Cai Yanxin

Chinese Architecture

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Translated by Andrea Lee, Selina Lim, and David Gu.

Chinese Architecture

Ancient Chinese architecture not only is a source of reference for modern Chinese design, it also has had an international influence and attracted global attention. Moreover, architectural remains in China reveal much about the history of this ancient civilisation. The palaces, gardens, temples, tombs, and dwellings of the Chinese people reflect, for example, the military achievements of the Qin emperor, the spirit of the Tang Dynasty, the palace intrigues of the Ming Dynasty, the diversity of Chinese culture through the ages, and the skill of countless generations of craftsmen and laborers. *Chinese Architecture* provides an accessible, illustrated introduction to this essential part of China's cultural heritage.

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CHINESE ARCHITECTURE

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Contents

Preface

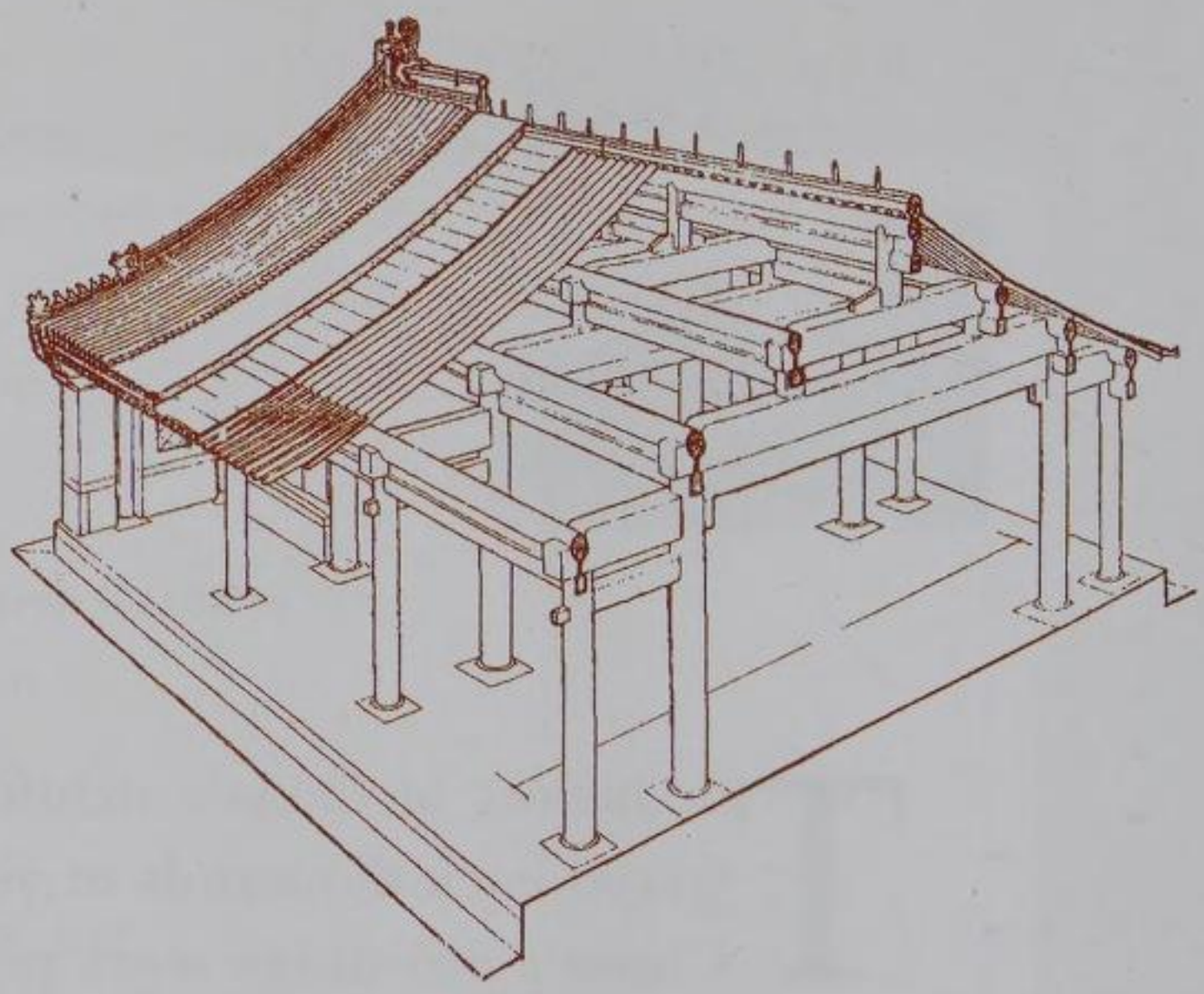
The history of China's architectural development can be traced back thousands of years to ancient times when China's buildings were primarily built from wood, supplemented by brick, tile and stone. This ancient Chinese architecture not only is a source of reference for modern Chinese design; it has also attracted global attention.

Appreciating ancient Chinese architecture can be likened to opening a large history book. The legends of remote antiquity speak of the great military achievements of the Qin emperor, the noble spirit of the Tang Dynasty, the palace intrigues of the Ming Dynasty, not to mention the wisdom and intelligence of millions of ordinary laborers that are neglected by the history books. All this is recorded vividly in ancient architecture.

Ancient Chinese architecture includes royal palaces, temples, residential dwellings, imperial burial grounds and landscape architecture. The features of the built structures, such as palaces and temples, all tend to adopt similar architectural forms and overall patterns of layout, expressing the classic Confucian style. Landscape architecture was completely different, with free and flexible arrangements and vestiges of Taoist influence.

Each building was divided into upper, middle and lower components. The roof composed the top, the foundation the bottom, and the pillars, doors, windows and walls the middle. The roof can be considered the most important part of ancient

Chinese architecture; all roofs had a graceful and gradual curved shape, and can be classified into many different categories, including veranda roofs, gable and hipped roofs, and pavilion roofs, with each category representing a different degree of curve.



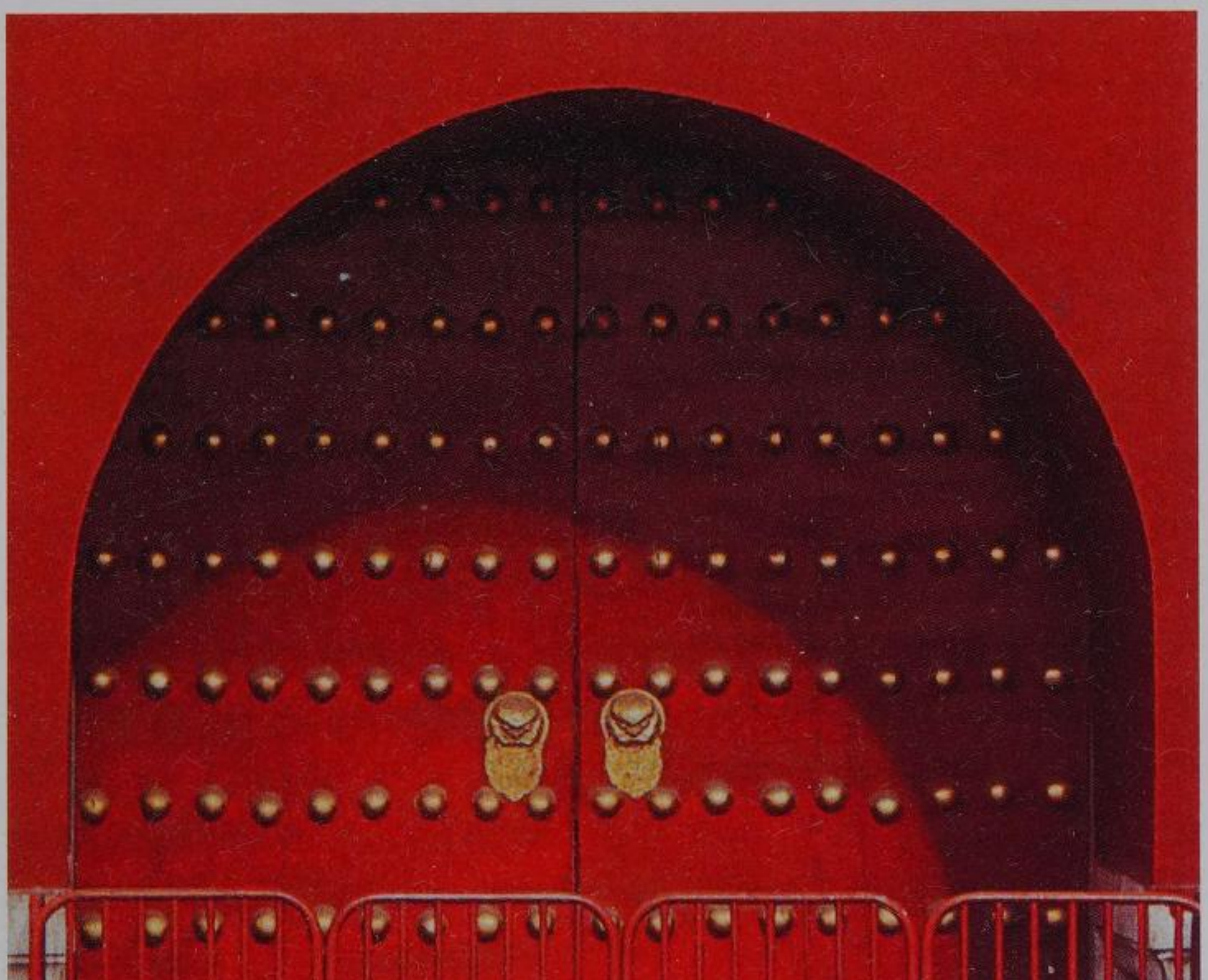
The wooden structure of ancient Chinese architecture.

The frame of ancient Chinese buildings was built from wood, including the columns and beams, with every component's point of connection using a tenon and mortise joint. This formed a flexible, versatile framework. Tenon and mortise joints have been discovered among architectural ruins in the city of Yuyao in Zhejiang province, indicating that they were used in antiquity as long as 7,000 years ago. Above the columns and below the roof there is a structural element built from alternating horizontal and vertical pieces of wood; these repeating layered components are called *dougong*, or bracket sets. This represents a characteristic Chinese element within Eastern architecture, and serves not only as a roof truss and fillet, but also has an attractive appearance.

Decoration was an important means of expression in ancient Chinese architecture, and when building frames ancient Chinese craftsmen took full advantage of the malleable characteristics of wood, using knives, hammers, chisels, drills and other tools to decorate their work. Most decorative Chinese traditional architecture had a practical and aesthetic value; the decoration was closely integrated with the structure, giving expression to the materials' natural qualities. Traditional Chinese painting,

sculpture, calligraphy, colors, designs, patterns and other artistic methods all had applications within decorative architecture, providing the architecture with a strong power of expression beyond its practical value.

As the dominant ideology in ancient China, Confucianism adopted the concept of propriety as the basic framework of its thoughts and teachings. This framework encouraged institutionalized relationships between social classes, which came to permeate the spheres of architecture and decorative art. This meant that not only a building's aesthetic value, but also its function of showing the owner's social status, was taken into account by architects. A building's architectural style, size, decoration and theme were all determined by its social function



The gold studded red gate of the Imperial Palace, Beijing.

and thus became important means of demonstrating the social status of the owners.

Artistic architecture develops under certain social conditions, and therefore naturally reflects the place and time of its origin. The progression of time is reflected in the continuous reform and innovation of architectural styles, thematic content and methods of craftsmanship, and the large degree of variation between the architecture of different regions stems from their differences in environment and climate. China's many different nationalities also use their own aesthetic traditions within artistic architecture, giving birth to a rich variety of ethnic styles.

Traditional Chinese artistic architecture was created and maintained by countless craftsmen who passed their knowledge from one generation to the next. In most dynasties architecture was never an independent field of study, and a formal process of preserving architectural history never took shape. Fortunately, within literary works many references can be found to cities and their architectural themes. Although rather sparse, there are some historical documents, such as old blueprints, diaries of foremen or craftsmen involved in the construction of imperial palaces or other large architectural projects, as well as treatises disseminated by architects themselves, which allow us a brief glimpse into the ancient process of creating architecture.

The process of designing ancient Chinese architecture was very similar to the processes used in designing buildings today. Architects and designers all attach great importance to the investigation and research into contemporary and older buildings, using and synthesizing previous models in the production of their designs. For a long time, Chinese craftsmen have used a three-dimensional method in the creation of their designs, similar to modern methods, and in the later stages of the Han Dynasty (206 BC–220 AD), formal architectural design patterns and explanatory documents were as indispensable for

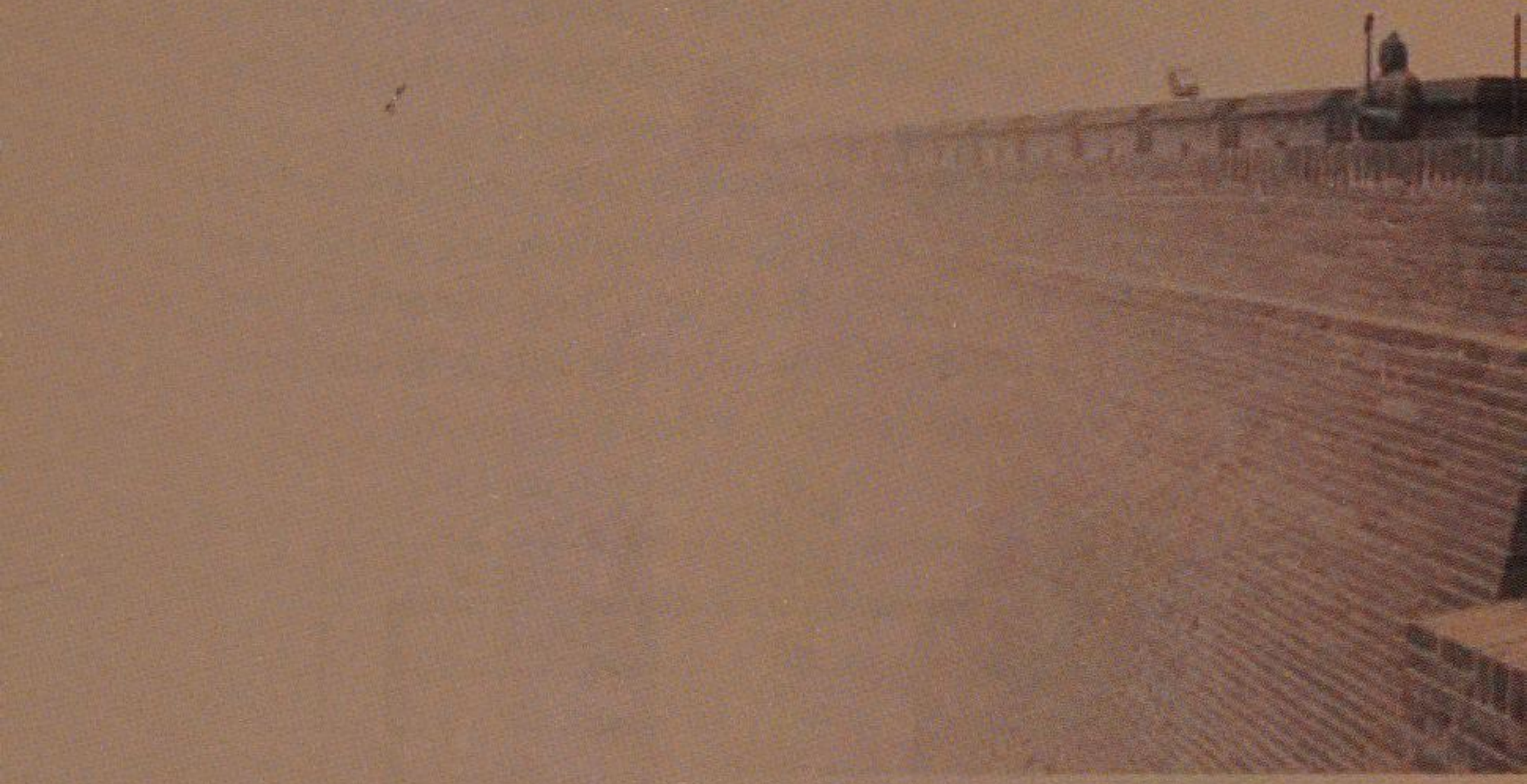
Different forms of roof in ancient China, which represent different classes of building.

large-scale architectural plans as they are now.

For the two to three thousand years between the *Dongguan* (Imperial Ministry of Works) in the Zhou Dynasty (1046 BC–256 BC) and the Imperial Offices of Royal Building and Architecture of the Qing Dynasty (1644—1911), China had no specialized architectural department or official responsible for planning, construction or allocation of building materials. It was the work of these government institutions to bring about a high level of efficiency in the utilization of labor and the transportation of production materials.

From the nineteenth century onward the world experienced the eastward spread of western culture, the scientific and technological development of modern society, and a growing interest in aesthetics. The Chinese architecture of the twentieth century was very varied and many public architectural projects appeared that successfully combined elements from China and the west. After China's reform and opening up in the 1980s, cities transformed at an ever quicker pace and developed a wealth of architectural styles. The current challenge for contemporary Chinese architects is to find a style that combines modern, organic and traditional styles.

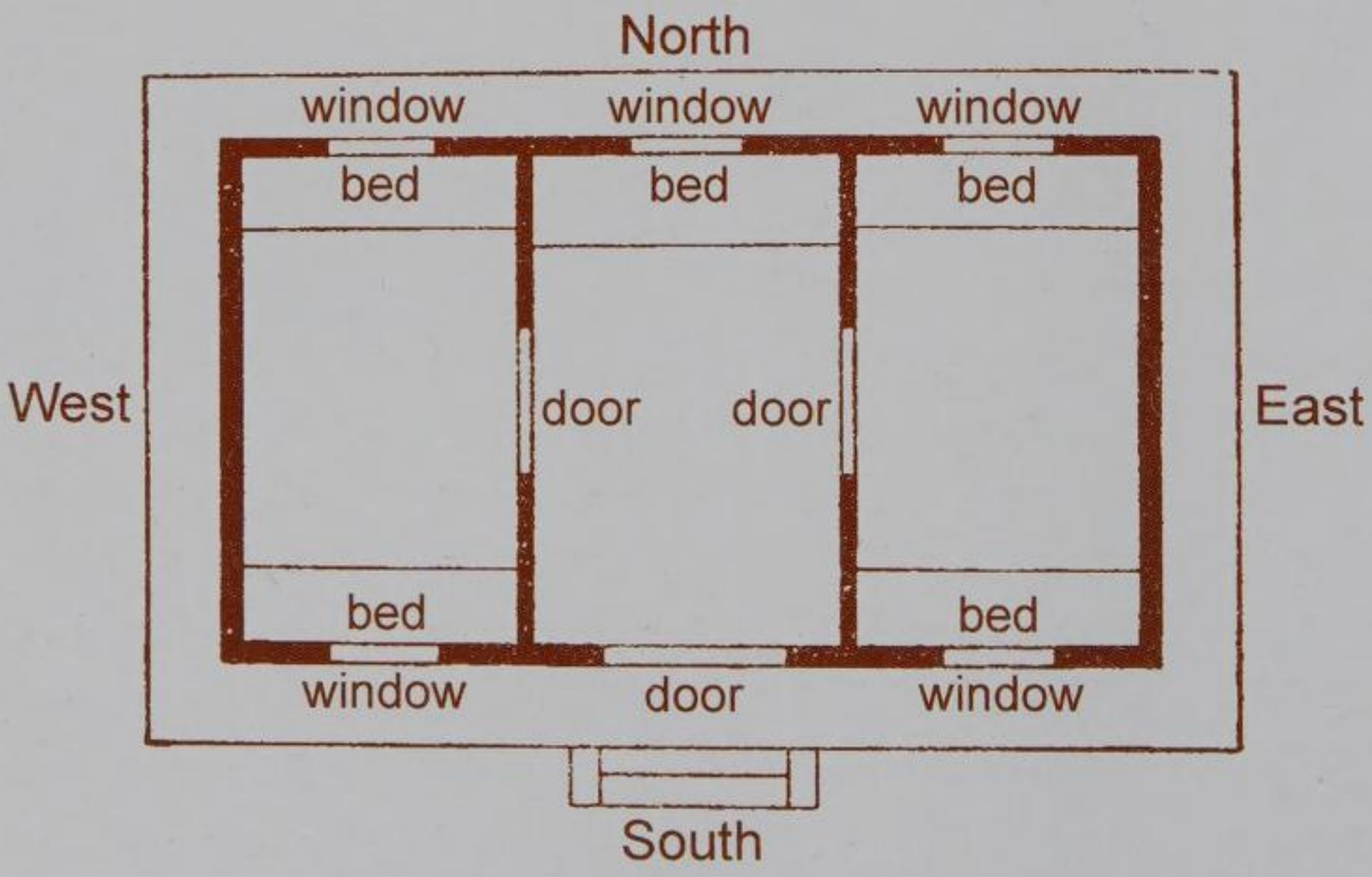
Ancient Cities



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

These ancient cities were built on a very small scale, with little internal infrastructure, and could more appropriately be defined as castles. It was not until the Zhou Dynasty (1046–771 BC) that Chinese cities developed at a faster pace, with urban city developments governed by a specific set of rules and regulations shaped by the feudal system. An example of such a set of rules and regulations is the ancient urban development code, *Zhou Li Kao Gong Ji* (*Rites of the Zhou Dynasty, Artificers' Record*), which contained detailed stipulations ranging from the layout of the cities to the width of roads.

The grid system layout of ancient Chinese cities had its origins in the country's early agricultural society, which was characterized by the "well-field" system. The cool northern and warm southern climates of China led specifically to an emphasis



The north-south layout of houses in ancient China.

The Well-field System

The well-field system, prevalent during the Western Zhou Dynasty, refers to the system of state land ownership that existed when China's society still practiced slavery. At that time, roads and channels that crisscrossed the land divided it into squares that were shaped like the Chinese character for "well" (井), giving rise to the name "well-field."

on buildings being erected in a south-facing position, to avoid cold winds. The practice of constructing buildings on a north-south axis has in turn given rise to the establishment of the north-south direction of the network of roads.

The philosophical foundation of the development of square-shaped cities in ancient China was determined by ancient philosophies such 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, which features in these philosophies, led to an emphasis on forming a central axis in the basic layout of cities and also promoted symmetry. Many cities and the buildings within were named and had locations which reflected their symbolic meaning. *Feng Shui* is a philosophy with origins in the traditions of ancient Chinese culture, which held great respect for man's natural environment and which had a significant impact on the choice of locations for the ancient cities and their layout.

The changes in the economic structure of 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 cities, whereby residential streets and market areas were clearly segregated by a square-grid network of roads. Furthermore, every 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 both inconvenienced people's lives and limited society's economic progress. It was not until the Song

Detail from the *Riverside Scene at Qingming Festival*, drawn by Song Dynasty artist Zhang Zeduan.

Dynasty (960–1276 AD) that the "enclosed-structure" approach to city planning was abolished, due to extensive developments in agriculture, commerce, external trade and even scientific and technological advancements. Replacing the clearly defined areas for distinctive purposes were many commercial streets, and the prosperous and bustling scenes of these streets in the capital city of Kaifeng during the Song Dynasty can be witnessed in the scroll painting, *Qing Ming Shang He Tu* (*Riverside Scene at Qingming Festival*), today classified as one of China's national treasures.

The Riverside Scene at Qingming Festival

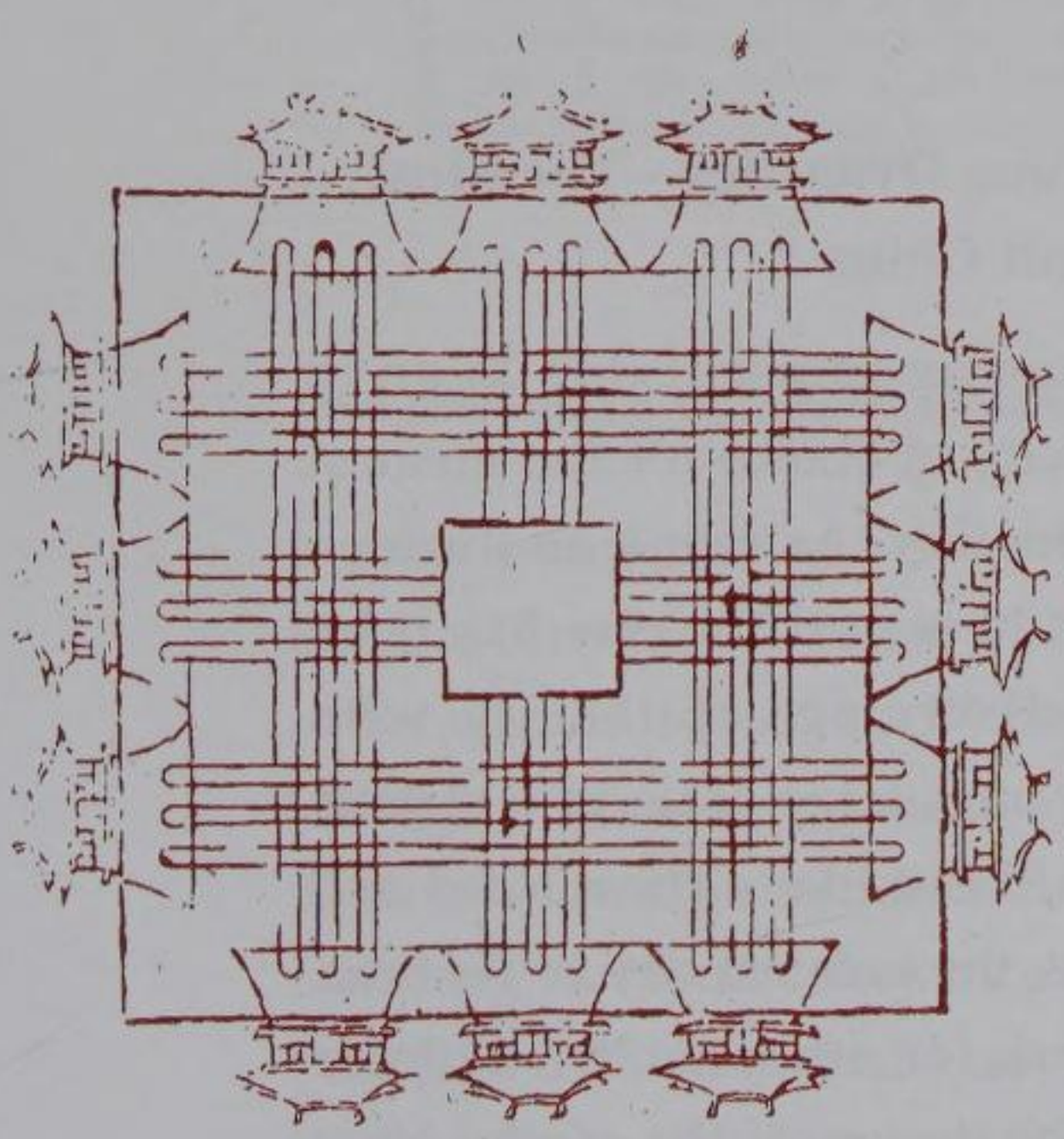
The Riverside Scene at Qingming Festival is one of only a few rare masterpieces still in existence by the Northern Song Dynasty (960–1127) artist Zhang Zeduan. It shows the Northern Song capital of Bianjing (present day Kaifeng, Henan Province) in springtime, depicting the everyday social norms and customs of the capital and portraying a microcosm of the city's economic life.

Capital Cities

Throughout ancient Chinese history, the rulers of newly established dynasties emphasized the importance of selecting the right locations for their capital cities, often sending their most trusted officials to conduct detailed topographical and

hydrological surveys and supervise the construction of selected sites. The main criteria for the choice of location for any capital city were the strategic political and military needs of the ruler. Another critical factor was the availability of water sources for drinking, farming and gardening, as well as the location of waterways which enabled the transportation of grain and other goods to the capital cities, and formed the lifelines of every dynasty.

During the eleventh century BC, the fall of the Shang Dynasty (1600 BC–1046 BC) and subsequent rise of the Zhou Dynasty saw the establishment of Haojing as the capital city (Xi'an City 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 the Zhou Dynasty began to construct centers of defense and political control on an unprecedented 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 a surge in city-building activities. This also laid the foundation for ancient Chinese cities to be created according to a basic format—part of the city was designated as work and business areas while the latter half was reserved for housing and leisure activities.



The layout of the Imperial City of the Zhou Dynasty, recorded in the Chapter of "Artificers' Record" in *Rites of the Zhou Dynasty*.

The practice of seeking a state of equilibrium and harmony was appreciated

and advocated in ancient China. In the matters of building cities and capitals, symmetry was emphasized, as was the Chinese character "zhong (中)," 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 in the centre. It became the model for the planning and construction of later ancient Chinese capital cities.

To safeguard their rulers' lives, the capital cities of kingdoms from the Warring States Period (770 BC–476 BC) right up to the Ming (1368–1644) and Qing (1644–1911) Dynasties, had always been fortified with both inner and outer city walls. Imperial cities or palaces within the inner city walls were built to protect the rulers, while outer city walls 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 depended on this multi-layered city layout to protect themselves.

Chang'an City of the 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 thirteen dynasties built their capital cities here and the city has been reputed to be the world's longest-serving capital city, with about 1,100 years of 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 the capital cities of neighboring countries such as the ancient Japanese cities of Heijo-kyo (Nara) and Heian-kyo (Kyoto).

The *li-fang* layout of Chang'an in the Tang Dynasty.

After putting an end to more than 300 years of war following the Eastern Han Dynasty (25–220 AD), Emperor Sui Wendi (who reigned 581–604 AD) began to construct Daxing city, later Chang'an, on a large scale in 582. Daxing city was built according to drawings after officials had studied the layouts of Ye city (Anyang in Henan Province today), built by the Kingdom of Wei (220–265 AD), and Luoyang city which was built during the Northern Wei Dynasty (386–534 AD). The imperial gardens and government offices were built in the northern part of the city along the central axis of Zhuque Avenue, which strictly

segregated them 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 and the earth were located on the right.

In 618 AD, Daxing city was designated as the capital city of the Sui and Tang dynasties and had its name changed to Chang'an. The city of Chang'an kept to the basic layout of Daxing city, also using Zhuque Avenue as its 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, with six main roads providing direct access to the main gates of the city. All of 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 divided into alleys by the road system, and the eastern and western markets were centrally located within these areas. For the purposes of security and ease of management, all of the 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 troops of patrolling guards. Soldiers patrolled at night when civilians were banned from going out. 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.

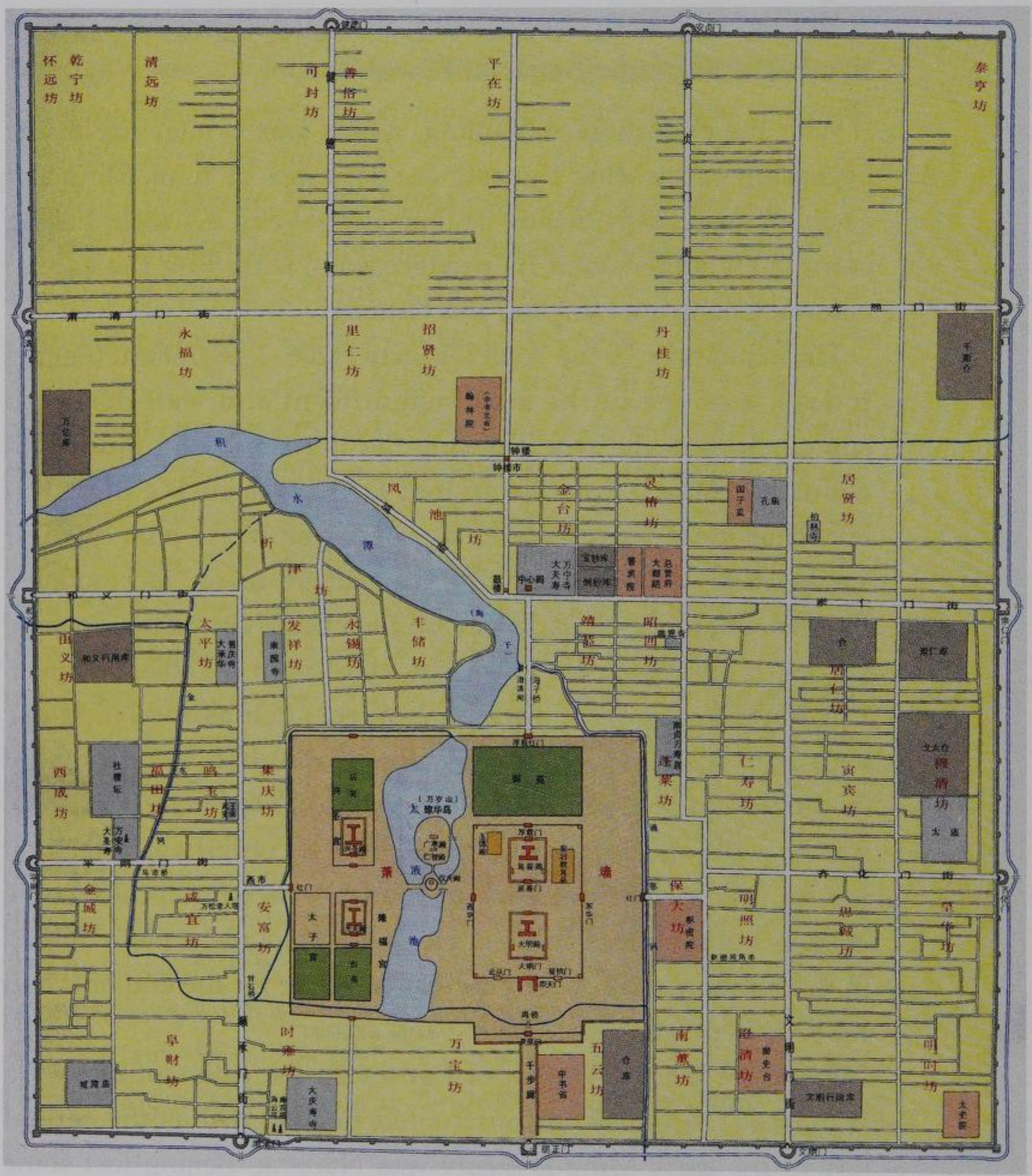
The provision of scenic spots for the enjoyment of the public helped set Chang'an city apart from its predecessors. The well-known tourist attractions in Chang'an included a pond in the southeast corner of the city and lush gardens, and it was common practice among successful candidates for the imperial examinations to follow the bend of the river and tour the scenic spots.

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

With the exception of Nanjing, which was capital city at the beginning of the Ming Dynasty, the 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 (1206–1368), Dadu (Beijing today), was one of the most magnificent and well-designed capital cities of the world during the thirteenth and fourteenth centuries. Marco Polo wrote that Dadu 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 on the classic city-planning code set out in *Rites of the Zhou Dynasty*. Apart from the chief architect, Liu Bingzhong, other foreign experts such as the Nepalese architect, Aniko (1244–1306) were also invited to participate in the design of Dadu. During this period Dadu city had three sets of walls and eleven 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 was set aside for the emperor and his sons to practice horse riding and archery.

Based on the foundation of Dadu city, the rulers of the Ming Dynasty (1368–1644) reconstructed Beijing, but as the capital city of the early Ming Dynasty was Nanjing, Beijing lost some of its importance during the early period of the dynasty. To help defend the kingdom against Mongols from the north, the Ming government abandoned a stretch of barren land about five miles wide to the north of Beijing, thus reducing the scale of the city. When Emperor Chengzu (who reigned 1402–24) decided to shift the capital to Beijing, the southern wall of the imperial city within

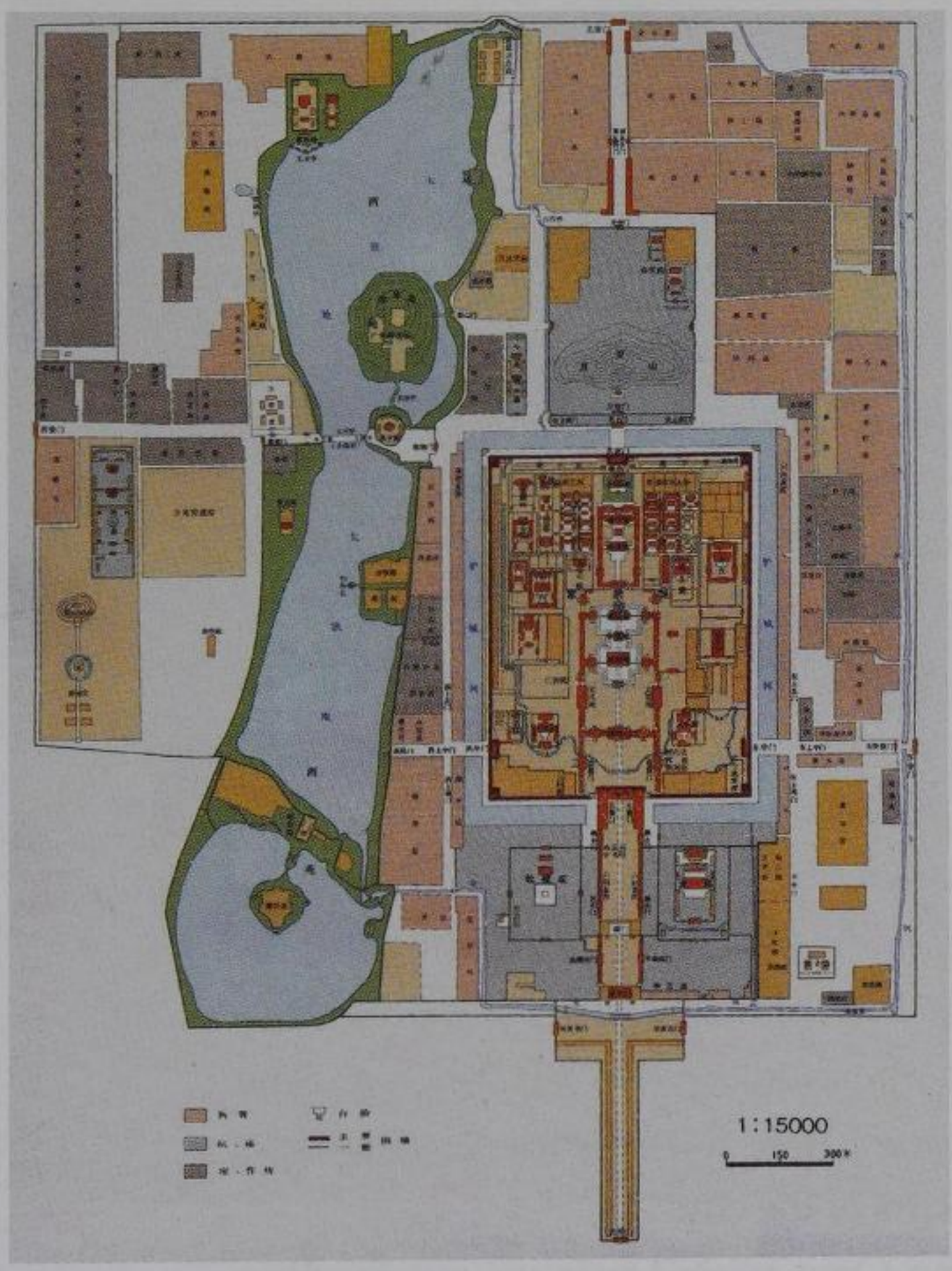


Dadu, capital city of the Yuan Dynasty in the Zhizheng period (1341–1368).

Beijing city was relocated further southwards by approximately half a 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 and was conceived to bisect the city symmetrically along a north-south axis. Spanning a length of up to eight kilometers, this central axis starts in the south at Yongding Gate, the gate of the outer city, and ends at the Drum and Bell Towers in the north. Built along the central axis were ornamental columns, bridges, squares of different sizes and magnificent buildings which accentuated the stately air of the imperial palace, and clearly emphasized the supreme power of the feudal emperor.



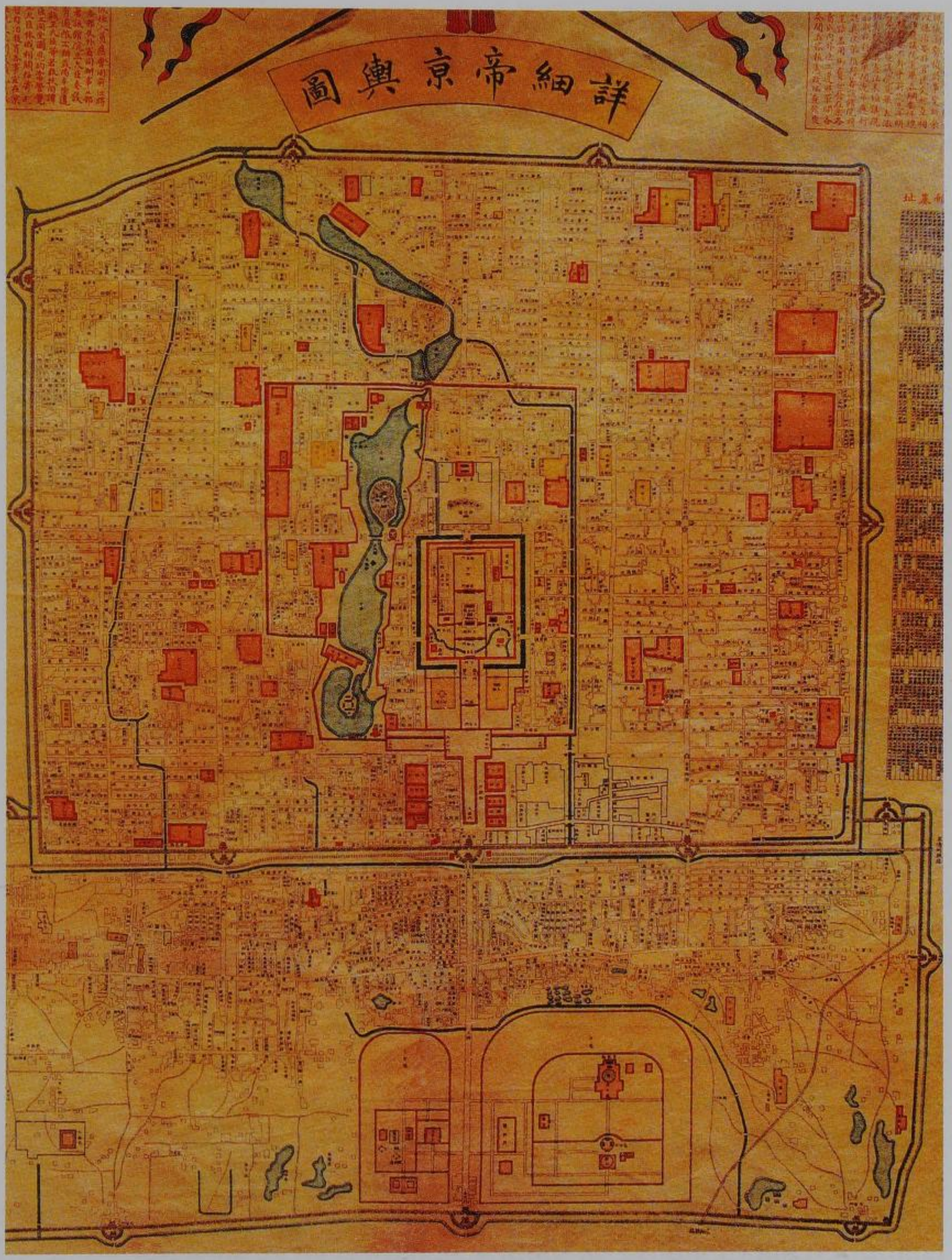
The imperial city in the Ming Dynasty, Tianqi and Chongzhen periods (1621–1644).

Beijing was laid out strictly according to traditional social norms during the Ming Dynasty. Taimiao (the 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. Apart from these temples, other temple altars such as Tiantan (Temple of

Heaven), Ditan (Temple of Earth), Ritan (Temple of the Sun) and Yuetan (Temple of the Moon) were also constructed outside the inner city, to the south, north, east and west respectively. The road network and water system devised for Dadu during the Yuan Dynasty were retained, and 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 streets together. As the Imperial Palace, Shisha Lake and Xiyuan Park disrupted the connection between the eastern and western parts of the city, traveling in an east-west direction 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 from these streets varied from 50 to 60 meters. This area was where the *hutongs* (traditional courtyard neighborhoods) of Beijing city were located.

The rulers of the Qing Dynasty retained the basic scale and layout of Beijing city which they had inherited from the Ming Dynasty. As a large number of palaces were destroyed by fires and earthquakes, the Emperor Kangxi (who reigned between 1662–1722) ordered the reconstruction of most of these palaces during his reign. At the same time, changes to the residential areas were made, with civilians living within the inner city being relocated to the outer city. The inner city then strictly became the area where the mansions of royal clansmen and the barracks of the "Eight Banner Soldiers" (the imperial army) 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 focused on the construction of imperial villas and gardens in the northwest outskirts of the city.

The Beijing city of the Ming-Qing period was an outstanding example of traditional Chinese cities. Edmund Bacon (1910–2005),



The Detailed Map of the Imperial Capital, published in 1908, details most of the streets, *hutongs* (alley-ways), and important buildings of Beijing.

a noted American urban planner and architect, suggests in his *Design of Cities*, that Beijing is perhaps the greatest piece of architectural work on earth, which "designed as the domicile of the emperor, was intended to mark the center of the universe... it is so brilliant in design that it provides a rich storehouse of ideas for the city of today."

Until recently, the Beijing of the Ming-Qing period had almost been preserved as a whole. The demolition of the old gates and walls of the city have brought about gradual changes to the old grid pattern of roads and, following the rapid development of Beijing since the 1980s, the newly-built main road arteries of Beijing have disrupted the layout of the age-old grid pattern of streets. Today only a few examples of well-preserved architecture are retained in the city center, but many street-names have survived.

Provincial Cities

Provincial cities served as geographically dispersed centers of political and military control for central government throughout the dynasties and were also often local centers of culture and commercial activity. Factors such as the prevailing weather conditions, topography, traffic and defense capabilities caused their layout and architecture to develop in different ways.

Quadrangle or courtyard dwellings were popular in northern China, where the terrain is generally flat. Because of this, the northern cities were mostly square or rectangular in shape, and had wide, straight roads. They were arranged in cross or T-shaped layouts, with the drum towers and bell towers located in the city centers, and with government offices always located within the vicinity of these towers. Examples of ancient cities with these characteristics include Xi'an and Pingyao.

In contrast, the layout of cities in mountainous regions had to be more flexible because of their complex topography. The

network of roads in such cities usually followed the contours of the undulating land, like China's famous mountain city Chongquing, and was created more through necessity than planning. Cities built along rivers were often ribbon-shaped, like Lanzhou, which was built along the valley of the Yellow River. The Jiangnan region, with its many rivers and lakes, had streets and buildings built along both sides of river banks as the waterways were the main channels of transportation. Small towns built along the banks often acquired a ribbon shape while the large towns developed a cross-shaped layout, or a "nine-grid pattern" that crossed the rivers. The Pingjiang prefecture (Suzhou City today) of the Song Dynasty (960–1276) was a classic example of a city with curving streets and bridged rivers.

Some cities were laid out in a circular shape for strategic defense purposes, to fight floods or to achieve specific symbolic meanings. The Suqian County in Jiangsu, for example, which was built during the Ming Dynasty, was circular for protection against floods, while the outer city walls of Rugao County in Jiangsu were structured in this way as a means of defense against attacks from Japanese pirates.

Pingyao: The Best-Preserved City of the Ming-Qing Period

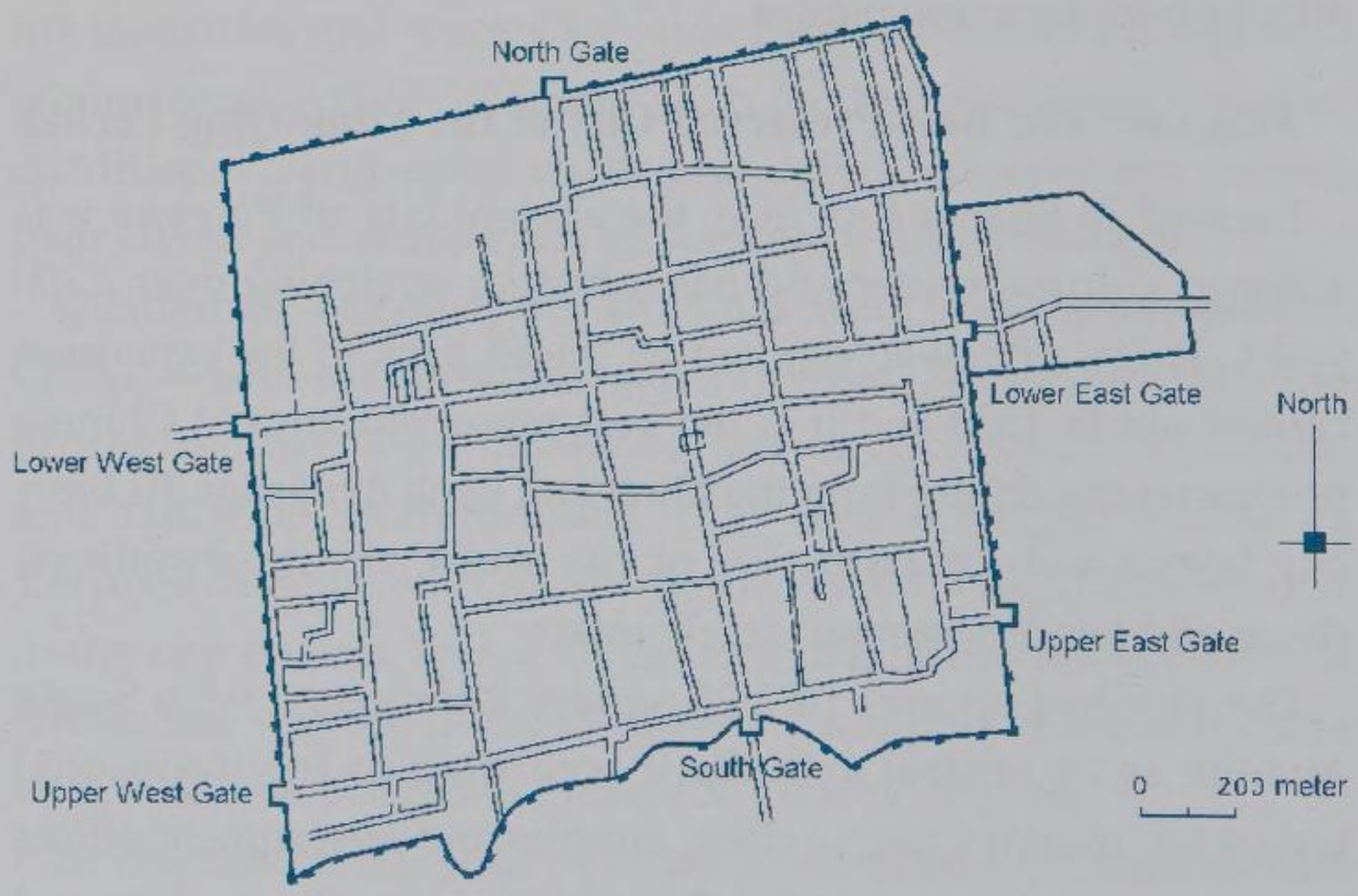
Located in Shanxi Province, the ancient city of Pingyao was a famed cultural center and has a history stretching over 2,700 years. Today's Pingyao city can be traced back to the expansion carried out in 1370 and it is the best preserved ancient Chinese provincial city dating from the Ming and Qing dynasties. Its basic city layout and infrastructure of city walls, streets, dwellings, shops and temples remain largely intact.

The city had an area of 2.25 square kilometers, with South Avenue as its central axis. Built according to the traditional layout for ancient Chinese cities, temples and government offices were located on both sides of the central axis, with markets and

dwellings in the city center. The commercial areas in Pingyao city were far larger than those of most traditional cities, which reflected the economic prosperity of the city. Most of the streets in the city have retained their original names from the era of the Ming and Qing dynasties and are laid out in grid or T-shaped patterns.

Pingyao has been described as a tortoise-shaped city, built with six city gates: four representing the tortoise's legs, and one each for the eyes and tail. The tortoise is regarded as an auspicious animal in Chinese culture and the symbolism of Pingyao as a tortoise was meant to bring about good fortune and an eternal existence for the city.

Pingyao city is commonly regarded as "the city of three treasures," the first of which being its old city walls. The second treasure is Zhenguo Temple, with its hall of 10,000 Buddhas built during the period of the Five Dynasties (907–960). The city's third treasure is the Shuanglin Temple, which was rebuilt in 571. The temple's halls contain more than 2,000 colored clay figurines



Plan of Pingyao city in the Ming Dynasty.

Inner yard of the Rishengchang draft bank, Pingyao, Shanxi Province.

from the Yuan and Ming dynasties and, as such, it is often called "the treasure trove of colored art sculptures."

Pingyao city was the birthplace of the first modern bank in China, known as the Rishengchang. It was the first bank which accepted bank drafts and, under the leadership of Rishengchang, the social credit business in Pingyao grew in leaps and bounds. During its heyday there were twenty-two draft banks in the region, making it the financial center of China.

Chongqing: The Mountain City or City Mountain

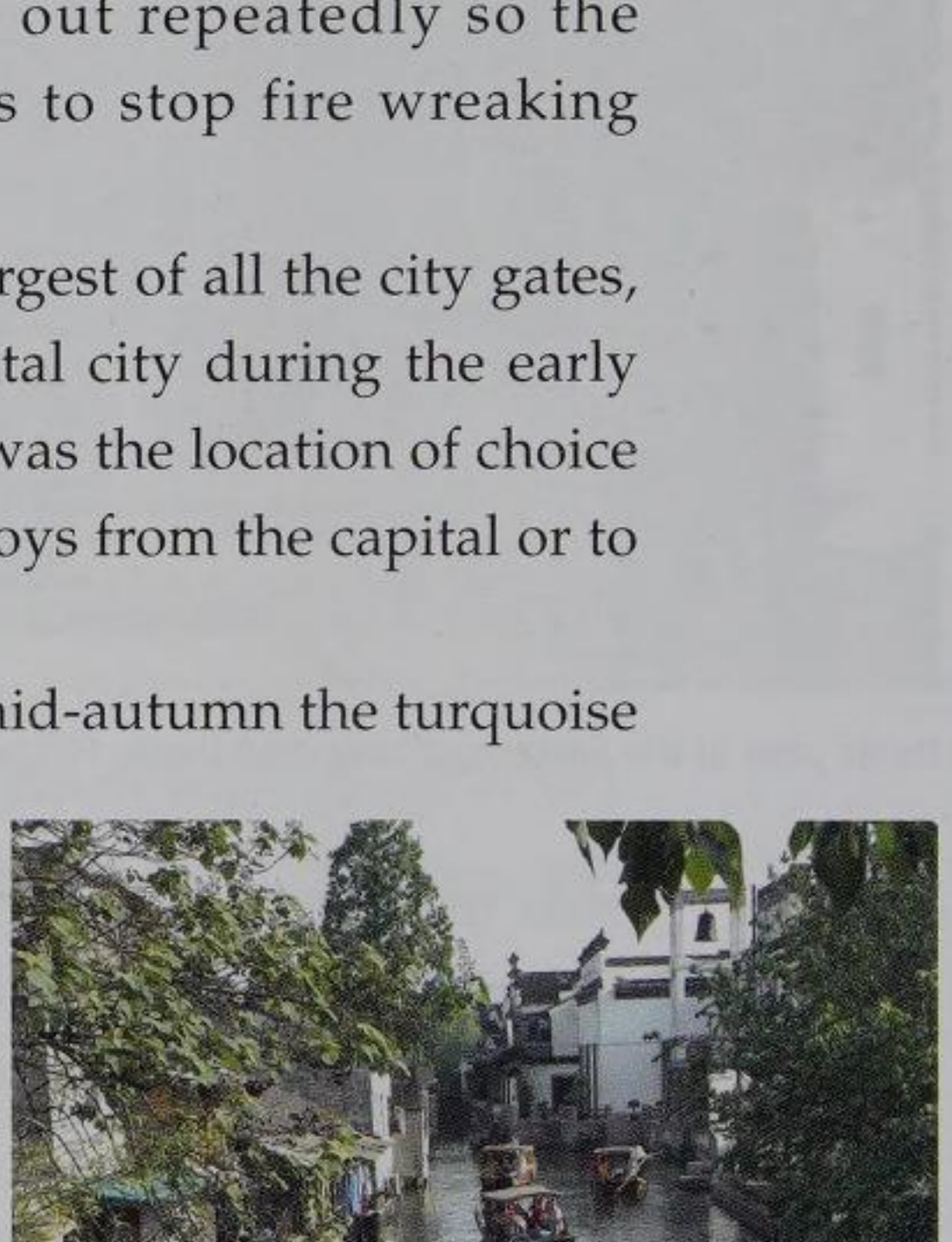
The mountain city of Chongqing is located on the mountain slopes where the Yangtze River and Jialin River intersect. From the Warring States Period (475–221 BC) right through to the Qin (221–206 BC) and Han (206 BC–25 AD) dynasties, the Chongqing city was already established with its back towards the mountains and three sides fronting the waters. The buildings

and streets of the city were built on varying levels due to the steep terrain, resulting in a city with staggered layers and roads spiraling upwards and around the mountains.

During the early period of the Ming Dynasty, the governor Dai Ding developed the city and built a total of seventeen city gates, nine of which were "water gates" for the manual transportation of water into the city to comply with the needs of *feng shui*. Unfortunately, fires broke out repeatedly so the officials shut down eight of the gates to stop fire wreaking havoc on their city.

The gates of Chaotianmen were the largest of all the city gates, and faced Nanjing, which was the capital city during the early period of the Ming Dynasty. As such, it was the location of choice for local officials to welcome official envoys from the capital or to receive imperial edicts.

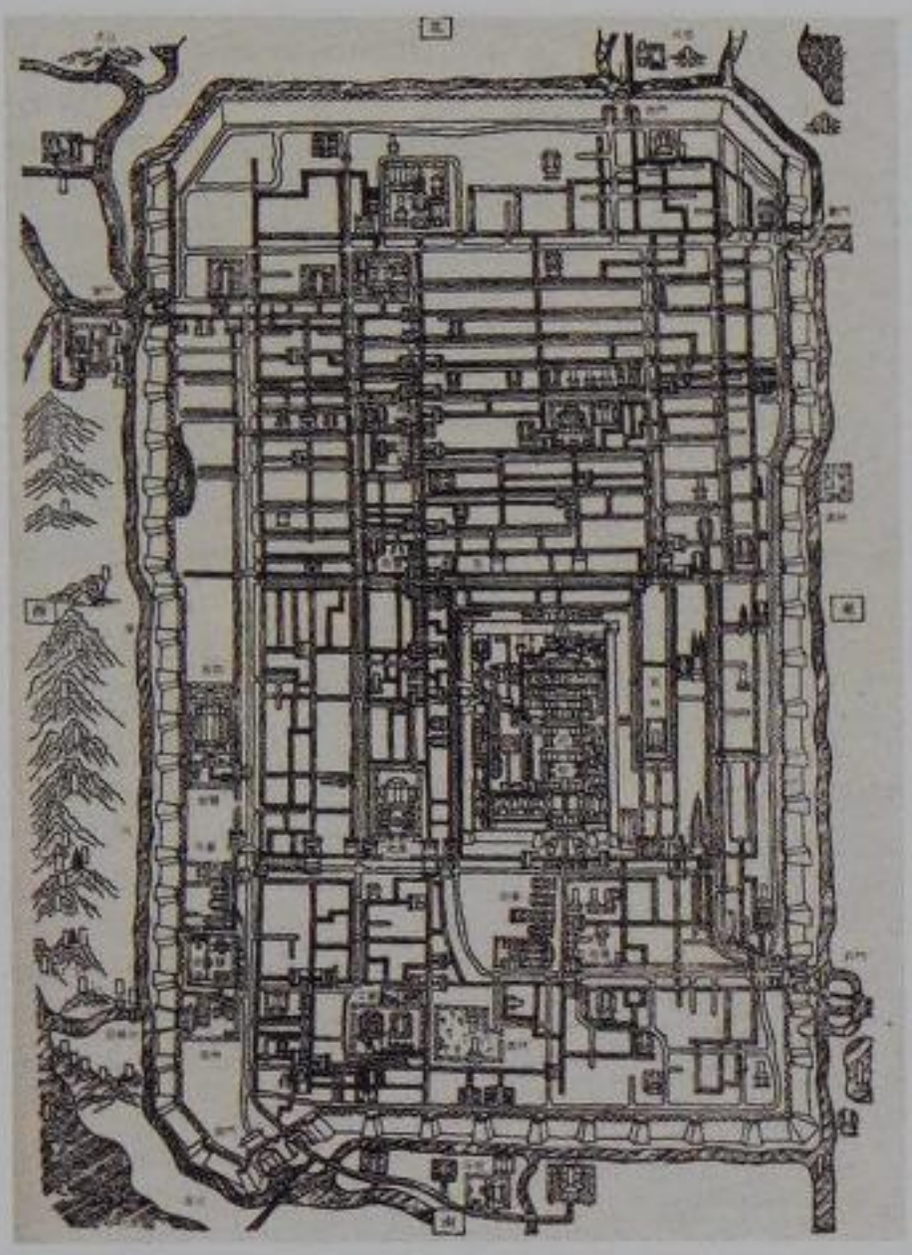
From the beginning of summer until mid-autumn the turquoise waters of the Jialin River and the muddy waters of the Yangtze River meld together in strong torrents, creating spectacular whirlpools of water, and giving rise to the magnificent scene of the powerful rush of the waters of the Yangtze River through the Three Gorges.



