

Chapter Four

Beijing: Socialist Chinese Capital and New World City

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Beijing in 1949, the year in which the new China was established, was a dilapidated old city, with a population of less than 2.1 million. By 2008, the city of Beijing had a population of more than 12 million (UN Habitat, 2010) and was at the heart of a modern metropolis of over 20 million people. Beijing is now one of the most exciting and dynamic cities on earth. The recent transformation of Beijing, from a drab, dull and austere production city to a city of hi-tech manufacturing, service provision and mass consumption, has been breathless in its speed and scope. Beijing is now the socialist capital of a modern China that is increasingly self-confident and assertive and is also becoming a new world city, engaged at a global level. The drive to build at such a rate and scale can lead to social, environmental, cultural and governmental problems, however, and planning must adapt and change in order to keep up with the new challenges of the twenty-first century.

This chapter examines the following broad themes: traditional Beijing's urban development; planning and urban development under socialism, from Mao to Deng; changes to urban internal spatial structure during the reform period since the late 1970s; Beijing's progress towards world city status; and contemporary urban challenges and prospects. Illustrations have been used extensively throughout the chapter to demonstrate Beijing's growth and transformation and how in the last two decades striking new architecture has changed the city's skyline.

Traditional Beijing's Urban Development

Beijing has 3,000 years of history as a city, and was for 800 years the capital under the

Liao, Jin, Yuan, Ming and Qing dynasties. Kublai Khan established the city of Dadu as capital of the whole of China in 1283. In 1420 the Ming Emperor Zhu Di renamed it Beijing ('Northern Capital'). There was an extension to the south in 1553. The form of the city, defined by its main north-south axis and the line of its city walls, has endured since then (see figure 4.1), surviving the 1911 Republican Revolution, the founding of the People's Republic in 1949, and the Cultural Revolution of the 1960s and 1970s. This historical form is now bounded by the Second Ring Road, within which surviving elements of old Beijing include the palace at the centre, the surrounding parks, lakes and temples, areas of old urban fabric with *hutong* alleys and courtyard houses, parts of two city gates and some very small sections of the city walls.

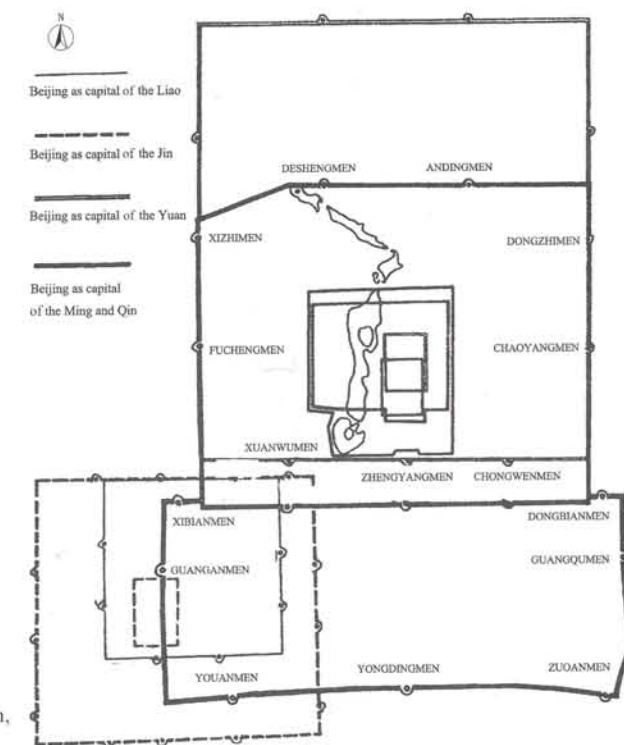


Figure 4.1. Beijing as capital of the Liao, Jin, Yuan, Ming and Qing dynasties.

At the time of Marco Polo's visit to Dadu in the late thirteenth century, the city had already become part of a process that, with hindsight, can be characterized as embryonic globalization, for goods were transhipped over vast distances along the Silk Road to and from the West, as well as north-south via the Grand Canal, completed in 1293 (Cook, 2006). The Forbidden or Palace City was constructed during this period, and was then rebuilt by the Ming (1368–1644) at the nearby location where it remains to this day. The Forbidden City formed the core of the Imperial City. It was built on a grand scale over a 14 year period, employing a million labourers and 100,000

craftsmen (Beijing Foreign Cultural Exchanges Service Center, 1997). Cosmological principles underpinned the grid layout of the Imperial City (Sit, 1996; Wheatley, 1971). High walls separated the Forbidden City from the remainder of the Imperial City, with residential quarters spread across fifty wards around the Palace. There was also an outer city to the south for the Beijing populace (Gu *et al.*, 2006). The Manchu or Qing dynasty (1644–1911) retained the Forbidden City as it was but introduced ethnic segregation to Beijing. The Manchus occupied the Imperial City but the Han Chinese were largely excluded until the late nineteenth century. Beyond the Imperial City there was poverty, overcrowding and the hustle and bustle of everyday life. Within the Imperial City was a life of ease and luxury, linked to the fortunes of the Court in the Forbidden City.

Because the Ming and Qing dynasties largely closed their borders to trade and commerce with other nations, Beijing lost its early global role and functioned mainly as a trading centre for the population of the surrounding North China Plain. Western influence increased in the nineteenth century, however, following the Opium Wars and the 'Boxer' rebellion of 1900. With the dawn of the twentieth century, ideas of a substantial change in China's political and social circumstances began to take shape under the influence firstly of the Constitutional Movement and then of the revolutionary sentiments which culminated in the birth of the Republic of China under Sun Yat-sen in 1911. Modern town and country planning ideas reached China from Europe at about this time and remnants of the Western architectural influences of this period can still be seen in the churches, cathedrals and railway stations which survive as contrasting morphologies, hidden among the grand modern and post-modern structures of more recent times. Pressures for change were great during this period as the decaying Qing dynasty finally crumbled and, in the early years of the new Republic, the ancient traditional culture was shaken by further reform movements – the New Culture Movement of 1917 and the Fourth of May Movement of 1919, for example, both of which sought modernization along Western lines. This process was tempered, however, by the desire to reinforce a sense of national identity in this young, immense Republic, and a traditional-nationalist reaction emerged, aiming to 'search for a synthesis between Chinese and Western cultures that would be distinctively Chinese' (Zhu, 2009). A powerful expression of this was the New Life Movement, established by Chiang Kai-shek who succeeded Sun Yat-sen as leader of the *Guomindang*, the Republic's main political party, in 1925. One of Chiang Kai-shek's first politically important decisions was to move the national capital back to Nanjing in 1927. Beijing was renamed Beiping (City of Heavenly Peace), as it had been at various times in its past. The loss of its status as capital, and the absence of commercial activities due to the lack of foreign concessions or a port, retarded Beijing's development and it remained largely static in size, confined within the ancient walls. Morphologically, as Gu *et al.* (2006, p. 258), citing Sit (1995), note:

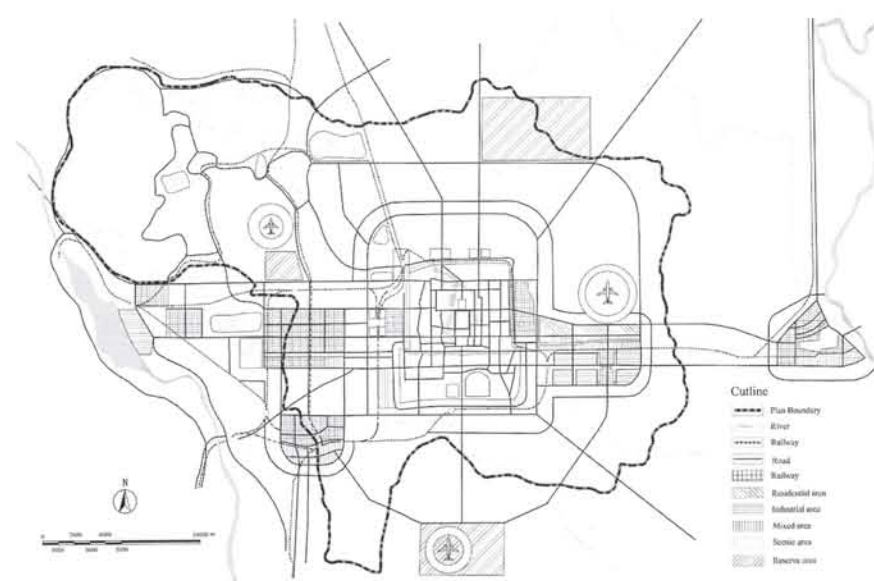


Figure 4.2. Beiping plan in 1946.

Only two relatively important changes occurred between 1911 and 1949: (1) the appearance of the foreign quarters to the south-east of Tian'an Men Square that accommodated foreign embassies, banks, offices, clubs, hospitals, hotels and military garrisons; (2) the construction of Western churches, schools and hospitals in the city.

A plan for Beiping was prepared under the Nationalist *Guomindang* in 1946 (see figure 4.2). When the People's Liberation Army entered the ancient capital in 1949, however, with the Communists triumphant, Beijing embarked on a radically different path as a socialist Chinese capital. In September 1949, during the first plenary session of the National People's Political Consultative Conference, the city was chosen as the capital of the People's Republic of China and the historical name of Beijing was restored. Following the inauguration of the People's Republic of China on 1 October 1949, new structures, symbols and images of various kinds were sought to represent the new nation. Beijing's development under Mao Zedong's leadership is described in the next section.

Urban Development Planning under Mao

The basic concept for the planning of Beijing was established under the Communist Party's direction in a Master Plan developed in 1953. This drew significantly on the Moscow Plan of 1935, made under Stalin. The genesis of this plan and its consequences are set out below.

