

SHANGHAI: THE FASTEST CITY?



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THE SPEED AND THE FRICTION

Deyan Sudjic

Fifty years ago Shanghai was an island of floodlit art deco cinemas, modern skyscrapers and electric trams, marooned in the midst of a China that had hardly changed in a thousand years. As the city petered out on the road to Nanjing, the neon signs and the street lights disappeared into the darkness of a medieval night. To drive across the city in those days, you needed three different driving licenses to negotiate your way from the Chung Hwa Road to what was then called the Boulevard des Deux Republiques, to Edward VII Avenue and Broadway. You could have worshipped in your choice of onion domed Russian Orthodox churches, the product of the army of White Russian refugees who sailed out of Vladivostok with the Bolsheviks at their heels. It's a history that suggests a city shaped by a mix of pragmatism, opportunism and anarchy. Shanghai was China's window on the world, its most industrially advanced and commercially sophisticated city. And it still is, even as Beijing is working hard to re-establish pre-eminence with a building programme in the capital that is just as frenetic as Shanghai's. Shanghai's decision to hold an Expo in 2010 is its own response to the 2008 Olympics in Beijing.

There is a tendency among western observers to look at China's two great cities, Shanghai and Beijing, as vast urban agglomerations that have broken the bounds of size and scale and so isolate themselves from conventional urban precedents. But in terms of population size, Shanghai, with around 20 million people is a city of the same order of magnitude as New York, and London, both metropolises with a population of around 18 million. The most striking differences between Shanghai, London and New York are political organisation and urban culture. Shanghai is effectively a city state, with the powers of the central government at its disposal to annex satellite towns and villages and to open up territory into its direct control. We know Shanghai is big because there is no obfuscation about the difference between the city in the political sense, and in wider definitions of it as an entity. But, as much as we are ready to analyse London or New York as urban regions, the perception is still shaped by political boundaries.

Shanghai, where one in five of its population is made up of temporary in-migrants from predominantly rural China, is the key city setting the pattern for the explosive urban growth in Asia. It is as much a phenomenon of our times as the equally rapid and – to its contemporaries – equally disturbing transformation of Western industrial cities of the early 19th century. It is a phenomenon which is producing a sense of strangeness and dislocation, this time bound up with the overwhelming impact of speed. When the British happened on the Chinese walled settlement of Shanghai towards the end of the Opium War and fought for their right to sell the opium that they cultivated in India to the citizens of the Chinese empire, there was nothing on what is now the Pudong side of the Huang Po River. British traders, attracted by the river traffic on the Yangtze river and its many tributaries linking inland China and the trade routes from Europe, America and later Japan, persuaded their government to insist on their unhindered access to Shanghai's port.

Fossilised through the Mao years, the Bund still looks like a hallucinogenic transplant of a European city to Asia. But Shanghai was never a traditional colony. The city was run, by a series of different, but parallel administrations. It was an arrangement that allowed a hybrid culture to flourish in the

cracks between regimes. In large parts of the city, it was never entirely clear exactly who was responsible for enforcing any kind of legal system.

The long freeze on Shanghai's development only lifted at the end of the 1980s, with the introduction of the market economy to China. In terms of physical development and planning, this triggered a great deal of research into appropriate models for Shanghai. Of course Hong Kong, with its carefully managed state land bank and the government's use of auctions to fundraise and control development, was studied with care. But so was the experience of Barcelona as it emerged from its transformation for the Olympics of 1992. Before the wave of new building really took hold, Shanghai staged an architectural competition for a redevelopment strategy to deal with the whole Pudong area. It showed both the strengths and weaknesses of Shanghai's position. Many of the world's leading architects – Toyo Ito, Massimiliano Fuksas and Richard Rogers among them – were invited to take part. They all put forward more or less radical attempts at masterplanning, all of them mutually exclusive in their approach to land-use and form. The city claims to have adopted the best features of all the competitors, and the development of a new business district in Pudong has proceeded at break-neck speed, although along lines that bear little resemblance to anything that emerged in the competition.