Water town of Suzhou.

Suzhou: Picturesque Region of Rivers and Lakes in Jiangnan

The city of Suzhou originated at the end of the Spring and Autumn Period (770–476 BC) and was once the capital city of the state of Wu. During the Qin, Han, Jin and Tang dynasties, it was also a large and important city. The



Map of Pingjiang (today's Suzhou), 1229.

city was known as the Pingjiang prefecture during the Song Dynasty, and enjoyed great prosperity due to progressive developments in its commercial and shipping activities.

Suzhou city had a rectangular-shaped layout with a grid pattern of roads linked together by a network of bridged rivers, and was well protected by large moats.

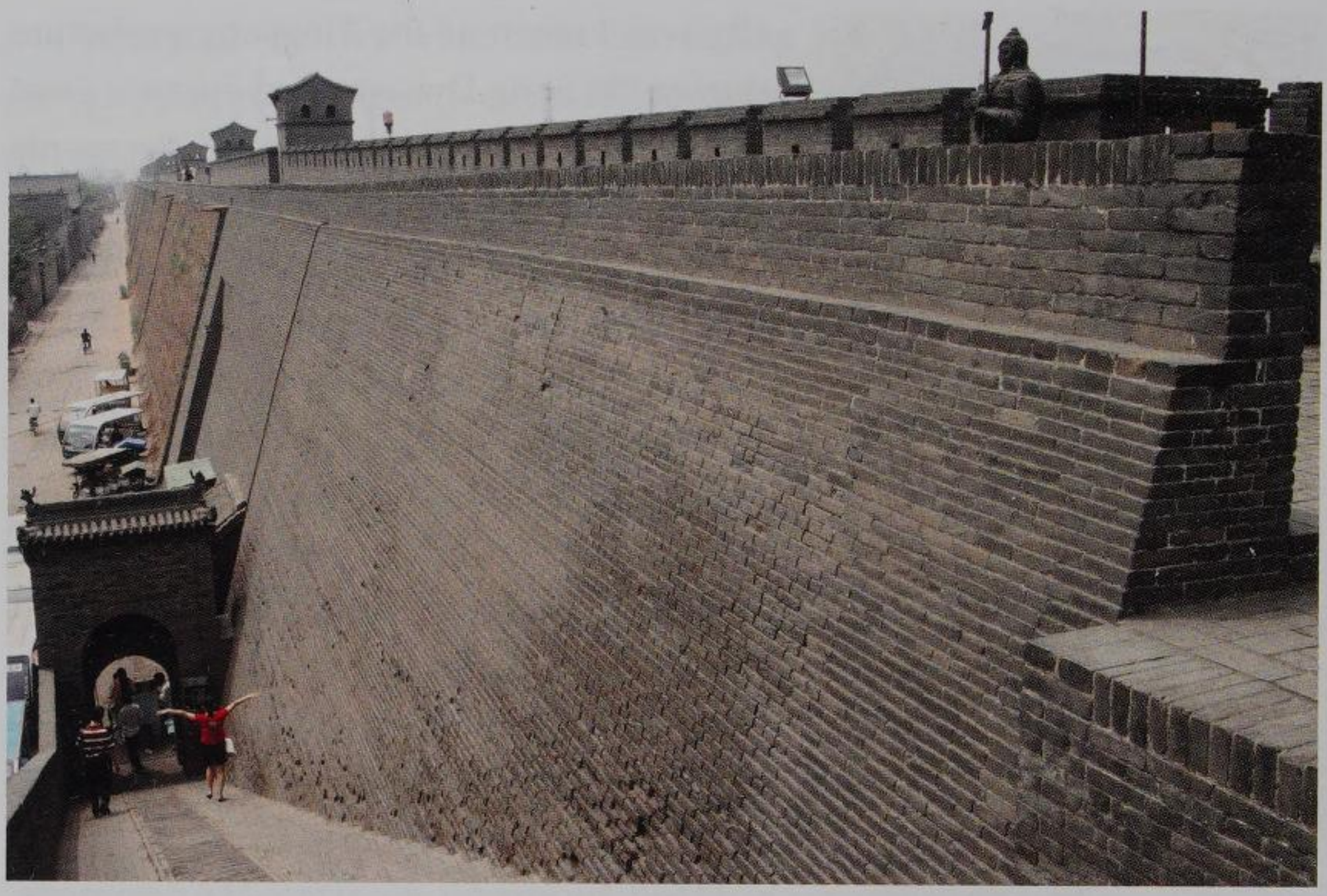
Towards the south of the city centre were the government offices and military forces of the Pingjiang prefecture. Buddhism and Taoism were equally important during the Song Dynasty and there were many temples along the main road arteries in the city, reflecting the importance of religion.

Suzhou was populated by many wealthy landowners, officials and affluent merchants who built large residences with courtyards and private gardens, prompting the development of the unique Suzhou-style gardens. There are around 200 gardens of varying sizes within the city, all with their own artistic style and structure. Among them are the Surging Waves Pavilion, the Lion Grove, the Humble Administrator's Garden and the Lingering Garden, representing the Song, Yuan, Ming and Qing dynasties' four artistic styles, and known as the "four legendary gardens of Suzhou."

Military Defense

City Walls

Wars were common in ancient China and, although necessary, structures such as city walls, trenches and moats had an impact on the development of city architecture. The creation of enclosed cities meant that their most important form of protection was

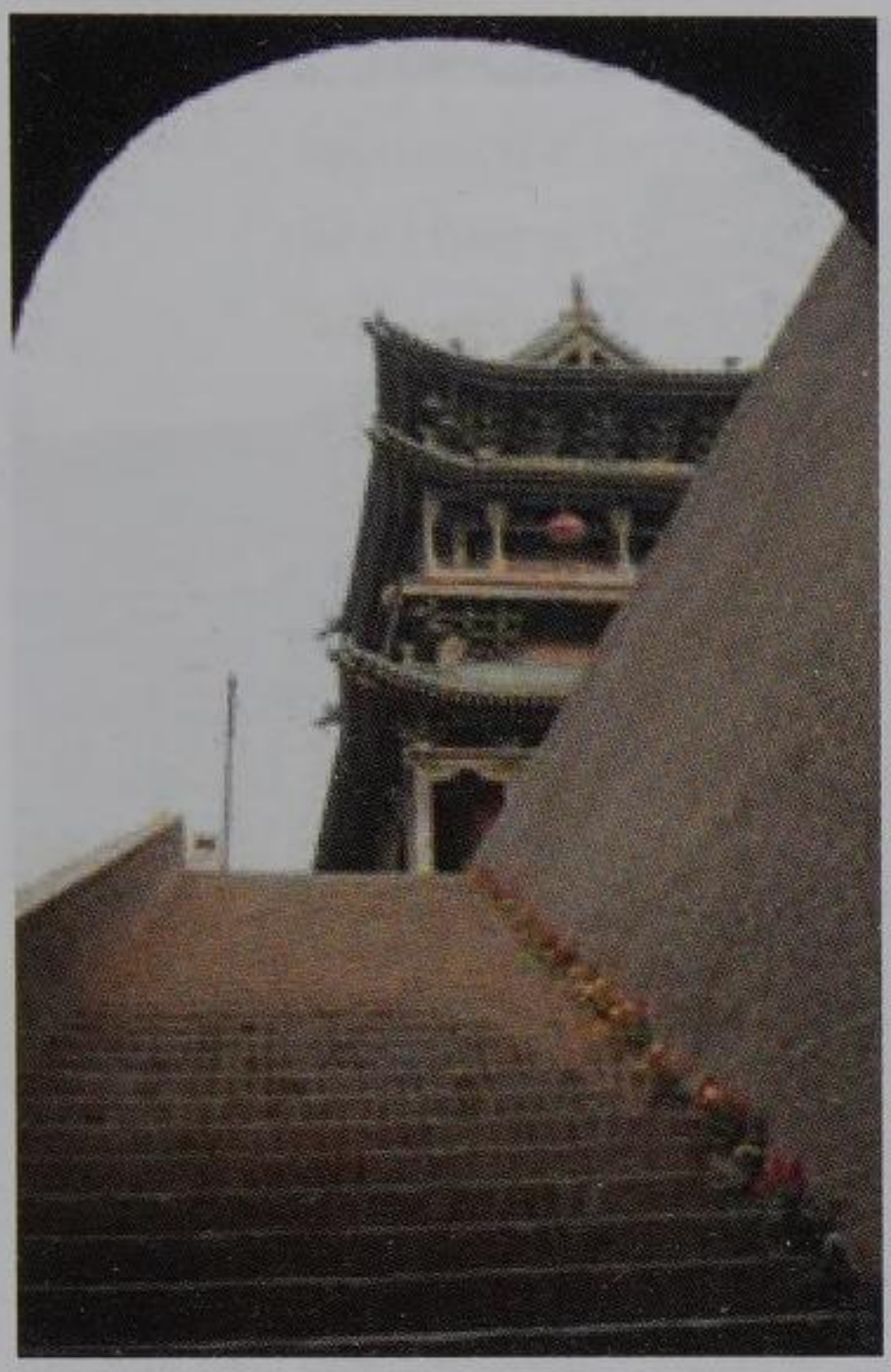


The ancient city wall of Pingyao, Shanxi Province.

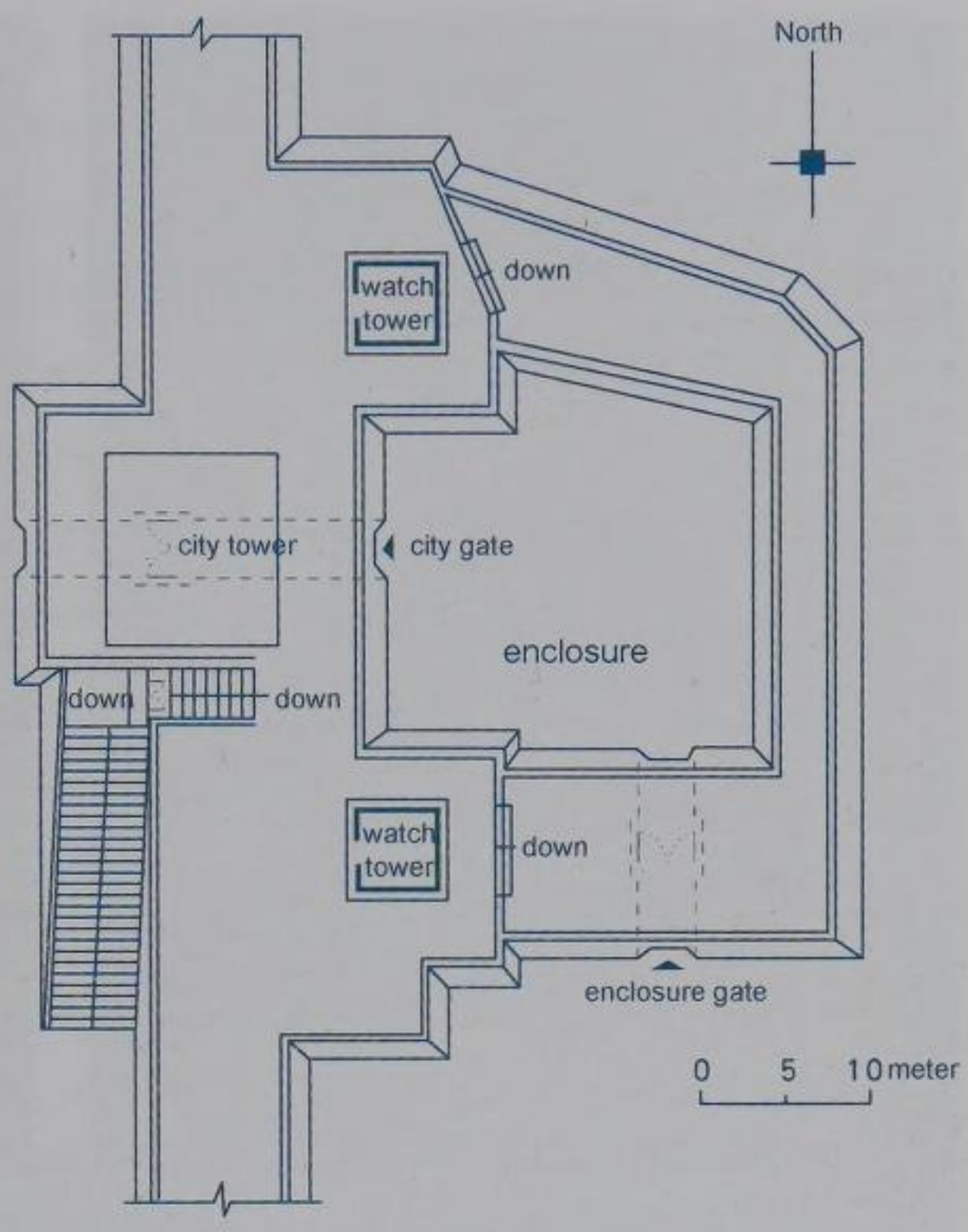
walls, and in their earliest form these city walls were simply wooden fences, piled rocks or tamped earth. The invention of gunpowder and its subsequent use in attacks on cities wrought unprecedented destruction and as a result some important cities began to fortify critical points with brick walls. After the Ming Dynasty, brick-fortified city walls became even more widespread. The height and thickness of the walls and numbers of battlements and watch towers depended on the defense strategies and importance of each city.

(1) The city wall of ancient Pingyao

Pingyao city in Shanxi province has some of the most well-preserved city walls in China, first built between 872 BC–782 BC. Although the walls began as tamped earth, they underwent several cycles of rebuilding and repair during the Ming and Qing dynasties. Today the city walls span 6,163 meters, with a core wall of tamped earth that was fortified



City tower, Pingyao, Shanxi Province.

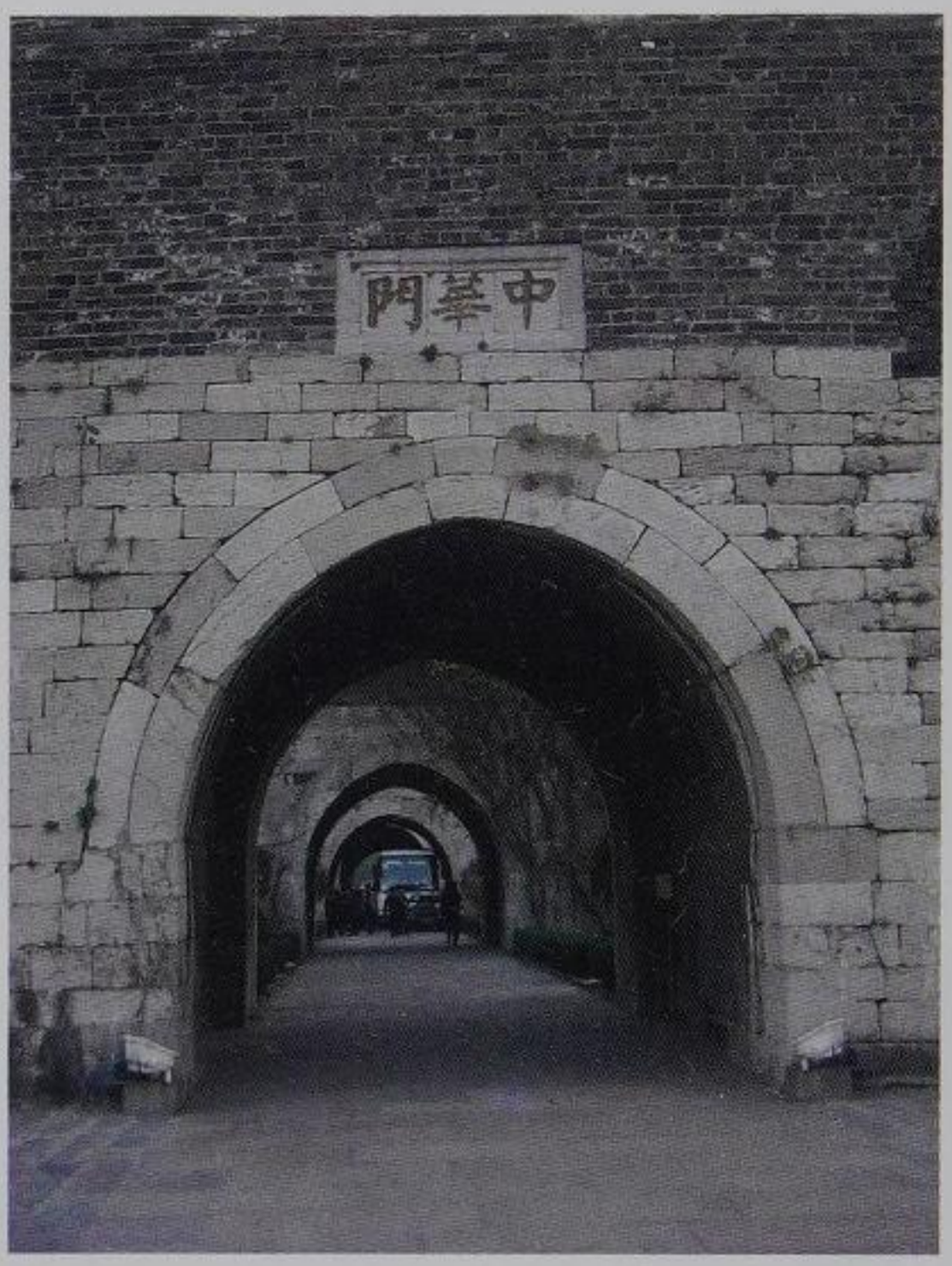


Plan of Pingyao enclosure, Shanxi Province.

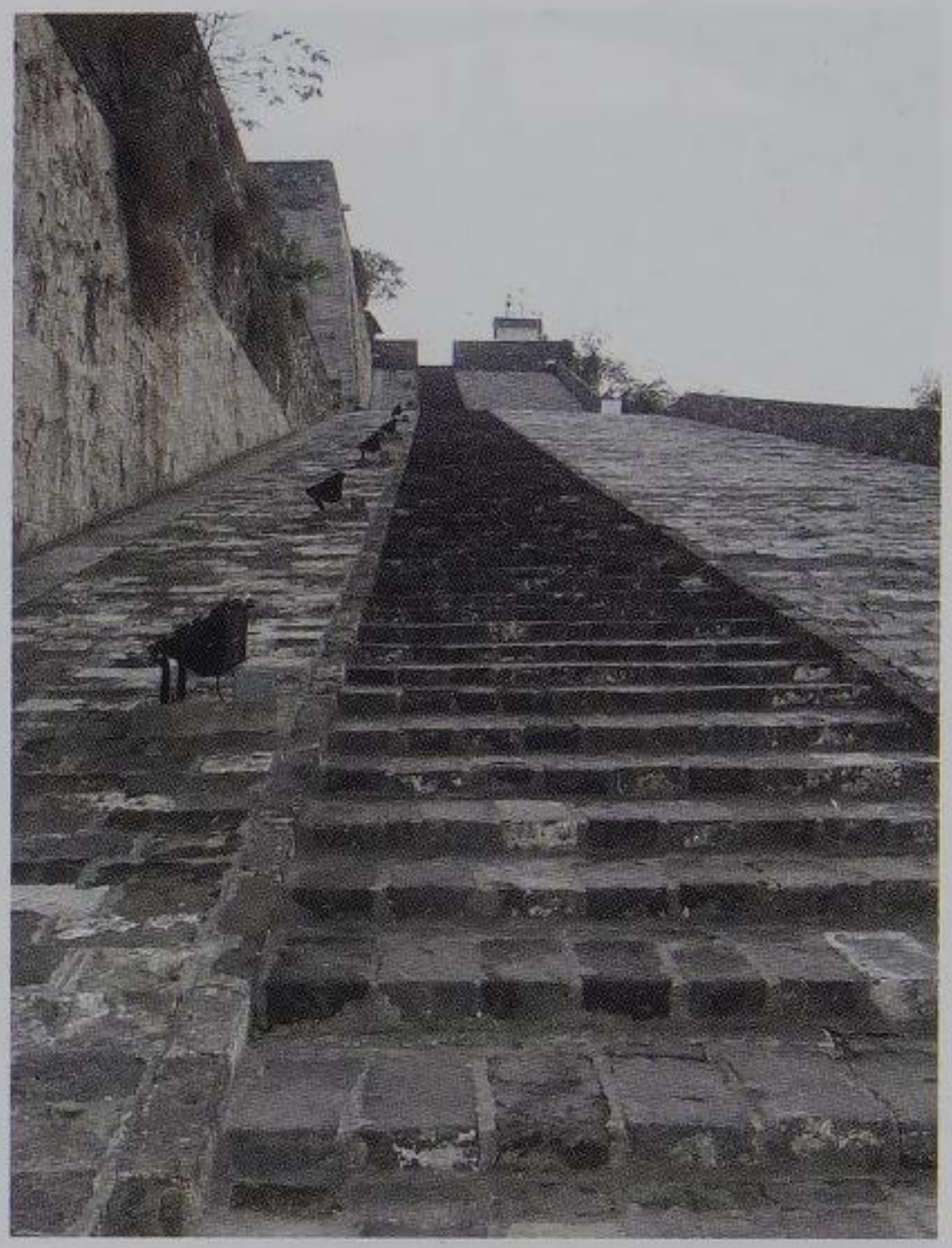
with an outer layer of brick. The walls range from 10 meters thick at the bottom to 3–5 meters at the top, and are between 6 and 10 meters tall. They have a total of 3,000 battlements and 72 watch towers and this well-fortified city of bricks, granite and moats has weathered attacks and natural disasters well over the course of centuries.

(2) The city wall of ancient Nanjing city

The ancient city of Nanjing, built during the Ming Dynasty, was the first brick-walled city in China. The building of the city started in 1366 and was a consolidation of the capital cities built by previous dynasties in the same location. The height of the city wall originally ranged between 14 and 21 meters, while the width of the bottom of the wall was about 14 meters and between 4 and 9 meters at the top. Nanjing had a total of 13 entrances along its wall and each one was double-gated, with a floodgate in front and a twin set of timber doors encased in metal behind.



The multi-layered enclosure of Zhonghua Gate, Nanjing, which could hide thousands of soldiers in its caves.



This horse path on Nanjing city wall allowed soldiers in defensive positions to ride the top of the wall in an emergency.

Nanjing city was the product of the labor and intelligence of civilians from the provinces located in the mid to lower half of the Yangtze River. The manufacture of bricks for the city wall was strictly quality controlled and each brick was stamped with details of its origin and name of manufacturer along with the stamp of a quality controller. To further fortify the wall, granite rocks were used to build the foundations and a binding paste of lime, tung oil and glutinous rice was used for sealing and binding the bricks together. This mixture helps to account for the sturdiness of the wall, even after 600 years.

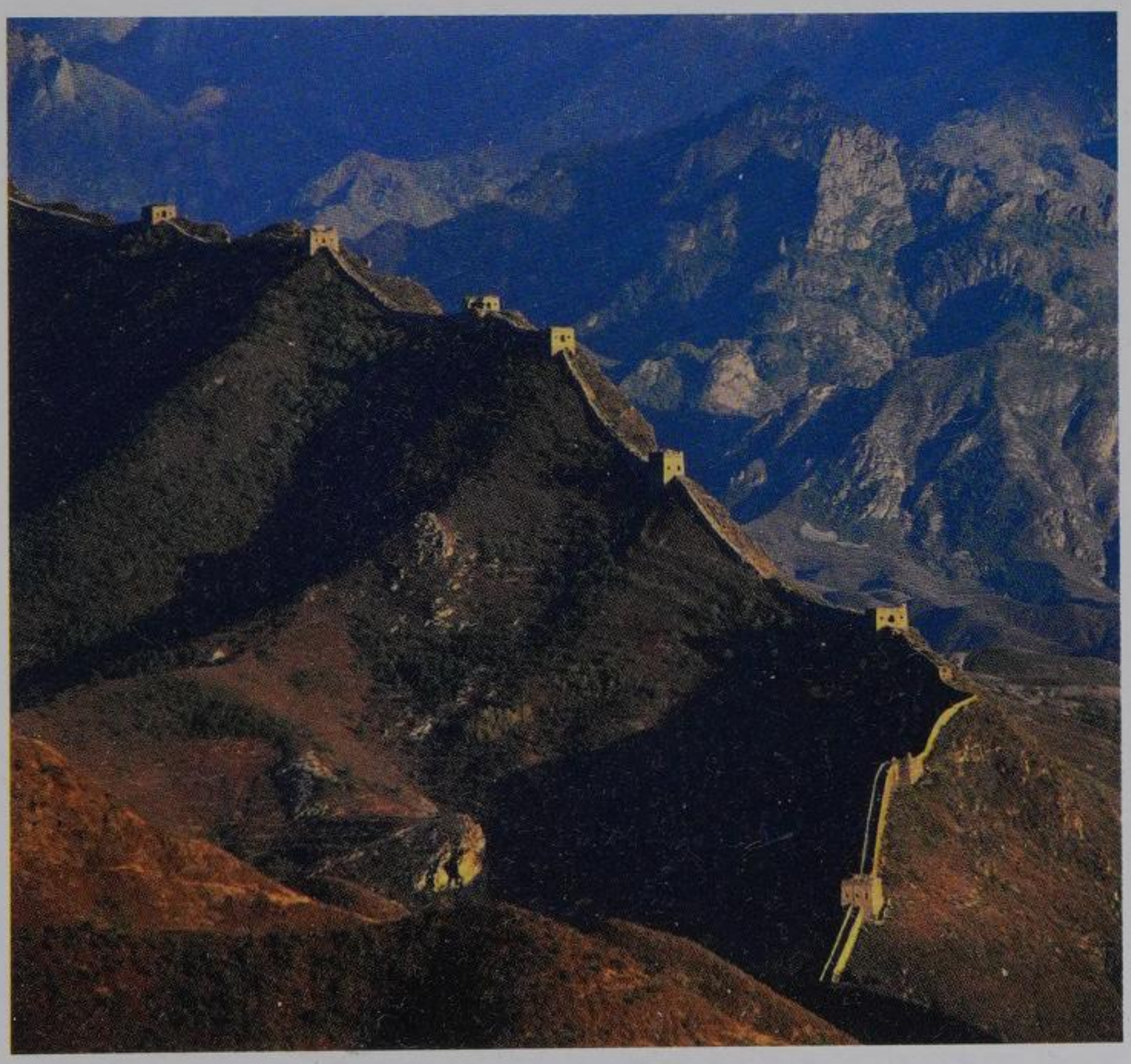
The Great Wall of China

The Great Wall was the largest-scale project for defense in Chinese history and spans more than 6,000 kilometers from the Yalu River of Liaoning Province in the east, to Jiayuguan Gate of the Gansu Province in the west.

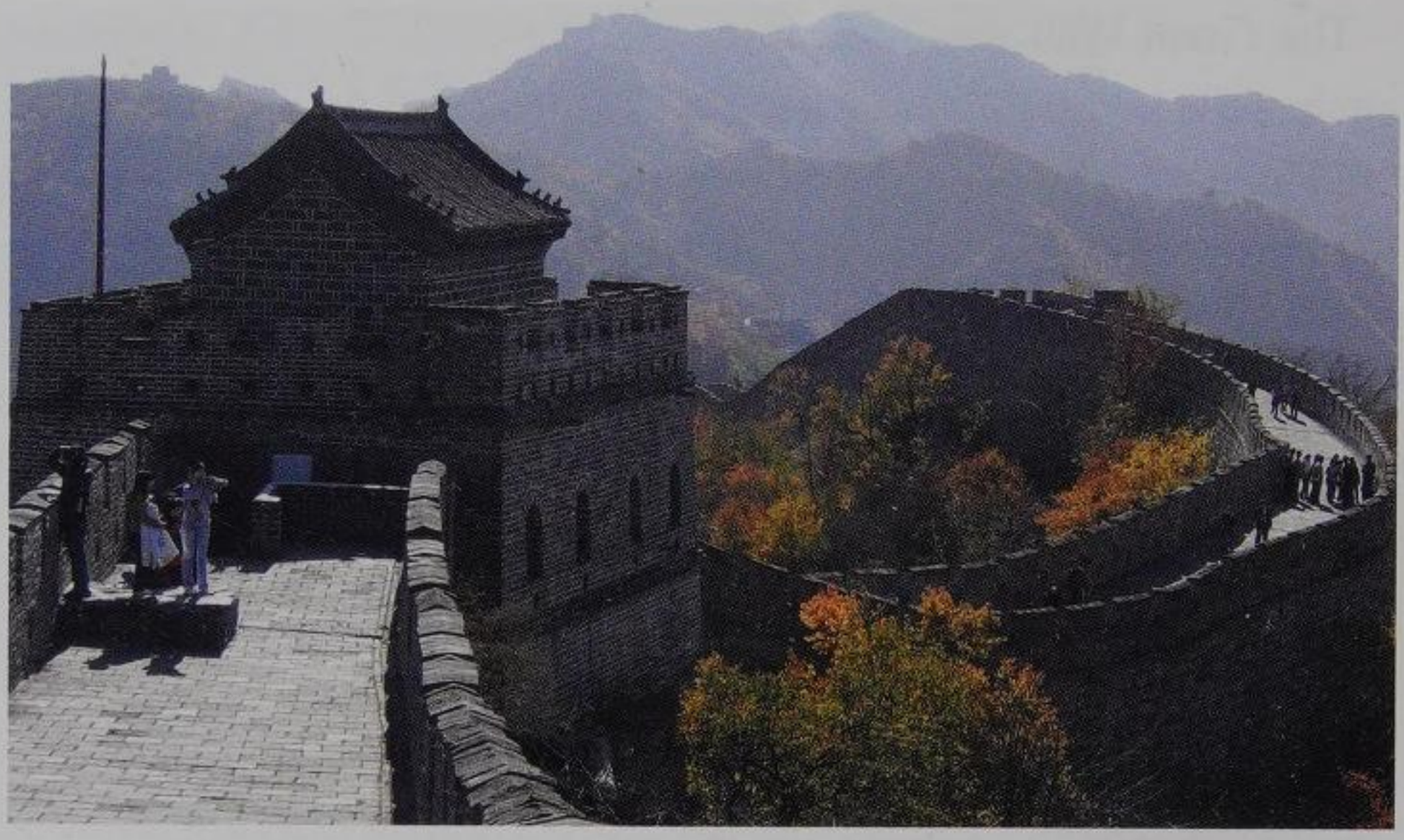
The Great Wall was built in ancient times to defend kingdoms against the invasion of northern nomadic tribes. It was Emperor Qin Shi Huangdi who was the first ruler to connect all the stretches of the wall into one complete wall during the Qin Dynasty (221–206 BC), using the labor of almost two million slaves. The rulers of subsequent dynasties continued to fortify and repair the existing Great Wall until it was finally completed after the Ming Dynasty.

To strengthen defense, soldiers were regularly deployed along the Great Wall and periodic repairs were carried out. The Ming government divided the Great Wall into nine defense areas, assigning each with a general-in-charge.

The Great Wall ranges from a width of 6 meters at the bottom to 5 meters at the top, and is 6.6 meters tall. Battlements, shooting



Bird's eye view of the Great Wall; showing its strategic position.



City tower of the Great Wall at Mutianyu, Beijing.

posts and water drainage trenches were constructed as part of the wall and it is etched with steps. It is constructed of tamped earth at its core and fortified with outer layers of rocks and giant bricks. It was said that a line of 5 horses or 10 men could move abreast along the wall at any one time.

The highly efficient practice of using beacon fires as signals during the day in ancient times enabled the Great Wall to be even more effective as a defense mechanism. In the event that an enemy presence was discovered, beacon towers would burn smoke during the daytime and fire warning shots in the evening and signals would be communicated along the wall. Tang Dynasty beacon fires could transmit a signal 1,000 kilometers in a day, but during the Ming Dynasty the beacon system was improved further; besides just fire and smoke, cannons were also used. This increased the speed at which a signal could be sent to over 3,500 kilometers in a day.

The Great Wall was not only a project of intensive labor, it also reflected the ingenuity of the ancient craftsmen who cleverly selected their building materials to take into account the varying topography along the length of the wall.

The Supreme Imperial Power

The emperor of ancient China was known as the "Son of Heaven" and supreme ruler. The ultimate power and control held by the emperor were symbolized by architectural buildings such as imperial palaces, altars and temples, and mausoleums. These political symbols were the grandest architecture in ancient China, and traditional feudal customs and practices had a great impact on their layout and structure. At the beginning of every new dynasty, no amount of labor, financial or material resources were spared in creating these buildings with the most sophisticated technology and workmanship of the time. They were reflections of the highest architectural technology of each historical period.

The Chinese emperor resided in a massive cluster of buildings known as the imperial palace, which was grand and opulent to reflect fully the stately bearing of the imperial family. Xiao He, the Han premier tasked with building Weiyang Palace, had a famous saying that the emperor's home was his entire kingdom, which had to be so magnificent that it could not be replicated, and that there was no further need for descendants to add to it. His words demonstrate the importance of architecture as a political tool for serving the needs of the imperial power.

The altar-temple was a unique, quasi-religious architectural structure built for the worship of nature, as well as ancestors and notable people. The worship of nature and ancestors were classified as Confucian rites. As Confucianism became the state ideology and the Confucian ritual system that of the state, the construction of alter-temples was governed by the state and could be regarded as "ritual architecture." Examples of altar-temples that were for the emperor's exclusive use include Tiantan (The Temple of Heaven), Shejitan (Altar of the Earth and Harvests) and Taimiao (Imperial Ancestral Temple).

Mausoleums were architectural structures built as tombs and places of sacrificial offerings for the emperors, empresses and imperial concubines of ancient China, much like the pyramids of

ancient Egypt or the Taj Mahal in India. In ancient China people believed that the dead were eternal souls which had simply entered another realm. The rites and rituals observed under the Confucian code of filial piety similarly advocated the idea of continuous worship and treating the dead as if they were alive. Guided by such thinking, the emperors of all dynasties built their very own mausoleums, which were like underground palaces built in the grandest style.

Imperial Palaces

Imperial palaces were amongst the most important buildings in ancient China and embodied the emperor's dominance of the

The remains of the palace at Erlitou, of the early Shang Dynasty, which has a 3,000 year history.

feudal system. The earliest known palace in China can be traced back to the early period of the Shang Dynasty (1600–1046 BC) and was located in Henan Province. The palace was built on a foundation of tamped earth and the front halls were designated for official use with the back quarters reserved for domestic purposes and leisure.

The imperial palace of the Tang Dynasty, Daming Palace, was built in 634 AD and was located in Chang'an city. It was built on high ground and was made up of many magnificent halls such as Hanyuan Palace, Xuanzheng Palace and Zichen Palace.

The Imperial Palace of Beijing City during the Ming and Qing Dynasties

Commonly known as the Forbidden City, the Imperial Palace of Beijing city is the world's largest and most complete cluster of ancient wooden buildings in existence today. It was forbidden for any commoner to enter the compound on pain of death and no building in Beijing was to be built taller than the palace. The yellow color used for the tiled roofs of the palace could not be used by commoners.

Begun by the Emperor Yongle of the Ming Dynasty in 1406 and completed in 1420, a total of twenty-four emperors ascended the throne in the Imperial Palace. It was built in the center of Beijing city in accordance with the traditional Chinese theory that the seat of supreme power should be in the center. All the walls of the imperial buildings were painted red and have yellow glazed roof tiles, providing a stark contrast to the drab grey tiles of residential dwellings outside the imperial palace. The one exception to the imperial yellow roof tiling was the library where the tiles are black, symbolizing water and therefore believed to suppress fire.

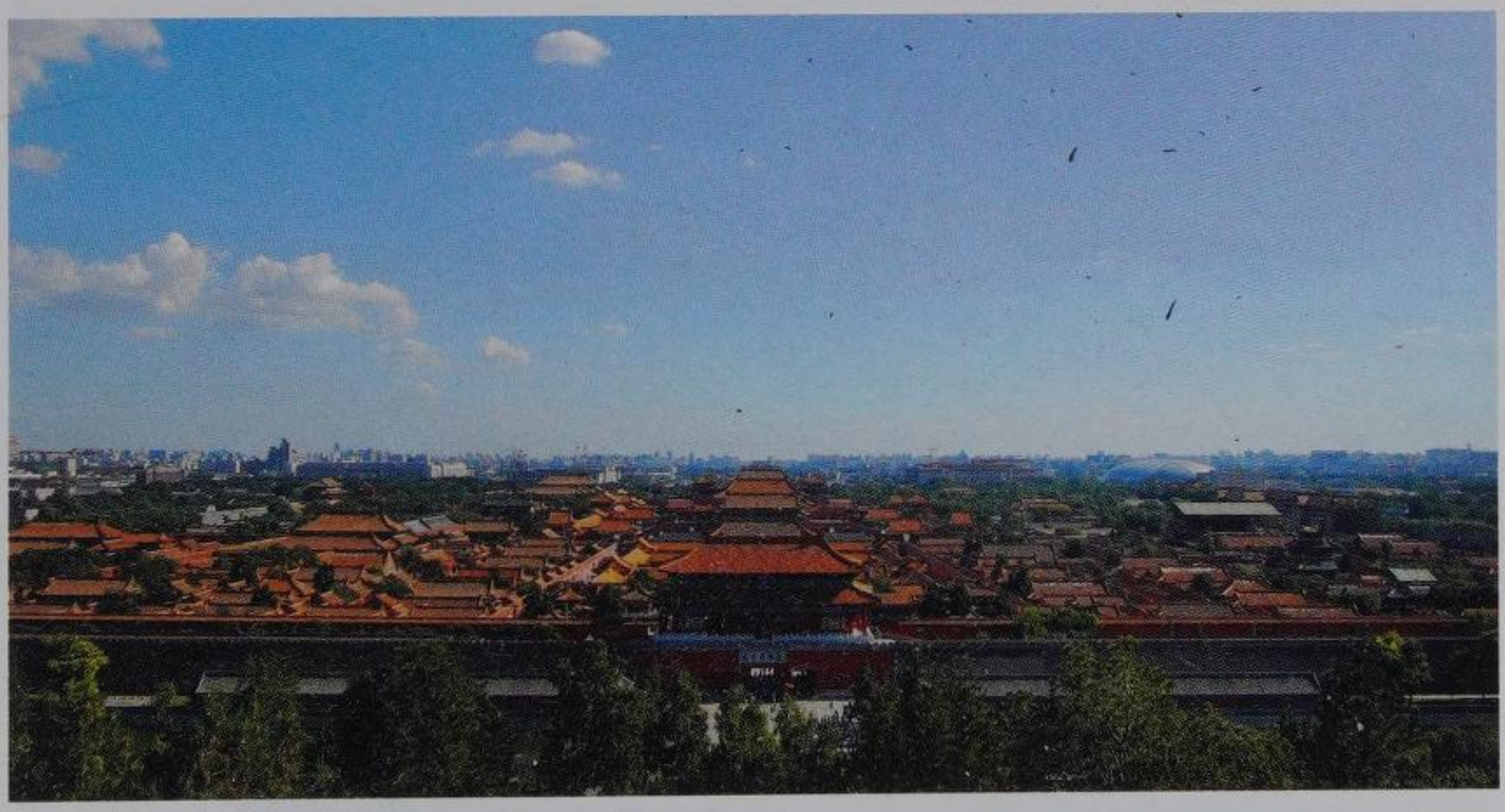
The Imperial Palace occupies an area of 720,000 square meters and comprises more than 900 buildings. The cluster layout of the

palace makes it unique amongst other grand palaces such as the Louvre and Versailles Palace in France.

The Palace is surrounded by moats, towers and several gates, with the main gate of Wumen the most outstanding. The walled area of the Forbidden City serves as the residence and office of the imperial family and their household staff, as well as the offices of ministers and favored officials. The whole compound has over 8,000 rooms capable of housing the imperial family, administrators, eunuchs, maids and soldiers.

Most structures in the compound have stone foundations but as the buildings are wooden they are susceptible to fire. The city is surrounded by a 10 meter high red wall and a 50 meter wide moat. Each imperial door has nine rows of nine knobs making a total of 81, following an imperial ruling that the number nine is an imperial number. The dragons all have five claws, another imperial symbol. Commoners using the nine knobs and the five dragon claws design faced execution.

The layout of the Forbidden City with its six main axial buildings is very simple. The southern entrance forms the front

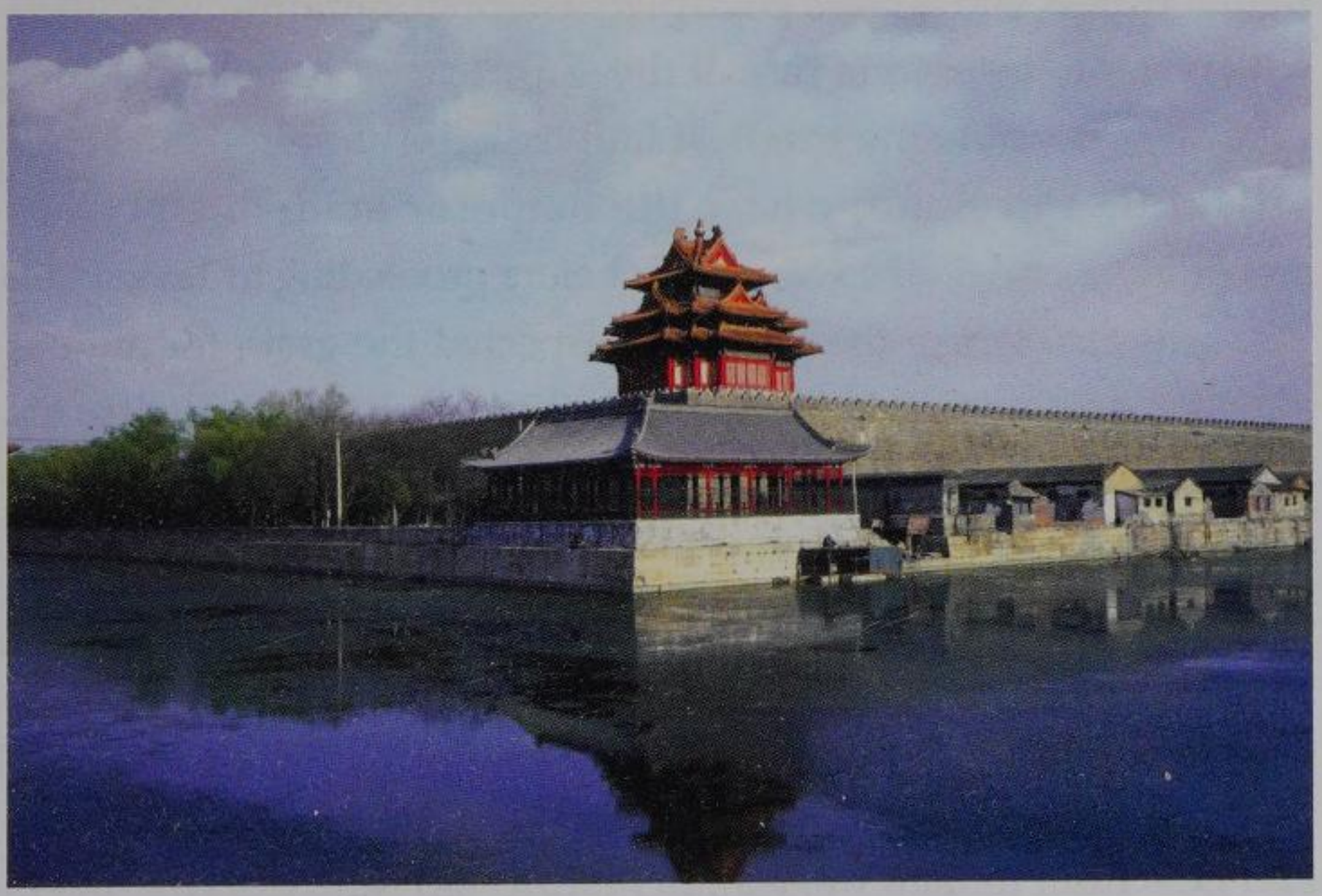


The Forbidden City on a clear day in August 2008.

The *Map of the Ming Capital City* depicts a panorama of the Forbidden City in the Ming Period. The character in official government attire depicted in the bottom right corner of the picture is Kuai Xiang, the designer of the Imperial Palace in Beijing.

of the palace, so that visitors enter facing north. The compound is divided into two complexes along the north-south axis; the southern outer courtyard has three principal halls (Taihe Hall, Zhonghe Hall and Baohe Hall), and the northern inner courtyard has another three main buildings comprising two palaces and one hall (Qianqing Palace, Jiaotai Palace and Kunning Palace). The administrative area is found in the larger southern outer sector and the private quarters are in the smaller northern inner sector. Secondary halls and palaces can be found either side of the central axis.

The Forbidden Palace starts at the Tian'an Men Gate passing northwards to the Meridian Gate, a giant gate with five pavilions guarding the main entrance to the compound. This gate is also known as the Gate of Five Phoenixes and it played an important role in Ming and Qing history. It was the site of official imperial announcements of the Chinese calendar, the inspections of troops by the emperor, and his execution or pardon of prisoners. The Meridian Gate has three doors, the central one being just for the Emperor, the Empress (if in a sedan) and could be used once in



Imperial Palace turret.

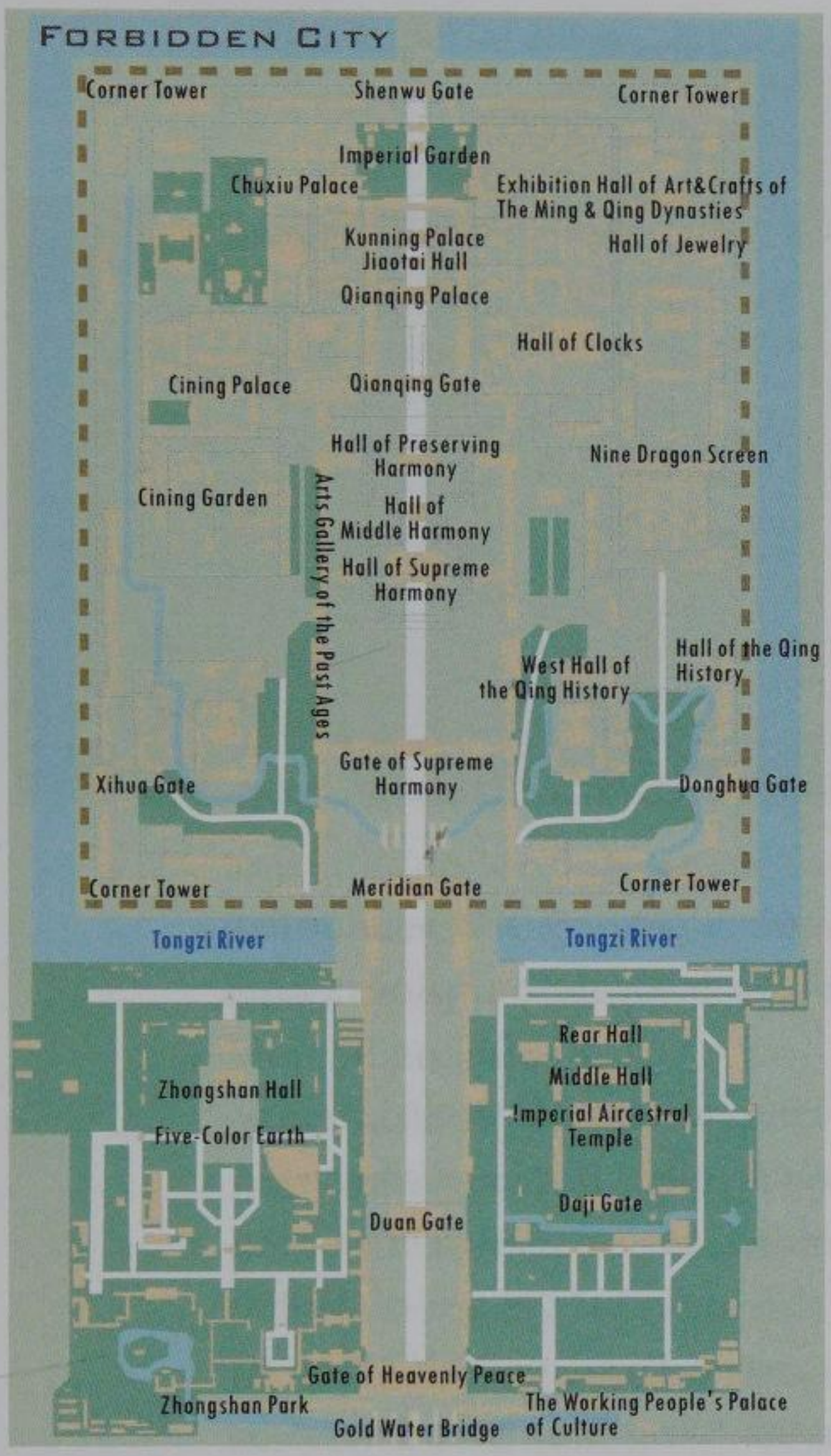
a lifetime by each of the three scholars who scored the highest marks in the imperial exam.

Immediately past the Meridian Gate are five marble bridges over a small stream called the Jinshuihe (Gold Water Stream) leading to a large outer courtyard guarded by a smaller gateway, the Taihe Gate, at the entrance of the Taihe Hall. The following two halls, Zhonge Hall and Baohe Hall, also have their own gates.

The Taihe Hall (Hall of Supreme Harmony) is the tallest and largest of the buildings and is where the most important imperial banquets and ceremonies are held, including the coronation, the first day of the New Year, the Winter Solstice and the Emperor's Birthday. Prior to the Qianlong period (1736–95), it was also where the imperial exams were held and the results announced. The hall has a raised golden lacquered throne which sits between two pillars decorated with dragons. A nine dragon screen behind the throne symbolizes longevity and the unity of heaven and earth and the hall is also decorated with dragon gargoyles, tortoises and cranes representing immortality and longevity. A grain measure and a sundial symbolize imperial justice and righteousness and a large gold-plated copper cauldron was filled with water to be used in case of fire. Bronze tripods held incense.

Further north is the smallest hall called Zhonghe Hall (Hall of Middle Harmony) where the Emperor made his private preparations and donned his regalia before proceeding to Taihe Hall. This was also where the Emperor inspected the grain for annual planting, communicated with his family (sometimes including his numerous concubines) and received foreign dignitaries.

Beyond the Zhonghe Hall is the Baohe Hall (Hall of Preserving Harmony) for smaller banquets, ceremonies and imperial exams held during and after the Qianlong period (1736–95). The successful candidates were awarded the title of scholar. The rooms are now home to a museum displaying imperial treasures and gifts from foreign rulers.



Plan of the Imperial Palace.

Still proceeding northwards, one then enters the Qiangqing Palace (Palace of Heavenly Purity) through the Qianqing Gate (Gate of Heavenly Purity). This was the residence of the Ming and early Qing Emperors, and notably where the last Ming Emperor killed his young daughter and his concubines before hanging himself at Coal Hill. In front of this palace are bronze tortoises and cranes, a grain measure and a sundial. At the door is a tablet with the words "Sincerity and Openness," attributed to the Shunzhi Emperor who was rumored to have abdicated in favor of his son to become a Buddhist monk in 1661. Like the throne in the Taihe Hall, this one is also accompanied by a dragon screen and the hall has a spectacular ceiling.

Further north of the Qianqing Palace is Jiaotai Hall (Hall of Union). It has a beautiful ceiling and houses the twenty-five imperial seals of the Qianlong Emperor, a chiming clock and a clepsydra or water clock. After Jiaotai Hall is Kunning Palace (Palace of Earthly Tranquility) where the Ming Empresses lived and where the last Ming Empress hanged herself. It was converted to a sacrificial chamber during the Qing period but eventually became the bridal chamber of Henry Puyi, the last

Taihe Hall, Forbidden City, Beijing.

emperor of China in the early twentieth century, and is adorned with the double character *xi* (喜) to indicate happiness and fertility.

To the east of Taihe Gate is Wenyuan Hall (Hall of Literary Glory) once home to the Ming crown prince but later converted to a meeting place for the emperor and his scholars. During the Qianlong period it was used as the imperial library of 36,000 volumes. To the west of Taihe Gate is Wuying Hall (Hall of Martial Spirit) originally built for the Ming Emperors to rest in during fasting periods. During the reign of Kangxi (1661–1722) it was where the *Kangxi Dictionary* was compiled. Once past the Qianqing Gate (Gate of Heavenly Purity) leading to the Qianqing Palace (Palace of Heavenly Purity) is the inner court where the Imperial family chambers were located, previously housing thousands of women and eunuchs. To the east of Qianqing Palace is Zhai Palace, which is now a museum of bronze objects, and Ningshou Palace where Qianlong lived after his abdication in the late eighteenth century, now housing paintings and other works of art.

The imperial flower garden, with its rocks, ponds, bamboo, fir, cypress trees and pavilions, is located at the north end of the compound behind the Kunning Palace. Landscaped during the Ming Dynasty, it covers 7,000 square meters. On the annual Double Nine Festival, the imperial family would ascend the Yujing Pavilion (Imperial Viewing Pavilion) to view the festivities and relax. To the east is the Hall of Literary Elegance where rare classical books were kept.

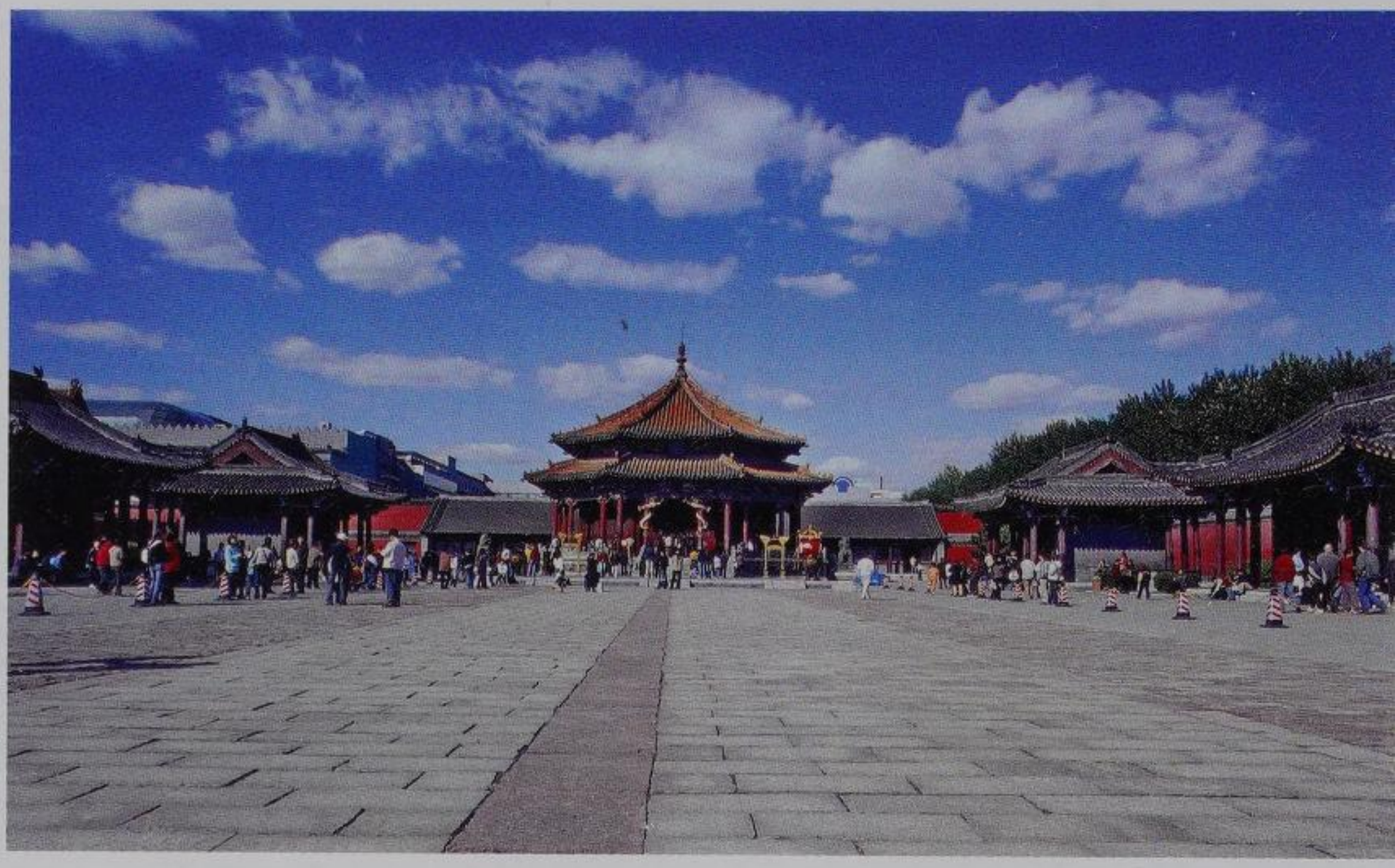
Shenyang Imperial Palace of the Qing Dynasty

With an area of 60,000 square meters, about one twelfth the size of the Forbidden City, the Shenyang Imperial Palace differs from its better known Beijing counterpart in its history and unique local geographical conditions. The Manchurian influence behind its construction is a significant departure from the style of its predecessor, and is blended with Han and Mongolian influences.

Construction began when Nurhaci was in power and was completed in 1636 by his son, Abahai (Huangtaiji), the grandfather of Shunzhi, later to become the first emperor of China's last feudal empire, the Qing Dynasty. The main structure includes three sections, the most impressive of which is the eastern section with its octagonal Dazheng Hall and Hall of Great Affairs, decked out in vivid red and gold, which houses an elaborate throne where Shunzhi was crowned.

The middle section starts at Daqing Gate, the main gate, behind which is the grand Chongzheng Hall (Hall of Supreme Administration), where Abahai commanded military affairs and conducted daily business. The emperor also met diplomats from abroad and leaders of minority groups in this hall.

Behind the hall is a route leading to the Fenghuang Tower (Phoenix Tower) and Abahai's study, which was Shenyang's highest building at the time.

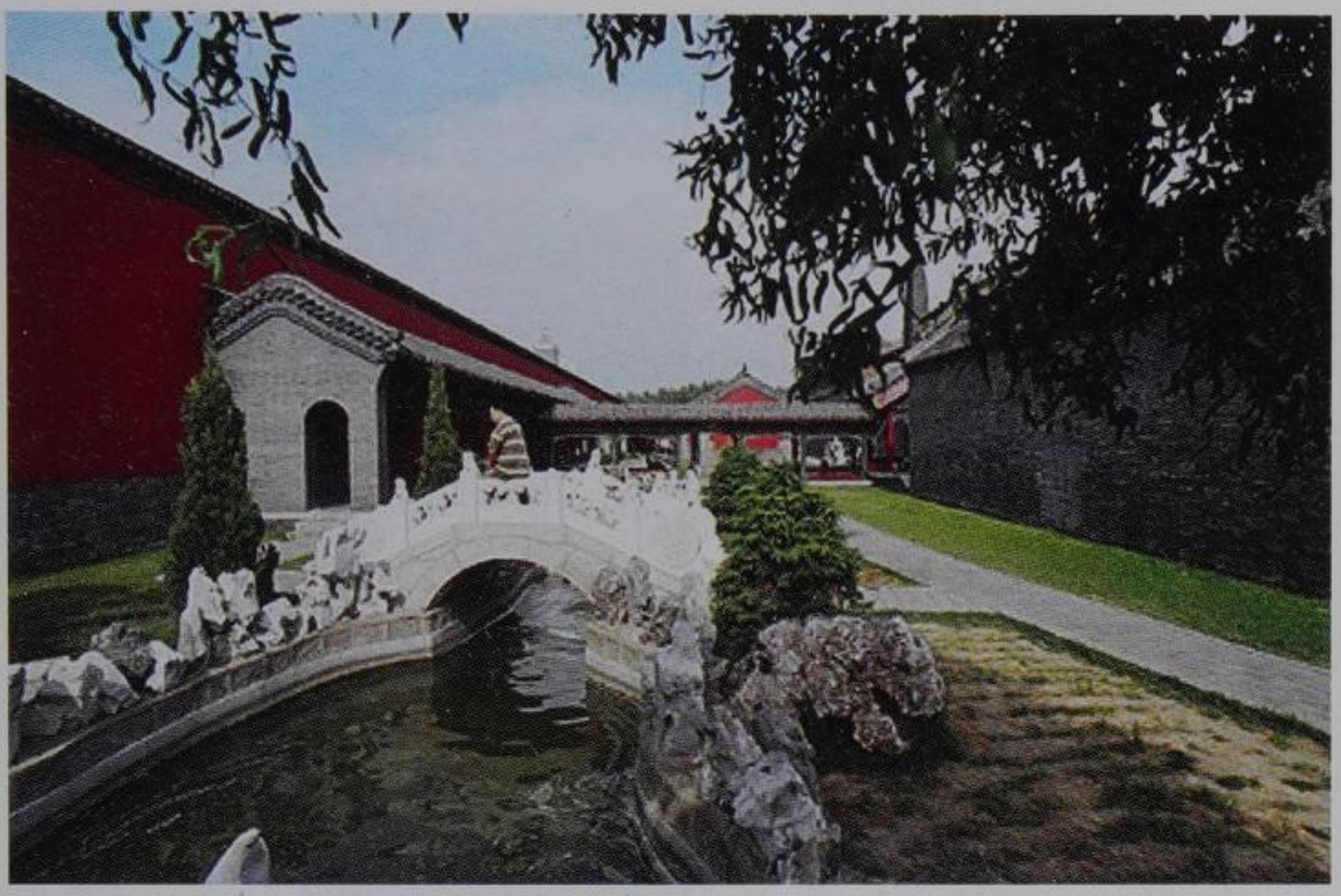


Dazheng Hall, Shenyang Imperial Palace, from the Qing Dynasty.

