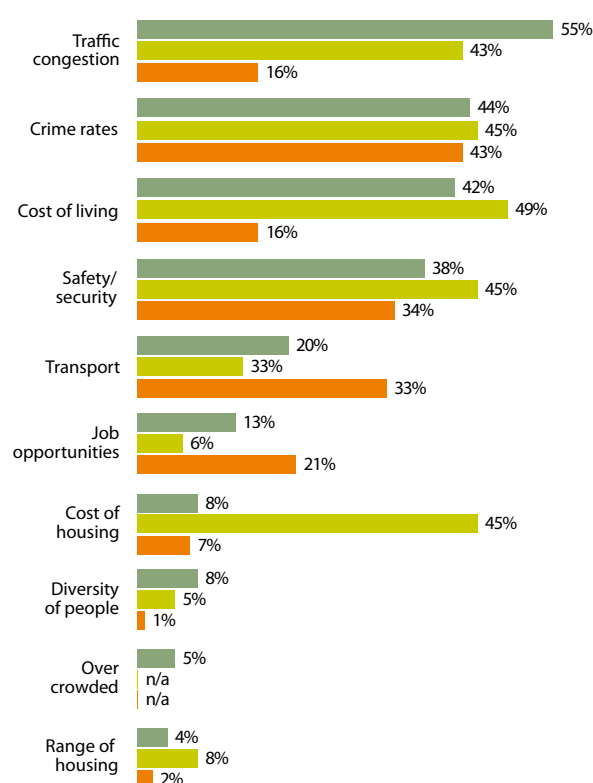
What would improve quality of life in the city?

	Istanbul	London	São Paulo
Education	77%	27%	54%
Environment	45%	23%	13%
Traffic	41%	18%	15%
Safety/crime	30%	43%	38%
Health services	30%	33%	68%
Improved public transport	7%	24%	26%
Police	7%	28%	37%
Affordable housing	6%	51%	12%
Earthquake provisions	5%	n/a	n/a
Manage migration	4%	n/a	n/a
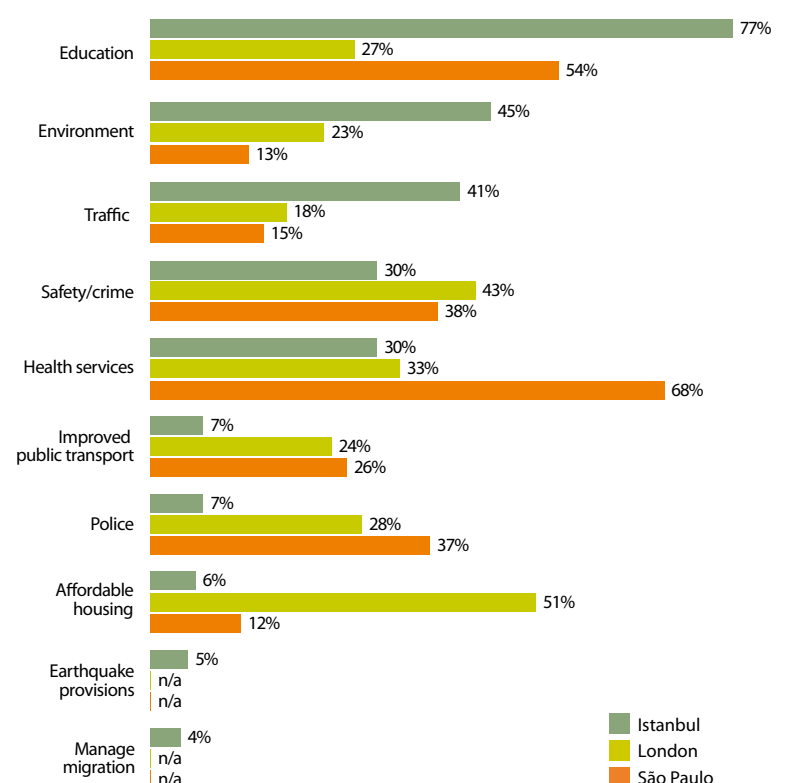
ENVIRONMENT

The survey results point to a clear environmental concern in Istanbul's population – almost twice as many people think that efforts to protect the environment are needed to improve quality of life than in London. This may be caused by the fact that 57 per cent of the respondents are aware of the effects of climate change on their city. In terms of environmental concerns, water shortages come in a strong first position, with 81 per cent of the responses. Fears of desertification, extreme humidity and heat waves follow with 68, 63 and 54 per cent respectively. These concerns seem to originate from a desire to keep future generations safe from environmental disasters: 88 per cent of the respondents are concerned that the lives of their children and grandchildren will be threatened by the effects of climate change. Close to three quarters are also concerned about environmental threats to their own health. Concern for the environment increases with the respondents' education levels: 87 per cent of those with a higher education are concerned about the environment while this figure falls to 54 per cent among those who do not have any education. Things are less clear-cut when looking at how to address climate change. No level of government is singled out as having the highest degree of responsibility. Moreover, there seems to be a mismatch between the policies that are advocated to address climate change and the actions that are being undertaken to mitigate it, a fact that needs taking into account in future debates about climate change and urban policies. While 76 per cent of respondents believe that switching to solar energy is the most sensible policy to address climate change, only 11 per cent have switched to a renewable energy provider and only 9 per cent use a renewable energy source. Surprisingly, only 27 per cent believe that it is a sensible policy to regulate energy consumption, while 72 per cent of the respondents have already reduced their energy consumption.

Are you aware of the effects of climate change In Istanbul?

No 43%
Yes 57%
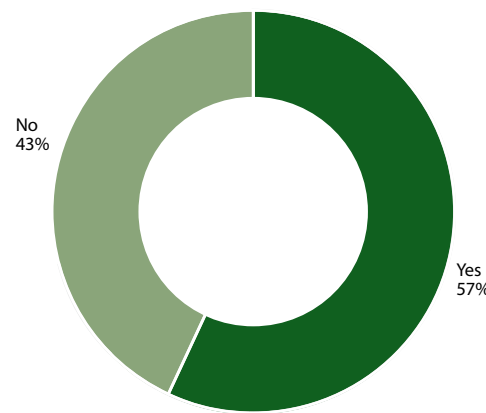
Level of governance to address climate change

National Gov't	Istanbul Municipality	Int'l Community	Regional Community	District Municipalities
89	87	85	85	84

Reasons for concern about environment

- The life of my grandchildren/children — **88%**
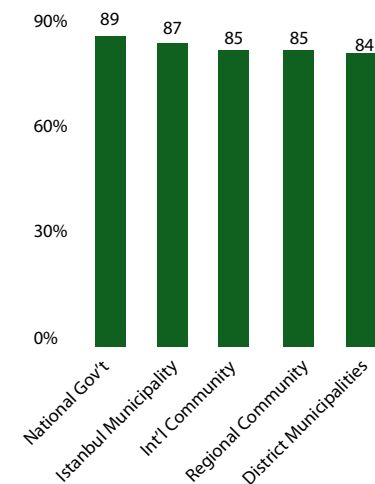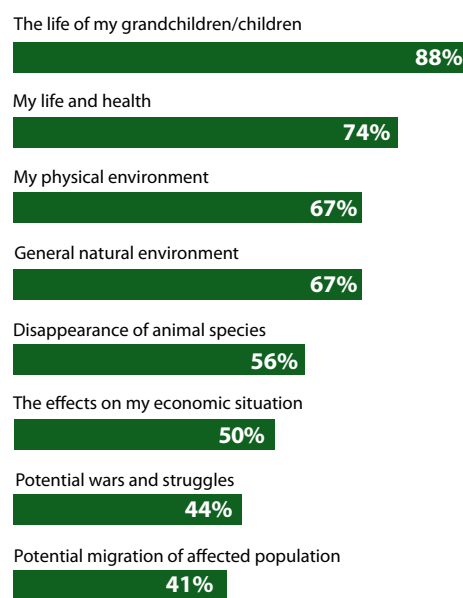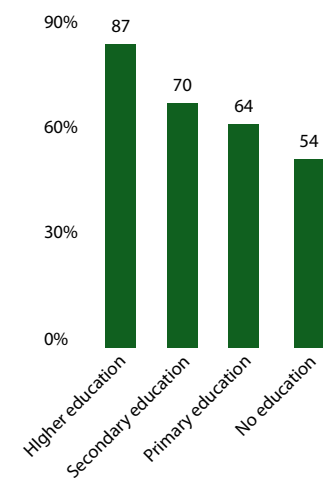- My life and health — **74%**
- My physical environment — **67%**
- General natural environment — **67%**
- Disappearance of animal species — **56%**
- The effects on my economic situation — **50%**
- Potential wars and struggles — **44%**
- Potential migration of affected population — **41%**

Concern for climate change according to education levels

Higher education	Secondary education	Primary education	No education
87	70	64	54

What are you doing to mitigate climate change

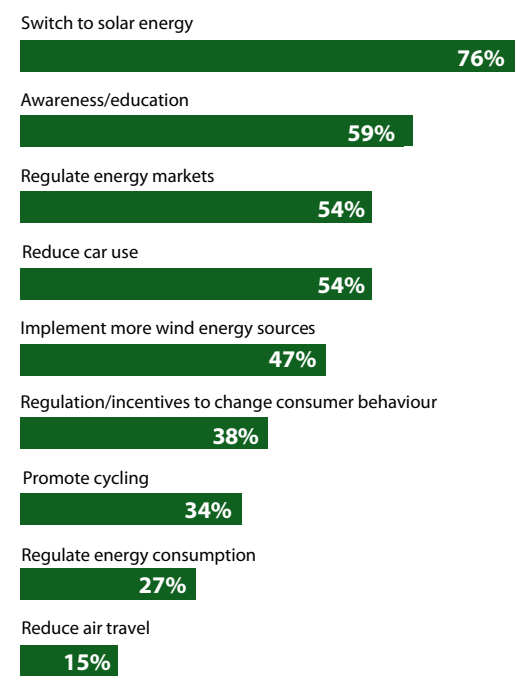|	Istanbul	EU27
Reduce water consumption	72%	55%
Reduce energy consumption	72%	64%
Recycle waste	46%	76%
Reduce consumption of disposable items	20%	40%
Choose environmentally friendly transport	18%	28%
Use reusable bags	17%	n/a
Buy seasonal and local products	14%	27%
Purchased a more fuel efficient car	14%	18%
Reduce car use	13%	25%
Switched to a renewable energy provider	11%	8%
Reduce air travel	9%	12%
Use renewable energy source	9%	5%

This graphic juxtaposes the answers from the survey with answers to the same question in a Eurobarometer survey of the population of the 27 EU countries entitled 'Europeans' attitudes towards climate change'. While the top three actions are the same in both surveys, citizens of the EU27 countries mostly recycle their waste, while Istanbul residents mostly reduce their consumption of water and energy.

Environmental concerns in the city

- Increase in water shortages — 81%
- Desertification — 68%
- Extreme humidity — 63%
- Heat waves — 54%
- Forest fires, loss of forests — 52%
- Degradation of water quality — 49%
- Increase in droughts — 39%
- Sea level rise and floods — 36%
- Saltwater intrusion — 34%
- Increased inequality — 33%
- Impacts on biodiversity — 33%
- Unusual weather — 32%
- Spread of diseases — 32%
- Decrease in food supply — 29%
- Negative impacts on summer tourism — 29%
- Energy demand for more summer cooling — 26%
- Adverse effects on cultural and historical sites — 22%
- Increased ethnic or religious tensions — 20%

The level of concern over environmental issues is quite staggering in Istanbul, ranging from fears of increasing water shortages to fears of increased inequality or ethnic and religious tensions. Moreover, there are also concerns that climate change can very negatively affect quality of life – as exemplified by concerns over humidity level increases, the spread of diseases, the loss of cultural heritage or unusual weather.

Most sensible policy to address climate change

- Switch to solar energy — **76%**
- Awareness/education — **59%**
- Regulate energy markets — **54%**
- Reduce car use — **54%**
- Implement more wind energy sources — **47%**
- Regulation/incentives to change consumer behaviour — **38%**
- Promote cycling — **34%**
- Regulate energy consumption — **27%**
- Reduce air travel — **15%**

Switching to solar energy is considered the most sensible policy that can be implemented in order to address climate change. Education comes in second, paralleling its importance as a measure to improve quality of life in the city. It also seems to indicate that some respondents believe that current environmental problems can be attributed to people who are not aware of the environmental impacts of their actions. Respondents view regulation – be it of energy markets, energy consumption or consumer behaviour – as an important tool to address climate change. Finally, the environmental impact of unsustainable forms of transport is recognised, with calls to reduce car use and promote cycling.

TRANSPORT

Traffic and transport congestion is one of the strongest characteristics of all megacities. But this is especially true when comparing Istanbul and São Paulo – Paulistanos would feel at home when driving in Istanbul and vice versa. But, as we saw earlier, Sampa residents seem rather more stoical – people are much more disturbed by traffic in Istanbul than they are in São Paulo. If traffic congestion is the same, public transport is quite different. It seems to work much better in Istanbul than in São Paulo – reflected in the satisfaction rates. But despite their anxiety about traffic, people in Istanbul would not think twice about buying a car if they could afford to: 80 per cent of non car owners would do it (as would 83 per cent in São Paulo). Another difference is the support for policies designed to promote more sustainable modes of transport and the reduction of the use of private cars. Perhaps reflecting better public transport and more anxiety about congestion, 83 per cent of people in Istanbul say they w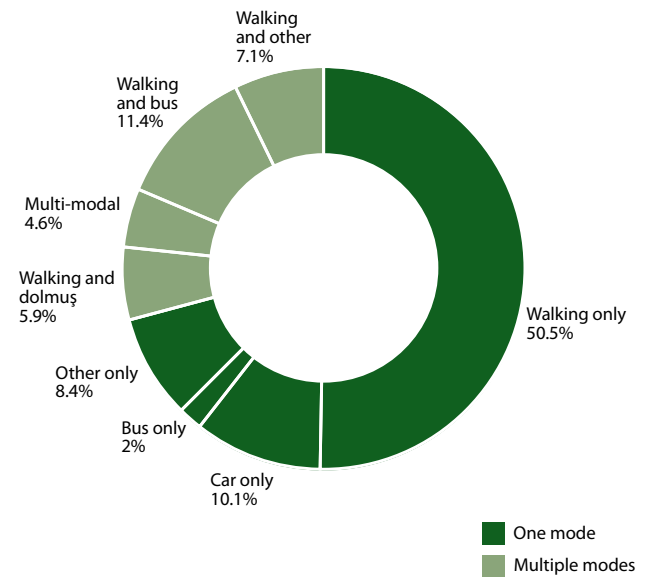ould support a policy to reduce the use of private cars, encouraging the use of public transportation, cycling and walking – against 73 per cent in São Paulo. In Istanbul 60 per cent of people would cycle if appropriate roads existed; 54 per cent in São Paulo would do the same. When we compare the position of car owners in both countries 62 per cent say they would use their car less if public transport was a better option in Istanbul, and 80 per cent say the same in Brazil. In Istanbul better public transport means it is faster, less crowded and more comfortable. To improve traffic conditions the top two solutions in both São Paulo and Istanbul are the same: investment in the subway system and expansion of bus corridors in the city. Generally, Istanbul residents are more supportive of a range of collective approaches to dealing with congestion – they are more supportive of introducing a London-style congestion charge. Around half of the respondents in Istanbul would support a congestion charge if new infrastructure or services were introduced, while for São Paulo this was only the case for around 30 per cent of the respondents. As in so many cities, actually delivering a system would require real political leadership: Istanbul's government, however, appears to have more political capital to do this than those in many other major world cities. Finally, 70 per cent of respondents in Istanbul declared that they were satisfied with the city's metrobus system, while only 8 per cent of them were dissatisfied with it. On the European side, 77 per cent of respondents were satisfied with the metrobus, against 58 per cent for the Anatolian side.

