



Transport and Mobility

MOVING PEOPLE, MAKING CITY

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No society can exist without the movement of people, goods and information, which is generally regarded as a means for evolution, be it the facilitation of trade or most importantly for human interaction. Modern transport is what collapses the distances between two points and as such, it needs to be available to all equally. But transport is also deeply intrinsic and is often as much of an end in itself. It offers the most direct emotional experience of technical progress; it is a lifestyle marker, the physical representation of great political achievements and the *raison d'être* for the world's leading industrial sector. The consequences are obvious, transport is one of the most contested development areas, which while offering an endless amount of solutions remains extremely controversial.

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

This debate has made enormous progress and has resulted in extensive urban regeneration efforts in cities around the world. In addition and different to initial predictions, the latest transport revolution based on communication and information technology has turned out to be supporting the city with its genuine character. The advantage of reduced commuting and less money

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

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

one of dominating car use at the metropolitan level, despite an extensive public transport system. The overall rising energy consumption for transport is best illustrated by a steep increase of Sport Utility Vehicles even within the city's boundaries.

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

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

mobility solutions disproportionately dominate transport agendas and investments in the three rapidly expanding cities, mocking statements, intentions and policy goals on sustainability, resource management and social inclusion. If put forward, sustainable transport concepts are centred around capital intensive systems like heavy rail which may not have an extensive catchment area yet require enormous funding streams. Transport modes used by the majority of people in these cities, mainly walking, cycling and microbuses receive far less attention.

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

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

We need to work out the governance structures and technology by which public transport can save rapidly expanding cities from simply adopting western mobility

cycles. We need to understand what forces are required to break the path dependencies in the mature Urban Age cities to move towards sustainable mobility in the near future. The professional crisis of transport planning differs greatly to that of urbanism, which was humiliated by a complete loss of control over the last 30 years. The transport planning profession instead struggles first of all with the fact that its subject is more about politics than about economics, engineering or any other scientific discipline. The second challenge results from focusing only on organising movement where, at least in the case of the city, it needs to organise movement and space. Still, it has been the professional community around the world that has advocated the most innovative urban transport solutions for more than 30 years before they were finally implemented as a result of strong political leadership. Bogotá's rapid bus system and cycle network, London's congestion charge and Berlin's multi-modal transport approach are just three examples. Ultimately, the future focus has to be the integration of land-use and transport strategies as well as the relationship between connecting places while at the same time creating locations. Once again, this needs to be understood on a political level before it will begin to happen.

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