Early Plans under the Communists

There was heated debate over the early plans for the new capital of the People's Republic (Zuo, 2008; Dong, 2006). In December 1949, various planning proposals for Beijing city were discussed and two different opinions emerged. On economic and aesthetic grounds, some experts advocated an administrative centre based on the Old City (Dong, 2006, p. 4). These were mainly the Soviet experts Abramoff and

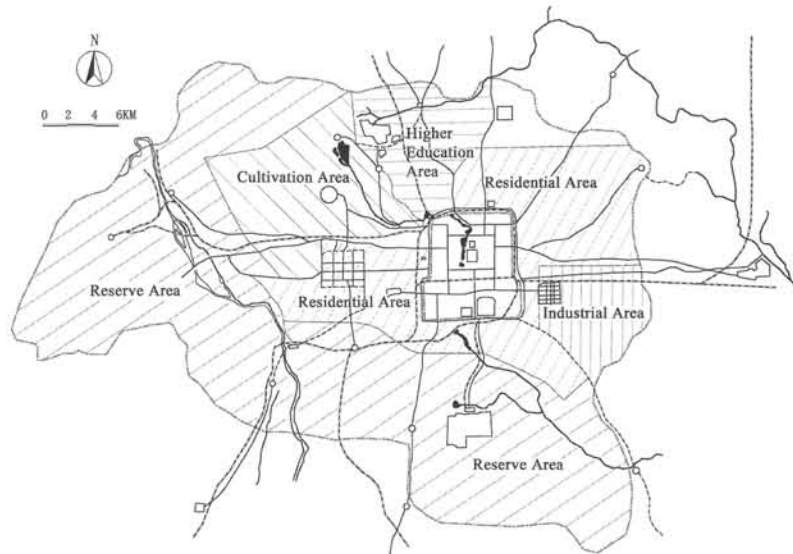


Figure 4.3. Beijing Plan: Barannukov's proposal of 1950. (Source: Dong, 2006, p. 6)

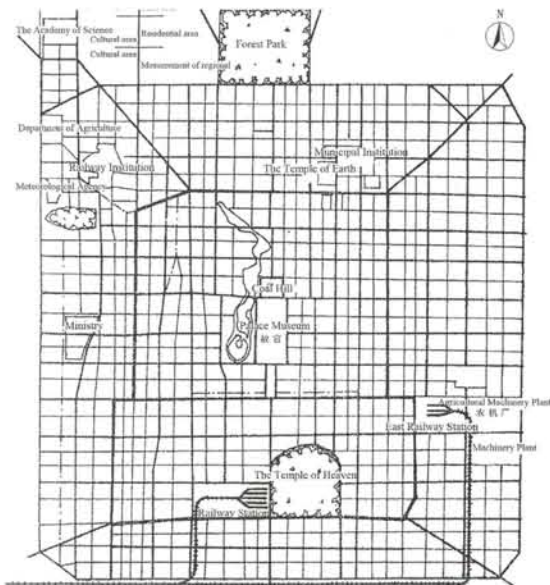


Figure 4.4. Beijing plan: Hua's proposal of 1950. (Source: Dong, 2006, p. 6)

Barannukov, together with a number of Chinese experts, including Hua Nankui, Zhu Zhaoxue and Zhao Dongri (see figures 4.3 and 4.4). The alternative view emphasized the protection of the Old City and the establishment of an administrative centre covering a larger area, between Yuetan and Gongzhufen (Dong, 2006, p. 4). This latter view was supported by Liang Sicheng and Chen Zhanxiang. Municipal officials displayed a clear preference for the first option.

Liang and Chen developed their 'Proposal for the Location of the Administrative Centre of the People's Government' in February 1950 (Liang, 2001). Known as the Liang-Chen Plan (figure 4.5), it proposed that the new centre be in the western

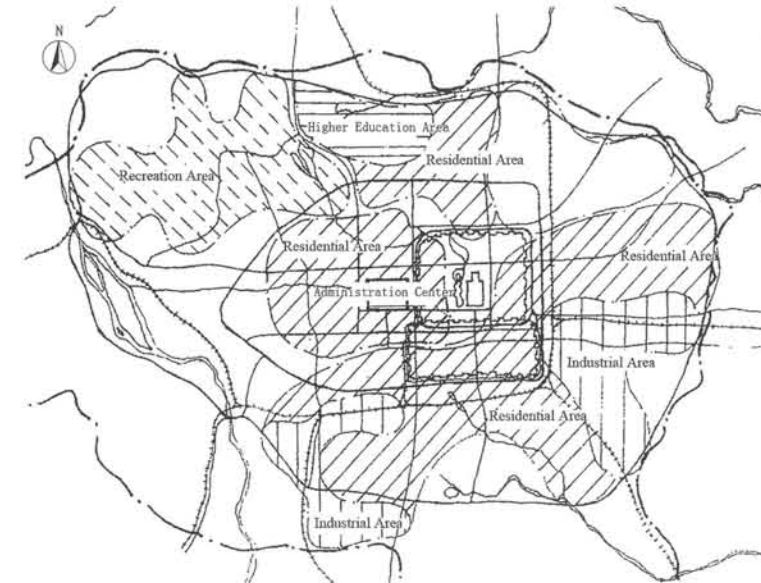


Figure 4.5. Beijing plan: Liang and Chen's proposal in 1950. (Source: Dong, 2006, p. 7)

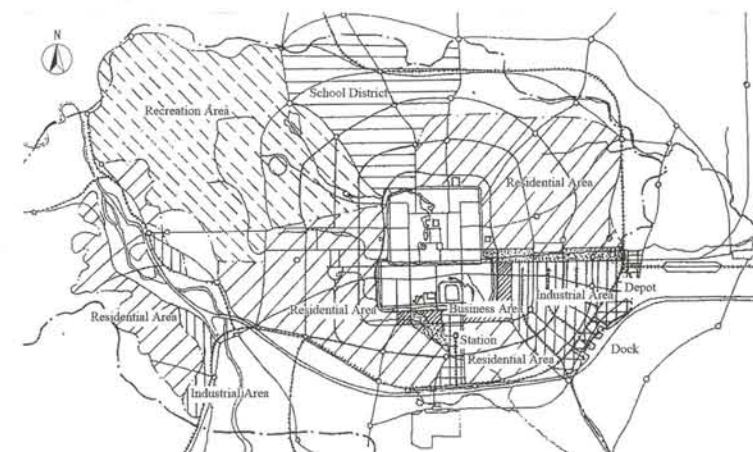


Figure 4.6. Beijing plan: Zhu and Zhao's proposal in 1950. (Source: Dong, 2006, p. 5)

suburbs and argued for decentralization, clear zoning, a balance between development and preservation, and conservation of the imperial city along its historic north-south axis. A counterproposal by Zhu and Zhao was made in April 1950 (figure 4.6) but construction began in Beijing's central area while these debates were under way (figure 4.7), effectively following the Russian proposals which, it was revealed later, had been accepted in a message from Mao, passed on to the Russian team via the municipal Party Secretary, Peng Zhen (Wang, 2003).

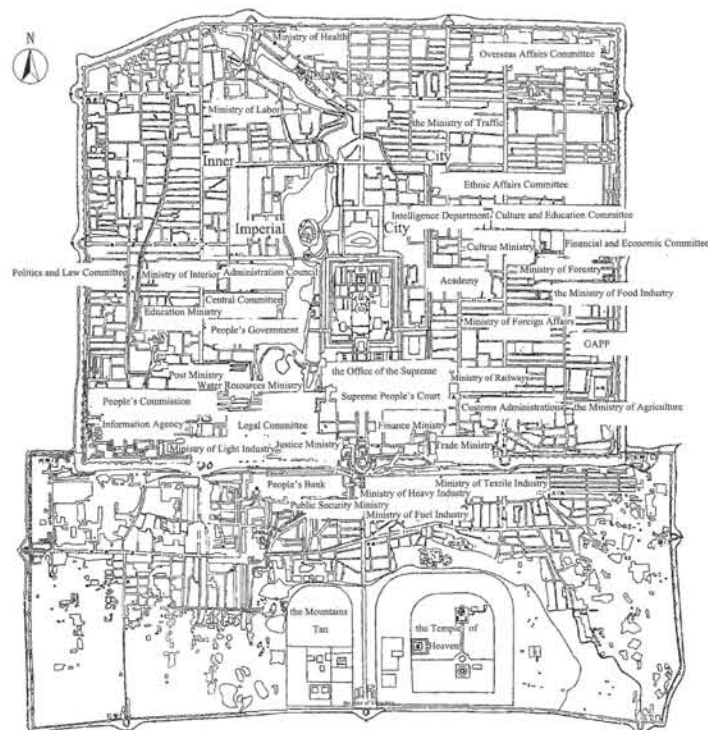


Figure 4.7. Early distribution of offices of state organs in Beijing Old City. (Source: Dong, 2006, p. 12)

Beijing Plan 1953

In 1952–1953 two plans, made by Hua Lanhong and Chen Zhanxiang respectively, under Liang's coordination and based on the idea of the new centre being placed inside Beijing (see figures 4.8 and 4.9), were sidelined for their lack of 'progressive' ideas. To achieve a better plan, the municipal government and the Party organized another team to work in a building called Chang-guan-lou (in a zoological garden in western Beijing) which produced a decisive master plan document entitled 'Draft Plan for Reconstruction and Expansion of Beijing' in November 1953 (see figure 4.10).

