



New Urban China

Architectural Design

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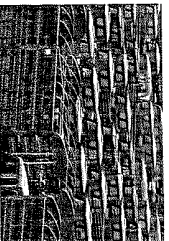
Guest-edited by Laurence Liauw

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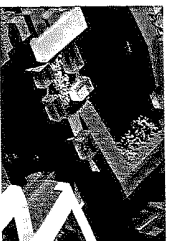
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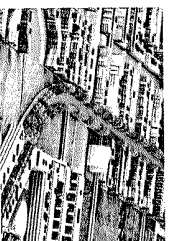
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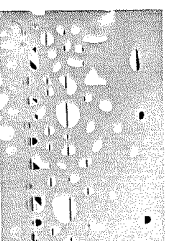
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Introduction

'Leaping Forward, Getting Rich Gloriously, and Letting a Hundred Cities Bloom',¹

By Laurence Liauw



China's rapid urbanisation is mirrored by Shenzhen city's genesis and growth around the border area (with Hong Kong) of Lohu, a group of fishing villages of little more than 30,000 people in the late 1970s to today's population of more than 12 million.

The urbanisation of the Pearl River Delta (the fastest in China) has been driven primarily by the development of mono-type 'factory towns' catering for products 'Made in China'. These factory towns house mainly migrant workers, and follow a repetitive pattern of self-organised urban development and generic buildings.



Deng Xiaoping, the late leader of the Communist Party of China, during his landmark visit to Shenzhen SEZ in 1982. Here he is shown with other officials inspecting the new masterplan for Shenzhen that was to trigger rapid urbanisation for the next seven years.



Full Speed Ahead in the South

This year marks the thirtieth anniversary of market-oriented economic reform in China, which has resulted in urbanisation on a massive scale: the urbanisation rate rising from 20 per cent in 1980 to currently over 44 per cent, with more than 400 million people moving to cities from rural areas.² The process was kick-started in 1978 by Deng Xiaoping's Open Door Policy, which committed China to adopting policies that promoted foreign trade and economic investment. It was launched during his first tour of Southern China, and resulted in five Special Economic Zones (SEZs) being established between 1980 and 1984 at: Shantou, Shenzhen and Zhuhai in the coastal region of Guangdong Province; Xiamen on the coast in Fujian Province; and the entire island province of Hainan. These SEZ cities in the Pearl River Delta (PRD) have become arguably China's greatest contemporary urban invention, achieving rapid economic growth with GDP of over 13 per cent per annum since 1996.³

The booming transformation of cities has totally reconfigured the nation's metropolises and the urban life of its people.

Shenzhen, which is on the Southern China coast adjacent to Hong Kong, was the prototype SEZ. It acted as an urban laboratory, far enough from Beijing to either succeed or fail. A tabula rasa, it grew from scratch: a mere group of fishing villages of 30,000 people in the late 1970s, its population has increased 400-fold since the 1980s.⁴ The chaotic urbanisation of the PRD, Southern China's factory belt, was first introduced to Western audiences as a cluster of 'cities of exacerbated differences' (COEDs) by Rem Koolhaas in his 2001 book *Great Leap Forward*,⁵ which was based on fieldwork undertaken with Harvard Graduate School of Design students in 1996 (see pp 60–3, Zhi Wenjun and Liu Yuyang, 'Post-Event Cities'; and pp 98–81, Doreen Heng Liu, 'After the Pearl River Delta: Exporting the PRD – A View from the Ground').

The PRD has since become a role model for major regional developments elsewhere in China, most notably areas such as the Yangtze River Delta around Shanghai and the Bohai Bay region around Beijing and Tianjin.