The public view on solving the transport problems

Invest in underground transport systems **32%**

Expand metrobus routes **19%**

Congestion charge **10%**

Expand license plate limitations **8%**

Construct more roads and highways **7%**

Adopt all policies **6%**

Invest in walking and cycling infrastructure **6%**
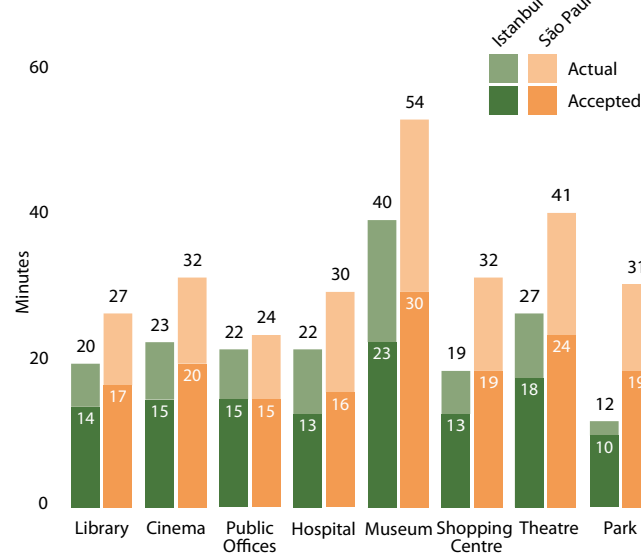
Build 3rd bridge **3%**
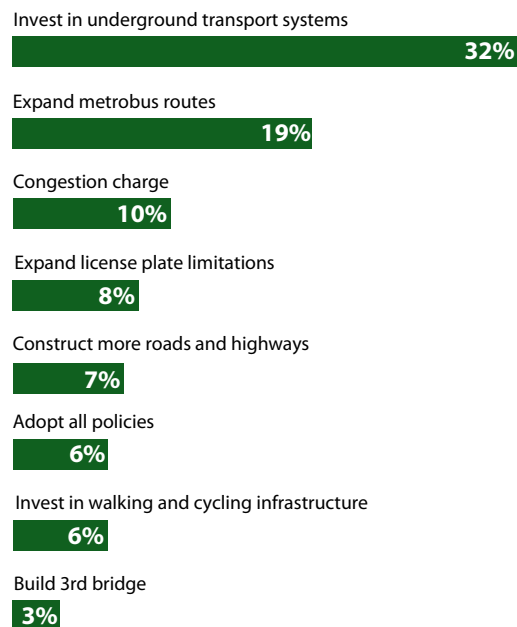
A majority of those surveyed would prioritise the expansion of the metro and metrobus network. Only 3 per cent of the interviewees think that building the third bridge would improve the traffic situation.

Means of travel

Walking and other 7.1%
Walking and bus 11.4%
Multi-modal 4.6%
Walking and dolmuş 5.9%
Other only 8.4%
Bus only 2%
Car only 10.1%
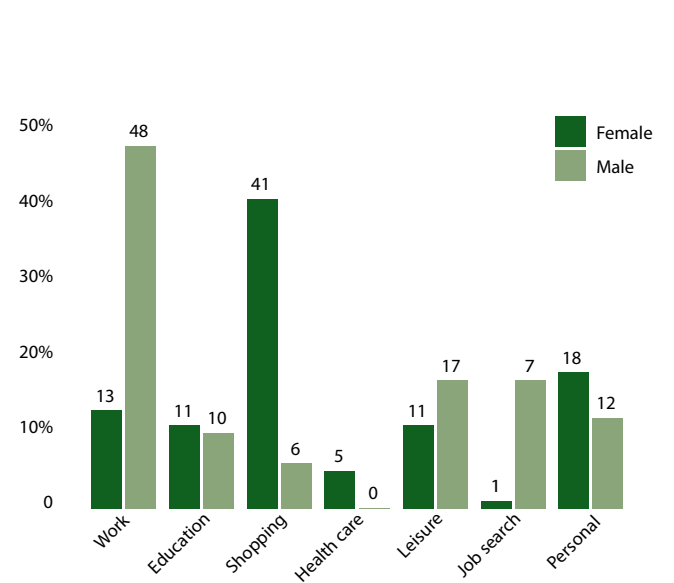Walking only 50.5%

One mode
Multiple modes

In the past, most surveys of the way people move in cities focused only on motorised transport and tended to assume that journeys occur by only one mode of transport. This survey allowed for more specific and dynamic information about the main daily journey and it captures the multiplicity of different means of transport used by those surveyed. More than half of the interviewees only walk to their main daily destination while only 10 per cent of them only use the car.

Travel times to key destinations

Istanbul São Paulo
Actual
Accepted

|	Library	Cinema	Public Offices	Hospital	Museum	Shopping Centre	Theatre	Park
Istanbul Actual	20	23	22	22	40	19	27	12
Istanbul Accepted	14	15	15	13	23	13	18	10
São Paulo Actual	27	32	24	30	54	32	41	31
São Paulo Accepted	17	20	15	16	30	19	24	19

For all urban destinations above in Istanbul and São Paulo, actual average travel times exceed the acceptable levels. Travel times – both actual and accepted – are lower in Istanbul for all key destinations.

Trips to main daily activities by gender

Female
Male

	Work	Education	Shopping	Health care	Leisure	Job search	Personal
Female	13	11	41	5	11	1	18
Male	48	10	6	0	17	7	12

Close to half the men interviewed said that their workplace was their main daily destination, while this figure is only 13 per cent for the women, a majority of which go shopping or run personal errands in their daily routines.

Average return travel times to main daily activities

minutes

Istanbul
São Paulo

Percentage of walking only
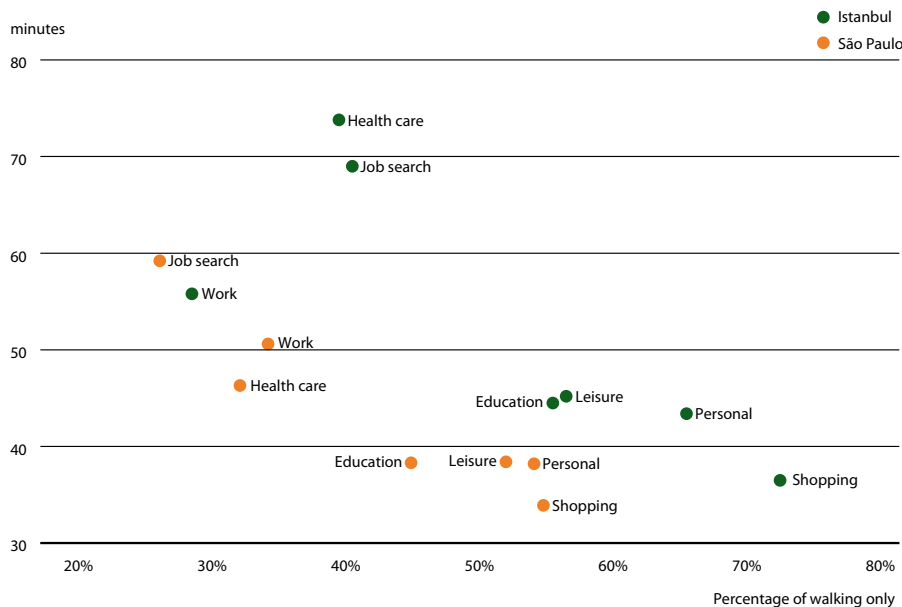
Average return travel times to main destinations are lower the more people accomplish these by walking. In both cities, a small percentage of people are looking for a job or visiting health care facilities but their return travels times are very high.

Return travel times to main daily destinations

Istanbul
São Paulo

	0-19	20-39	40-59	60-79	80-99	100-119	120-139	140-159	160-199	200+ minutes
Istanbul	16	35	18	13	7	4	3	1	2	1
São Paulo	10	24	12	13	8	5	9	6	6	7
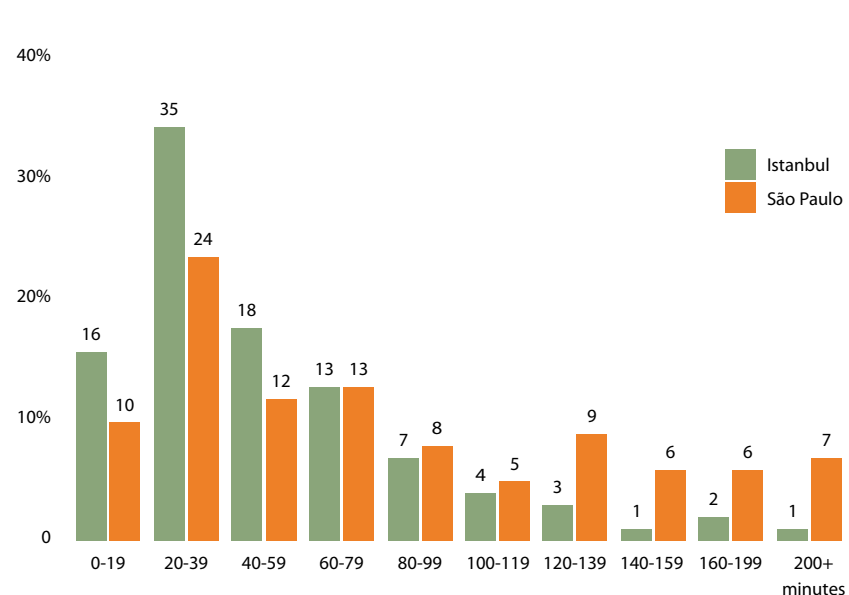
Almost 70 per cent of the interviewees in Istanbul spend less than an hour in their daily commute to their main destination, while this figure is only 46 per cent in São Paulo. Only 7 per cent of the interviewees in Istanbul commute more than two hours, while close to 30 per cent do so in São Paulo.

SECURITY

Crime stands out as a major concern once we look at the details in Istanbul. Looking at general feelings of safety, most people feel safe in London, while only 31 per cent of people do in São Paulo, and eve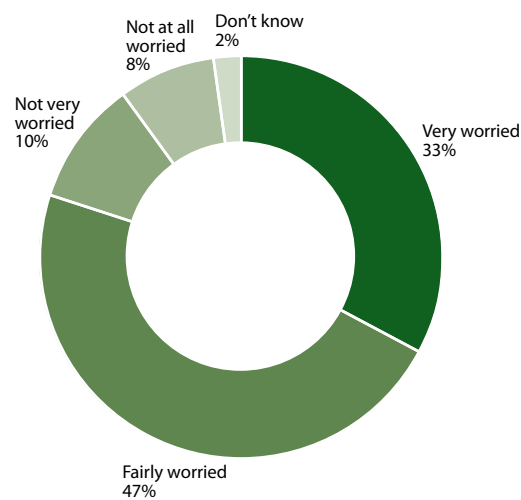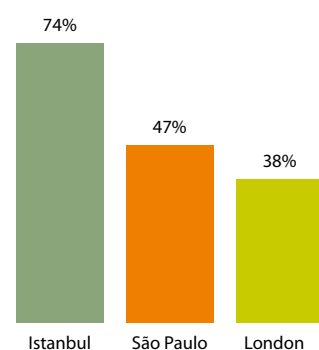n fewer in Istanbul (20 per cent). The pattern is the same in the International Crime Victim Survey (ICVS- 2005): in London 40 per cent of people considered a burglary in their houses in the coming year to be likely, while in São Paulo 72 per cent did and in Istanbul 75 per cent! Istanbul's fear of crime seems much higher than that in many other major economies. Both Istanbul and São Paulo residents see improvements to their justice system as more important than on the ground policing to reduce crime. But Paulistanos stress the importance of more visible policing, more police posts in the city, punishments for teenagers and a faster and more severe justice system – in Istanbul teenage crime seems less of an issue. Overall, Paulistanos are much more optimistic that improvements can be made to the safety of their city. This may be linked to the much higher incidence of violent crime in São Paulo compared to Istanbul, with murder rates of 21 and 3 murders per 100,000 respectively. Because crime is high in São Paulo, it may seem to the respondents that it should be relatively easier to improve the safety situation.
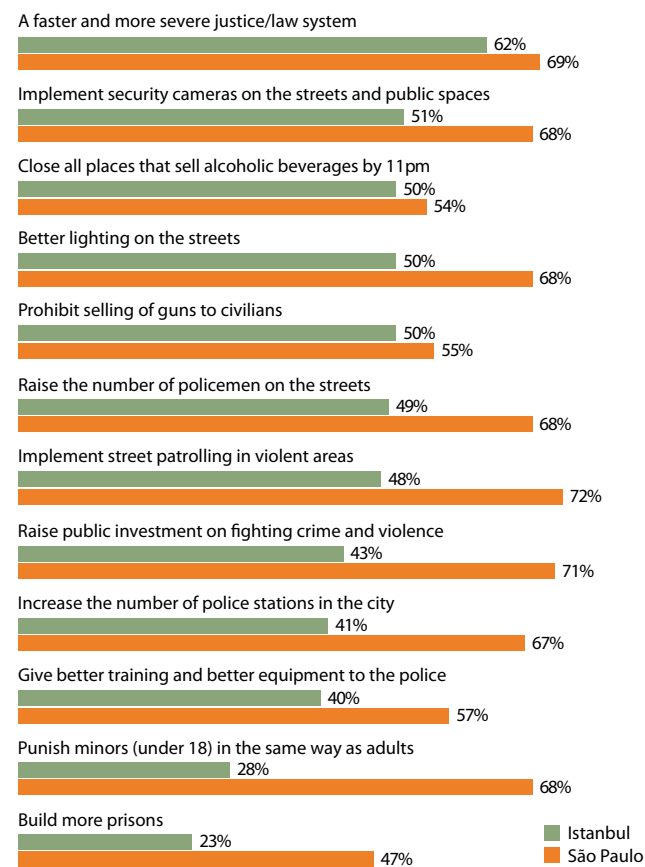
How worried are residents about crime?

- Don't know 2%
- Not at all worried 8%
- Not very worried 10%
- Very worried 33%
- Fairly worried 47%

Afraid of being mugged or physically attacked?