Shanghai has moved beyond the first rush of crude tower building, and the mood has changed. In central Shanghai, the American architects led by John Portman who were responsible for many of the early high rises, have given way to a wider selection of designers, who are beginning to demonstrate a more considered range of approaches. As demonstrated by the property investment in the Bund, and in some of the surviving fragments of 19th century Shanghai, the city is also beginning to develop a more nuanced attitude to its own past. Under the Pearl television tower you find the Mayor's call to his citizens to "Rejoice in the present, while recalling the past" carved in both Chinese and English into a low granite wall. Shanghai is determined that every visitor knows all about what is going on now, and expresses this in language that seems to recall the days of the Red Guards. "Persist in the development of Pudong without wavering until it is done" reads one giant billboard. The city is busy planting trees and even the flyovers are fringed with planting boxes dangling green over the side of the road. It has installed its famous \$700 million Maglev train system to make the 40 km trip to Pudong airport at an awesome 400 km per hour. And it is metamorphosing with such speed that it dynamited the central railway station built as recently as 1988. The city had already outgrown it.

At the regional level, Shanghai is developing a policy for its position at the centre of the Yangtze delta. On a national level, it is competing with Hong Kong and Tokyo. It is moving beyond manufacturing to advanced service industries, as much a part of the rhetorical agenda for every ambitious city as culture-led renewal. The question facing Shanghai is if its best model is New York, London or Tokyo, or perhaps California, as it attempts to create a balance between its suburban industrial estates, and its high rise city centre. It is still working to reduce cycling by another 25 per cent in the next five years, just as it is working to reduce population densities in the inner city where there are still particularly crowded areas such as the Old West Gate, with people living at 760 to the hectare.

Getting to grips with a city that has been undergoing double digit economic growth for more than a decade demands a set of conceptual tools rather different to the conventional repertoire employed by those who spend their time thinking about urban issues. The inescapable fact is speed. Shanghai is a city whose development over the last ten years has by any standards been extraordinarily rapid.

The story of Shanghai's speed and friction can be told in summary. Since 1990, living space per person has doubled to reach 15 square metres per resident. In the same period, the city has built 40% more roads. There are approaching two million cars. The metro system has reached a daily capacity of 1.4 million people, and is intended to reach five times that figure. The city has developed an entirely new business district in Pudong in less than two decades and it has embarked on the construction of a ring of satellite towns – designed in German, Italian, Scandinavian and Chinese urban styles. In the rush to build office towers to catch a perceived market, speed has been the determinant of form. Rather than give architects and engineers the time to produce considered technical solutions to optimise net to gross ratios, developers have demanded instant starts. Without time to make sophisticated calculations, engineers have over-specified structural cores. Buildings less than ten years old have aged with remarkable rapidity. Some have become redundant even before they are finished.

In Shanghai, friction comes with speed. It's the kind of friction that comes as development accelerates, and decelerates, the friction that fills the gap between the imperatives of what is still operating within the framework of a Marxist control and command economy, the actual results, and often unintended consequences. This provides an echo of the gaps between the administrations that ran the old Shanghai. You can see the will to centralise in the language of Shanghai's plans. Not just in the huge signboard that exhorts its citizens to "Persist without wavering until it is done", but even more in what the city calls "the six pillars", not a Maoist call to arms, but a policy to build a strong economy based on cars, semiconductors, petrochemicals, trade, finance, real estate and construction.

After New York, Shanghai is the second in the Urban Age investigations on cities. It provides a chance to learn from a city in the midst of a spasm of change so violent that it questions the extent of human resilience, to explore the meaning of speed and friction. It is a city which is moving so fast that it's possible to see the impact of theory on practice like nowhere else in the world.

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SHANGHAI TRANSFORMATIONS

Zheng Shiling

The history of Shanghai goes back over 5,500 years. As a city, it is a heterogeneous condenser of Chinese history, reflected in its urban form and architecture, and revealed by its traditional gardens, temples, churches and residential typologies. Because of its unique location as a major port on the east coast of mainland China, Shanghai has been an effective link between the port cities of North and South China, and also in the wider Asian sub-region, encompassing Japan and Korea. This is why over time it has become a compact container of different periods and styles of international architecture and urbanism, integrating classical models of European urbanism with traditional Chinese ideology. Shanghai became an important economic and cultural metropolis in the 19th and 20th centuries, establishing itself as a centre of modern Chinese culture and architecture.

In perspective one could say that there are three great periods in Shanghai's history: the founding period in the early Middle Ages; the prosperous mercantile era of the early 20th

century, and, most recently the sustained growth of the 1990s. Throughout, Shanghai as a city has always enjoyed the culture of tolerance and coexistence. Founded in the 13th century as an administrative centre, a traditional circular city with canals and narrow streets, it grew into a modern metropolis in the 1920s and 1930s with the addition of traditional "European" urban areas to accommodate the new economic activities and residential needs of this early 20th century period of growth. The city was divided into four international sectors or "concessions", each with their own administrative systems. During the 1930s, a masterplan was developed – based on modern principles of urban planning but with traditional architecture forms – with a new centre in the northern fringe of the city, away from the influences of the International Settlements and French Concession areas.