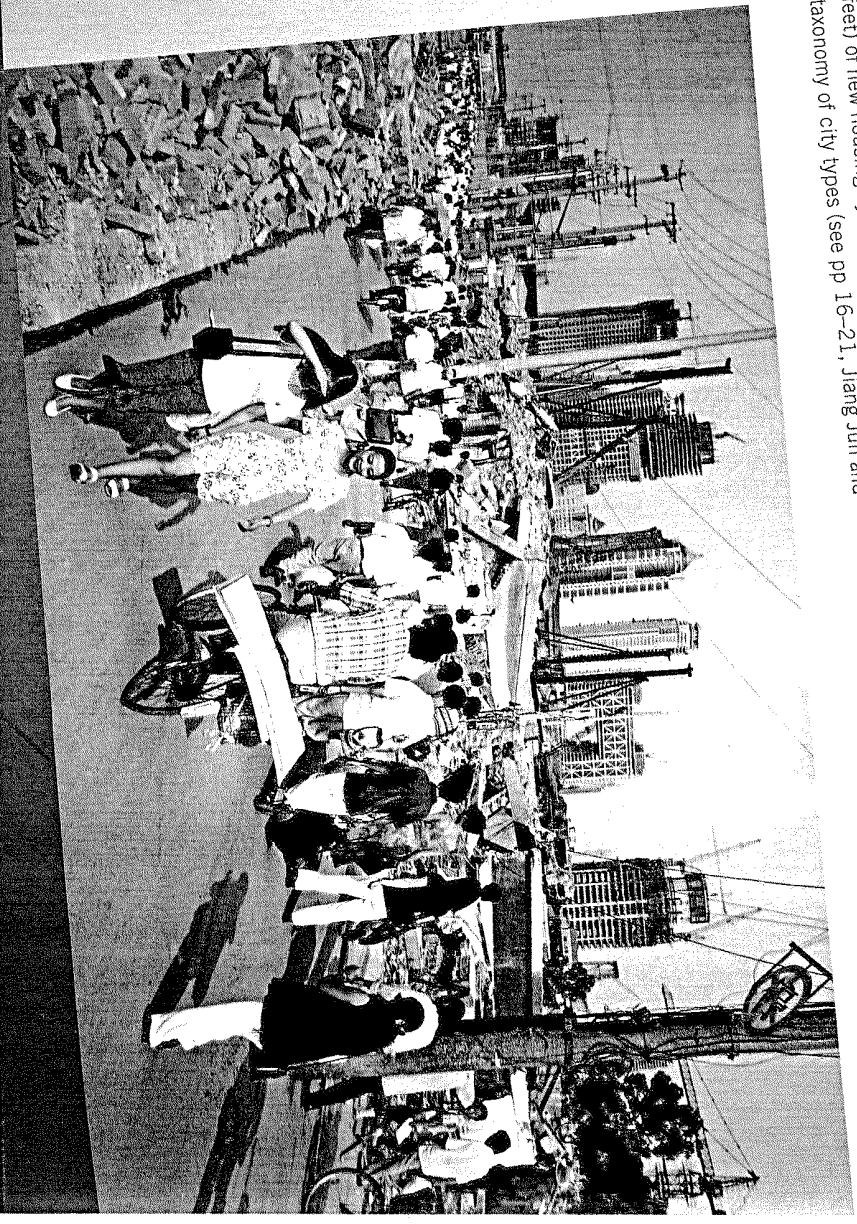
This euphoria for industry-driven urbanisation has recently spilled over into countries outside China, such as India, Africa, Vietnam and Russia (see pp 74–7, Laurence Liauw, 'Exporting China'). Certain political road bumps such as the 1989 student protests tempered China's march for economic reform and urbanisation, but Deng again ignited another sustained construction boom with his second tour of Southern China in 1992, coupled this time with sweeping changes in land reforms and a budding real-estate market (see pp 22–5 and pp 32–5, Sun Shiwen, 'The Institutional and Political Background to Chinese Urbanisation', and Zhang Jie, 'Urbanisation in China in the Age of Reform').

With the growth of urban wealth, 'Made in China for export' has become 'Made in China from elsewhere', with products being produced abroad for domestic consumption in China, especially in terms of the production of urban space, assemblage of raw materials and consumption of energy (see pp 72–3, Kyong Park, 'The End of Capitalist Utopia?'). The scale and speed of new urban China's construction boom has been widely documented in terms of its spectacular magnitude and architectural variety – according to the Ministry of Construction, China plans to build 2 billion square metres (21.5 billion square feet) each year (half that of the world total), is already using up to 26 per cent of the world's crude steel and 47 per cent of its cement,⁶ and will have built 80 billion square metres (861.1 square feet) of new housing by 2010.⁷ Jiang Jun's general taxonomy of city types (see pp 16–21, Jiang Jun and

Kuang Xiaoming, 'The Taxonomy of Contemporary Chinese Cities (We Make Cities: A Sampling)') reveals the sociocultural side effects of urbanisation on various sectors of Chinese society and the type of urban processes that actually determine the physical manifestation of the majority of cities.

'Destroy the Old to Establish the New'

Chairman Mao's famous political slogan of 1966 during the Cultural Revolution, urging China to rapidly industrialise, is now being re-enacted literally in a very different guise in this era of market reforms that has spawned hundreds of new Chinese cities. Since 1998, another revolution has been taking place in which 'commodified' private housing for the masses has been replacing state-subsidised housing provided by work units, paralleled in commercial sectors by the decline in state-owned industries and the rise of privately owned manufacturing. Since the early 1990s, sweeping economic and land reforms have triggered one of the biggest real-estate booms in history: according to recent surveys by the Sohu.com website, real estate has become the most profitable industry in China with more than RMB2.5 trillion currently invested. Cities already account for 75 per cent of China's GDP and this is expected rise to 90 per cent by 2025⁸ (see also pp 20–5, Sun Shiwen, and pp 26–31, Huang Weiwen, 'Urbanisation in Contemporary China Observed: Dramatic Changes and Disruptions'), determining much of the new physical appearance of China's major cities with both generic and spectacular archiving. Typically architecture is produced either via direct commissions for standard generic buildings or through international design competitions for iconic buildings.