Istanbul 74%
São Paulo 47%
London 38%

How to improve safety?

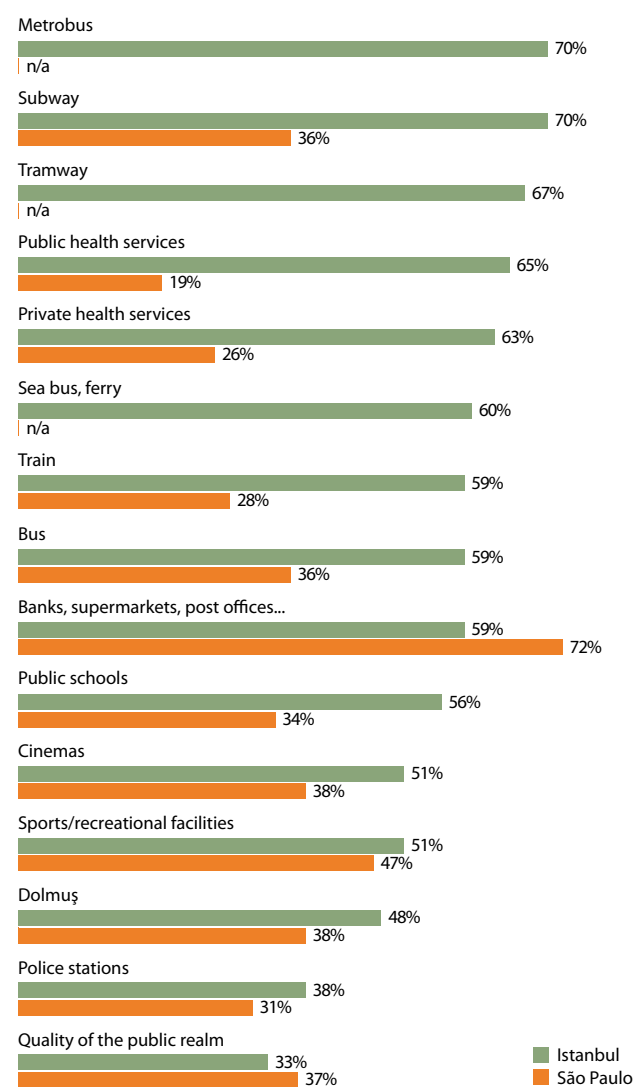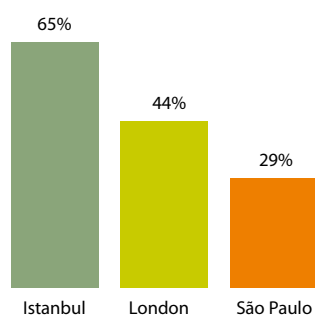|	Istanbul	São Paulo
A faster and more severe justice/law system	62%	69%
Implement security cameras on the streets and public spaces	51%	68%
Close all places that sell alcoholic beverages by 11pm	50%	54%
Better lighting on the streets	50%	68%
Prohibit selling of guns to civilians	50%	55%
Raise the number of policemen on the streets	49%	68%
Implement street patrolling in violent areas	48%	72%
Raise public investment on fighting crime and violence	43%	71%
Increase the number of police stations in the city	41%	67%
Give better training and better equipment to the police	40%	57%
Punish minors (under 18) in the same way as adults	28%	68%
Build more prisons	23%	47%

URBAN GOVERNANCE

One of the biggest challenges for major world cities is the constant struggle of public services to keep up with population pressures. Projections for population growth in Istanbul see it grow from its present level of 12 million to 16 million in 2017, and to 23 million in 2023 (see OECD Territorial Review for Istanbul, 2008). The overall performance of Istanbul is much better than São Paulo on many key services: transport and health services have a high level of satisfaction compared to São Paulo – scoring closer to its European counterparts. Some of this difference clearly exposes the differences of megacities in developing countries from the ones in more developed societies, and in particular it highlights the differences in political and civic culture between European and Latin American countries. Bearing in mind that Brazil is the 9th largest economy in the world, while Turkey ranks 17th, and that São Paulo's GDP is higher than Istanbul's, we see that wealth per se is not necessarily translated into better quality of life, especially if it is distributed unevenly with relatively few public goods. Despite the challenges faced by Istanbul's citizens, they are more positive about their local governance than in many other world cities, and much more so than in São Paulo or London.

How satisfied are residents with city services?

	Istanbul	São Paulo
Metrobus	70%	n/a
Subway	70%	36%
Tramway	67%	n/a
Public health services	65%	19%
Private health services	63%	26%
Sea bus, ferry	60%	n/a
Train	59%	28%
Bus	59%	36%
Banks, supermarkets, post offices…	59%	72%
Public schools	56%	34%
Cinemas	51%	38%
Sports/recreational facilities	51%	47%
Dolmuş	48%	38%
Police stations	38%	31%
Quality of the public realm	33%	37%

Satisfaction with local government

Istanbul 65%
London 44%
São Paulo 29%

Satisfaction with mayor

- Very satisfied 12%
- Very dissatisfied 8%
- Dissatisfied 14%
- Neither satisfied nor dissatisfied 13%
- Satisfied 53%
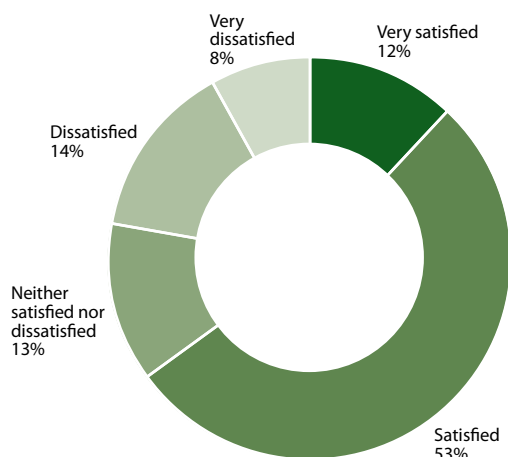
Satisfaction with mayor according to socio-economic classes, education and geography
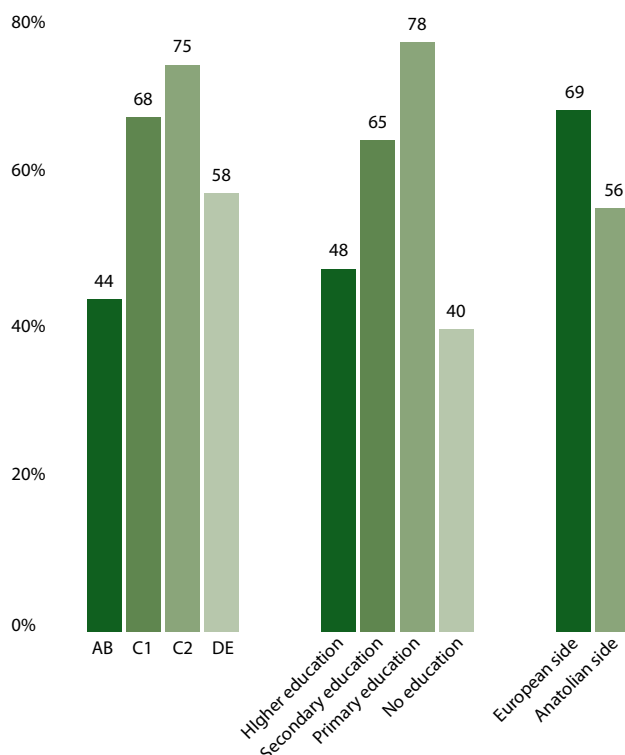
AB	C1	C2	DE	Higher education	Secondary education	Primary education	No education	European side	Anatolian side
44	68	75	58	48	65	78	40	69	56

DECIPHERING ISTANBUL

For **Ömer Kanıpak**, Istanbul is like a wrinkled cloth, a camouflage pattern of histories, with all routes leading to the Bosporus.

It's hard to evaluate a city in which you have resided for years. You get too accustomed to every detail that makes it beautiful as well as evil. As a resident of this huge organic mechanism, you know which things don't work well but you are also aware that it has its own characteristic features that make it unique and interesting, almost personifying it.

A member of the global megacities league, Istanbul is counted as one of the major business, transportation, cultural and tourist hubs in Europe as well as the Middle East. Like any megacity, its exact population cannot be determined; even the official number fluctuates between 12 and 14 million, a figure greater than the populations of 40 European countries. It is a metropolis so large that it extends more than 100 kilometres across and almost joins with Tekirdağ and Izmit, the cities of the two adjacent provinces, to form the Northern Marmara megalopolis. Since the rural exodus in the 1950s, Istanbul's rapid population growth has caused problems with illegal settlements (*gecekondu*) which in turn have triggered deforestation, and transport, health care and education challenges among other urban issues.

Istanbul currently lacks a strategic masterplan to coordinate development between the elected 39 municipalities. Even so, foreign investors are continually looking to enter the city's thriving property development market. This is partly because Istanbul remains a magnet for new residents from within the country and from abroad, as well as for global companies opening their Eastern European and Middle Eastern headquarters. But Istanbul is not counted as one of the most liveable cities in the world. Quality of life in Istanbul falls well below that in Vancouver, Copenhagen or London. According to the 2008 Mastercard Worldwide Centres of Commerce report, Istanbul ranks 57th of 75 cities compared for liveability, despite having one of the lowest crime rates. And for over 50 years, Istanbul has not been able to prevent illegal settlements emerging on the outskirts of the city, although clean water, electricity and the sewage system reach almost the entire population, including these illegal settlements. So what is working in

Istanbul has still not been answered convincingly.

One of the most obvious of Istanbul's unique features is its geography. Topography is the strongest factor in Istanbul differentiating it from other global megacities. Steep hills, valleys, and the sinuous curves of the Bosporus dramatically shape the city's urban pattern: its settlements and transport and even the ecology of the city. In Istanbul, the terrain creates the notion of orientation, almost inscribing a mental map of the city in the minds of its residents. Living in Istanbul one is constantly aware of water, a presence always in close proximity or just within view. One knows that the slopes of the valleys lead to the Bosporus or the Golden Horn. It is this presence of water straits and the city's rising topography which make the scene an omnipresent feature in the everyday life of Istanbul's citizens, an urban feature accessible by the majority without any social or economic class differentiation. And it is not a single scene but a collection of scenes from numerous vistas thanks to the dynamic topography of the city.

The ability to experience the city with the visual senses creates an awareness of the whole, as if the whole city were an enormous stage or collection of screens. This is possible without an Eiffel Tower, a London Eye or similar iconic structure. So we can easily assert that topography is the major factor which makes Istanbul unique, even though it creates many problems for mass transportation. However, this distinguishing feature is not quite appreciated by the municipalities when drawing up the regional masterplan or building codes; it's as if the city is as smooth as a blank piece of paper. Where building height restrictions are linked solely to the plot area, topographical differences are not taken into account or are seen as obstructions to be overcome or erased.

Another unique aspect of Istanbul is less obvious and harder to explain. In order to analyse the city, I offer a metaphor which may at first seem awkward: Istanbul is a piece of wrinkled cloth pinched in the middle by a blue string. From a distance this cloth appears to have a homogeneous pattern and colour of its own. However,

upon close examination one realises that it is not a simple sheet of cloth but an assemblage of many different textiles, each with slightly different colours, hues, textures and shapes. Yet, it is not a patchwork of similar orthogonal shapes, a metaphor frequently used to describe any metropolis where diversity is a defining feature. It is more like a cloth that has a camouflage pattern, where the shapes are amorphous. One of the layers of these amorphous shapes may correspond to the social strata of the city, while the other overlaps with topography, and yet another corresponds to the characteristics of its built environment. These layers and shapes do not have a specific rule. Against these expectations, Istanbul becomes a surprising and dynamic city.

At the northern end of the Taksim-Harbiye axis, for instance, is one of the city's most exclusive areas. It borders the Nişantaşı neighbourhood, a predominantly residential area featuring high-end shops for luxury foreign brands. Steps away in the adjacent Feriköy-Pangaltı neighbourhood, located on the slopes of the Dolapdere valley, are rows of apartment buildings and a rectilinear street grid which differ greatly from the interwoven streets and built form found elsewhere in the city. The social pattern of this area is also marked by lower income groups and strong neighbourhood relationships. And yet, at the lower end of the Taksim-Harbiye axis sit the congress centre, five star hotels and cultural facilities – the 'jewels of the valley'. The same kind of juxtaposition can be found in any part of the city; in the gentrified urban grain of Cihangir, located near the low-income residents of Tophane and its neighbouring coastal business district. It is the relatively short distances between these unique areas that make the city unpredictable in every sense. The changing architectural styles, street patterns, topographical features, neighbourhood sizes and densities do not adhere to a rule that can be aligned to the social and economic characteristics of the inhabitants of these regions. Perhaps that is why the city lacks a strategic masterplan: until recently, analysis of this camouflage pattern has never been considered by the municipalities.

The widely accepted western urban terminology proliferating in academia is not sufficient to explain the Istanbul condition. For instance, it is commonly argued that unlike Italy, Istanbul lacks squares which can be efficiently used for public spaces. However, the notion of public space in Istanbul is different from what it is perceived to be in western terminology. In Istanbul, public space does not occupy a static public square; it is defined as the axes where people move through and intersect in the city. The orthogonal zoning principles or other modes of gentrification applied in western cities cannot successfully be applied to the urban fabric of Istanbul.

Instead, Istanbul should develop an urban language of its own. And it should do so using its inherent features and codes – the elements which have not yet been comprehended or critically analysed. Deciphering the camouflage pattern is a crucial investigation, one which can only be accomplished through the coordinated efforts of many disciplines brought together. This research should not be left to urban planners or architects alone; the built environment is just a fraction of the whole of the experience of city making. Sociologists, economists, and even psychologists should work together to analyse how these seemingly incongruous neighbourhood patterns may live side by side: not only the tones or textures of different regions but the stitches that bind these areas together are important. The tension between the amorphous shapes and different shadings of the social, economic, architectural and topographical strata is the binding force of this camouflage-patterned textile called Istanbul.

Istanbul's unique topography allows for unexpected vistas of the Bosporus, Golden Horn or the Marmara Sea.

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ISTANBUL IN A GLOBAL CONTEXT

Çağlar Keyder maps out the spatial effects of neo-liberal globalisation in Istanbul, marking the relationships between the consolidation of private land, and rising social and spatial inequalities.

In a city fuelled by a real–estate development boom, the TOKI tower blocks in Ataşehir are transforming the derelict lands near the endless traffic of the TEM highway.

By the standards of neo-liberal globalisation, Istanbul is a success story. It is a business platform for the transnational corporate elite as well as a playing field for the cosmopolitan consumers of global lifestyles. There are blocks of newly erected high-rise office buildings, luxury residential compounds and towers, dozens of shopping centres offering an exclusive shopping 'experience'. The city has been successful in showcasing its unrivalled cultural heritage, attracting a growing number of tourists. Its central areas have been beautified to offer the trimmings of global lifestyles. The gentrification of Beyoğlu and the historic peninsula, and the re-building of the waterfront around the Golden Horn have created new spaces of leisure and culture. Luxury hotels and world-class restaurants open every week, occupancy rates are high as international meetings and congresses proliferate, the nightlife and culinary delights are legendary. This is not an entirely skewed picture. Despite complaints from the locals, Istanbul's entire urban area looks more 'finished' than before: roads are paved, new city parks have multiplied and municipal services function relatively well throughout the city.