Due to political circumstances associated with the policies of the Communist regime, Shanghai lost its role as an international centre of growth and development for over 40 years, from the early 1950s to the 1990s. Very little construction occurred in this former world city. Following the USSR's model

of urban growth, satellite cities, heavy industrial zones and residential quarters were designed and built under the policy of national industrialisation throughout the 1950s and 1960s. Some buildings, especially the public institutions, were designed using traditional Chinese architectural forms of monumentality and dignity. As part of a sustained nation-wide plan many new industrial buildings were constructed in the city, especially in the Min-Hang Heavy Industry Zone in south-west and Wu-Jing Chemical Industry Zone in the south-east fringes of Shanghai.

During the 1950s, the Soviet inspired style of social realism was introduced to many buildings in Shanghai. Over the next two decades, China experienced a severe winter in the realm of architecture and urban development. Public life and public buildings retreated into the shadow of politics, responding in part to economic realities but more to the prevailing political and ideological culture. The only constructions of note were a petroleum chemical plant in Jinshan in the south-west area of the city and a major steel industrial area to the north.

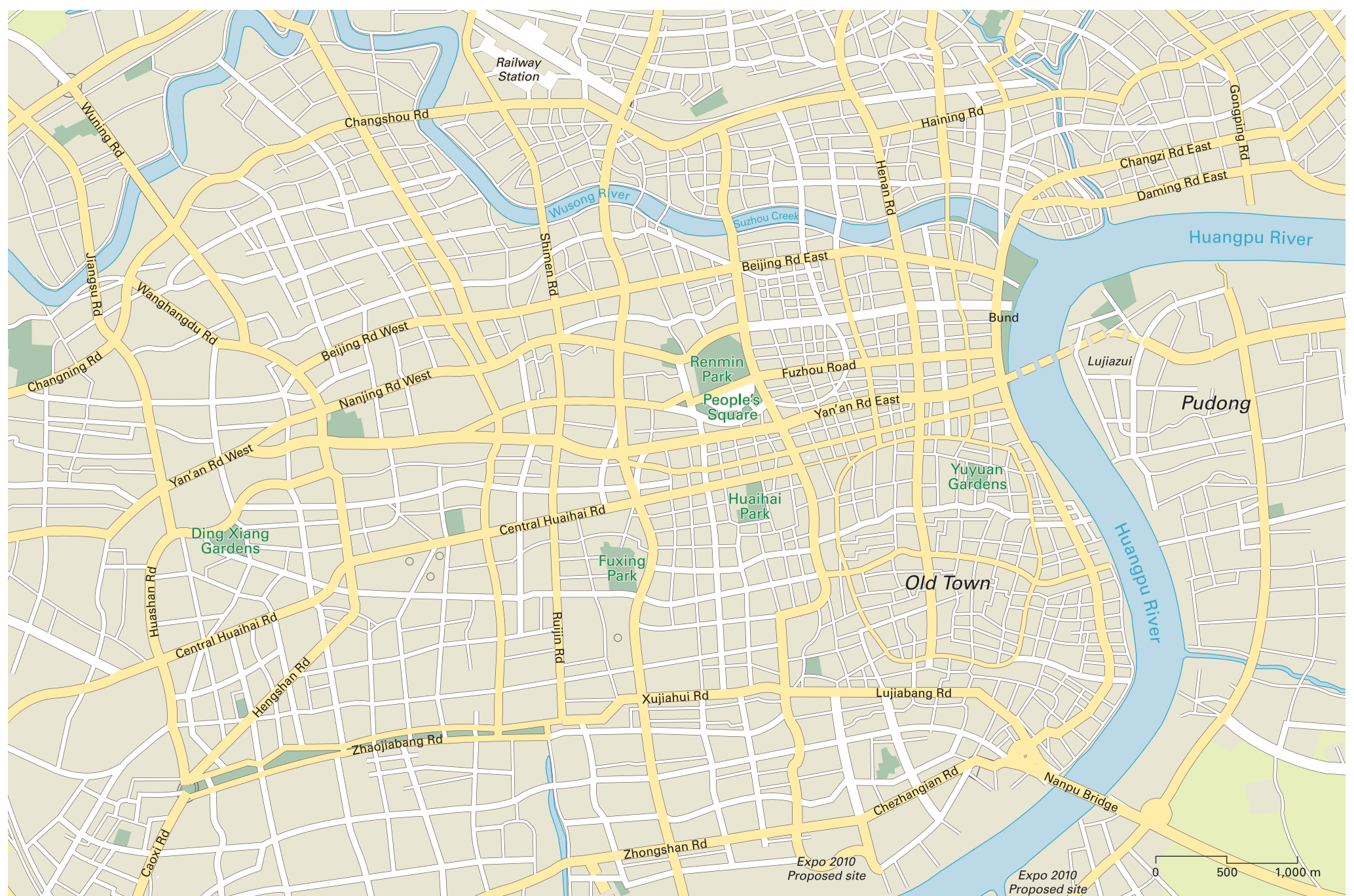
The national government's decision to embrace a more open policy in the early 1990s gave the city a much needed opportunity to modernise and redevelop. Shanghai's ambition is to once again become a world class centre of finance, commerce, trade and shipping. As a result, since the late 1990s, it has developed a series of masterplans for different areas of the city, covering over 800 square kilometres, to accommodate this growth. About 20 million square metres of buildings are expected to be built every year with new housing, offices and other activities. To give a sense of scale, this equates to the addition of a city the size of Shanghai in 1949,