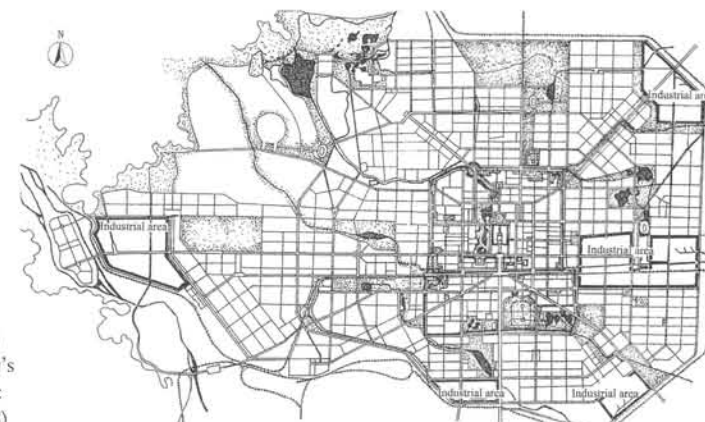


Figure 4.8. 1953 Beijing Plan (Hua's proposal). (Source: Dong, 2006, p. 28)

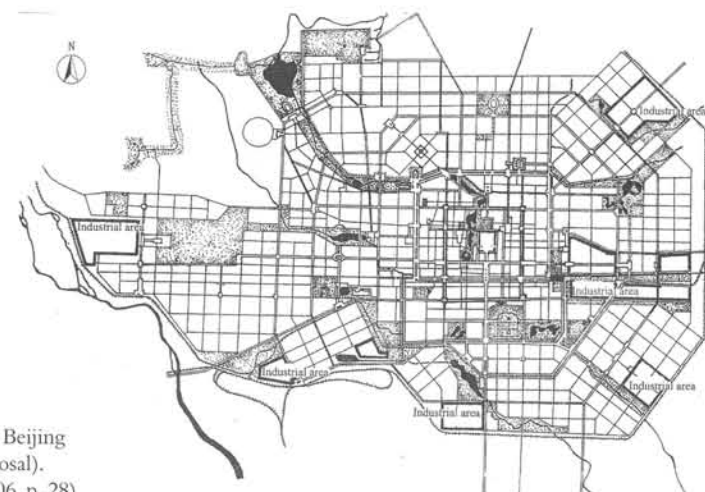


Figure 4.9. 1953 Beijing Plan (Chen's proposal). (Source: Dong, 2006, p. 28)



Figure 4.10. 1953 Beijing Plan (as revised in 1954). (Source: Dong, 2006, p. 29)

In the 1953 Master Plan, functional zoning was introduced under which 'industrial zones were dispersed in suburbs, while new residential areas were located between the old city and new industrial zones' (Sit, 1995, p. 92, cited in Lu, 2011, p. 94). The zones were to be separated by greenbelts. The Master Plan privileged industry and production. It stipulated that, as well as being the political, economic and cultural centre of the nation, Beijing would be its industrial base and should strive to achieve a 'rise of efficiency in the working people's labour and production'. The Plan projected growth of Beijing's population to 5 million and the expansion of the city to a size of 600 square kilometres in 20 years, with areas for government, industry and education at the centre, southeast and northwest respectively. It required that the existing orthogonal streets be 'broadened, interlinked, and straightened' and advocated the addition of ring roads around the centre and radial avenues extending outwards in all directions. The major orthogonal avenues were to be 100 metres wide, while the radial avenues and the ring roads were to be 60 to 90 metres in width and the secondary roads 40 metres. The 1953 Master Plan suggested that Beijing should develop from its historical past, retaining important elements but eradicating the restrictions of old layouts and patterns. The preservation of heritage buildings was to be assessed on a case-by-case basis.

Known as the Chang-guan-lou Plan, the 1953 Master Plan consolidated Mao's ideas and the Russian proposals. Although further additions were made in 1954, 1957, and 1958, the 1953 Master Plan laid down the basic principles for Beijing's development for the next few decades.

Beijing Plan 1957–1958

In the 1957 Master Plan (figure 4.11) a further refinement was made through the introduction of the Soviet concept of 'micro-districts', each of 30 to 60 hectares and



Figure 4.11. Beijing Master Plan 1957 (Draft). (Source: Dong, 2006, p. 30)

with 10,000–20,000 residents. An important objective of these 'micro-districts' was to limit the length of the journey to work. Even today, Beijing still has relatively short commuting distances, with the commuting ring having a radius of about 25 kilometres and most journeys to work being much shorter than this. The main reason for Beijing's shorter commutes is that government under the planned economic system has generally exercised very strong control over urban transportation facilities, employment, and the location of schools, shopping and the other daily activities of the population.

The Beijing City Master Plan of 1958 (see figures 4.12 and 4.13) further emphasized decentralized planning, based on a close relationship between work and home, and

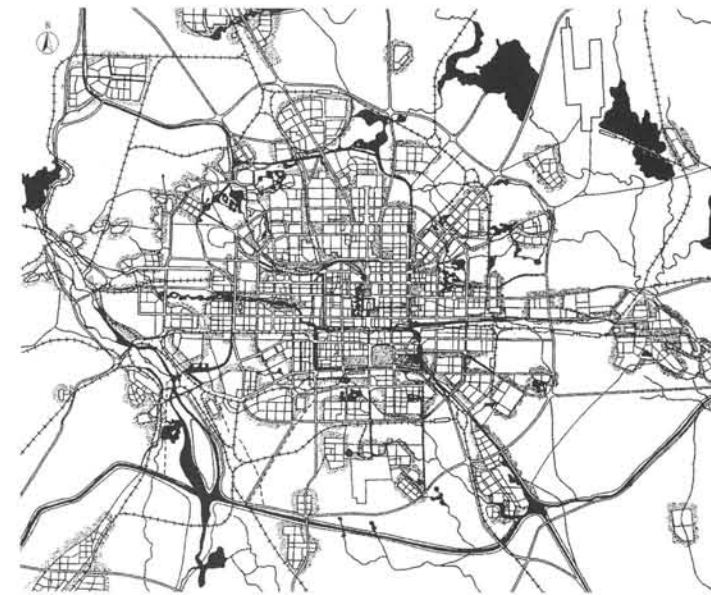


Figure 4.12. Beijing Master Plan 1958(A). (Source: Dong, 2006, p. 31)



Figure 4.13. Beijing Master Plan 1958(B). (Source: Dong, 2006, p. 31)

was somewhat critical of the principle of segregated land uses. Municipal planners struggled for many years to control urban growth, however, as work-units sought autonomy over their own areas or *danwei*. Central government oscillated between the desire to have more control over urban form and sympathy for the needs of work-units to build as they saw fit. 'At times, the Beijing Planning Bureau was dismissed by the state for being too strict and bureaucratic' (Sit, 1996, p. 96).

Under Mao Zedong, Beijing was massively transformed in both form and function. The influence of Soviet-style master planning persisted, even after the Sino-Soviet split in 1960. Major changes included the removal of the city walls that not only restricted urban development but also symbolized the previous feudal order; the layout of vast boulevards across the city, especially Chang'an, the Avenue of Heavenly Peace; and the massive expansion of Tian'an Men Square to become the focal point of the city and the largest urban square in the world. Ten huge new buildings were built (see later) to celebrate the tenth anniversary of the PRC (People's Republic of China) in 1959, including the Great Hall of the People, in which the National People's Congress is held. Beijing became a production city with a focus on heavy industries such as iron, steel and petro-chemicals (Dong, 1985). It also became one of the most austere capital cities in the world, virtually closing down by 9 o'clock in the evening, with international visitors few and far between. Until the 1990s, tourists had their own restricted currency that could only be spent in such places as the Friendship Hotel and the Friendship Store, which catered mainly for foreigners.

Urban Development Planning after the Cultural Revolution

Following the outbreak of the Cultural Revolution (1966–1976), the city's Master Plan and the Beijing Planning Bureau were both suspended in 1967 and not re-established until 1972 (Sit, 1995, p. 205). Beijing entered a period of planning anarchy and a great deal of piecemeal urban development was undertaken by individual work-units (although many outside China were completely unaware of this, viewing China still as a hierarchical monolithic state with top-down planning similar to that of the Soviet Union). The situation began to change in the early 1970s when China-US relations improved and China joined the United Nations. The pace of change increased after the death of Mao in 1976 and the assumption of the national leadership by Deng Xiaoping in 1978, following a brief power struggle with the 'Gang of Four'. Deng ushered in a period of reform that included the 'Four Modernizations' and an 'Open Door' policy, initiating a long process of economic and social transformation. Among Deng's many memorable slogans was 'to get rich is glorious', and his influence led China towards a consumption ethos. Within Beijing there were growing criticisms of the emphasis on industrial development in the early 1980s. Dong Liming argued that the city was 'poorly endowed for industrial development' (1985, p. 73) and yet was 'rich in cultural

resources' (*Ibid.*, p. 75). It should therefore concentrate on expanding its role as the nation's administrative centre and should develop also as a centre of scientific research, education, cultural activities and tourism. A few industries should be permitted, but only those not consuming large amounts of water or creating pollution. This debate concerning the appropriate balance between Beijing's role as a capital and cultural centre and its role as a production centre had existed back in the 1950s (Sit, 1996) and it would continue into the twenty-first century, as concerns about pollution increased.

Beijing Plans in the 1970s and 1980s

Gan (1990) notes that a new Master Plan for Beijing was proposed by the Central Committee of the Chinese Communist Party and the State Council in 1978, in recognition of the need not only for economic development, but also for political and cultural priorities to be acknowledged (see figure 4.14). Changes to planning regulations between 1980 and 1983 were made to facilitate new forms of development and foreign investment began to flow in, funding new hotels, offices, shopping malls and exhibition centres. Large new housing districts, subway extensions and the Second and Third Ring Roads were completed, and the annual volume of construction in the city rose from 4.5 million square metres in the late 1970s to between 7 and 10 million square metres in the second half of the decade (Zhu, 2009).

Also in the 1980s the Zhongguancun area, in the north-western suburb of Haidian, began to develop as a high-tech manufacturing area. In 1988 it was formally designated



Figure 4.14. Beijing Master Plan 1982. (Source: Dong, 2006, p. 44)

as the Beijing High-Technology Industry Development Experimental Zone. High-tech industries have become progressively more significant in this area in recent decades and Zhongguancun, nicknamed 'China's Silicon Valley', now accommodates Microsoft and other major international companies, attracted by highly skilled Chinese labour, available from nearby prestigious universities at a far lower cost than would be the case in California or Seattle (Cook, 2006). These companies were able to locate in high-rise structures, since Zhongguancun lies outside the Second Ring Road. Under the 1982 Beijing Plan buildings within this ring road could only be up to six storeys high. In 1985, height controls were expressed more precisely: height limits in areas around the palace, the royal temples and the lakes rose gradually from 9 to 12, 18 and 45 metres as the distance of buildings increased away from the centre. In 1987, the regulations became more restrictive, such that no buildings inside the Second Ring Road could be more than 18 metres high, except those along the ring road itself, Chang'an Avenue, and another avenue further south, where maxima of 30 and 40 metres were allowed. In 1990, some twenty-five historical areas in and around the old centre were specified as zones for protection.

