

Cai Yanxin & Lu Bingjie

• Cultural China Series

Chinese Architecture

Translated by Andrea Lee & Selina Lim



CHINA
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PRESS

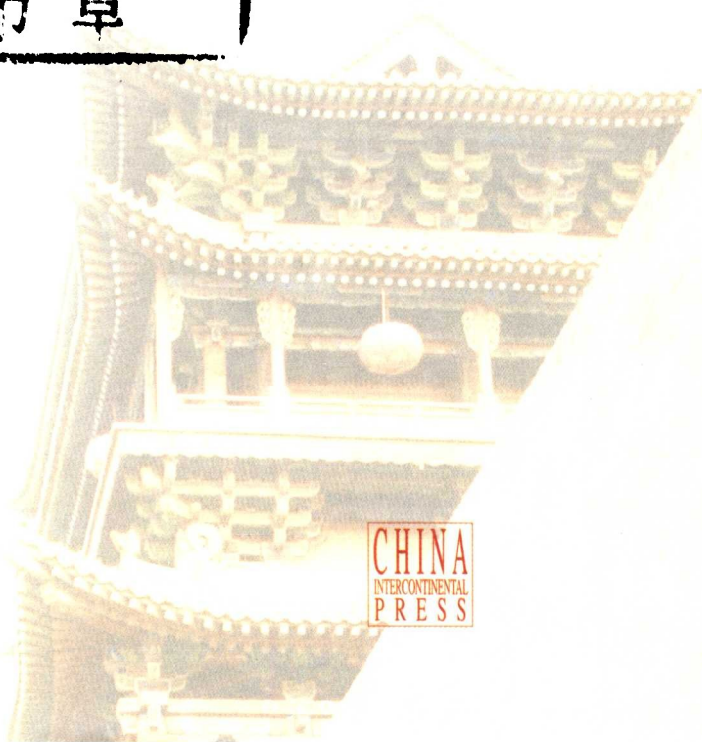
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Ancient Cities



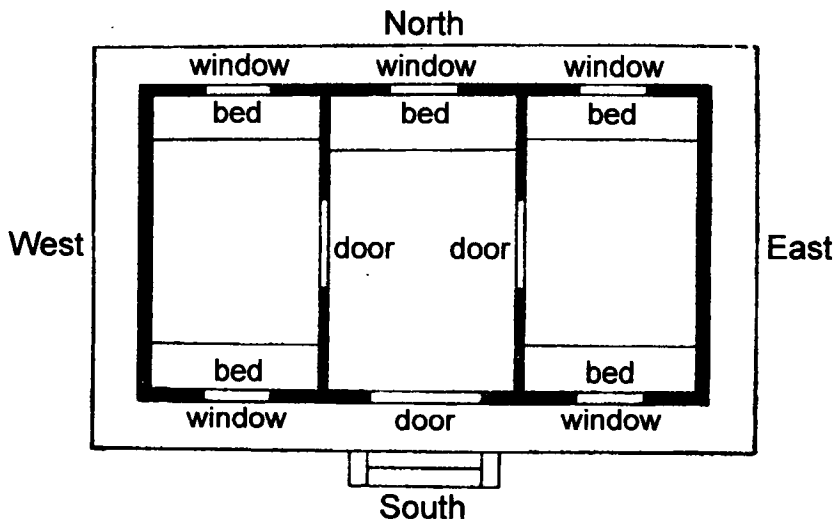


According to existing historical records and archeological evidence, the emergence of China's earliest cities generally occurred during the same period as the rise of the earliest ancient cities in the other parts of the world—at the end of primitive society (3000 BC–2000 BC).