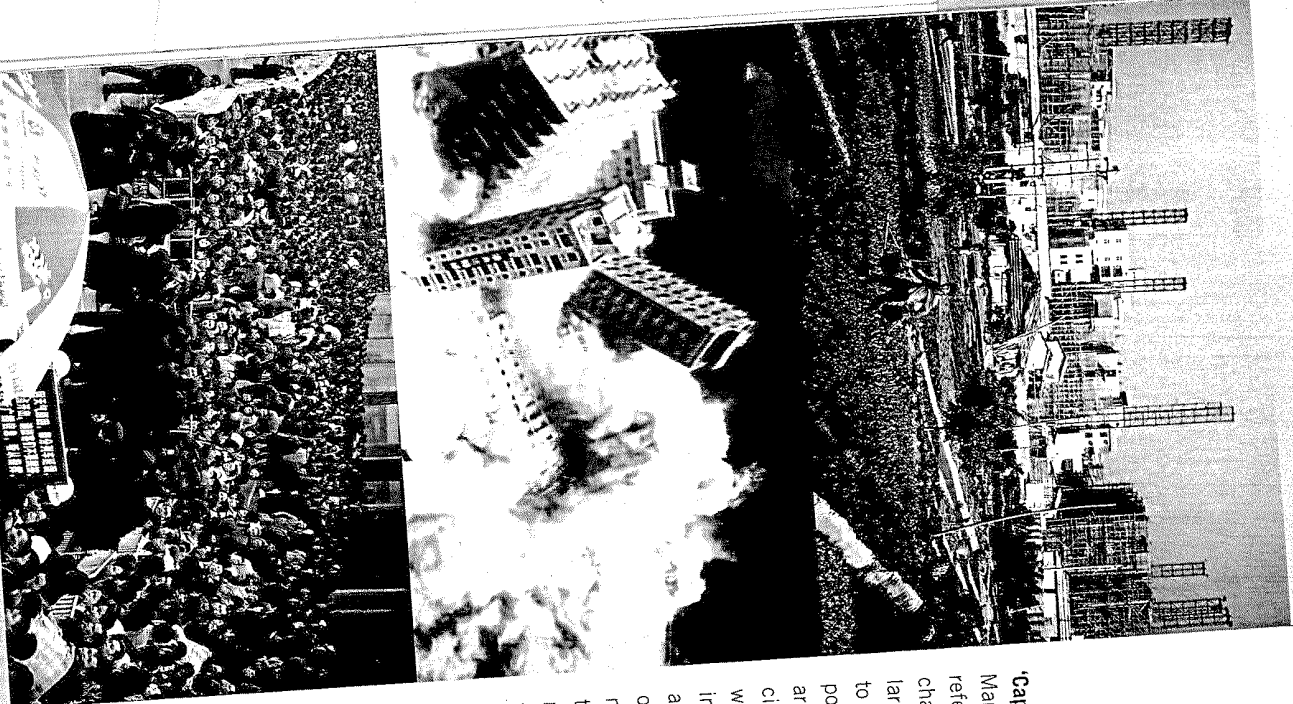
Compared to the newly built commerce- and manufacturing-based towns, mature historical cities that have an older urban fabric are not faring so well. They are rapidly being destroyed on a large scale to make way for new developments. This erasure of entire sections of cities such as Beijing, where varying reports of anything between 300,000 and 1.5 million people have been displaced for the 2008 Olympics,⁹ and Shanghai in preparation for the 2010 World Expo,¹⁰ is also driven by profitable generic developments yielding tax income to the authorities (see pp 22–5, Sun Shuwen). McKinsey Global Institute estimates that over the past decade land sales have contributed to more than 60 per cent of some Chinese cities' annual income.¹⁰ Rocketing land prices have prompted urban renewal and the destruction of the vernacular building fabric, which is often several hundreds of years old, while also causing the mass displacement of established communities from their natural habitats to new suburban areas. The effects of this brutal displacement have been compounded by eviction and insufficient compensation, triggering much social unrest, as witnessed typically by the persistent existence of 'nail houses' on demolition sites where occupiers are resisting relocation (see pp 44–7, Wang Jun, 'The "People's City"'). Destruction of old communities and a tight-knit urban fabric call into question the nature and effectiveness of the newly created public spaces that have replaced traditional streets in Chinese cities, raising the question as to their long-term contribution to People's Cities (see pp 48–51, Shi Jian, 'Street Life and the "People's City"').

Chairman Mao's famous 1966 slogan 'Destroy the old to establish the new' is being re-enacted literally in a different guise as entire historic neighbourhoods (such as Pudong, shown here) are totally erased to be replaced by new commercial developments. Slow infrastructure development means that citizens often have to walk to work through wastelands and construction sites.

Destruction of old communities and a tight-knit urban fabric call into question the nature and effectiveness of the newly created public spaces that have replaced traditional streets in Chinese cities, raising the question as to their long-term contribution to People's Cities.



The rapid transformation of major cities such as Shanghai (top image) means the vernacular building fabric coexists alongside new generic globalised towers in a seemingly chaotic agglomeration. In Beijing (bottom image), many *hutongs* (narrow lanes lined with traditional courtyard houses) have been demolished for redevelopment, displacing local communities ahead of the Olympics and the vision of a 'New Beijing'.