This achievement is due in large part to the current structure of the world economy favouring the resurgence of the metropolis. Since the 1980s the control and management functions of global capital shifted to the great cities of the world. Speculative investment surged, making urban real estate development a leading sector. This political economic shift does not explain Istanbul's performance on its own: the world economy may provide an opportunity but projects of the globalising elite cannot always be implemented. In fact, until the 1990s it looked as if Istanbul would miss the boat. Caught between a political class committed to populist modernisation and a timid bourgeoisie reluctant to alienate Ankara's bureaucracy, actors in the city were unable to mobilise significant resources for global success. Things changed, however, when the conservative-Islamic AKP (Justice and Development) party – which won the 1994 local elections thanks to support from rural immigrants in peripheral neighbourhoods – proved to be surprisingly pro-business. In abandoning traditional populism they started looking for new ways to market the city; their adoption of the neo-liberal discourse found a perfect fit in projects preparing the city for showcase on the global stage.

Istanbul's accomplishment may in large measure be

Real estate has always punctuated the stages of social and cultural transformation.

attributed to the coherence of the urban coalitions' project to upgrade the city's image and marketing potential in the eyes of a footloose global demand for investment, culture, or leisure. Since the mid-1990s, Istanbul has been a one-party city – an unusual continuity given the political instability that characterised the period after 1960. Initially, the election of Tayyip Erdoğan as mayor was considered by the secularist elite in Ankara as an act of rebellion to be punished. This in turn fed into the estrangement between the national capital in the steppes and the imperial city, but the rift was soon mended. Especially after the successful liberalisation of the Turkish economy, it was understood that the city served as the gateway to the country and perhaps to the greater region. And this crucial role could not be jeopardised. Thus the newfound understanding with Ankara facilitated the transition from an informal, unstructured and insufficiently institutionalised globalisation towards a more formal and deliberate platform which invited agents of global networks into the city. Following the political ascendancy of AKP to central government in 2002, the former Mayor of Istanbul (now the Prime Minister) reinforced this strategy to position Istanbul on the global stage.

Official initiatives, such as a series of high-profile international meetings and conferences, were an important dimension of this project. More crucial, however, was the government's desire to attract global flows to the city since Istanbul's economic success would endorse claims for their liberal vision. Willing partners, the city's bourgeoisie benefited from business initiatives and land development, mobilising a newfound interest in philanthropy. Ongoing series of art exhibitions, festivals of film, theatre, jazz, and classical music, on a scale that rivals that of any large European city, have been initiated by non-profit private foundations. Such endeavours have secured the willing cooperation of both the central and city governments: the most recent instance is the selection of Istanbul as 2010 Cultural Capital of Europe, the achievement of yet another public/private partnership.

Nonetheless, there is one group, the migrants of the last two

decades, who have borne the brunt of this newly created wealth, especially because their chances to access self-made housing have all but collapsed. No longer able to build a *gecekondu*, recent migrants have been relegated to marginality in derelict neighbourhoods. More recently, they have been joined by the displaced population of inner-city squatters targeted by the new 'Urban Transformation' law (Law 5366), which was designed to clean the city by razing unsightly neighbourhoods in core areas. Now, with the global crisis and economic downturn, the trickle down in the form of personal service employment also threatens to dry up. When unskilled jobs are harder to find, and wages that will sustain livelihood are a rarity, poverty becomes more visible. That this depravation coincides with the ethnic and social background of recent migrants – Kurdish migrants displaced from their villages due to the war, the Roma population of Sulukule threatened by 'Urban Transformation', refugees from African countries – has led to more than income polarisation and poverty. It has created social, cultural, and spatial exclusion, and perhaps a permanent sub-proletariat.

In a city where more than half the buildings were constructed illegally and where population growth was accommodated through informal production of housing, the end of populism served to announce that land had finally become a commodity. With it came the message that revenue rather than the opportunity to maximise political patronage should underlie policy. As a commodity, land became the favoured object of speculation – often in huge developments determining the spatial expansion of the city. Public sector infrastructure projects and motorway construction blazed the path, as in the residential and business development around TEM, the Trans-European Motorway. The central government's Mass Housing Administration (TOKI) participated in this development by creating high-rise residential units for low-income groups in the far peripheries of the city. Roads connecting to the anticipated third bridge over the Bosporus will likely create another axis of expansion North of the city.

For most of its modern history, Istanbul's spatial momentum has been determined by its population growth. Immigrants had to be accommodated even if their houses were illegal. Municipal services, schools, transport and public parks followed settlements, creating relatively decent, if uninspiring neighbourhoods. Then, as permits were obtained and shacks were turned into brick and mortar apartment buildings, the initial *gecekondu* housing was consolidated. Finally, some of the occupants could leave the old neighbourhoods and opt for middle-class residential developments. Real estate has always punctuated the stages of social and cultural transformation.

The current crisis, however, exhibits a less benign aspect of this spatial expansion in the form of real estate development fuelled by the global wave of speculative investment. Coalitions formed during the last 15 years facilitated and profited from this development; the financial explosion that accompanied economic growth contributed to it. As a result, Istanbul ended up with an enormous bubble of excess real estate – office buildings, shopping centres, and middle-class residential developments – just as occurred in East Asian cities prior to the 1997 financial crisis and the United States in the run up to the 2008 global economic collapse. These new developments broke fresh ground in the perimeter of the settled city, creating an extensive new sprawl with the hope of continued expansion. The bursting of the bubble in the credit market, however, has dashed the dream. There is likely to be a long wait before the existing stock finds utilisation through attrition, upgrading and expansion. The danger is that the cessation of new construction and land development will rob the city of its major motor of growth in terms of absorbing investment and creating employment, leading to an unavoidable period of relative stagnation.

Çağlar Keyder is a native of Istanbul and works on historical, urban and development. He has published Istanbul: between the Global and the Local *and teaches at Bogazici University and the State University of New York at Binghamton.*

LOCAL GOVERNANCE IN ISTANBUL

In an overview of the relationship between the central and local administrations in Turkey, **Sema Erder** describes the obstacles and opportunities to improve how Istanbul is planned and managed.

In Turkey, the authoritative relationship between state and society is mitigated by the populist political culture. And while the country's populism has many roots, two main factors have contributed to its prominence: the vital demands from new urban citizens after rapid urbanisation since the 1960s, and an understanding of democracy reduced in its simplest form to voting.

There is no doubt that the will and the need for decentralisation in Turkey accelerated with urbanisation. Since the Turkish central government could neither control the mass urban migration, nor answer the vital demands emanating from the millions of new migrants, the masses produced their own 'local solutions' while public officials merely stood by. In exchange, migrants – eager to reward populist political parties that promised to tolerate informal job and housing markets – crowned politicians with votes and political powers. This system persisted until increasing complications stemming from the densification and diversity of urban settlements gave rise to the need for an effective and decentralised urban administration.

The main obstacle to what may be termed 'institutional' localisation in Turkey is democratisation. Partly from fear of an internal fracturing along ethnic lines, especially with regards to the Kurdish population, demands for 'decentralisation for democracy' have not been welcomed by the well-established centrist state tradition. Instead, these calls are framed solely as a technical issue about the effectiveness of an urban administration, rather than about comprehensive political and institutional reform. It is not accidental that during the militarist regime following the coup in 1980, important institutional reforms to metropolitan Istanbul were introduced as part of a larger agenda to establish order and to solve urgent infrastructural problems. What is striking is that relative efficiency in solving urban matters were perceived by urbanites as 'democratisations'.

After all, the demands for decentralisation in Turkey run along two different strands: democratisation and efficiency. This is especially true with regards to urbanism, which oscillates between populism and authoritarian rule, two fundamental characteristics of the current political system. From this perspective, it is this dilemma in Istanbul that may be perceived as 'chaos'.

In this context, it is necessary to first explain the meaning of the current two-tier structure of Istanbul's urban administration. Both metropolitan and district municipalities have decision-making powers in so far that the metropolitan administration is responsible for macro-level decisions concerning the entire city, while districts are responsible for decisions related to traditional municipal services. The metropolitan administration of Istanbul, follows the 'powerful mayor and weak council' model, one which enables a wide and non-transparent space for macro-level decision-making and, not surprisingly, favours, the mayors of metropolitan municipalities. Therefore, city-wide decisions are discussed and criticised in the media and by professional associations only after they have been made, thus fuelling rumours and complaints about corruption, criticism on judicial and technical inadequacies, as well as the anti-democratic nature of the decision-making processes.

Taksim Square is still the most important square in modern Istanbul. Originally, Taksim means the distribution of water. Today, the currents of popular political culture begin their national trek here.

As with other cities that have grown rapidly and that urgently need solutions for their basic infrastructure problems, city-wide decisions to address the concerns of citizens are vitally important in Istanbul. However, since local administrations are not financially autonomous, they are engaged in a never-ending search for new resources to implement their decisions. Therefore, good relations with the central government are crucial. In Istanbul, most problems have occurred when the political party of the metropolitan municipality differed from that of the central government. At first sight, it is impossible to talk about a central versus local conflict: On the one hand Istanbul's local administration and the central government in Ankara are politically aligned and share common political views. On the other hand, the Prime Minister was formerly the mayor of Istanbul, and considers himself as an 'Istanbul lover.' Finally, AKP's great success in local politics helped them to achieve success at the national level.

However, upon gaining power and its political advantages, the central AKP administration began turning down calls for decentralisation, and instead reinforced their centralist tendencies further. Thus when it comes to the making of macro-level decisions it is possible to say that the central government exerts a strong influence in Istanbul. Moreover, Istanbul's residents have generally supported decisions taken even by the central government because of their efficiency at the local level.

These non-transparent decisions can be criticised as they violate basic public administrative and democratic principles. The closed, communitarian and disciplined structure of the AKP with a charismatic leadership prevents issues from being discussed more openly. However, rumours about central versus local conflicts do exist, and, what's more, technical and legal deficiencies in these decisions are discussed among a limited number of professionals. Some of the decisions have been suspended by the legal authorities.

Paradoxically, Istanbulites do not seem to be very interested in how these decisions are made anyway. On the contrary, the fact that fundamental and urgent infrastructural problems are actually being addressed generates popular support. The Prime Minister, seems content that the public recognises and supports the central government's role in projects concerning the city's infrastructure. Indeed, these investments can be regarded as a reward for votes: and thus boost populist politics just like social relief for the poor citizens.

Considering this, it is possible to say that Istanbul is being governed by a populist approach closely tied to the central government. In this context, it may be necessary to point out how the city is currently planned. In short, a strategic planning ethos now guides the city's growth. Responsibility for this strategic vision has been transferred to the Istanbul Metropolitan Planning and Urban Design Centre (IMP), a new organisation that operates alongside political and bureaucratic bodies of the Istanbul Metropolitan Municipality. Although the staff of this new organisation possesses expertise, decision-making is still left to the domain of populist politics and projects of the IMP tend to be selectively or only partially implemented, because it does not have administrative and technocratic influence. To sum up, we may claim that the technocrats are excluded from the decision-making process where their knowledge and expertise are extremely important for the city's aesthetics and long-term growth.

On the other hand, the European Union's nomination process brings with it new influential concepts regarding urban governance. As a result, government bodies and civic groups are trying to identify new models for participation: local administrations have established city councils and are trying to foster stronger ties to civic groups in order to comply with legal obligations connected to these administrative principles.

In this respect, Istanbul's biggest obstacle is that the majority of its citizens are either not organised or take part in hierarchically structured 'community' groups. Possibilities for open participation remain limited but clientelist-ties become widespread. Another problem concerns the rights of organisations and the freedom of expression among social groups who suffer from the disadvantageous consequences of some urban renewal projects. For example, the Romani community, which used to live in the historical city centre, has been particularly marginalised. Overall, the administrative principle for enhanced governance currently relates only to the existing power groups and excludes the disadvantaged, the marginalised and minorities. However, thanks to Turkey's nomination to the European Union new concepts have been introduced concerning human and minority rights. Local democracy will arrive to Turkish cities only after it is understood that populism and majority-rule do not equal democracy and that the demands of minority groups have to be taken into consideration.

Sema Erder is a Professor at Bahçeşehir University and writes on urban sociology, urban politics, migration and Istanbul. Currently she is working on a project on the globalisation of and challenges to the conventional Turkish migration policy.

IS THERE A ROAD AHEAD?

Haluk Gerçek offers an overview of Istanbul's transportation system and its policies, and outlines the opportunities for sustainable public transport.

Traffic congestion is diminishing the quality of life in Istanbul. Currently almost 1.8 million automobiles choke its roads. Blessed with graceful natural beauty as well as a rich historical urban fabric, Istanbul faces serious challenges in trying to accommodate an additional 84,000 cars every year. This rapid increase in motor vehicles, more than eight-fold since 1980, has coincided with a dramatic population and economic growth. As a result, Istanbul is now overwhelmed by a flood of people and vehicles, an inadequate road network and a public transport system that has been slow to develop. With new overpasses and an infrastructure that favour the private car, the city struggles with air pollution, the destruction of its natural and cultural heritage and congestion. Although there are only 139 cars per 1,000 inhabitants, the average travel time for motorised trips alone has increased from 41 minutes in 1996 to 49 minutes in 2006. Like many other metropolitan cities in emerging economies, Istanbul thus suffers from high traffic congestion despite a low level of car ownership.

Istanbul's citizens make an average number of 1.74 trips each day. This is up from 1.54 per capita in 1996. What is more interesting is that while the rate of motorised journeys has actually declined from 1 per capita to 0.87, there has been a considerable increase in the share of walking, from 35 per cent to 49.3 per cent in the same period. Buses and minibuses also play a key role in the commuting patterns of Istanbul's residents, comprising the highest share, 40.8 per cent of all daily motorised journeys. Taken together with shuttle buses operated by private companies to transport employees as well as school buses, they form essential and complementary modes of a successful public transport system. Yet, while the overall share of journeys made by public transport has remained at a stable level of 70 per cent over the last two decades, the increase in the share of private cars from 19.3 per cent to 26.3 per cent has caused serious traffic congestion and environmental pollution.

At the end of June 2009, the Ministry of Transportation announced the location of a third bridge over the Bosporus Strait. This announcement followed the earthquake proofing maintenance work on Fatih Sultan Mehmet Bridge, the second bridge, which exacerbated the city's already congested traffic patterns. Currently, approximately 420,000 vehicles cross the Bosporus each day on the city's two existing bridges. The logic of the Government is rather simple. Today the two bridges are clogged. Because the city is growing fast and the number of automobiles is growing much faster, a third, even a fourth and fifth bridge are necessary. But this argument ignores a crucial factor in transport planning – the 'induced traffic' which results from changes in land use and activity patterns following road construction. Thus, construction justified as a remedy for congestion only creates congestion in its own right. In short, it is impossible to build one's way out of traffic congestion. Attempts to do so only lead to a continuing cycle of rent-seeking land speculation, lobbying by construction firms, political patronage and a renewed search for 'solutions'.