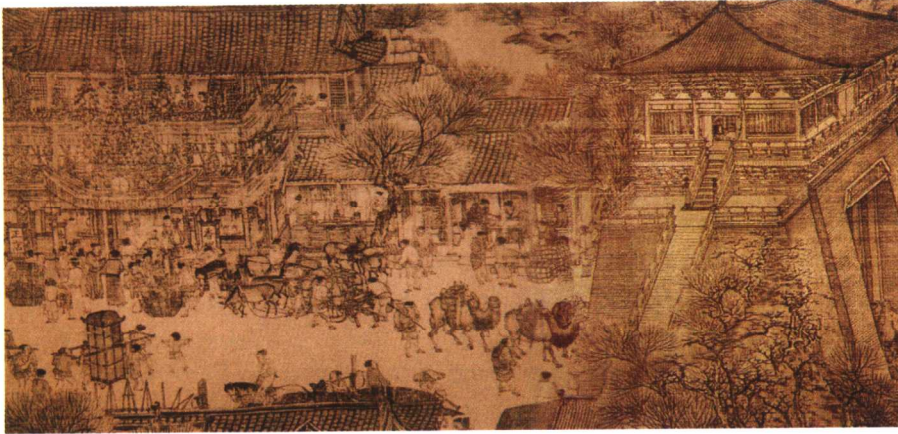
Lewis Mumford, the renowned American city-planning theorist, wrote in his book, *The City in History: Its Origins, Its Transformations and Its Prospects*, that currently, the majority of the known sites of the earliest cities in the world emerged during the few centuries immediately before or after 3000 BC.

These ancient cities were built on a very small scale, with inadequate internal infrastructure, and therefore, strictly speaking, should be defined as “castles”, rather than cities, and in no way, could be compared to today's cities. It was not until during the Zhou Dynasty (1066 BC–256 BC) that Chinese cities developed at a faster pace, whereby urban city developments were governed by a specific set of rules and regulations shaped by the feudal system's class ranking classifications. An example of such a set of rules and regulations would be the ancient urban development code, *Zhou Li Kao Gong Ji (Rites of Zhou Dynasty, Chapter of “Artificers’ Record”)*, which contained detailed stipulations for areas ranging from the layout of the cities, to the width of roads for the various levels.

The space layout of the ancient Chinese cities, in the form of the grid system, had its origins in the country's early agricultural society, which was in turn characterized by the “well-field” system (a plot of land was typically divided into smaller square



The north-south layout of houses in ancient China.



Riverside Scene at Qingming Festival, drawn by Song Dynasty artist, Zhang Zeduan.

plots by the fiefdom chief and allocated to slaves to toil on). On the other hand, the cool northern and warm southern climates of China, led specifically to an emphasis on a building being erected in a position with the front facing south, towards the sun and the back facing north, avoiding the chilly winds. The practice of constructing buildings on a north-south axis, has in turn given rise to the establishment of the north-south direction as the basis of the network of roads.

The philosophic foundation behind the concept of “square-shaped cities” in ancient China was determined by ancient philosophies such as the concept of “round heaven and square earth”, as well as the philosophy of *yin-yang*, along with the principle of the five elements of water, fire, earth, wood and metal. The theme of duality featured in the above philosophies led to an emphasis on locating the central axis and thus symmetry, in the basic layout of the cities. As such, many cities and the buildings within also bore names and had locations which strongly reflected their symbolic meaning.

Geomancy (*feng shui*) is philosophy with origins in the traditions of ancient Chinese culture, which held great respect for man’s natural environment. Hence, these philosophies had a significant impact on the choice of locations for the ancient cities as well as their layout. Apart from looking at the surroundings of the cities and the topography of the locations, these philosophies also emphasized the planning of the architecture and infrastructure within the walls of the cities.

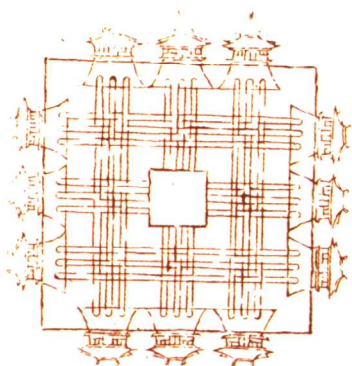
The changes in the economic structure of the ancient Chinese society brought forward developments in urban city planning. During the Tang Dynasty (618–907 AD), for the convenience of administration as well as to ensure public security, li-