every two years. The current masterplan covering the period 1999-2020 is based on a multi-centred urban structure which will lead to wholesale re-urbanisation of the city. After decades of neglect, the Shanghai Municipal Government is addressing issues of public transport and suburban development.

After channelling industrial growth in different directions – north, south, southwest, west – the city chose to move eastwards in the 1990s, across the Huangpu River, in the larger expanse the Pudong area. The result of the redevelopment of Pudong has led to a restructuring of the city's industrial heritage and urban form. The Huangpu River has become a focal point, with factories, shipyards and old warehouses being gradually replaced by public open spaces and other activities. The transformation of the waterfront is the key driver of the choice of location of the vast World EXPO 2010 site, closer to the city centre along the river banks.

Shanghai has always been an open city, ready to seize opportunities and allow its citizen to display their talent and creativity. This competitive tradition underlies its dynamic and progressive nature, an entrepreneurial spirit that sets it apart from other Chinese cities. But, as with any city that occupies a strategic global position, its future lies not only in the hands of its architects and policymakers, but in the national policy for growth and development.

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TRADING CITY FOR SPACE

Housing and urban neighbourhoods

Living conditions have steadily improved in Shanghai. Since 1990, housing space per capita has more than doubled to reach almost 15 square meters in 2003. Some improvements are also noticeable in the quality of the urban environment, with the area of urban parks and woods multiplying almost sevenfold, covering over 35% of the urbanised area of Shanghai. Despite these improvements in living conditions however, nearly half of households experience overcrowding, and a further 16% suffer from severe overcrowding.

As metropolitan growth continues, high-rise buildings fill the dense city centre and new towns are constructed along peripheral ring roads. Yet, in a pattern where concentration predominates over dispersal, close to half of Shanghai's population lives in an area smaller than 5% of its total land surface. Urban densities average slightly over 40,000 residents per square kilometre in the city's four core districts and reach a peak of 760 persons per hectare in Huangpu's central neighbourhood of Old West Gate, just south of the People's Square. It is interesting to note, however, that the structural densification of the city centre is occurring at the same time that population densities have decreased in this area, following development imperatives towards increasing the quantity of living space per resident.

Household size has been decreasing over time and small households now comprise a considerable proportion of the population. The massive changes to Shanghai's housing conditions have not been without social friction. Speculation in the housing market in both development and resale, mostly at the luxury end of market (symptomatic of increasing inequality in terms of housing

consumption) has prompted government actions to increase interest rates and discourage non-occupant ownership. Conflicts over development rights have flared at the city's periphery, where farmers seek to convert agricultural land into profitable housing for both migrant workers and the wealthy. In central neighbourhoods, policies of slum clearance and the accompanying displacement of residents to more suburban areas have been met by some community protest.