Urban Development under Globalization

Although the 1980s were important for the development of Beijing, it was really after 1992 that progress towards becoming a new world city accelerated. The first decade of the reform period had been characterized by a grand ideological debate over the need to balance further privatization and economic development with social stability. In the late 1980s the conservative elite became the subject of a rising social critique based on ideals of equity and democracy, voiced especially by students and culminating in the events in Tian'an Men Square in 1989. The 1990s saw both stronger state control and a further opening up of the economy to market practices and foreign investment. After Deng Xiaoping's speech during his tour of Southern China in early 1992 (Cook and Murray, 2001), the 'socialist market economy' became the established policy. Deng's 'Four Modernizations' had encouraged rural reform, and the easing of controls on the mobility of agricultural workers, together with the acceleration of economic and industrial development, led to an exponential increase in migration to the city. The 'Open Door' policy and growth in foreign investment were also of enormous significance in Beijing's development. The amount of construction per year increased to between 11 and 12 million square metres in the mid-1990s, rising later to 20 million square metres and to 30 million square metres per year after 2000. The invasion of the city centre by massive buildings, the destruction of old courtyard houses and historic urban fabric, and the breaching of height restrictions began to occur at a greater pace in the early years of the twenty-first century. The Oriental Plaza and the Financial Street, for example, which should both have had a maximum height of 45 metres

under existing controls, reached 68 and 116 metres respectively, as a result of aggressive demands for profit by their developers. The development of the planning framework in this period is described below.

Beijing Plan 1991–2010

The Beijing Plan for 1991–2010 expressed the aspiration that Beijing should be an international city 'open in all aspects' by the fiftieth anniversary of the People's Republic in 1999 and that it should become a 'modernized international city of the first rank' in the period between 2010 and 2050. A new Beijing Master Plan was drawn up by the State Council for the period 1991–2010 (Zhang, 1991) (see figure 4.15). This foresaw an increase in the GDP of Beijing from 50 billion *renminbi* (RMB) (US\$5.7 billion) in 1991 to 310 billion RMB or US\$35 billion in 2010. This was to be achieved by, amongst other things, the following spatial policies:

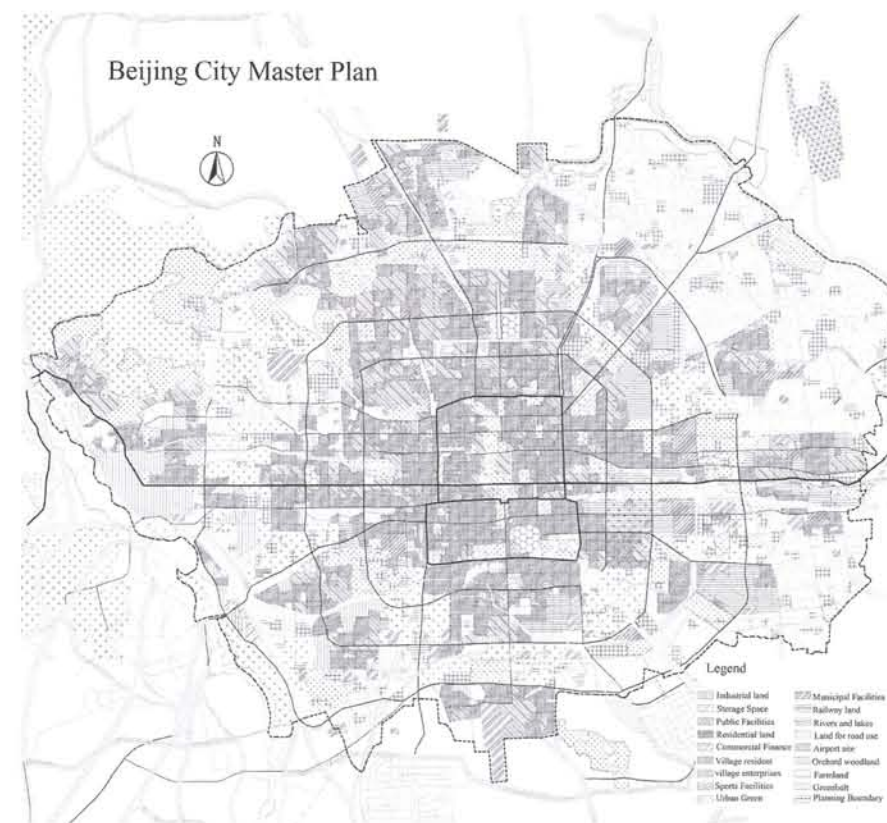


Figure 4.15. Beijing Master Plan 1991–2010.

Development of new and high-tech industries will be concentrated in Yizhuan, Zhongguancun and Shangdi economic development zones and scientific and technological parks. Secondly, major efforts will be made to develop tertiary industries to raise their position in the GDP from 38.8% to 60%. During this phase a Central Business District will be constructed in Chaoyangmenwai district. Thirdly, there will be a readjustment and distribution of secondary industries, gradually moving them out of the city proper... Measures will also be taken to prevent and control industrial pollution. Finally, the development of the agricultural sector should be accelerated to give the benefits from higher levels of technology and quality to the rural economy.¹ (Zhang 1991, p. 12)

Related features of the plan included large-scale residential building in the suburbs; satellite towns at Tongzhou and Huangcun; renovation in the old central city; improved water supply; provision of natural gas through pipelines from interior provinces; major road, telecommunications and subway developments; and a second international airport.

The Olympic Games and the Beijing Action Plan of 2002

Drawn up following China's successful bid in 2001 to host the 2008 Olympic Games (Cook, 2007b), the 2002 Action Plan sought to 'raise the level of openness in all aspects of the city of Beijing, and to display to the world a new image of the nation after reform and opening-up'. This plan was important in influencing the building of Beijing as it appears today. Its strategic conception included the theme of 'New Beijing, Great Olympics' and the organization of the Games as a national project based on 'green, science, and technology', 'humanism' principles, and a commitment to showcase a 'renowned, historical, cultural city' which, by the time of the Games in 2008, would have the 'framework of a large, modernized, international metropolis'. The general plan for the Olympic Park by the American firm, Sasaki and Associates, was based on a central Olympic area and three other zones. The 'Olympic Green' was designed as an extension of the old traditional north-south central axis, with extensive planting and water flowing through the whole area, adding life and beauty to the city's built environment. It included the three primary sporting venues, the National Stadium, the National Gymnasium and the National Swimming Centre, planned to accommodate 80,000, 1,800 and 1,700 spectators respectively. Major related infrastructure projects included four subway lines, a fast train and a second highway to the airport, the Fifth and Sixth Ring Roads, and a new terminal for the Capital Airport. The Plan also included the provision of a 'social environment' and modern cultural facilities in the city, including the National Grand Theatre, the China Central Television (CCTV) headquarters, a Capital Museum and a National Museum.

Greater Beijing Plan 2004–2020

By 2004–2005, after its dramatic opening up to the global market, Beijing, with its ambition of matching its economic level to that of the richer cities of the West, found itself also sharing some of their problems, including high pollution, a shortage of water and pressure on energy supplies. The Greater Beijing Plan 2004–2020 (see figures 4.16 and 4.17), was prepared at this time for an extended region covering 70,000 square



Figure 4.16. Greater Beijing Plan 2004–2020.



Figure 4.17. Greater Beijing Plan 2004–2020: Central Area.

kilometres and including neighbouring cities. Emphasis remained on the development of high-tech industry and a tertiary or service economy, while removing manufacturing industry to other locations away from the inner areas of Beijing. It was planned to reduce population growth and concentration within Beijing (by then already with a metropolitan population of 15 million) and to improve the city's ecological qualities.

According to the Greater Beijing Plan, the metropolitan region is to evolve into a polycentric structure, with two axes, two belts and multiple centres. The two axes run east-west and north-south, crossing at central Beijing. The two belts are the western ecological belt and the eastern development belt. Multiple centres are planned as part of the system of towns and cities, including three major new towns in the suburbs of Beijing. At Shunyi New Town, a manufacturing base is to be developed, Tongzhou New Town is to be a service centre and further high-tech development is proposed at Yizhuang. These new towns are planned to grow into cities with populations of between 700,000 and 900,000 by the year 2020.

In 2004 there were revisions to the National Constitution, bringing in a greater range of legal rights for individuals in China. Abramson (2007, p.76) notes that this has led to court decisions against local government agencies, including the Beijing Planning Bureau. Urban planners in China are now required to pay more regard to the views and opinions of various interest groups. The 'Regulating Plan of 2004–2020', introduced in 2004–2005, acknowledged these new imperatives:

The direction of development, as the Plan of 2004–5 indicates, will be increasingly about aspects of a humanistic city, including ecological and habitable qualities, rather than grand projects and heroic changes. A micro, internal and intensified urbanity at a human and walkable scale is likely to be emphasized... (This) may be remembered as the close of the first and the beginning of a new era in China's long march to modernization. (Zhu, 2009, pp. 209–210)

In 2006 the Beijing Municipal Government launched a document entitled 'Features of and evaluation of indicators for the counties and districts in Beijing'. This divides Beijing into four parts: core area, development areas, new urban area and substantial 'ecological conservation' areas. These conservation areas include the five counties of Mentougou, Pinggu, Huairou, Miyun and Yanqing and provide both an ecological barrier for Beijing and a water catchment with a combined area of more than 11,000 square kilometres. Beijing's future is now envisaged as national capital, international city, cultural city and liveable city.