fang, an “enclosed-structure” system was adopted for overseeing the cities, whereby residential streets and market areas were clearly segregated by the square-grid network of roads. Furthermore, every single street and market area had its own wall and gate, along with a gatekeeper, with the gates opening at dawn and shutting at night. This approach greatly inconvenienced people’s lives and also limited the society’s economic progress. It was not until the era of the Song Dynasty (960–1279 AD) that the “enclosed-structure” approach to city planning was abolished, due to extensive developments in agriculture, the handicraft industry, commerce, external trade and even scientific and technological advancements. Replacing the clearly defined areas for distinctive purposes, were many commercial streets, marking a shift from the allocation of space within cities from an “enclosed-structure” to an “open-structure”. Indeed, one could witness the prosperous and bustling scenes of commercial streets in the capital city of Kaifeng during the Song Dynasty, from the scroll painting, *Qing Ming Shang He Tu* (*Riverside Scene at Qingming Festival*)—classified as one of China’s national treasures today.

Capital Cities

Throughout the various dynasties in ancient Chinese history, the rulers of newly established dynasties had always emphasized the importance of choice locations for their capital cities, often sending their most trusted officials to conduct detailed topographical and hydrological surveys, and supervise the actual construction of selected sites. The main criteria for the choice of location for any capital city would be the strategic political and military needs of the ruler. Another critical factor would be the availability of water sources for drinking, farming and gardening, as well as waterways, which were the “lifelines” of every dynasty as they enabled the transportation of grain and other goods to the capital cities. During the 11th century BC, the fall of Shang Dynasty (1675 BC–1066 BC) followed by the rise of



The layout of the Imperial City of Zhou Dynasty, recorded in the Chapter of “Artificers’ Record” in Rites of Zhou Dynasty.

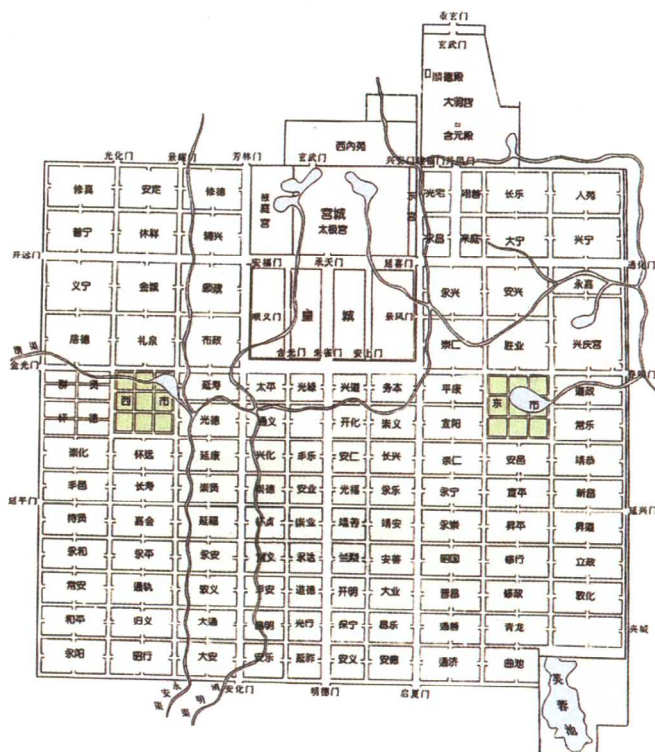
Zhou Dynasty saw the establishment of Haojing as the capital city (Xi'an of Shaanxi Province today). The Zhou ruler conferred titles and land upon his royal clansmen, enabling them to build dukedoms in various areas throughout the kingdom. In accordance with this strategy of fiefdom allocation, the Zhou Dynasty began to construct cities which were centers of defense and political control on an unprecedented, large scale. To facilitate the building of these cities, a strict code of regulations for city planning and construction was devised by the Zhou ruler which led to the surge in city-building activities. This also laid the foundation for ancient Chinese cities to be created according to a basic format—the front half of the city was designated as work and business areas while the latter half was reserved for housing and leisure activities. The practice of “taking the middle or central path” had always been advocated in ancient China. Hence, likewise in the matters of building cities and capitals, symmetry is emphasized as the Chinese character “zhong” (which means central). Laid out in a quadrangle shape, the Zhou capital city had three sets of city gates on each side while the imperial palace was located right in the centre. It became the model for the planning and construction of ancient Chinese capital cities. To safeguard their rulers' lives, the capital cities of kingdoms stretching from the Warring States Period (770 BC–476 BC) right up to the Ming and Qing dynasties, had always been fortified with both inner-city and outer-city walls. As the ancient Chinese saying suggests, imperial cities or palaces within inner city walls were built to protect the rulers, while outer city walls and areas were for protecting the civilians. Most ancient capital cities comprised three sets of walls, with the imperial capitals or palaces in the centre, followed by the inner-city or imperial city walls and outer city walls respectively. The ancient Chinese rulers thus depended on this multi-layered city layout to protect themselves.