At the rear of the middle section is the Qingning Palace, The Palace of Pure Tranquility and the bed chamber for Abahai and his mistress.

The western section of the palace was added in 1782 by Emperor Qianlong (who reigned from 1736–95), and its main building is the Wenshuo Hall (Hall of Literary Sources), which contains the complete works of the "Four Treasures" (the collection of books classified as four treasures in reference to the divisions in the imperial library) including a volume with the inscription of Emperor Qianlong.

In front of the main entrance of the Qingning Palace stands the Suolun ("deity" in Manchu) post. It is a red-lacquered post, which has been securely placed on a white marble stand with an aluminum container hung on the top. It is used as a "holy post" during traditional Manchu rituals and is a typical feature of Manchu houses. In Manchu tradition the post is used during ritual events when rice powder and chopped pig



The garden of Shenyang Imperial Palace.

The Suolun Post on which meat was fed to crows as a sacrifice, Shenyang's Imperial Palace.

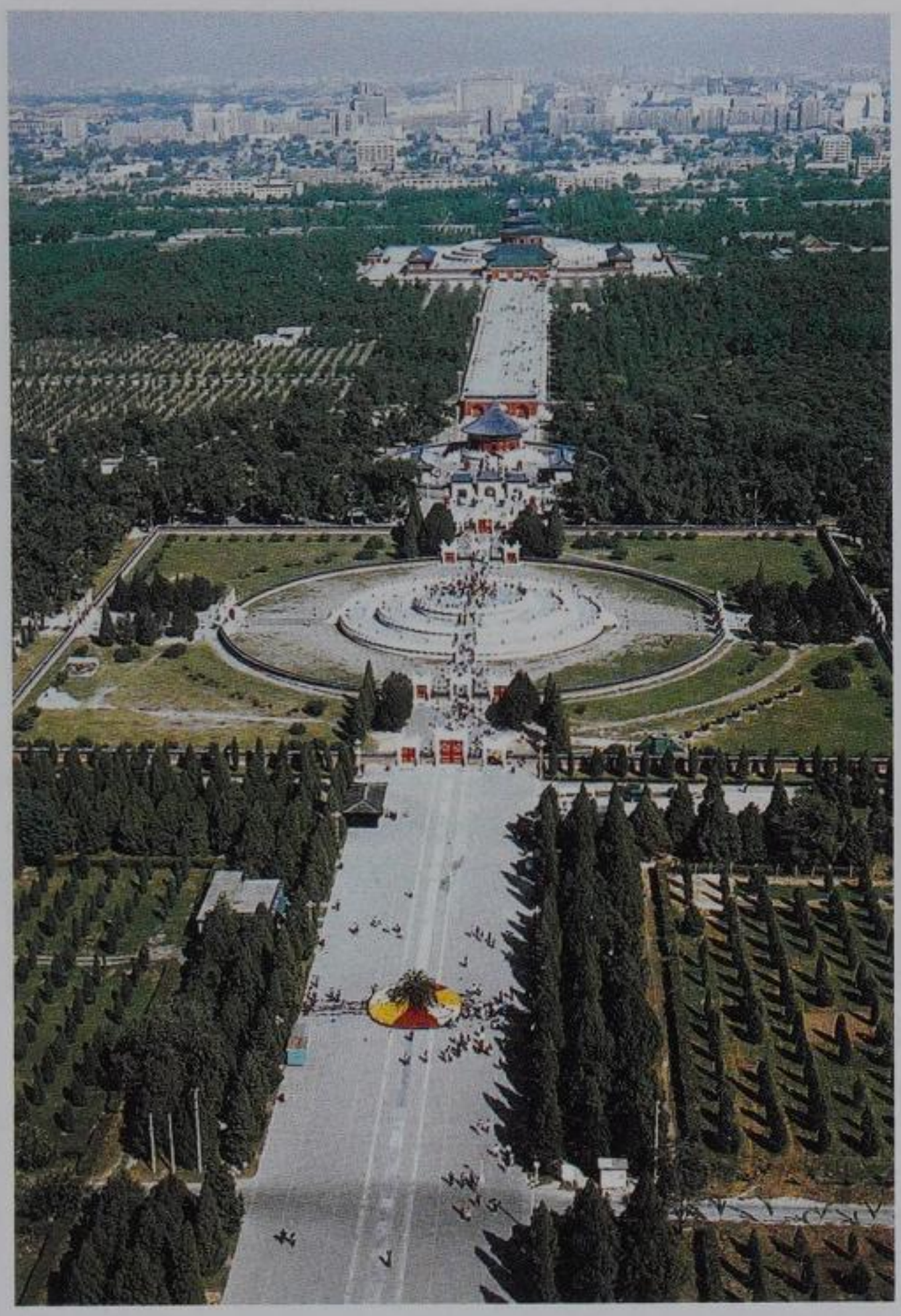
offal is placed on the metal covering to feed crows as a way to worship the God of Heaven. This custom comes from the legend of Nurhaci (1559–1626), regarded as the founder of the Qing Dynasty. As a youth, Nurhaci was being hunted and had no way to escape his pursuers. Lying in a ditch resigned to his fate, a group of crows suddenly landed on him and closely covered his body, allowing him to escape. Some time later Nurhaci founded the Manchu regime. In order to repay the crows for saving his life, he ordered the Manchu people to erect a wooden post in their courtyards, cover the top with metal and offer sacrifices to the crows.

Temples and Altars

Tiantan (The Temple of Heaven)—Sacred Altar of Heaven

The Temple of Heaven was established in 1420 during the reign of Ming Emperor Yongle (reigned 1403–24) who also founded the Forbidden City. The temple was originally established as the Temple of Heaven and Earth, but was given its current name during the reign of Ming Emperor Jiajing (who reigned 1522–67), who built separate complexes for the worship of the earth, sun and moon. The architecture and layout of the Temple of Heaven is based on elaborate symbolism and numerology. In accordance with principles dating back to pre-Confucian times, the buildings in the Temple of Heaven are round, like the sky, while the foundations and axes of the complex are rectilinear, representing the earth. The complex served as the setting in which the emperor, the Son of Heaven, directly beseeched Heaven to provide good harvests throughout the land, which was crucial as agriculture was the foundation of China's wealth in the imperial period. As the ceremony at the Temple of Heaven was thought to affect people's livelihood directly, news of the ceremony each year was disseminated throughout China.

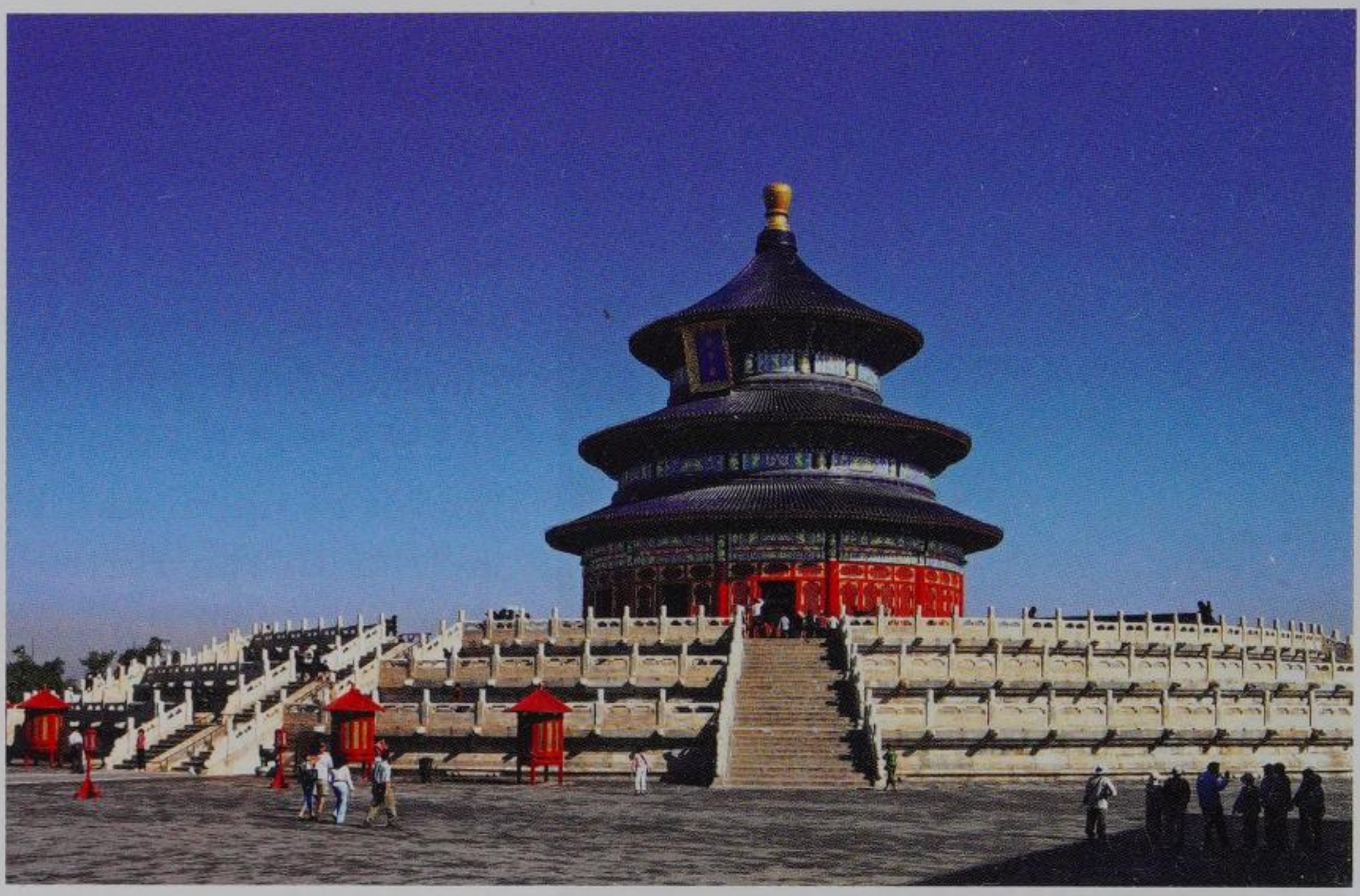
The emperor came to the Temple of Heaven twice a year to pray. The first time was to pray for rain and good harvest and the second was to worship God by offering sacrifice. The first of these times was on the fifteenth day of the first month of the Chinese Lunar year (usually between January 20 and February 20). Qinian Hall (the Hall of Annual Prayer) was where the final rite of worship took place. Built in 1420, it is 38 meters tall and 32.72 in diameter. The style of the architecture was in keeping with the ancient Chinese belief that Heaven dominated the world.



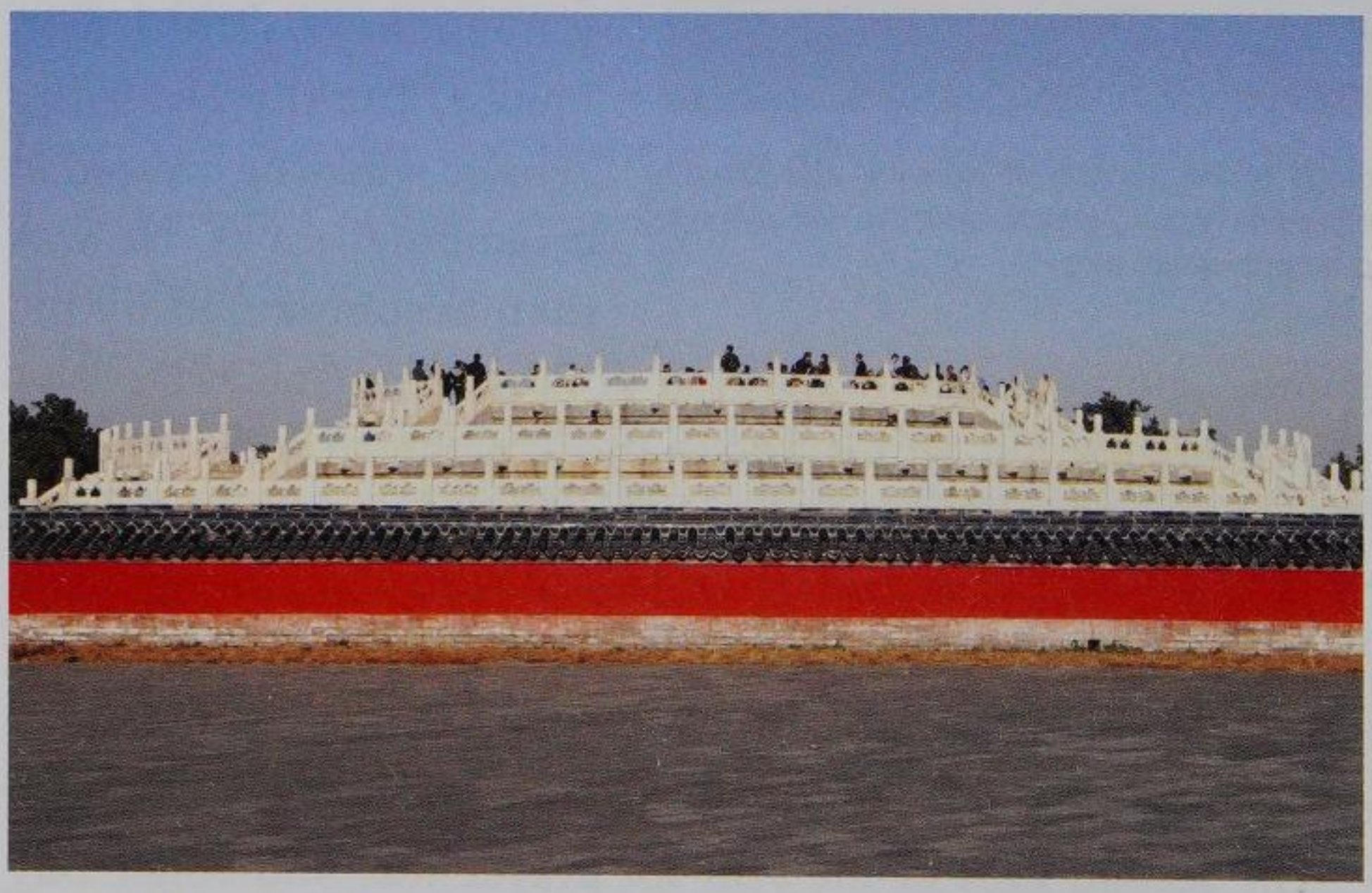
The main buildings of the Temple of Heaven—the Circular Mound Altar, the Imperial Vault of Heaven and the Hall of Annual Prayer—built on a north-south axis.

The emperor arrived at the Temple of Heaven from the Forbidden City one day before the rite. He first burned incense in the Huang Qiong Yu (Imperial Vault of Heaven) and then had the wooden tablets of the divinities moved to the Hall of Prayer for Good Harvests. After that he went to the imperial kitchen to check if the sacrifices for the rite were prepared. The next morning, the rite began at four o'clock. The emperor left the Hall of Abstinence, where he bathed and fasted, for the Dressing Terrace where he dressed in ceremonial robes. He was then accompanied by his family and ministers to the Hall of Prayer for Good Harvests. The emperor fell on his knees and kowtowed nine times to the wooden tablets of the divinities. At this time, the stoves beside the Hall of Prayer for Good Harvests were burning and a band played music while dancers performed. On ritual days, the emperor abstained strictly from many things such as meat, alcohol, entertainment and politics.

The second time of the year for prayer was Midwinter Day (December 22) when God was worshipped by offering sacrifice. The rite took place on the Huan Qiu (Circular Mound Altar)



Hall of Annual Prayer in the Temple of Heaven.



The Circular Mound Altar is one of the main buildings of the Temple of Heaven and the place where ancient emperors worshiped.

The Imperial Vault of Heaven, built in 1530.

which sits at the southern end of the Temple of Heaven. It is an empty three-tiered plinth of white marble that rises from a square yard. It was constructed in 1530 and rebuilt in 1740.

The Echo Wall and the Imperial Vault of Heaven also sit along the main axis of the Temple of Heaven. The Echo Wall has a circumference of 193.2 meters, is 0.9 meters thick and 61.5 meters in diameter, and is named for its acoustic properties. A whisper spoken at one end can be heard at the other. The Triple Echo Stones in the courtyard return various numbers of echoes depending on the stone the speaker is standing on. The Imperial Vault of Heaven which sits in the center of the plaza is a round building that once contained memorial tablets for the Emperor's ancestors.

Sites such as Dan Bi Qiao (the Bridge of Vermilion Stairway), Zai Sheng Ting (Butcher Pavilion) and Long Corridor are also important in the ritual.

Shejitan: Altar of the Earth and Harvests

The Altar of the Earth and Harvests in Zhongshan Park (Sun Yat-sen Park) in the centre of Beijing was where the emperors of the Ming and Qing dynasties held grand ceremonies from the fourteenth until the early twentieth century offering sacrifices to the God of the Earth and the God of Harvests. The altar's name in Chinese is *she-ji-tan*, wherein *she* means the God of the Earth, and *ji* is the God of the Five Common Cereals (rice, maize, millet, wheat and beans). The earth and cereals are honored for their importance in sustaining human life.

As the capital city in the Ming and Qing dynasties, Beijing's Altar of the Earth and Harvests is the most magnificent ever built in China. When the imperial palace was being built during the reign of Emperor Chengzu of Ming (who reigned 1403–25), the Altar of the Earth and Harvests was erected on a former temple located west of today's Tian'an Gate. The site was in accordance with the principle that the ancestral temple should be located on the left-hand side (east) of the palace while the Altar of the Earth and Harvests should be on the right-hand side (west). The altar was in use until the overthrow of the Qing Dynasty and it is the same altar which can be seen today.

The Altar of the Earth and Harvests is the centerpiece of Sun Yat-sen Park. Square in shape, it consists of three tiers with the top tier measuring 16 meters on each side, the second 16.8 meters and the base 17.8 meters. Constructed of white marble, it is a majestic structure. In accordance with the traditional Chinese philosophy that there are five basic elements in life (metal, wood, water, fire and earth), the designer divided the surface of the top tier into five areas each filled with hard-packed earth of a particular color: yellow in the middle, green to the east, white to the west, red to the south and black to the north. This design signified the emperor's rule over all five elements under heaven.

At the summer and winter solstices, the reigning emperor

Shejitan (Altar of the Earth and Harvests, now Beijing Zhongshan Park), originally built in 1421, was where the Ming and Qing emperors offered sacrifices to the God of Earth and the God of Harvests.

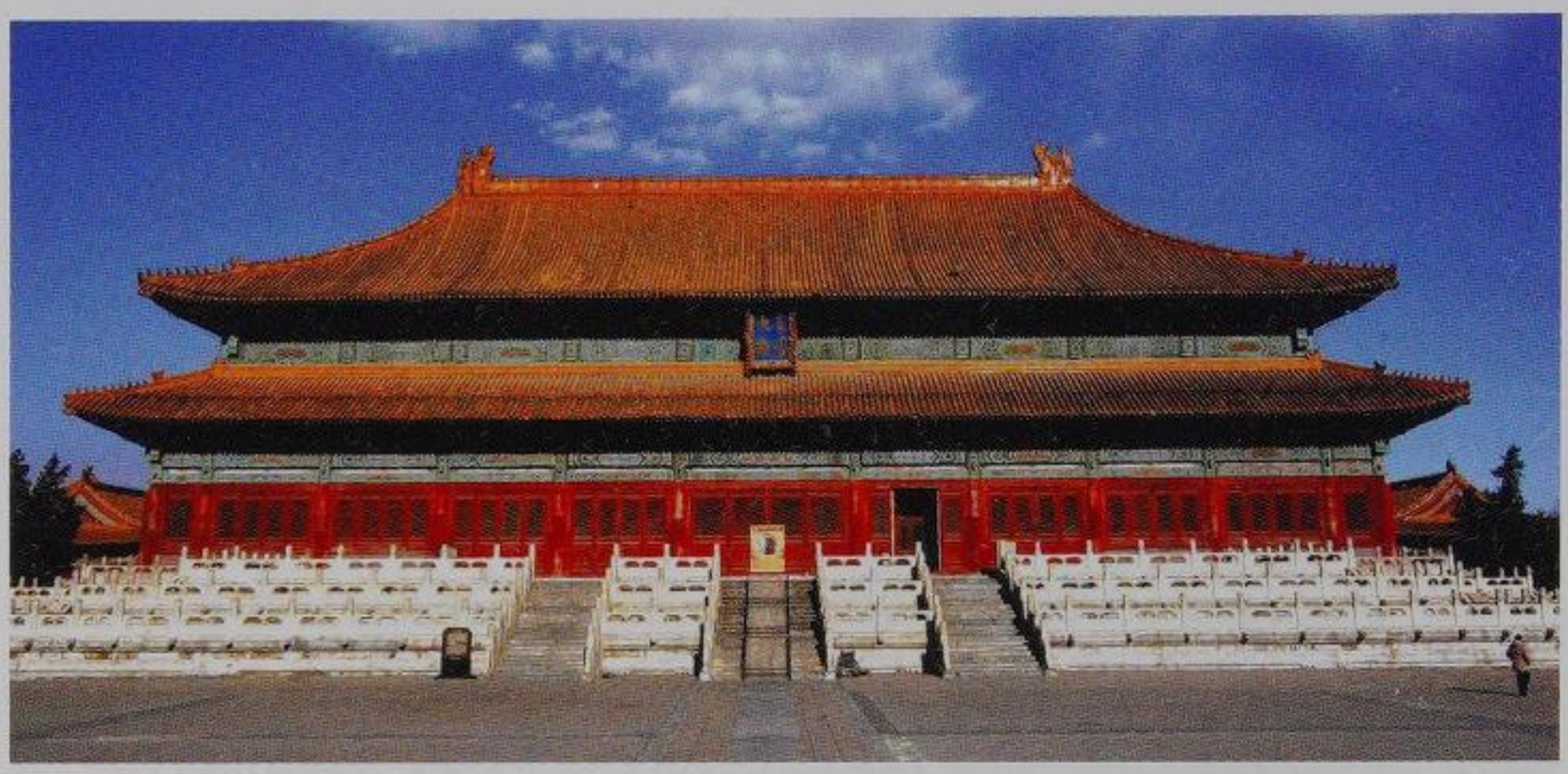
would come to the altar and pay homage and offer sacrifice to the God of the Earth and the God of Harvests. The ceremony was held in the open, rain or shine. A hall was later built to the north of the altar where the emperor could take a rest or conduct the ceremony if the weather was unsuitable.

In the Ming and Qing dynasties there was a shrine in the yellow-earth section in the middle of the altar. It was square in shape, and housed two steles, one made of stone and the other of wood, each about 1.2 meters tall and half a meter wide. These were the spirit tablets of the God of the Earth and the God of Harvests respectively. Whilst the stone was weather-proof, the wooden stele started to rot over time and had to be replaced. Whenever this was done, people would joke that the God of the Earth was going to have a new bride again. When the Emperor Qianlong heard of this joke he considered it sacrilegious and issued a decree to have the wooden stele removed permanently, leaving the stone. In 1950 the stone was also removed, but the five-colored earth remains.

Taimiao (Imperial Ancestral Temple)—Place for Emperors to Offer Sacrifices to Their Ancestors

The Imperial Ancestral Temple was originally built in 1420 under the Ming Dynasty and is located just southeast of the Forbidden City. This ornate temple has an overwhelming atmosphere that seems to transcend time and history.

During the Ming and Qing dynasties, the emperor would offer sacrifices to his ancestors here on significant occasions such as an emperor ascending the throne, a triumphant return from battle or the presentation of prisoners of war. At other times the huge temple stood empty except for the few bailiffs who guarded the doors and a great flock of gray cranes. The temple remained in this state for over 500 years until International Labor Day in 1951, when it became the Beijing Working People's Cultural Palace.



Front Hall of the Imperial Ancestral Temple.

The central part of the Imperial Ancestral Temple consists of three magnificent halls, each with its own auxiliary halls. The front hall, the largest of the three, has a double-eaved roof and rests on a three-layer stone base. Before it, to the south, is a spacious courtyard with long corridors on each side. At the southern end of the courtyard is a compound with a pavilion and several decorative stone bridges spanning the Jinshuihe (Golden River). A forest of ancient cypress trees surrounds the buildings which, with their strong yet simple style, form a single integrated whole with the Imperial Palace.

Imperial Mausoleums

Over fifty dynasties were founded throughout Chinese history, made up of either unified kingdoms under one emperor or separate regimes under the rule of feudal lords. Those in power were all buried in majestic mausoleums after they had died and often began to build their own mausoleums from the moment they ascended the throne. There are an estimated 300 to 400 imperial mausoleums located throughout China's provinces, municipalities and autonomous regions.

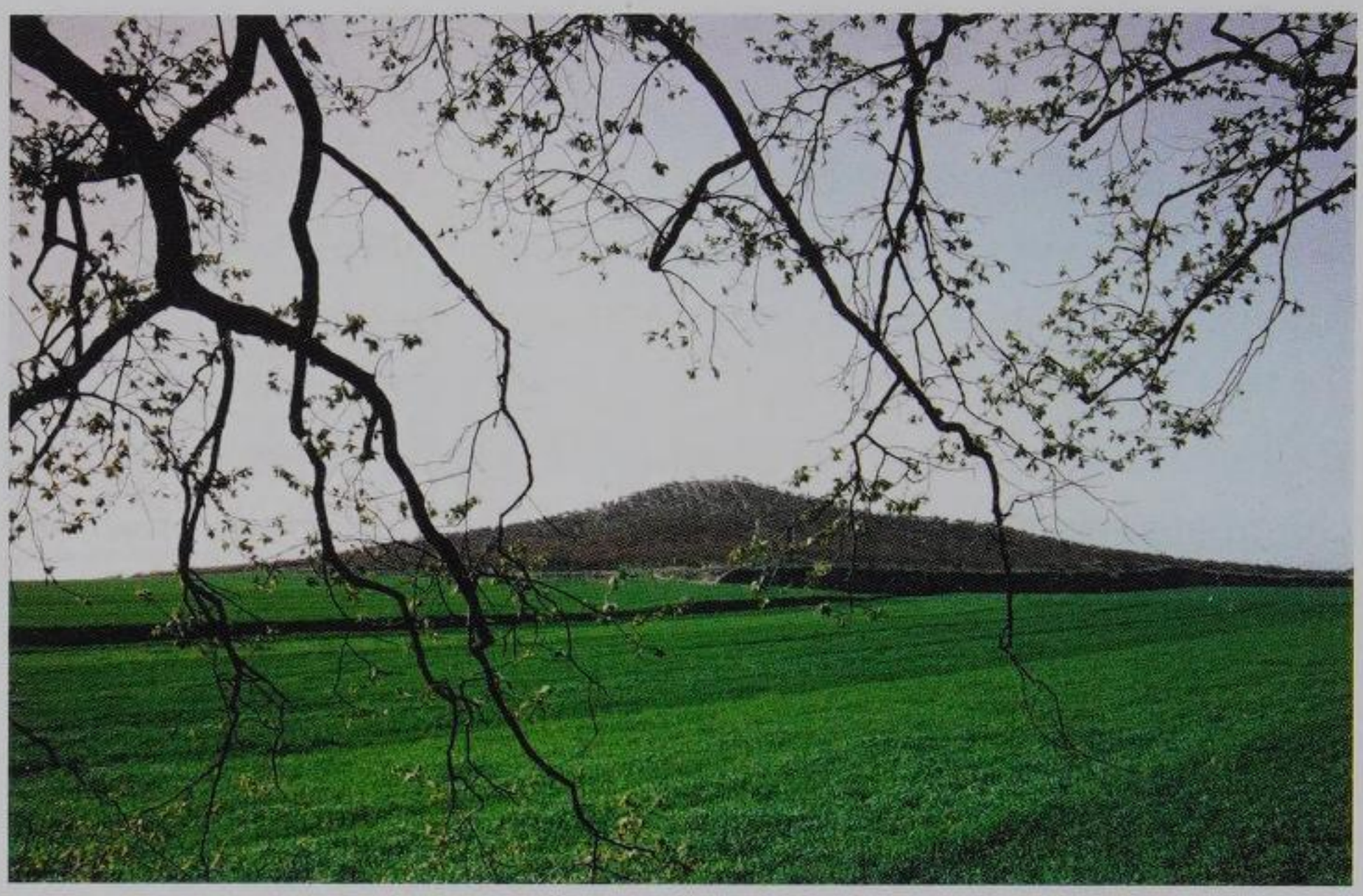
China's ancient burial rites were very simple. By the time of the Shang Dynasty (1600–1046 BC), however, a great emphasis was placed on burial rites and rituals which were then included in the rites of the imperial court. From then on, grand burial rites and rituals became the common practice among future rulers.

Most mausoleums comprised underground structures as well as those above ground. Situated underground were tomb chambers which contained the coffins. Initially built of wood, these chambers later evolved into structures built with bricks and rock. During the Qin Dynasty (221–206 BC), massive mausoleum structures were built using highly intensive labor. Planted on top were rows of cypress trees representing the mountain forest. The ancient Chinese emperor's tomb was commonly known as "the emperor's final resting place," or "mountain mound," which is a homonym of the Chinese phrase for mountain forest. During the Tang Dynasty, the emperors' tombs were often built by directly excavating hills. Above ground, the architectural layout surrounding tombs was comprehensively planned, including the topography, the location of entrances to the mausoleums, passageways for gods and sacrificial altars.

Over time, many of the underground chambers of these mausoleums have been looted. The mausoleums which have more or less retained their form are the imperial mausoleums built during the Ming and Qing dynasties, which are sophisticated examples of ancient Chinese imperial mausoleum architecture.

The Qin Mausoleum: Mysterious Underground Kingdom

The Qin Mausoleum, located in Lintong County, Shaanxi Province, is surrounded by the Lishan Mountains to the south and the Wei River to the north. Such a location coincides with traditional Chinese beliefs because the site, surrounded by mountains and rivers, was an auspicious burial site for feudal emperors who believed they would lead a new life in another world.



The Mausoleum of Emperor Qin Shihuangdi.

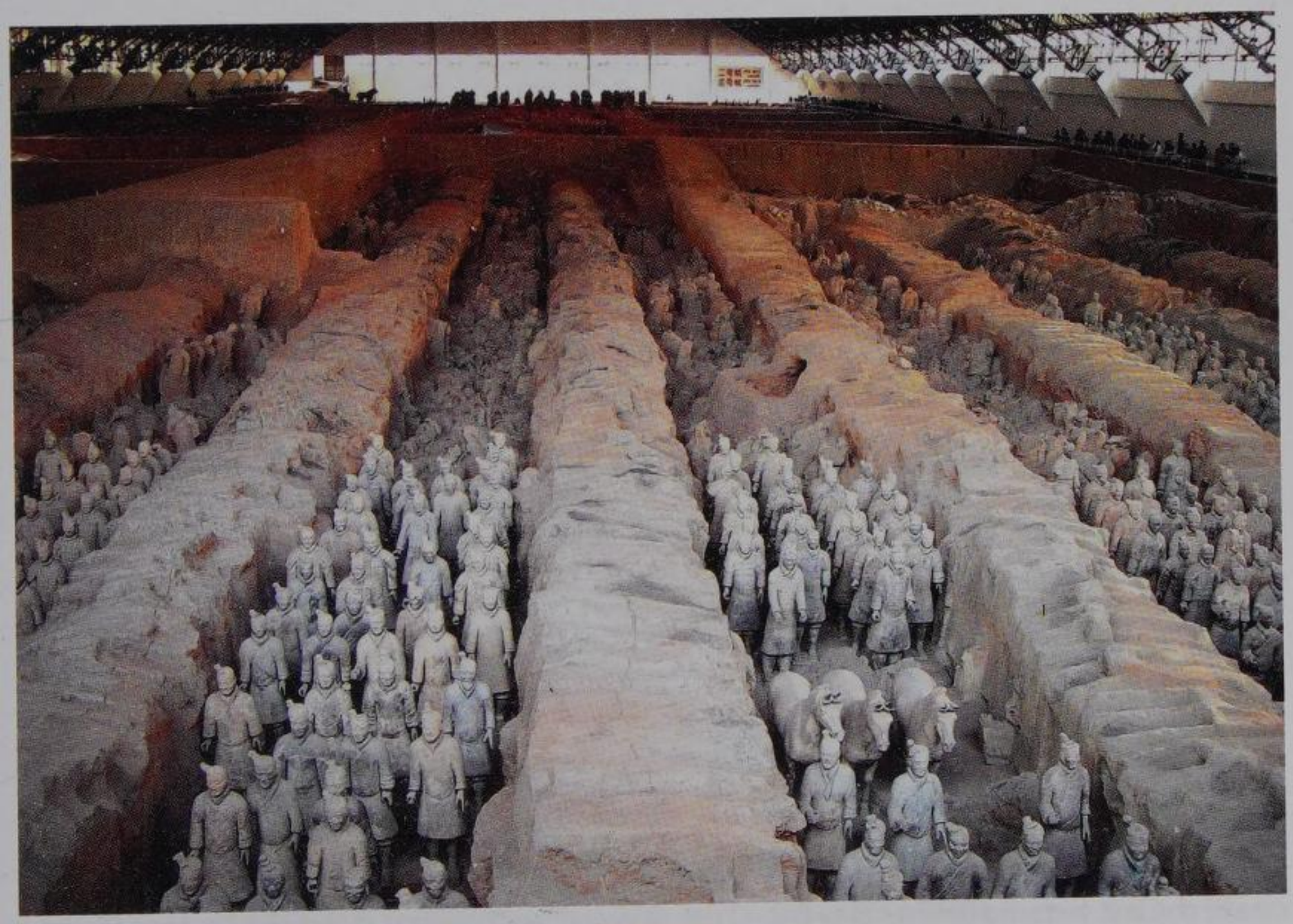
The construction of the Qin Mausoleum, the largest imperial tomb in China, began in 247 BC soon after Qin Emperor Shi Huangdi ascended the throne and was still underway at his death in 210 BC. Numerous groups of people worked on the construction project, from high-ranking officials such as Prime Minister Li Si who was in charge of the work, to prisoners forced to do manual labor. As many as 720,000 workers from across the country helped construct the tomb. Prisoners were forced to cut and transport massive logs and stones from hundreds of miles away and many died from their years of hard labor.

The mausoleum, which covers 56.25 square kilometers, was designed in accordance with the layout of the emperor's capital. The original tomb measuring some 120 meters in height was covered with soil and the top 50 meters resemble a flattened pyramid. A wall made from unfired bricks and measuring four meters high and four meters wide encircles the buried palace. It has gates on four sides.

The tomb was originally surrounded by two walls some eight meters thick, with the outer wall stretching 6,264 meters and the

inner 3,870 meters. Both walls featured corner towers and broad gates on four sides, with the arrangement resembling a real city. Fragments of tile, gate stones and heaps of red soil are all that remain of the once magnificent structure. Life-sized terracotta figures of warriors and horses arranged in battle formations are the star attractions at the Qin Mausoleum. They are replicas of the imperial guard and over 7,000 pottery soldiers, horses, chariots, and even weapons have been unearthed from pits at the mausoleum. Most have been restored to their former grandeur.

Hundreds of auxiliary tombs, both large and small, have been found inside and outside the walls of the cemetery, including sacrificial trenches. Ongoing archeological work continues to yield traces of structures and artifacts including the imperial burial palace, side palaces, gardens and temples. Excavated sites include the bronze cart and horse trench, the western tomb



Pit 1 of Emperor Qin Shihuangdi's terracotta museum.

construction site, horse trench, rare bird and animal trench, and tombs for the princes and princesses and tomb builders. Each of these sites has enriched our knowledge and understanding of the Qin culture, clothing and material civilization.

The Ming Xiaoling Tomb: The First Mausoleum of the Ming Dynasty

The Xiaoling Tomb of the Ming Dynasty is located at the south foot of Mt. Zhong on the south bank of the lower reaches of the Yangtze River, in the eastern suburban of Nanjing, Jiangsu Province. It is the mausoleum of Zhu Yuanzhang (who reigned 1368–98), the founding emperor of the Ming Dynasty.

The mausoleum consists of two major sections. The first section stretches from the Gateway of the Dismounting Horse to the Lingxing Gate at the end of the Sacred Passage (tomb avenue), which is 1,800 meters long. Historical records indicate that the mausoleum had a grand red wall, 22.5 kilometers long, enclosing the whole tomb area. The large group of buildings allied to the tomb has unfortunately been destroyed during subsequent wars, including all of the original wooden structures. Despite this, the exquisite stone carvings from the buildings' foundations remain to give a sense of how magnificent the mausoleum once was, in its heyday over 600 years ago.

Northwards from the great Golden Gate, a huge roofless stone tablet pavilion can be seen, often called the Square Castle by the

Xiaoling Tomb, Nanjing, built during the Ming Dynasty.

local population. Although its top is missing, its walls and four archways still remain. In the middle of the building stands a stele 8.78 meters tall.

Behind the Square Castle is the Sacred Passage, which is lined on both sides with 12 pairs of 6 giant stone animals. One pair of each type of animal is standing and the other pair is kneeling. The standing pair is working and the kneeling pair is resting, and they are on duty alternately. The animals demonstrate the magnificence and dignity of the emperor, drive away evil spirits and guard the tomb. The first two pairs of animals are lions which, as king of the beasts, symbolize power. The second two pairs of animals are called *Bi Xie*, unicorn-shaped mythical animals, said to be clever and capable of distinguishing between good and evil. The other animals in the avenue include camels, elephants, *qilins* (Chinese unicorns) and horses.

An inscription on this stele, in the Square Castle of the Ming Dynasty's Xiaoling Tomb, reads "The tablet of Deified Exploits and Holy Virtues of the Ming Emperor".

The Xiaoling Tomb was a milestone in the history of the imperial burial system in ancient China. It inherited aspects of the burial systems of the Han, Tang and Song dynasties, was the subject of unique innovations, and ultimately created a system used by both the Ming and Qing Emperors. Thirteen tombs of the Ming emperors, the eastern and western tombs of the Qing Emperors in Beijing, Hubei, Liaoning and Hebei all inherited the scale and style of Xiaoling Tomb in Nanjing.

Stone Animals

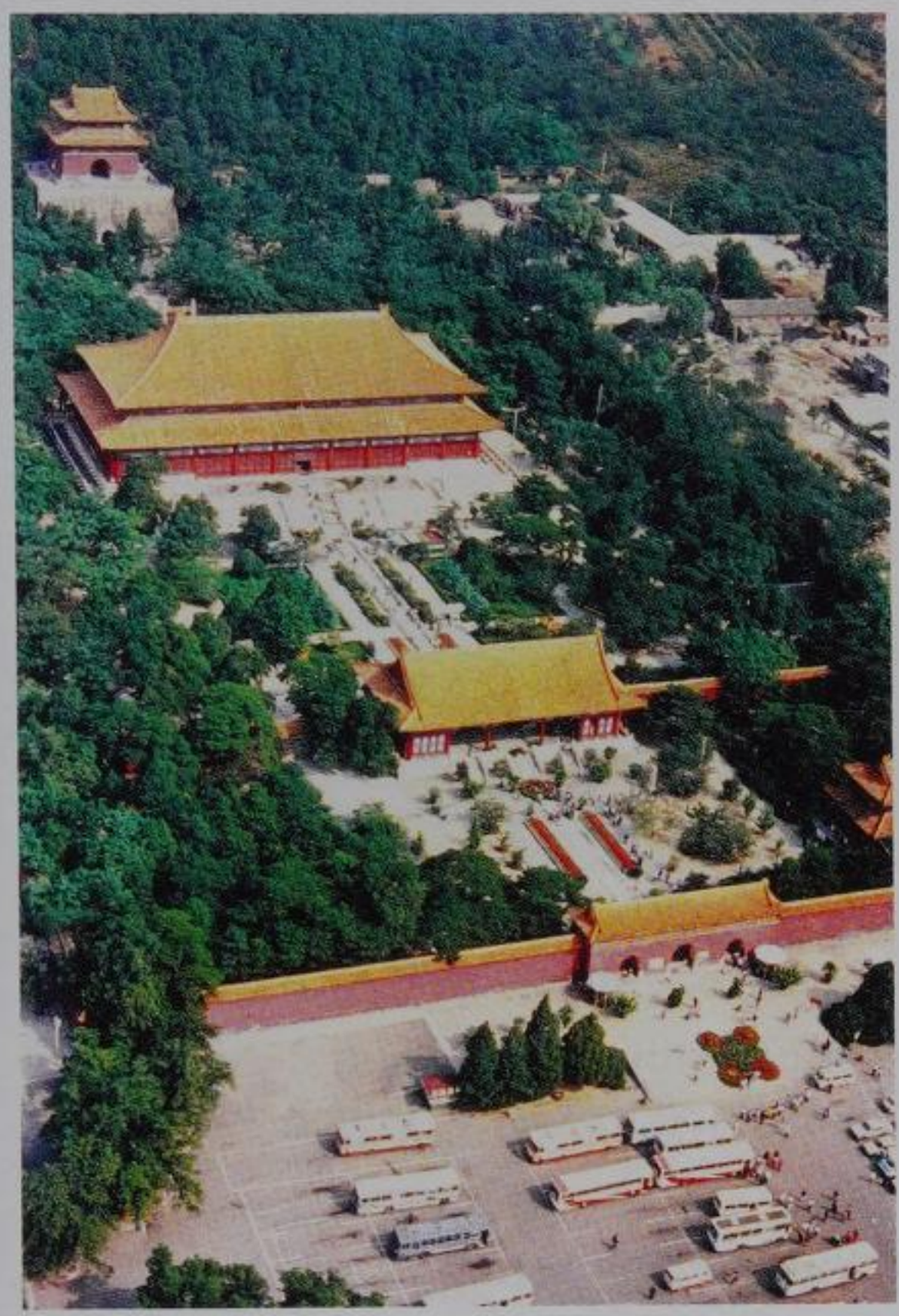
Stone statues can be found in pairs on both sides of graveyard passageways in the form of people or animals. They originally functioned as tombstones but, starting with the Qin and Han dynasties and throughout the rise of the Tang and Song dynasties and the reign of the Ming and Qing dynasties, they became central features of rituals performed before the imperial tombs. Stone animals were mostly used for ornamental or aesthetic purposes at an emperor's resting place, warding off demons and evil spirits while at the same time serving as honor guards and projecting the power and influence of the emperor.

The Ming Tombs—The Best Representatives of Mausoleums

The Ming tombs lie in a broad valley to the south of Tianshou (Longevity of Heaven) Mountain in Changping County, about 50 kilometers northwest of Beijing. To the southwest of this valley, a branch of the Yanshan Range breaks off and forms a natural gateway to the 40 square kilometer basin in which the tombs were built. This gateway is "defended" on each side by the Dragon and Tiger hills, which are said to protect this sacred area from winds carrying evil influences. Thirteen out of the sixteen Ming emperors are buried in this peaceful valley.

On entering the valley, visitors first pass an elegant, five-arched white marble memorial archway. Built in 1540, this 29 meter wide and 14 meter high structure, with its delicate bas-relief carvings of lions, dragons and lotuses, is still in near-perfect condition. About one kilometer to the northeast of this archway stands the Dahongmen Gate (Great Red Gate), the outermost gate of the mortuary complex.

The Great Red Gate marks the beginning of the seven kilometer long Shendao (Sacred Passage), which leads to the entrance of the Changling, the tomb of Emperor



Ming Tombs, Beijing.

Yongle (reigned 1403–24). Further along the avenue is a tall square stele pavilion, with four tall white *huabiaos* (stone ornamental columns) set at each of its four corners, standing boldly in the center of the Sacred Passage. Thirty-six stone statues were erected along the Sacred Passage, with twenty-four depicting animals (including pairs of lions, elephants, camels, horses and mythological beasts). These beasts are followed by a group of twelve stone human figures, which represent the funeral cortege of the deceased emperors. Carved in 1540, this group is made up of military, civil and meritorious officials. Immediately beyond these human

The 7,300 meter long Sacred Passage at the Beijing Ming Tombs. The stone sculptures include humans and animals including kneeling camels, standing elephants and standing qilins (Chinese unicorns).

Long'en Hall, the major building of Changling Tomb (Emperor Yongle) at the Beijing tombs, is built on a three storey marble dado.

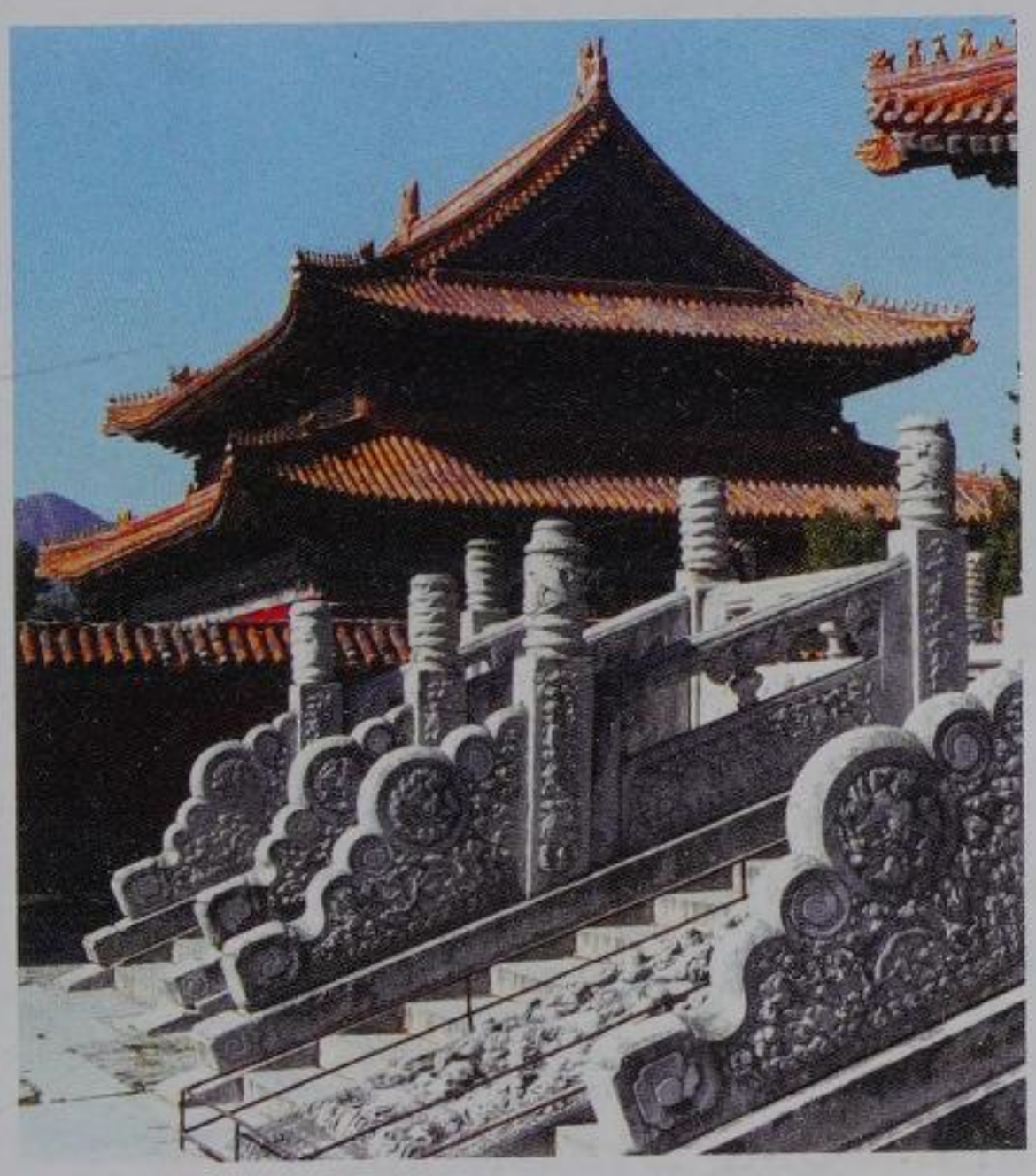
figures are the Longfeng Gate (Dragon and Phoenix Gate), which is pierced with three archways.

Of the thirteen Ming tombs in the valley, Changling is the largest and best preserved. Built on a south-facing slope, Changling's three courtyards are entirely surrounded by walls. The first courtyard extends from the massive three-arched entrance gate to the Long'en Gate (Gate of Eminent Favor). On the eastern side of the courtyard stands a pavilion containing a stone tablet, a stone camel and a stone dragon. Inside the second courtyard stands the Hall of Eminent Favor. The central portion of the stairway leading up to this great hall is carved with designs of sea beasts and dragons. To the east and west of the hall stand two ritual stoves where bolts of silk and inscribed scrolls were burned as offerings to the emperor's ancestors. The dimensions of the Hall of Eminent Favor (67 x 29 meters) closely match the dimensions of the Taihe Hall (Hall of Supreme Harmony) in the Forbidden City, making it one of the largest wooden buildings in China. Four giant wooden columns and 28 smaller pillars support this structure.

The four large columns are 14.3 meters high and 1.17 meters in diameter, and are notable for the fact that they are each a single trunk of the evergreen tree *Phoebe nanmu*.

The Eastern and Western Tombs of the Qing Dynasty—Mausoleums of Emperors, Empresses and Imperial Concubines

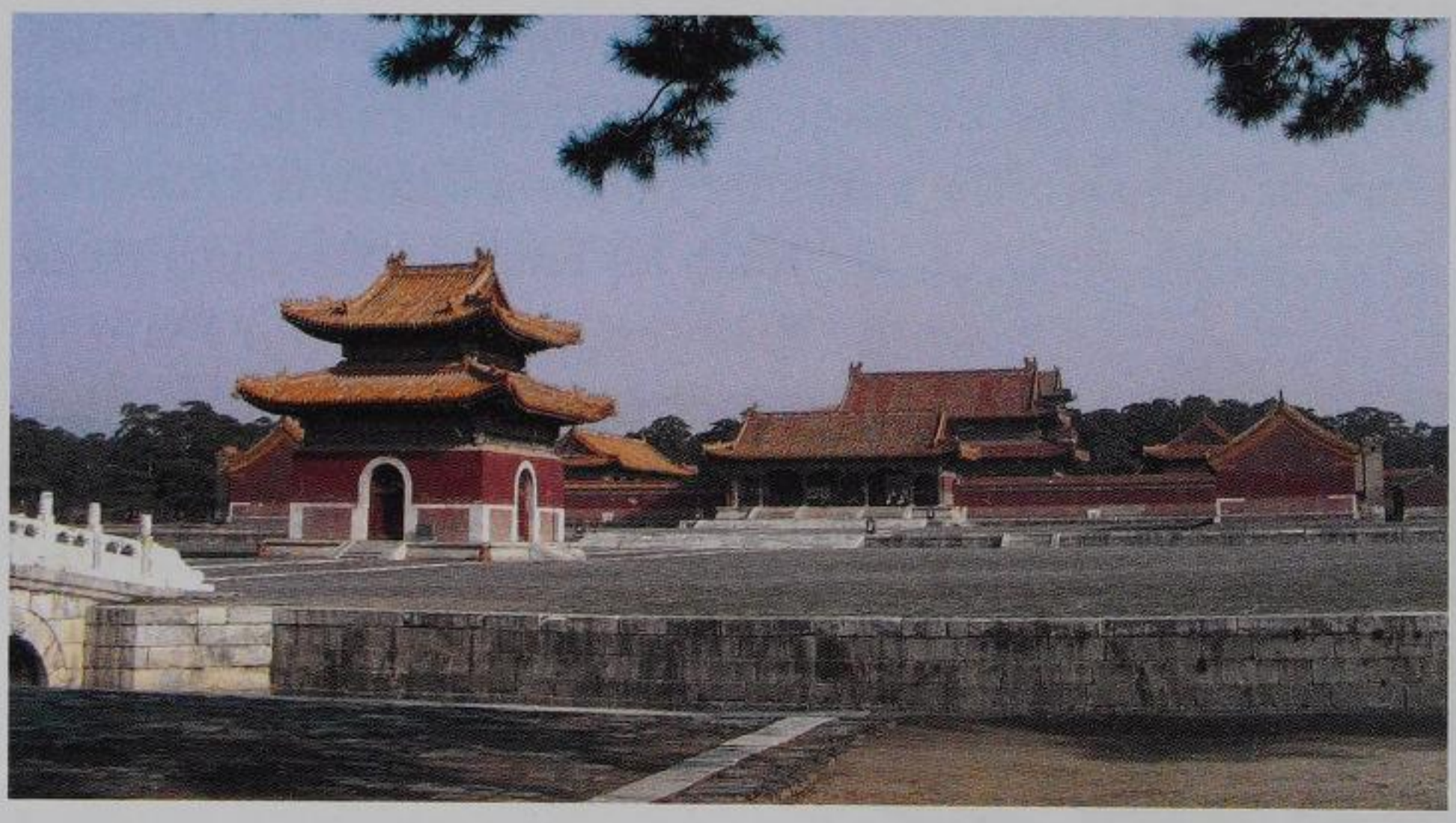
The Eastern Tombs of the Qing Dynasty, located in the Malan Valley of Zunhua City, Hebei Province, form one of the imperial mausoleums of the Qing Dynasty. The building of the tombs commenced in the eighteenth year of Shunzhi's reign (1661). In all, 161 members of the imperial family, including five emperors and fifteen empresses, were buried here. The five emperors' tombs are: Xiaoling Tomb (for Emperor Shunzhi), Jingling Tomb (for Emperor Kangxi), Yuling Tomb (for Emperor Qianlong), Dingling Tomb (for Emperor Xianfeng) and Huiling Tomb (for Emperor Tongzhi). The tombs for Empresses include Zhaoxiling Tomb for Empress Xiaozhuangwen, Xiaodongling Tomb for Empress Xiaohuizhang, Dingdongling Tomb for Empress Ci'an, and Xiaodongling Tomb for Empress Cixi. The Eastern Tombs of the Qing Dynasty provide precious material evidence for burial systems, funeral standards, sacrificial ritual and architectural art and technique.



These overground buildings of the Dingdongling Tomb represent the highest standard of architectural technology of all Qing tombs.

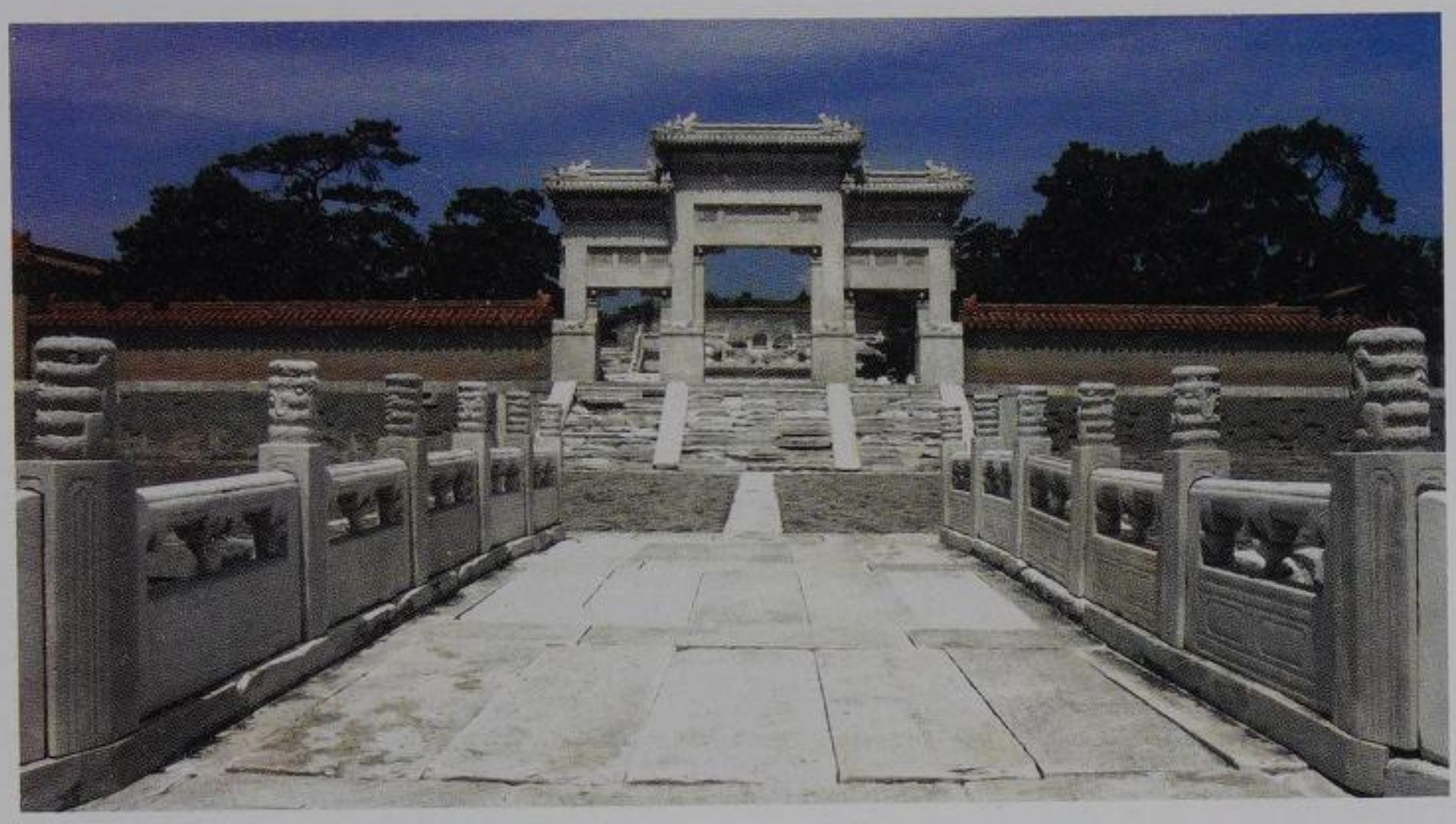
The Western Tombs of the Qing Dynasty, located in the Yi County of Hebei Province, 120 kilometers south-west of Beijing, were built between 1730 and 1915. The Tombs cover an area of

Longfeng Gate (Dragon and Phoenix Gate) of Yuling Tomb (Emperor Qianlong) in the Eastern Tombs of the Qing Dynasty.



Western Tombs of the Qing Dynasty.

1,842 hectares with a buffer zone of 6,458 hectares, and include 14 mausoleums along with two ancillary buildings; the Yongfu Temple and the imperial palace. The Western Tombs were the last mausoleum complex ever built in the Qing Dynasty and the last site of tombs of feudal emperors in China, and are the fullest expression of ancient Chinese architectural form,



Stele at the Muling Tomb (Emperor Daoguang) in the Western Tombs of the Qing Dynasty.

design and technology. The range and quantity of architectural evidence and historical documents relating to the Western Tombs helps to illustrate the significant change in the religious beliefs of the imperial family between the 1730s and the early twentieth century.

The Palaces of Gods

Three main belief systems existed in ancient China: Confucianism, Buddhism and Taoism. A well-known saying in China states that "Confucianism is the way to peace and prosperity; Buddhism is for the cultivation of the self through meditation, and Taoism is for the cultivation of the body." Islam and Christianity coexisted with these three major religions.

In its earliest stage, Confucianism was just a philosophy and did not involve a belief in any gods. During the reign of Emperor Wudi (who reigned 140 BC–87 BC) of the Han Dynasty, Confucianism became a government-run school of thought—promoted for the unification and stabilization of the nation. The founder, Kong Qiu (Confucius), was respected as the "Teacher of Eternity," and temples were built across the nation in his honor. Both Confucian temples and academies for classical learning are considered forms of Confucian architecture.

In the fifth century BC, Gautama Siddhartha founded Buddhism in ancient India, and as early as the later period of the Western Han Dynasty (202 BC–8 BC), Buddhism was made its way into China as a result of the commercial and cultural exchanges of the Silk Road. During the Eastern Han Dynasty (25–220 AD), Buddhism began to merge with the indigenous cultures of China, resulting in a Buddhism rich in Chinese features which became one of China's mainstream religions. Buddhist monasteries, pagodas and grottos soon became a significant part of China's ancient architecture.