Urban Internal Spatial Structure in the Reform Period

In 1990, a Land Use Reform Programme was launched and, while the State retained ownership of the land in urban areas under this programme, it became possible for urban land to be rented for speculation. An immediate consequence was the birth of

construction companies and of a real estate market, as well as the initiation of important joint venture programmes with foreign companies. In the 1980s, the construction of Beijing's first large hotel and commercial complex was begun. This was the Lufthansa Centre on the Third Ring Road, conceived in co-operation with the German airline company. The foundations were also laid for the city's first steel and glass skyscrapers: the Jinguang Tower and the towers of the China World Trade Centre further to the south on Jianguomenwai, the result of a partnership between American and Japanese groups. These were followed over the next two decades by further significant developments in the central business, finance and commercial districts which have had significant effects on Beijing's urban form and internal spatial structure. The more important changes since 1990 are summarized below.

The Central Business District (CBD)

With the aim of facilitating investments by large international companies, the State Council ratified the creation in 1992 of an area called the Central Business District (CBD), situated near the Third Ring Road. This location, summed up in the slogan



Figure 4.18. China World Trade Centre Tower 3.

'the place where China meets the World', had previously been identified in 1984 as the site for the China World Trade Centre. Various complexes of buildings followed, erected by private enterprise. The Jinguang Centre was completed in 1990, the Kerry Centre in 2000 and the SOHO 'New Town' in 2001, but there was no coherent vision for this area until the 'Central Business District Plan' was approved by the Beijing Municipal Government in August 2001. The quarter currently referred to as the CBD extends over an area of about 400 hectares in Chaoyang District, delimited to the west by Dongdaqiao Road, to the east by Xidawang Road, to the south by the Tonghui River, and to the north by Chaoyang Road. It is located in a strategic position between the Cahwai Business Centre, the diplomatic quarter near Ritan Park and the residential areas of Yong'an Dongli and Xili. This area now contains the CCTV centre, to the south of Jianguomenwai (described later and see figure 4.33); the Beijing Yintai Centre, added in 2007, which is some 250 metres high; the Fortune Plaza Building 1, with a height of 260 metres; and the China World Trade Centre Tower 3 (see figure 4.18), completed in 2009, which is 330 metres high.

Finance Street

Beijing's 'Finance Street' (see figure 4.19), located at West Second Ring Road, running south from Fuxingmen Avenue, north to Fuchengmennei Street, and from west to



Figure 4.19. Beijing Finance Street.

east along Pacific Bridge Street, has a north-south extent of 1,700 metres, a width from east to west of about 600 metres, an area of 103 hectares and a total floor area of more than 300 million square metres. The core area of Finance Street has office buildings, apartments, a five-star hotel and an international conference centre as well as a variety of commercial, dining, entertainment, leisure, educational and health facilities.

Commercial Areas

Wangfujing Business Street (see figure 4.20) is one of the best known shopping streets in all of China, visited daily by an average of half a million people. It has been the site of markets since the middle of the Ming dynasty. The central area was expanded in 1999-2000 and the enormous Oriental Plaza was inaugurated, a complex of ten buildings by the Hong Kong firm P&T Architects and Engineers Limited.



Figure 4.20. Wangfujing Business Street.

Wangfujing Business Street is to the east of the Forbidden City, while to the west is Xidan Avenue where the redevelopment of an area of about 80 hectares commenced in 1999 and is still underway. Sixteen large stores are concentrated here in addition to the inevitable hotels and restaurants, giving a total floor area of 1.5 million square metres which also receives some half a million visitors daily. An underground shopping area is planned here to connect directly with a subway station. Above ground is the Xidan Culture Plaza with the Bank of China's main headquarters, as well as the capital's largest multi-storey bookstore.

The Historic Centre

The Beijing central area is the site where the ancient capital of Dadu was founded in 1283. The Ming period city walls were demolished in the 1950s, as mentioned earlier, but this area still retains its historic urban layout (see figure 4.21). Within the central area, the Greater Forbidden City (figure 4.22) remains with its dense network of

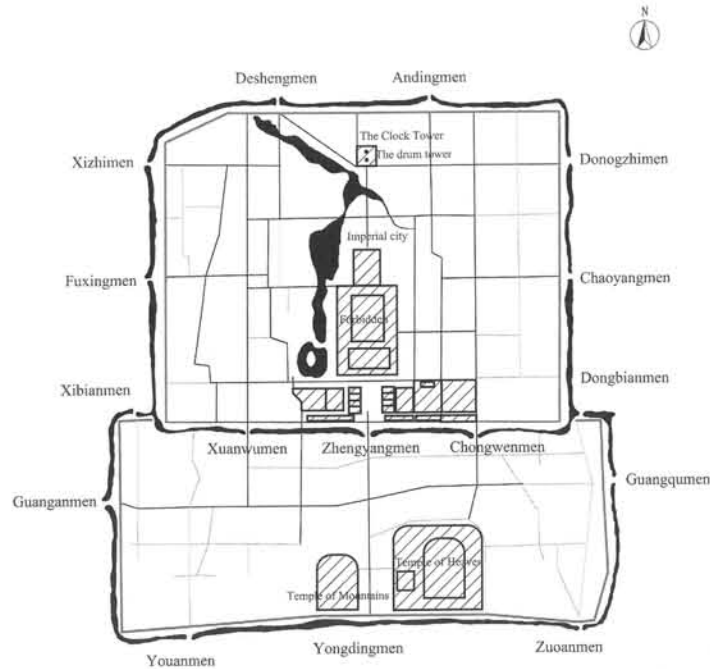


Figure 4.21. The Beijing central area and the ancient capital.



Figure 4.22. The Greater Forbidden City.

perpendicular streets and its ordered checkerboard of rectangular blocks. At the heart is Tian'an Men Square, still the focal point of the two main orthogonal axes oriented north-south and east-west. The line of the old walls is now followed by the Second Ring Road. In the Regulating Plan 1992–2010, referred to earlier, which also addressed conservation of the historic centre, the majority of new investments, mostly private, were directed to the city outskirts beyond this ring road and away from the central area.

Shichahai Bar Streets. In the Shichahai quarter of the Xicheng District, near the artificial lakes Houhai, Xihai, and Qianhai, the first 'No Name Bar' opened in 2001 and this was followed by the development of a series of 'bar streets' (see figure 4.23) which now dominate the character of an area which is one of the oldest remaining parts of Beijing.



Figure 4.23. Shichahai Bar Street.

Qianmen Street (see figure 4.24) is a pedestrian zone with 400 stores, along with antique shops, cafes and restaurants. There are also premises of some fifty major art galleries, including the Pompidou Centre, designed by Jean Nouvel, with an area of 10,000 square metres, and also the Maeght Foundation, which held its first exhibition in March 2008 with works by Miro. Qianmen Street, through its urban transformation and renewal, has become a 'brand new old place'. Both sides of the shopping street are of three-storey traditional Chinese buildings, with balconies above the first floor, lattice railings and red columns. These antique buildings also contain a shopping mall and the outlets of well-known international brands.



Figure 4.24. Qianmen Street.

Nanluoguxiang Street (see figure 4.25) is one of the most ancient avenues of Beijing. It runs north-south for 768 metres in the Dongcheng district. Here there is a requirement to respect traditional style and for the fronts of constructed buildings to observe the historic layout which dates back to the Yuan period.

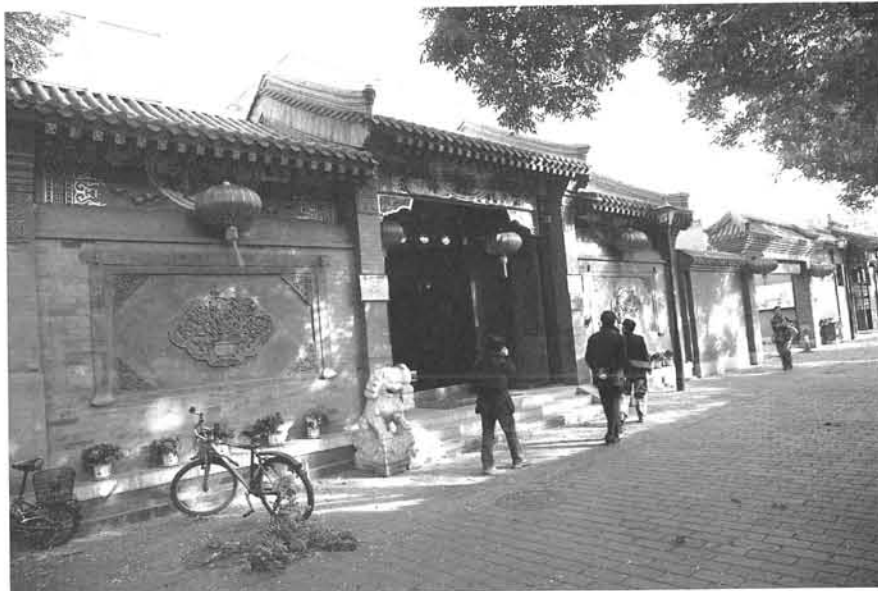


Figure 4.25. Nanluoguxiang Street.

New Beijing Central Axis. As noted earlier, the historic north-south central axis (figure 4.26) has been extended further north through the centre of the Olympic Green with the intention of both emphasizing and renewing the symbolic spirit of the city's traditional axis.

There is also a strengthened east-west central axis which extends Chang'an Avenue along Fuxingmenwai and Jianguomenwai. Today this has become a broad six-lane boulevard, lined with architecturally striking, prestigious hotels, major company headquarters and up-market shopping centres.



Figure 4.26. The extended north-south central axis.

Developments in the Suburbs

Beijing is much more than just its central urban area. The city extends over a territory of some 16,800 square kilometres, subdivided into sixteen districts and two counties. Some of the more significant recent developments in this wider area are as follows.