Chang'an City of Sui and Tang Dynasties—The Most Magnificent Capital City in Ancient China

The ancient capital city of Chang'an (present day Xi'an in Shaanxi Province) was the capital city of choice for the greatest number of dynasties in Chinese history. As many as 13 dynasties built their capital cities here and it was also reputed to be the world's longest-serving capital city with 1100 years' history. Built on a large scale in a strictly symmetrical format, with streets laid out like a chessboard and orderly inner streets, Chang'an was the greatest city of its time. It not only served as the benchmark for other ancient Chinese capital cities, but also influenced the design of capital cities of neighboring countries, for example, the ancient Japanese cities of Heijo-kyo (Nara today) and Heian-kyo (Kyoto today). After putting an end to more than 300 years' of



war and strife during the Eastern Han Dynasty (25–220 AD), Emperor Sui Wendi (reign 581–604) began to construct Daxing city (Chang'an city during the Tang Dynasty, Xi'an in Shaanxi Province today) on a large scale during the second year (582) of his reign. Daxing city was built according to layout drawings, after officials had studied the layouts of Ye city (Anyang in Henan Province today), built by the Kingdom of Wei (220–265), and Luoyang city built during Northern Wei Dynasty (386–534). Accordingly, the imperial gardens and government offices were built along the central axis, Zhuque Avenue (which fronted the main gates of the imperial palace and inner city), in the northern part of Daxing city, thus strictly segregating the imperial palace and government buildings from the civilians' dwellings. To the left of the inner city was the imperial ancestral temple while temples for societal offerings and prayers for deities, harvests



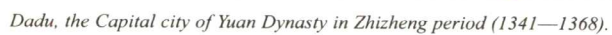
The li-fang layout of Chang'an, Tang Dynasty.

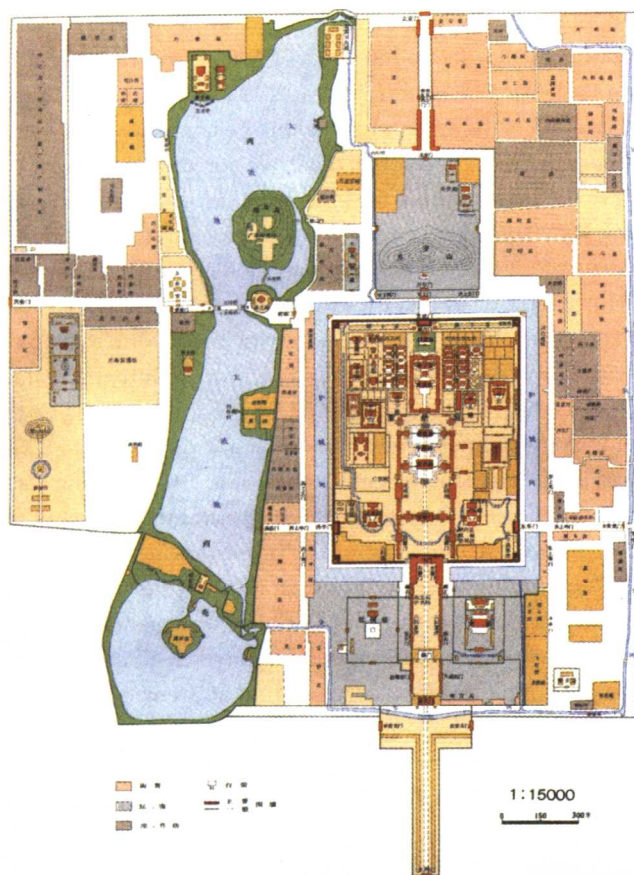
and the earth were located on the right. In the year 618 AD, Daxing city was also designated as the capital city of the Tang Dynasty and had its name changed to Chang'an. The city of Chang'an kept to the basic layout of Daxing city, similarly using Zhuque Avenue as the central axis. To highlight the importance of the imperial palace, the streets to both sides of the central axis, the eastern and western markets of the city as well as the residential dwellings and inner alleys were all positioned in a strictly symmetrical format. The city's streets were laid out in a grid system and differentiated by varying grades. The city has 11 south-north streets and 14 east-west streets. Among them six main roads provide direct access to the main gates of the city while the rest were subsidiary roads. All the roads were lined with neat rows of water drainage channels on both sides, and shaded by rows of Chinese scholar trees. The residential areas were further divided into 108 alleys by the road system, where the eastern and western markets were centrally located. For the purposes of security and easy management, all these residential alleys and markets were built as enclosed structures. The alley gates opened and shut at regular hours, and curfews were imposed and monitored by the troops of patrolling guards. There were also patrolling soldiers at night and civilians were banned from going out at night. Until today, the ancient city walls of Xi'an, as well as the sites of the Tang imperial palaces, Daming Palace and Xingqing Palace, are still largely preserved with the original structures of the imperial city of Tang Dynasty. The provision of scenic spots and facilities for the public's enjoyment in Chang'an city, helped set the capital city apart from its predecessors. The well-known scenic tourist attractions in Chang'an included a pond located in the southeast corner of the city and lush gardens. During those days, it was the common practice among successful candidates of the imperial examinations to follow the bend of the river and tour the scenic spots.