Taoism is a religion indigenous to China which studies how human beings exist in the world, how they build their relationships with nature and each other, and how they can live healthily with longevity and even immortality. The renowned American architect and creator of the organic architecture movement, Frank Lloyd Wright, was heavily influenced by Lao Tzu (or Laozi), Chinese philosopher and founder of the Taoist school of thought. Wright

once said of Lao Tzu: "It was Lao Tzu, who lived five hundred years before Christ, who first claimed that housing is not just four walls and a roof, but is rather all about the internal space. This concept is completely pagan; it turned the concept of the house completely upside down. As long as one can accept such an idea, they are bound to reject classical architecture."

Islam first spread into China during the mid-seventh century AD. As it developed and spread in China it assimilated elements of traditional Chinese culture, adopting Confucian thinking in explaining Islamic doctrine. Mosques can be found across the country, and are very diverse in style. Several have adopted the model of the Chinese courtyard house.

During the Tang Dynasty (618–907) the Nestorian branch of Christianity spread to China but soon went into decline. During the Yuan Dynasty (1206–1368), the Nestorian sect once again spread into China, along with Roman Catholicism, but almost vanished as the Yuan Dynasty was destroyed. During the Ming (1368–1644) and Qing (1616–1911) dynasties , and especially after the Opium Wars in the nineteenth century, different branches of Christianity came to China in succession hoping to spread the Christian faith, at a scale surpassing their predecessors. Missionaries travelled throughout China leaving a lasting legacy in China's society, including the many churches they built.

Confucian Architecture

Confucian Temples

More than 2,000 years ago the great thinker and educator Confucius integrated the schools of thought and literature from the kingdoms of Lu, Zhou, Song and Qi, and compiled the *Five Classics* and the *Book of Rites*. He founded the academy of Confucian learning and a system of rites, advocating the idea of governing the country based on Confucian beliefs

Over a period of 2,000 years Confucianism gradually formed the basis of Chinese, and eastern, culture as its influence spread to countries in East and Southeast Asia. In order to consolidate power, the majority of China's rulers adopted Confucianism as a form of control over their subjects and showed great reverence to Confucius as a divine being.

Two years after the death of Confucius in 479 BC, his former home in Qufu, Shangdong was converted into a temple by the king of Lu, and in 195 BC the founder of the Han Dynasty, Liu Bang, held a grand sacrificial ceremony in honor of Confucius. The Qufu Confucian Temple began to increase in size as Confucius was revered more and more, and from the Eastern Han Dynasty to the Qing Dynasty, it went through fifteen major and numerous minor renovations. It became a huge cluster of temple buildings, with a scale and variety of building styles comparable to the grand imperial temples.

Qufu Temple comprises three compounds; the temple, the residence and the tomb. The Confucius Residence was the

Panoramic view of the Confucian Temple, Qufu, Shandong Province.

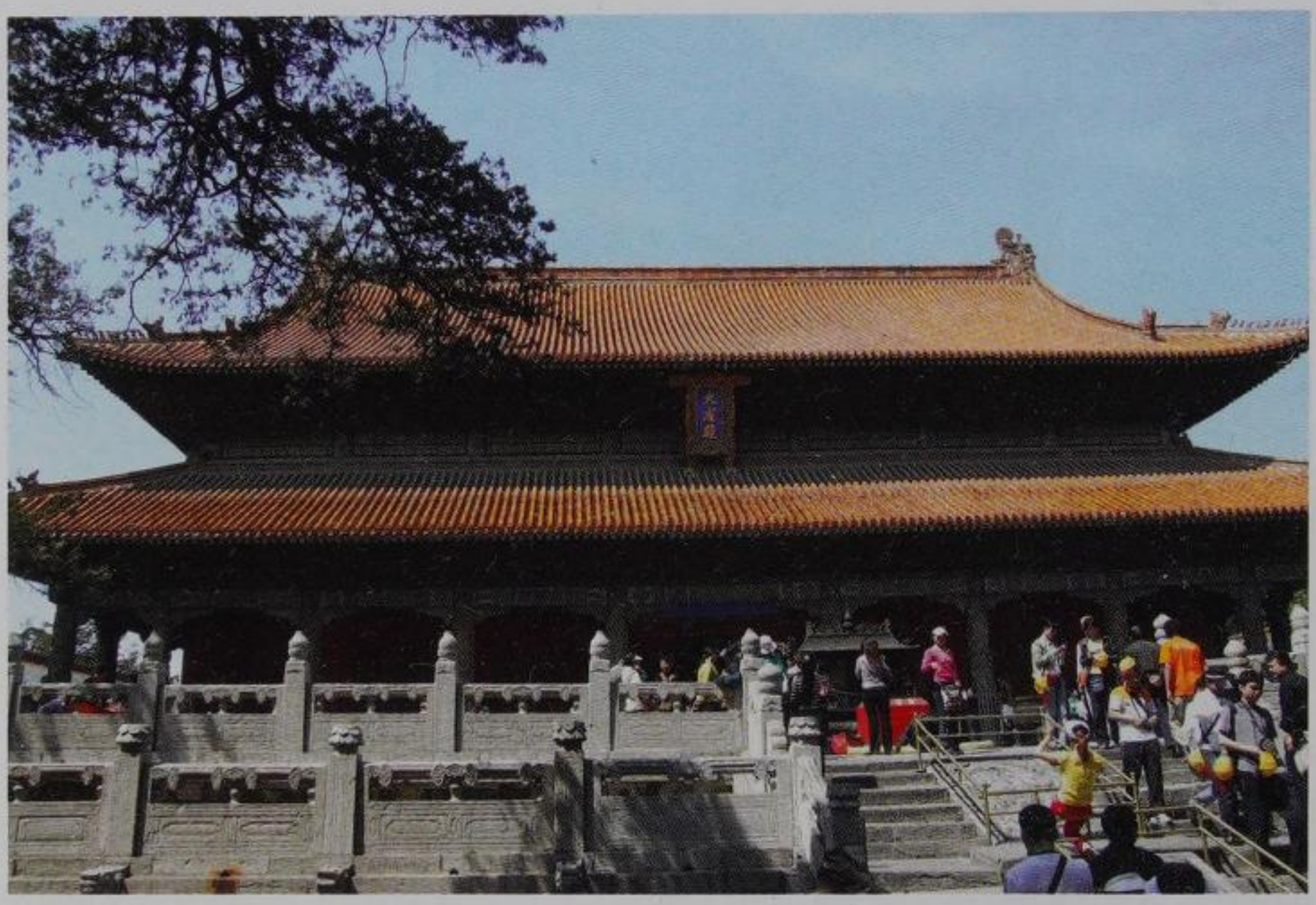
Lingxing Gate, Qufu Confucian Temple.

residential compound of the offspring of Confucius and is the largest residence in China aside from the palaces of the Ming and Qing emperors. The tomb is located to the north of the temple and is the burial place of Confucius and his family.

Today's Qufu Temple took shape during the Qing Dynasty, during the reign of Emperor Yongzheng (1722–35). It is long and narrow, measuring 600 meters from north to south, and is 140 meters wide. There are nine courtyards in the temple, over 400 halls, altars and chambers, 54 gateways and 13 imperial tablet-pavilions within the temple grounds.

Immediately in front of the entrance to the temple is a screen wall commemorating Confucius' impeccable character and wisdom. The Kuiwen Chamber is reached by passing through the first three courtyards, and houses the library.

Behind the Kuiwen Chamber are thirteen pavilions, each housing an imperial stone tablet. After passing through the Kuiwen

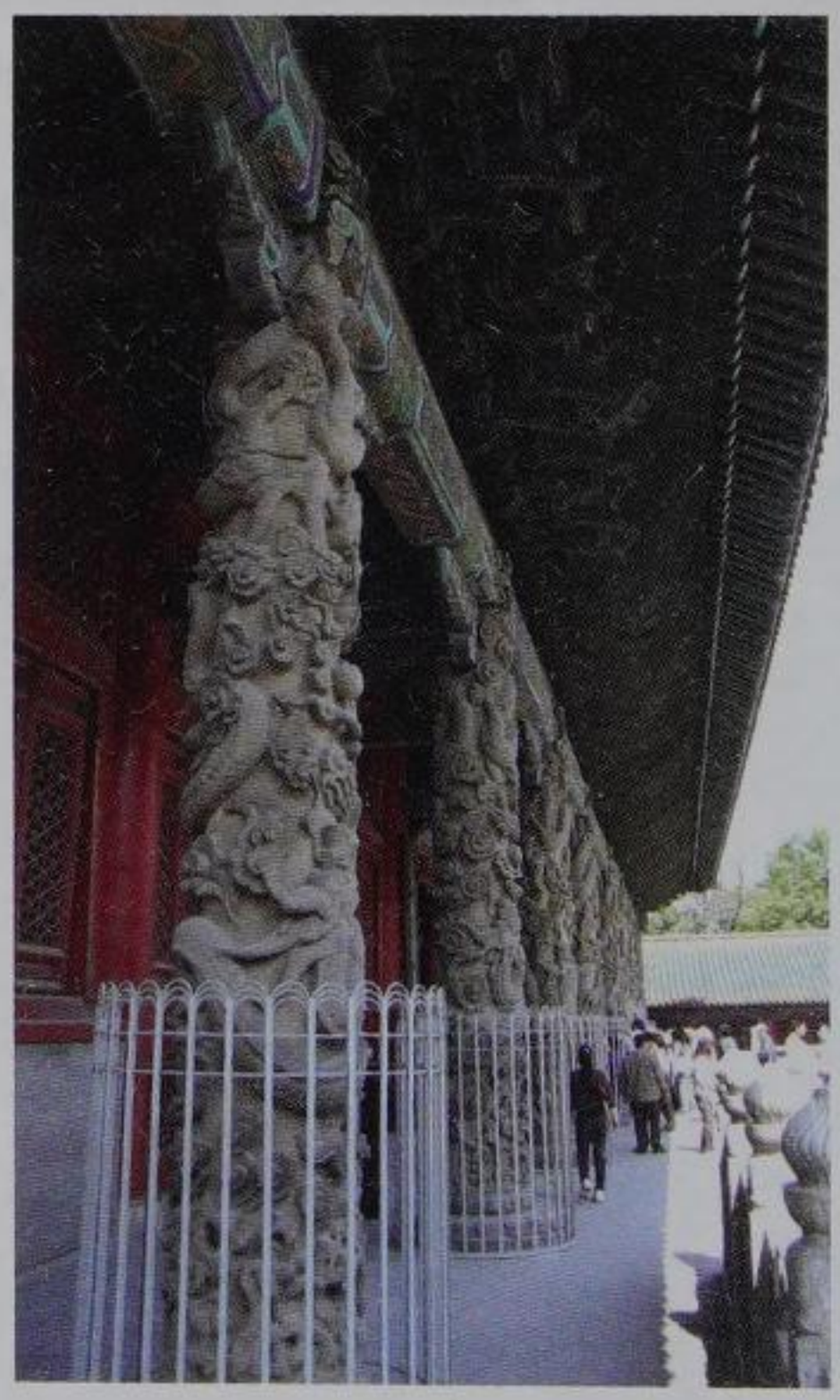


Dacheng Hall, Qufu Confucian Temple.

Chamber, visitors arrive at Dacheng Gate. The gate sits within a square which also houses a rectangular pavilion called Apricot Altar which is where the Confucian lecture hall was situated.

The main building of Qufu Temple is situated behind the Apricot Altar and is the site of Dacheng Hall, Qin Hall and Shengji Hall. Dacheng Hall is meant for holding grand sacrificial ceremonies, Qin Hall is the location of the consecrated altar of Confucius, and in Shengji Hall, a series of 120 paintings depict Confucius' life story.

In the early period of the Tang Dynasty, a system of standards and requirements for building Confucian temples was put in place, which led to the construction of Confucian temples throughout China.



Stone columns engraved with patterns of twisting dragons in front of Dacheng Hall, Qufu Confucian Temple.

Nanjing Confucian Temple.

As Confucianism held a dominant position in society, and in recognition of Confucius' contribution in education, every academy in the country was required to have a Confucian temple built in its compound. These temples were used as a venue for performing rituals and paying respect to Confucius.

Confucian temples throughout China were all modeled on the architectural style of Qufu Temple. The typical layout of these temples would have the prayer hall to the left, and the academy to the right. All features of Qufu Temple were replicated on a much smaller scale including the screen wall at the entrance, and the different gateways.

As the deification of Confucius continued, the activities held in his honor were more and more numerous, to the extent that the importance of the Confucian temples surpassed the importance

of the academies. Eventually the school became an auxiliary building of the temple.

China's Confucian temples are credited with spreading Confucian learning to neighboring countries, such as Japan, which had a number of Confucian temples built in its major cities.

Architecture of Academies of Classical Learning

The earliest academy of classical learning first came into being in the middle of the Tang Dynasty. Founded on both official and traditional private learning systems, the academy had its own lectures, collection of books and system of worship.

The dominant role of Confucian teaching had long been established in ancient China, but the dissemination of Buddhist and Taoist teachings was much broader and ran deep in Chinese society. On top of this, religions were valued and exploited by the rulers for political purposes. Confucian learning became the main school of thought in intellectual circles, while Buddhist and Taoist teachings took on the role of supplementary learning.

While Confucianism, Buddhism and Taoism were vying for dominance, Confucianism assimilated Buddhist teaching to substantiate its philosophical theories, giving birth to Neo-Confucianism. This resulted in much constructive interaction between the different schools of thought, which academies could facilitate.

In their time, the academies were gathering places for scholars and literati and were formed by leading scholars. They reflected the thinking, lifestyles and aesthetic tastes of ancient Chinese intellectuals. The traditional philosophy of "heaven and man as an entity"—the harmonious relationship between man and nature—was the highest state of being that the intellectuals aspired to achieve. The natural environment played an important

part in selecting appropriate locations for the academies, and had to allow for variations to be made in the buildings' structure over time. As Neo-Confucianism included aspects of Buddhist teaching, which emphasizes a cultivation of "the self" to allow dissociation from the material world, the academies were often built in a tranquil, scenic spot.

As the performance of rituals and paying respect to Confucius played an important part in the academies, they were restricted by many traditional systems and thinking. A consideration of the central axis of the building, and a symmetrical layout of the main buildings were crucial factors to be considered. Within the academies' compounds were courtyards, gardens, corridors and spacious halls. The buildings were constructed in accordance with the terrain, reflecting and aspiring to harmony between man and nature. The lecture halls, which numbered three to five,

Main gate of Yuelu Academy in Changsha, Hunan.

Garden of Yuelu Academy.

were the main buildings along the central axis. In front of the lecture halls were special courtyards which helped give prominence to the main buildings in the academy and allowed space for further extensions.

The library was an important building in the academy and it was usually spread over two or three levels. The library was usually located at the back of the academy, set in a tranquil environment. The ancestral temple or the main hall was for the worship of the teachers and deans. Some academies include Confucian temples. In addition to these main buildings, the academy also included small courtyard houses for the dean's residence, as well as hostels for the students. The academy was often surrounded by landscaped gardens. When official authorities took over the operation of the academies, later in their history, additional buildings such as supervision halls, military lecture halls, archery galleries, and examination halls were added to the compounds.

Ancient Chinese intellectuals were against the idea of extravagance in building structures, and advocated simplicity in their architecture. The academies assimilated various local architecture styles and pursued the ideal of natural beauty. The buildings must be functional and meet the everyday needs of the people and, because of this, they were simple, humble buildings with minimal decorative elements, contrasting sharply with the imperial architectural style.

The development of academies during the Ming Dynasty was marked by varying levels of success. Scholars such as Wang Yangming and Zhan Ruoshui worked actively to develop the academies, leading to a period of prosperity when, along with

Yuelu Academy library.

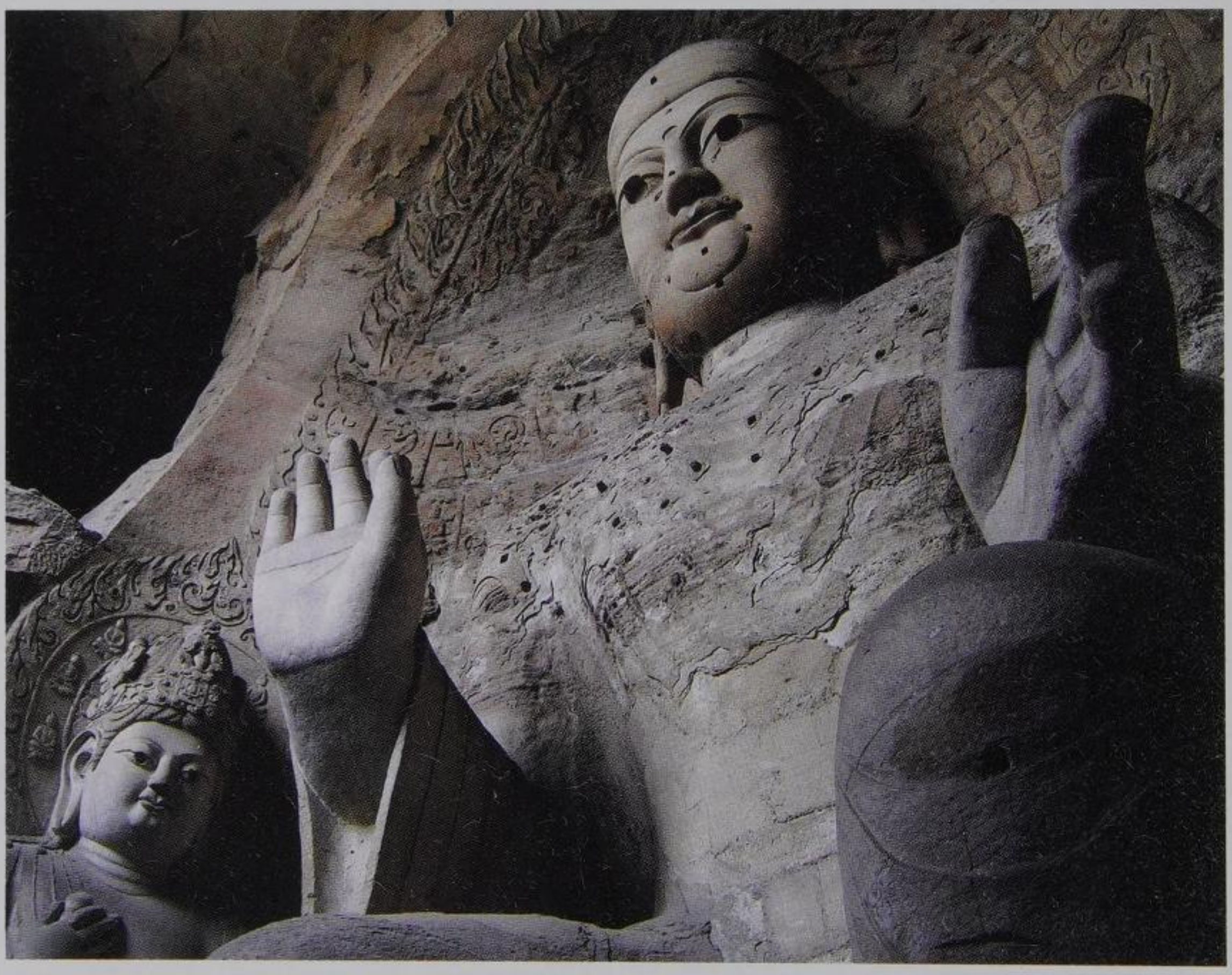
other schools of thought popular during that time, the academies actively took part in political debates and forged an important role in the history of China. The academies finally went into decline at the end of the Qing Dynasty and were taken over by government authorities, becoming the predecessors of present-day schools and marking the end of the academies of classical learning.

Buddhist Architecture

During the second century BC, Emperor Wudi of the Han Dynasty sent Zhang Qian on a mission to explore the western region, or Central Asia. With this quest, the Silk Road, which connected East Asia and West Asia, was established. Around the second to fourth centuries AD, Buddhism, which originated in India, was spread into China via the Silk Road. Buddhism was welcomed by the masses, and also won the hearts and support of the political rulers. During the periods of Wei, Jin and the Northern and Southern Dynasties (220–589), Buddhism had

spread to such an extent that it was regarded by Emperor Wudi (who reigned 502–549) of the Liang Dynasty as the national religion of China, and the building of Buddhist temples reached great heights. Buddhism flourished during the Tang Dynasty to the extent that it spread to Korea, Japan and Vietnam, and was further developed in China. The rulers of the Yuan Dynasty were fervent supporters of Tibetan Buddhism and many Tibetan Buddhist temples were built during the period.

Today, the form of Buddhism popular among the Han Chinese people is known as Han Buddhism, whereas the form of Buddhism that spread into Tibet from India and Nepal is known as Tibetan Buddhism. Commonly known as the Lama Sect, it is predominant in Tibet, Gansu, Qinghai and Inner Mongolia,



Figures of Buddha inYungang Grotto, Datong, Shanxi Province.

with Lhasa and Shigatse as centers of the religion. In Xishuangbanna, Yunnan, there are traces of a third form of Buddhism, Hinayana Buddhism, which has given rise to a unique style of Buddhist temple architecture specific to the region.

The Chinese saying "All the famous mountains under the sky are populated with monks" is likely to stem from the Buddhist tradition of building temples and monasteries in mountainous areas. Tranquility is a prerequisite for studying the dharma and meditating, and temples are sited in scenic locations on or near any part of a mountain, at the foot, on the mountainside or right on the peaks. Certain mountains in China such as Mt. Wutai in Shanxi, Mt. E'mei in Sichuan, Mt. Putuo in Zhejiang and Mt. Jiuhua in Anhui have gained popularity as a result of the Buddist temples situated there. The monks have created names of religious significance and attached them to scenic spots.

Buddhism continued to develop in China, and Buddhist architecture, such as that found in their temples, pagodas and grottos, became a key feature of China's varied architecture.

The Silk Road

In the second century BC, the Han Dynasty Emperor Wudi sent a mission west led by Zhang Qian, establishing trade routes to central and western Asia from the then capital of Chang'an. China was able to transport continuously its silk, damask, satin and other textiles along this route to penetrate the Middle East and European markets. In the nineteenth century the German geologist Ferdinand von Richtho coined the term "The Silk Road" for the east-west route that Zhang Qian had opened. The route was a major artery between Europe, Asia and the Chinese mainland, and an important cultural bridge between China, India and Greece.

Buddhist Temples

Buddhist temples were built for the worship of the Buddha's image, the holding of Buddhist rites and to house monks.

According to legend, in 64 AD Emperor Mingdi of the Eastern Han Dynasty dreamt of an imposing golden man. His minister Fu Yi told him that there was a god in the west and that his name was Buddha, so Emperor Mingdi dispatched his officials to seek Buddhist teaching in India. The party returned to the

The first Buddhist temple in China, Baima Temple (White Horse Temple), in Luoyang, Henan Province.

city of Luoyang with two high monks, Kasyapa Matanga and Dharmaraksa, along with Buddhist scriptures and the image of Buddha. The hosts arranged for the high monks to stay at Honglu Temple, where foreign guests were received, and the following year the monks had their own residence built there. This residence was named Baima Temple (White Horse Temple), owing to the fact that they arrived in China on white horses, and was the first Buddhist temple built in China.

Buddhism developed rapidly in China and there was soon a shortage of Buddhist temples. To help to resolve this problem, many pious court officials and rich merchants offered their own homes as temples. These were known as "residence temples" and their front halls were used as the temple hall, with the back used as the lecture hall. The traditional courtyard house, soon became a definitive architectural model of a Buddhist temple.

Initially, Chinese Buddhist temples were modeled on Indian Buddhist temples, with a pagoda forming the center of the building,

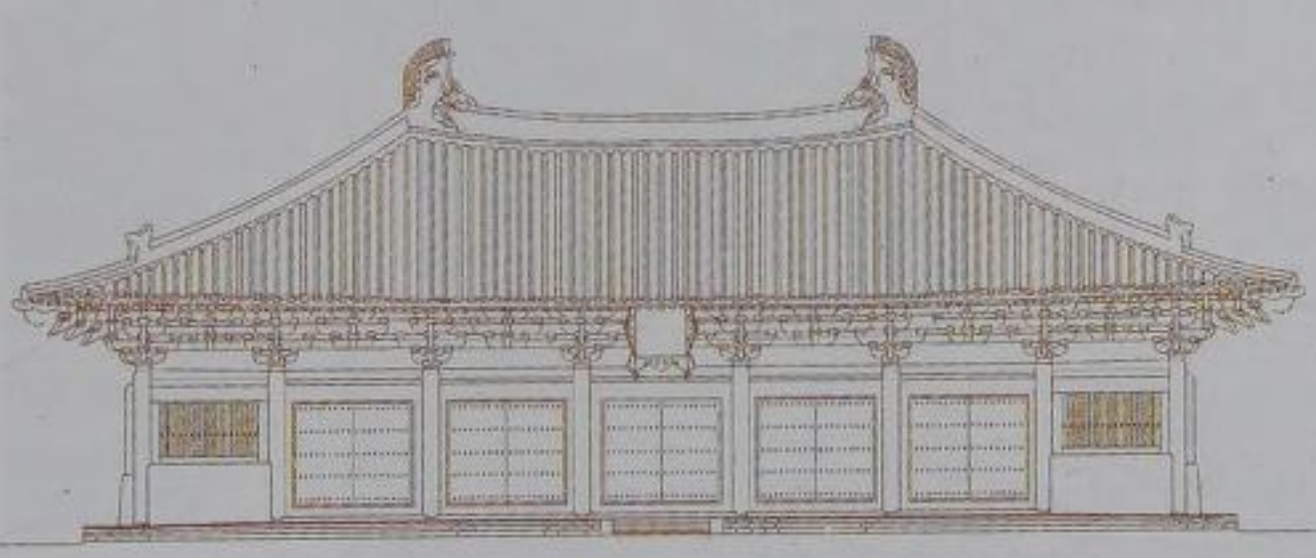
Dougong

Dougong, or bracket sets, are a unique feature of ancient Chinese architecture used in monumental buildings. They comprise sets of brackets on top of the columns supporting the roof beams within a building and roof eaves without (each set consisting of tiers of outstretching arms called "gong", cushioned with trapezoidal blocks called "dou"). While their function is to support the upper part of a roof, they also have a strong aesthetic effect, and serve to distinguish between monumental buildings and more common architecture.

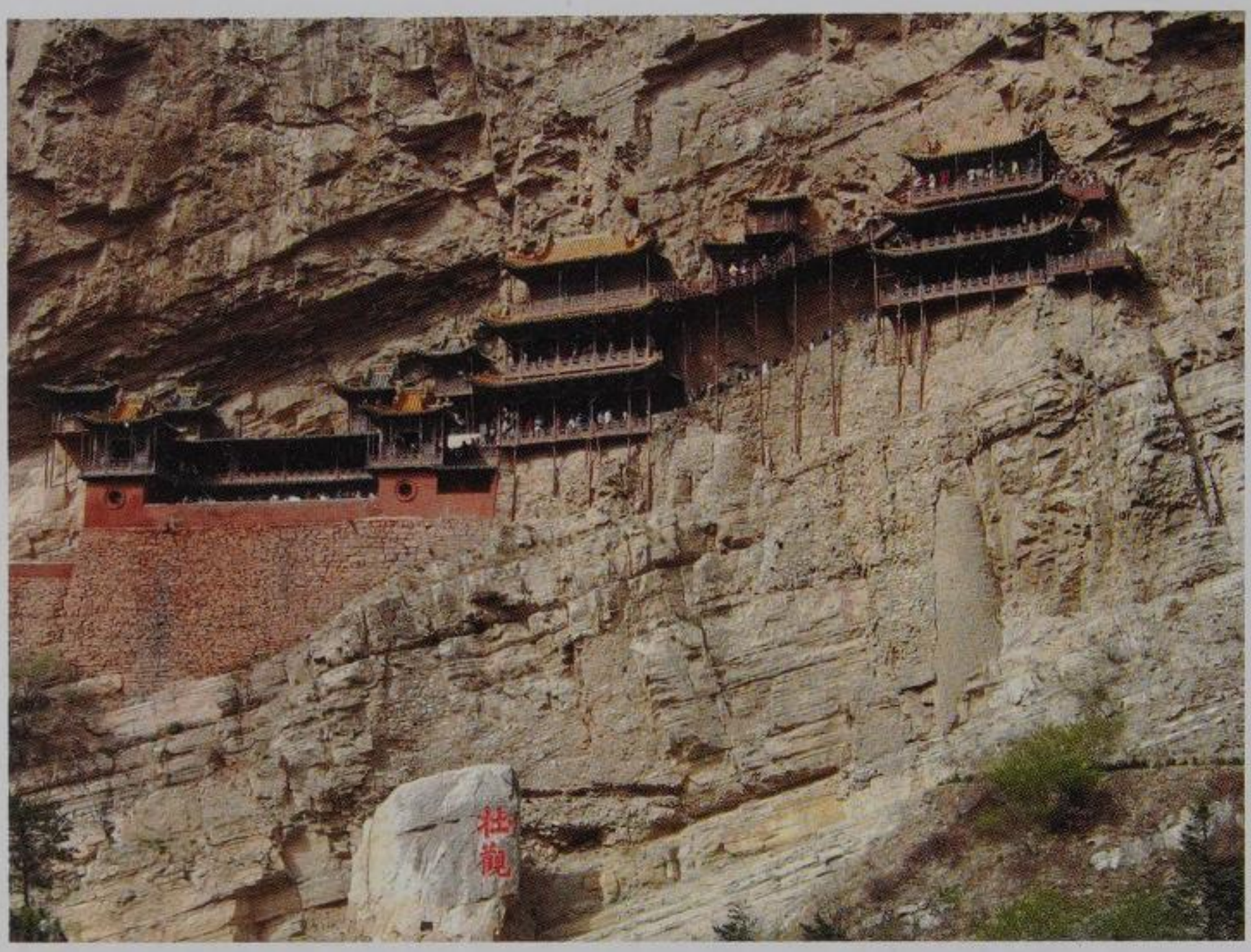
or with the pagoda in the front and the hall in the back. As Buddhist temples took on an indigenous, Chinese design, the pagoda was placed in the back of the temple, while the hall became the center of the temple as a whole. The two oldest wooden buildings in existence in China are both Buddhist temples. They are the main halls of Shanxi's Nanchan Temple and Foguang Temple, both on Mt. Wutai. The buildings' corbel brackets (*dougongs*) are gigantic, the eaves are deep, and the roof pitch is smooth and gentle, with succinct decorative elements—a classic Tang Dynasty architectural style.

Once the architectural style of Buddhist temples in China had taken on a definitive form, it was clear that the style had inherited all of the original elements of Chinese architecture. A typical Buddhist temple is symmetrically laid out and all the buildings in the temple such as the bell and drum tower, the main hall, and the sutra library are all situated along the axis, while the living quarters for the monks are located at the sides. A very good example of such a temple is Longxing Temple in Zhengding of Hebei Province. It is the best preserved of the Song Dynasty temples and it houses a 24-meter tall image of the Buddhist deity the "thousand-handed Guanyin." Even though the axis of the temple is long, the variety in sizes and designs of all the buildings and the creative use of space within the temple compound give it a refreshing touch.

The Hanging Temple, in Hunyuan, Shanxi Province, was built during the later period of the Northern Wei Dynasty and consists of a group of Buddhist temples

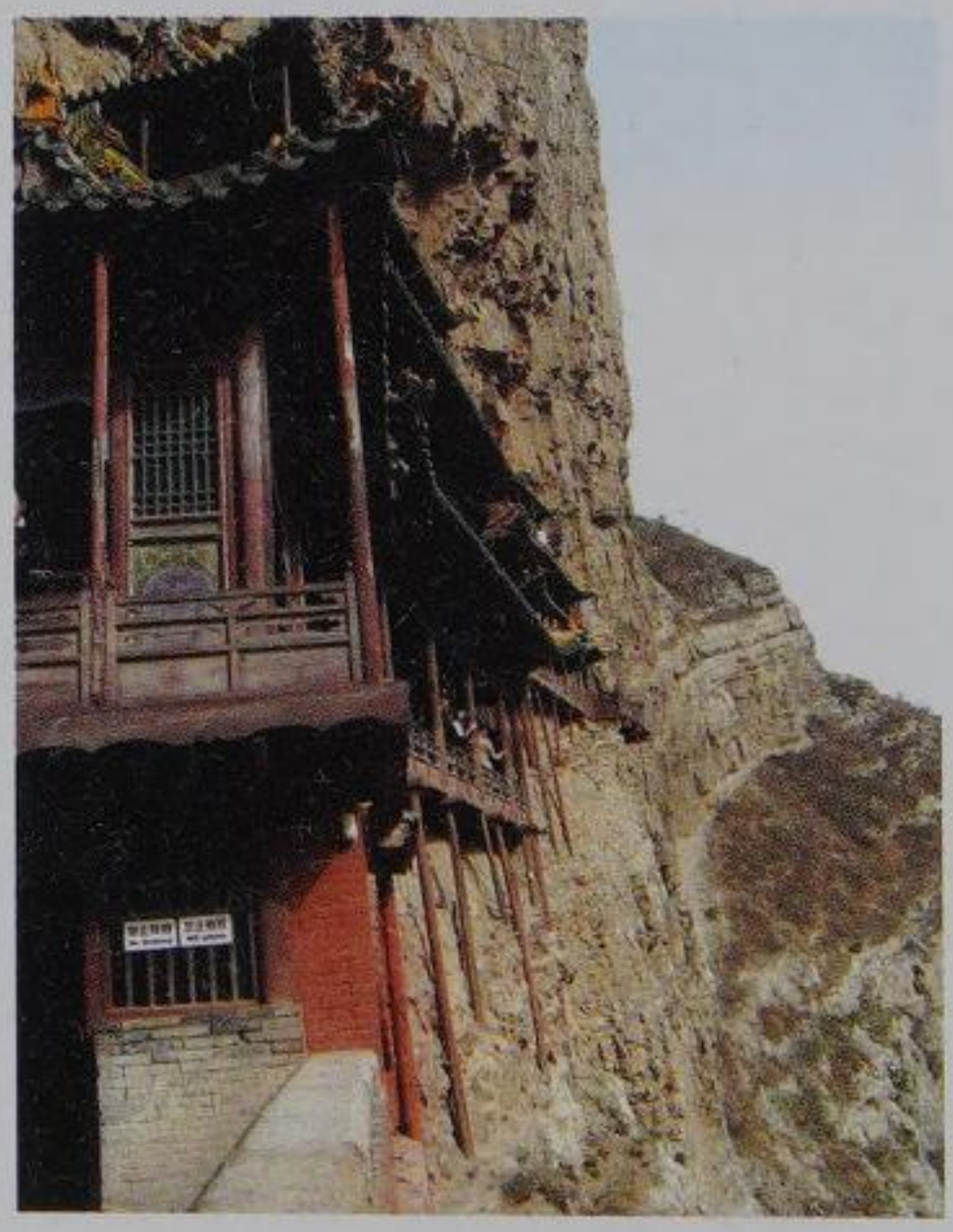


Elevation of the main hall, Foguang Temple in Mt. Wutai, Shanxi Province.



Hanging Temple, Datong, Shanxi Province.

suspended from the precipitous cliffs of Mt. Heng. The temples rely entirely on the support of wooden poles fixed into holes chiseled into the cliff and their different halls are connected to each other with wooden planks. They resemble mansions in the air and are an amazing sight to behold. The Hanging Temples are primarily for the worship of Buddha but were also influenced by Confucianism and Taoism. The temples are concrete representations of the harmonious relationship between these three major ancient religions of China.

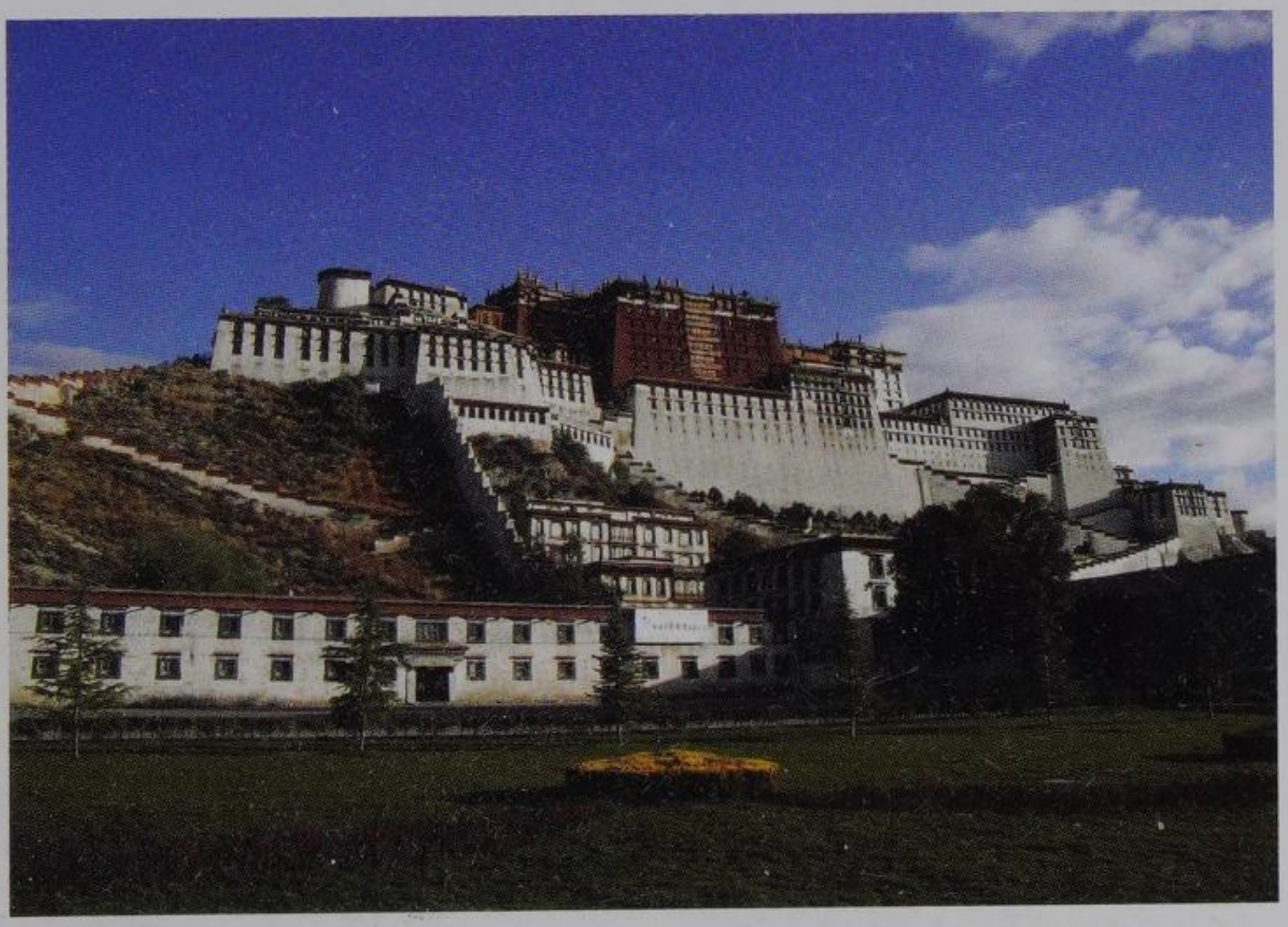


The buildings of the Hanging Temple are supported by wooden poles inserted into the cliff.

Tibetan Buddhism (the Lama Sect) advocates the practice of combining politics and religion, and emphasizes the importance of religious rites. All Buddhist festivals

are grand events to the Tibetans and the scale of the celebrations is frequently large. Tibetan Buddhist monasteries are built close to mountains and blend in with the highland landscapes. The buildings combine the use of the wooden framework of the Chinese people with local stone. The Tibetans absorbed the decorative styles of temples in Nepal to create a grand and colorful architectural style. The best example of this is the Potala Palace in Lhasa, Tibet.

Potala Palace was built in the seventh century AD when the Tang Dynasty's Princess Wencheng married Songtsen Gampo—king of the Tubo kingdom of Tibet. The palace was specially built to greet the arrival of Princess Wencheng to Lhasa. Later buildings were added to the palace to form the present-day Potala Palace and this process of incorporating other buildings took many years to complete and took up almost the entire mountain. The palace now comprises the White Palace, the Red Palace, the "snow" at the foothill and the Dragon King Pool. The White Palace is where the Dalai Lama lives, and is also a



Potala Palace, Lhasa, Tibet.

monastery. The Red Palace is intended for religious studies and Buddhist prayers and comprises different chapels or halls, along with housing the relics of the former Dalai Lamas.

In Chengde of Hebei Province where the Summer Palace is located, there are eight Tibetan temples, commonly known as the Outer Eight Temples. These temples were built by the Qing rulers in the eighteenth century for the purpose of uniting the minority ethnic groups—particularly the Buddhists in the Tibetan and Mongolian regions. Among these temples is a replica of Potala Palace.

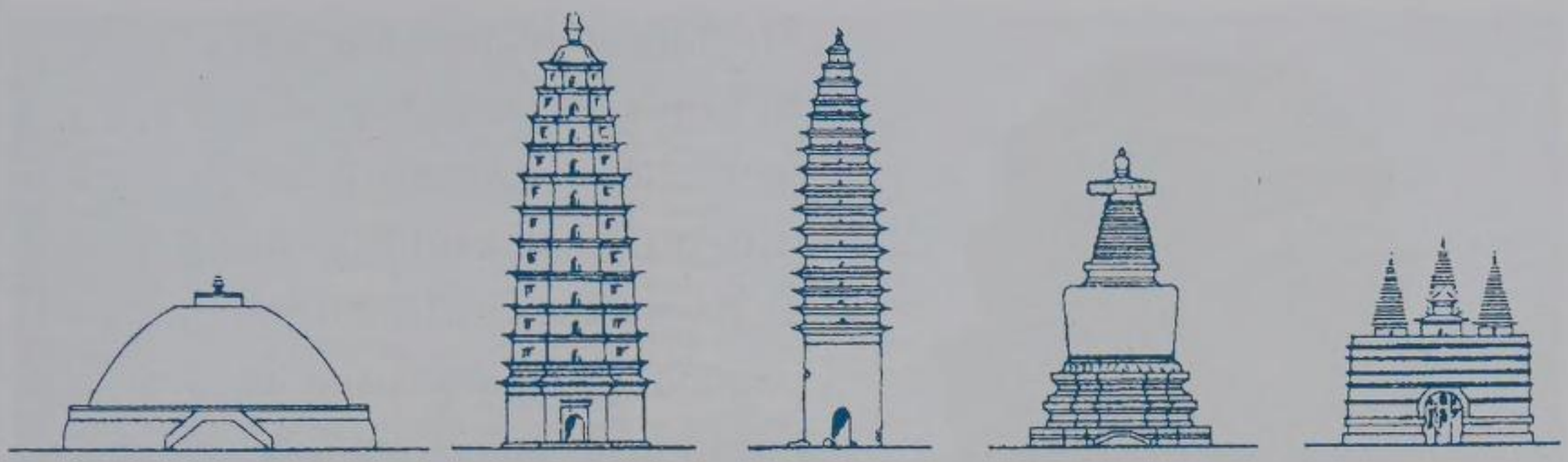
The Buddhist temples of Yunnan's Dai people and other ethnic groups have been directly influenced by Burmese and Thai architectural styles. At the same time, they incorporated the flexibility of local architecture to create a lively, unrestrained architectural style. The roofs of the buildings are layered and divided into sections, giving prominence to the center of the house, and the ridges of the roofs are decorated with an assortment of ornaments.

Pagodas

Pagodas are ancient Buddhist buildings which house the bone relics of Buddhas and other high monks. In Sanskrit, these structures are known as "stupas." They are a symbol of the Buddha which worshippers held in reverence.

Pagodas were brought to China along with Buddhism and the stupa of India quickly blended with the Chinese pagoda to create a unique Chinese-style stupa. The Chinese-style stupa traditionally has a pavilion at its base. An underground chamber houses treasures such as relics, sutras and images of the Buddha. The pavilion-style pagoda influenced the design of other forms of pagoda such as the Lama pagodas and Yunnan's Burmese-style pagodas.

The earliest pagodas were mainly wooden structures, but they were not durable. During the Northern and Southern Dynasties, people started to build brick pagodas, and by the Tang and Song



Different styles of pagodas in China.

dynasties, copper and steel pagodas were built. After the Song Dynasty, there were even glazed-tile pagodas and porcelain pagodas. The several thousand surviving ancient pagodas in China are mainly built from brick. The oldest wooden pagoda in existence is in the Yingxian County of Shanxi Province. It is so sturdy that it has stood its ground for thousands of years, even withstanding several major earthquakes.

From the construction of a single pagoda, it soon became common to build several pagodas close to each another. In the Shaolin Temple in Henan, there are 220 brick pagodas that were built over thousands of years from the Tang Dynasty to the Qing Dynasty. They have various designs and all boast excellent craftsmanship.

Gradually, the pagodas in China took on practical uses, especially for scholars and men of letters who would make use of the height of pagodas to take in the distant views. Many Tang Dynasty poets enjoyed moments at the top of pagodas to write and recite their poetry, which quickly became a trend of the time.

Visiting pagodas became a popular sightseeing excursion, and they also soon took on military and navigational functions. Very often, pagodas were built on the pretext of housing Buddhist relics, whilst their true purpose was as a useful point for reconnaissance.

The Wooden Pagoda of Yingxian County

The wooden pagoda in the county of Yingxian, known also by its full name as the Yingxian Temple Buddha Pagoda, is located in the northeast corner of the Yingxian Buddhist temple. Its construction began in 1056 during the Liao dynasty, but was stopped after two years. The pagoda was finally completed over a period of six years during the height of the Jin dynasty in 1195. It is the tallest and oldest wooden pagoda in China.

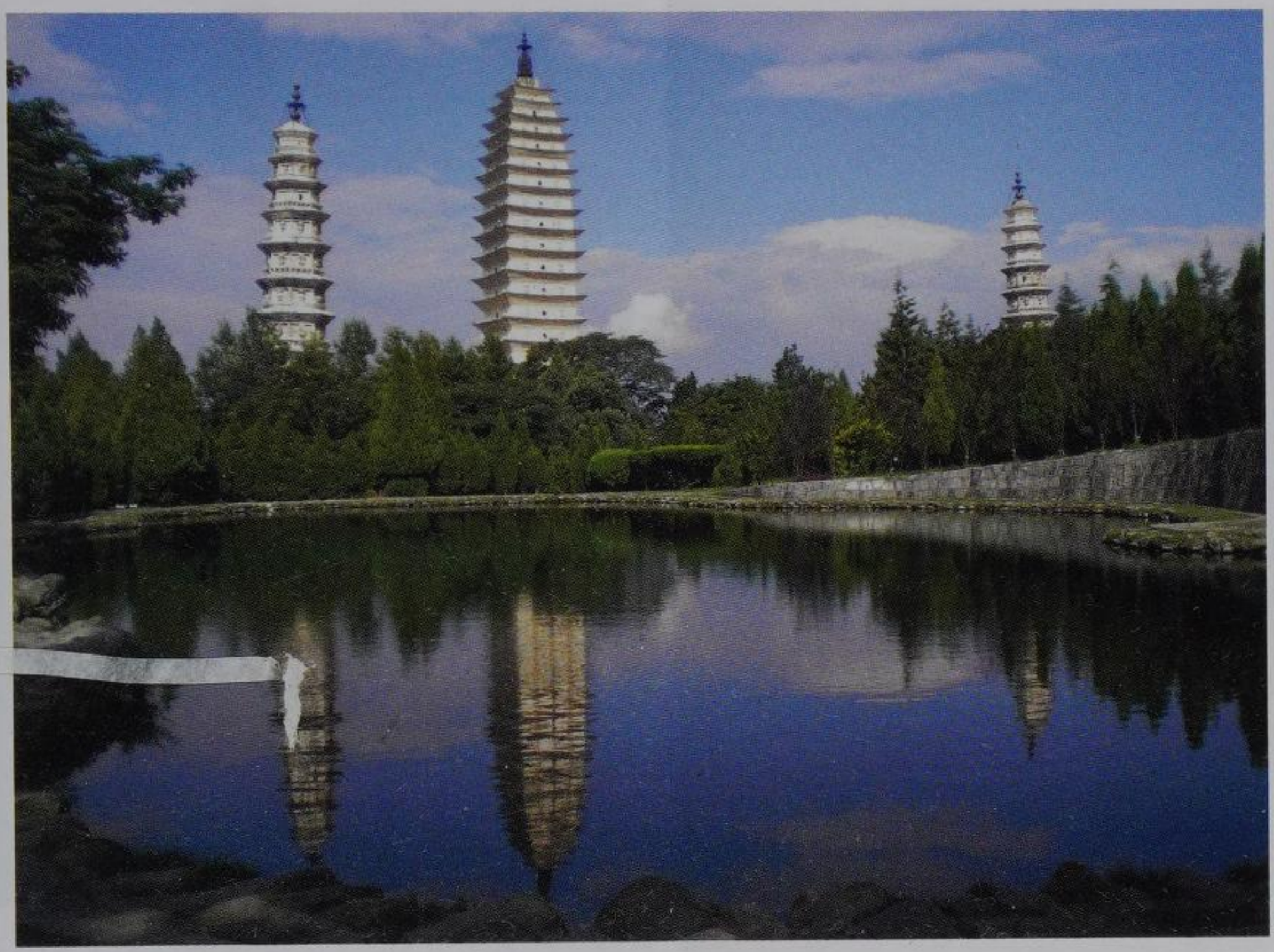
The wooden pagoda in Ying County, Shanxi Province, built in 1056.

The tallest ancient pagoda in China—Liaodi Pagoda, in Hebei—was used for this purpose and stands at 84 meters tall. Some pagodas were also used as lighthouses, such as Liuhe Pagoda in Hangzhou.

Many pagodas are located in scenic spots loved by many visitors, such as the White Pagoda on Qionghua Isle of Beijing's Beihai Park. In Yunnan's Chongsheng Temple are three pagodas that are set in the beautiful Cangshan Mountain, and Leifeng Pagoda in Hangzhou's West Lake is famous for its depiction in the Chinese classic tale *Madam White Snake*, welcoming many visitors daily.

In the later period of the seventh century AD a new form of Buddhist building came into being in the form of monumental Buddhist columns. These columns are octagonal in shape and were used for the commemoration of Buddhist teachings, having inscriptions of sutras carved into them. At a temple that consecrates the image of Buddha, only one such column would be built. For a temple that consecrates Bodhisattvas, enlightened Buddhist beings, two to four such monumental columns would be built. The best example of a monumental column

Pagoda group in Shaolin Temple, Henan Province.

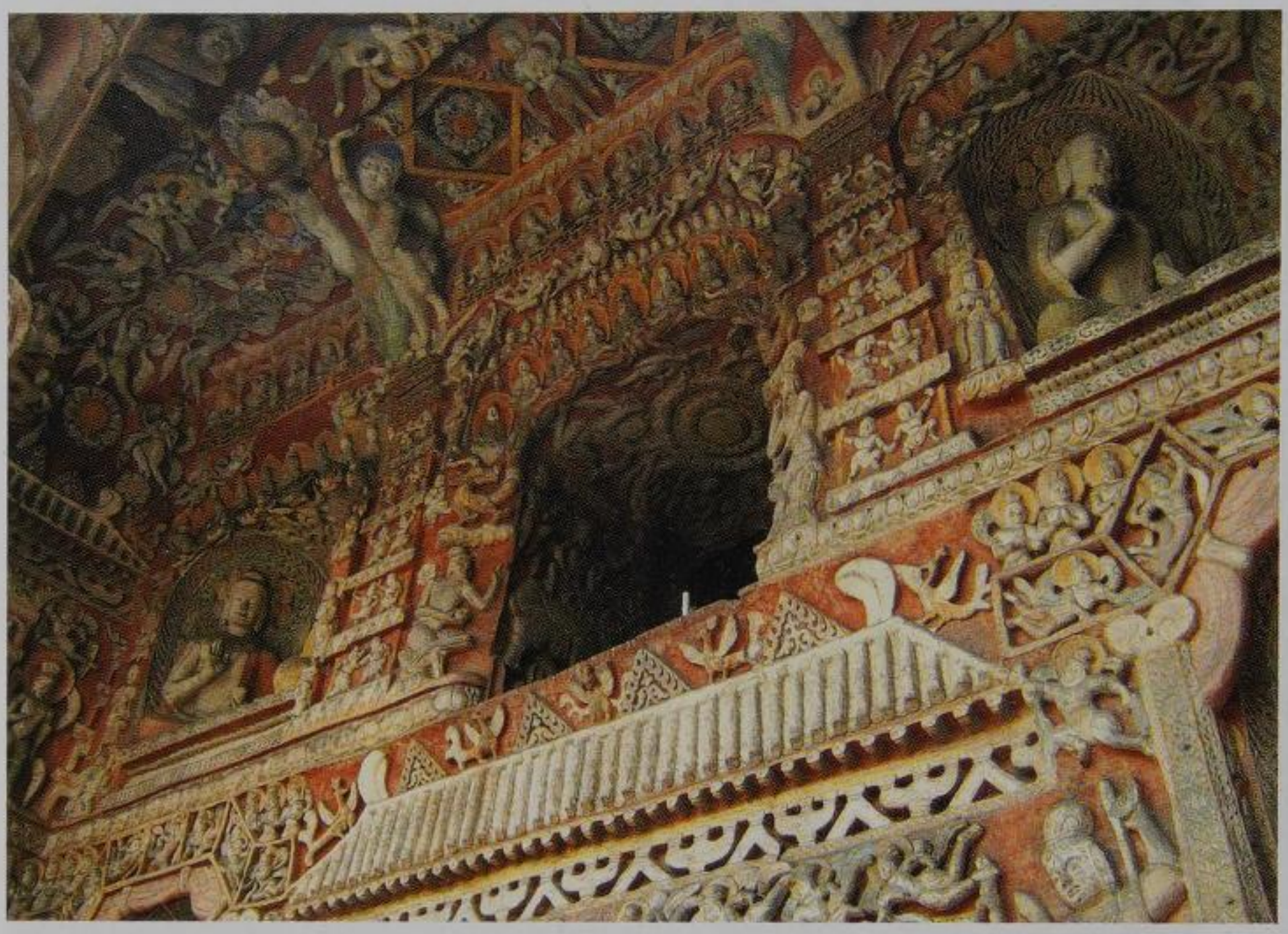


Three Pagodas of Chongsheng Temple in Dali, Yunnan.

was built during the Northern Song Dynasty and is located in Hebei's Zhaoxian County. It is widely renowned for its excellent craftsmanship in stone carving.

Grottos

The origins of China's grottos can be found in India's grotto temples, whose influence spread into China during the period of the Northern and Southern Dynasties. They were quickly absorbed into Chinese traditional architecture and many grottos were built, particularly during their peak of development during the Wei, Jin and Tang dynasties. The earliest grottos were spread along the Silk Road which ran between China and India.

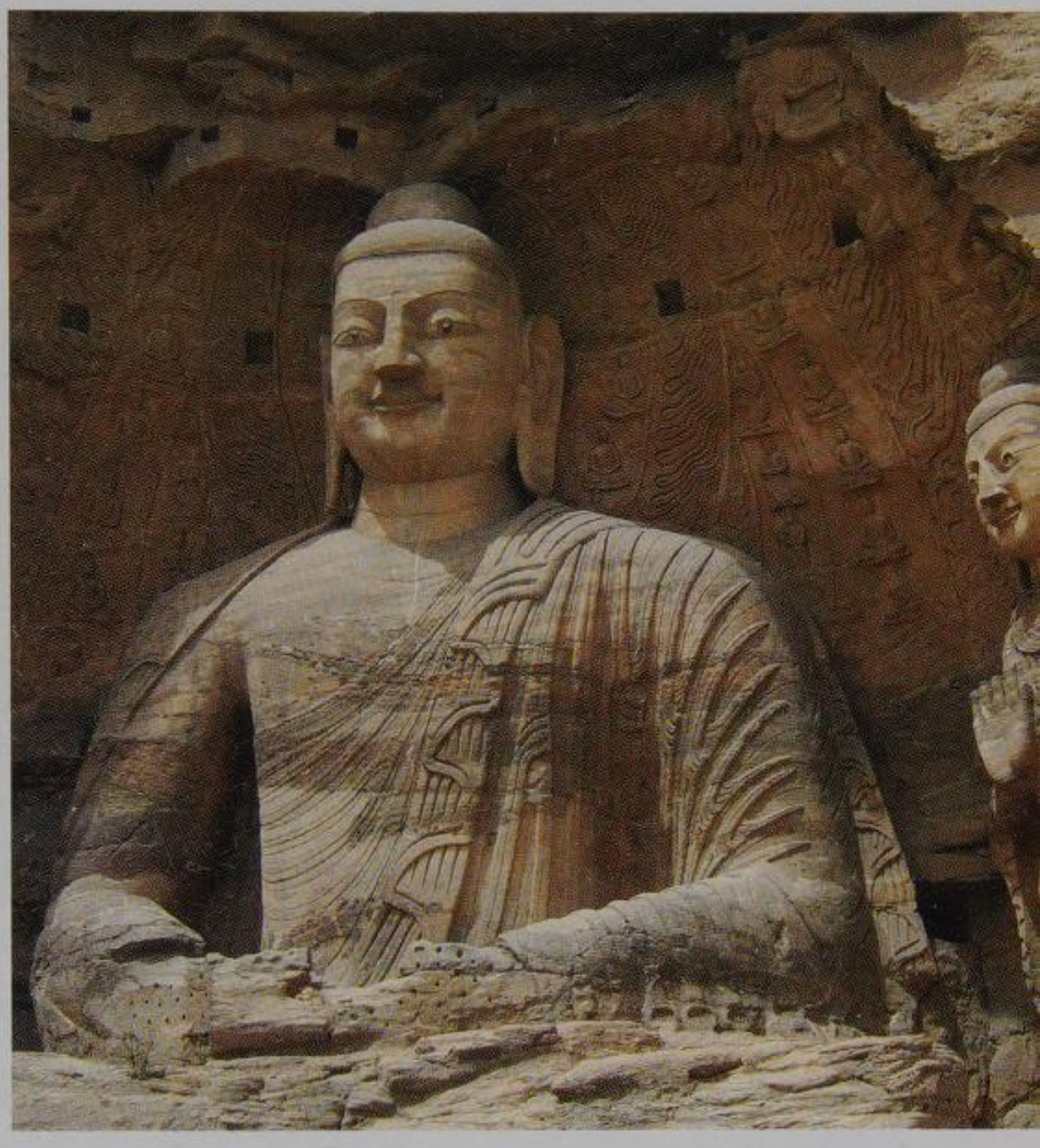


Yungang Grotto, Datong, Shanxi Province.

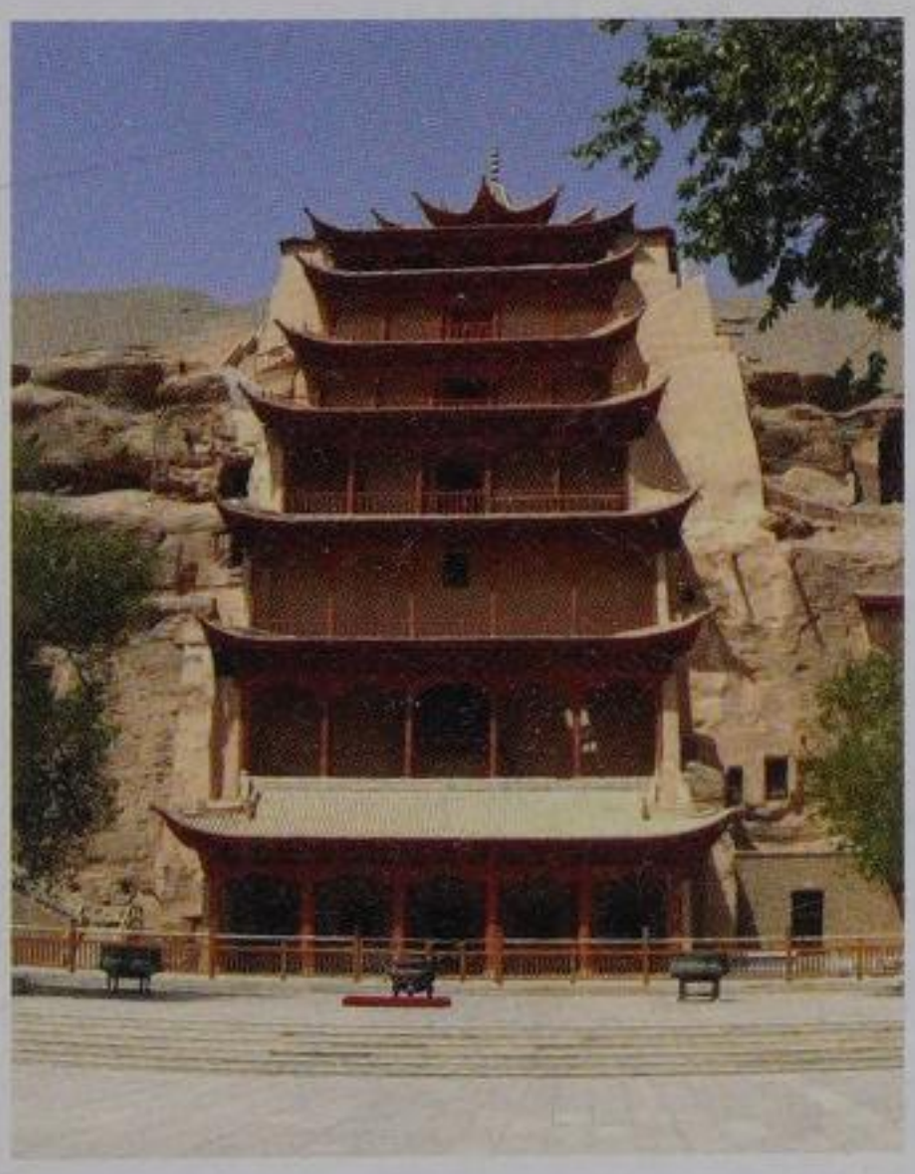
Grottos not only show the history of Buddhism in China, but their frescoes also reflect the development of art and culture in ancient China. China's most popular grottos are Mogao Grotto in Dunhuang of Gansu, Yungang Grotto in Datong of Shanxi, and Longmen Grotto in Luoyang of Henan, but other well-known grottos include Sichuan's Dazu Grotto, Gansu's Tianshui Maijishan Grotto, and Shanxi's Taiyuan Tianlongshan Grotto, and Gansu's Yongjing Bingling Temple Grotto.