Zhongguancun Science Park. As noted earlier, the Beijing High-Technology Industrial Development Experimental Zone was set up in 1988 at Zhongguancun in Haidian district. At the beginning of 1996 the new library of the Academy of Sciences at Zhongguancun was designed in association with the Fourth Ring Road. This library was the first building of a new campus, which was intended to modernize the scientific

research quarter. Five development zones were identified under the overall name of Zhongguancun Science Park, comprising various sites across the city linked by the Fourth Ring Road. Since 2000, a further plan has sought to interconnect Beijing's major universities and research institutes. The evidence suggests that the creation of the Zhongguancun Science Park has turned out to be a successful strategy – some 60 per cent of Beijing's GDP now derives from over 7,000 companies concentrated here, linked mainly to information processing, pharmaceutical and medical research. There are also sixty-eight universities and 230 independent research institutions, which fund and support 36 per cent of all China's researchers today.

Yuanmingyuan Relics Park (The Old Summer Palace). Yuanmingyuan is located in the western suburbs of Beijing. It was originally the Royal Regency during the Qing Dynasty, comprising three parks – Yuanming Park, Changchun Park and Yee-Chun Park – with a total area of 350 hectares. The southern area of Yuanmingyuan was the imperial court, the official seat of the emperor. The rest was given over to parks and scenic features. In 1860, British and French troops sacked the Summer Palace and further damage was done during the Boxer Rebellion. In recent years, however, the park environment has been restored, all residents have been moved out and Yuanmingyuan is becoming a beautiful 'relics' park.

The Restructuring and Relocation of Shijingshan Steel Industrial Area. As described earlier, Beijing changed during the period of socialist construction from being a consumer-oriented city to a productive city, and the Shijingshan Iron and Steel plant was developed as a major Chinese manufacturing base for iron and steel. Its output grew from 260,000 tons of steel in 1949 to 1.79 million tons in 1978 and 8.24 million tons in 1994, making it the largest in the country. Since the beginning of the 1990s, however, many manufacturing enterprises have been moved out of Beijing and, in order to host the 2008 Olympic Games successfully, China's State Council approved a 'relocation, structural adjustment and environmental governance programme' for the Shijingshan Iron and Steel Plant in February 2005. Under this programme, the plant has moved to Tangshan City in Hebei Province and the Shijingshan District has become the home for a number of theme parks and entertainment facilities, including the Shijingshan Amusement Park, the Long Yang seawater swimming pool, a '4D' Cinema and an International Sculpture Park.

Yizhuang New Town: Beijing Economic and Technological Development Area (BDA). The Beijing Economic and Technological Development Area (BDA) (see figure 4.27) was established at Yizhuang in south-east Beijing in 1992. In 2007 it was incorporated by the Beijing Municipal Government as the core of an 'e-Town New City', planned to be a key new site for further economic growth in Beijing's eastern belt as part of

the Yizhuang New Town development (see earlier). The development of a number of industrial clusters has been vigorously promoted at BDA. These include an ICT industrial cluster (with Nokia), an electronic industrial cluster, a medical equipment industrial cluster, a biopharmaceutical industrial cluster (with Bayer) and an auto-industrial cluster (with Mercedes-Benz-DaimlerChrysler). More than 2,000 enterprises from thirty countries and regions all over the world have established themselves at BDA with total investments exceeding US\$15 billion, over seventy per cent of which are investments by foreign enterprises.

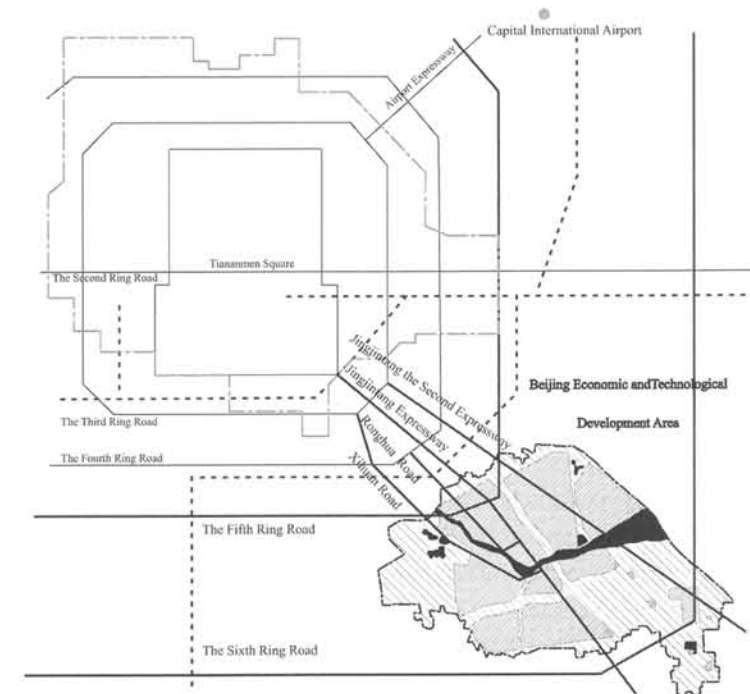


Figure 4.27. Location of Beijing Economic and Technological Development Area.

The 798 Factory: Cultural and Creative Industrial Cluster. The 798 industrial complex was originally a gift in 1956 from the government of East Germany. In 2002 a number of artists, intellectuals, writers and musicians discovered the charm of this large, abandoned factory area to the east of the city. They installed themselves in some disused production sheds to isolate themselves from the noise and confusion of the metropolis and the 798 Factory was born (see figure 4.28). Artists of all sorts began occupying the available spaces, the area was enlivened by the opening of the first bars and restaurants, and the former factory became a hotbed of ideas and culture. A modern Museum of Film was established in 2006 and the Belgian Ullens Centre for Contemporary Art was



Figure 4.28. The 798 Factory.

set up in 2007 with over 6000 square metres of land for development. This new 'Artist Village' has quickly become known internationally as an *avant-garde* cultural centre.

Fangzhuang. Some rich and successful citizens of Beijing, as well as central government ministries and their affiliated companies, began acquiring property here in the 1980s and early 1990s, so that Fangzhuang became the capital's first modern residential area or 'rich man's zone'. After several years of development, the surrounding environment of the Fangzhuang community is already quite mature and, with convenient transportation, relatively low-cost property management fees and heating costs, it has become a very large and successful residential area.

Wangjing New Town. Located in the Chaoyang district between Central Beijing and the Capital Airport, Wangjing New Town was planned in 1992. High residential tower blocks began appearing in the countryside, replacing austere, disused factories dating from the 1950s and the first tenants moved into Wangjing in 1996. It has now become Beijing's main Korean colony, with 80 per cent of its tenants, some 60,000 people, being South Koreans, mostly of lower middle class. There was substantial expansion after the Wangjing Science and Technology Park was launched in 1999. Sony-Ericsson, one of the larger international telephone companies, is based here and it is also an area for businesses directed by entrepreneurial Chinese who have returned from abroad.

Urban Transport Planning

At the end of 2007, there were 330 kilometres of urban expressway in the Beijing central area. Beijing Capital International Airport is China's largest airport, with an annual

passenger throughput of 60 million passengers, 1.8 million tons of cargo and mail and some 500,000 planes taking off and landing annually. It was important to guarantee the quality of transportation for the 2008 Olympic Games and Beijing therefore accelerated infrastructure investment to build up the integrated carrying capacity and emergency response ability of its city transport system. As a result, the overall quality of transport facilities is now high and the system achieves good levels of service in relation to objectives of safety, speed, convenience, economy and environmental protection. New facilities provided in the run-up to the Olympics included Terminal Three of the Beijing Capital International Airport, the Beijing South Railway Station and Metro Line 10.

Terminal Three of the Beijing Capital Airport. The commission for the new Terminal Three was awarded to the architectural firm of Norman Foster. The design, with its curvilinear profile, was chosen for its appealing resemblance to an enormous red dragon. The terminal uses passive heating systems, the window openings face south-west, and the climate control system minimizes carbon-dioxide emissions.

Beijing South Railway Station. Beijing South Station is the terminus for the departure and arrival of most Beijing-Tianjin inter-city passenger trains. This large traffic hub integrates multiple transport modes: railway, metro, suburban railway, bus, taxi and private car. Peak-hour passenger arrivals at Beijing South Station are expected to reach 30,800 by the end of 2030.

Subway Expansion. There were only 42 kilometres of subway line in operation in 1999. As preparations for the Olympic Games proceeded, substantial extensions were made to the network. In 2003, Line 13 was opened, together with extensions in an eastern direction, toward the Tongzhou District, to Lines 1 and 2. It is intended that the planned network will be completed by 2015, by which time there will be nineteen operating lines with a total length of 561.5 kilometres.

The recently built metro line from Dongzhimen to Terminals Two and Three of the Beijing Capital International Airport has a main line 28 kilometres long and only four stations. It is the first driverless metro line in China and can reach a speed of 115 kilometres an hour, making the trip from Dongzhimen to the airport as short as 16 minutes.

Changing Urban Landscapes, Architecture and Social Spaces: Towards a World City

Before the Reform Period, as noted above, the domination of production units in the *danwei* resulted in Chinese cities being full of 'functionally and visually

homogeneous landscapes' (Gaubatz, 1995, p. 31) extending over vast areas. As Gaubatz notes, the Reform Period saw a reduction in the planning powers of the work-units and an increase in the strength of municipal planning that was to lead to a growing separation of work and residential areas. However, although the influence of work-units decreased, the power of the market system increased in the 1990s under the 'mixed system of plans and markets' (Chan, 1994, p. 98), leading to a number of new challenges for planners.