Beijing City of Ming and Qing Dynasties—The Symbol of Supreme Imperial Power

With the exception of Nanjing as the capital city during the beginning of the Ming Dynasty, the feudalistic dynasties of Yuan, Ming and Qing, all designated Beijing as their capital city. As such, Beijing completely superseded its predecessors including the capital cities of Chang'an, Luoyang and Kaifeng.

The capital city of the Yuan Dynasty (1276–1368), Dadu (Beijing today), was one of the most magnificent and well-designed capital cities of the world during the 13th and 14th Century. Marco Polo had described in his travelogue, that Beijing was such a beautiful city that mere words could not describe it. As part of their assimilation of Chinese culture, the Mongol rulers had modeled the overall layout of Dadu city after the classic city-planning code in *Rites of Zhou Dynasty*. Apart from the chief architect,





*The Imperial City in
Tianqi and Chongzhen
periods (1621–1644),
Ming Dynasty.*

Liu Bingzhong, other foreign experts such as the Nepalese architect, Aniko (1244–1306) and others were also invited to participate in the design of Dadu. During that period, Dadu city had 3 sets of walls and 11 city gates, with an orderly architectural layout and a clear network of roads. To accommodate some elements of the nomadic life-style of the Mongols, a piece of land in the northern part of the city much like the steppe, was set aside for the emperor and his sons to practice horse riding and archery. As the original site of today's Beijing city, the locality and layout of Dadu city had a direct impact on the ways in which the latter Ming and Qing dynasties built Beijing city.