At the same time, new social structures, such as residents' management committees in high rise towers, are evolving to address the particular conditions of new housing typologies. The quality of life in Shanghai's high density neighbourhoods is now an issue to address, as are the impacts of densification and massive vertical growth on the physical tissue of the urban core. What factors lead residents to remain in the congested city centre rather than moving to modern suburban housing complexes? How does the provision of housing relate to Shanghai's employment sectors? While the creation of peripheral new towns may be the most efficient model of metropolitan growth, what alternatives might be considered, such as the expansion of the core by generating a high density belt around it?



LIVING WITH THE FUTURE

Public life and urban spaces

Shanghai is a city in flux where all that is solid seems to melt into air, or rather into concrete, steel, glass and ever more high-rise towers which add attention-demanding verticality to an already overloaded skyline. The towers, globally understood symbols of the city's ambitions, coexist uneasily with a certain nostalgia for the built forms of the city's colonial past. Tabula rasa developments on a huge scale transform entire sections of the city into new business districts at the same time that they make a point in preserving or recreating pockets of historic spaces. At the street level, the Shanghainese understand that their city is changing rapidly and many express unease about the disorientating pace of restructuring and the surreal spatial juxtapositions that it produces. In contrast to the apparent cohesion of the Mao years, the recent social transformation of Shanghai has resulted in a more diverse urban society where inequalities are as deep and the possibility for conflict as present as they were during the period of the international settlement. Expatriates from the Asia Pacific region and the West, highly educated overseas Chinese and a surfacing immigrant population engaged in some niches of the city's service economy, all contribute to an increasingly complex and disjointed social landscape. No other group challenges the social order of Shanghai as much as Chinese internal migrants from rural areas, a "floating population" approaching 5 million with limited rights and vulnerable livelihoods. Poverty, low educational levels and the stigma of crime hinder the possibilities of incorporating this population into the social fabric of Shanghai. Developing a harmonious society in the city

has become an official local public policy goal, one perhaps made more urgent by recent disturbances amongst disaffected migrant populations, and on the other hand, the central Chinese government's policy directing the city to continue absorbing rural migrants and turning them into urban citizens. Sharing responsibility for security in public spaces with the support of both institutions and local communities is nothing new for urban Chinese, schooled in a culture that emphasises a collective sense of responsibility and with the experience of decades of a tightly controlled social order. Nevertheless, these objectives may necessitate the broader cultivation of conditions and perceptions of "security" capable of engaging a wide range of the city's residents and a more profound understanding both of the nature of public spaces in a city in the midst of tidal change and of how these public spaces can contribute to a shared sense of community within the city.



FASTER BUT FURTHER

Mobility and transport

Transport is one of the most striking indicators of Shanghai's rapid pace of change. Borne out by the impressive statistics, it is the actual experience of movement in the public spaces of the city that makes one feel the enormity of the transformation. Walking among thousands of commuters at Shanghai's largest underground interchange under People's Square or attempting to cross a six-lane highway across the Bund to snatch a view of the esplanade, emphasises the sense of stress of a burgeoning city. In the ten years to 2000, the length of roads increased by 40 per cent, and the number of cars quadrupled to just over one million. Official predictions state that by 2020 Shanghai will have 2.5 million private cars, and that daily motor vehicle trips will increase to seven million compared to just over three million in 2000. Public transport provision will increasingly rely on Shanghai's rail system, which the city is planning to expand to 540 km in 2020. The metro system's current daily capacity of 1.4 million is predicted to reach 10 million in 2020.

Increasing levels of car ownership and the expanding car industry in Shanghai – regarded by China's economic planners as a key growth sector – will increasingly challenge the very essence of the city. Prosperity associated with employment in car manufacturing and its associated industries is a key driver of Shanghai's economic welfare. So are the improvements to the standard of living promised by quiet, comfortable homes away from the overcrowded and polluted central city. In comparison to other cities like London and Paris, Shanghai has an extremely low percentage of road space – literally, the amount of

tarmac – making it structurally incompatible for a city with a projected exponential growth in car traffic. Further-more, rising levels of car use would exacerbate increasing energy consumption, worsen pollution and add to traffic congestion. Hence, the heated debate in policy circles of whether precious farmland surrounding the city should be sacrificed to new roads and urban sprawl.

There is a risk that Shanghai's communities, already challenged by a widening income gap, could be faced with a lasting physical imprint of separation that will inhibit social cohesion. The city is also facing a familiar yet difficult choice in funding priorities, needing to decide between investing in more and more road and parking projects, or increasing spending on public transport. The newly rich and empowered car lobby is proactive in making its voice heard, arguing against car restrictions and taxes, that make it more difficult to manage urban mobility and the use of cars.