For example, Liu *et al.* (2002) noted that new urban growth in the outer area in the years 1982–1992 was concentric, at an average distance of 7.5 kilometres from the city centre. By 1992–1997, however, new growth was mainly to the north, and to a lesser extent to the south, at an average distance of 10.8 kilometres. Such 'sprawl' to the north contradicted the intent of directing growth towards the southern and eastern parts of the city (*Ibid.*, p. 272). Other problems included the fact that this suburban growth was leading to a loss of high-quality arable lands, loss of already limited open space and increased traffic congestion (Jiang *et al.*, 2007, p. 475). In part, such changes were the result of the development of a land market that:

drives the spatial separation of land use. In other words, office and commercial development have an economic advantage in locations close to the city centre, whereas industrial development is pushed farther away towards the suburbs. Residential development is most likely to take place in between. (Ding, 2004, p. 1904)

Such separation of form and function has led to Beijing suffering from many of the problems of other great cities in Asia, with the city being assessed as the most polluted city on earth in 2005, causing great concern in advance of the 2008 Olympics (Cook, 2007b). It has also encouraged the development of a substantial number of tall, architecturally-distinctive commercial buildings in the inner parts of the city which increasingly establish the image of Beijing.

There are different Beijing landmarks that typify different periods of its development. These landmark buildings (see table 4.1) and spaces reflect the spirit that animated the city at the time of their construction, recording economic, technological and cultural characteristics as well as the pattern of architectural and urban evolution. The next section of this chapter traces the significant stages in Beijing's architectural development since the 1950s and describes some of its more important buildings.

A Modern Tradition before 1976

In the 1950s, under the Communist Party, an architecture of socialist realism or 'Socialist Content with National Form' was promoted in Beijing. Under socialist modernism, architecture was to serve large, public, collective functions. The celebration project for the tenth anniversary of the People's Republic in 1959 under

Table 4.1. Beijing's grand buildings.

	<i>Grand Buildings</i>
1950s	The Great Hall of the People, Museum of Chinese History and Revolution, the Chinese People's Revolutionary Military Museum, the Cultural Palace of Nationalities, Ethnic Hotel, the Diaoyutai State Guesthouse, Overseas Chinese Building, Beijing Railway Station, National Agricultural Exhibition Centre and the Beijing Workers Stadium
1980s	National Library, the China International Exhibition Centre, the Central Colour TV Centre, the Capital International Airport Terminal 2, Beijing International Hotel, Grand View Garden, the Great Wall Hotel, China Theatre, the Chinese People's Anti-Japanese War Memorial Hall and the Beijing Subway Dongsishitiao Station
1990s	Central Radio and TV Tower, the National Olympic Sports Centre and the Asian Games Village, Beijing New World Centre, the Beijing Botanical Gardens Exhibition Greenhouse, New Library of Tsinghua University, Office Building of Foreign Language Teaching and Research Press, Beijing Henderson Centre, New DongAn Market, International Financial Building, the Capital New Library
2000s	The National Grand Theatre, Bird's Nest, Water Cube, the new CCTV building, T3 terminal, Beijing South Railway Station, Capital International Airport, Beijing South Railway Station, Capital Museum, Beijing TV Centre, National Library (2), Beijing New Poly Plaza

Mao was a major architectural event. In addition to the expansion of Tian'an Men Square, it required the completion of 'Ten Grand Buildings' by 1 October 1959, the PRC National Day. The Ten Grand Buildings included the Friendship Hotel by Zhang Bo (1956), the Palace of Nationalities and the Beijing Railway Station (by Zhang Bo and Yang Tingbao, respectively, 1959). There were also two Grand Buildings to the east and west of Tian'an Men Square, the Museum of Revolution and History (Zhang Kaiji, 1959) and the Great Hall of the People (Zhao Dongri and Zhang Bo, Beijing, 1959).

In the sixties, as a consequence of the radical campaigns of the Cultural Revolution, popular icons such as large portraits of Mao, revolutionary slogans and sculptures of red flags, red torches and other symbols of the 'revolutionary masses' in a socialist-realist genre were applied to or around buildings, as in the Memorial Hall of Chairman Mao to the south of Tian'an Men Square, completed in 1977 (Zhu, 2009).

'Neo-National Style' and 'Modern Vernacular' in the 1980s

The 1960s were a fairly quiet period in construction. After the Cultural Revolution, however, there was an eclectic period of architecture which drew on examples from straight revivalism to the creative use of traditional Chinese elements with post-modern influences (such as the Western Railway Station). Another style was modern vernacular. Instead of employing traditional Chinese roofs, as in the National Style, a regional, vernacular language (including pitched roofs, traditional window patterns and textured walls in vernacular houses) was employed in designs which were also

consciously modern or abstract (see, for example, Denton Corker Marshall's Australian Embassy in Beijing, 1982–1992) (Zhu, 2009).

Neo-Classical or Late Modern in the 1990s

The 1990s saw more neo-classical or late modern architecture with representative examples being Wu Liangrong's Juer Hutong Houses (1992), Guan Zhaoye's New Library at Tsinghua University (1991) and Liu Li's Yanhuang Art Gallery (1991).

The International Style in the 2000s

The first decade of the twenty-first century saw an increase in the scale of new developments in Beijing. Through design competitions, foreign architects with established portfolios in the new and radical modernism of the 1990s won many commissions for projects which are now under construction or have recently been completed. These include the new headquarters for China Central Television (CCTV) by Rem Koolhaas (with ECADI), the National Olympic Stadium by Herzog and de Meuron, with China Architecture Design and Research Group (CAG), and the National Grand Theatre by Paul Andreu. Some modernist structures have also been designed by Chinese architects, including the China Academy of Urban Planning and Research by Cui Kai (2003).

What is emerging in Beijing today is a distinctive landscape as the Chinese state has invited these international architects to create the landmarks of an 'open, modern, international city'. This landscape provides a spectacle intended to showcase Beijing and China in the global media. These buildings are symbols and material components of the real socio-economic and political transformations underway as China has shifted from being a closed state administrative centre to becoming a hub city in the Asian region (Zhu, 2009). Beijing's key role in these new processes of globalization gained further impetus from the urban redevelopment driven by the 2008 Olympic Games, the results of which, in architecture and urban design, were spectacular. Figure 4.29 provides a view of the public realm of the Olympic Park, referred to earlier, while the following two figures show the striking architecture of the Olympic Stadium and the Aquatics Centre.

The Bird's Nest. The National Olympic Stadium (see figure 4.30) is the realization of the idea, simple but closely bound to traditional Chinese culture, of a 'bird's nest' or, alternatively, as described by artist Ai Weiwei,² who collaborated with the Swiss designers Herzog and de Meuron, of traditional local porcelain bowls with their networks of tiny cracks. The functional sporting venue is thus transformed into a poetic yet powerful and internationally recognized architectural symbol of Beijing.



Figure 4.29. Beijing Olympic Park.



Figure 4.30. The Bird's Nest.

The Water Cube. The National Aquatics Centre is affectionately dubbed the 'Water Cube' (see figure 4.31). Designed by the Australian firm PTW, the Water Cube is a large enclosure with walls that look like water bubbles, an effect obtained by using a complex spatial structure of steel tubing, over which is extended an innovative,

translucent, inflatable material. As the sunlight filters through, spectators and athletes feel that they are inside a magical underwater world and, by night, the Cube is transformed into a luminescent aquarium. North of the Water Cube is 'Digital Beijing', designed as a new aesthetic image for the Olympic Games by Zhu Pei. This looks like an enlarged part of an integrated circuit board or microchip, with water pouring down from the top like a waterfall, and gradually changing into a star shower. It has now become the headquarters for the Municipal Office for Information Systems, as well as an exhibition centre for creators of digital products.



Figure 4.31. The Water Cube.

National Grand Theatre. Paul Andreu's National Grand Theatre (figure 4.32) has a radical and controversial design (see Broudehoux, 2004) with a huge curved dome of titanium plates and glass panels above an underwater tunnel. The performance complex is conceived as a citadel of theatres enclosed by an elliptical, semi-transparent cupola in glass and grey titanium, surrounded by water. The entrance to the north on Chang'an Avenue is connected to a subway station and to a huge parking garage for 2,500 vehicles. The interior contains an opera house, a concert hall and a theatre.

The CCTV Tower. The headquarters for China Central Television, this project by Rem Koolhaas, begun in 2002 and completed in 2010, has three main elements – the CCTV Tower, the Television Cultural Centre (TVCC) and the Media Park. The striking CCTV Tower itself in fact comprises two towers, which lean towards each other and eventually join dramatically in a cantilevered form (see figure 4.33).



Figure 4.32. National Grand Theatre.



Figure 4.33. The CCTV Tower.

Urban Challenges and Prospects

This chapter has outlined the development of planning within the amazing city of Beijing, a city that faces the demands of being the capital of the most populous

nation on earth, of being run within a socialist system, albeit one in which the market economy plays a major role, and of being increasingly presented as a new world city that is recognized across the globe. As the earlier parts of this chapter have shown, there has been a dramatic change and transition in Beijing in a fairly short period of time from being in the radical vanguard of Marxism-Leninism after 1949 to the socialist market economy since the 1990s. The combination of market economy and strong centralist state has delivered an apparent social stability together with a staggering economic growth rate. A different urban society has emerged. Yet underlying problems, notably income disparity, environmental pollution and the neglect of social welfare, are accumulating.

The Beijing Olympic Games of 2008 were generally very successful and demonstrated the high level of internationalization to which the city aspires, although some outstanding issues still exist, including debt, the reuse of the Bird's Nest and other facilities, and continuing jobs for Olympic volunteers (Cook and Miles, 2010). The Olympics helped improve transport infrastructure, communication facilities, housing, stadiums, the old city, environmental governance and ecological protection, as well as stimulating consumption. All of this helped to expand China's 'soft power' overseas, as well as contributing to the city's overall development. However, Beijing's planning processes have not always been successful in guiding and directing the incredible pace of change in recent years. This penultimate section examines some of the main challenges that remain for the next decades of the twenty-first century.