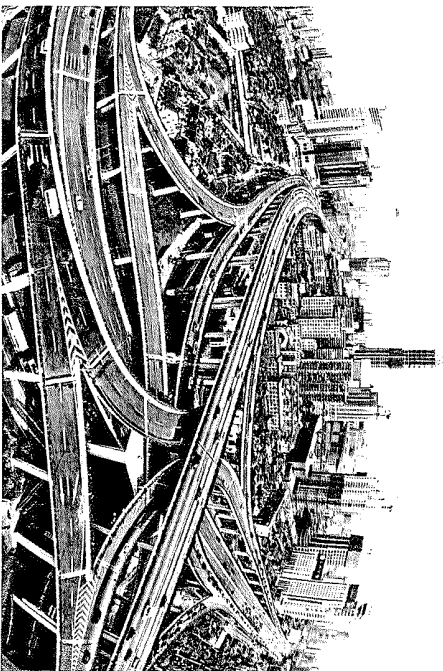
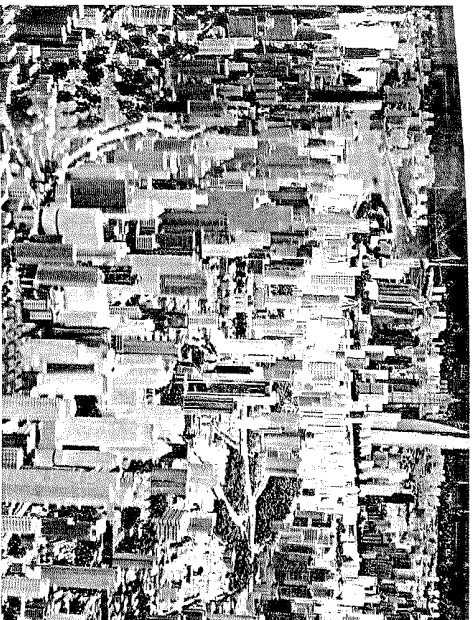
Urban villages (previously farmland) spring up within cities as high-density settlements that attract migrant workers. In 2005 the local authorities demolished one of Shenzhen's 192 urban villages (shown here). Social displacement remains a serious challenge for society, as witnessed during the 2008 snowstorms that created huge bottlenecks at many train stations (such as in Guangzhou, shown here).

Many major cities now have impressive urban-planning exhibition centres showing huge-scale models of the entire city. Their ambition and surreal quality is matched only by the constantly changing 'real' model outside, which sometimes resembles a dystopian vision of instant urbanisation on steroids. Thus the reality of city development often changes faster than the show model can be adjusted.

'Capitalism with Chinese Characteristics' and the 'New Socialist Village'

Market-oriented economics under communist rule is commonly referred to by politicians and economists as 'Capitalism with Chinese characteristics'. This paradoxical model of the Planned Economy has largely been responsible for instigating the mass migration of villagers to cities and towns seeking work and higher wages. A 'floating population' of up to 150 million migrant workers¹¹ is now moving around China without gaining *hukou* (household resident) status in the cities that they live in (see pp 26–31, Huang Weiwen). These migrant workers are largely employed in the manufacturing and construction industries. As the human force behind the urbanisation process they are its powerhouse, as well as its essential side effect. In the hundreds of factory towns scattered around China's developing regions, swelling migrant workers form an itinerant urban population and economy all of their own, in populations sometimes totalling a million people. China now has more than 166 cities with populations of at least a million, while the US has only nine such cities.¹²

In and around the city, existing farmland and villages have been replaced by areas that have become increasingly high density as farmers have used their land rights to become unlicensed property 'developers' building urbanised 'villages in the City' (VICs) to accommodate incoming migrants (see pp 52–5, Yushi Uehara, 'Unknown Urbanity: Towards the Village in the City'). The VIC phenomenon has presented a social and planning challenge to the authorities. Though the footprints of the 'villages' tend to be small in terms of the city as a whole, their social impact can be enormous. Where VICs have been relocated to make way for new developments, providing housing for the migrant workers has become a particular problem as few have resident status and are not therefore eligible for social welfare benefits and public housing. The architectural practice URBANUS has conducted four studies of different VICs in Shenzhen, which has 192 VICs in total. These represent individual design proposals and a new housing type for low-income workers, which is economic in its construction while also providing social amenities that are reminiscent of the 1950s People's Communes (see pp 56–9, Meng Yan, 'Urban Villages'). So much tension exists in this urban context where there is often conflict between the drive to gentrify old districts and the need to accommodate migrant rural communities that inhabit the city without resident status or social welfare benefits. In 2005 central government attempted to address the widening income gap of 1:4 between rural and urban populations¹³ by launching sympathetic policies proposing the building of 'New Socialist Villages' in rural areas to improve the existing social and physical infrastructure (see p 96, Sun Shiwen, Chronology).