Public opinion about the third bridge is divided. In Tarabya on the European side and Beykoz on the Anatolian side, two districts which the third bridge could pass through, some residents hope the bridge will help develop their neighbourhood. But not everyone shares this optimism. There are also concerns that the natural environment, specifically the forests – the lungs of the city – and the water reservoirs in the North, will be severely damaged by the third bridge.

Further evidence of how Istanbul's transport policies fail to establish a sustainable low-carbon transport system for

Extensive car use congests Kabataş, a major public transport hub with a ferry terminal, tram station and a funicular connection to Taksim Square.

It is impossible to build one's way out of traffic congestion.

the city can be found in the controversy surrounding the Ministry of Transportation's project to create the Bosporus Highway Tube Tunnel. This US$ 1.5 billion two-storey, two-lane, 5.4 kilometre-long tunnel is expected to bring almost 80,000 cars to the historical heart of the city each day. Yet despite calls from transport experts, professional organisations and NGOs, tendering of the project has been completed but neither the tunnel nor the third bridge are included in the Istanbul Metropolitan Municipality's strategic plan for the city.

In Istanbul, urban transport has long been formed by a road-based policy which lacks an overall financial strategy. Instead, major transport projects are developed and funded on an ad hoc basis. This trend to accommodate the increasing number of automobiles through a road network while extending an insufficient rail transit network has put pressure on the financial resources of the city: between 2001 and 2007 alone, the Istanbul Metropolitan Municipality spent 14.8 billion TL (US$ 9.9 billion) on transport projects.

Although half of the daily trips are made on foot, cycle lanes and pedestrian pathways have been ignored by policymakers. Part of the reason cycle trips represent only 0.05 per cent of the total trips in Istanbul is because of traffic and air pollution, but cyclists in Istanbul also confront flooded and obstructed cycle paths and a lack of adequate bicycle parking. There are rumours about a masterplan to add 1,004 km of cycle lanes but without a clear timeframe for delivery, implementation is doubtful.

Even so, progress is being made to reduce emissions caused by transport. The motor vehicle industry in Turkey has adopted the Motor Vehicle Technical Regulations of the European Union. And over the last decade, the urban rail transit network has expanded and emissions from road

traffic have decreased due to an increasing number of vehicles equipped with catalytic converters using unleaded petrol, and taxis using petroleum gas. Istanbul's Metrobus, a bus rapid transit, has decreased the emissions from road traffic as well. The system now carries almost 440,000 passengers a day over 40.4 kilometres of bus lanes separated from the motorway at a speed of 40 km/h. This has reduced in-vehicle travel time by about 50 per cent and increased use of public transport.

Transport greenhouse gas emissions result from a well-known 'three-legged stool': vehicle fuel efficiency, each fuel's lifecycle – how long the greenhouse gas emissions remains in the atmosphere – and how much people drive. Recent studies make it clear that where and how we invest in transport infrastructure make a difference: people drive less in areas with greater transport options and where it's easier to walk. Transport investments that reduce the demand for travel by car benefit the environment as well as the economy. One of the greatest challenges associated with implementing sustainable strategies relates to the need to pay sufficient attention to long-term impacts. Reducing greenhouse gases and improving air quality are likely to be of greater concern for future generations. Yet given their typical four or five year term of office, it is too easy for policymakers to focus on immediate needs and overlook long-term problems. As a result, governments favour solutions achieved through policy measures which represent the supply-side of transport policy rather than the demand-side measures of regulation, information and pricing. Demand management measures are known to be more cost-effective in reducing congestion than infrastructure provision, but are more difficult to implement. It is now widely accepted that no single type of policy will solve our transport problems. We cannot, for example, build sufficient infrastructure to overcome congestion. Instead, a package of solutions implemented in tandem will be more effective than any on their own: for example, combining public transport improvements with parking controls and congestion charging can substantially reduce private car use. As the service level of public transport system improves, it is necessary to implement policy options such as congestion charging and parking policies to discourage car use in city centres.

The Ministry of Transport and the Istanbul Metropolitan Municipality plays a key role in road transport management in Istanbul, yet responsibilities for traffic legislation and its implementation are scattered across more than ten other ministries and authorities. In a study carried out by the First Council of Urban Transport in 2002, 17 local and national authorities were identified to be partially responsible for the planning, investment, operation and management of the city's transport. This fragmentation makes planning and coordination of activities extremely difficult. Mechanisms for establishing more effective coordination and streamlined decision-making between the ministries would go a long way to improving transport in Istanbul. In order to address issues of regulation, a proposal for new legislation has been prepared to establish one local authority to coordinate transport across Istanbul.

Spatial planning and urban development in the Istanbul Metropolitan area are controlled by a mosaic of decision-making bodies at the supra-national, national, regional and local levels. At the same time, the Istanbul Metropolitan Municipality faces overcrowding, immigration, insufficient policy programmes, illegitimacy, and an inefficient control system. But it seems so clear that decisions for major transportation projects are still made in Ankara regardless the master plans prepared in Istanbul.

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ISTANBUL'S CHOICE: OPENNESS

In a provocative assessment of the impacts globalisation and culture exert on Istanbul's urban landscape, **Asu Aksoy** considers the potential for a new politics of openness accompanying the city's re-emergence on the world stage.

Extending from Taksim Square and cutting across the historical Pera district, pedestrianised Istiklal Avenue is a buzzing thoroughfare 24 hours a day.

In the context of Turkey's accelerating membership negotiations with the European Union, and the popularity of the neo-liberal outlook within the Islamic AKP (Justice and Development) government, a more confidently outward-oriented, globalising and liberal-minded Istanbul has been emerging over the last decade. This changing mood and orientation in Istanbul is a positive sign for the rest of Turkey, as Istanbul has not only effectively become the country's leading city, but also a microcosm of Anatolia. Istanbul's predominantly migrant population comes from all over Anatolia, and they maintain their links and networks with the rest of the country. Thus, if this megalopolis of around 15 million can hold on to its perspective of what might be termed 'worldliness' – a combination of openness, liberalism, pragmatism, democratic culture, and global embeddedness – then this momentum would help Turkey become more centrally and deeply engaged with, and implicated in, world affairs. Turkey would finally leave behind the remnants of the inward-looking modality that has hitherto marginalised the country and condemned its people to provincialism and isolation.

Hrant Dink's murder in early 2007 put the tentative and fragile nature of this new cultural orientation into perspective. The murder of Dink – an Istanbul-based journalist, writer and civil rights activist of Armenian

> **Globalisation is forcing open the city's urban spaces and cultural practices, bringing with it a parallel process of cultural change.**

origin – by a youth with ultra-nationalist connections in front of the office of the newspaper he edited, demonstrated that if there has been a certain opening up, diversification and reinterpretation of the mental maps of Turkey over the last two decades or so, this has been accompanied by a simultaneous convergence of reactionary positions whose common denominator seems to be precisely the fear of openness. What has surfaced is the precariousness of the culture of openness, now increasingly challenged by the very tensions it has given rise to. Hence, how the public culture of Istanbul develops is central to the position that Turkey will adopt in the global world order. Istanbul's insistence on the virtues of openness, over and against regressive and nationalistic calls for defensive closure, will make all the difference.

Istanbul's pull into the force field of globalisation is affecting deeply-rooted ways of thinking and acting.

With its new spaces and cultures of consumerism, its expanding and deepening financial flows in the real estate and service industries, and its new mechanisms for the global integration of local cultures through commodification, globalisation is making irreversible entries into the daily life of the city, forcing change in urban spaces and on public culture. But it is far from clear how this process of globalisation might translate into an orientation towards worldliness in the city's public cultural life. As the city opens itself up to the contemporary global order, the issue confronting Istanbul is not the choice between openness and closure, but a choice about the kinds of openness it will admit. Crucial to this debate is the city's potential to articulate a counterweight to fundamentalist neo-liberalism by enhancing a democratic modality of worldliness. In the face of the uncompromising forces of urban globalisation now assaulting Istanbul, openness could be diminished to the status of a market-driven and market-shaped culture of self-interest. In this context, Istanbul's choice should be for a kind of openness that deepens democratisation through empowerment of the excluded and the disadvantaged. What is not known is whether the elements for this culture of worldliness to be elaborated are present or emerging, or do not yet exist, in globalising Istanbul.

Istanbul, in fact, has thrown itself open to a new round of urban globalisation. When the Directorate of Privatisation Administration sold 100,000 square metres of National Highways Authority land in Zincirlikuyu to a Turkish business group for US$ 800 million in 2007, the price of land in this central business area increased substantially. Shortly thereafter, the Istanbul Metropolitan Municipality finalised the bidding process for a 46,000 square metre warehouse space belonging to the Istanbul Transport Authority, situated immediately adjacent to the Highway Authority's land. It was sold to a Dubai-based real estate company for US$ 705 million, with future plans to build the Istanbul 'Dubai Towers', Istanbul's tallest building, at an estimated cost of US$ 5 billion now on hold. With this municipal sale, the value of property in the area rose to US$ 15,000 per square metre – surpassing average values in the central business districts of London and Tokyo. What was shocking was the speed with which the price of land almost doubled between these two sales, indicating the appetite of global real estate investors for sites in Istanbul.

And there is plenty of land. The transfer of land to global commercial interests is no longer limited to one particular area of the city, as was the case in the mid-1980s. Public spaces located around the city are coming up, one by one, for large-scale privatisation and development initiatives. Public authorities and municipalities are not wasting any time to facilitate the sale of public land. Massive stretches of land around both the Galataport and Haydarpaşa zones, situated at the two key entrance ports from the Anatolian and European sides of the Bosporus, are now being considered for redevelopment. Considering that there is also the political will to support privatisation – Prime Minister Erdoğan recently declared that his duty is to market his country – Istanbul is going to witness more and more global capital pouring into its beleaguered urban space.

Thus the new round of globalisation in Istanbul is primarily real estate driven. As Çağlar Keyder has remarked, 'land has finally become a commodity'. It is within this context that the recent political initiative to push through large-scale urban regeneration programmes targeting neighbourhoods with low-quality housing or derelict but historically valuable properties should be evaluated. Policymakers at both the local and central levels are now frantically drawing up metropolitan-scale visions and plans to put in place the infrastructure required for the next round of investments. Cash-strapped municipal authorities are finding solutions through large-scale projects undertaken by powerful investment and construction companies.

Since the 1980s, gecekondus have either been transformed into apartments or replaced by mass housing blocks.

Christos Konstantinou

ISTANBUL'S GECEKONDUS

Orhan Esen describes the origins and socio-economic framework of informal housing in Istanbul.

Originally a technical term, *gecekondu* derived from everyday language to signify a specific housing and settlement typology of self-service urbanisation that occurred during Turkey's industrialisation and rural migration in the period between 1945 and 1985. *Gece* means 'the night' and *kondu* 'landed', hence *gecekondu* translates as 'landed at night'. The term has evolved to encompass a variety of informal settlements and building typologies. Its usage denotes a bottom-up, spontaneous action, especially prevalent during the first wave of mass-migration, to provide mass housing under conditions in which conventional or government-initiated models of housing supply failed.

In Istanbul, this act of land-taking was by no means legal, but was nonetheless sanctioned as it allowed the government to pass the costs and political hurdles of urbanisation on to the migrants themselves. In doing so, businesses were able to disregard housing expenses when calculating labour costs and politicians could tie votes to the provision of land alone. This arrangement was accepted as long as these newcomers provided for their own welfare; and by growing food in their own courtyards and walking to jobs in nearby industrial factories, these newcomers were able to reduce the costs of urban living.

All was made possible by the availability of publicly owned lots on what was then the urban periphery. Residents of the *gecekondus* were spared the full-scale expropriation and economic expulsion that commonly occurs during periods of intense urbanisation. Instead, they became urban without being forced to change too much, occupying a self-built garden town that was both rural and urban. The names of the original *gecekondu* settlements frequently ended with *tepe*, meaning 'hill', to denote their location on the steep slopes of the valleys surrounding the city's new industrial zones. The emergence of *gecekondus* followed industrial developments alongside four main axes: the Golden Horn, the primary location for industrial activity along the waterfront and its adjacent river valleys; the historical northern ridge of the Buyukdere; and two arteries to the West (the E5 motorway historically known as the London Road) and to the East (the Ankara motorway) both of which also serve some older industrial settlements behind the Marmara coast. As transport shifted away from the coasts to road networks, the older Bosporus industrial settlements also attracted *gecekondus*, although much more moderately.

Residents organised their communities and their own economic networks: the construction, transport and distribution of consumer goods, and sometimes even the infrastructure needed for water and electricity supply for their households. Demolitions and conflicts with authorities were not unusual but when demolition did occur, new homes were frequently reconstructed on nearby land, with former lots taken over by migrant groups backed by more influential political actors.

In the early 1960s, *gecekondu* settlements became an officially accepted solution to housing the majority of new migrants. From then onwards, Istanbul experienced a unique socio-political climate, which temporarily diminished the initial scepticism among the middle classes about the *gecekondus*. This wave of sympathy and identification continued beyond the events of June 1970 when Istanbul became occupied by the industrial working class. Thus after World War II, residents of the *gecekondu* found they could convert their inherent rural poverty into comparative wealth within the space of one generation. At a time when the city's population was close to 4 million, originally barren settlements had already become blossoming garden cities. However, large-scale urbanisation in the 1980s and 1990s almost totally displaced such manifestations of the golden age of informal urbanisation, which is remembered by some older Istanbulites as the 'innocent' period of migration. As a consequence the *gecekondu* vanished as abruptly as it appeared on the stage of Istanbul's history.

It is the 'neo-liberal revolution', which began in the mid-1980s, that has made Istanbul what it is today: a post-*gecekondu* city whereby developers convert households in the former *gecekondus* to middle-class standards. A socio-economic heterogeneity now defines this post-gecekondu condition and has helped original migrants improve their economic status. After the 1999 earthquake, a 'top-down neo-liberalism' agenda emerged which expropriated the property obtained through informality, and downgraded development rights obtained through informal urbanisation to a second-class status. This has resulted in the empowerment of new large-scale developers and actors dominating the production of urban areas.