Mogao Grotto is the largest and most well-preserved of these grottos and is commonly known as the "Thousand Buddha Cave." From the period of the Sixteen Kingdoms (304–439) to the Yuan Dynasty, Mogao Grotto's development spanned more than ten dynasties. The grotto is situated in Dunhuang in Gansu Province, a city formed at the junction of the north and south sections of the Silk Road. Dunhuang was once a bustling city with a high volume of trade, well populated with Buddhist temples. Today, the

The 13.25 meter high figure of Puxian Bodhisattva in Longmen Grotto, Luoyang, Henan Province.



Cave No.20, Yungang Grotto in Datong, Shanxi Province. The figure of Buddha is 13.75 meters tall and is the most famous work in the Yungang Grotto.



Mogao Grotto, Dunhuang, Gansu Province.

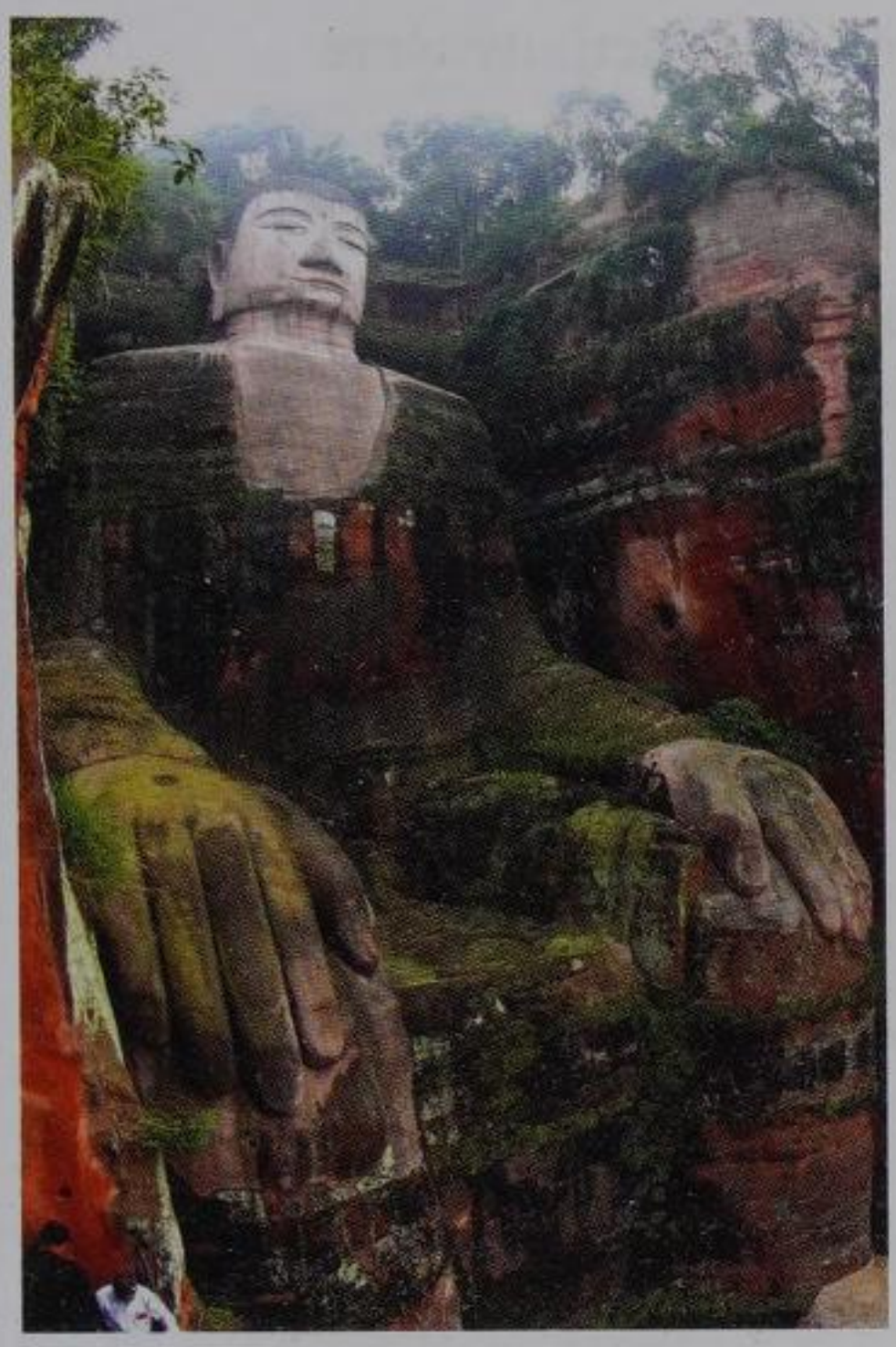
cliffs of Dunhuang are full of grottos, all interconnected with wooden planks. The grottos house many beautiful frescoes and painted sculptures.

Mogao Grotto was built in the architectural style common during the period of the Tang and Song dynasties. The eaves of the grottos were built using techniques common in China's wooden structures, showing how Chinese culture had been assimilated into the grotto architecture imported from India. The frescoes inside the grotto were created in different dynasties, and show the daily social activities of ancient people.

"Flying Apsaras" in Mogao Grotto.

The characters portrayed in the frescoes are useful evidence for the study of the costumes and accessories worn by different ethnic groups in different periods. The images of Buddha were strongly influenced by Central Asian art and the characters and their costumes are rich in Indian and Persian influences. It wasn't until the Northern Wei Dynasty that the depiction of the characters in the frescoes started to change. Their costumes, in particular, had become more Chinese in style and during the Tang Dynasty, the peak of Buddhist art, the images of Buddha became plumper and more lifelike. The palaces and buildings such as pavilions, chambers, pagodas and bridges depicted in the frescoes have become treasures to historians, leading them to new historical finds across the country.

One of the grotto's most famous frescoes is called the "Flying Apsaras." Asparas is a female Buddhist mythical spirit with a flair for music and the dance of flight. Alhough she is not portrayed with wings, ancient Chinese artists liked to depict her



Leshan Buddha, Sichuan Province.

in a dance of flight, as if she is flying into the sky. She is a mesmerizing character in Dunhuang's frescos and has stolen the hearts of many visitors.

As the images of Buddha built in the grottos became larger, grotto art shifted to the exterior of the caves. During the Tang Dynasty, the largest image of Buddha in existence—Leshan Buddha in Sichuan—came into being. The construction of the image began in the Tang Dynasty in 713, and took a total of 90 years to complete. This huge image of Buddha was carved out of a cliff and measures 71 meters in height and 24 meters in width. The ears of the image measure 7 meters in length, and can seat two people. Each foot of the image can hold more than a hundred people.

Taoist Architecture

Taoism is China's indigenous religion and has its origins in folk culture. It can be traced back to the activities of worshipping the heaven and honoring the ancestors during the Shang dynasty (1600–1046 BC). The practice of alchemy in the Warring States Period (475–221 BC) and the so-called thoughts of the Yellow Emperor and Laozi in the Qin-Han period (221 BC–220 AD) also contributed to the emergence of Taoism. However, Taoism was not established itself as a religion until Zhang Daolin founded the sect of *Wudon Mi Dao* (*Way of the Five Bushels of Rice*) during the Eastern Han Dynasty (25–250 AD). Taoism regards Laozi as the founder and adopts his *Tao Te Ching* as its

major scripture. The earliest areas of Taoist religious activity were in the mountain regions, so the first Taoist buildings were caves and residences in mountainous and rural areas. Apart from a requirement for seclusion, there were few conditions controlling religious practise.

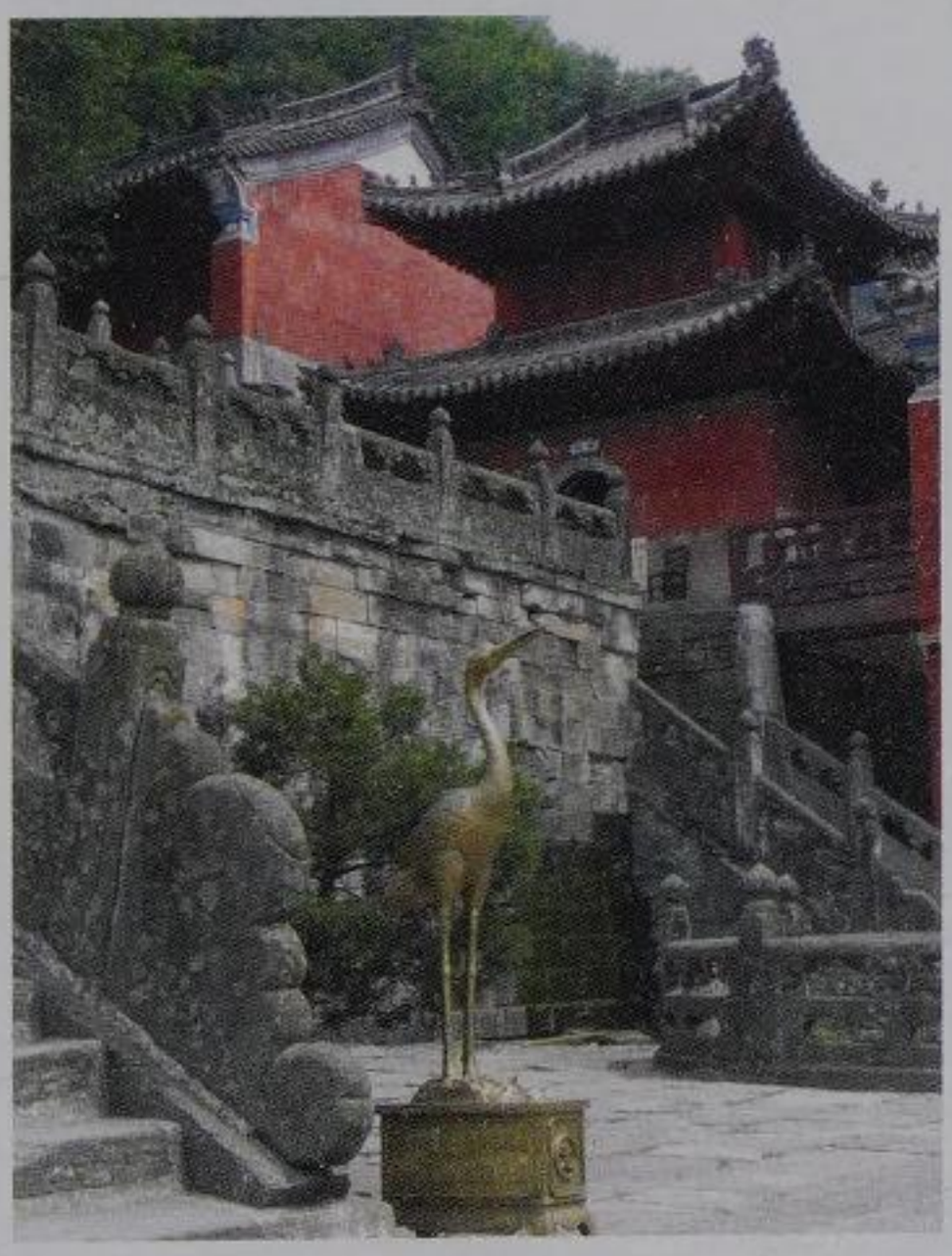
During the Wei and Jin dynasties, Taoism borrowed extensively from Confucianism and Buddhism in order to fulfill the criteria set by the feudal rulers that there had to be a system of rites and rituals in place for it to function as a religion. Hence, it was advocated that all Taoists should be fundamentally loyal, filial and compassionate, and were to attempt to develop a potion that could bring immortality. As Taoism developed from the rural regions to the towns and cities it merged with imperial authority. The proper nouns used in describing imperial buildings were soon used to denote Taoist buildings as well.

From the Tang Dynasty onwards, Taoism enjoyed a period of supremacy and was comparable with Buddhism. It was highly revered during the Song Dynasty and all the ancestral temples at the time were regarded as Taoist temples. At the beginning of the Yuan Dynasty, the Taoist master Qiu Chuji met with Genghis Khan to obtain his support for the religion, pushing Taoism to great heights. Taoist temples were built across the country but during the Ming and Qing dynasties Taoism went into decline.

For over 2,000 years Taoist temples were mainly built in the mountains. Although this practice is similar to that of Buddhism, the two religions are very different.

Taoism teaches about the role of nature and the relationship between human beings and the natural elements. Taoist buildings must be located in a natural environment, in harmony with it. When selecting an appropriate location for the temples, the concepts of the *yin* and *yang* and the related principle of

Temple of City Gods, Shanghai.



Zixiao Taoist Temple, Mt. Wudang, Hubei Province.

the "Eight Trigrams" must be at play. In selecting an appropriate location amidst a natural environment, the Taoists believe that a harmonious relationship can be struck when science, art and nature merge as one.

In order for Taoist priests to attain immortality, they have to be close to heaven, or a place that is out of this world. In legends, these places were usually found in the seas, mountains and caves. Building a temple in the mountains allowed Taoist priests to be closer to these unworldly places.

One of the main sacred tenets of Taoism was to seek a formula for a pill

which would bring about immortality. To study and conduct experiments to work towards this formula the Taoists believed that a tranquil environment free of distractions was necessary. This concept also affects the choice of location and layout of the Taoist temples.

For purpose of good *feng shui,* some of the Taoist temples were built high on the peaks of mountains. Examples of such temples include Mt. Wudang in Hubei, Mt. Qingcheng in Sichuan, and Mt. Laoshan in Shandong. Perched on the top of these mountains, the Taoist temples are imposing towers.

Once Taoism became an official religion Taoist priests no longer practiced in caves or huts but in comfortable temples. The building materials for these temples were sourced from the

Bixia Taoist Temple, Mt. Tai, Shandong Province.

Shangqing Taoist Temple, Mt. Qingcheng, Sichuan Province.

local areas and they were neither extravagant nor luxurious. The temples' designs tended to retain the rustic and simple characteristics of a common residence.

Taoism is a multi-divinity religion combining the wisdom of Confucius, Buddha and Laozi, the founder of Taoism. This variety of influences is reflected in the design of Taoist temples. As the different sects in Taoism could cause confusion to the masses, in order to facilitate the spread of the religion, Taoism borrowed from the Buddhist notion of "Three Embodiments of Buddha" and formed its very own "Taoist Trinity." This trinity was comprised of the most divine gods in the religion. In Taoist temples the Trinity Halls are the most important and prominent buildings in the compounds. Taoists incorporated the teachings of Confucius in the area of rituals and applied this concept to the gods as well. The buildings designed for the worship of gods of different status thus influenced the overall layout of a Taoist temple.

The main hall of a Taoist temple is a classic imperial building. The Taoists primarily worship their founder Laozi, whose altar is placed in the center of the hall. The main hall and the halls that worship other gods of high status are all placed along the central axis of the temple.

Erwang Shrine, Mt. Qingcheng, Sichuan Province.

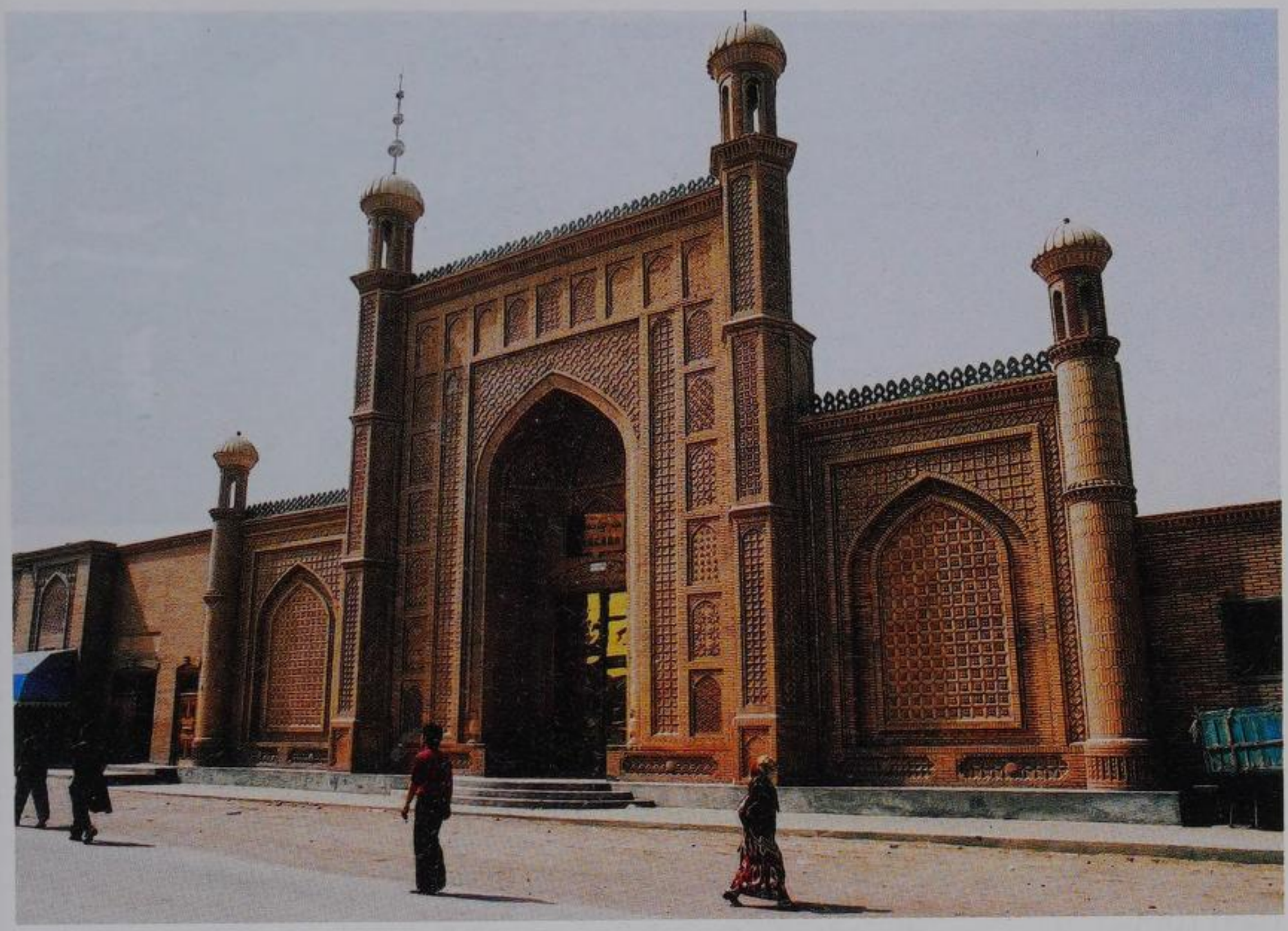
All Taoist temples in existence today date from the Ming and the Qing dynasties. Yongle Palace is China's earliest Taoist temple. It houses twenty-eight exquisitely crafted clay sculptures that date back to the Yuan Dynasty. Other well-known Taoist temples can be found in Hubei's Mt. Wudang and Sichuan's Mt. Qingcheng—now designated UNESCO World Heritage Sites.

Islamic Architecture

Following the flow of the Islamic faith into China in the middle of the seventh century AD, many mosques were built by the various Muslim minorities. Islam has been long embedded in Chinese society and the country's Islamic architecture has its own unique style. Chinese Islamic architecture is set apart from that found in Middle Eastern countries, and incorporates a blend between China's local and ethnic architecture styles.

Muslims worship in mosques which are always built facing the direction of Mecca, the sacred land of Islam. There are few restrictions on the location of a mosque and they can be situated in the city or the countryside, but the location must be clean and dry.

Mosques and tombs of imams (Islamic religious leaders) can be found across China in different inland provinces, and are



Great Mosque of Hetian, Xinjiang.

often Han Chinese buildings which have been altered to make them fit for Islamic worship and religious practices. Apart from these buildings however, a series of mosques and the Geys' Mazars—tombs of an ancient Islamic sage—can be found in the Xinjiang Uygur Autonomous Region. These Islamic buildings are much more similar in nature to those found in Central Asia, and have unique characteristics in their form and decorative styles.

Mosques in China's Hinterland

The Islamic faith was brought into China during the Tang Dynasty by Arabian merchants using the "Maritime Silk Road." These pioneers of China's Islamic faith came via the sea and left behind a rich legacy of Islamic art in the mosques that they built.

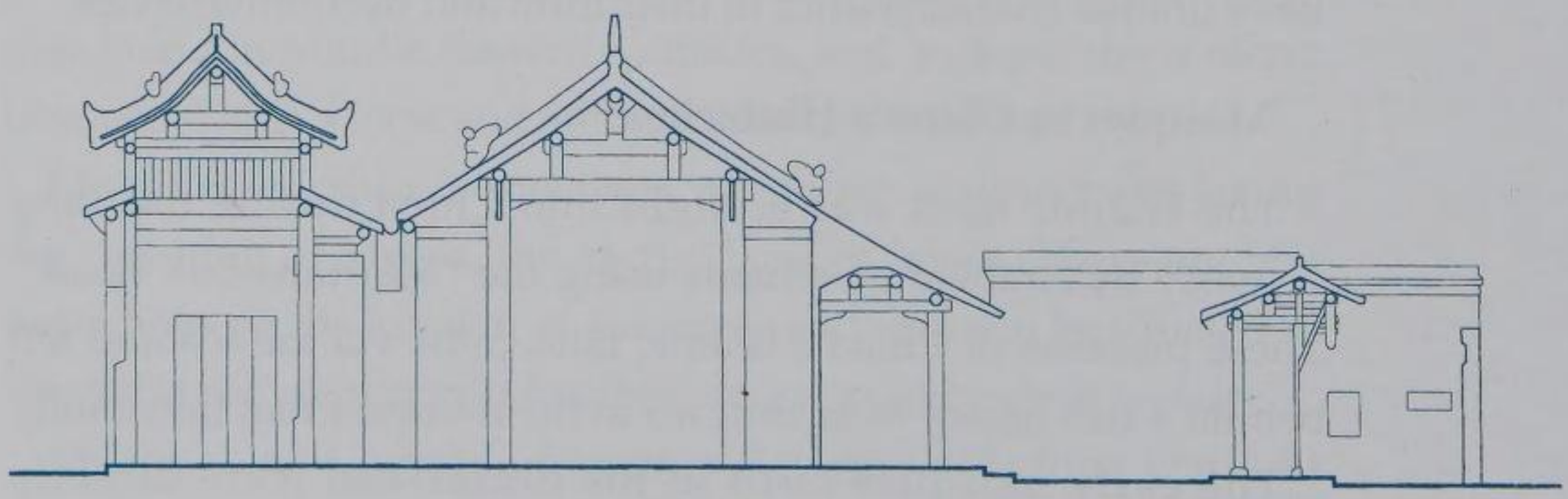
The early mosques built in the hinterland were directly influenced by the architectural style of Central Asia, as can be

seen in Shenyou Mosque in Quanzhou, Fujian Province. The dome of the mosque was constructed from aventurine, the prayer hall was laid out crosswise, the windows are simple and undecorated, and the mosque has a *mihrab* with Arabic scripts engraved on it.

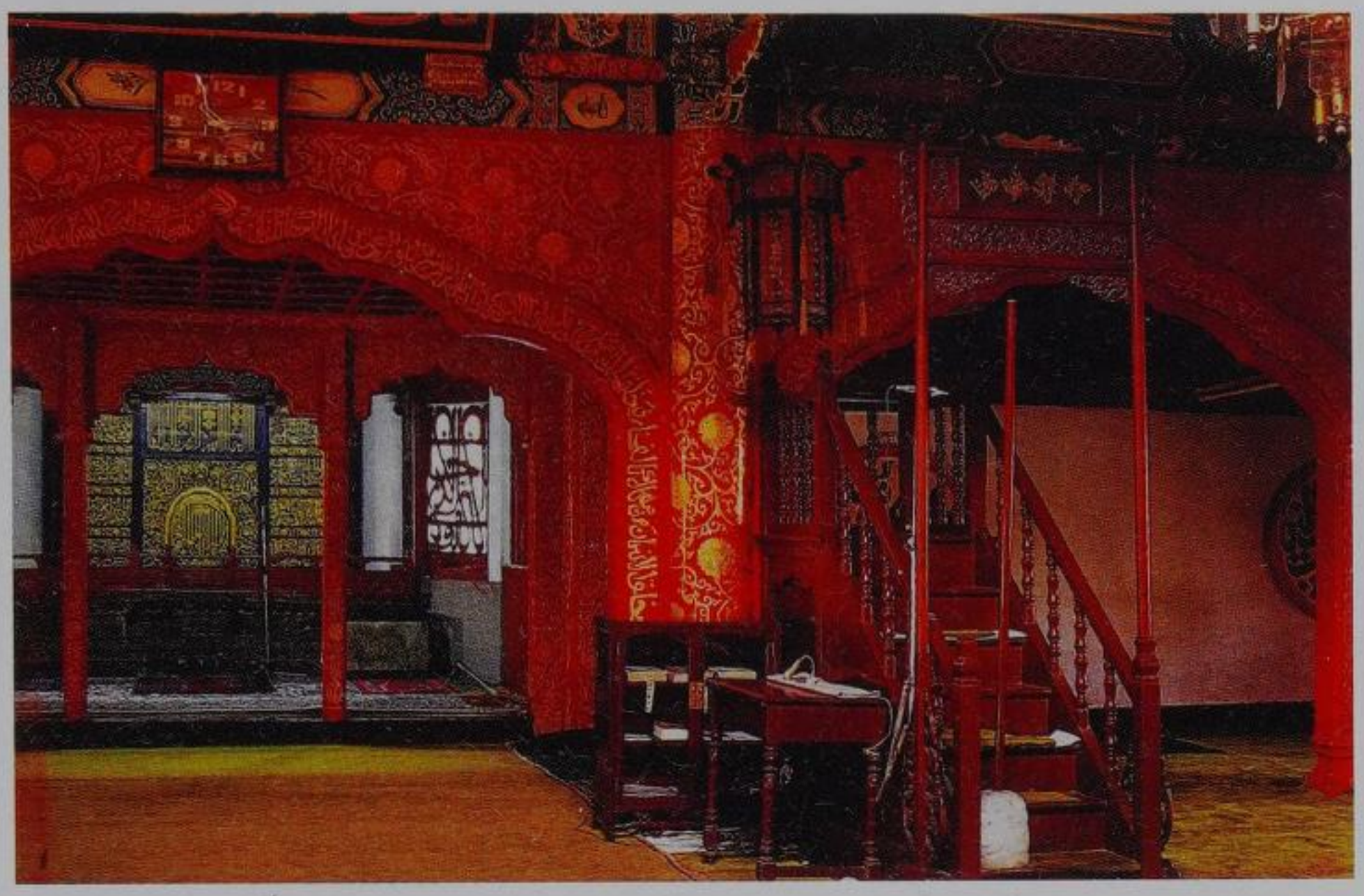
The roof of Fenghuang Temple (Phoenix Temple) in Hangzhou displays a blend of the traditional Chinese and Islamic architectural styles.

With the assimilation of Han culture, China's mosques began to make use of the techniques, materials, carpentry and traditional layout of Han architecture to create a uniquely Chinese Islamic architecture, in accordance with Islamic teaching. It became the norm that a mosque would exhibit traits of Arabian architecture such as domes and tipped roofs, and Chinese architectural elements such as hexagonal and octagonal tiled roofs.

Later mosques began to take on the characteristics of traditional religious buildings of the Han Chinese, such as Taoist temples, which are variations on the traditional courtyard house. Huajuexiang Mosque in Xi'an is a typical example of a courtyard-type mosque. Traditional Chinese buildings have a symmetrical layout and common components such as wooden beams, tiled roofs, and elaborately carved beams, which are features seen in



Section of Xianhe Temple (Immortal Crane Temple).



The *mihrab* and *mimbar* in the main hall of Beijing's Niujie Mosque.

later mosques. The only difference that is found in the mosques and traditional courtyard houses is the direction that they face. Mosques face in the direction of Mecca in the west, where as a courtyard house is laid out on a north-south axis.

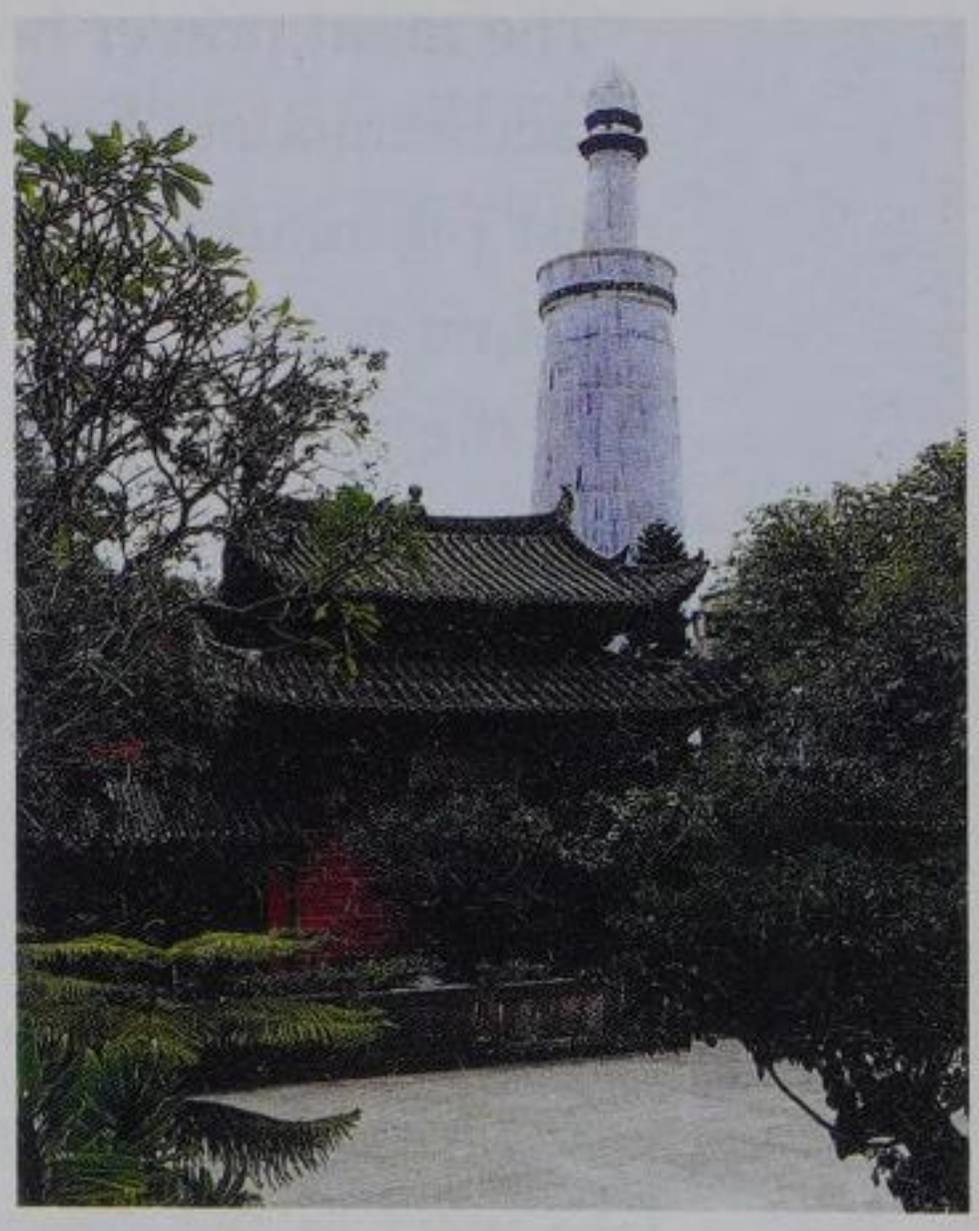
The main prayer hall of a mosque usually covers a wide area to accommodate large numbers of people. The hall occupies the most prominent spot in the mosque. An important feature of a mosque is the *qibla*. The *qibla* indicates the direction of Mecca and the most important part of the mosque and it is usually constructed as a small ornamental shrine-like structure in the wall. The prayer hall has a pulpit with ten steps, symbolizing the seat where Prophet Mohammed lectured. The imam, or Islamic leader, is only allowed to the third step—called the *mimbar*. Islam does not advocate idol worship.

At the front of the prayer hall is a corridor where the worshippers leave their shoes. During prayers, the worshippers face west in the direction of Mecca, but there is much freedom and variety in the design of the hall. In order to accommodate

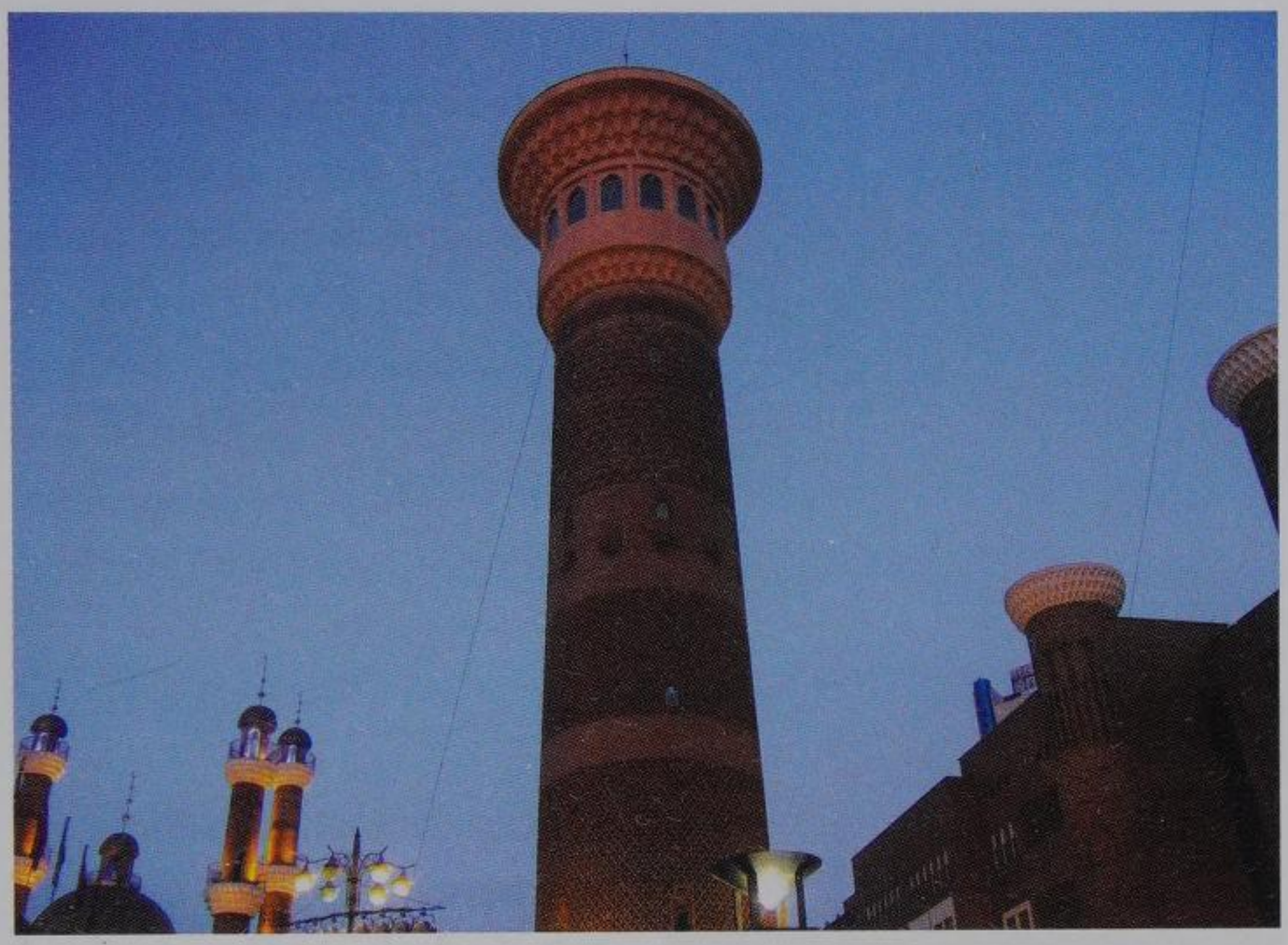
a large congregation, the prayer hall might link a few buildings towards the direction of Mecca. As a style unique to China's mosques, each hall has its own roof instead of having one large roof for all the buildings as a whole, so the roof line might resemble a mountain range.

The minaret of a mosque is used to call Muslims to prayer. The minaret of Huaisheng Mosque in Guangzhou has a unique design. Called the Light Minaret, it is a cylindrical brick structure that measures 36.3 meters in height. It has a central pillar with a winding staircase leading to the top. At the top is a platform with balustrades from which prayer calls are made, and rising from the platform is a column with a pavilion at its top. Because of this special minaret, Huaisheng Mosque is also known as Lighthouse Mosque.

According to Islam, all Muslims must have a period of fasting during the ninth month of the Islamic lunar calendar. This is known as Ramadan and during the whole of this month, Muslims must fast between sunrise and sunset. As this period of fasting is based on the phase of the moon, a "tower for tracking the position of the moon" is built at a high point in the mosque. In the middle of the Ming Dynasty, the Muslim educator Hu Dengzhou (1552–1597) of Shaanxi returned from pilgrimage in Mecca, and began a series of lectures in a mosque. This gave rise to the construction of Islamic lecture halls, first in Shaanxi and then all over China. The Islamic faith emphasizes the importance of keeping oneself clean as a symbol of purity. Before prayers, Muslims clean themselves, making a pool for washing and a washing area indispensable in a mosque.



Light Minaret, Huaisheng Mosque, Guangzhou.



Light tower of the International Bazaar, Urumqi.

The colors used in mosques are primarily cold colors such as blue, green, white and black. This choice of colors is influenced by the dry and hot weather conditions of the Arab regions, and is in keeping with the Islamic teaching of purity. Mosques in China are influenced by this choice of colors and use green bricks, grey tiles and blue glazed tiles for their roofs. Only when a mosque had received its name from the emperor could colors such as yellow be used for the glazed tiles. Even then, it would be matched with a green outline so as not to appear too extravagent.

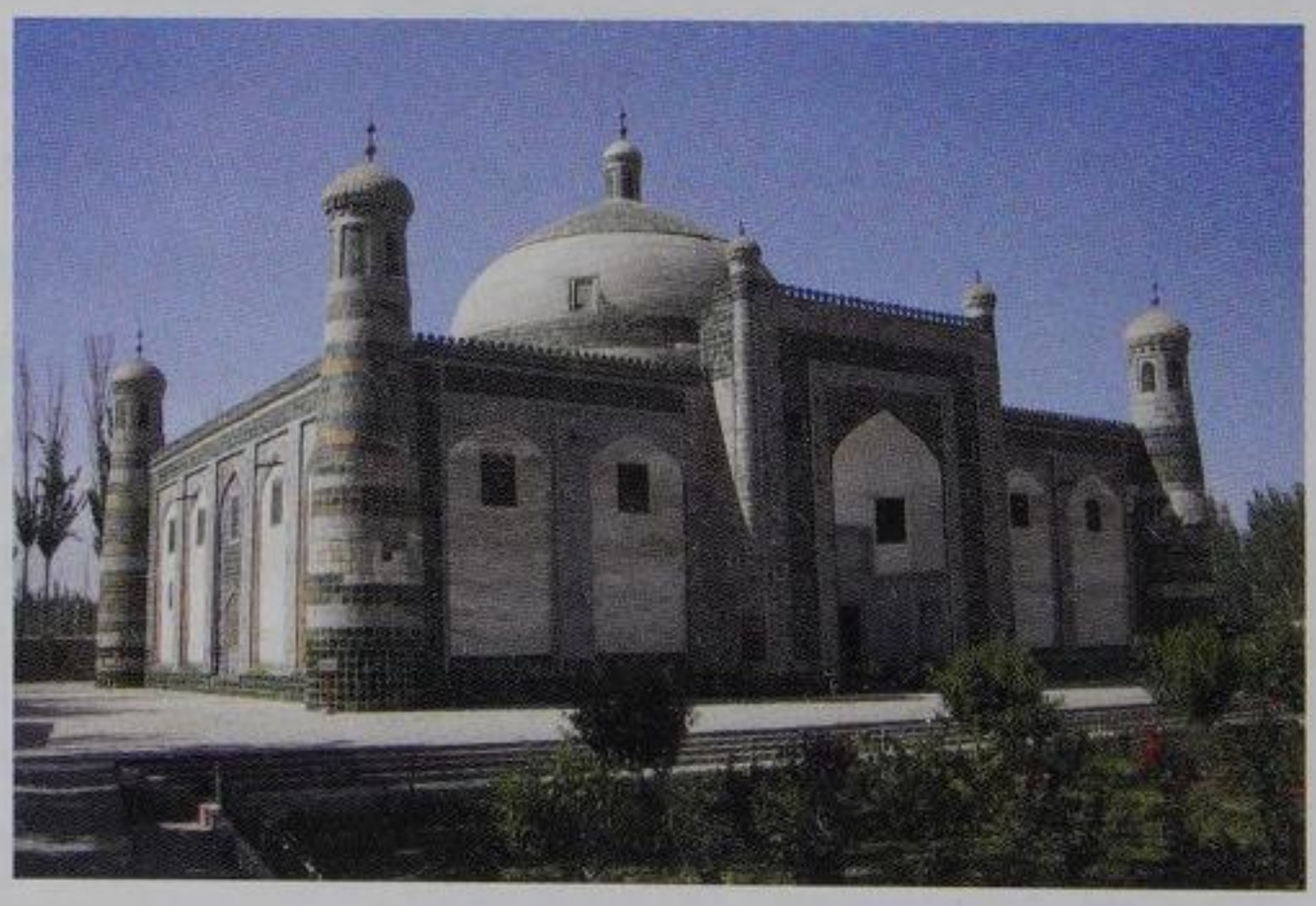
Decorative ornamentation is an important element of Islamic architecture. Unlike a typical mosque that uses mosaic and cement as construction materials for ornaments however, the mosques in China used wood and bricks on which decorative designs were carved and painted. Only patterns of plants could be used, with patterns of animals strictly prohibited. As a result of the influence of Han culture, patterns also appeared on tiles used inside the mosques. Calligraphic Quran verses

Islamic tomb in the shape of the Eight Trigrams, Linxia, Gansu Province.

adorn the walls of mosques for decorative purposes but in China's mosques, one can find a combination of Chinese and Arabic calligraphy on inscribed boards.

The focal point of decoration in the prayer hall is the *mihrab*, which is usually inscribed with verses from the Quran, or carved with simple patterns. The mosque in Niujie Street, Beijing, possibly the grandest mosque in the country, has an exquisitely crafted *mihrab* which uses red and gold and exudes a rich aesthetic beauty. It is likely that it is so ornate as a reflection of Beijing's former status as the imperial city.

Another form of Islamic architecture is that of the tomb, designed in one of the shapes of the "Eight Trigrams," with three eaves. The three eaves for the roof are a feature of China's traditional wooden architecture and this variation in design is unique to Islamic tombs in China. The Eight Trigrams indicate the eight directions that symbolize heaven and earth. This structure lends the architecture freedom to include sculpture and brick carving, rich in subjects and lifelike motifs. The decorative motifs often include many symbols that relate to Han culture and traditions.



Apak Hoja Tomb in Kashgar, Xinjiang Province.

The exterior of Id Kah Mosque in Kashgar, Xinjiang Province.

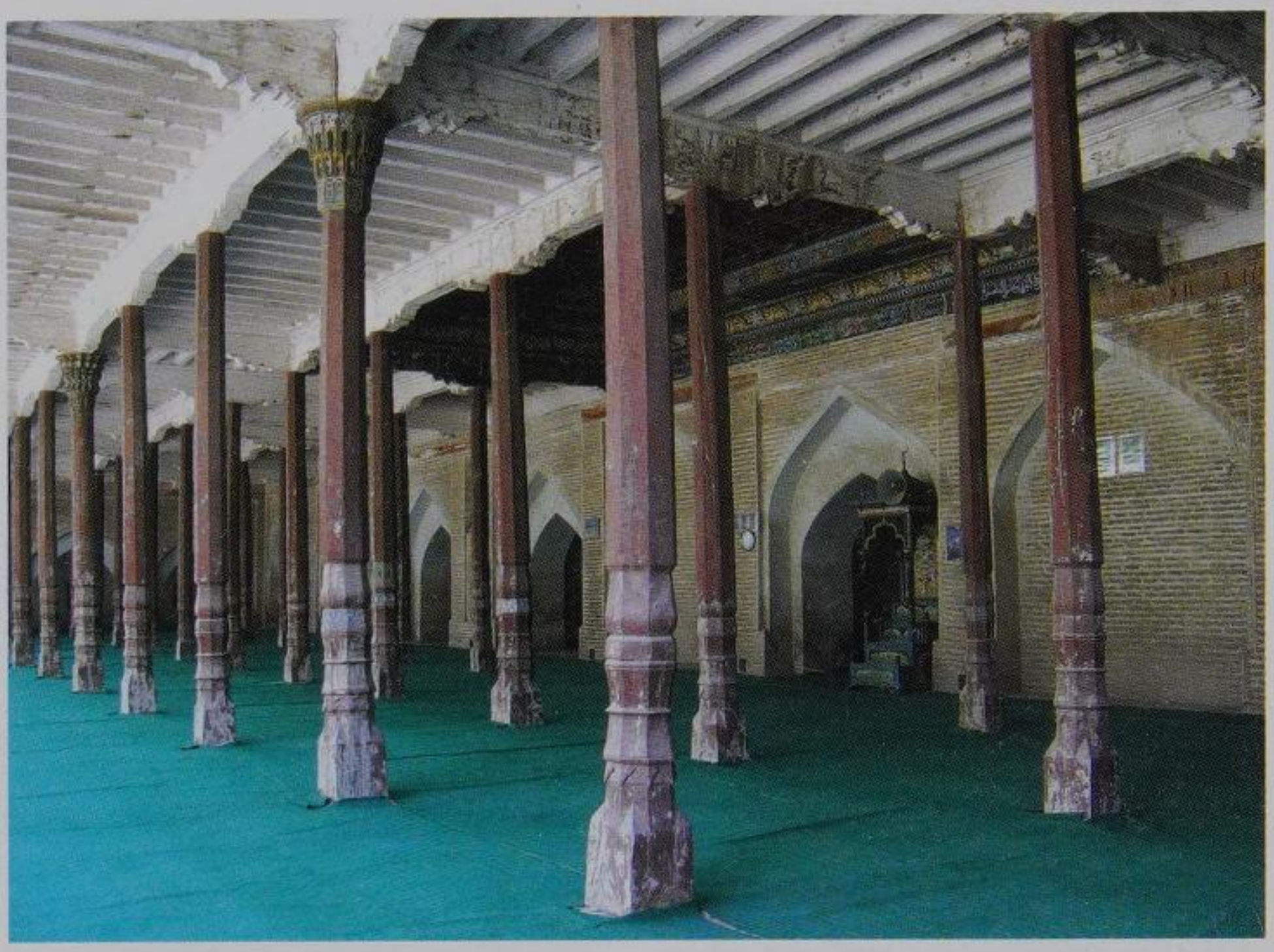
Mosques of the Uygurs in Xinjiang

The mosques of the Uygur people are scattered throughout the Xinjiang regions in northwest China. Islam was first brought into Xinjiang in the tenth century AD and as the mosques assimilated the traditional ethnic characteristics of Xinjiang, a new mosque architecture developed.

Uygur mosques are fundamentally based on a large courtyard structure. The main building complex is the prayer hall which has a front and a back courtyard and contains all the necessary features of a typical mosque such as the *mihrab*, the *qibla* and the *mimba*.

Deep niche in the wall of the main hall of Id Kah Mosque, where the imam stands to lead prayers.

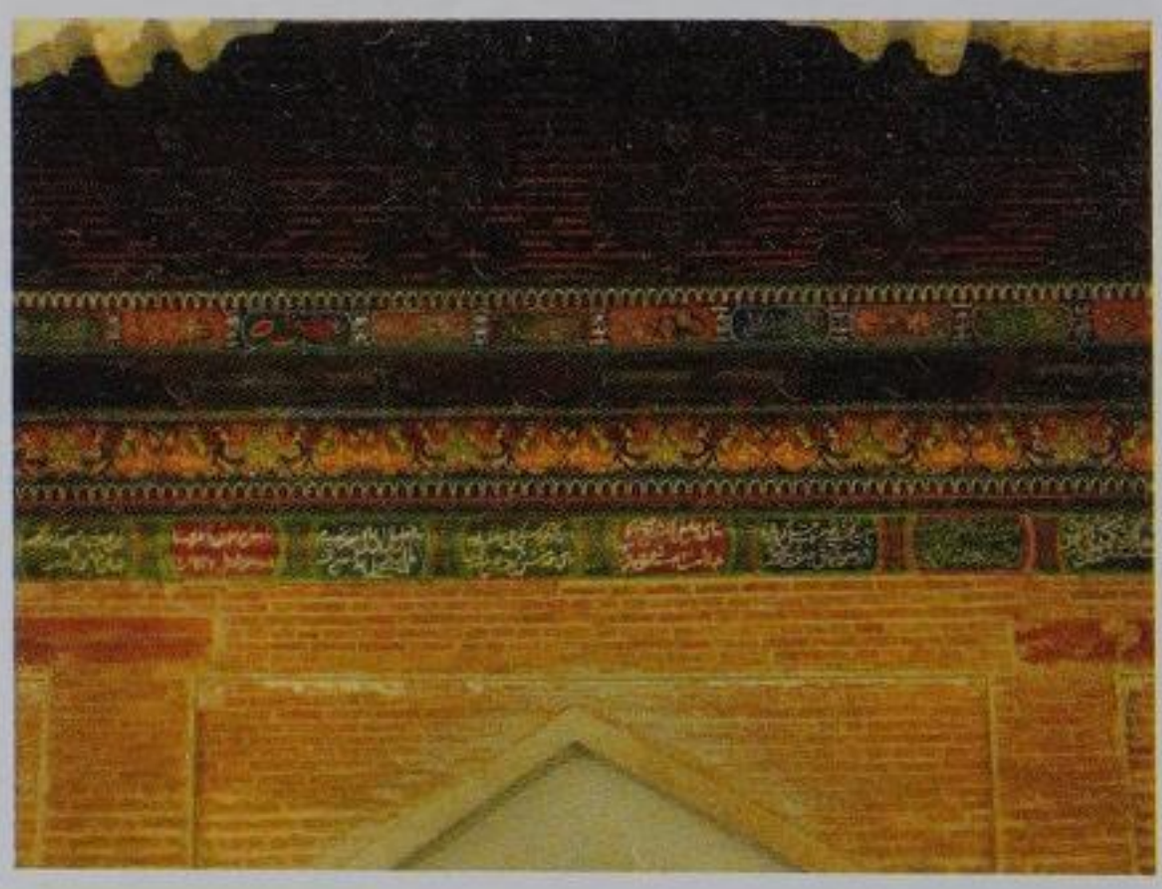
The biggest and grandest mosque in Xinjiang is the Id Kah Mosque located in the central square in Kashgar City. Its prayer hall has 140 pillars, and it comprises an inner, an outer and a side



Carpeted corridors of Id Kah Mosque where worshippers kneel to face the westward walls, in the direction of Mecca.

hall. There is a gate leading to the entrance of the mosque, and from the design of the gate it is possible to decipher the mosque's status. There is a screen wall between two tall minarets and the door to the mosque complex is imposing and sturdy. The artistry of the decorative ornaments found in the mosque is exquisite, displaying mastery in carving and painting on wood, bricks and glazed tiles.

There are no idols for worshipping in the prayer hall, and the ceiling, pillars and walls are decorated with verses from the Quran in calligraphic form. Among the verses are decorative motifs featuring various flowers and fruits. These designs are painted, carved out of gypsum, mosaics or constructed from glazed



The architectural ornamentation of an Uygur mosque in Xinjiang.

tiles. They are very colorful and are adorned with gold and silver powder, which adds elegance to the style.

Christian Architecture

The earliest evidence for the spread of Christianity in China is a stone tablet unearthed in the Ming Dynasty in Xi'an. The inscriptions on the tablet traced the origins of Christianity to the Tang Dynasty during the reign of Emperor Taizong in 635. At that time, Emperor Taizong adopted an open policy, which attracted the flow of culture from the diverse ethnicity in China as well as from foreign countries. This receptive policy provided an excellent opportunity for the spread of Christianity into China. The Christian churches built during the period were oriental in their architectural style, and were called "temples" in accordance with local Chinese custom.

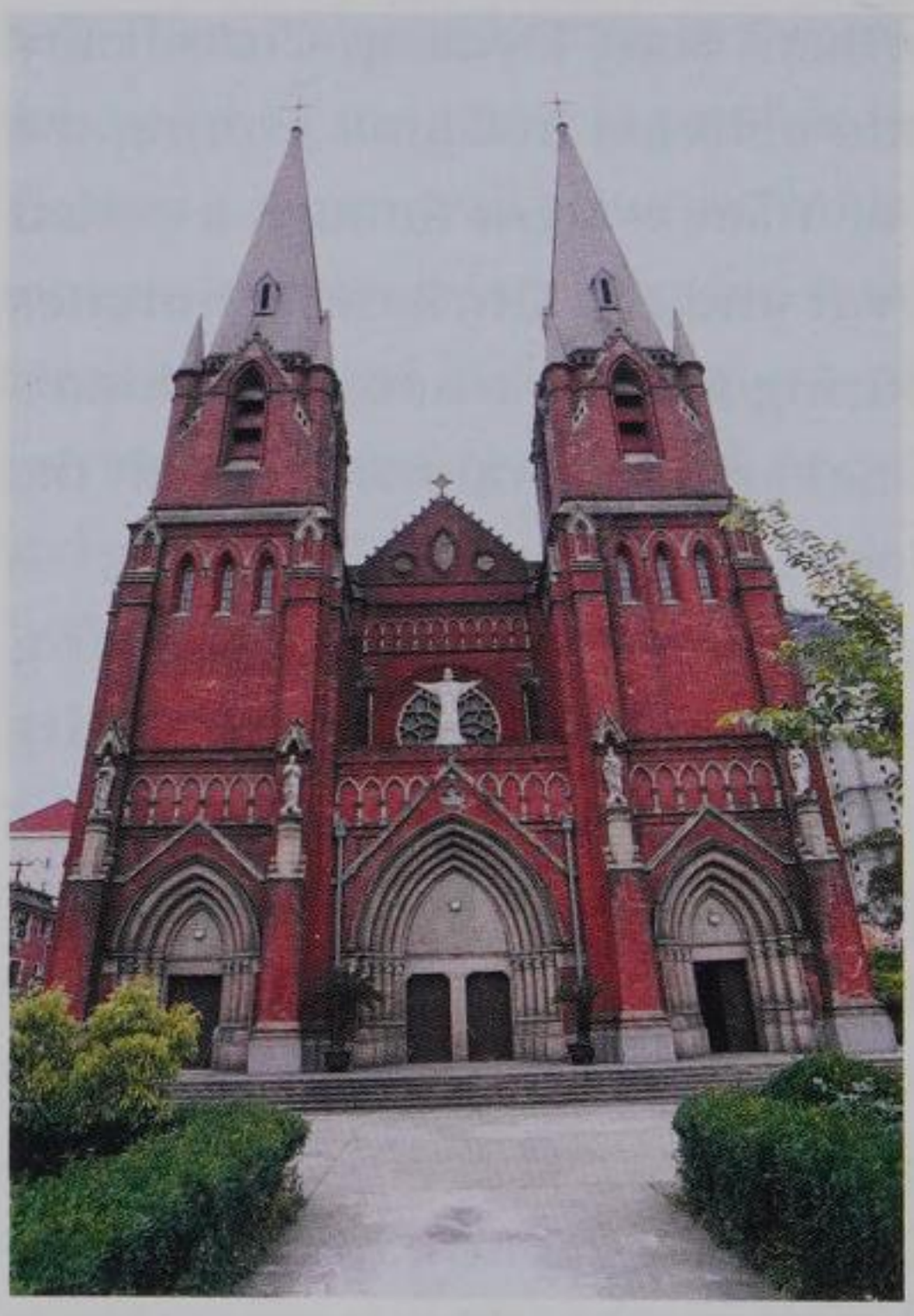
The Southern Catholic Church in Xuanwu District, built by Matteo Ricci during the Wanli period (1573–1619) of the Ming Dynasty, is the oldest church in Beijing.

From the end of the Tang Dynasty to the Northern Song Dynasty, Christianity sunk into oblivion in China. During the period of Yuan, it went through a period of revival and the Christian churches built during that time adopted China's traditional architectural model, with the exception of their interiors.

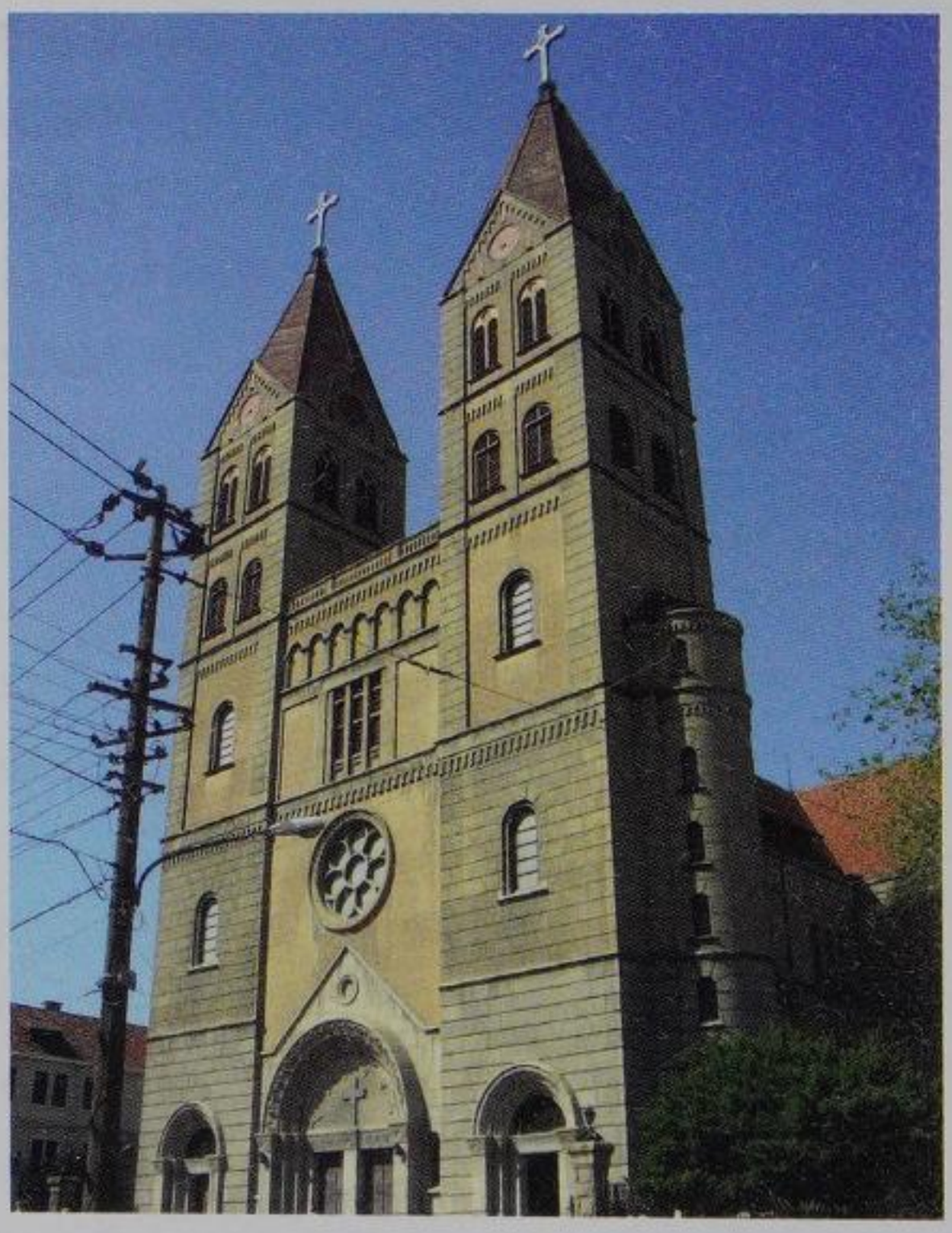
During the Ming and the Qing dynasties, attitudes towards Christianity were erratic. At times, the government was open to its presence, but at other times it was completely banned. Before it was banned during the reign of Emperor Jiaqing (1796–1820) of the Qing Dynasty, the spread of Christianity was very progressive. The Catholic Jesuit

Matteo Ricci (1552–1610) arrived in Guangzhou in 1583 and he assumed the role of the president of China's Society of Jesus in 1596. Other Jesuit missionaries soon followed and arrived in China. The earliest Christian churches congregated in homes, temples or simple buildings which were of traditional Chinese style but decorated in western style with simple crucifixes. Some missionaries later decided design their own churches and Christian churches began to take shape within China as a foreign architecture style.