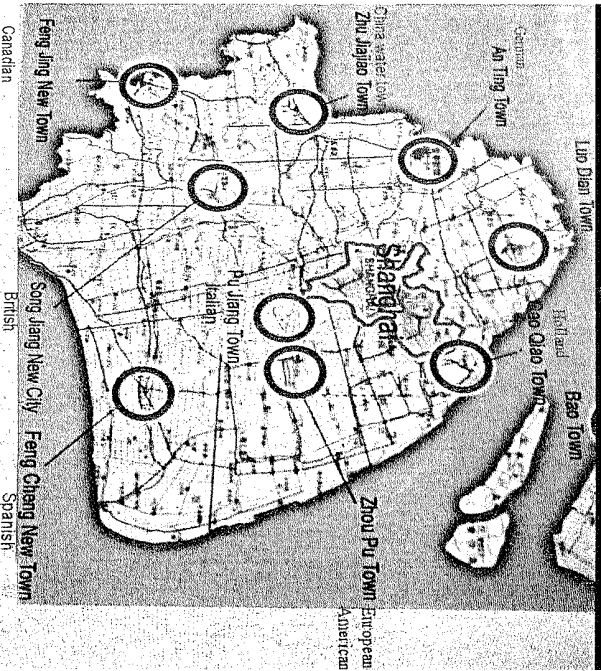


Utopian Dreams and a Society of the Spectacle

In his article 'Leaving Utopian China' (pp 36-9), Zhou Rong points out that since the classical cities of ancient times Chinese society has been plagued by the desire to model itself on utopian ideals. This impulse extends itself to contemporary cities that are modelled on generic digital PowerPoint visualisations dressed up for marketing and political gain. In some places, these visions have manifested themselves in large-scale architectural models of an entire city, housed in impressive planning exhibition centres. The models themselves, however, cannot keep up with the reality outside on the construction site, which is changing faster than the show model can be adapted or modified.

The utopian urban model and city reality have a mutual effect, contributing to the creation of 'instant cities' that are either built on razed grounds or from scratch on agricultural land. Neville Mars conversely argues for the role of utopian dreams in the 'Chinese dream' (see pp 40-3, Neville Mars 'The Chinese City, A Self-Contained Utopia'), although he is also critical of these ambitions to fully urbanise in a single generation. He regards urbanisation itself as a utopian goal, and the new Chinese city as a utopian dream to rebuild society, as illustrated by central government's target to build 400 more cities by 2020 to achieve an urbanisation rate of 60 per cent from the current 44 per cent.¹⁴

The domestic consumption boom in major cities (for example, in Shanghai's Nanjing Road, shown centre) has spawned new variations of 'Chinese contemporary living' and imitations of imported models of living environments and architectural styles. Shanghai's infamous 'one city nine towns' urban policy has resulted in the building of many culturally dislocated suburban 'themed towns'.

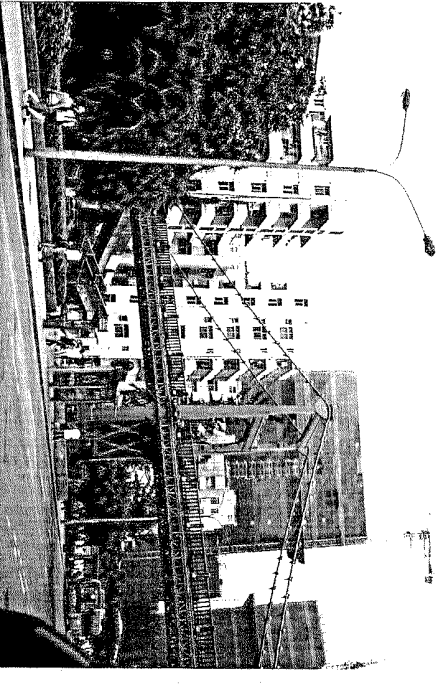
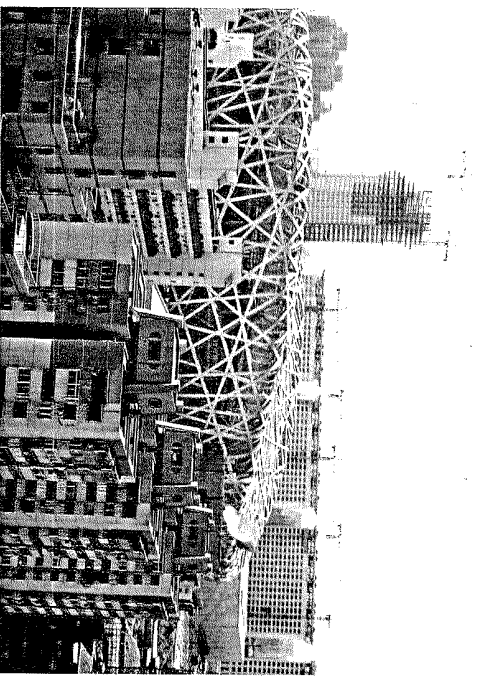


Mars also laments the unsustainability of building and destroying cities every generation with shifting political movements. The new middle-class workers now have new residential lifestyle aspirations – the most notorious being Shanghai's 'one city nine towns' development – whether it is living in mixed-use Central Business Districts (CBDs) or European-themed suburban villas connected by high-speed bullet trains. These emerging patterns of urban consumption indicate just how effective surreal fantasies and mass spectacle have become as marketing tools for selling generic architecture. However, they also represent a deeper-rooted 'coming out' of Chinese urban pride that demands ever more spectacular and different architectural designs. Event-city spectacles, such as the Olympic facilities in Beijing and entire themed towns, may have a lasting effect in raising the standards of design and construction locally, but they also often have a limited shelf life, and require more sustainable architectural design solutions. Should China's 'society of the spectacle' be viewing such fantastic and sometimes surreal urban interventions as culturally misaligned or heroic? Or should we be regarding them as the West's secret desire to export its urban fantasies abroad, when they are unable to fulfill them at home?