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The head of TOKİ, the Prime Ministry's Housing Development Administration, declared that half of İstanbul's housing stock (approximately 3 million buildings) would have to be replaced over the next 20 years; work would begin in 20 slum-housing areas. Istanbul's residents – whether in Sulukule or in Süleymaniye within the historic centre's city walls, in Tarlabaşı in the Pera district or Zeytinburnu to the West of the city – are now subject to municipal programmes involving the expropriation of private properties in return for cash compensation or relocation to new developments in the far periphery. Thus, the historic Tarlabaşı district in Beyoğlu, with its abandoned Greek Orthodox churches and its streets of dilapidated nineteenth-century houses – now occupied by Kurdish populations from the South-East of Turkey living side by side with local gypsy populations and illegal African immigrants – is targeted for clean up. This will entail turning the houses into 'attractive' residences with parking spaces and shopping areas; façades being one of the few remnants to be retained of the area's unique character. Across the city, construction companies are soon set to start pulling down entire neighbourhoods. This work is carried out in abeyance of an explicit regeneration and redevelopment agenda to turn city spaces into money-making assets: sites to accommodate the demands of the city's newly expanding wealth or for tourism, for heritage, shopping, entertainment and large-scale events.

In this new round of globalisation, global investments invade the most profitable areas, ones that are no longer associated with the industrial profile of the city. Investors are attracted to the skyrocketing consumer demand for high-quality housing, recreational and retail facilities, and not surprisingly, for cultural tourism. One by one, industrialised areas are being transformed; as stated by metropolitan mayor, Kadir Topbaş, 'Istanbul should shed its industrial profile... Istanbul should, from now on, become a financial centre, a cultural centre, and a congress tourism centre.' Results of this shift can already be seen in a 550 hectares (5.5 km²) large redevelopment project, master planned by Zaha Hadid, and designated for an industrial area in the Kartal district along the Marmara shore on the Anatolian side, that hosts more than 100 factories. As part of the project, the former Mayor of Kartal had announced plans to attract US$ 5 billion from foreign investors to develop a yacht marina accommodating 1,000 boats, plus hotels, residences and plazas. In response, some 26 industrial

landowners with factories in Kartal have started to move their production base, getting ready to turn their much sought-after land into shopping and recreational centres.

The project of globalising Istanbul initiated in the mid-1980s is now being fully realised. But this is a new round of urban globalisation. In the 1980s and throughout the 1990s, the global vision achieved partial and piecemeal results. This earlier phase was distinguished by real estate developments (shopping centres, residential complexes and commercial headquarters), which did not touch most of the city, nor did they have a large impact on the daily lives of its citizens. Instead, they remained sequestered projects of the city's globalising elite, driven mainly by the Turkish-origin conglomerate capital. Istanbul thus entered the new millennium as a dual city. Now every part of the city

is exposed to radical change as more and more land is pulled into the market sphere, catapulting the whole of Istanbul into an irreversible process of large-scale urban development. It is an overwhelming and all-encompassing transformation owing to the alliance of national and local political will as well as economic interests, but it is also happening because of the scale and scope with which global capital has entered the city.

This new round of urban globalisation is not driven by real estate alone. It is also a cultural project. As public spaces fall one by one within the ambit of design and management projects (invariably extensions of global property development companies), the city's public space has become a business proposition conceptualised in terms of consumption and recreation.

The Kanyon shopping centre, recently opened in Istanbul's central business district of Maslak, illustrates how public space has been incorporated into the culture of hyper-consumption. In as much as it covers a nearly 38,000 square metres plot of land, the centre literally transforms a huge public space into an affluent middle-class consumption arena; and it is not just a mere shopping experience. Four floors wrap around a canyon-like open-air environment to evoke the sense of being in a street lined with upmarket retail outlets, well-groomed street vendors selling traditional food from designer carts, and arty street-lighting and furniture. The publicity material boasts, however, that most walking areas are covered and climate controlled with natural light and open air allowing visitors to enjoy every season without suffering its excesses. What Kanyon offers, then, is a new interpretation and a new culture of the experience of the city and its variety of streets.

In similar fashion, local authorities are initiating large-scale programmes using culture as a vehicle to regenerate city quarters. The Beyoğlu Municipality was the first to allow private developers to turn an entire street in a run-down part of the old Pera district into a themed street, based on the French lifestyle. Changing the name of the street from Algeria Street to French Street, everything, from street furniture, sculptures and wall paintings to the design of the restaurant interiors, was styled to evoke a certain image of Montmartre. The street, once a public space, is now a commercial area managed by a business association dictating the outdoor music, the architectural features, and advertising. At one point, there was even an attempt to install security guards at the entrance to the street in order to monitor the flow of 'customers'.

New urban regeneration projects and residential developments all come with a cultural approach to urban living. Culture is used to promote lifestyle. According to the marketing concept for one massive residential development project on the Anatolian side of Istanbul, My World Ataşehir, the new urban culture is informed by a dream of a world perfectly and completely thought through: here 'you will find the life you are looking for'. Residents live happily within their own self-contained environments, with their own kind of people, without having to rub shoulders with others (even the next-door neighbours); they need only to leave their enclaves for work, and on weekends to travel downtown for a bit of heritage or arts.

In Istanbul, culture and its various signifiers are shifting: in its anthropological sense as a way of life, in its economic sense as a business opportunity, and in its symbolic sense as a seat of power and status. Investing in art and culture has become the fashion of the day, and major business conglomerates and their foundations are

There is clearly a need for a new politics of openness – a new perspective based on the notion that 'a different global model is possible'.

competing with one another for suitable spaces to build arts and cultural centres. After the opening of Istanbul Modern, founded by the Eczacıbaşı family, one of the city's prominent business families, came the recent announcement from the Suna and İnan Kıraç Foundation to turn the centrally located TÜYAP area – owned by the metropolitan municipality – into an international centre for culture and arts with a US$ 160 million cultural complex designed by Frank Gehry funded by the Kıraç Foundation's US$ 500 million for arts and culture. For the first time, foreign involvement in the traditionally closed off arts and culture sector is occurring through joint venture agreements and collaborations; a five-year agreement for artistic and scientific cooperation between the Sabancı Museum and the Louvre will bring cultural capital in the form of exhibitions, know-how and networking to Istanbul.

Culture is implicated in everything now. Companies use culture to enhance their image as sponsor, but investment in arts and culture also brings with it a higher profile and stature – elements which in turn help to boost a city's overall appearance to investors, visitors and residents alike. The central government as well as the local municipalities are now undertaking huge cultural infrastructure projects. In the centre of the city, the Atatürk Cultural Centre (AKM) in Taksim and the Muhsin Ertuğrul Theatre Hall in Harbiye both illustrate the trend of targeting existing cultural facilities for demolition in order to build super-modern, prestigious and multi-functional cultural spaces. In the case of AKM, however, redevelopment will take place instead of demolition, owing to the public outcry about the building's secular and republican symbolism.

Central and local authorities of the AKP have instigated a number of key initiatives – for example, the Istanbul 2010 European Cultural Capital project – explicitly aimed at using Istanbul's cultural assets and resources to improve the global image of the city (and thereby the country). The Istanbul Metropolitan Municipality's recently completed masterplan makes a great deal of its competitiveness by investing in culture to project a contemporary image of the city. Concepts about 'city branding' and 'image marketing' have thus entered into the city's political vocabulary. Neo-liberal strategists use culture as a tool for revenue

generation as well as tourism – approximately 30 million visitors to Istanbul are anticipated in 2010. Although initiated by the private sector, this cultural renaissance maintains the support from the government in the form of legal and regulatory changes, including a controversial new law for the 'renewal' of historic areas (Law 5366), in addition to well-financed programmes for the development and promotion of the city's cultural and tourism infrastructure. Central government has committed an investment equivalent to the Ministry of Culture and Tourism's annual budget towards the restoration and regeneration of the city's rich cultural heritage as part of the Istanbul 2010 programme. Istanbul's bid to become a global 'open city' involves transforming its image, creating what Mayor Kadir Topbaş refers to as 'a city with a different attitude towards the world.'

As featured in *The New York Times*, Istanbul is enjoying a renaissance. Regarded as one of the most dynamic cities in the world, Istanbul is open to change, and, indeed, is changing fast. And not only that. In 2005 *Newsweek* magazine featured 'Cool Istanbul: Europe's Hippest City'. The picture on the front cover displayed a scene of a scantily dressed young man and woman dancing to dimmed red lights in a nightclub – a westernised lifestyle, not like the old and what may be regarded orientalist depictions of Istanbul with whirling dervishes or squatter areas. So what has changed in Istanbul? The answer lies in the shift away from an inward-looking stance that has taken place: globalisation is forcing open the city's urban spaces and cultural practices, bringing with it a parallel process of cultural change.

The city is finally relinquishing the feeling of isolation and provincialism that characterised Istanbul's public culture up to the late 1980s, and even into the 1990s. As business conglomerates compete with one another about larger investments in museums, art collections, galleries and exhibitions, the old model of centrally controlled cultural provision is becoming obsolete. State-run cultural organisations, such as the State Painting and Sculpture Museum or the Atatürk Cultural Centre in Istanbul, are now having difficulties maintaining their place within the new cultural scene – difficulties attracting both audiences and sponsors, and management and financial difficulties as a consequence of being state-controlled. Sponsorship for commercially funded events such as the Istanbul Biennale now commands a company's status and image, hence Istanbul's Biennale is flourishing and has now become one of the key artistic events in Europe. The private sector's reliance on transnational connections with international art institutions helps make the old, closed and inward-looking modality in cultural provision a thing of the past.

This turn towards greater openness and interconnectedness, however, is ultimately an outcome of the city's gentrification. The 'projected city' is a collection of gentrified spaces, and the cultural imaginary is increasingly being shaped by this project of gentrification. What is significant is the relentless ascendancy of this imaginary. Behind it we find a previously unanticipated coalition of urban elites. This coalition involves what Orhan Esen calls the 'North-Istanbul elites' (the post-1980s generation of secular, middle-class and professional workers) and the rising commercial elites of the Islamic-oriented traditional circles, politically represented by the 'innovative group' in the ruling AKP. Until now, these two elite groups had remained polarised. They now share a common aspiration and a vision of Istanbul as a globalised and gentrified city with orderly and clean public spaces and residential quarters, and an attractive public image with world-class services and goods. Cultural liberation thus responds to expectations of higher living standards.

What I have described so far is the global opening up of Istanbul according to an unfolding and relentless neo-liberal dynamic. In so far as the ruling AKP government have helped open up Istanbul to market-driven

Kanyon is one of Istanbul's first mixed-use design complexes, offering a quasi-outdoor shopping experience.

İzzet Keribar

With plans of a major face–lift project to parts of the deprived district, Tarlabaşı may lose the social bonds that come from its fine urban tissue.

TARLABAŞI

Tolga İslam summarises the development pressures threatening one of Istanbul's historic neighbourhoods.

Tarlabaşı is a mixed-use neighbourhood located a few hundred metres from İstiklal Street, the cultural hub of the city. The area is mostly composed of four- and five-storey historic buildings dating back to the late-nineteenth and early-twentieth centuries. Tarlabaşı was originally inhabited by non-Muslim minorities (Greeks and Armenians) who moved out of the neighbourhood after the changed political framework of the 1940s that excluded minorities. They were replaced by rural migrants from central and northern parts of the country in the rapid industrialisation and urbanisation era of the post 1950s. The area attracted another wave of migrants in the 1990s: this time from the Kurds escaping civil war in the south-eastern parts of the country. Tarlabaşı has also become host to African migrants, Romans and transsexuals.

The construction of a large boulevard in the late 1980s cut the connection and increased the disparity between Tarlabasi and its immediate surroundings, especially with İstiklal Street, the cultural centre. Today, dilapidated after years of neglect, Tarlabaşı is a highly stigmatised neighbourhood, deemed 'dangerous' by the general public. Despite its close proximity to the cultural centre, the area has managed to miss the wave of gentrification and investment that has been taking place since the 1990s around İstiklal Street (i.e. Galata, Cihangir, Asmalimescit).

Around 20,000 square metres, consisting of 9 blocks and 278 plots, in Tarlabaşı were declared a regeneration area by the Council of Ministers in February 2006 following a petition from the local municipality. The recently released renewal law, Law 5366, LAW for the Protection of Deteriorated Historic and Cultural Heritage through Renewal and Re-use, forms the basis of the renewal process in Tarlabaşı as well as in many other neighbourhoods within the historic city. The law makes the renewal of dilapidated areas in historic neighbourhoods possible through new expropriation powers given to the local authorities to implement renewal projects for several blocks without the consent of the property owners.

The renewal process in Tarlabaşı formally started when a private development company, GAP İnşaat, won the bid for the preparation and implementation of the area's redevelopment in April 2007. GAP İnşaat's offer represented the largest, leaving 42 per cent of the current floor area for the existing owners after renewal. Seven local architectural firms, some of the leading offices in the city, have been subcontracted by GAP İnşaat to prepare projects according to the proposed plan to transform the area into a mixed-use development with luxury residential units, shopping centres, cafes and hotels.

The proposed plan, however, has met with resistance from the majority of residents. In 2008 the owners, landlords and renters came together and established an association to oppose renewal. They claim that the current offer of the development company is not fair and demand better conditions. So far they have managed to freeze the process for now.

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global forces, the city's transformation has been a state-led project. This restructuring of the city suits the aspirations of its globalising elites and an expanding base of property owners. Considering that 58 per cent of the households (out of around 2.5 million from the 2000 census) live in their own property, a considerable proportion of the urban population is directly implicated in the changing economy of the city. What is more, according to the Istanbul Governor's office quite a significant proportion of this property-owning category consists of those living in recently legalised squatter settlements, or *gecekondu*. In other words, as the squatters of yesterday turn into property owners of today – however unplanned and rundown their properties might be – the scale of market activity is extended.

This process brings together very different constituencies with diverse lifestyles, values, beliefs and practices. It represents a coalition of self-interests involving Islamic communities, secular elites, large capital, small and conservative business interests, and so-called bourgeois bohemians. All these different groups can, in different ways and combinations, join forces – awkwardly, and ironically – in their jostle to benefit from Istanbul's transformation. It is this broad social, cultural and class basis of globalising Istanbul that balances the calls for closure. Nevertheless, this programme of openness hangs in delicate balance in Istanbul, as discourse feeding on nationalism and anti-European sentiments increasingly finds a receptive audience. One reason behind this is the exclusionary mechanisms that globalisation has set in motion. In Sulukule, for instance, one of the oldest Roma neighbourhoods, almost all of the 620 households have been evicted from their properties, with all the tenants relocating to far-flung destinations, despite the fact that they have been residents in this area for generations. This has been because of a municipality-led renewal project, proposing to turn the neighbourhood into an upmarket housing area. The same fate awaits the local Roma population and the recent Kurdish immigrants from the South-East of Turkey in the Tarlabaşı district. These residents are very poor, but more significantly, without title to their land they are unable to take part in Istanbul's increasingly market-oriented housing economy. It seems that those lacking title will be quietly relegated to the status of the invisible, no longer heard in the public sphere, except when they become junkies, dealers, or criminalised youth.