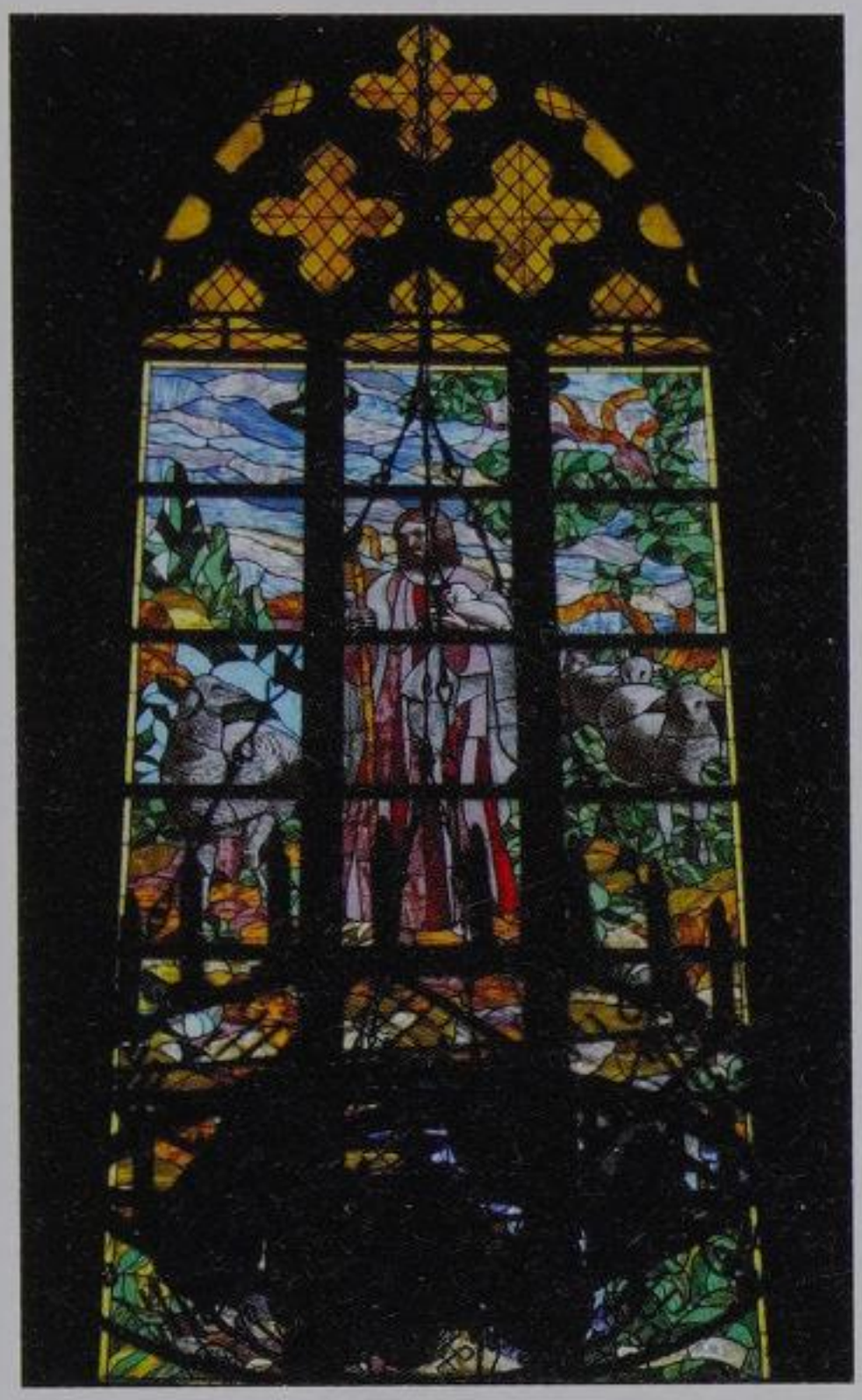
After 1860, under treaties signed between foreign nations and China, missionaries obtained the rights to spread the Christian faith throughout the whole of China and numerous missionaries entered the country. Unlike the missionaries during the times of Matteo Ricci, who believed in striking a harmonizing balance between Christianity and Chinese culture, these new missionaries advocated using Christianity to revolutionize China's culture. The Christian churches built at the time, largely replicas of those



Xujiahui Catholic Church, Shanghai.



St. Emile Church, Qingdao, ShandongProvince.



Colorful stained-glass window of Shanghai Moore Memorial Church.

in the west, demonstrate the architectural eclecticism of the period between the end of the nineteenth century and the early twentieth century. The architecture of Catholic churches showed less variation than the Protestant and Eastern Orthodox churches. Churches in China were mainly influenced by the models outlined below.

The earliest churches in China usually adopted the architectural style demonstrated by Dongjiadou Cathedral in Shanghai, originally named St. Xavier Cathedral. It was built between 1847 and 1853 and is the earliest Roman-Spanish baroque style church still in existence in China. It was named after the Jesuit St. Francis Xavier, who passed away shortly before he had the chance to set foot in China. Yangjingbang Cathedral, known also as Church of St. Joseph, located at South Sichuan Road in the French settlement, was built between 1860 and 1861. It is a classical French-Roman style Catholic Church adorned with an eye-catching stained-glass wall.

China's Catholic and Protestant churches commonly adopted the Gothic style in their architecture and design. The Sacred Heart of Jesus Church in Guangzhou, known also as the Stone House, built between 1863 and 1888, is a typical example of this and is one of the most meticulously constructed Gothic-style Catholic churches in China. Its steeple, which measures 58.5 meters in height, is the tallest amongst all the churches in China. The most outstanding of Gothic-style churches found in China is the largest Catholic church in Shanghai, Xujiahui Cathedral, or St. Ignatius Cathedral. On both sides of the main entrance

are two towering belfries, and the interior of the church boasts a gothic-style framework. The loftiness and harmonizing colors of the church, intended to bring out the majesty of God's holiness, mean it is hailed as the "Authority Figure of China's Churches." Shanghai's earliest Christian church in existence is the Holy Trinity Church, or "Red Church", known for its red bricks. It is modeled on British-Gothic style churches and also partially influenced by the Roman style.

A number of churches in China are built in Renaissance and Baroque styles. Along Zhejiang Road in Qingdao, the Catholic Church—originally named St. Emile Church—adopted Gothicism and Roman influence and is neo-Roman, a typical reflection of eclecticism in architecture. Located at a commanding point in the city center on West Haishan Hill with its pair of imposing bell towers, the church is an important structure in the city's spatial composition, as well as a popular focus of the cityscape.

Harbin city boasts the largest number of Orthodox churches in China, greatly influenced by Russian churches. Russian architecture is known for its fine craftsmanship and the use of gauged bricks for the walls and for other decorative elements in the building. This distinctive feature of Byzantine architecture is most apparent in Harbin's St. Sophia Church, built in 1907. The main structure of the church is laid out as a Latin Cross, and in its centre is a huge onion-shaped dome, supported by a circular base 10 meters in diameter, in turn supported by four brick buttresses. The church has four octagonal bell towers, each with a tipped roof topped with an onion-shaped dome. The bell towers vary in height in order to give prominence to the main entrance of the church.

As the Christian missionaries penetrated deep into China's major cities and rural villages they brought the influence of western architecture. Apart from those found in major cities such as Beijing, Shanghai and Tianjin, many architecturally

Xi Kai Cathedral, Tianjin, built in 1916.

creative western style churches can be found in rural villages. Chinese traditional architecture structures such as pagodas, roofs, archways and decorated inner gates are often blended with western architectural elements such as bell towers, domes, columns, vaults, rose windows and crucifix. This east-west

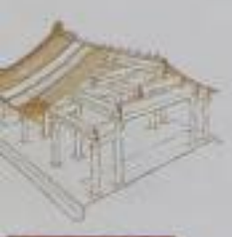
fusion resulted in a vivid and interesting architecture model that has become a bridge between the east and the west in China's modern history.

In order to attract more converts, Christian missionaries were actively involved in various cultural enterprises in cities like Shanghai, Nanjing, Tianjin, Beijing and Guangzhou, such as the translation of books, the setting up of newspapers, and the founding of mission schools. They were involved with charitable works such as setting up hospitals, orphanages and other charitable organizations, and these activities took place for a few hundred years. Among the works of the missionaries, the establishment of schools and hospital were the most significant in architectural scale. Hospital and school buildings were modeled on western classicism, eclecticism, and a blend of eastern and western elements or simply "Chinese style."

The earliest school buildings that display the blend of east and west in their architecture are Shanghai's St. John's University campus buildings, particularly Schereschewsky Hall. St. John's University is the current campus of East China University of Politics and Law. The main structure of the university building is essentially western in style, and the only Chinese element is found in the roofs of the various buildings, modeled on the roofs found in Jiangnan province.

China's nationalist movement, which emerged in the early twentieth century, did not have a great impact on the style adopted in building

Dongtang Cathedral (St. Joseph Church), one of the four largest Catholic churches in Beijing, originally built in 1655.



churches, but it brought about the trend of exploring China's ethnic architectural style in the building of mission schools and hospitals. After the 1920s, more mission universities and hospitals took root in China. They include Beijing's Yanjing University (today's Peking University), Nanjing's Jinling University (today's Nanjing University) and Jinling Women's University (today's Nanjing Normal University campus), Guangzhou's Lingnan University (today's Sun Yat-sen University) and Beijing's Union Hospital. These college buildings and hospitals fully exemplify western architects' knowledge and understanding of China's traditional architecture, and their application of western architectural design methods to reproduce traditional Chinese features such as roofs. The legacy they left behind brings enlightenment to the many Chinese architects that continue to make new discoveries in the field.

Appreciation of Chinese Gardens

China's classical gardens were renowned for blending nature and man-made features to create a relaxing environment where one could roam freely. They combined the best of architecture, painting, literature and horticulture, boasting the highest level of artistry and the most integrated of architectural forms.

The classical gardens found in China can be divided into three major categories. The first of these, imperial gardens, were laid out for emperors and their families. These gardens were usually part of imperial palaces and palaces away from the capital where the emperors stayed for short periods. These gardens were massive in scale and were intended for the emperors' leisure, entertainment and hunting activities, as well as for the worship of gods and deities. Private gardens form the second category of Chinese garden. These were mainly built in or in the outskirts of cities and were part of people's homes. Although they were on a much smaller scale than the imperial gardens, they were

West Garden, Suzhou.

exquisitely constructed in an elegant style. They were usually for the literati to enjoy some quiet moments, for scholars to socialize with one another, or for high officials and rich merchants to display their social status and wealth. The third category of garden includes gardens that were built in the natural landscape in areas with abundant greenery and sources of water. These were usually combined with man-made structures and were open to the public.

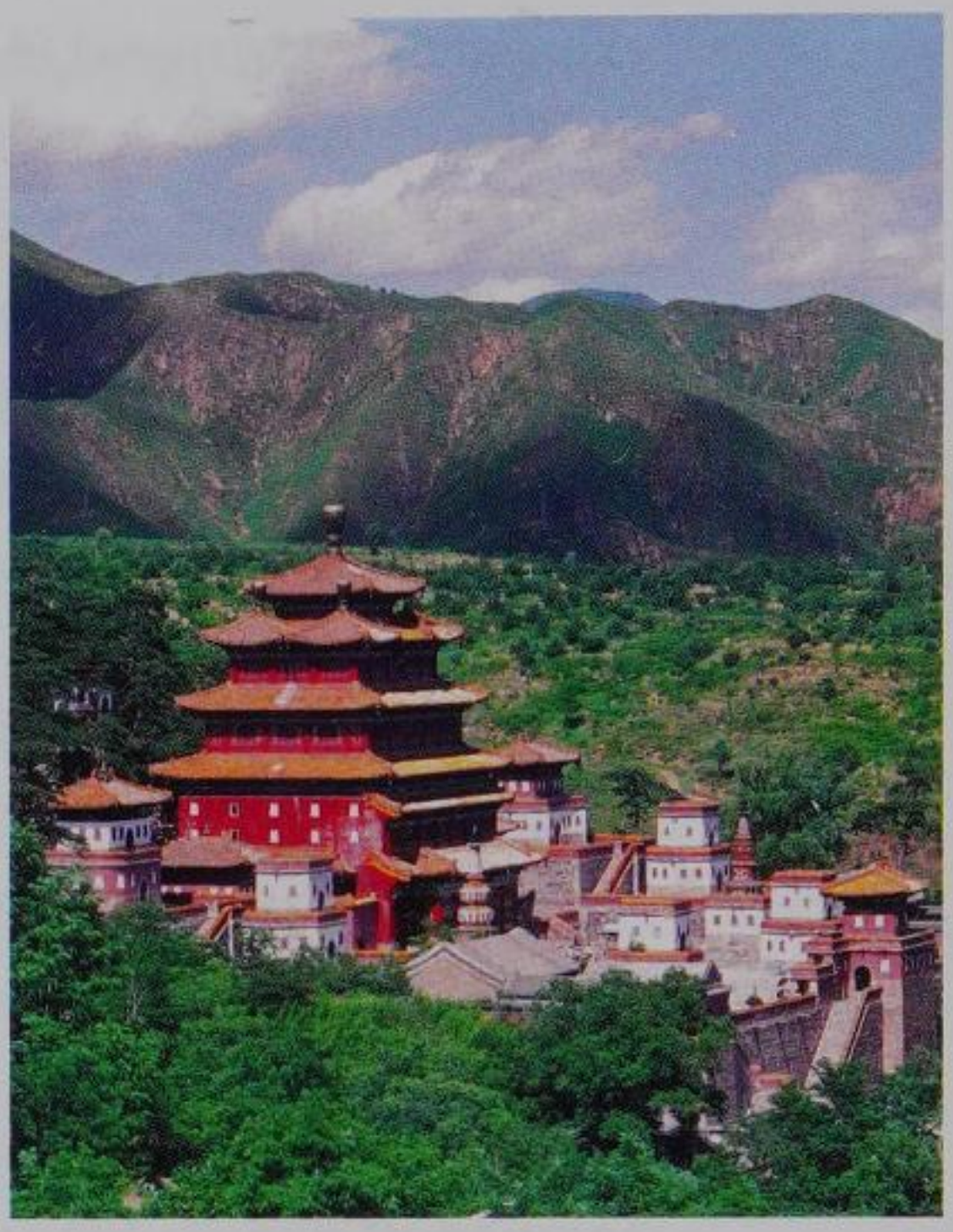
Gardens were also found in Buddhist monasteries, Taoist temples and ancestral temples. These were usually located in scenic and densely forested areas, creating a tranquil environment within and outside the temple grounds. These gardens can be found in well-known temples across China such as Tantuo Temple and Jietai Temple in Beijing, the Jin Ancestral Hall in Taiyuan of Shanxi Province, Xi Garden in Suzhou of Jiangsu Province, Lingyin Temple in Hangzhou of Zhejiang Province, and Eight Outer Temples in Chengde of Hebei Province. Some are as big as the imperial gardens, or they can be as small as a private garden. They are mostly set in natural landscapes, which are also tourist spots open to all visitors.

Imperial Gardens

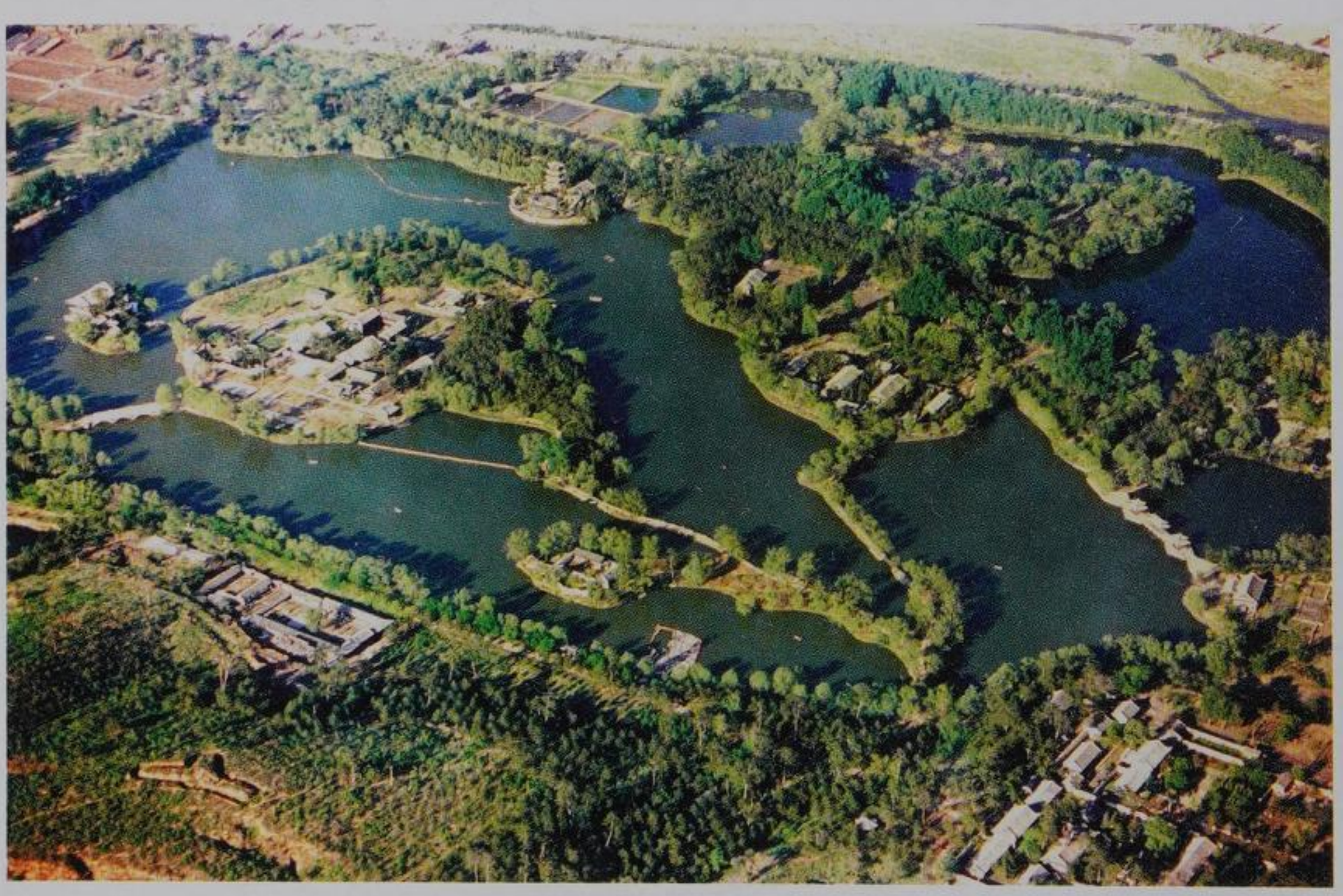
Imperial gardens are the earliest form of Chinese classical gardens, and were popular in almost all of China's dynasties. They belonged exclusively to the emperors and the imperial families and were usually created out of natural landscape, with man-made structures added to emphasize the grandeur of the imperial family. With his political and economic privileges the emperor could take ownership of any big plot of land and make it into a garden for his own enjoyment. Surpassing any private gardens in size, even the smallest imperial gardens could easily occupy an area of several hundred acres, with the biggest

measuring up to several hundred miles.

The earliest recorded imperial gardens in China were built in the eleventh century BC during the Shang Dynasty and Zhou Dynasty. The existing imperial gardens in China were either constructed or remodelled during the Qing Dynasty, and are beautifully landscaped, complementing the imperial palaces. The best examples of such imperial gardens would be the summer palaces in Chengde and Beijing's Summer Palace (Yihe Garden) and the Old Summer Palace (Yuanming Garden).



The Outer Eight Temples of the Summer Palace, Chengde.

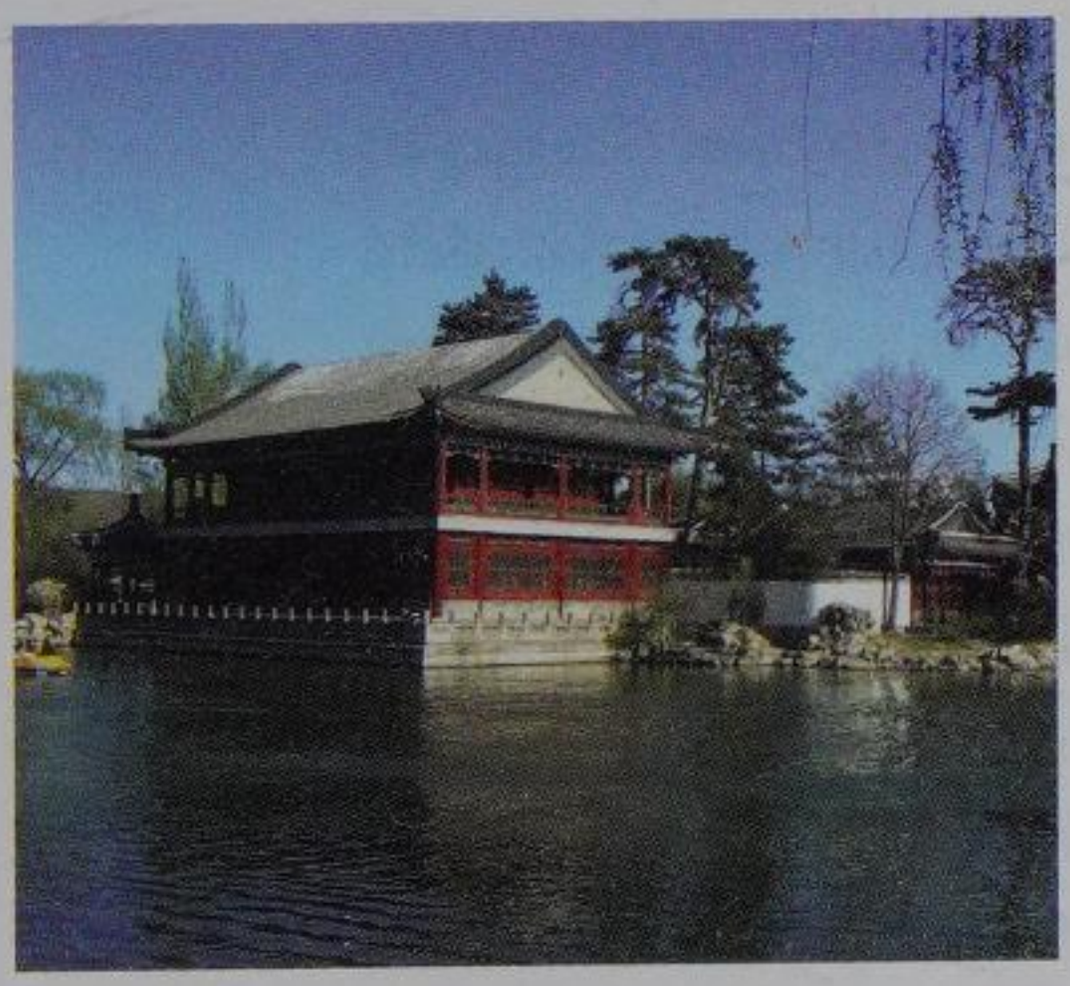


Bird's eye view of the Summer Palace, Chengde.

Summer Palaces in Chengde—"Miniature of the World for the Emperor"

In the early period of the Qing Dynasty, Emperor Kangxi had a summer palace built in Chengde. This was primarily for the purpose of strengthening the political ties with Mongolia, as well as to unite the various ethnic groups in the country. It was not simply a garden estate for the emperor and his family to escape the scorching heat in the capital, but also a political command center.

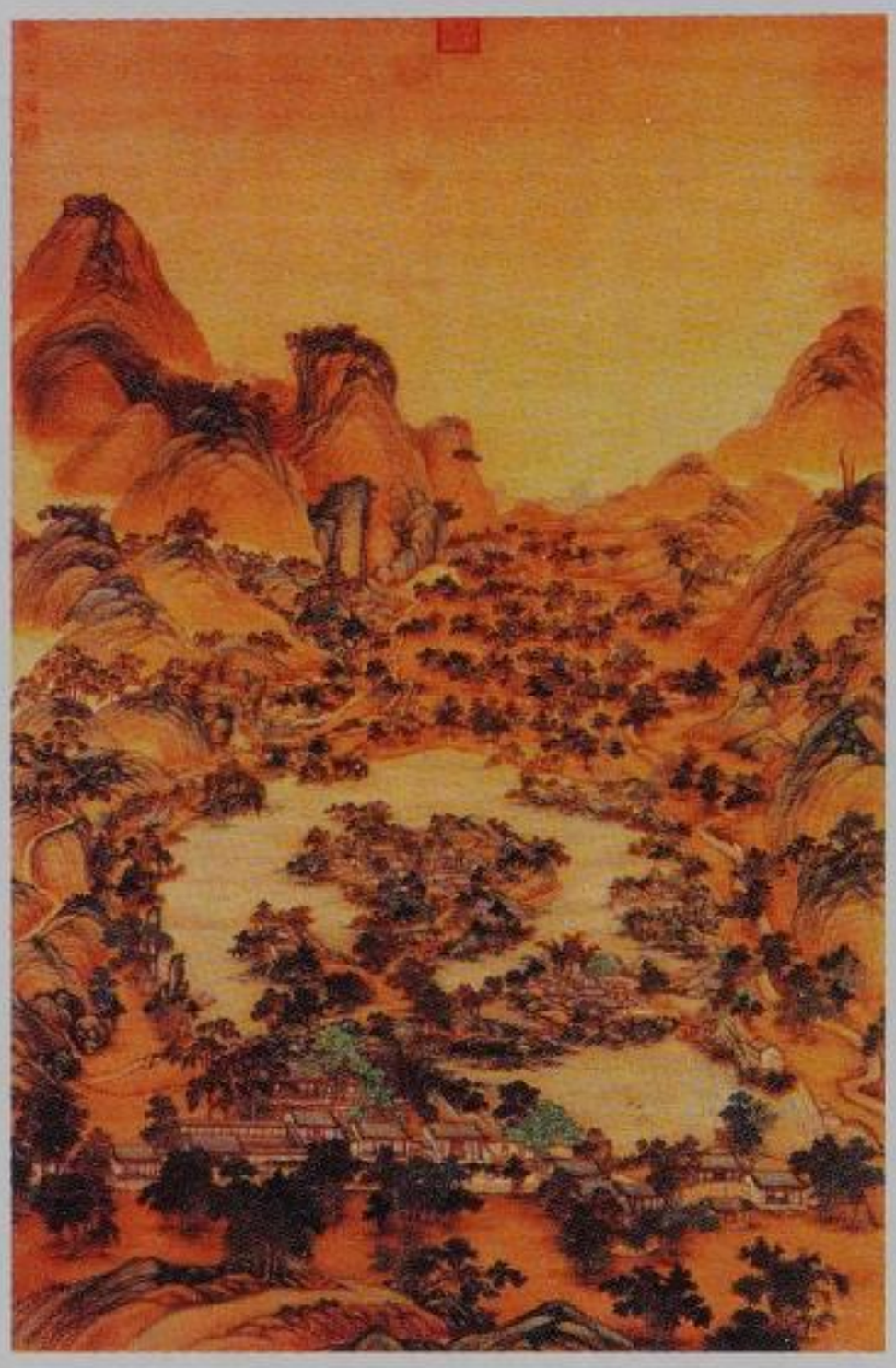
The design of the summer palace gave prominence to and conveyed the imposing authority of the emperor. Beyond the palace grounds the main garden in the summer palace estate can be divided into three categories; the lake, the plain and the mountainous area. These three aspects combine the sceneries of northern and southern China. The scenery around the lake is rich in the flavor of Jiangnan's regions of lakes and rivers, the plain is reminiscent of the open plains in the regions beyond the Great Wall, and the mountainous scenery is almost a replica of the mountains in the north. Such replicas were skillfully designed and reproduced so that the palaces within the garden estate would blend in with the sceneries familiar to the common people.



Jiangnan landscape represented in the Summer Palace, Chengde.

Once men of letters started participating in the design of landscape gardens, the pursuit of art became the chief characteristic of China's landscaped gardens. There were many talented poets and painters among the many outstanding landscape designers, especially during the periods of the Ming and Qing dynasties, where most well-known gardens were entirely

designed by painters. In the Qing Dynasty, the task of designing the imperial gardens was undertaken by members of the Imperial Institution of Paintings. Even then, the imperial gardens remained man-made sceneries, and it was impossible to realistically recreate true, natural beauty to visitors.

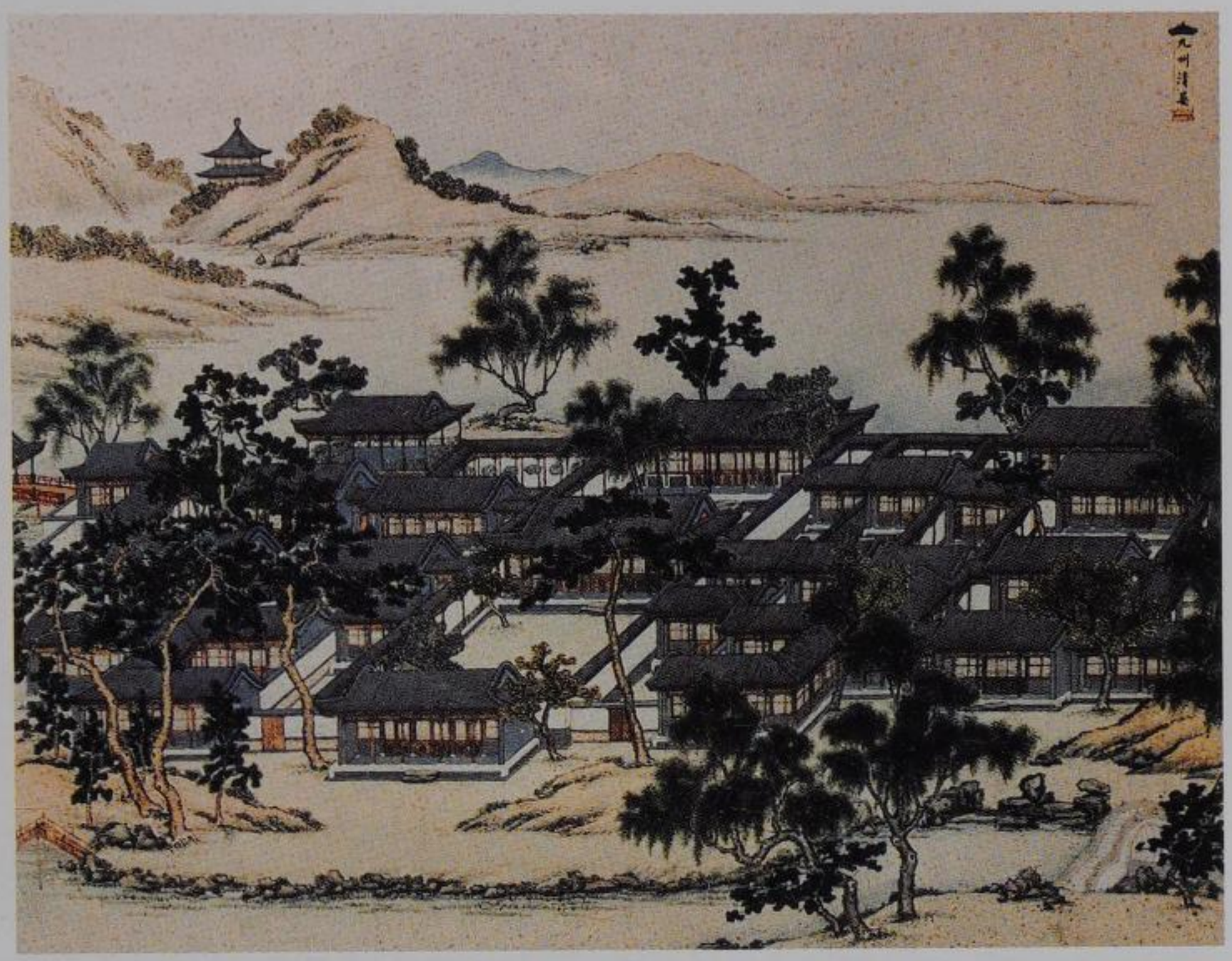


The Map of the Summer Palace, drawn by Qing artist Leng Mei.

Yuanming Garden (The Old Summer Palace) —"Garden of all Gardens"

The Old Summer Palace, Yuanming Garden, is located to the north west of Beijing. It took 200 years to complete under the direction of the Qing Dynasty emperors Kangxi, Yongzheng, Qianlong, Jiaqing, Daoguang and Xianfeng between 1661 and 1821. It is the only one of its kind in all the dynasties in China, and was a large summer palace estate composed of three gardens—Yuanming Garden, Changchun Garden and Qichun Garden.

All three of the gardens of the Old Summer Palace were designed with lakes and rivers as the main theme. Scenes of lakes and rivers occupied sixty nine spots in Yuanming Garden, and fifty four spots in Changchun Garden and Qichun Garden. Among these, the more prominent scenic spots were named by the emperors. Within each of these scenic spots were smaller gardens interconnected with a network of river systems and footpaths, which would gradually extend to the bigger garden. With such skillful rendering, visitors to the small gardens would feel as if they were walking through different environments of unending space. As a result of this unique feature, Yuangming Garden was hailed as the "garden of all gardens."



The scenic area of "Jiuzhou Qingyan" (Tranquility and Peace to the Chinese Nation) in the Old Summer Palace was the place where emperors gave banquets. Destroyed by the French-British allied army in a fire in 1860.

During the end of the Ming Dynasty and the early Qing Dynasty, the missionary work of Catholics was already underway and a few of them took part in the design of the old summer palace. These missionaries included the French missionaries Michel Benoist (1715–1774) and Jean Denis Attiret (1702–1768), the Italian missionary Giuseppe Castiglione (1688–1766) and the Bohemian missionary Ignatuis Sickeltart (1708–1780). Together, they designed six eighteenth-century Baroque style palaces and gardens, and they were termed the "Western Mansions"—a unique sight to behold in the Old Summer Palace. These European-style western palaces were the first complete work of this kind that was ever built in China. They were also the first work that successfully combined both European and Chinese architectural styles in a landscaped garden.

Remains of the Old Summer Palace, Beijing.

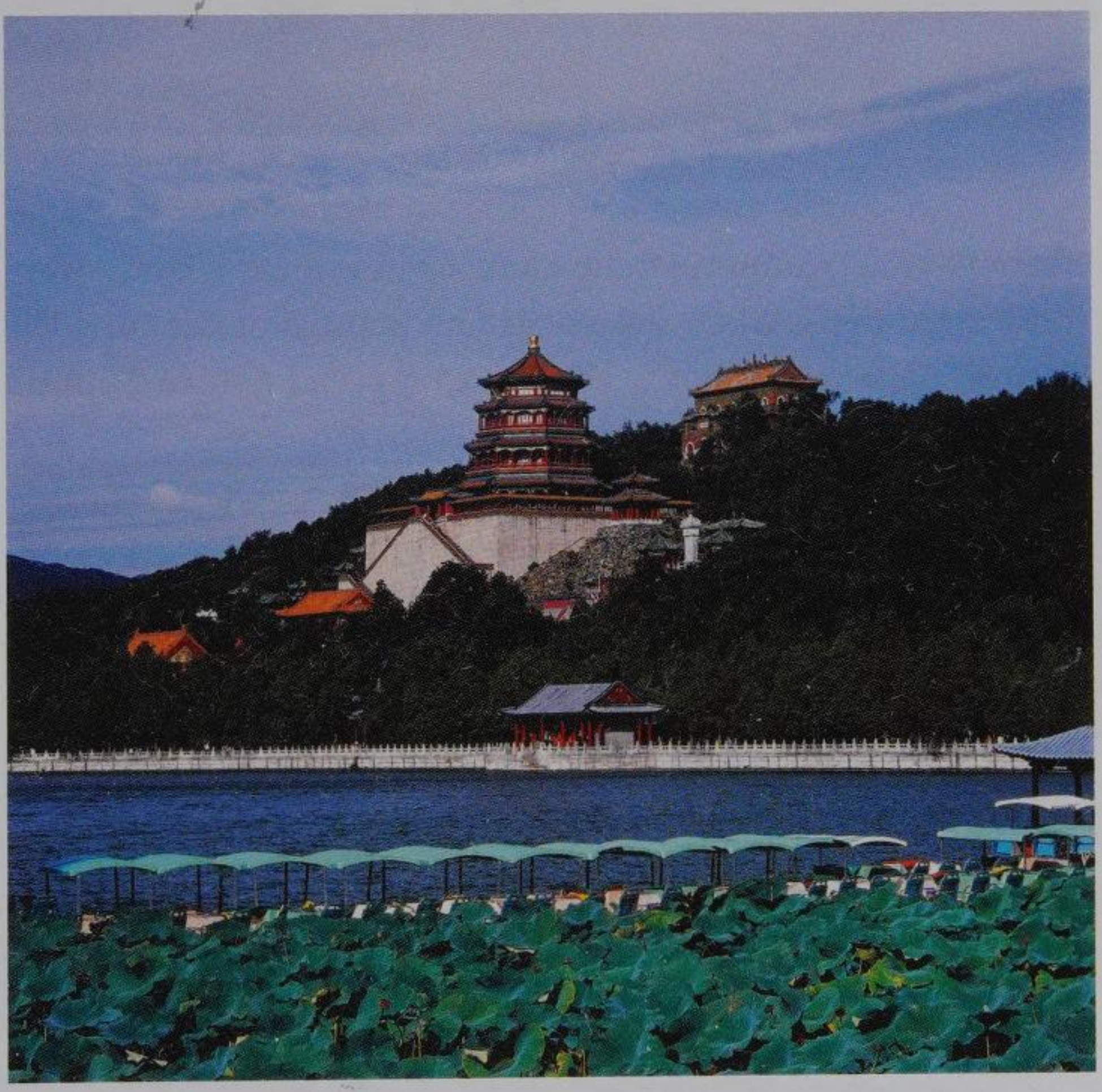
The Old Summer Palace drew on China's 3,000 year heritage of constructing landscape gardens. It exuded the magnificent elegance of a palace building and the charms of Jiangnan's water landscape. It had even assimilated the architectural models of European-style gardens, and combined diverse architectural elements of landscaped gardens as a whole. It was known not only as a garden of all gardens, but also an imperial museum. The French author Victor Hugo (1802–1885) once commented that even when all the rare treasures in France were to be put together, they would not match the scale and splendor of this oriental museum. Sadly the Old Summer Palace was destroyed by the French-British legions in a fire in 1860 and the ruins can only offer a tiny glimpse into its past.

Yihe Garden (The Summer Palace)—The Last Imperial Garden

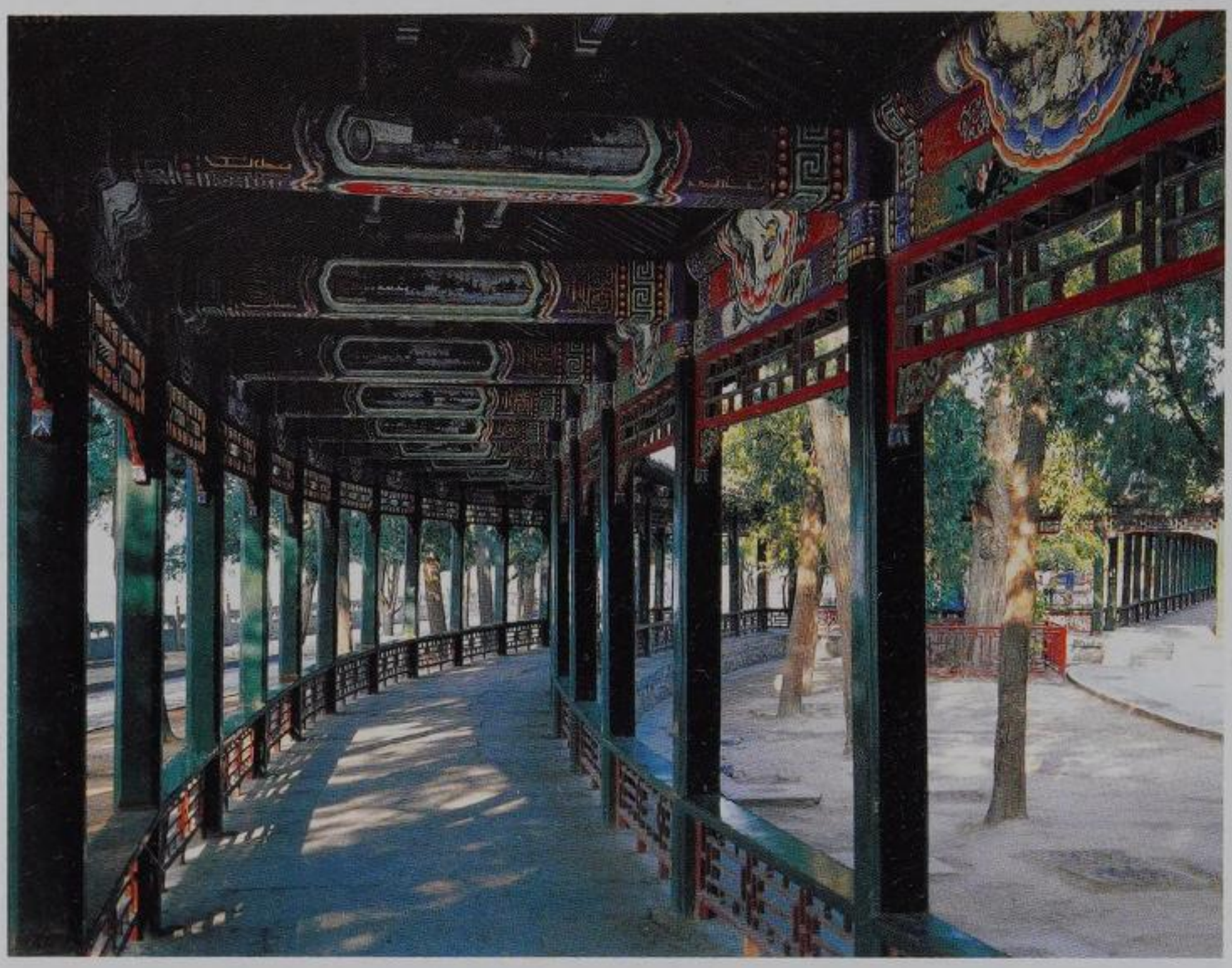
The Summer Palace is another example of the Qing Dynasty's imperial gardens. Occupying an area of 290 hectares, it is the last remaining and best preserved ancient garden in China.

The Summer Palace, or Qingyi Garden, was originally built in 1750 as a birthday present from Emperor Qianlong to the Empress Dowager. Its overall design was based on Hangzhou's West Lake and was greatly influenced by the designs of the landscaped gardens of Jiangnan. Like Yuanming Garden, it was destroyed in a fire in 1860 but the then ruler of the Qing imperial court, Empress Dowager Cixi, used naval funds to rebuild the garden, and it was renamed The Summer Palace. Upon its restoration it became the temporary abode and political center of Empress Cixi, who often stayed there for long periods of time.

As lakes and rivers are important elements of Chinese gardens, the choice of location for The Summer Palace was based on this



Fuoxiang Pavilion (Pavilion of the Fragrance of Buddha), Summer Palace, Beijing.



Long Corridor of the Summer Palace, Beijing.

concept. With Kunming Lake as its center, three islands were constructed in the lake—a classic layout popular at the time. The Summer Palace is the only surviving imperial garden built on this model.

Buddhist monasteries, Taoist temples and ancestral temples were often built in imperial gardens, and almost all imperial gardens had at least one Buddhist temple built within them. The focal point of Qingyi garden is a group of buildings that constitute the Longevity Temple in front of Wanshoushan (Longevity Hill). The temple buildings comprise different halls built along an axis from the foot of the hill to the mountainside. Fuoxiang Pavilion (Pavilion of the Fragrance of Buddha) is located at the highest platform, and serves as a symbol of the Summer Palace as it is located at the center of the entire garden.

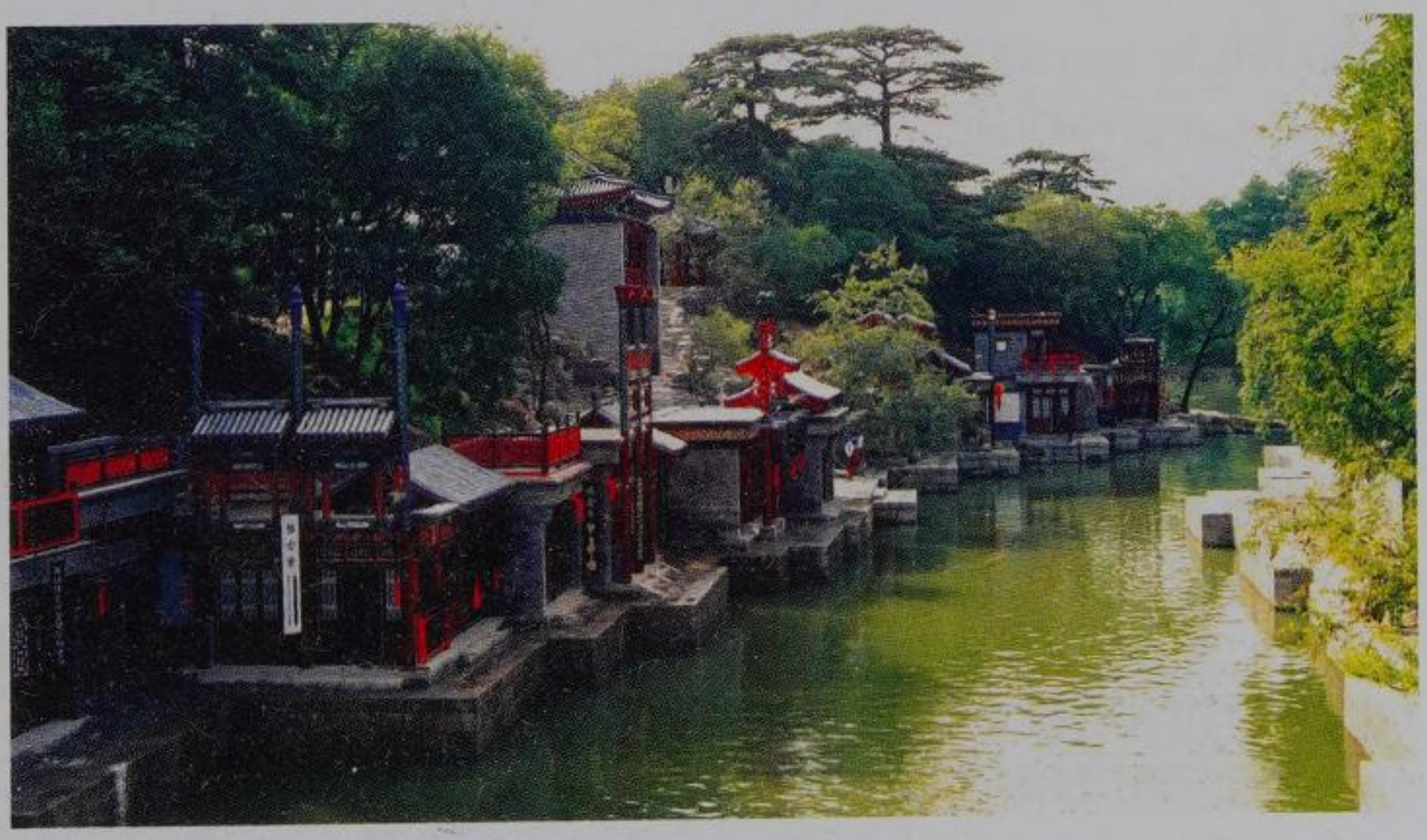
During the reigns of Kangxi and Qianlong, there were many wars taking place in the border regions. In order to unite the

The 17-Arch Bridge and Nanhu Isle, Summer Palace, Beijing.

Mongolians and Tibetans, who are Buddhists, Emperor Qianlong built a Lama temple on the model of Tibet's ancient Samye Temple at the back of Longevity Hill. On Nanhu Isle, one of the islands in the lake, Guangren Temple was also built to worship the Dragon King.

The technique of using the natural landscape as a backdrop for China's ancient gardens is fully exemplified in the design of the Summer Palace. When standing at the platform of the Pavilion of the Fragrance of Buddha, one can see the mountain range of the West Hills, the reflection of Yuquan Hill on the lake, and admire the green of Kunming Lake and the mist that hangs over West Embankment. All of these natural features blend in with the buildings in the garden to form a picturesque view.

Another well-known feature of the Summer Palace is the Long Corridor. It is located at the southern foothill of Longevity Hill. The Long Corridor measures 728 meters in length and



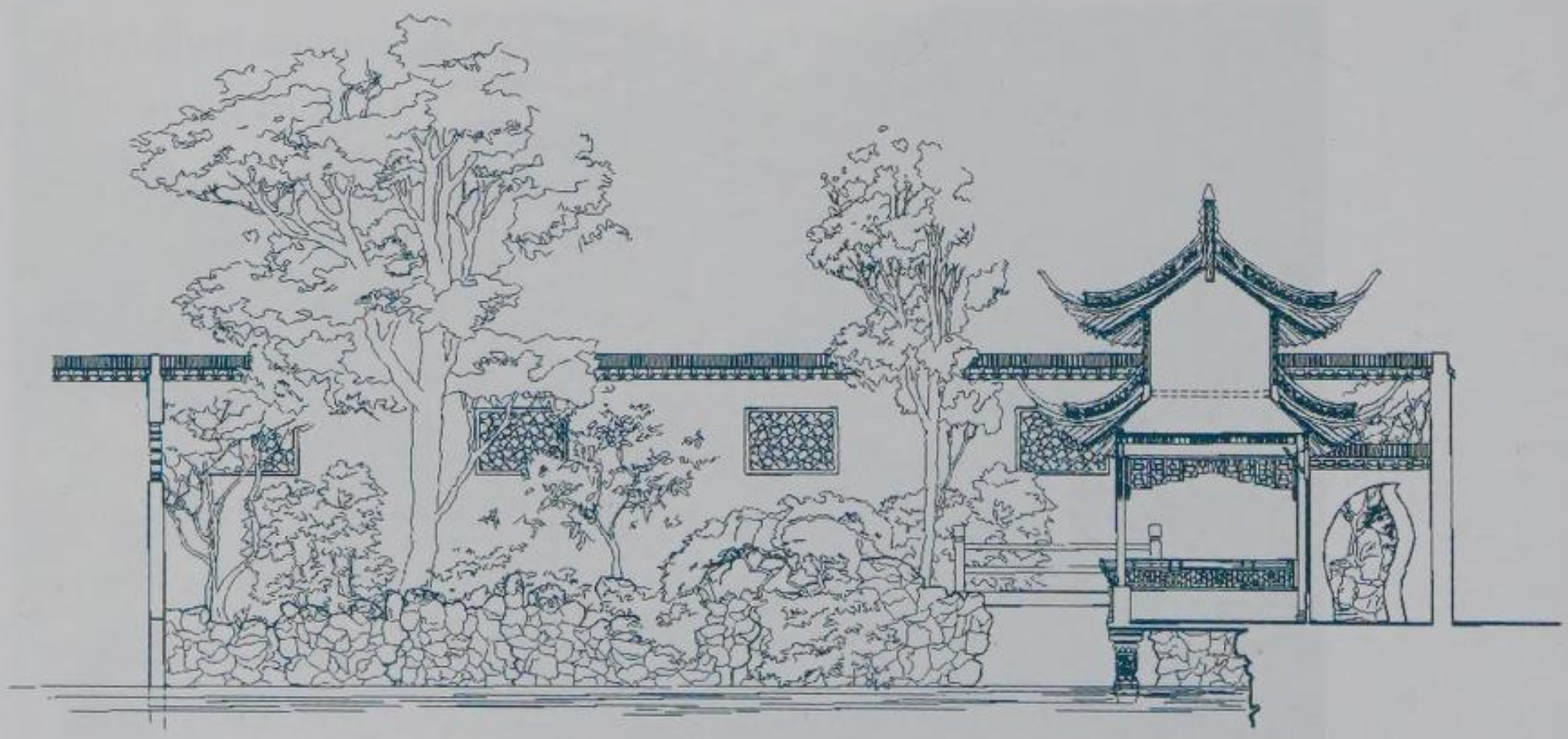
Suzhou Street, Summer Palace, Beijing.

is illustrated with over 8,000 paintings. The Long Corridor stretches from the north to the west of Kunming Lake, forming a link between the natural landscape and the buildings in the garden.

The natural sights of Jiangnan are evident in the Summer Palace. The palace was designed with Jiangnan's West Lake in mind, and Suzhou Street, in the area behind the lake, is built on the models of the streets in Suzhou and Nanjing. This folk art adds a refreshing and elegant touch to the imperial gardens in this rare gem of China's landscape garden history.

Private Gardens

The owners of China's private gardens were usually retired court officials, men of letters, landlords and rich merchants. China's ancient etiquette system enforced restrictions on the lifestyle and spending of the common people, and anyone who went against the regulations would be prosecuted. Private gardens could never match the scale and style of the imperial gardens.

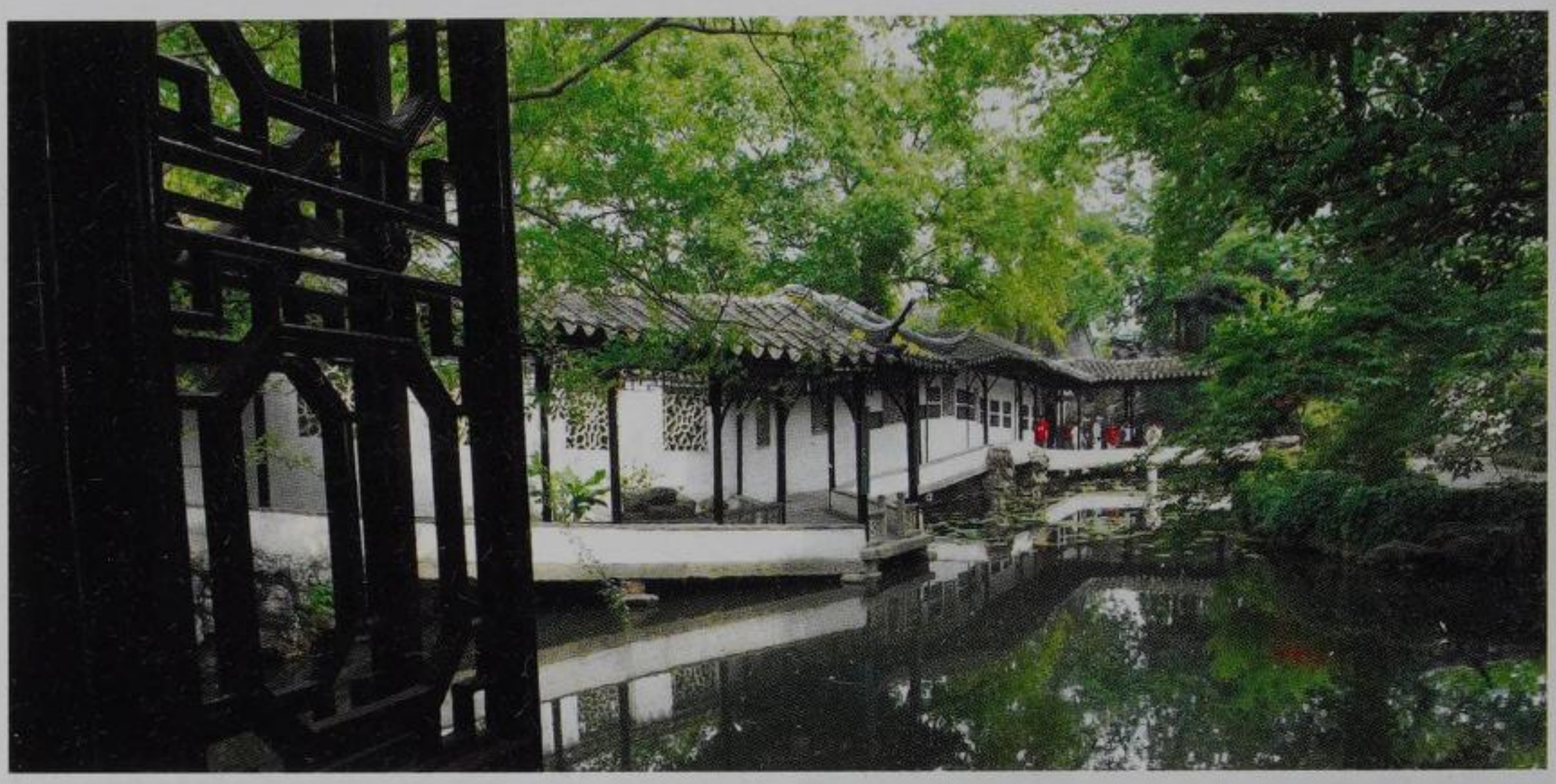


View of the Yule Pavilion (Happy Fish Pavilion) in Yuyuan Garden, Shanghai.

Yuyuan Garden, Shanghai.

Chinese classical gardens flourished from the Wei, Jin and the Northern and Southern dynasties from the third to sixth centuries AD. During this period, many men of letters were tired of war and sought pleasure in nature, priding themselves in elegance and style. They pursued the development of gardens rich in poetic and artistic flavor. The German philosopher Georg Wilhelm Friedrich Hegel (1770–1831) once described a Chinese garden as a natural painting, rich in poetic style. Chinese gardens were unlike those found in the popular French botanical style which tended to follow a geometrical composition based on that of ancient Rome, emphasizing the principle of imposing scale.

From the middle of the Ming Dynasty to the end of the Qing Dynasty, Jiangnan became a popular focus for private gardens, and the trend for landscaped gardens was in vogue for over 300 years. Jiangnan has an abundant source of water and variety of plants, a temperate climate and is rich in soil and minerals but, in addition to these helpful factors, Jiangnan's society was rich and populous. Most importantly, an increasing number of men of letters and artists had participated in the design of its gardens, ensuring a high level of expertise in the landscape garden art. The most prominent figures in the art of landscaping gardens at the time were the theoretician Ji Cheng (1582–?) and the landscape artist Zhang Lian (1587–1671). They were contemporaries of the



Zhuozheng Garden (Humble Administrator's Garden), Suzhou.

European landscape designer, Andre Le Notre (1613–1700) who was famed for his design of the gardens of Vaux-le-Vicomte and Versailles.