Resources, Expiry and Sustainable Futures

Global institutions such as the United Nations, World Health Organization and World Bank have published statistics on China's urban environmental damage and consumption patterns that point towards looming ecological disasters and energy shortages. Sixteen of the 20 most polluted cities in the world are now in China. By 2020 the country is expected to be the world's largest oil consumer; it is already one of the largest consumers of water and also the largest waste generator.¹⁵ China faces insurmountable challenges that require a paradigm shift in the way it builds its cities and consumes energy as urbanised populations are sure to grow in scale and proportion of available land (see pp 72–3, Kyong Park). Signs of China's recent commitment have been demonstrated in the 2003 comprehensive sustainable development policies launched by the State Development and Reform Commission (following Beijing's pledge in 2001 to host a greener Olympics) and the setting up of the Ministry of Environmental Protection at the 2008 National People's Congress (NPC) as one of the five new 'Super Ministries'.

China has since begun to experiment with some of the most advanced ideas in sustainable design, such as Arup's near zero-carbon emission eco-city of Dongtan, near Shanghai (see pp 64–9, Helen Castle, 'Dongtan, China's Flagship Eco-city: An interview with Peter Head of



Urban spectacles in China are symbols of power and status, as well as being tourist attractions. Beijing has created an original spectacular architecture with its 'Bird's Nest' Olympic Stadium. And in Shenzhen we find surreal urban spectacles such as a scaled-down San Francisco Golden Gate Bridge among luxury residences next to replicas of world monuments.

techne city?

Arup). Another radical new city under planning and construction is Guangming New City (the Chinese name translates as 'radiant'), spearheaded by the Shenzhen Planning Bureau as a 'new radiant city' for China pushing experimental planning concepts, sustainable design and high-technology development.¹⁶ The Danish-Chinese collaboration on sustainable urban development in China entitled 'Co-Evolution' won the Pavilion prize at the 2006 Venice Biennale where the project was exhibited.¹⁷ However, the above efforts at sustainable environments do not yet deal with the problem of the inevitable expiry of a multitude of mono-type factory towns,¹⁸ especially in the PRD where production costs are rising and low-end manufacturing is not economically sustainable.

The possibility of the mass exodus of millions of migrant workers who have contributed to the development and wealth of these cities is a cause for serious concern among planning authorities, requiring them to rethink the inflexible generic designs that currently proliferate in such towns. Four future urban

models could be speculated here for urban China's future cities: the CCTV Headquarters designed by Rem Koolhaas, and 20 high-rise towers and three villas designed by Riken Yamamoto for the Jianwai SOHO residential business district, both in Beijing. These large-scale iconic structures accommodate self-contained, 24-hour globalised communities. Guangming New City shows how high-density living can be combined with environmental development. Songgan's new masterplan proposal by CUHK Urbanisation Studio (a project led by Laurence Lauw)¹⁹ attempts to resist the expiry of a typical PRD factory town through typological transformations. URBANUS' radical adaptation of a vernacular housing type from Fujian Province similarly accommodates changes in use, providing low-cost social housing for migrant workers.

The 2008 earthquake tragedy in Sichuan Province, and devastating spring snowstorms over the new year, have also created widespread destruction and the need to rebuild hundreds of thousands of buildings and public infrastructure. This coming challenge offers a chance for authorities to rethink their planning strategies for affected communities in order to provide safer construction with better environmental control and improved infrastructure in case of natural disasters.



“全球500佳”环境论坛 GLOBAL 500 ENVIRONMENTAL FORUM



June 5, 2002
Shenzhen, China

环境保护 “全球500佳”

As new development in Chinese cities requires almost endless quantities of building materials and natural resources, China has begun to experiment with sustainable design approaches and materials recycling (top image). In response to central government's introduction of sustainable development policies, Shenzhen city organised the 'Global 500 Environmental Forum' in 2002 (bottom image).

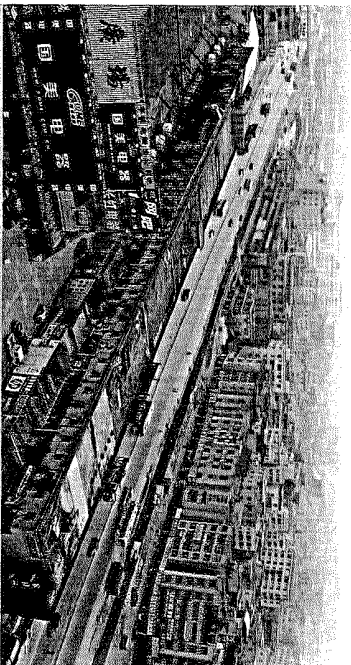
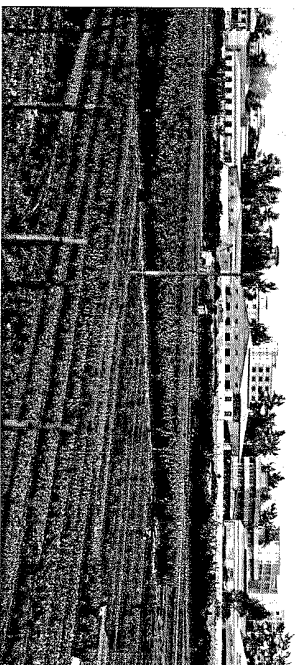
After China: Exporting China