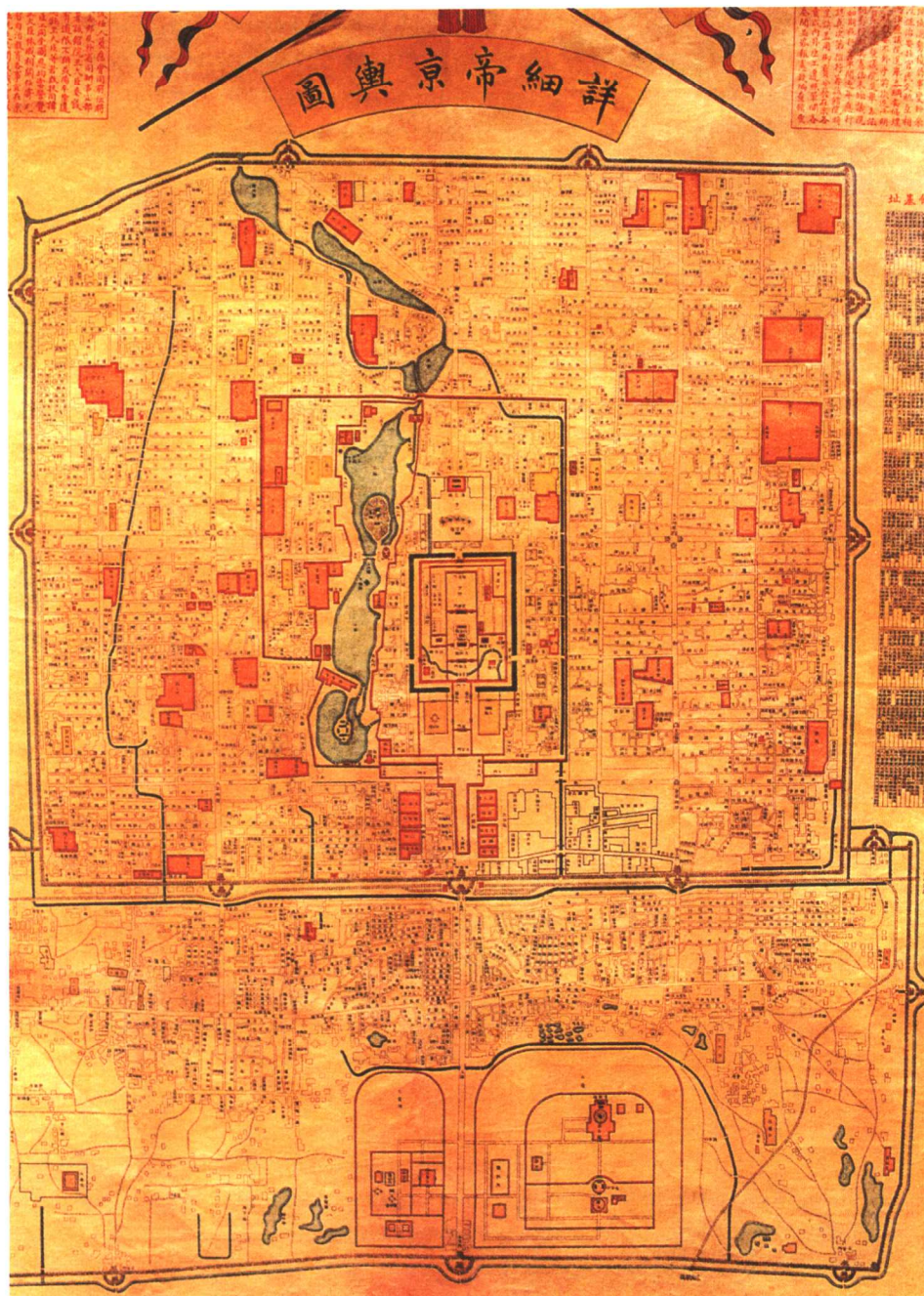
Based on the foundation of Dadu city, the rulers of the Ming Dynasty (1368–1644) reconstructed Beijing city. As the capital city of early Ming Dynasty was Nanjing, Beijing city lost some of its importance during that period. For the ease of defending



the kingdom against Mongols from the north, the Ming government abandoned a stretch of barren land, about 5 miles wide, to the north of Beijing and thus, reduced the scale of the city. When Emperor Chengzu (reign 1402–1424) decided to shift the capital to Beijing, the southern wall of the imperial city within Beijing city was relocated further southwards by about one mile, to facilitate the extension of the road (for the imperial carriage) leading to the main gates of the innermost imperial palace. By the middle period of the Ming Dynasty, another wall was constructed just outside the southern wall of the city, to ward off the Mongolian cavalry which had attacked from the south several times. However, due to insufficient financial resources, the Ming emperor was unable to construct the other three sides of the city wall to form a complete set, thus leaving Beijing city with an inverted T-shaped layout. The Imperial Palace (Forbidden City) was built at the heart of Beijing city and was conceived by using the north-south axis to bisect the city symmetrically. Spanning a length of up to 8 km, this central axis commences in the south, at the gate of the outer city, Yongding Gate, stretching up north through Zhengyang Gate of the inner city and then through the gates of Tian'an Gate, Duan Gate and Wu Gate of the Imperial City, the gates of Shenwu of the Imperial Palace and finally over Jingshan Hill, ending at the Drum and Bell Towers up north. Built on top of the central axis were ornamental columns, bridges, squares of different sizes and magnificent buildings which accentuated the stately air of the imperial palaces, and clearly emphasized the supreme power of the feudal emperor.