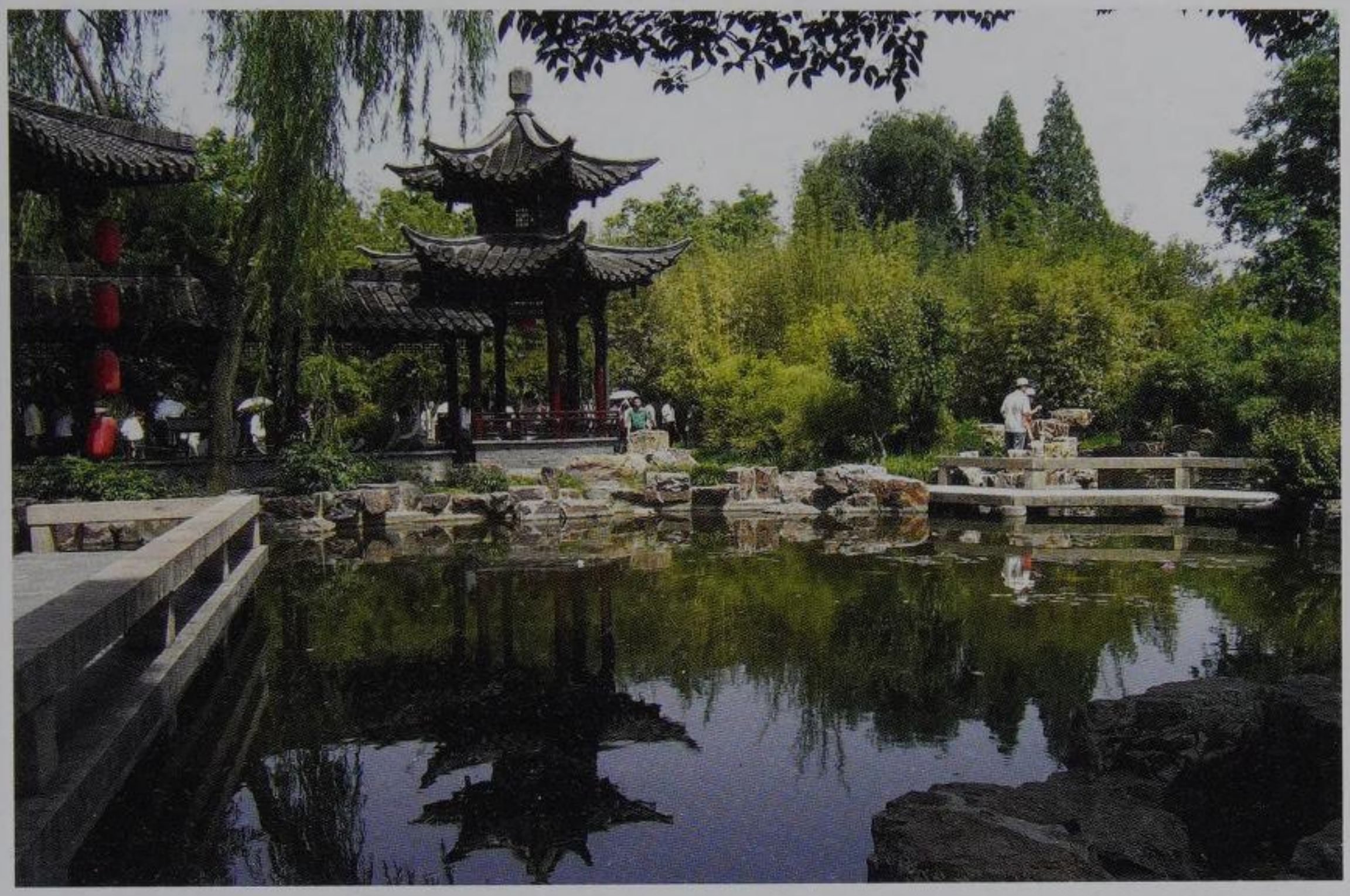
Private gardens were often modeled against the requirements and interests of their owners. As private gardens occupied a small space, and in order to create a unique style to the taste of the owner, the garden designer had to be very creative in constructing a garden with sufficient variation to appeal to its visitors. A fitting example of this is Suzhou's Lingering Garden.

Creating artificial hills and channeling water are two techniques that are vital to designing Chinese gardens. They are excellent imitations of the natural landscape and also represent the yearning for virtue and wisdom.

In creating artificial hills, a garden designer doesn't seek to imitate natural scale, but to refine all the elements of a natural landscape. Lake stones are commonly used to make artificial hills because of their smooth natural contours and their exquisite brightness,

Jiejing (scenery borrowing)

Jiejing is a traditional Chinese gardening technique that makes a conscious attempt to "borrow" from the surroundings and scenery outside and bring them into the garden. Its infinite design possibilities arise from its subtle effect and the expansion of the garden's scenery, depth, scope and substance. Jiejing has seven different approaches for borrowing: borrowing from afar, borrowing from close by, mutual borrowing, borrowing from above, borrowing from below and seasonal borrowing.



Geyuan Garden, Yangzhou.

Xiaofeihong (Little Flying Rainbow) in Zhuozheng Garden (Humble Administrator's Garden), Suzhou.

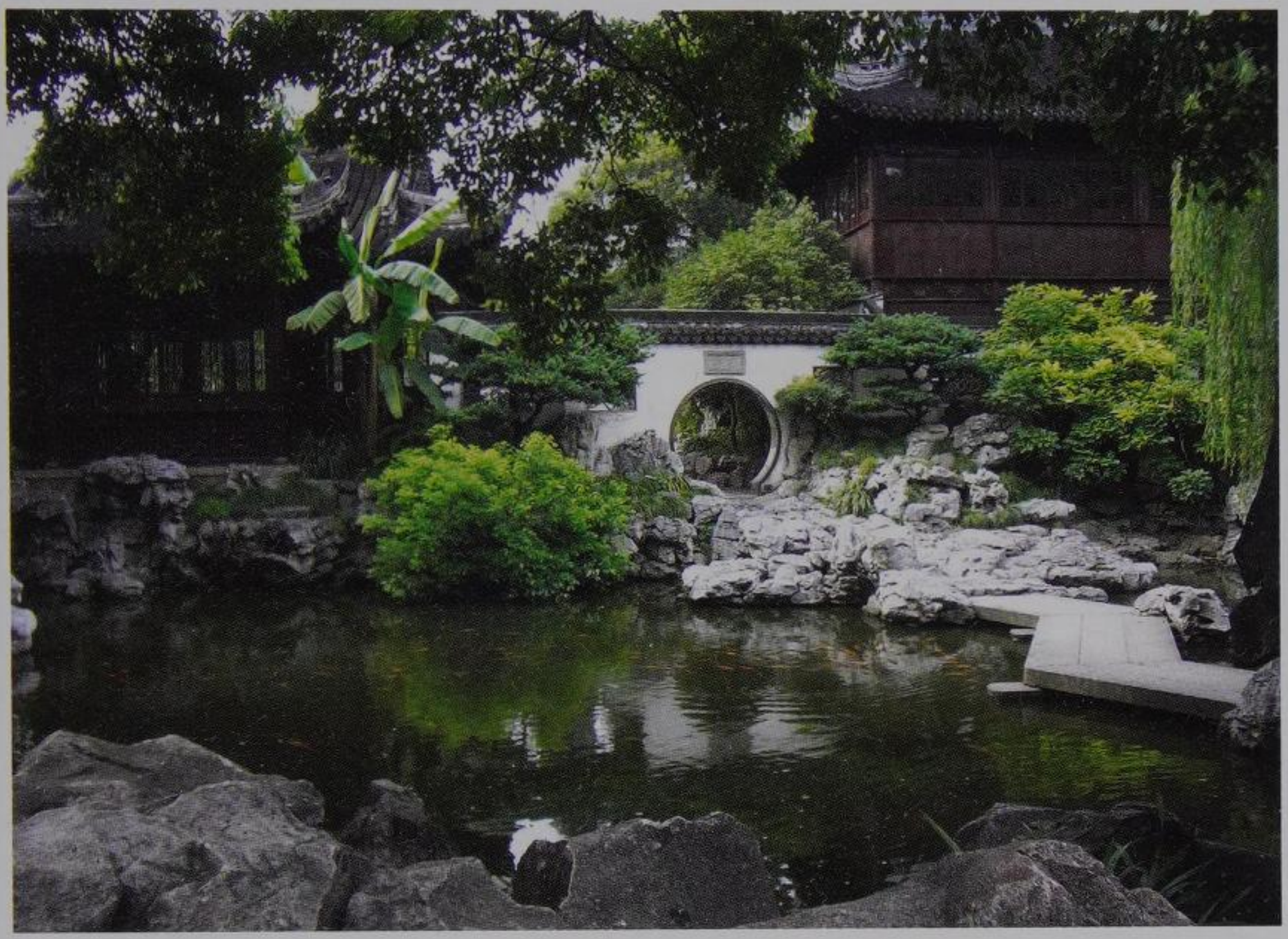
Sketch of rockeries and pavilions.

resulting from the fact that they have been polished by water over a long period of time. The most famous of these stones are sourced from Tai Lake and are known as "Taihu Lake Stones."

A garden's water features are designed to have an irregular layout in keeping with the natural landscape. Rivers and lakes are usually accompanied by artificial mountains to give an uneven and natural touch to an otherwise man-made garden. Other than hills and plants, buildings such as pavilions, corridors and bridges are also important to a garden, serving as subjects in their composition and constituting places to contemplate their scenic vistas.

Chinese classical arts, especially poetry and paintings, greatly influenced the designs of landscaped gardens but, at the same time, poets and artists obtained their creative inspiration from the tranquil sights offered by a beautifully landscaped garden. An example of arts and landscaped gardens complimenting each other is Zhuozheng Garden (Humble Administrator's Garden) in Suzhou. The garden was built in the middle of the Ming Dynasty, and spans a history of more than 500 years. Many paintings by the famous Ming artist Wen Zhengming (1470–1559) were inspired by this garden.

Zhuozheng Garden (Humble Administrator's Garden), Suzhou.



Yuyuan Garden, Shanghai.

Four-seasons Rockeries in Geyuan Garden, Yangzhou.

The material and spiritual lives of many scholars and literati were often inseparable from gardens, and it is possible to feel the emotions and interests of these people in landscaped gardens. A landscaped garden is not merely constructed with artificial hills, rivers and pavilions, but is a work of art composed with the influence of many strands of China's culture and society.

Vernacular Dwellings

The term "vernacular dwelling" refers to the indigenous architectural styles that have their roots in the rustic landscape. It is centred on residential houses, but includes structures such as ancestral temples, opera houses and memorial gateways. The origins and development of China's local architecture are closely related to the structure of society and lifestyle of the people, and reflect people's customs and habits, ethnic differences and religious beliefs. At the same time, they reflect people's aesthetic preferences and social awareness.

Patriarchal ideology and moral principles, as well as the doctrines of *yin-yang* and the "five elements" in Chinese philosophy (fire, earth, metal, water and wood) have a far-reaching influence on the external and internal layouts and the creation of space in China's traditional local architecture. China's traditional residence has its roots in adapting to the need and tradition for more than one generation to live under the same roof. Traditional Chinese houses are all built on the bond of blood relations, whether in ethnic villages, fortified villages, dwellings of common ancestry or clan courtyard houses. As Chinese people attach great significance to the tradition of honoring their ancestors the ancestral temple, where the ancestors are revered, is often the most important building in a household, or even an entire village, and is the center around which other buildings are built.

The concept of *li* (respect) in China's ancient patriarchal system and ethical codes is centered on the relationship between father and son, the order of seniority, and the social differences between men and women. In terms of the layout of a residence, the room that belongs to the parents—known as the principal room—is placed in the center along the axis of the house. The wing-rooms, which are occupied by children and grandchildren, would be situated on the eastern and western sides of the principal room. This difference is apparent in the sizes of the rooms and also their

interior design and decoration. Women were traditionally bound by many restrictions and not given much personal freedom, and this is also reflected in the layout of a residential compound. The men's quarters are placed in the outer courtyard, whereas the women's quarters are found in the inner courtyard, and women were generally not allowed to step out of the inner compound without being given permission to do so. The same applied for outsiders; they were not to step into the inner compound.

Feng Shui is a school of geomancy based on China's ancient doctrine of the five elements—used in deciphering the best locations for building a residence and burial. The ancient Chinese believed that a building's *feng shui* could greatly influence the prosperity and development of a family, hence it was the first thing that must be considered when choosing the location of a house, in designing its layout and in the creation of space within the house.

China has a large territory and a wide spectrum of ethnic groups. The varied natural landscapes and ethnic customs give rise to colorful and rich characteristics in the various architectural styles that are apparent in residences all across China.

Beijing *Siheyuan* Building (Courtyard Houses)

In Northern China, one major characteristic of the traditional residential house is the courtyard, which is the center of the house. A courtyard house is built on the basic principle of having a firm, solid exterior and a vacant, spacious interior. The house is constructed on an invisible axis, around which the different functional rooms are built. Beijing's courtyard houses (*siheyuan* in Chinese) were predominantly situated within the capital city. Their architectural structure fitted in perfectly with the official expectations of the capital which deemed it necessary to fulfill certain religious and moral principles essential to maintaining order in a traditional family.

A typical Beijing courtyard house employed an invisible north-south axis and the main gate of the house would be placed at the southeastern corner of the house. In accordance with principles of *feng shui* and the "Eight Trigrams," this is considered the most auspicious direction and could bring wealth to the household. Upon entering the house, one is greeted by an exquisitely crafted screen wall, which, in the past, carried the function of warding off evil spirits. It also helps to create space and maintain privacy.

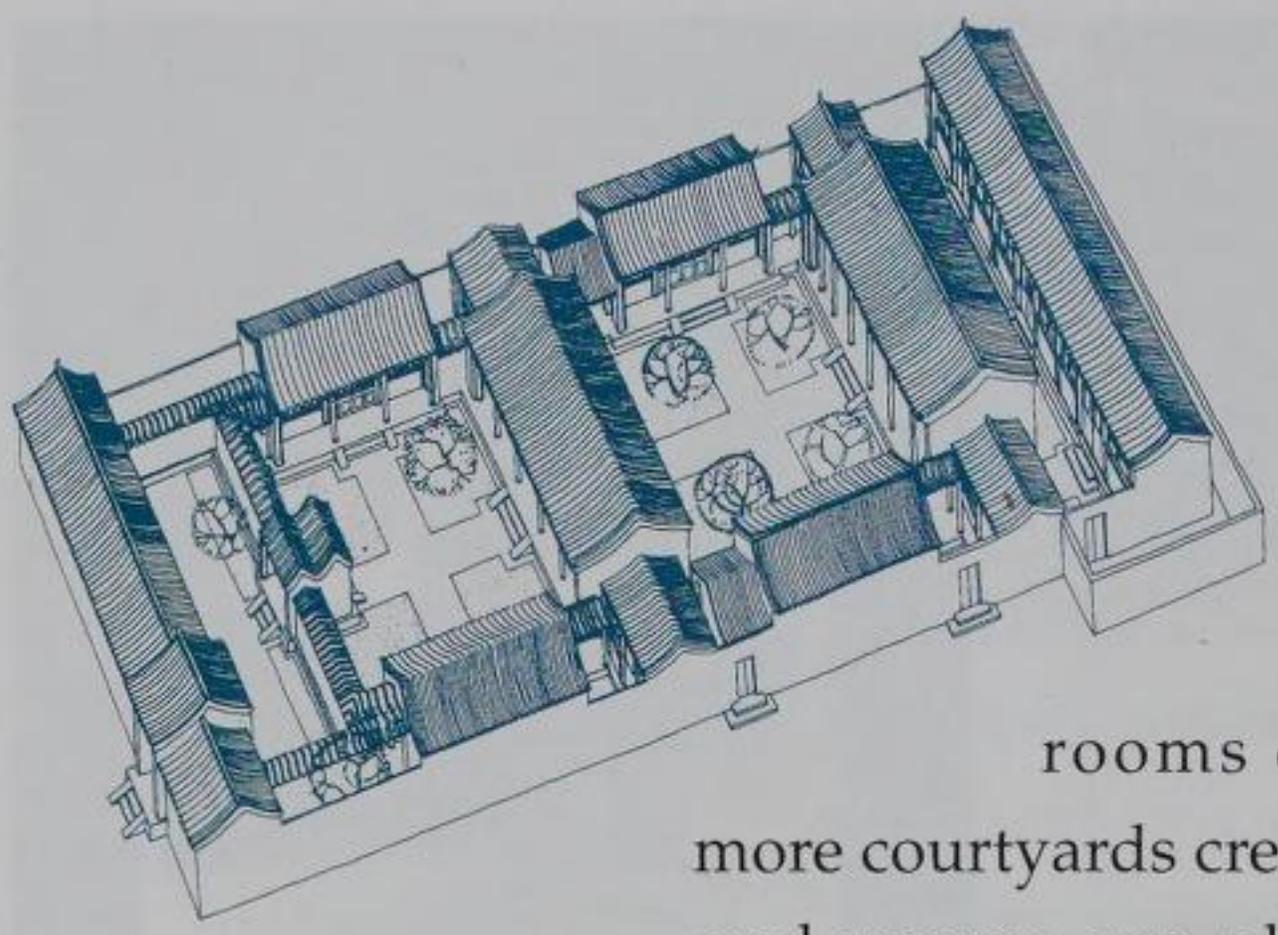
To the west of the main gate would be a small and narrow front yard. To the south of this courtyard can be found the living room, study, accounts room and storage room. To the north of the front yard is the second and inner gate of the compound, which is situated along the axis. The two pillars at its sides are exquisitely carved with elaborate floral designs, making it the most prominent design element in the entire courtyard compound. This decorated gate acts as a divider between the outer and inner courtyards. Behind the gate is the main living compound of the

The main gate of a Beijing *siheyuan* (courtyard house) building.

The aisle of a courtyard house.

courtyard house. Here, the courtyard is beautifully landscaped with trees and other plants, creating a tranquil and comfortable living environment. To the north of the courtyard, the south-facing principal room makes up the main building of the courtyard house. In accordance with Ming and Qing building regulations for residential houses, there are usually three rooms, with two side rooms flanking the principal room. At both sides of courtyard are the wing-rooms. Behind the principal room, there is a small courtyard, with a row of rooms forming the last section of the courtyard compound.

Within a courtyard compound all the rooms are assigned to the members of the family according to seniority. The principal rooms are for the senior members of the household. Within the principal room, an altar and the ancestor tablet are put in place. The side rooms are for the junior members of the family. The other rooms in the house must not surpass the principal rooms in terms of their areas, heights and interior decoration. This gives prominence to the idea of showing respect to the ancestors and acknowledging the power and influence of the patriarch. The principal room is therefore not only the main activity room of the family, but also a symbol of the family's spirit.



A courtyard house.

One advantage of a courtyard house is that it can be infinitely expanded. As the number of family members increases, more rooms can be added, with more courtyards created. More courtyards and rooms can also be built beyond the existing compound, with corridors and walls connecting the annexes to the main compound. This construction mode for residential houses is in keeping with China's ancient family tradition and development.

Other than those in Beijing, the courtyard houses in south Hebei, Shanxi, Shaanxi, and Henan Provinces are long and narrow, built in the north-south direction. This helps to keep strong sunlight from the interior of the house as it can be very hot during the summer. In the northwestern provinces, such as Gansu and Qinghai, the houses have thick and high walls to keep away sand and protect from the cold weather. In the northeastern provinces, where it is often cold and the land is vast and sparsely populated, there is the need to maximize sunlight, so houses tend to be big and spacious. In various places in China, the courtyard houses therefore take on different characteristics to equip them for the environments in which they are built.

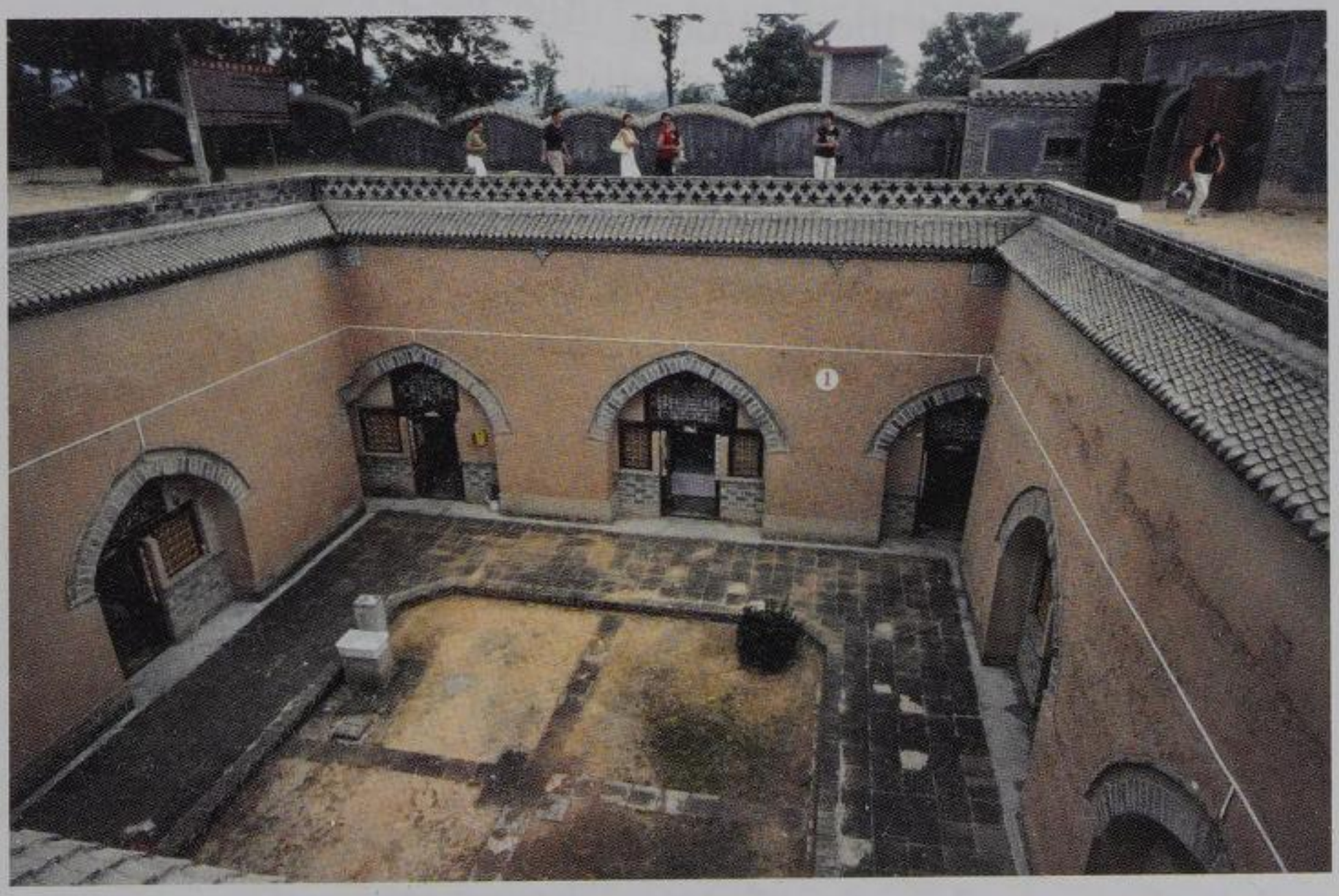
Northwestern Cave Dwelling

Cave dwellings are residences set into the ground, and they are fully in tune with nature conservation. They do not have the typical form or outline found in ordinary buildings and exhibit the natural yellow of the earth, its rough texture and its creation of living space in the cave's interior. They are basic and rich in

local flavor. There are three main categories of cave dwellings: those built cliffs, in the ground, and with stone.

Cave dwellings built into cliffs were often formed from horizontal caves and tend to be set at the foot of hills. Given the thickness of the cave walls, holes could be dug above the existing caves to create a "sky cave" which would let sunlight in. These cave dwellings could be connected to the surface by slopes, brick steps, or indoor staircases. Outside the cave dwelling there is usually a small courtyard enclosed with a mud wall. They could be joined with stone cave dwellings to form large courtyard houses.

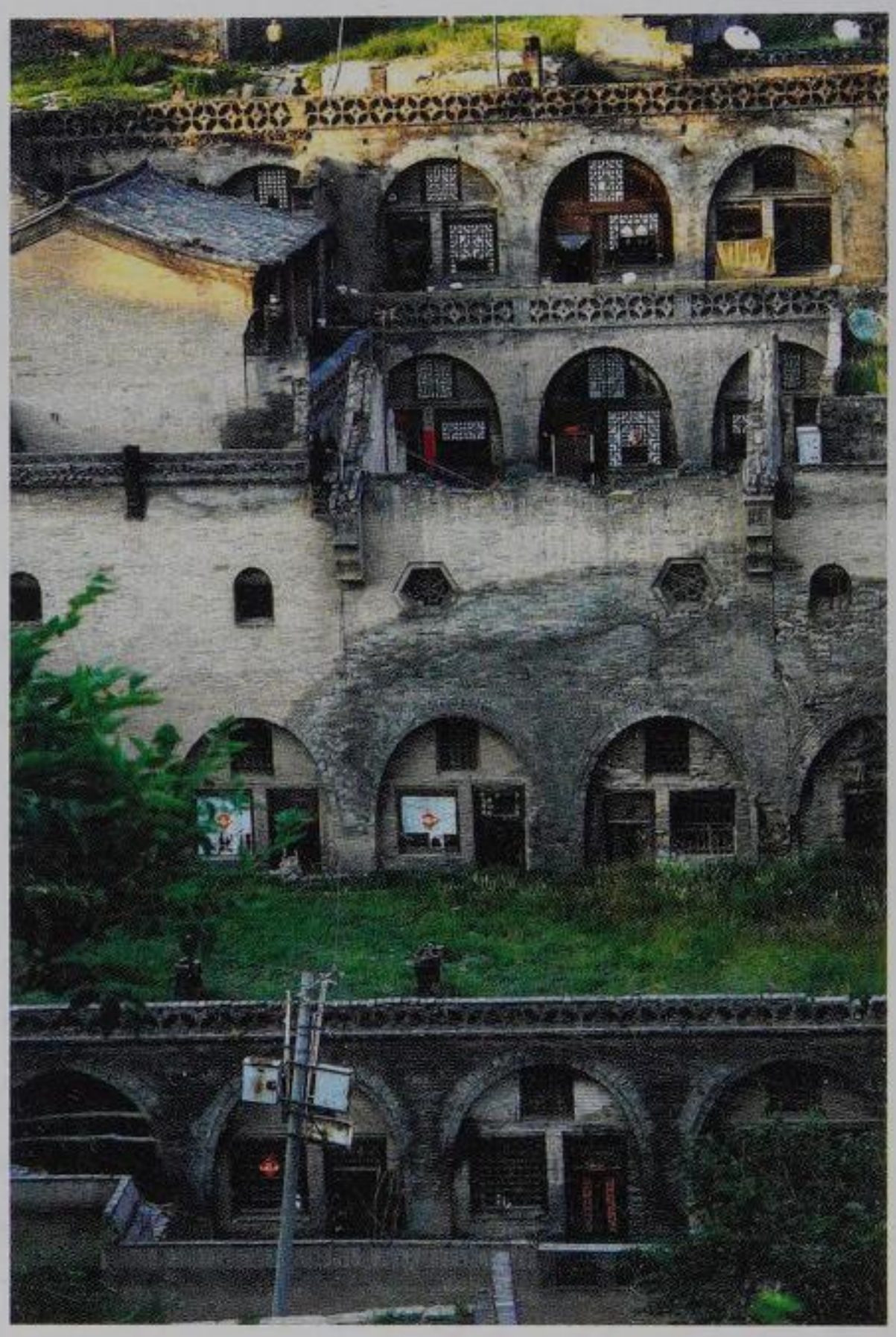
Courtyard cave dwellings are created by digging deep into the ground to form a sunken courtyard. Caves are dug into the four walls to create rooms. Courtyard caves are linked to the surface by way of a long staircase, which could be placed either within the courtyard or built through the earth. These staircases have different designs, adding variety to a cluster of courtyard cave dwellings.



Courtyard cave dwellings, Shanxian County, Henan Province.

Stone cave dwellings are constructed using bricks and stones. The most common design of stone cave dwelling is the three-cavity cave dwelling, which also forms the basic unit of a courtyard compound. They can be connected to a wooden house, with the stone cave dwelling functioning as the best room because it is warm in winter and cool in summer.

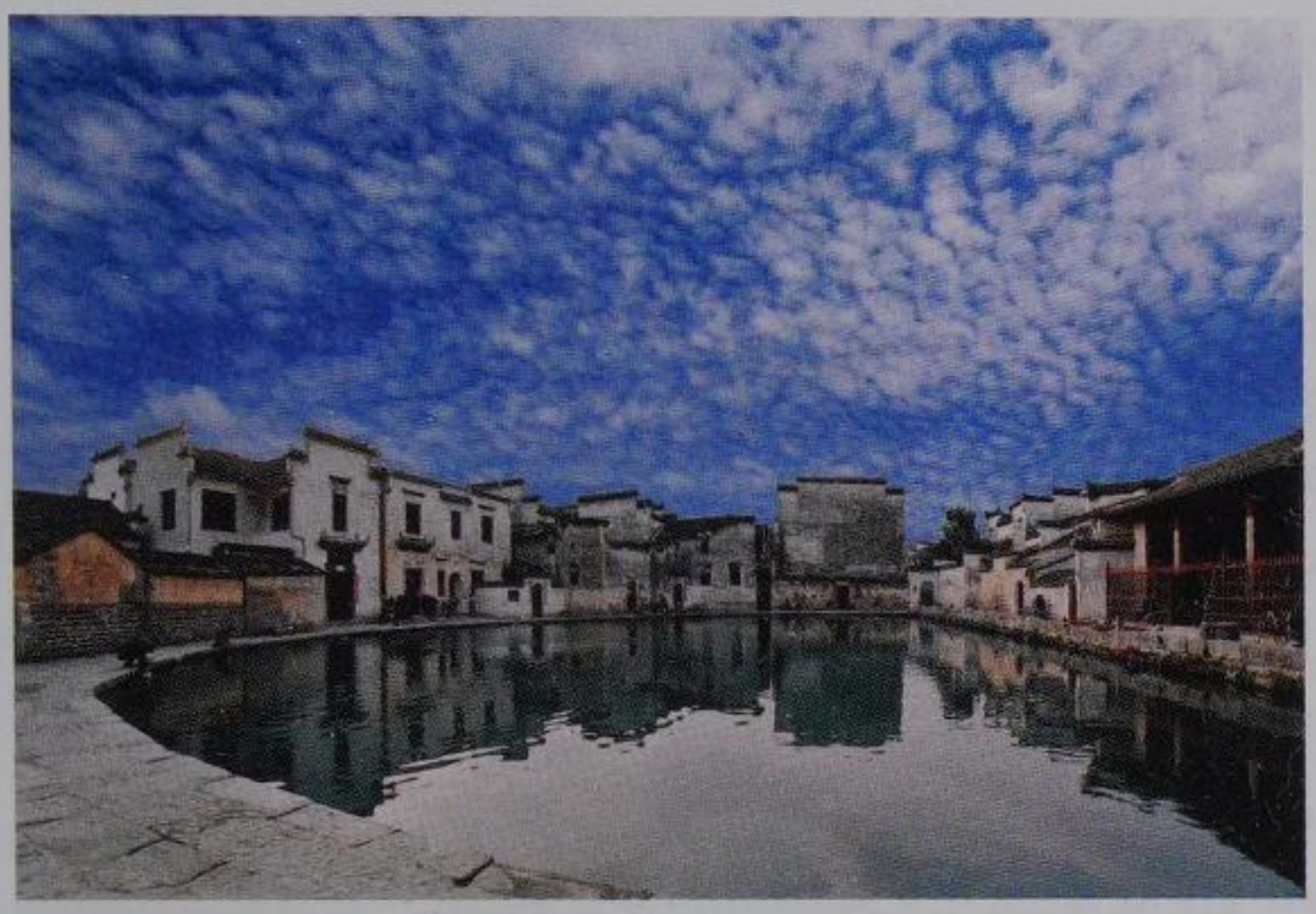
Although cave dwellings are far from the conventional Chinese houses, they still retain the traditional layout of a Chinese household. The northern portion of the cave dwelling still functions as the family dayroom and is also exclusively used as the bedroom of the most senior members of the family. The side rooms in the eastern and western ends of the house are still used as bedrooms, the kitchen and storerooms of the house. The southern side is where the entrance to the house is located and also where one finds the toilet and livestock pens. The main gate to the courtyard is constructed at the southeastern corner of the house. From this, we can see the far-reaching impact of the ancient feudal society regardless of different styles and materials used in constructing a residential dwelling.



Multi-layered cave dwellings, Shijiagou, Shanxi Province.

Huizhou Dwellings

Huizhou is an area strong in traditional family values and the people there attach great significance to *feng shui* in selecting a



Hong Village in Yixian County, Anhui.

spot to build a house. People who share the same surnames form clans and live together as a community. The ancestral temple, which forms the core of the community, is where sacrificial rites and ceremonies and other clan activities are held. This results in a community that is bonded, literally, by blood.

The typical residential dwelling of Huizhou employs the layout of a courtyard house. This building structure is popular in the regions of Jiangsu, Zhejiang, Anhui and Jiangxi. In general, when entering through the main gate, one is greeted by a courtyard which forms the center of the residence. All the rooms on the four sides of the courtyard drain water towards the courtyard. Money is symbolized by water, so this structure ensures that money will not flow out of the house. Next, there is often a partly opened main hall, flanked by side rooms. Behind the main hall are the staircase and the kitchen. The staircase can also be set in the space between the main hall and the side rooms. Connected by a corridor, the layout of the second level is exactly the same as the ground level. The residence is surrounded by high walls that are lined with green tiles, adding an aesthetic touch to the entire compound.

Memorial Archway

The memorial archway is a unique Chinese architectural style. There are four forms of memorial archway: the merit arch, built to remember an exemplary person; the moral chastity arch, built in recognition of a virtuous wife; the commemorative arch praises success in the imperial examination, and could be used by many generations to honor their ancestors; and the fourth serves as a gate separating the town or village square from the entrance to the street.

Huizhou is populated with merchants, and their richly ornamented residences were used to display their power and wealth. In order to prevent the spread of fire, the residents of Huizhou built high walls and the art of decorating these walls is derived from this practice. The undulating walls of the houses in Huizhou exemplify the uniqueness of the residences and are well known for their wood, brick and stone carvings.

Wooden detailing, Huizhou vernacular dwelling.

Upland Dwellings in Sichuan-Chongqing Region

The Sichuan-Chongqing region is located in the southwest of China

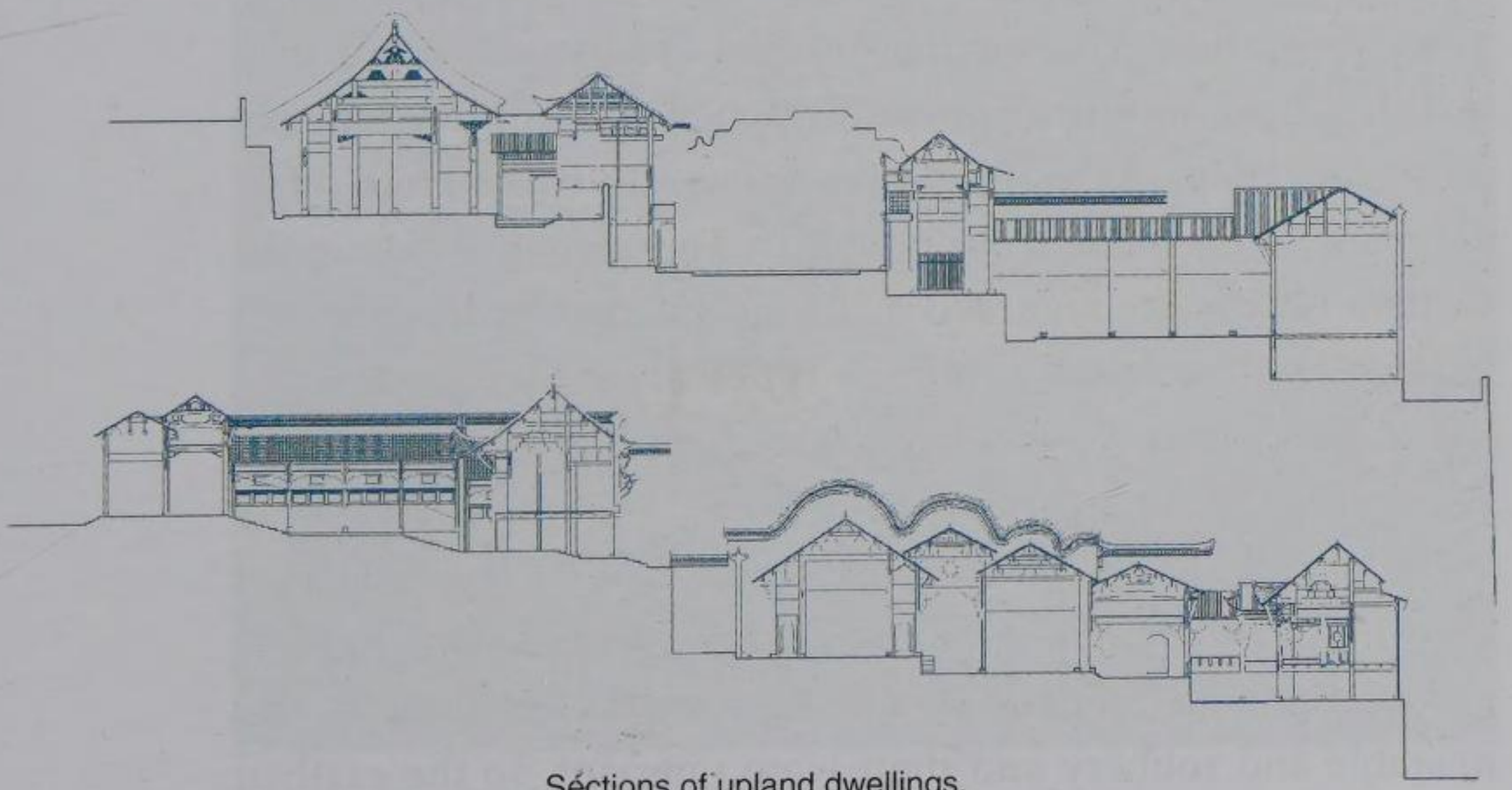
White, cascading small roofs forming a "Horsehead Wall".

and has enjoyed a long and rich cultural history. It is a densely populated area with precipitous terrain, and the residences of the region are linked across the uneven terrain. The buildings still employ the central axis in the main complex of the house—as in most traditional buildings in China—but not so for the secondary complexes and the courtyard. The houses in this region are built to adapt to the physical features of the land. There are a number of distinctive features which have developed from this challenging terrain.

Terraces are used on steep mountainsides to allow houses to be built. They involve a level shelf of land interrupting a downward slope being constructed, and resemble a flight of steps. Seen from afar, the terraces are an amazing sight to behold.

Balconies are applied to narrow spaces in the terrain to create additional area for rooms, usually on the first floor.

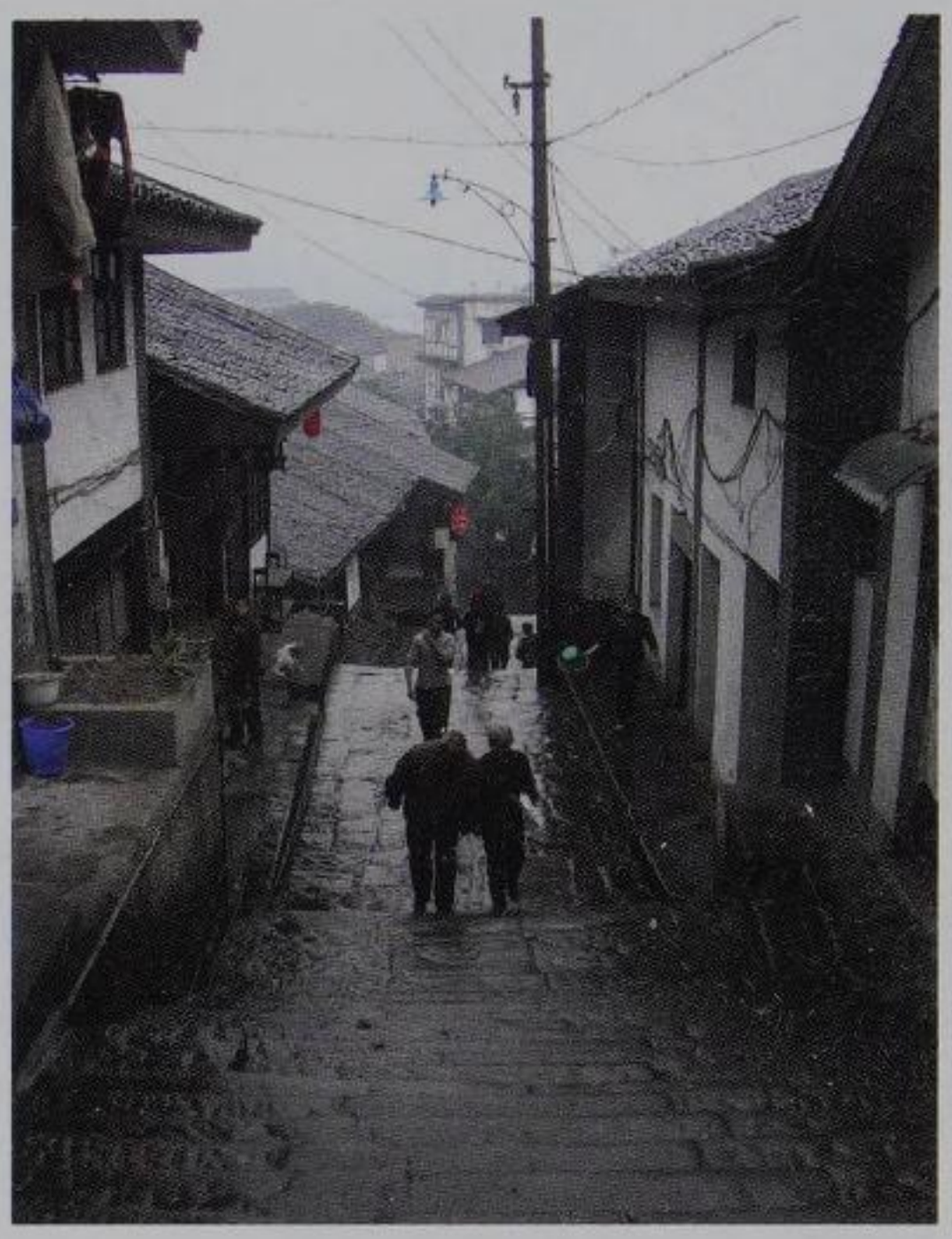
Houses are often built perpendicular to the incline of a slope, separating the floors of the interior of the house into different heights.



Séctions of upland dwellings.

Annexes are built to extend the area of side rooms, and their construction involves extending the back of the roof to creating space outside the existing house. The annexes built may be much lower than the existing side rooms.

As it is difficult to increase the depth of a house when building it on a slope, hanging rooms are sometimes added. These hanging rooms are suspended from rooms in the upper floors to create more space, and can also function as an awning for the entrance at the ground level. Such hanging rooms can be found in Chongqing, near the Yangtze River, or along the coast of Jialing River.



The riverside topography of the Chongqing area determines the architectural style of vernacular dwellings.

Earthen Houses of Fujian

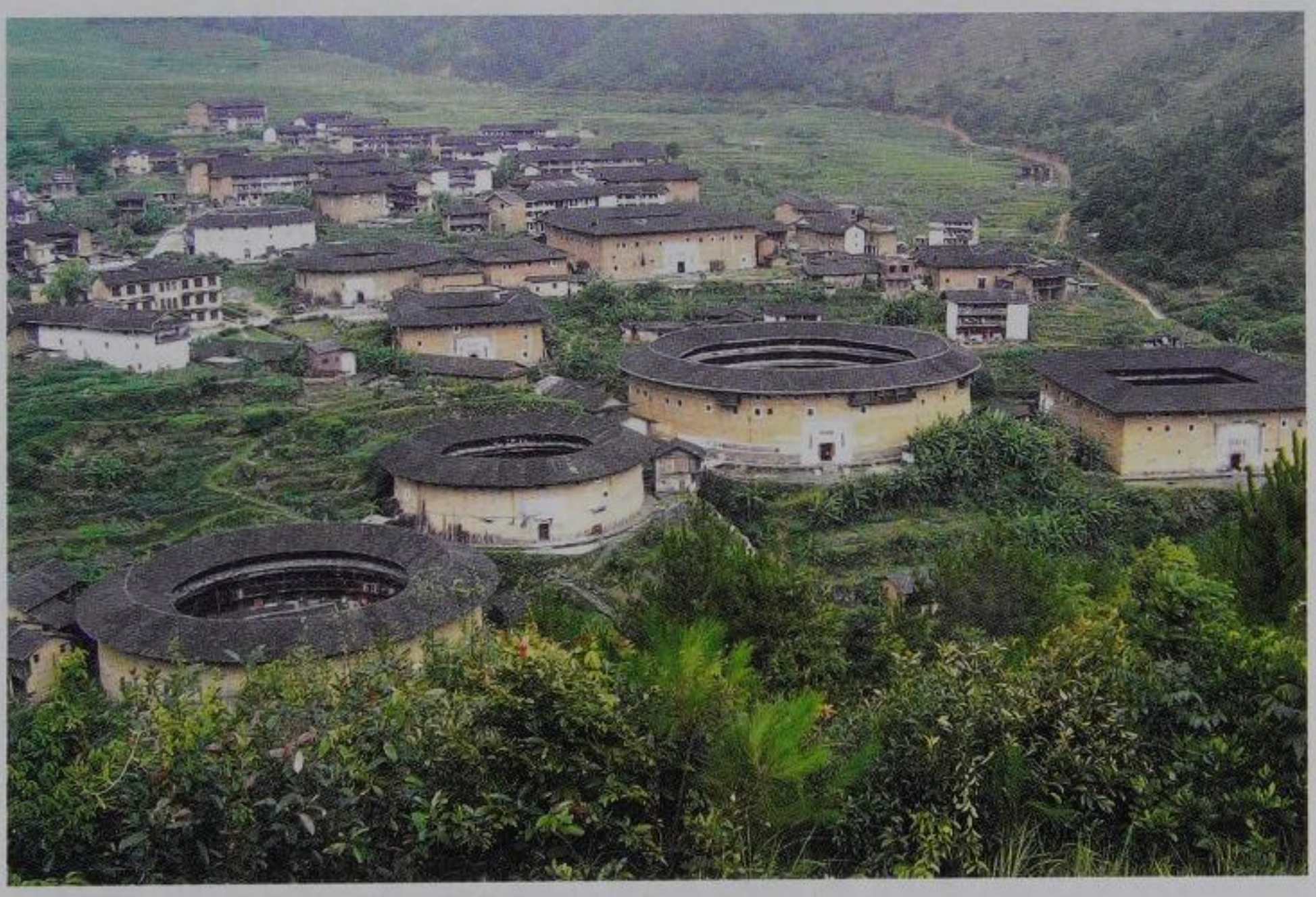
Many earthen houses built by the Hakka people can be found in the south Fujian regions of Yongding, Longyan, Zhangping and Zhangzhou. The earthen houses are usually huge, and each has three to four floors and reaches up to thirteen meters in height. The outer walls, which are one to two meters thick, are made of clay and are very sturdy. These uniquely designed earthen houses are regarded as China's domestic architectural gems. The three most symbolic types of earthen houses are the round earthen houses, rectangular earthen houses and the *Wufeng* (Five Phoenixes) earthen houses.

The people that built the earthen houses were the Hakkas, a group of Han Chinese who migrated southwards due to wars and unrest, more than 1,000 years ago. At that time society was unstable and robbery and theft were rampant, so the earthen

house became a perfect defense against attacks and trespassers. The earthen houses were large enough to facilitate the tradition of living together in one community as an ethnic clan, and each of these fortress-like houses could accommodate a few hundred people.

The Hakkas have their roots in the central plains of China. The majority of the first Hakkas to migrate south were scholars and officials from well-to-do families, and they remain proud of their heritage today. Even though their culture has changed along with history, the Hakka culture is closely linked to Chinese culture and tradition and is strongly influenced by China's feudal system and propriety.

The best example of the circular earthen houses is Chengqi Building—located in Yongding County in the Fujian province. Chengqi Building was built in the Qing Dynasty in 1709. It took three years to build and has a diameter of 62.6 meters. Chengqi Building contains four concentric rings. The outer ring has four floors, with the ground level used as the kitchen, the second level

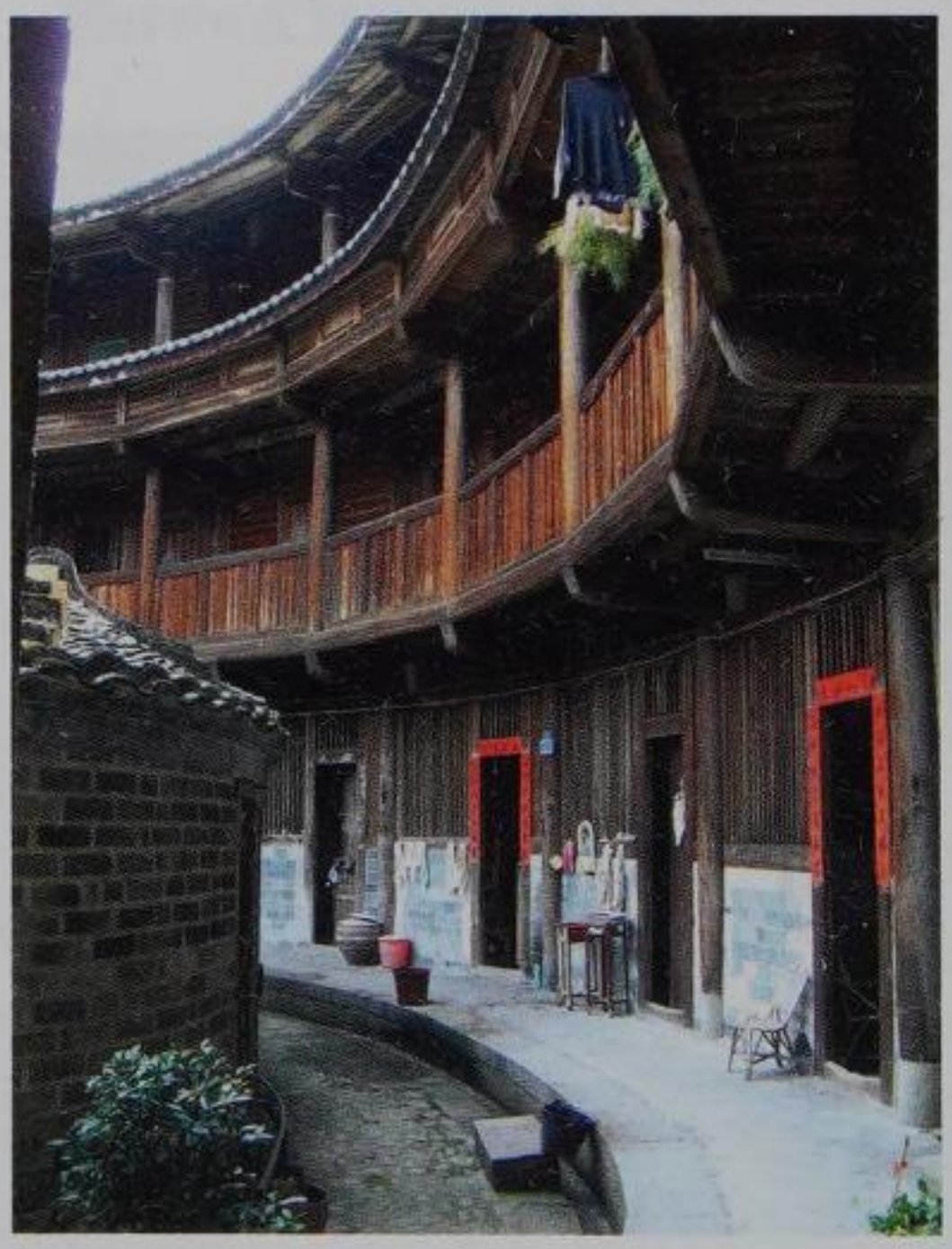


Earthen house group in Chuxi, Fujian Province.

used as a store, and the third and fourth levels as bedrooms. Every level is connected with a corridor. The second and third rings are single-floor houses, and the entire innermost building is used as the ancestral hall, which is laid on the axis, along which the main gate is also situated.

Zhencheng House, Yongding, Fujian, built in 1912.

In rectangular earthen houses, all four sides are three to four stories high. There is an inner courtyard to the house and the ancestral hall is situated along the main axis. Annexes tended to be added within the periphery of the house and they blend in extremely well with the earthen building, displaying the relationship between the principal and the subordinate. They are an indispensable part of the entire building structure and create a richly colorful spatial form and an elegant sight in the colony of houses.



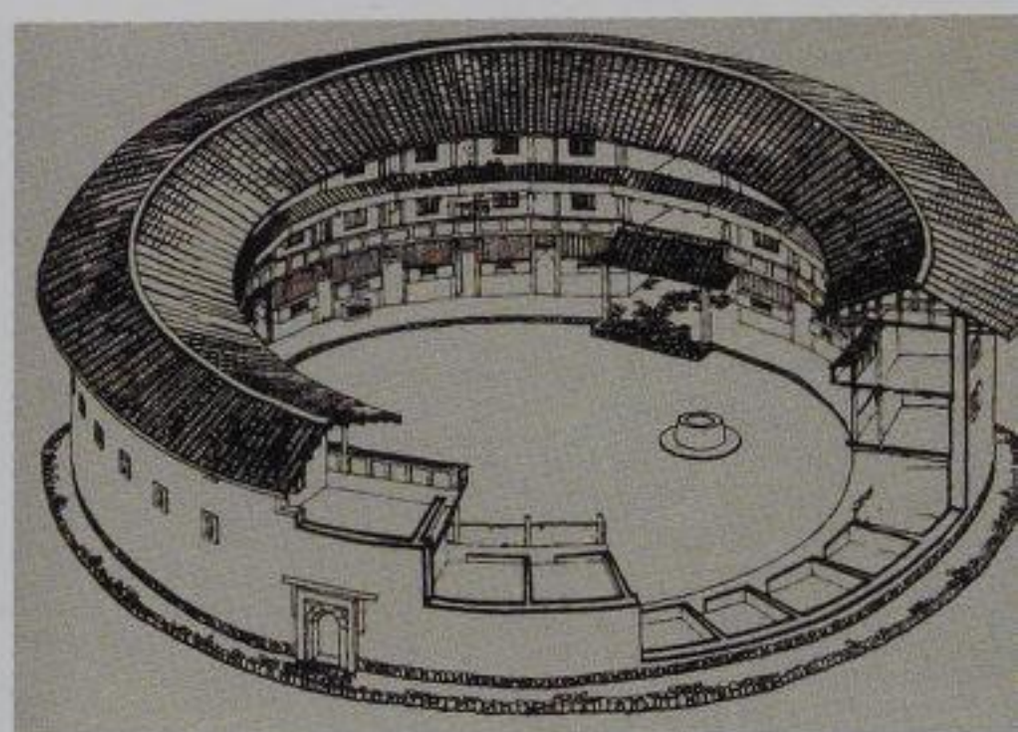
The interior of Qiaofu House, Yongding, Fujian Province.

The ancestral hall placed in the center of the rectangular earthen houses is intended for the worship of the ancestor's tablet and is where sacrificial ceremonies are held. In the community, the ancestral hall is held in utmost reverence as respecting the ancestors is a traditional value and a tie that binds kinship. Placing the

The inner ring of Chengqi House, Yongding, Fujian.

ancestral hall right in the center of the inner courtyard of the house is not only in accordance with the ritual system of worship, but also a meaningful connection to the roots of the many Hakka migrants into Fujian.

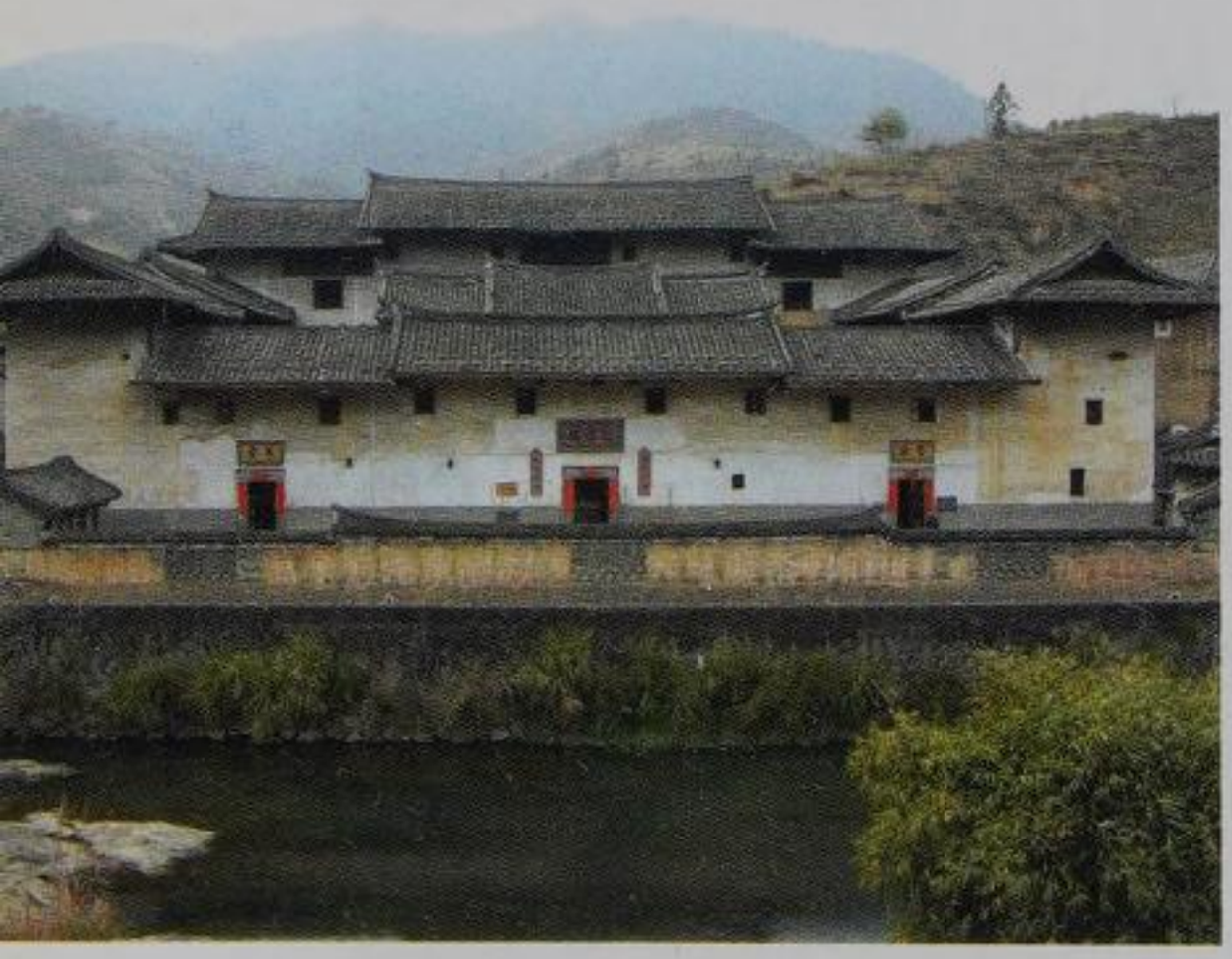
The *Wufeng* building is a prominent style amongst earthen houses, and it consists of three main halls built along the axis. The lower hall is where the entrance is located and it is lower in terms of height. The central hall is the ancestral hall, used for receiving guests and for holding clan ceremonies. It is the center of the entire house and it is built higher than the lower hall. The rear hall is the main hall comprising three to five floors, towering towards the northern end of the axis. This is the tallest building of the entire house and is where the elder members of the family reside. The three halls are connected via corridors which form two courtyards.



Section of an earthen house.

The name *Wufeng* refers to five birds of different colors—red, yellow, green, violet and white. It also denotes five directions—north, south, east, west and center, meaning that the house has an axis and forms a whole with all of its parts. From the exterior, the *Wufeng* building is multi-layered, resembling a grand palace as well as a phoenix that is about to take off into the sky.

The *Wufeng* building is the earliest form of earthen house that appeared in Fujian. Hence, it is most closely related to the traditional building structures in the central plains in China. It gradually evolved into the rectangular earthen house and the round earthen house where the only feature that still connects the styles is the situation of the ancestral hall within the house itself. Other than the ancestral hall, which is held in great reverence, the rooms are assigned to the members of the household randomly, regardless of their seniority, the direction the room is facing or the position it is in. In the *Wufeng* building, the traditional principals are adhered to, and the layout of the house is representative of ethical principals and Confucian thinking.