Despite China's urban prosperity today, some critics have been asking 'What happens After China?'... India, Russia, Vietnam, Mexico?²⁰ Three tenets of Chinese cities – industrialisation, modernisation and urbanisation – can either happen in sequence as in the West, or sometimes overlap in time. Globalisation of world cities has meant that capital moves freely and rapidly around the world seeking returns on investment that could be insensitive to local politics and culture. It is worth asking now some critical questions of China's seemingly unstoppable urban expansion and gradual exporting of the effects of this urbanisation to other countries (see pp 70–81, Kyong Park, Laurence Liauw and Doreen Heng Liu, 'After China, the World?'). Will the major players in China's booming cities start to operate beyond its borders? Will the Chinese process and pattern of urbanisation, especially SEZs, be repeated in other developing countries? Will global capital merely bring with it generic forms of urbanism that are tailored to China and re-exported as urban products, but not culture? Will the Chinese urbanisation machine eventually run out of steam and be forced to export its excess production capacity overseas like factories do? Is the Planned Economy and SEZs built from zero a unique Chinese model that could be applied elsewhere in a different culture? Does utopian urban ambition care about the future sustainability of society, and if not then how will one generation's Utopia become another's burden? If the world is showing some signs of Sinofication while China is being globalised, then how will China generate its own urban culture to become an empire of ideas again? Could the new Chinese urban taxonomies proposed by Jiang Jun²¹ (see also pp 16–21) spawn hybrids and interactions in other urban cultures in years to come? Could the informal urbanism that characterises China today eventually become a cultural diaspora like that of Chinese migrants working both within and outside their own country? Doreen Heng Liu (see pp 18–81) takes us back to the 'generic cities' of the PRD²² where it all started 30 years ago, claiming that Deng Xiaoping could be China's 'New Urbanist'. She suggests that it is the fearless 'ideology' of the PRD with its scenarios of expiry and rebirth that is the truly exportable urban concept, but only if this product of the new city becomes cultivated. (This theme was recently investigated in the Ma Qingyun-curated 2007 Shenzhen Biennale of Architecture and Urbanism, 'COER' – as city of expiry and regeneration.)²³ Thus the main essays of this issue of *AD* end where new urban China started – in Southern China's Pearl River Delta – where an open lab of urban experimentation over the past 30 years has brought about China's 'real leap forward' and allowed 'a hundred cities to bloom'. ▽

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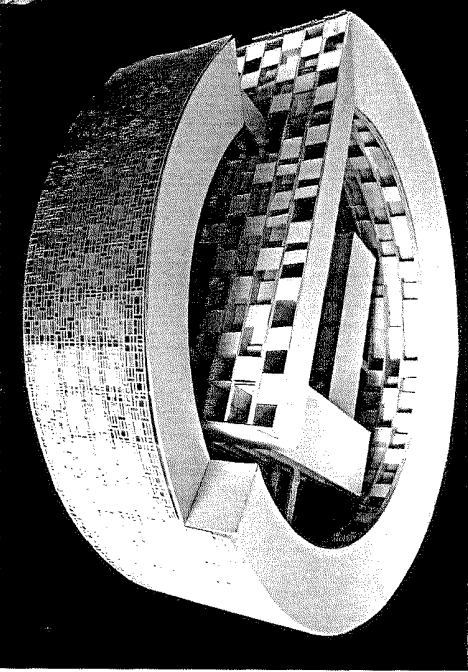
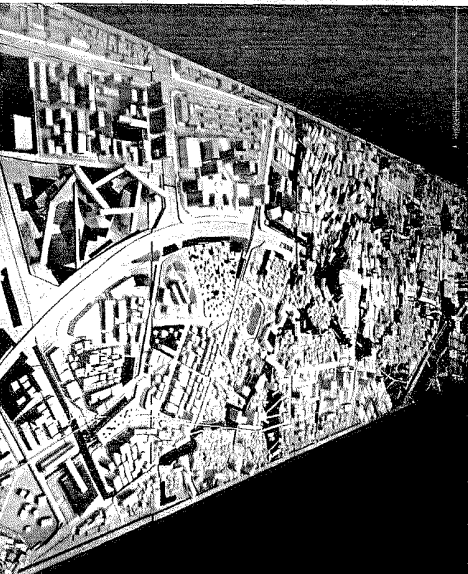
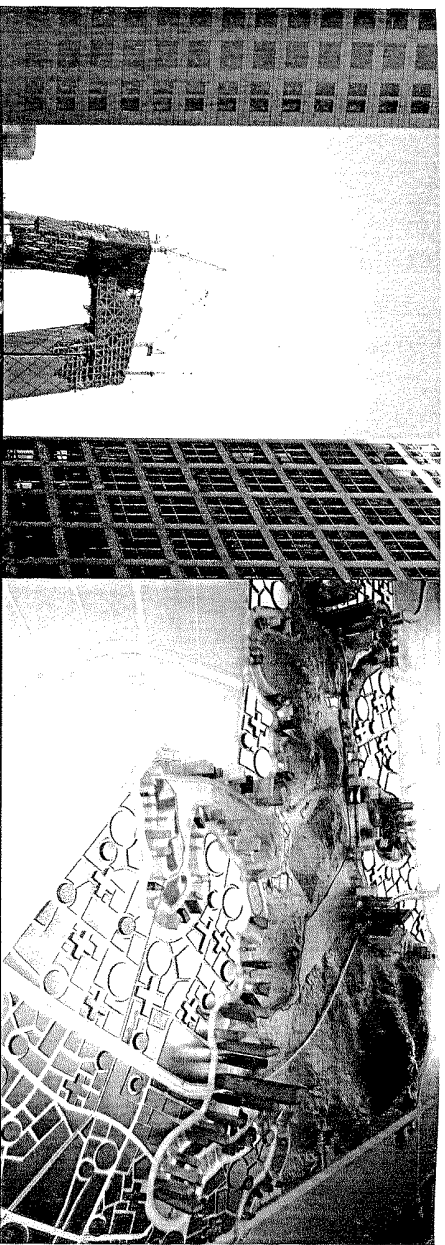
It is conceivable that future Chinese cities could develop in four possible directions.