Insufficient welfare state structures alongside the collapse of informal and identity-based incorporation mechanisms in the city have created exclusionary dynamics that operate on a much larger scale than ever before. With high levels of unemployment, an unqualified labour force and the continuing influx of immigrants from the rural areas of Turkey, as well as from neighbouring countries and Africa, social exclusion finds fertile ground in Istanbul. The scale of the social problem becomes clear when considering that Istanbul's official population increased from around 10 million in 2000 to over 12 million in 2007. Almost all of this growth can be attributed to new migration. Even so, Istanbul lacks a social vision to engage the mounting exclusionary dynamics of market-based relations. Unchecked, they may eventually find expression in social fracturing, division and conflict. In a context where the division between the excluded and the included is sharpening dramatically, and where the familiar mechanisms of incorporation are increasingly being weakened, religious and ethnically-informed identity positions can become ready ciphers for frustration and anger. This new round of urban globalisation is characterised, moreover, by the sheer scale and power of global capitalist dynamics to undermine small-scale and individual efforts of urban constituencies hoping to determine the basic conditions of their everyday lives.

Before this neo-liberal programme turns into a grim scenario where powerlessness feeds a backlash of political conservatism and authoritarianism, there is clearly a need for a new politics of openness – a new perspective based on the notion that 'a different global model is possible'. Above all, this is a project requiring a prolonged process of negotiation, with an explicit agenda about the kind of globalisation and openness that might enlarge public spaces of interaction, engagement, and mutual responsibility – against the grain of the fragmentation and commercialisation of city spaces, which only serve to underscore growing social inequality and exclusion. Is this all just a dream? Will Istanbul come to terms with the choices it faces? In a context where the commissioning of internationally renowned architects for public projects faces mounting anger, with protestors posing the issue as a confrontation between local (read Turkish) versus the international (read outsider), the vulnerability of the neo-liberal project of openness becomes clear. The 'old order' may be dismantling on the ground, where traditional and non-formal structures are no longer able to act as incorporating mechanisms, but it is clearly not being written off entirely. Defensive and fearful responses to urban globalisation slip easily and seamlessly into an exclusionary language and rejection of difference and diversity. Ultimately this may fuel nationalistic fanaticism. The challenge is to deepen and secure the continuation of public experiences of worldliness – to not lose sight of the real choice that Istanbul needs to make. We have to hope that Istanbul's worldliness can help maintain a democratic basis of social solidarity where the city is imagined once again as a public space for all.

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URBAN SPACES IN AND AROUND ISTANBUL

Murat Güvenç and **Eda Yücesoy** offer a historical overview of how Istanbul's urban configuration has been shaped by decades of demands for new housing and services.

To start with a few facts and figures, with 15 million the population of Istanbul and its emerging city region is one of the largest in South-East Europe. Geographically situated on two narrow peninsulas separated by the Bosporus, the northern shores of either landmass are covered by ecologically sensitive forests, water catchments and reservoirs vital to the future of the city. Because of these physical barriers, a major part of the population lives in a linear band approximately 100 kilometres long and 20 kilometres wide. Hence Istanbul has a population comparable to that of the Netherlands concentrated in less than 10 per cent of its surface area. The greater metropolitan region of Istanbul accounts for slightly more than 20 per cent of the national population, while the city generates 40 per cent of value added and approximately 50 per cent of the tax revenues of the entire country. Thus, the most significant part of Turkey's economic activity, the manufacturing of goods and services, as well as its social life and artistic creation, all take place in this tiny north-western corner of the country.

It would be difficult to convince a contemporary visitor impressed by the size, density, dynamism, and congestion of the cityscape that only six decades ago, Istanbul was a forgotten and stagnant port city with less than one million residents cut off from world trade. The recent history of the city, however, sheds light on the dark side of Istanbul's obscure and intractable socio-spatial formation. As is the case in many peripheral countries, the end of World War II constituted a major turning point in the social history of Turkey and Istanbul. In spite of notable efforts to industrialise, Turkey's economy was basically agricultural. Urban residents accounted for less than 20 per cent of the population, and the bulk of its imports were financed by exports of semi-processed agricultural products along with a handful of raw materials and minerals.

In the 1960s a new regime of accumulation forbade investments in non-productive sectors such as housing and urban utilities, and instead gave incentives for domestic production. The underlying belief was that Turkey would solve its urbanisation problem and develop only if it industrialised. As expected, stopping all investments in urban infrastructure and metropolitan transport had important repercussions on the urban fabric of Istanbul. In addition, increasing land prices and unaffordable rents made housing of the emerging middle classes a major issue. Likewise the new regime was silent about – even blind to – how new residents should be housed. Unable to find formal solutions, these two groups of residents created ad-hoc solutions that now constitute the distinctive features of the urban fabric in and around Istanbul.

For the new middle classes, the approach consisted of transforming former detached single-family dwellings into apartment blocks. Landowners were not paid in advance but were instead compensated per apartment unit, depending on the level of the land and the rent. This significantly lowered the initial capital required for development and resulted in the ubiquitous four- to five-storey walk-ups constructed in the early 1960s and 1970s. These developments were carried out by small-scale entrepreneurs targeting middle- and higher-income groups in highly sought-after and comparatively well-serviced parts of the city.

Newcomers, on the other hand, built *gecekondu* (literally 'built overnight') on irregularly subdivided 'private' property. Informal housing in Istanbul took place on small parcels of land, irrespective of topography, in back-to-back building blocks on narrow streets according to the orthogonal street grid. The provisions and quality of services improved over time in the *gecekondu*. Water, for example, was initially a major issue. Supplied through public fountains or municipal tanks, water supply developed into a cottage industry that provided jobs for the unemployed. Sewage issues were solved through septic tanks or local streams. With its unplanned high density, the urban infrastructure in the *gecekondu* was certainly significantly low. Water supply was intermittent and the quality generally failed to meet the minimum requirements set by the World Health Organization. Power cuts were also frequent. The chronic lack of investment by service providers forced residents to devise their own solutions by adding water tanks and pumps.

To enhance its control over urban space, the new regime introduced unprecedented reform devised to regulate former squatter housing. This form of building amnesty occurred following the 1984 municipal elections and regularised all irregular constructions and add-ons, regardless of their size and building conditions. It provided security of tenure for a period of transition and a formal land title that had an immediate and significant impact on urban processes and land tenure systems.

Endowed with new discretionary and planning powers, as well as significantly higher revenues, the newly established Istanbul Metropolitan Municipality was capable of massive investment in urban infrastructure, metropolitan utilities and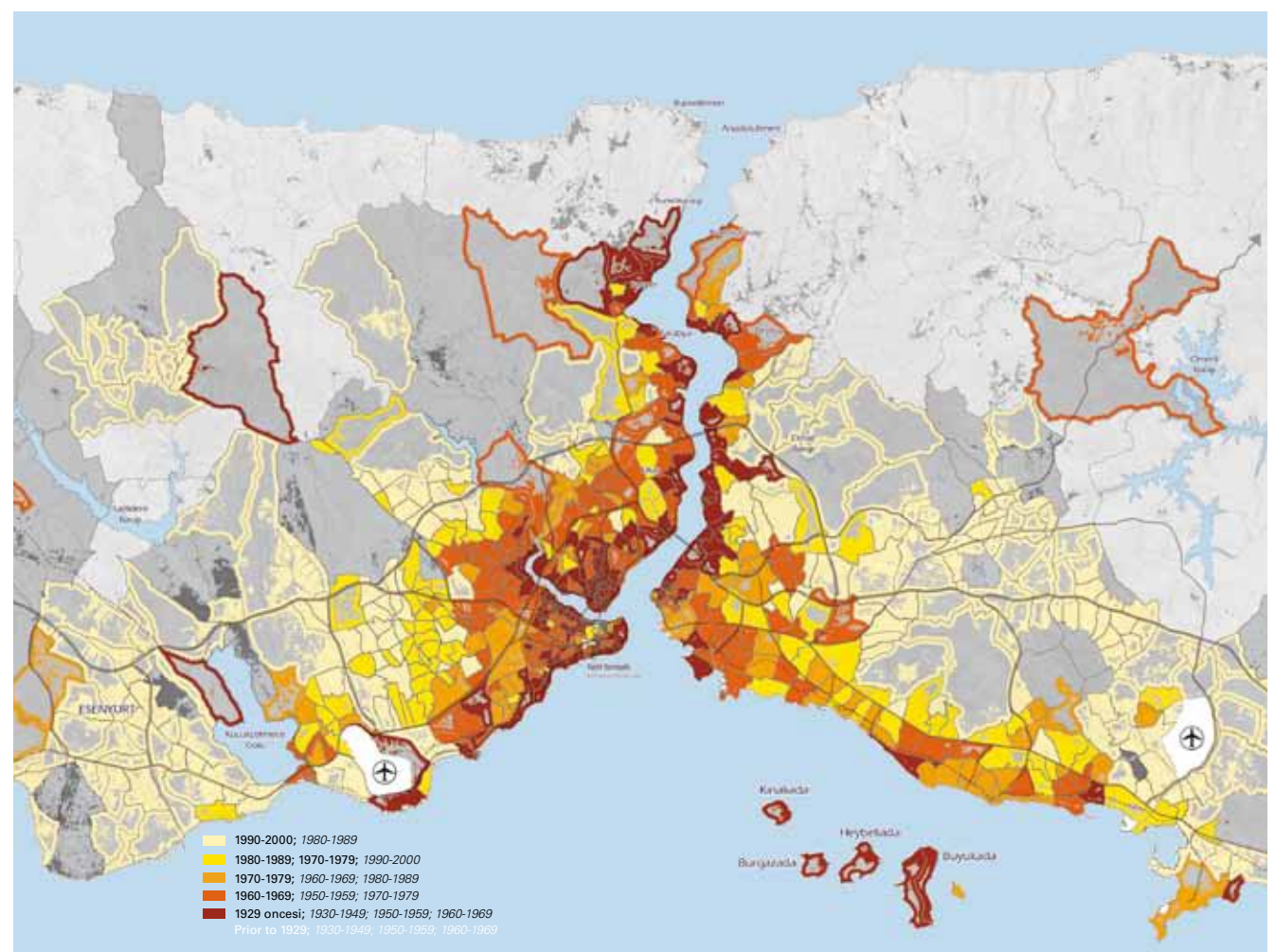 mass transit systems. With telecommunications being privatised, it was possible to have a phone connection within a week, whereas as recently as the 1970s it would have taken years. The new liberal regime reduced customs barriers and introduced preferential credit schemes for house buyers and passed new laws encouraging capital-intensive mass production in the housing sector. Due to the availability of long-term credit, large-scale investments in urban infrastructure enabled developers – the new actors in the city's housing sector – to construct housing complexes at metropolitan fringes. The days of the petty producers were over.

In this new economic climate and era of new municipal governance, the city decentralised at an unprecedented speed. Decentralisation of the population went hand in hand with that of jobs, services, and shopping facilities. The inauguration of the second bridge over the Bosporus facilitated the northward decentralisation of the central business district. Systematic disinvestments and privatisation of state enterprises led to significant losses in the manufacturing sector and factories on the Golden Horn shores. Along the Bosporus these spaces were transformed to create new uses and jobs in the cultural industries. And as is the case in most global cities, the rise of the service economy created a minority of well-paid executives in finance and services.

Although Istanbul still has a substantive stock of squatter houses, shared taxis and street vendors, it is no longer a city of squatters. It has been replaced by a new global city for which we urgently need a metaphor. The map below charts the contiguous growth processes that were instrumental in its formation. Thus the socio-spatial structures of former decades can be used as matrices or incubators for an emerging global city. As the Istanbul metropolitan region that is emerging around the new Marmaray mass transit system is constructed, we do not yet know how the city's growth will evolve. But we do know that we have a vast urban age to discuss and reflect on its differences.

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AGE OF BUILDINGS

1990-2000; *1980-1989*
1980-1989; 1970-1979; *1990-2000*
1970-1979; *1960-1969; 1980-1989*
1960-1969; *1950-1959; 1970-1979*
1929 oncesi; *1930-1949; 1950-1959; 1960-1969*
Prior to 1929; *1930-1949; 1950-1959; 1960-1969*

This map charts the city's growth according to the date of construction of residential buildings. Darker shaded areas correspond to older buildings, providing an insight into how Istanbul's socio–spatial urban formation has evolved.

ISTANBUL'S SPATIAL DYNAMICS

Kees Christiaanse, Mark Michaeli and **Tim Rieniets** describe Istanbul's evolving urban form and the proliferation of gated communities.

Suburban gated communities, like Göktürk, became a reality in Istanbul in the 1990s, increasingly rubbing against gecekondus and village–like neighbourhoods.

About 15 years ago, it was still possible to enjoy the bustling urbanity stemming from the mixtures of people, neighbourhoods and activities in Istanbul. Then, the flair of ancient Constantinople's rich cultural diversity and proximity to the Asian continent was abundant. Today these characteristics are threatened by a wave of technology and modernisation. On the one hand this shows the emancipation and economic prosperity Turkey has achieved, but it has also introduced global structural challenges regarding mobility, urban renewal, social stratification and sprawl, as well as spatial and functional segregation at an unprecedented scale.

Over the past few decades, for example, an explosion of car ownership resulting from Istanbul's new prosperity has put severe pressure on the city's road system and has increased air pollution. This has happened at the same time as investments in public transport have lagged. Although the city introduced a new underground train running East to West along the coast under the Bosporus, as well as a Bus Rapid Transit line (BRT) along the urban motorways, traffic congestion is expected to reach paralysing levels over the next few years. This will no doubt cause considerable economic damage since traffic congestion hinders the flow of people, goods and information. And scale is certainly an issue. At times Istanbul's congestion problem seems to be almost as bad as that of São Paulo or Jakarta. In today's emerging modern society cars continue to be status symbols. Equipped with air-conditioning, a telephone and sophisticated computers, driving a car is like riding in a comfortable spaceship of clean air surrounded by a toxic universe outside. In Istanbul, the desire to own a car is further exacerbated by the sprawl of urban development extending beyond the Bosporus – with villages turned into larger suburbs, commuting times are rising rapidly.

The Istanbul Metropolitan Municipality has acknowledged that a proper system of public transport constitutes, like in every city, the only solution to counter this massive threat to mobility. At the same time, they have planned motorways, widened roads and introduced new traffic lanes that could create further divisions and destroy the city's delicate and subtle neighbourhood structure. In response to complaints about the inaccessibility for emergency vehicles, the imminent collapse of buildings by earthquakes and the poor housing conditions of older developments, new neighbourhoods consisting of large super blocks with high-rise apartment towers, green spaces and parking facilities are being planned to substitute the existing ones. As a result, old, finely-meshed street patterns of the Gecekondu and yap-sat districts, with their intricate social and micro-economic structures, their vibrant street activities and their small-scale character, are being replaced by anonymous housing projects that could be anywhere in the world. The resulting functional segregation does not allow for small-scale economic improvisation and investment, one of the lifelines of Istanbul's poor. What is worse, large numbers of the city's diverse population are forced to travel considerable distances for even basic needs, further compromising mobility on all levels.

Gated communities emerged in Turkey in the 1980s, and have become the most important project of urban transformation and expansion in the city. Driven by an increasingly powerful real estate market, the phenomenon is tolerated by politics and planning, and is widely accepted by the public. This process is not only changing urban and architectural patterns in the city; equally important – but less understood – are the implications on the social and economic structures at the neighbourhood level.