Social Polarization and Social Injustice

Beijing is a city of increasing contrasts in income, with marked inequalities between different groups within the population. Under Mao, China introduced the *hukou* registration system that entitled officially sanctioned residents to gain access to housing, health, food rations and other benefits. In the Maoist period migration was tightly controlled by this system but, with the introduction of the market economy, rural migrants have flooded into China's cities, including Beijing. Known as the *luidong renkou* (floating population) they are 'in' the city but not 'of' the city (Tang and Parish, 2000, p. 31). Gu *et al.* (2006, p. 275) showed that there were over a million of these people in Beijing by 1989, followed by a dip in 1990 and then a steady expansion up to 3.85 million by 2004. These are generally people without *hukou* registration, employed, for example, in the construction industry, as stallholders selling a range of clothing and foods, or as taxi drivers – all jobs which are highly demanding, and from which the existing Beijing population has tended to move on.

Through their visibility to tourists and outside visitors, these 'marginal' groups disturb the modernization project and question Beijing's alleged modernity, symbolically regaining their right to the city. (Broudehoux, 2004, p. 136)

These are people who would be regarded as comprising the informal sector and living in shanty towns in other large cities of Asia. But these migrants do not live in shanty towns. Rather, they are likely to live in crowded conditions with people from their own town or province within urban enclaves in Beijing, where there are over a hundred migrant villages (Gu *et al.*, 2006). They face a regular threat of eviction and demolition if their dwelling-place or street location is required for new urban development or if the authorities seek to regulate the informal system by providing new covered markets as occurred, for example, at the Silk Markets in Jianguomenwai. With the recession in 2009, many went back to their home villages and towns but they are likely to return when the economy recovers in the next few years. When they do, they will face issues of lack of access to schooling for their children, plus lack of 'access to low-cost health services and housing, and equal employment opportunities in state-owned enterprises or foreign and joint-venture companies' (Gu *et al.*, 2006, p. 288).

Singly, and with others, Gu Chaolin has conducted a range of studies into the spatial concentration and segregation of these migrant groups, showing clearly that social polarization is a key feature of Beijing's current situation (Chan *et al.*, 2000; Gu, 1998, 1999 and 2001; Gu and Kesteloot, 1997, 2001, 2002; Gu and Liu, 2001; Gu and Shen, 2003; Gu *et al.*, 2005). The challenge that the floating population poses is not just one for Beijing, but for the PRC government more generally.

Environmental Injustice

Planning also has to contend with the unequal impacts of environmental problems. Over the years Beijing has had many successes in the struggle to overcome such environmental negatives as water shortages, desertification and air and water pollution (Cook, 2007a, 2008; Murray and Cook, 2002, 2004). Massive afforestation and 'greening' programmes, increased use of liquid petroleum gas, restrictions on trucks entering the central area during daytime, regulations to limit the use of poor quality coal and the like have increased the number of 'blue sky days' that the city has annually. An analysis by the United Nations Environmental Programme (UNEP) complimented the Beijing authorities for the improvements that were made to raise the environmental bar in the lead up to the Olympics. Restrictions on vehicle use proved so effective at this time that these were extended after the Olympics (Cook and Miles, 2010). Nonetheless, as noted earlier, Beijing was identified by the European Space Agency in October 2005 not just as a polluted city, but as the most polluted city on earth (Cook, 2007a) and air pollution remains a significant problem. 'Beijing throat' is a regular threat to the visitor and resident, and coal remains the main energy source in Beijing as it is in the rest of China. Vehicle emissions also remain a major contributor to air pollution, and to a high level of respiratory disease, but the growth in vehicle numbers continues to outstrip forecasts. Water quality is also an issue – even in

the capital of an increasingly wealthy China, a country with the third largest economy in the world.

Wealthier residents can afford to relocate further away from pollution sources or can apply pressure on the authorities to ameliorate the worst impacts of pollution; poorer people are much more likely to have to put up with such conditions with detrimental effects on their health (Cook, 2007a, 2008). There is an ongoing debate over such issues in Beijing, and in China's megacities in general, as seen, for example, in the *China Daily* during 2010. Some argue that urbanization permits improved environmental conditions as a result of the incorporation of better environmental technologies, such as smarter air conditioning units, solar power and rainfall collection techniques in modern high-rise buildings. This was an important emphasis of Shanghai's 2010 World Expo. Until recently, one of the current authors, Cook, was moderately optimistic that Chinese and foreign ingenuity would combine to develop effective solutions to environmental constraints in Beijing, but this confidence was shaken by the severe dust storms of March 2010. These were a reminder that Beijing's regional location remains a significant factor in shaping current and future environmental conditions, notwithstanding the massive tree planting programmes of recent decades.

The Commodification of Culture

After 20 years of urban renewal and transformation, Beijing has improved parts of its cultural environment, but it is obvious that, overall, there is a continuing deterioration of the Old City. Beijing Old City has been over-developed in commercially intensive ways, with damage to more than half its historic buildings and a drastic reduction in the number of *hutongs*. The Olympics were the latest and grandest example of how culture is being commodified in Beijing, as it has been in other world cities. This process began some years ago, paradoxically with Mao becoming a tourist commodity through the marketing of Mao caps, watches, cigarette lighters and street sales of the Little Red Book (Cook, 2008). The *hutongs* have also become an attraction, with the '*hutong* tour' by pedicab a popular part of the tourist experience. Gu Huimin and Chris Ryan (2009) have studied the impact of tourism on the largest of the *hutong* protection zones, Shichahai, based on interviews with residents and local tourism business people. Scores on Likert-type scales identified traffic congestion as the main problem with tourism, and locals tended to agree with the statement that 'local residents mainly suffer from living in a tourist area'. Many recognized that the area was cleaner than before, yet 48 per cent 'strongly agreed' with the statement that 'I feel tourism is growing too fast for the *hutong* to cope with' (Gu and Ryan, 2009, p. 318). Longer-term residents, in particular, were likely to be more negative towards tourism developments. *Hutongs* are laid out along narrow lanes, so it is small wonder that traffic congestion is a problem for residents, but congestion is also increasingly a problem for other tourist

sites in and around Beijing, as at the Great Wall at Badaling, for example. Beijing is a growing cultural attraction for people from within and outside China, and increasingly planning will have to confront the congestion and other issues that cultural tourism raises.

Questions of Governance

Prior to the Olympics, concerns were raised in the West about the thorny question of human rights. The memory of the events in Tian'an Men Square in 1989 has proved hard for the PRC to shake off, and such issues as the use of the death penalty, Tibet and treatment of the Buddhist sect Falun Gong have drawn criticism from Western human rights activists (Cook, 2007b). Prior to the 2008 Olympics, the Olympic Torch was attacked by Free Tibet supporters and this led to counter-protests by PRC supporters in Hong Kong and China itself (Cook and Miles, 2010). Journalists were also concerned in 2008 that they would not be able to report freely from Beijing because of restrictions placed upon them. In the event, there were few problems at the Olympic Games themselves, and the PRC government continues to defend itself against critics of its record by suggesting that human rights are less than ideal in some of those countries which are most vociferous in their criticism of China. It is the case that the rights of the individual are gradually expanding in China while the use of the death penalty is reducing. China is changing, and so is its governance.

There can be tensions, however, between Beijing's local (district) authorities and the municipal or central government, as Huang (2004) notes. The local authorities are particularly driven by economic imperatives, seeking to maximize local income and investment, and this can go against broader citywide strategies that are concerned with some of the issues of environmental quality and liveability noted above. Further, population forecasts are difficult to make precisely at the citywide level, allowing local authorities with control of their local area's forecasts to develop housing programmes that may be at odds with wider needs or demands. Because the ultimate responsibility lies with the State Council, such contradictions may be resolved by higher level intervention, but central government finds it difficult in Beijing, as elsewhere in China, to keep up with the rapid pace of local change. There have been some moves in recent times in the direction of a planning system which places more emphasis on a more humanistic, liveable city and it is to be hoped that these continue. But in order for this to occur, local people, *hukou* and non-*hukou* alike, will need to be more fully involved in planning for their own areas and in helping the planners to decide between alternative models of planning development. The seeds of such a system have already been planted in the growing number of non-government organizations (NGOs) and community groups found in China generally and in Beijing in particular (Cook, 2008). As in other countries, NGOs fill a key space that government is unable or unwilling

to occupy, and can act as pressure groups to try to ensure that local or municipal authorities deal more sensitively with issues faced by local people. These seeds will require careful nurturing, however, in order to deal with the issues of social inequality, environmental threats, periodic economic downturns and political change that will arise in the decades to come.

Conclusion

Beijing, the ancient capital of China, is a city with a long history of civilization. Contemporary Beijing has grown into what it is now on the foundations of the old city of the Ming and Qing Dynasties. After hundreds of years of development and change, Beijing has now emerged as a megacity, which continues to grow very rapidly with each passing day. At the time of the 2008 Olympic Games, Beijing displayed both the cultural heritage of the ancient capital and the elegant charisma of the modern metropolis. It is becoming both a Chinese socialist capital and a new world city – a new world city with a long history. There is no doubt that Beijing will continue to develop at a rapid pace and, as this chapter has shown, it faces some substantial challenges and problems in becoming a sustainable world city. These include social, spatial, environmental, transport and housing problems. Backed by the power and wealth of the People's Republic of China, the prognosis for the near future at least is promising. In the longer term the wider-scale regional, national and global context of change for megacities will increasingly determine the ways in which Beijing deals with complex questions of climate change, urban food resources, inequalities, liveability and governance in the twenty-first century. In this respect it will face similar long-term challenges to the other cities in this book, and it is likely that international co-operation between these cities and their national governments will be required to ensure survival and prosperity in potentially difficult, uncertain and risky situations as the twenty-first century unfolds.

Notes

1. This last point may seem strange to outside observers, particularly from the West, but in the People's Republic agricultural areas are often included within city boundaries.
2. Ai Weiwei (born in 1957), who had previously founded the Star Group (1979–1980), the first 'non-aligned' movement of Chinese art after modernization, returned to his homeland, after spending more than 10 years in the United States.

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