Top left: Rem Koolhaas' CCTV Headquarters and Riken Yamamoto's proposal for the Jianwai SOHO residential business district, both in Beijing, represent contemporary approaches to transforming iconic structures into self-contained, 24-hour globalised communities. Top right: The Guangming New City proposal by architects MVRDV shows how high-density living can be combined with sustainable environmental development. Bottom left: Songgan town's new 2015 masterplan proposal by CUNHK resists the future extinction of mono-type factory towns via design flexibility and typological transformation of the urban plan. Bottom right: URBANUS' adaptation of a vernacular housing type from Fujian Province mutates into low-cost housing that provides basic accommodation for migrant workers and mixed-use public amenities within the compound.



Farmland in the Pearl River Delta sits among an urbanised landscape of factories and urban villages that eventually become towns of up to a million people.

Numerous PRD factory towns (such as Songgan, shown here) specialise in a single or just a few manufactured products, causing serious environmental pollution. As rising wages cause a decline in the competitiveness of PRD industries, the survival of these Southern China boom towns is now under threat.



Notes

1. Political slogans from leaders in China determine official policies even before they are drafted as law. *Great Leap Forward* was one of Chairman Mao's policies in the 1950s to overtake Western countries in terms of national production output. 'To get rich is glorious' was Deng Xiaoping's mantra in 1978 launching economic reforms, and 'Let a hundred flowers bloom' (flowers modified to cities in this article) was Chairman Mao's philosophy that promoted progress and diverse schools of thought in the 1950s.
2. Danish Architecture Centre (curators), *Co-Evolution*, Danish Architecture Centre publication for 10th Venice Architecture Biennale, 2006; Worldwatch Institute Report, 2006 (www.worldwatch.org/pubs/sow/2006/), UNDP, WHO, World Bank statistics 2004, 2005, 2006.
3. Anthony Yeh et al (eds), *Developing a Competitive Pearl River Delta*, Hong Kong University Press, 2006.
4. Laurence Liuw, 'Shenzhen City Focus', *World Architecture*, October 1998.
5. Rem Koolhaas, 'Introduction', in Chuliana Judy Chung, Jeffrey Inaba, Rem Koolhaas and Sze Tsung Leong (eds), *Great Leap Forward: Harvard Design School Project on the City*, Taschen GmbH, 2001.
6. Danish Architecture Centre op cit.
7. Caijing Annual Edition, *China 2008 Forecasts and Strategies*, Caijing Magazine, pp 18–20, 115–16, 120–21, 124–25, 164–67. See also Lauren Parker and Zhang Hongxing (eds), *China Design Now*, V&A Publishing, 2008.
8. D Farrell, J Devan and J Woetzel, 'Where Big is Best', *Newsweek Magazine*, 26 May–2 June 2008, pp 45–6 (reference to McKinsey Global Institute).
9. See http://www.opendemocracy.net/arts-photography/huotong_destruction_3632.jsp and www.jit.com/articles/2007/08/03/news/beijing.php.
10. Farrell, Devan and Woetzel op cit.
11. Ole Bouman (ed), in *Volume 8: Ubiquitous China*, *Archis*, No 2, 2006.
12. *Ibid*.
13. *National Geographic Atlas of China*, 2008.
14. Neville Mars, in *Cities from Zero*, AA Publications, 2006, pp 105–12.
15. Danish Architecture Centre op cit.
16. Guangming New City International Competition documents, Shenzhen Planning Bureau, 2007.
17. Danish Architecture Centre op cit.
18. *National Geographic – Chinese Edition*, May 2008, pp 176–80 (reference by Peter Hessler on the genesis of China's factory towns).
19. Laurence Liuw with CUHK Urbanization Studio, Post-Industrial Urbanism: PRD Factory Town, exhibited at the Shenzhen Biennale of Architecture & Urbanism, 2007.
20. 'Exporting China Symposium at Columbia University Graduate School of Architecture and Planning, with Mark Wigley, Yung Ho Chang, Ma Qingyun, Akbar Abbas and Doreen Liu, 16 Feb 2008. The contents of this article do not make any direct reference to the forum contents, although some of the themes investigated may overlap.
21. Jiang Jun (ed), 'We Make Cities', *Urban China* magazine, Issue 04, 2005.
22. Rem Koolhaas, 'Pearl River Delta/10 Years Later', *Urban China* magazine, Issue 13, 2006, pp 14, 118.
23. 2nd Shenzhen Biennale of Architecture & Urbanism, 2007. See <http://www.szkhbiennale.org/2007/eng>.

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