For the central area, where the growing number of vehicles is particularly problematic, two strategies are being followed. The first is to increase road density levels, mainly by constructing elevated highways. The second is to focus on improving the capacity of the existing network, mainly by separating different transport modes. Cycling, although banned on most main roads, is still vital. Today some nine million bicycles are owned by the Shanghainese, and are used for 30% of all trips. However, cycling is now viewed as a competitor to public transport, slowing down traffic and causing accidents. The city aims to reduce its share by 25% within the next five years. Walking is regarded as an integral part of Shanghai's transport system not only for short journeys but also as a feeder for public and private transport, and there are plans to expand the network of pedestrian streets

including the pedestrianisation of the Bund alongside the Huangpu River by building a tunnel to accommodate the existing six-lane highway.

The future of Shanghai's physical structure will not only be strongly influenced by its transport system, but also by the decisions made regarding density levels and mixed-use zoning. Reducing residential density levels within the inner city, and building beyond the edge of the city, is regarded as the key to increasing the amount of personal living space. A rigid zoning approach, which separates uses and dedicates large proportions of land – particularly for new developments – to discrete residential, office, industrial or service uses, will have a huge impact on mobility requirements. Over the last 10 years, the daily distance travelled by Shanghai residents has increased by 50%. The consequences of this land-use policy are already apparent: the original plan to build nine new satellite cities surrounding Shanghai – all of which would have to rely on rapid transit access – have been dramatically curtailed due to cost implications, and only three new towns are currently under construction.

Clearly, Shanghai's transport demands are not directly comparable to European or North American cities. Yet, it is intriguing to note that the private car, which most competes with public transport in cities like London, New York or Berlin, is seen in Shanghai as complementary to public transport, (particularly buses), and that "third means" – bicycles and motorbikes – are regarded as problematic and targeted for elimination. Quite a paradigm reversal from the current fashion for sustainable development in western cities.

AFTER THE SURGE

Labour markets and work places

After over a decade of double-digit economic growth, Shanghai's concerns about its future prosperity now relate to the city's capacity to innovate. Important challenges have resulted from the city's many successes in terms of economic development, attracting foreign investment, international trade, transformation of its built environment and upgrading of its urban infrastructure. These challenges require more complex planning processes and policy interventions than the formulas deployed so far. Shanghai now needs to assume a more defined economic identity and adopt a set of strategic priorities to guide its metropolitan development path. As the density of economic interactions has increased at multiple scales, making decisions about Shanghai's economic future also implies shaping its role in the Yangtze River

region, the People's Republic of China, the Asia Pacific and the wider world economy.

Strengthening its centrality at one level may pose negative consequences to the city's other roles – becoming a consolidated global city that is attractive to international investors and leading economic sectors may require different types of public investments and interventions than growing as China's industrial powerhouse and job generator for a rapidly urbanising population. A number of different questions arise from this dilemma. To what degree should policy makers attempt to strengthen the city's advanced services sector? How much effort should be put in to upgrading, modernising and expanding its manufacturing base? Are post-industrial New York and London the models to learn from, or will Shanghai be better off following broader base high-tech development strategies such as those of Tokyo and the city-regions of California. In broader terms, can Shanghai

learn from established urban models of economic growth and what lessons can it teach the urban world in terms of development expediency and urban restructuring at a breathtaking pace? What synergies can be fostered between the leading economic sectors of car production, semiconductors, petrochemicals, trade, finance and real estate and construction? How can planning steer property development – roughly half of all fixed capital investment in Shanghai – so that it supports rather than crowds out the city's manufacturing base?

Further questions arise about the relationship between urban development and physical planning in the unique context of Shanghai's urban form and pressure for growth. What is the right territorial balance between Shanghai's suburban industrial parks and development zones, its premium business and commercial districts and the increasingly visible creative industries in the

revitalised inner core? What considerations need to be taken in the design of the differentiated workplaces that these industries require? How will these workplaces be integrated to the living spaces of the workforce and the everyday lives of people in Shanghai? What is the social life of Shanghai's multiplying high-rise office towers? What investment, design, planning and tenancy regulations, decisions, agreements and negotiations have shaped their existence? In what symbolic and functional ways does this most ubiquitous workplace of contemporary Shanghai shape and confer meaning to the businesses and livelihoods that it hosts?



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