Göktürk, a former agricultural village surrounded by state-owned forest and military sites in the North-West of Istanbul, represents a pioneer of this mode of development. In the 1990s real estate developers discovered the area's potential for high-end housing developments. Since then, more than 30 gated communities have been constructed in close proximity. This has resulted in a population increase from 1,500 in 1993 to approximately 20,000 in 2008, as well as higher land prices. But it has also dissected Göktürk into fragments: what was once a village has been turned into an island among islands. And yet, although segregation seems to be the dominant pattern of Göktürk's urban trajectory, integration is also taking place. A thin but indispensable network of economic, social and cultural encounters connects Göktürk's seemingly separated fragments into an integrated economic whole. Outnumbered, the remaining villagers now benefit from opportunities in the gated community's emerging service sector. They are employed as gardeners, housekeepers or nannies, and enjoy regular access to the everyday life of an elite otherwise behind closed walls. This economic boom, it would seem, has allowed individual benefits to overshadow the negative consequences of segregation.

A growing awareness about the scarcity of Istanbul's natural resources, however, has sparked criticism about the unsustainable character of suburban developments such as Göktürk. In response, new planning guidelines are restricting the proliferation of gated communities on the outskirts of the city. At the same time, enormous regeneration projects in the inner city are making way for new large-scale developments in Istanbul's historic centre. The recently adapted Law 5366, aimed at ensuring the sustained use and protection of deteriorated historical and cultural monuments and structures through their renewal and reuse, will allow for the vast expropriation and replacement of illegally constructed and inhabited buildings in Istanbul. In late 2007 the Turkish Daily News named 48 areas declared as regeneration projects in the city, a scale involving the demolition of 1 million buildings and repairs on another 200,000. Thus, instead of building exclusive urban exclaves on the city's outskirts, an increasing number will be built inside the city: islands for upper-class housing, modern office space and commercial enterprises.

Despite this trend, the traditionally small-scale entrepreneurial spirit and structure of Istanbul offers an alternative in the form of street guilds and bazaars specialising in particular types of goods. This concentration of goods brings with it a competition among sellers to differentiate themselves and their products; competitors concentrated together thus creates an orientation towards the public spaces – and greater visibility – in front of the buildings, pushing commercial activity onto the sidewalks and into the city's street. This spatial condition emphasises mobility of people and goods and leads to a series of casual exchanges whereby the built structures accommodating these exchanges serve solely as a conduit for economic processes.

This contrasts to shopping centres and gated communities, which represent an entirely different concept of the city and the goods and experiences it produces. Precisely tailored to the specific needs of a limited user group, each contradicts the uncertainties, ambiguities and openness that define urban life. As secluded islands they orient themselves in opposition to the small-scale entrepreneurial structure. Turning the spatial code of the city inside out, instead of maximising coherence and permeability within a specific urban enclave, shopping centres and gated communities minimise points of intersection and operate in isolation. Chance encounters and the unexpected are substituted by organised events at a distinct destination. Instead of the buzz of urban life generated by active street fronts, the focus is on convenience and composed interior spaces. The result is urban space based on concepts of idleness and exclusion instead of integration into the dynamics of the city and its economy.

Istanbul, like any global city, cannot deny those who prefer to remove themselves from the urban economy through segregation; doing so would only curtail the flow of required investment in redevelopment and urban change. The negative consequence is thus unavoidable, even if it seems obvious: while isolated islands use investment capital from the city to hide themselves in ever-more grandiose stage-set-like pieces of architecture, the city fades into the background, and the real urban complexity dwindles.

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ARKITERA SPATIAL STUDY: PROACTIVE ACTIONS

Ömer Kanıpak discusses the results of the five architecture teams commissioned by the Urban Age and Arkitera.

In Istanbul, it is quite rare to find a proactive attitude – one that identifies a problem and brings alternative solutions – about the city's future growth. Politicians are beholden to business-as-usual and short-term political imperatives, while the schools of architecture and urban planning develop studio projects on sites and problems for mere educational purposes rather than as proposals for actual alternatives to the city's development. Practising architects also rarely respond proactively to Istanbul's problems because of the profession's unforgiving culture of survival. The few civic actors operating in the built environment are likewise too disorganised and lack either the management capacities or financial strength.

Given this situation, one could come to the conclusion that the municipalities and mayors of Istanbul have not had any proactive support or contributions for years.

Therefore, when Urban Age initiated a spatial study of Istanbul with the Arkitera Architecture Center, it was an opportunity not to be missed. Five young architectural teams were selected to propose solutions to the problems they detected as urgent issues for Istanbul. Free to choose the areas they would work on, it was each team's responsibility to also define the problem they would develop an answer for. Thus three months of research resulted in five different proposals for five different areas and issues in Istanbul. They vary

in scale and content, and although none of the proposed solutions are ready to be implemented, each of them demonstrates how a solution to neglected problems in Istanbul could be initiated.

Hopefully it is not too naïve to believe these proposals, or similar studies, could be utilised in the real-life management of the city. In the meantime, since decision-makers in our cities really do need clever solutions instead of harsh reactions, as professionals we should be prepared to collaborate rather than resist.

SO?: NATURE NEXT TO THE CITY
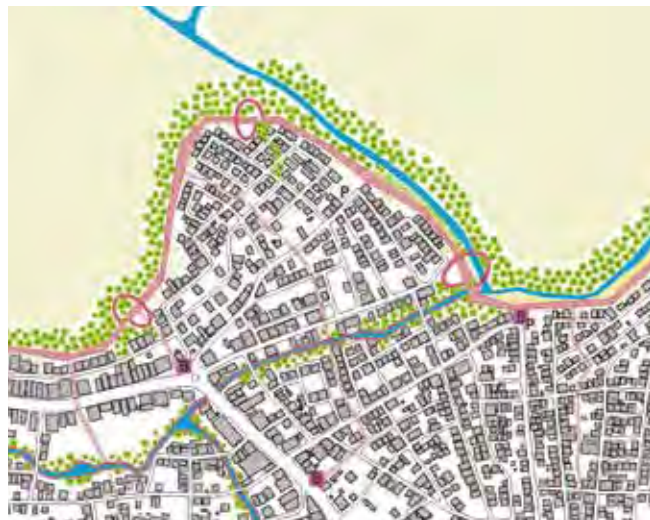
Reframing the border between urban dwellings and the forest as a public space with nodes for public institutions allows a reconsideration of the value of urban forests.

Istanbul's northern forests, home to the city's fresh-water reservoirs, also provide fresh air to the city. These natural resources have been threatened by the encroachment of illegal settlements since the 1950s, and the bridges across the Bosporus that connect the two sides of Istanbul. Now, the announcement of a third bridge has reignited the debate about the preservation of these forests. Despite strict regulations to preserve areas surrounding water reservoirs and the forests all over Turkey, especially in large cities, these laws are rarely enforced. On the other hand the emergence of 'green' terminology has almost transformed these urban forests, which until recently were either perceived as just green stains on a map for professionals or as mere spectacle for the public, into intangible assets.

SO Architecture focused on the Sultanbeyli area, a newly developed settlement on the edge of the northern forest of Istanbul. Their research asked an important question: how do you keep the forests free from illegal buildings? Without

enhancing awareness of the public value of the forests, laws alone cannot protect the green areas of the city. According to SO Architecture's proposal, the boundary between nature and the urbanised city should be utilised as public spaces. If they have the right to use this public corridor, the people living next to the forests are more likely to preserve the green areas.

In the plan, the corridor between the settlements and the forests will have nodes with public facilities such as libraries, cultural buildings, community centres, health clinics, schools, religious buildings or kindergartens. These nodes will sometimes be located within the urban tissue, thus carrying part of the forests into the built environment, but sometimes the nodes will be inserted slightly into the forests, carrying the urban tissue into the green land. It is expected this will alter the boundary with the forest into a more integrated spatial field, connecting nature with the urban tissue like a zipper.

PAB ARCHITECTURE: THE NEGLECTED SISTER
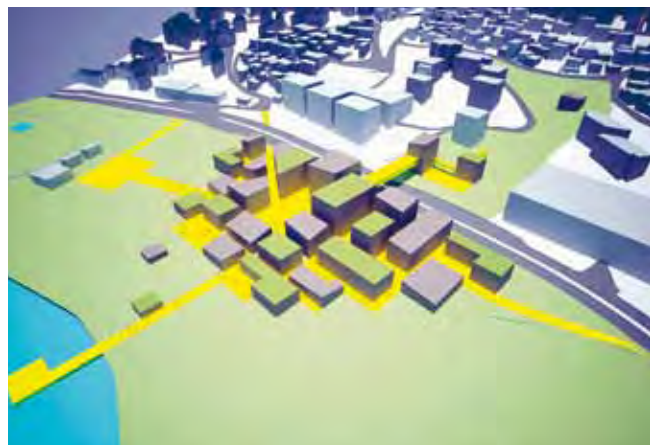
Clusters of buildings reconnect the waterfront to the city suffocated by roads.

Halic, or the Golden Horn, became the neglected sister of the Bosporus after becoming an industrial area in the beginning of the nineteenth century. Substantial efforts to clean up this brown field area replaced almost all of the industrial buildings with parks in the 1980s. However, this rapid rehabilitation eradicated many valuable industrial heritage sites and the newly constructed green parks were not planned adequately enough to attract local residents. By 2000, the area around the Golden Horn started to become an attractive tourist destination, although currently there is no masterplan to coordinate development.

According to PAB Architecture, the uncontrolled developments on the banks of the Golden Horn will eventually break the connections within the existing

residential tissue. Without a masterplan many facilities are being constructed without any relation between them. If this process is not stopped, the future of the Golden Horn may again be as it was a hundred years ago, but this time not as an industrial brown field but a deserted spoiled graveyard of tourist facilities. Therefore PAB propose to extend a portion of the urban tissue into the empty green fields on the banks of the Golden Horn. These new clusters are intended to release the pressure on the existing urban tissue and to adjust the balance of empty green parks by creating multi-use structures that include housing, small offices and commercial facilities. These building clusters will also act as visual and physical bridges to the residential areas behind the road along the coast.

8ARTI: RECLAIMING THE VALLEYS

Implementing a 40-metre principle recognises the unique topography of the city, opening up the valleys and waterways.

8Arti examined two defining, intertwined features of Istanbul: its skyline and its valleys. The magnificent skyline of Istanbul's historic peninsula is a result of the clever utilisation of its topography. In 1936, a proposal to preserve this skyline stipulated that 40 metres above sea level, no new buildings should exceed 9.5 metres in height. This principle is still in force today, and has ensured the preservation of the historic peninsula until now. However, the city's rapid urbanisation has led to new settlements reaching the edge of the northern forests, which has almost hidden this topography with a homogeneous blanket that neglects the city's dominant and unique geographic features and differences.

The valleys act as ecological corridors that regulate air circulation within the city while they also collect and direct rainwater to the coast. However, until now those valleys have been considered as barriers for urbanisation: their riverbeds are covered and their banks are filled with, sometimes illegal, apartment blocks with insufficient infrastructure and social facilities.

8Arti chose a small valley reaching from the Levent business district to the Kagithane area as its project site. In applying an alternative 40-metre principle, 8Arti proposes to clear all buildings between sea level and 40 metres above the valley basin and to transform the valley basin into a green public space. After this reclamation, the displaced population will be re-housed in the buildings to be erected above the 40-metre line above the valley basin. However, these new building settlements will be designed to accommodate an equal population and more social infrastructure with a more efficient planning code and a 'super-social' building for libraries, religious buildings, health and educational facilities.

GB ARCHITECTURE: REVISITING THE PERIMETER BLOCK

With the same density as the isolated tower block, the perimeter block defines shared communal spaces.

By the 1950s uncontrolled immigration to Istanbul had started to cause rapid urbanisation of the city. As a result, the free-standing multi-storey apartment building became the model people believed would solve the housing problems for Istanbul's citizens. This building type proliferated across the city, neglecting geographical, social, economical or even ecological differences. Urban forms and building codes were all adapted to regulate the spread of this type, which in turn created a dull urban pattern. The current activities of the housing development authority of Turkey (TOKI: Toplu Konut İdaresi) also boost the proliferation of these independent generic tower apartment blocks, which
are now being built on the periphery of Istanbul.

GB Architecture proposed to reinvent the perimeter block as a new urban form for Istanbul. Choosing a large area near Kucukcekmece, they argued that the current urban planning codes that encourage the building of independent tower blocks, are inappropriate for the city since they do not create enough public and semi-public spaces. Therefore, they developed a new masterplanning guide by first designing the areas within the perimeter blocks to allow alternative uses, multiple functions and varying floor plans. The resulting blocks create different forms of courtyards, with horizontal or vertical slabs that integrate with each other to act as a coherently working machine, as well as a defined urban space. This study also seeks to address the masterplanning of certain sites in Istanbul; GB believes special studies rather than an application of predetermined building codes should prevail to allow the diversity of the urban tissue to accommodate the diversity of the city.

SUPERPOOL: THE OTHER HALF OF ISTANBUL

Relocating parking allows streets use to adapt to people rather than cars, and recognises the street as the most important public space in Istanbul.

How do you plan a parking strategy in a city that has more than 2.5 million private cars, with a daily increase of 400? Currently Istanbul can accommodate only 250,000 or so parked vehicles, mostly at sites maintained by the municipality's parking company. And while new building regulations demand parking spaces to be reserved in the planning phase, the old settlements do not have adequate car parking facilities. Given this situation, one can assume that most of the streets and open urban spaces are occupied as car parks, which comes close to the total land area occupied by buildings in Istanbul.

Superpool Architecture decided to focus on the use of streets as public spaces. Istanbul is well known for the lack of planned and designed open spaces for the public. Given this situation one might expect that Istanbul's open areas lack public life. However, Superpool chose two different sites to illustrate the opposite: one within the historic peninsula in Karagumruk on the European side, and another on the Anatolian side in a relatively recent settlement called Namik Kemal. The latter has a more regular street pattern compared to the organic pattern of Karagumruk. In Istanbul, public life is very vivid on the streets and defies any predictions or plans. The improvised public use of the streets is a key factor to consider while designing for Istanbul. However, most of the streets are largely occupied by parked cars which leaves little space for pedestrians or neighbourhood residents.

Superpool proposed to build parking structures within two minutes' walking distances in the two earmarked neighbourhoods and they proposed to use some of the streets as pedestrian areas or public spaces with restricted access by car. Some of the secondary streets will be turned into public parks with drop-off zones for cars, while some will function as playgrounds for children. Some may even be used as small-scale organic agricultural sites for the residents. This relocation of the cars and reclaiming of parking spaces will require a minimal intervention but will create the maximum amount of open air spaces that can be used by residents. The newly developed parking structures will require their own management plans and also include some commercial and social facilities for the community. The management plans of these parking structures will need to be developed in such a way that they allow long-term economic sustainability.

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