Jingshan Hill, which is located on the northern side of Forbidden City, deserves a mention. It is a man-made hill that was created during the Ming Dynasty, from the soil dug up to create moats around the city. Initially called Wansuishan, the hill was renamed Jingshan during the Qing Dynasty. Jingshan Hill was also the highest point in the ancient Beijing city and its main peak sits on top of what used to be the imperial harem of the Yuan Dynasty. Consequently, the hill was also named Zhenshan, a name with the symbolic meaning of suppressing and preventing the revival of past dynasties.

Beijing city during the Ming Dynasty was strictly laid out according to traditional social norms and etiquette. Taimiao (Imperial Ancestral Temple), was built to the left of the Imperial Palace while the Shejitan (Altar of the Earth and Harvests), was located on the right side. Apart from these temples, other temple altars such as Tiantan (Temple of Heaven), Ditan (Temple of Earth), Ritan (Temple of Sun) and Yuetan (Temple of Moon) were also constructed outside the inner city, in the directions of south, north, east and west respectively. The road network and water system devised by Dadu city of the Yuan Dynasty were retained. The major road arteries of the inner city were the two main streets which ran parallel to the central axis, and connected all the other



The Detailed Map of Imperial Capital, published in 1908, introduces most of the streets, hutongs, and important buildings of Beijing.



streets together. As the Imperial Palace, Shisha Lake and Xiyuan Park disrupted the connection between the eastern and western parts of Beijing city, traveling in the east-west direction and vice versa was rather inconvenient. The thoroughfares perpendicular to the main road arteries, led directly to the residential quarters, and generally had a width of about 6 or 7 meters. The distance between these streets in turn varied between 50 to 60 meters. This area was where the Hutongs of Beijing city were located

The rulers of the Qing Dynasty (1644–1911) retained the basic scale and layout of Beijing city inherited from the Ming Dynasty. As a large number of the palaces had been destroyed by fires and earthquakes, the Emperor Kangxi (reign 1662–1722) ordered the reconstruction of most of the palaces during his reign. At the same time, changes to residential areas were made, whereby civilians living within the inner city were relocated to the outer city. The inner city thus strictly became the area where the mansions of royal clansmen and the barracks of the Eight Banner soldiers were located. This strategic decision was to lead to the further development of the outer city, where many important commercial areas flourished. Furthermore, some Lama temples were also constructed to promote racial harmony amongst the city's various ethnic groups, such as the Mongols and the Tibetans. The Qing Emperors of Beijing city focused on the construction of imperial villas and gardens located on the northwest outskirts of the city. During the more than 130 years' reign of the Emperors Kangxi, Yongzheng and Qianlong, spanning three generations, they had built a couple of imperial gardens.

The Beijing city of Ming-Qing period was outstanding architectural example of ancient Chinese cities. Edmund Bacon (1910–2005), a noted American architect, had mentioned in his book, *Design of Cities*, that perhaps the greatest piece of architectural work on earth was the Beijing city, "which was designed as the emperor's seat of power, with aspirations to become the centre of the world...that in terms of design, it was gloriously splendid and provided a wealth of ideas for the development of today's cities."

The Beijing city of Ming-Qing period had almost been preserved in whole, up till now. Although most of the ancient city walls of the modern Beijing city had been demolished, the city gates and their names have been retained.

The demolition of the old gates and walls of the city have brought about gradual changes to the old grid pattern of roads. Following the rapid development of Beijing after the 1980s, the newly-built main road arteries of Beijing had disrupted the layout of the age-old grid pattern of streets. Today, only a certain number of valuable and well-preserved architecture including home dwellings, palaces and temples located in the city center are retained as well.