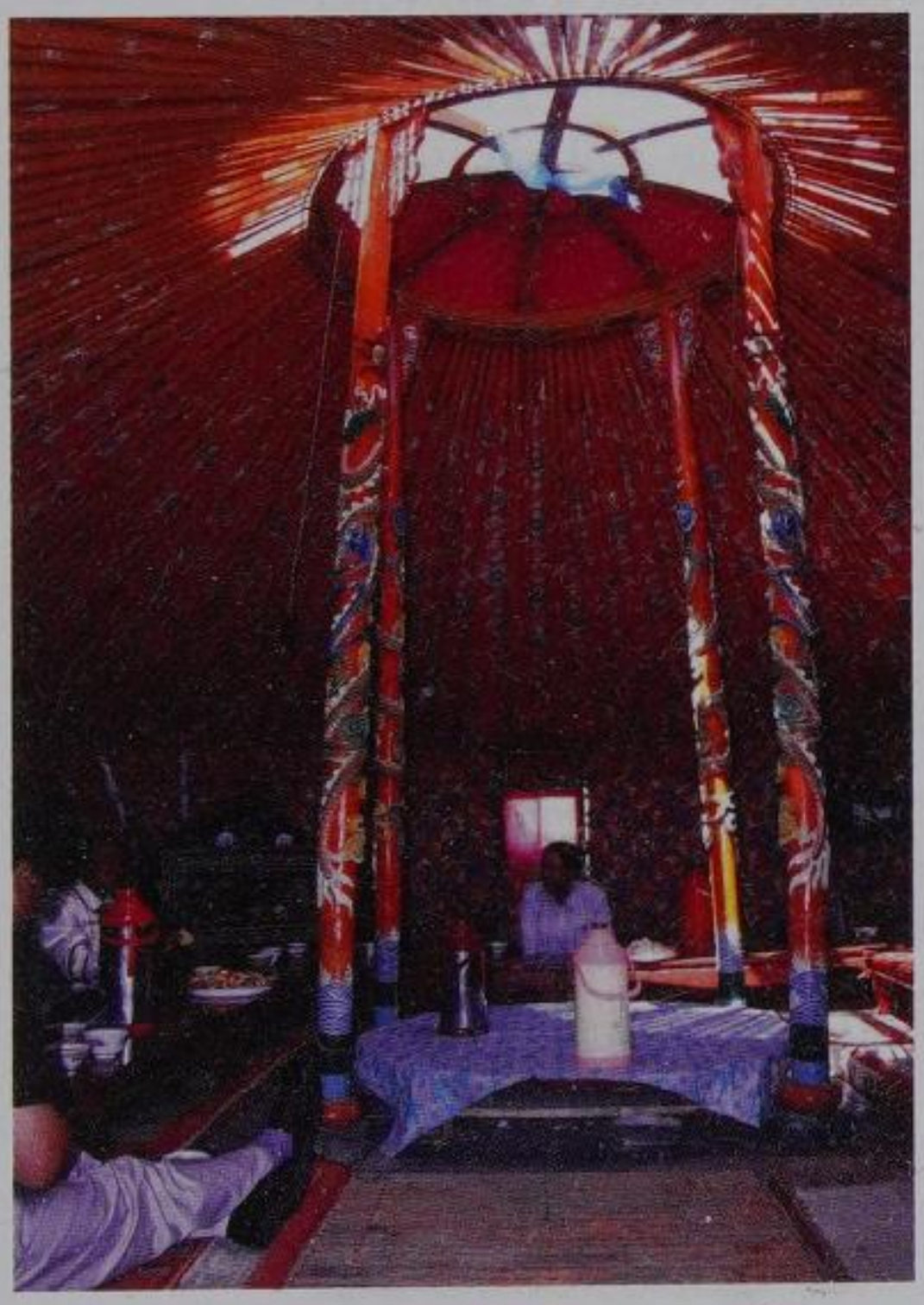


Wufeng (Five Phoenixes) earthen house in Fujian.

Ancient Chinese society had many strict regulations that applied to the construction of residential houses, predominantly to distinguish between the houses of the

common people and those of the wealthy officials. These regulations ranged from the layout of the house to its decorative aspect. Earthen houses are grand and magnificent, and their scale easily surpassed many residences of the common people. This architectural style and its décor were in clear defiance of the regulations set by the different governments that the common people were to adhere to, so how did they come into existence? One reason could be due their locations. Fujian's southwestern regions are rural areas and were far from the reach of the authorities. Another reason could be that the earthen houses were constructed during the Qing Dynasty, and reflected the displeasure the Hakkas (who are Han Chinese) displayed against the Manchu government in that period.

The earthen houses are awe-inspiring for their size, durability and the unity they represented. They were built out of earth into massive fortress-like houses, have been in existence for hundreds of years, and provided a harmonious home to a few hundred households, all living as a united community against attacks from external forces.



The interior of a Mongolian yurt.

The Mongolian Yurt

Mongolians are nomads and they usually move twice in a year. In May when the weather is warm, they go in search of a site with ample water supply and green pastures for grazing their livestock, and in October when the weather gets cold, they go in search of a warmer place to spend winter. The yurt is a portable structure

Mongolian yurts.

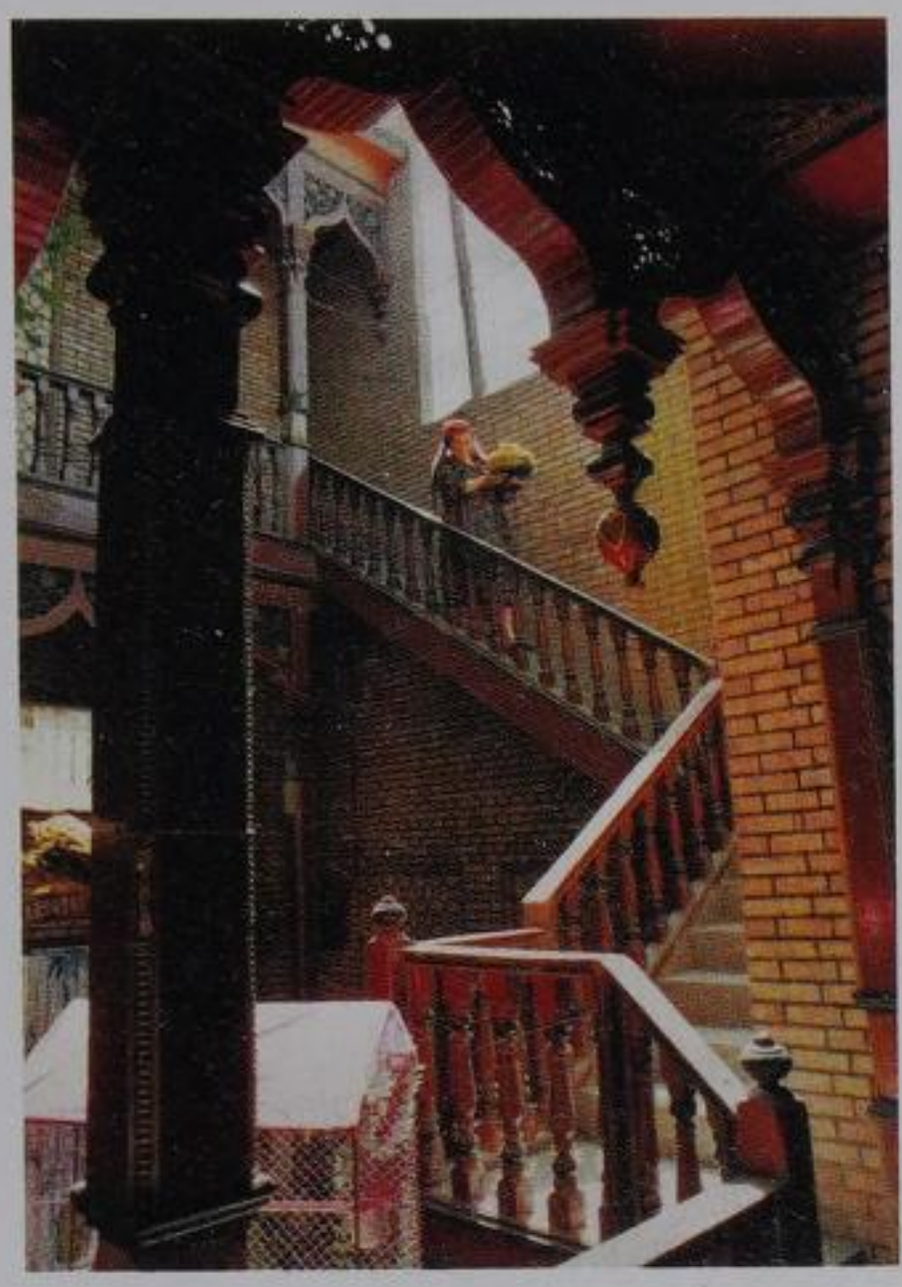
that requires a couple of hours to take down and it is transported using a camel or horse driven cart.

Mongolian yurts are circular domed dwellings with a diameter of four to six meters. They consist of a wooden frame supporting a felt cover, and at the top of the yurt is a movable ceiling which can be opened to allow sunlight and ventilation in the yurt. Inside the yurt, the living area is situated close to the entrance, with the fireplace in the center. On the ground and the walls are colorful felt rugs that make the whole interior a cosy dwelling space, despite its small space.

Xinjiang's Aywang

Aywang is a Uygur word that means "where brightness resides." It is also the name of a dwelling and popular architectural style typical of the Uygurs in Xinjiang, and originates from the name of Aywang Hall.

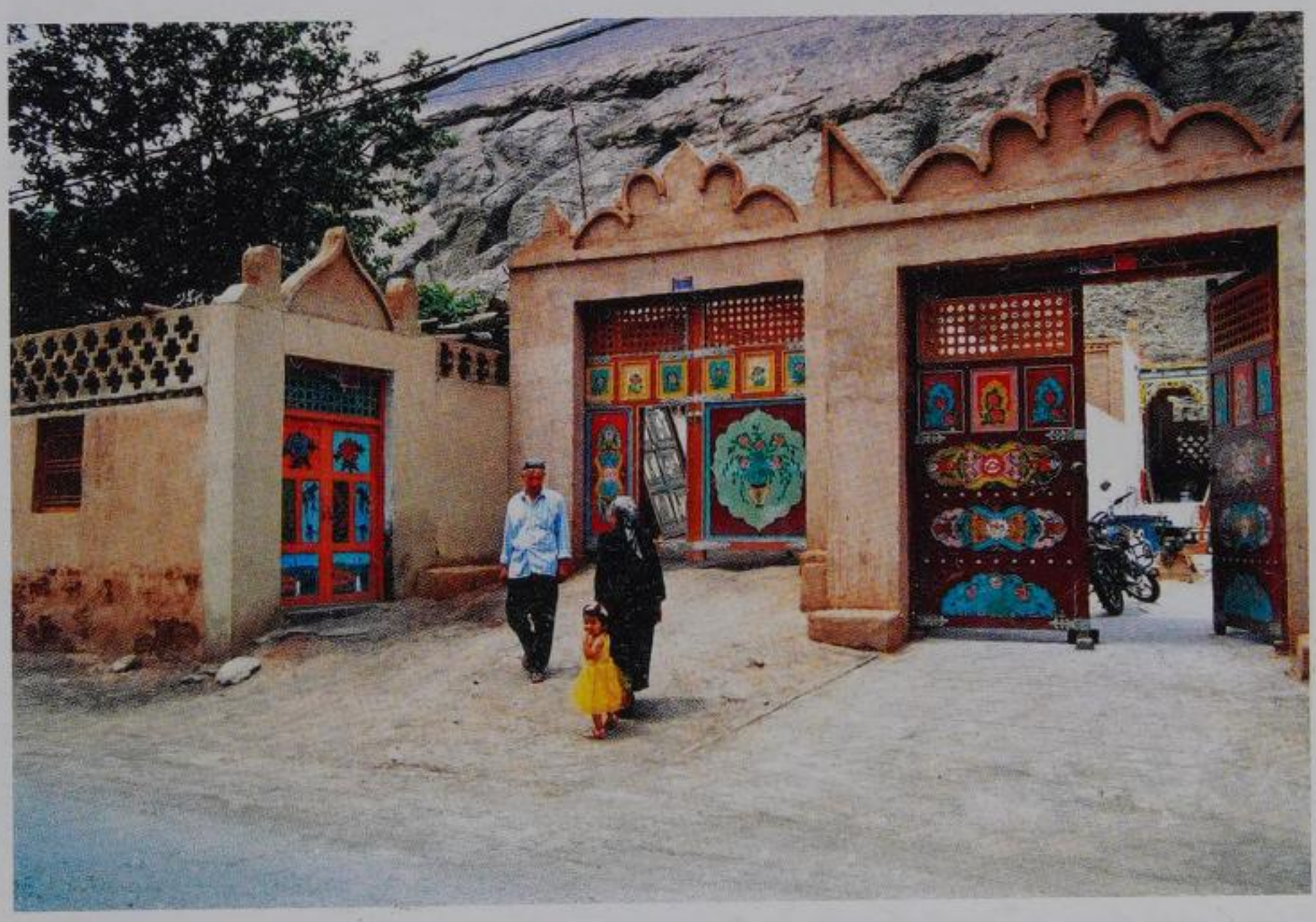
Aywang Hall is the largest, tallest, best decorated and brightest of such residences. Inside the hall, there are eight columns that extend out of the ceiling, with high windows to allow sunlight



Inside an Uygur folk residence in Xinjiang Province.

into the hall. Around the columns are raised platforms for all the daily activities from work to play. On festive occasions, it becomes an open space for the Uygur people to celebrate with songs and dances. Aywang Hall has become the model by which all the other rooms in an aywang are built.

From an architectural perspective, an aywang is an interior of a building, which is also the living room of a residence. But in terms of its functions, it can be regarded as an outdoor venue for entertaining guests, holding gatherings, and music and activities. The aywang is a perfect building that suits the weather conditions in their regions, shielding the inhabitants against sandstorms, cold, and the harsh weather in summer. Hence it is a residence that is built based on the geographical and culture landscapes of the inhabitants. The



Uygur residence in Turpan, Xinjiang.

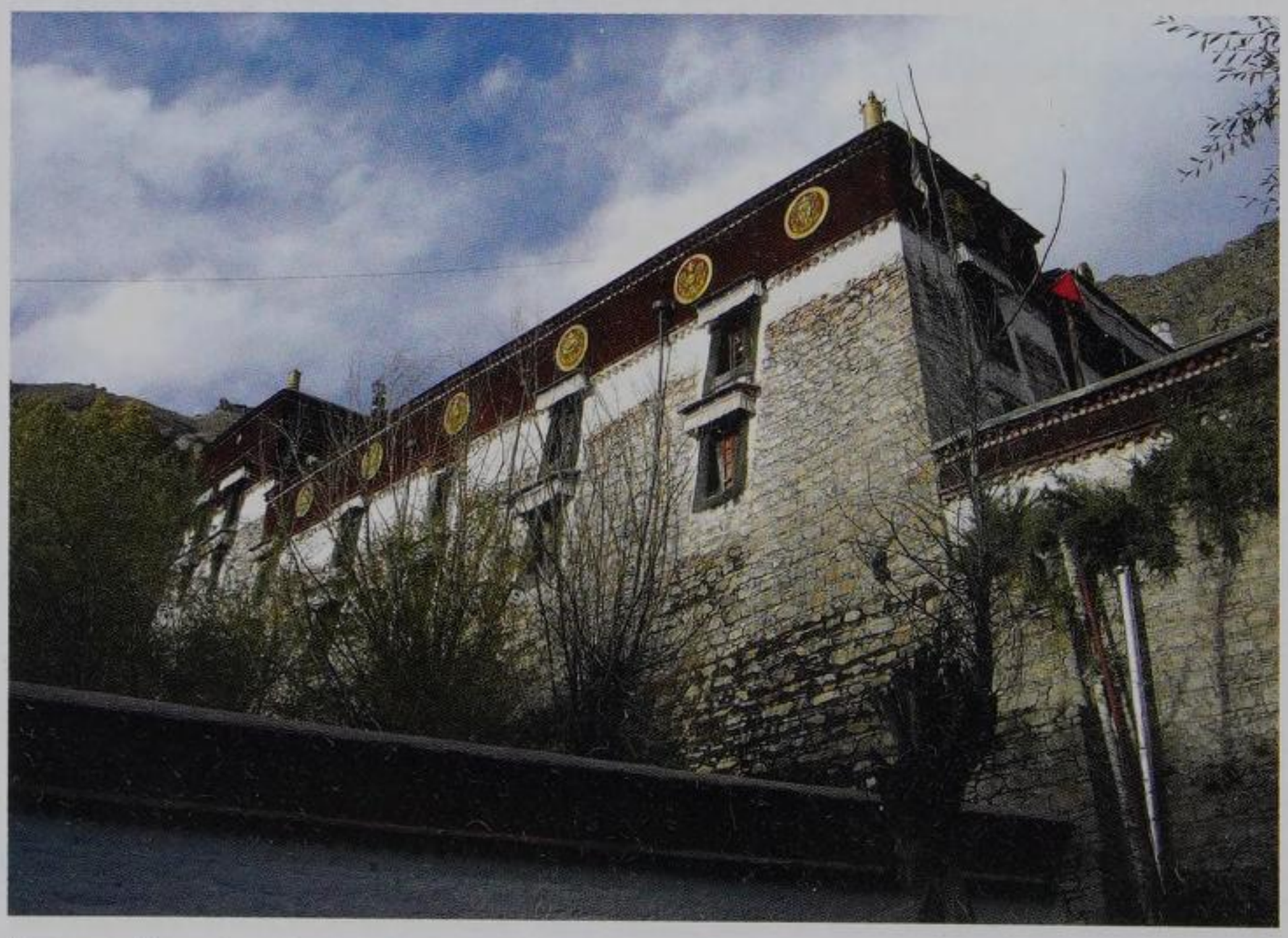
distinctive weather conditions of Xinjiang would have been a source of inspiration to the Uygurs in creating the aywang.

The interior of an Uygur residence is neat and presentable. Its walls are decorated with woven objects such as woven curtains and wall felts, and the floor is carpeted. For heat, there is fireplace or fire pit, which does not dirty or pollute the house easily. The Uygurs commonly use gypsum as material in creating decorative designs on the walls, eaves and mihrab.

Tibetan Stone Houses

The Tibetan people are mainly scattered across the regions of Tibet, Qinghai, Gansu and west of Sichuan. In order to adapt to the weather conditions and environment in the Qinghai-Tibet plateau, the Tibetans traditionally built fortress-like stone houses.

A Tibetan stone house usually comprises three to four floors. The ground level is where livestock, fodder and other items are stored. On the second level are the bedrooms and kitchen. The



Fortress-like stone house in Tibetan area.

third level is where the prayer room is situated. As Tibetans are Buddhist, the prayer room for the recitation of Buddhist scriptures is an important part of a Tibetan home. It is placed at the topmost level as nothing is to be placed above the altar, and nobody must live above it. To create more space in the house, the second level is frequently extended beyond the existing walls. With annexes added to the house, the exterior of the stone house can change many times.

The colors of Tibetan stone houses are simple yet well coordinated, and usually comprise colors such as yellow, cream, beige and maroon, set against the brightly colored walls and roofs. The walls are formed of coarse stones and have windows of various sizes, in descending order from the top of the wall. On every window is a colorful eave. Viewed against the blue sky, white clouds and the shimmering white of the snowy mountains and glaciers, these colorful stone houses take on a rough but dignified style.

The Bamboo Houses of Yunnan

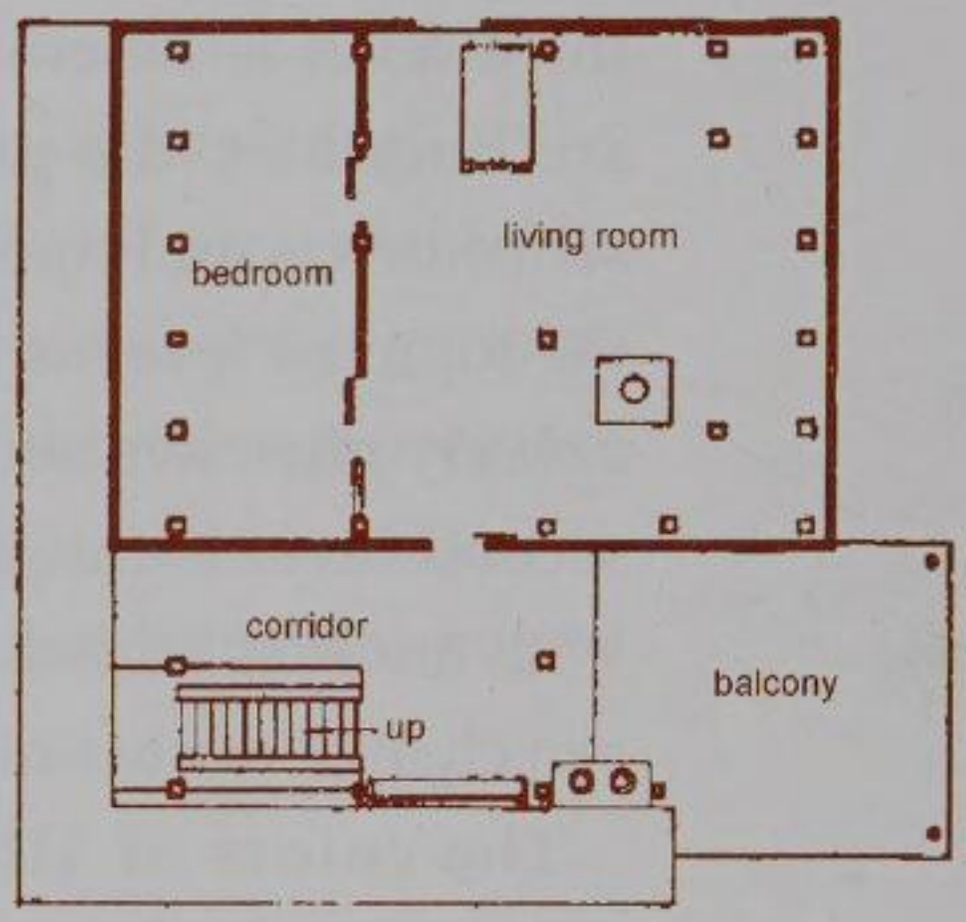
The Dai are an ancient ethnic group who reside in the Yunnan Region's Xishuangbanna Dai Autonomous Prefecture and Dehong Dai and Jingpo Autonomous Prefecture, areas with an abundance of bamboo woods.

Dai villages are scattered in the vast plains or alongside the river in order to facilitate easy access to a water source. The Dai are predominantly Hinayana Buddhist and still hold on to some forms of their ancient indigenous religion. Every street leading to the villages or high grounds has many uniquely designed Buddhist temples and pagodas along it.

A bamboo house.

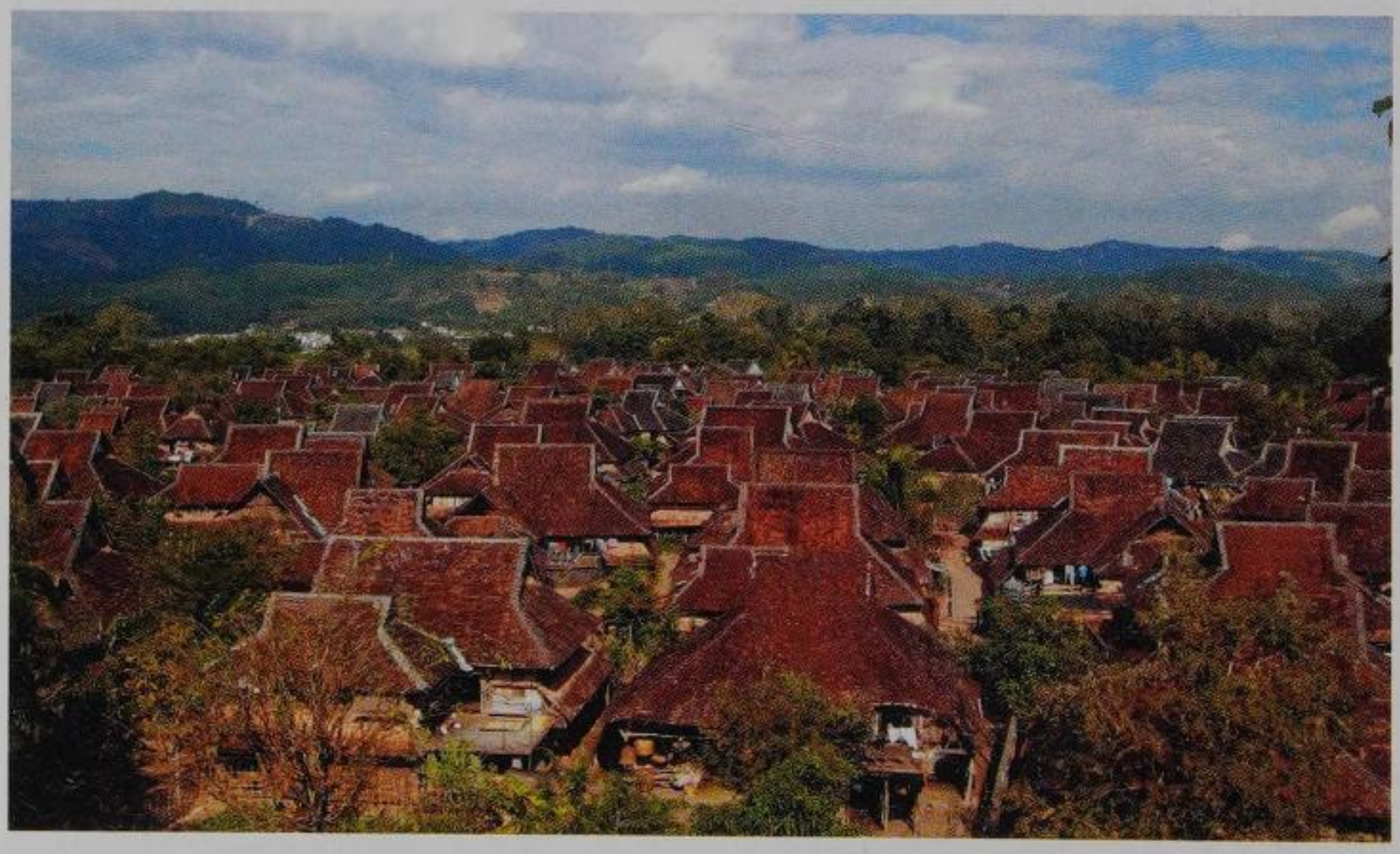
In a Dai village every household has its own house primarily constructed

using bamboo, which is surrounded by bamboo fences. Within the fence, fruit trees and other plants are cultivated. The houses generally take on a rectangular shape and are raised on stilts above the ground to create a space underneath the house for keeping livestock and for storage, as well as for ventilation.



Plan of a bamboo house.

The influence of religion and ancestor worship on the architectural style of the Dai people adds a colorful touch to the public buildings in the Dai villages. The red, white and gold of the temples and pagodas create a refreshing contrast to the plain yet elegant residences.



Dai villages, Yunnan Province.

When East Met West

China's modern artistic architecture is in a stage of transition and growth, with the process of modernization playing a decisive role. Contemporary Chinese architecture is learning from advanced western architectural concepts and technology, while at the same time it is in the process of fusing Chinese and western architectural cultures.

Before the mid-nineteenth century China was a feudal country that had been isolated from the world. The hallmarks of ancient Chinese architecture were unique and highly sophisticated wooden structural systems and process-oriented traditional styles, but this left an apparently insurmountable gap between Chinese and western architecture.

The Opium Wars of the 1840s signaled China's transition into a semi-feudal, semi-colonial modern society; it also marked the beginning of China's modern architectural movement and the introduction and promotion of western architecture. Whilst on the one hand traditional Chinese architecture persisted, on the other hand western architecture was spreading. The parallel movement of these two architectural systems formed the thread of modern Chinese architecture's development as well as its unique characteristics.

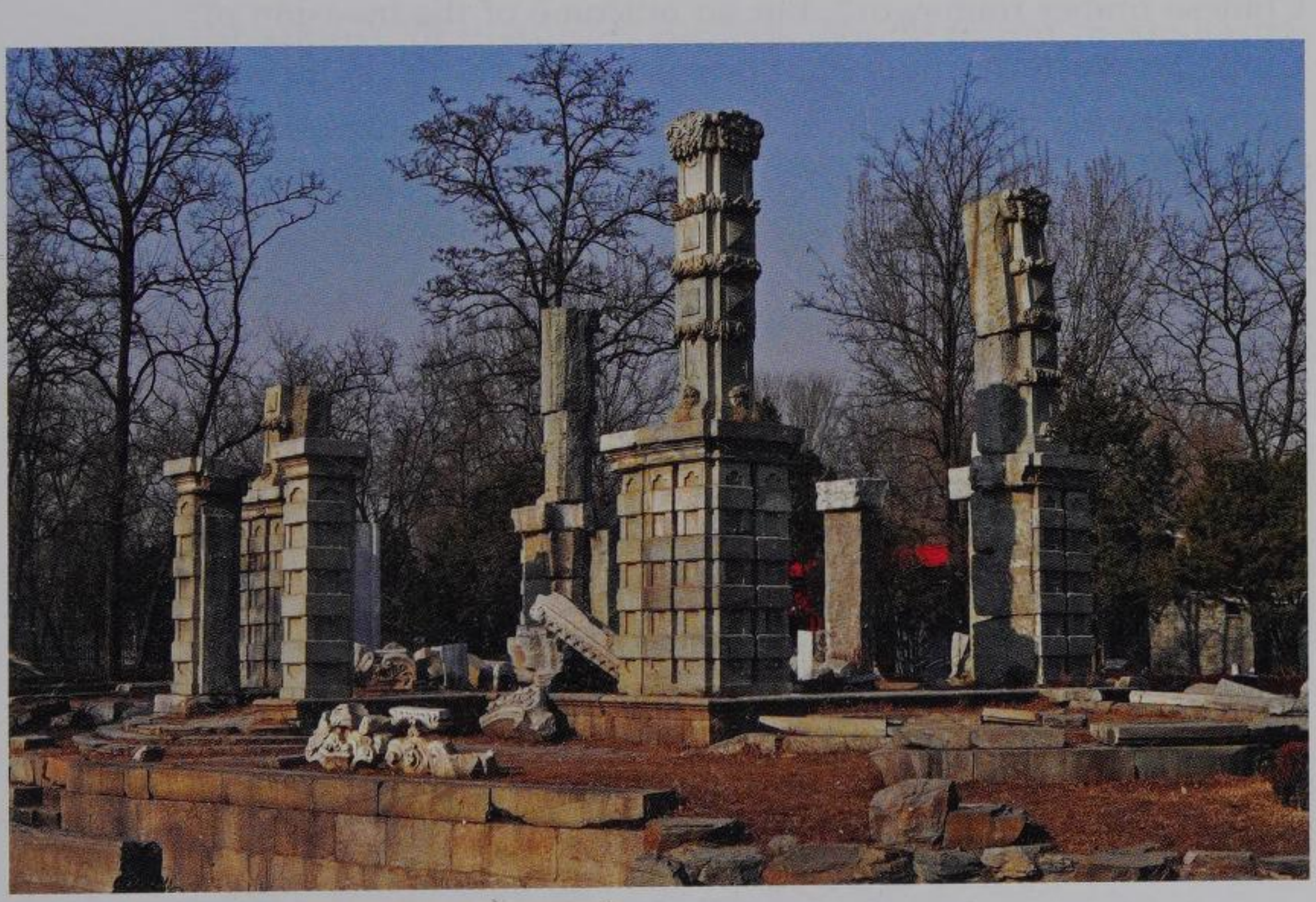
After the founding of the People's Republic of China (PRC) in 1949, China underwent several decades of socialist modernization. In the late 1970s, China introduced and implemented its policy of reform and opened to the influences of the rest of the world. During the past sixty years China has undergone massive economic and social change, and China's architecture has embraced the new era with open arms.

Western Influences on Chinese Architecture

Before the Opium War in 1840, a few western-style buildings existed in China, including the churches and shops built by the

Portuguese who settled in Macao in 1557, the buildings erected by Chinese merchants authorized to do business with Europeans in Guangzhou, as well as the aforementioned European-style buildings located in the Old Summer Palace in Beijing. However, these western-style buildings were neither widespread nor created an extensive influence on Chinese architecture. With the spread of western colonialism and imperialism, the collapse of the feudalistic economic structure and the development of capitalism in China after the Opium War, western architectural styles began to have a widespread influence. The architectural styles and technologies of the modern times began to appear in China one after another, creating a new architectural system for modern China, whereby the old and new systems co-existed. This also led to a merging of Chinese and western architectural styles.

The development of the modern Chinese architectural system was not entirely the progressive evolution of the traditional



Remains of western-style buildings in the Old Summer Palace, Beijing.

European-style building in the mansion of Wu Yinsun, the "Inspector of Circuit," in Yangzhou which was used to welcome foreign guests.

Chinese timber framework, but an outcome of the invasion of China by western imperialist powers. As a result, buildings defined by the new system of architecture were mainly built in large cities, especially in cities with a port authorized by treaty for international trade or a city occupied by a single foreign concession. From these areas, the new architectural styles gradually spread to other parts of China.

From the latter half of the nineteenth century up to the 1930s, European and American architecture underwent a period of transformation from neoclassicism and romanticism to eclecticism and the new arts movement, and then to modern architecture. All these architectural styles were eventually featured, either on their own or in an inter-play of styles in the semi-feudal, semi-colonized cities of modern China. In the cities occupied by multiple foreign concessions such as Shanghai, Tianjin and Hankou, the city landscapes were more heterogeneous, with a mixture of then popular architectural styles from Europe and

the United States. Due to the presence of unified city planning, cities dominated by single imperialist powers such as Qingdao, Dalian and Harbin possessed a more harmonious integration of architectural styles.

Shanghai

Shanghai remains the city with the greatest influence in the modern architectural history of China. Following the opening up of Shanghai as a commercial port in the 1840s, western architects as well as western-trained Chinese architects introduced the culture of western architecture to the city. From the second half of the nineteenth century up to the early twentieth century, these architects built a large number of buildings that were artistically brilliant and functionally effective, and also represented a complete departure from the traditional Chinese architectural system and its concept of architectural space.

Modern buildings with architectural styles representative of almost all historical periods can be found in Shanghai.

Night scene, Shanghai Bund.

Western-style buildings, Shanghai Bund.

Architectural styles range from ancient Egyptian, the classical pillars of the Greco-Roman era, Byzantine, Roman, Russian Orthodox, Gothic, Renaissance, Baroque, Classical and Neoclassical to the styles of modern architectural schools of thought, as well as traditional Chinese palatial-style and folk architecture. As such, Shanghai could be described as a vivid historical account of the architectural styles of the world. These modern buildings reflected regional styles from countries all over the world including Britain, Germany, France, Italy, Spain, the Mediterranean region, the United States, India, Japan, Russia, Northern Europe and Islamic nations. Some of these regional styles were embodied in the overall look of the buildings, while others were featured in the use of decorative patterns, colors and details.

The origins of the development of Shanghai as a metropolis could be traced to the Bund, the historic riverside area of the city. The architecture of the Bund has undergone three pivotal phases in history, namely the birth of modern architectural forms during the mid-nineteenth century, the era of great prosperity of the late nineteenth century and early twentieth century, and the flourishing 1920s and 1930s. Until today, fifty-two buildings showcasing various architectural styles including Gothic, Baroque, Roman, Classical, the Renaissance and a mixture of the East and West, still line the west side of the Bund. Buildings most representative of the architecture on the Bund are the Bank of China, the Peace Hotel, the Customs House and the Hong Kong and Shanghai Bank. Although the works are of different

architects with varied styles, the architectural styles of these buildings still integrate seamlessly to etch out a beautiful skyline along the west coast of the Huangpu River, renowned as "the exhibition of the architecture of 10,000 countries."

Tianjin

A short distance away from the political epicenter of Beijing, Tianjin's proximity to the capital city is a crucial factor in its recent city development. After 1860, several countries established foreign concessions in Tianjin, including England, France, the United States, Germany, Japan, Russia, Austria, Italy and Belgium. In fact, in Asia, the only foreign concessions established by Italy, Belgium and Austria were to be found in Tianjin, marking the city's unique position in the modern history of the world.

Western-style house in Five Grand Avenues, Tianjin.

Building activities in the foreign concessions were carried out on a large scale from 1900 to 1937, and especially from 1912 to 1937, with a multitude of architectural styles flooding the scene in a short period of time. Due to the impact of the First World War, some foreign concessions remained for only a short period of time and hence did not create much of an impact, while other foreign powers like England and France continued to expand their areas of influence, especially in the prosperous areas of Zhongjie Street and Quan Ye Department Store where building activities were clustered. The first street to be established in the Anglo-French Concession, Zhongjie Street (now renamed Jiefang North Road) was known as "the Street of the Banks," given the large number of banks built there. Many of these buildings showcased neoclassic architectural styles in the use of classical pillars. The buildings demonstrated an emphasis on symmetry and axis and the relationship between principal and subordinate features, creating elegant and opulent architectural compositions with precise proportions. Classic examples include the Hong Kong and Shanghai Bank (1925) and the Yokohama Specie Bank (1926).

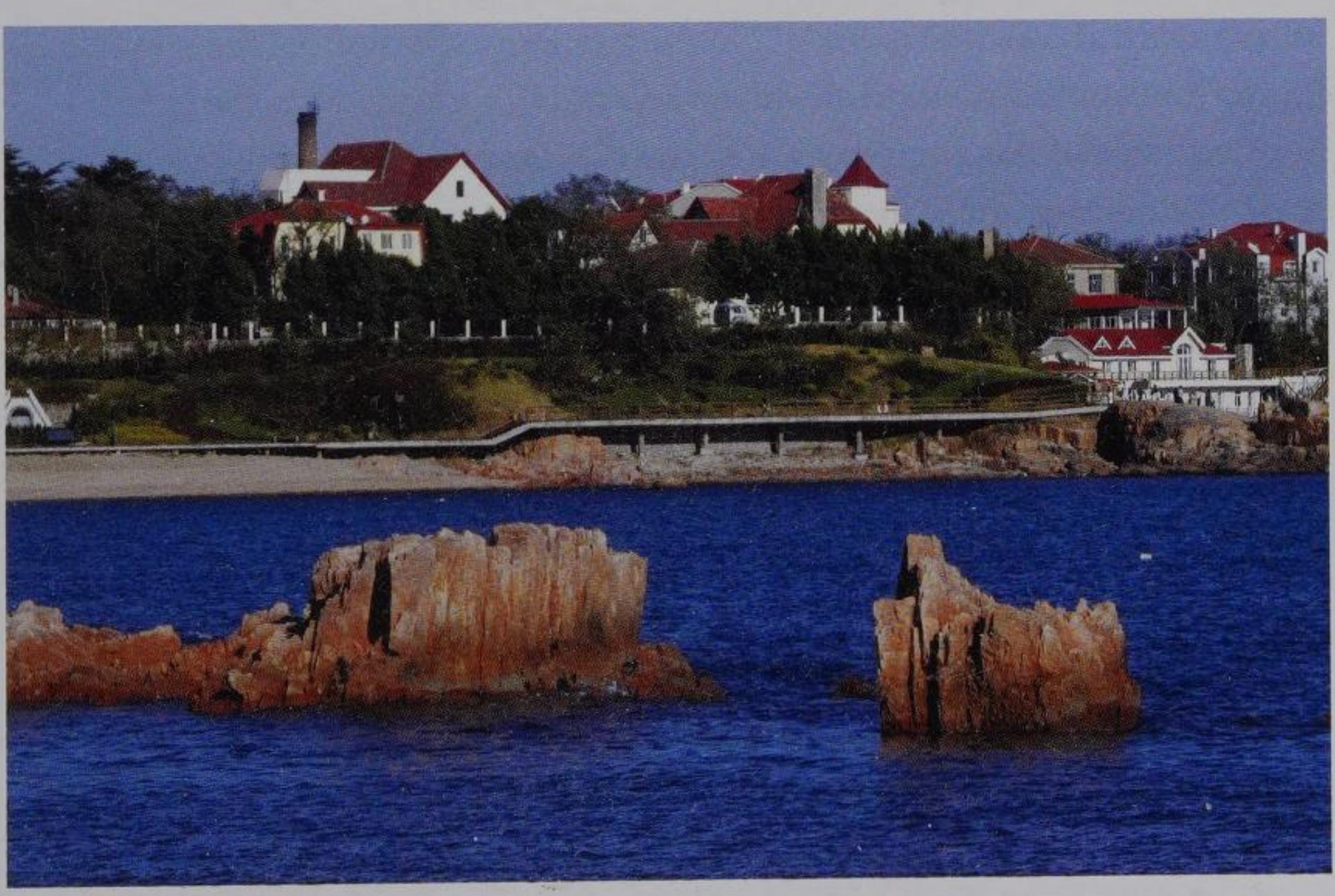
The commercial center of Tianjin eventually shifted to the area of the Quan Ye Department Store, located in the French concession after 1900. During the 1920s, there was rapid commercial development in this area, with a large number of commercial and entertainment complexes built, such as shops, hotels, restaurants and theatres. Quickly overtaking the old city area in terms of prosperity and commercial activities from 1922, landmark buildings built in the Quan Ye Department Store area included the National Grand Hotel (1922), the National Commercial Bank (1925), the Hui Zhong Hotel (1928) and the Quan Ye Department Store (1928). Although erected during the same time as the banks in Zhongjie Street, the architectural styles of these commercial buildings differed greatly from the "strict" styles of the banks. In the Quan Ye Department Store area,

buildings were created in a multitude of shapes and sizes, and featured a mixture of architectural styles influenced by modern architectural schools of thought. An example of this fluid style was the construction of tall towers to maximize commercial advertising effects.

Qingdao

Qingdao began to thrive as a city in modern times. During the initial twenty to thirty years of its development, it was reduced to a colony under German rule (1898–1914) and then subsequently Japanese rule, before it was finally taken back by the Chinese government in 1922.

The basic layout of Qingdao as a modern city was mapped out by the German colonial government in 1900, and was clearly influenced by then popular European urban city planning concepts of "zonal city" and "garden-style residences." Taking



Seaside villa, Qingdao Badaguan.

into consideration the topography of the island city, the colonial government devised networks of roads and buildings according to the natural coastline and mountainous terrain to advocate the picturesque, lively and carefree styles of city-planning in European cities during the turn of the twentieth century.

The former German governor-general's granite villa, Qingdao.

Although the Germans ruled Qingdao for less than twenty years, they left behind a great legacy of Bavarian-style architectural buildings. The city center of the Qingdao region, with a central axis measuring 200 meters, was located on the foot of the southern slope of Guanhaishan Hill. Located on the northern end of the city center was the Governor's Office while the Joeskee Memorial Tower could be found on the sea bay located on the southern end. Surrounding the city center were landmark buildings such as the Jiao'ao Court of Law (1912), the British Consulate (1907), the Hotel Wirtshaus Fur Katz and the Hotel Prinz Heinrich (1911).

At the same time, there were also buildings based on the new Renaissance architectural styles of Germany, including the Qingdao Railway Station (1902), Jiao'ao Police Station (1905), Jiao'ao Post Office (1910) and the Deutsch-Asiatische Bank (1906). The "Red House" bore the style of the New Arts Movement while the Beach Hotel (1904), with its bare wooden framework, and the Marine Club (1899) were also important landmarks under German rule..

Built in 1906, the German governor-general's office was the grandest building of that era, possessing specific baroque-style elements as well as "Windsor-style" rooftops. On the other hand, the Governor's Villa (as known as the Granite Mansion, 1906) and the Governor's Residence (1908) were built in styles quite different from Bavarian architecture of the same period, with their granite facades and complicated layouts of overlapping rooftops.

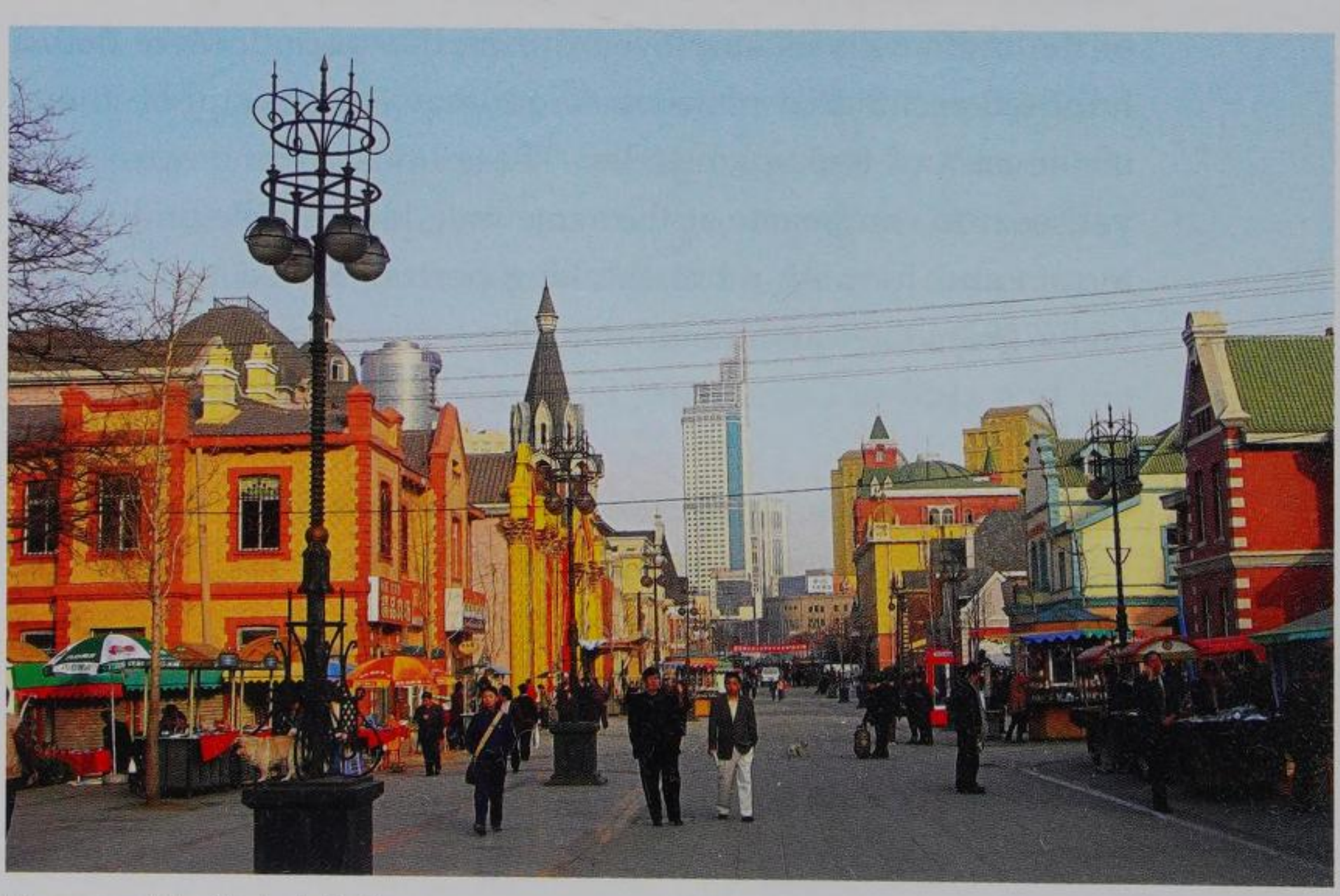
The stand alone mansions built in Qingdao during German rule had the greatest impact on the overall look of the city. The prevalent school of architectural design in Europe at the time was inspired by the Art Deco movement, which resulted in the popularity of garden-style residences. The garden-style mansions also reflected the individual owners' tastes, leading to the proliferation of mansions with half-timber structures, colonial-style mansions, neoclassic structures and gothic-style residences. Mansions built in the area of Badaguan were most representative of the myriad styles employed during that period. More than a hundred residential mansions from that era can still be found in the area of Badaguan today. These houses stand apart, and yet seem to congregate at the same time, dotting the undulating terrain and forming a breathtaking portrait of red tiles, yellow walls, green trees and mountains, blue sea and azure sky.

Dalian

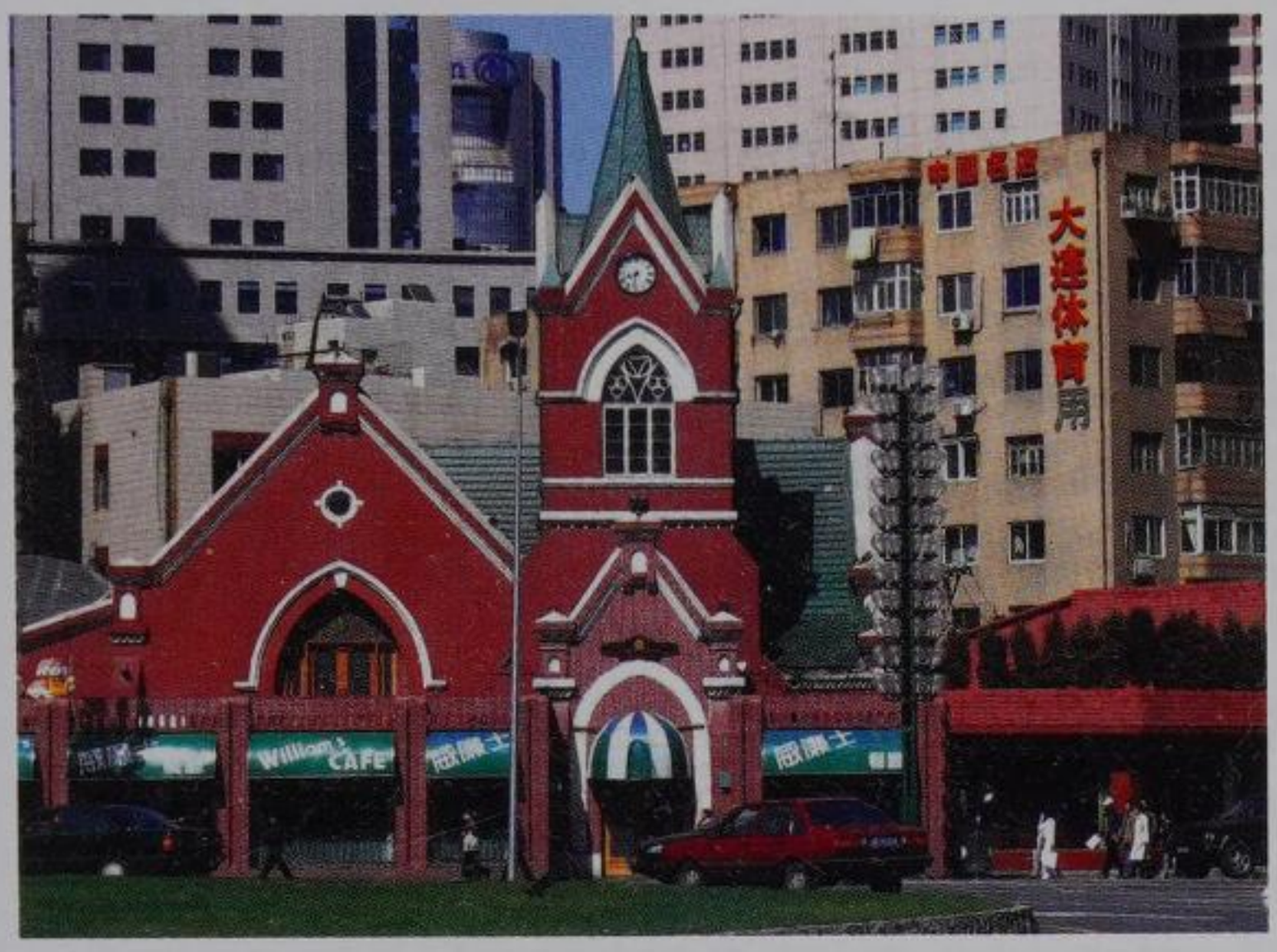
Located at the southern tip of the Liaodong Peninsula, Dalian is the hub of marine traffic in Northern China, and has critical economic and military importance attached to its strategic geographical location. In 1898, Dalian became a Czarist-Russian concession and, henceforth, began its journey as a modernizing colonial city. In 1905, Japan invaded and occupied Dalian, speeding up the process of colonizing the city until the end of the Second World War in 1945.

The architectural development of Dalian can be divided into three phases. In the earliest phase, the Czarist-Russian regime established the basic structure and layout of the city according to the Russian city structure of central squares with avenues radiating outwards, creating a city reflecting Russian , European and eclectic styles. At the same time, the Russian folk architecture of wooden structures also appeared in Dalian, with the construction of intricate little wooden houses topped with green-colored turrets, and covered with feather-shaped tiles. An example of this eclectic style of architecture would be the business school set up during that era, which incorporated the mountain flower motifs of Greek and Roman colonnades.

The Japanese regime continued to build upon the foundation of the Russian regime's urban planning scheme, replicating European and American classical architectural designs for



European-style blocks in Dalian.



European-style building, downtown Dalian.

buildings to spruce up the Large Square and hasten urban development. Around the Large Square are many examples of historical landmarks which shaped the second phase of urban development in Dalian, including the Dalian Civil Administration Office (Dalian Foreign Trade and Economic Cooperation Bureau today) with its Gothic-revivalist architectural style, the Yokohama Specie Bank decked out in Renaissance style of the later period (Bank of China today), the Yamato Hotel with its Renaissance style (Dalian Hotel today) and the Bank of Korea of the Classical-revivalist style (The People's Bank of China today).

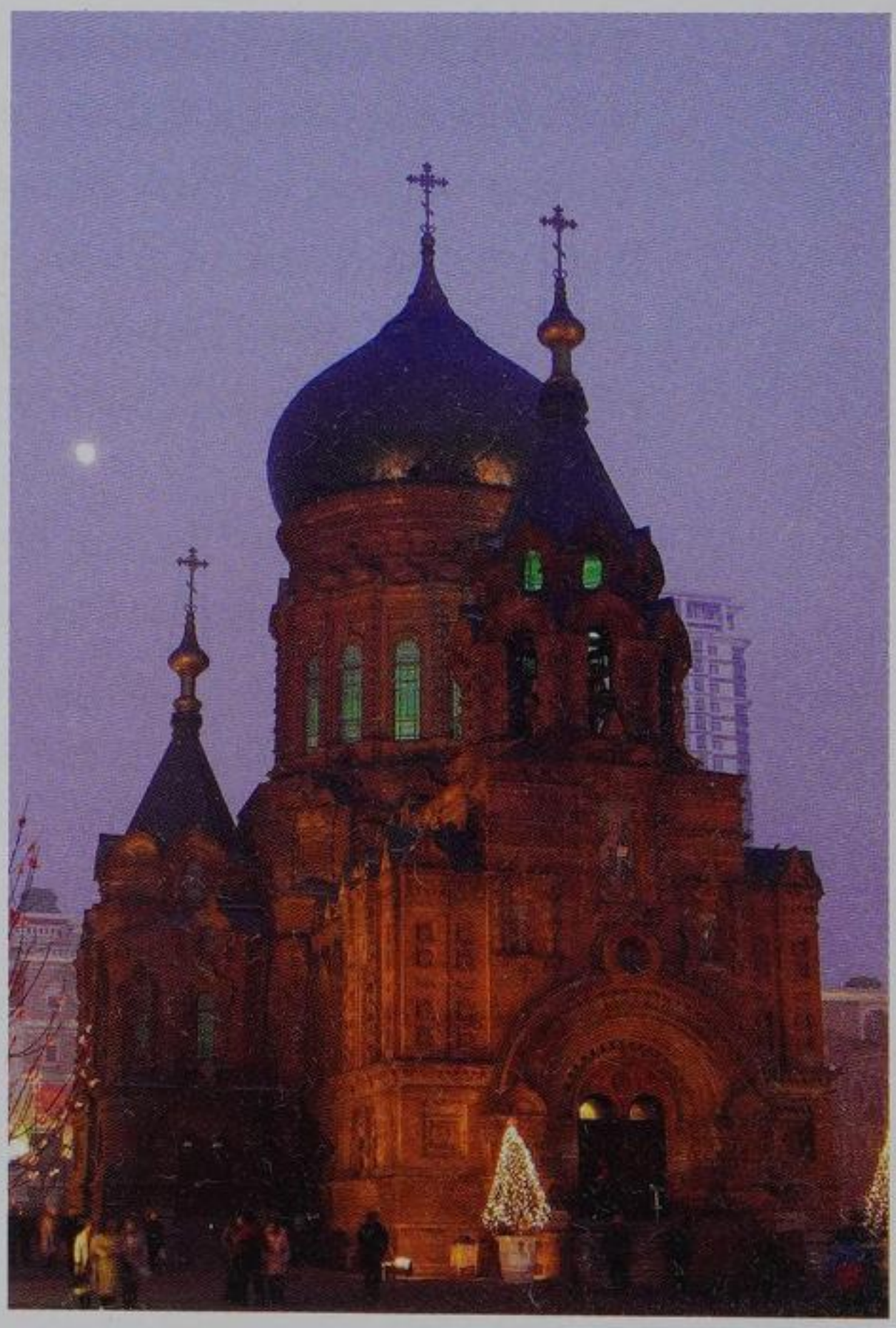
As the Japanese regime continued with its further military invasion of China, Dalian was regarded as the base for its expansionist strategy and greater efforts were made to develop urban planning. During the late 1920s, Japan was increasingly influenced by popular modern German architectural schools of thought. During the 1930s, the adoption of these German styles by the leading Japanese architects in Dalian led to the creation of many buildings which were examples of international architectural styles, interspersed with natural and fluid elements of Japanese design. Henceforth, the development of these architectural styles had the greatest impact upon the overall look of Dalian city and also marked the third phase in the city's modern architectural history.

Harbin

Harbin was founded as a city in 1898 by the Czarist Russian regime which was constructing the Trans-Siberian Railroad across northeastern China. As a result of its special historical background, a unique urban architectural culture comprising a blend of traditional Russian folk architecture, old and modern western-style architecture and traditional Chinese architecture was created.

The planning of the urban layout of Harbin commenced in 1899. It was modeled on the Russian capital, Moscow, and was divided into several districts by inter-connecting railway tracks. Many of the buildings showcasing traditional Russian architecture and the designs of the new Art Deco Movement were built on China Street in Butou District (now Central Street in Daoli District), including the Concord Bank (1917), the Modern Hotel (1913), Qiu Lin Business Shop (1919) and the Russian Immigrants' Association (1909). Built in 1903, the Harbin Railway Station served as the gateway to the city and is a landmark in its own right, with its Art Deco design elements.

The Russian Orthodox Church played an important role in shaping the landscape of Harbin and the number of Orthodox Churches in Harbin had reached twenty five by the 1930s. As



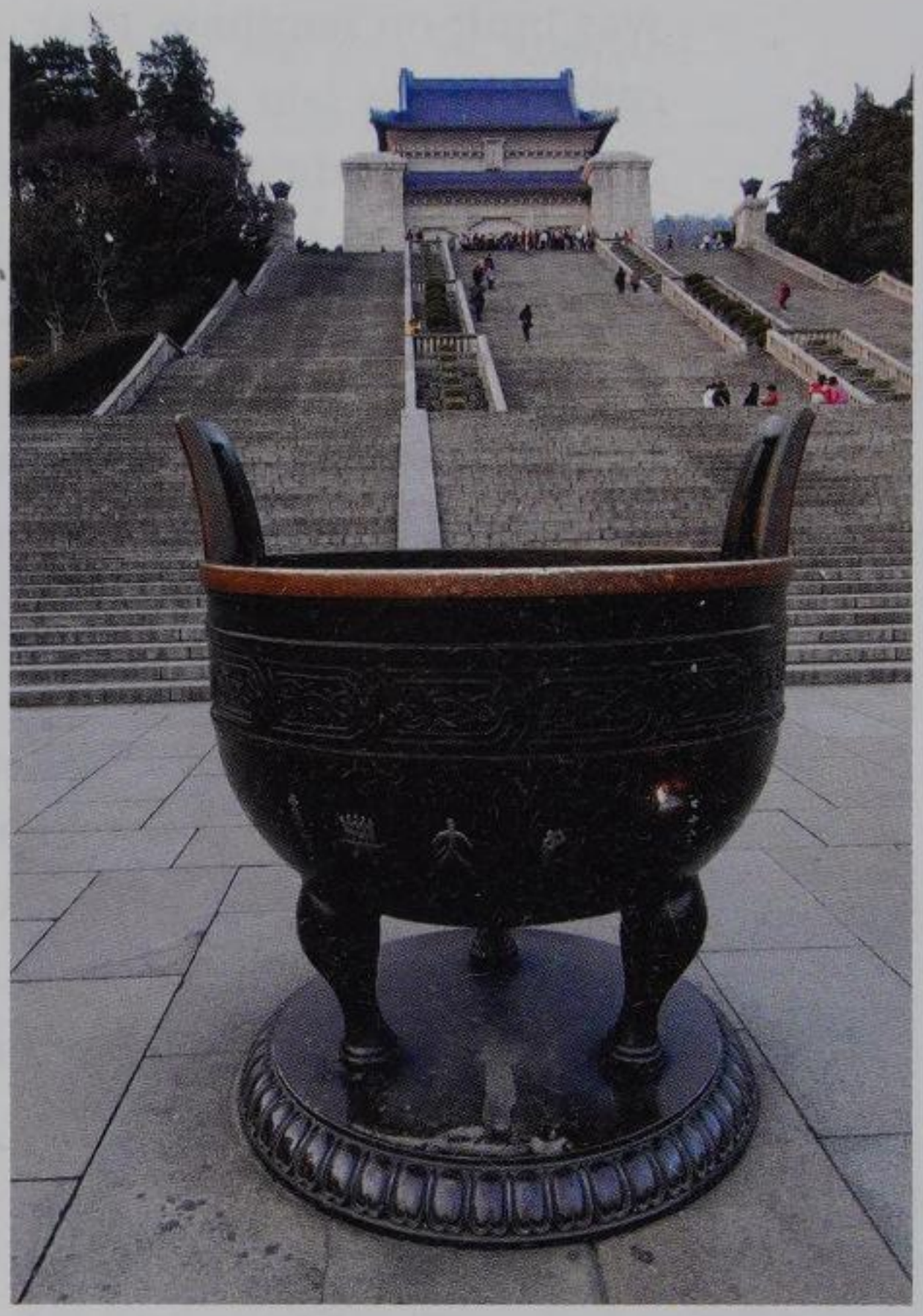
The largest church in the Far East—St. Sophia Cathedral, Harbin.

early as 1898, the St. Nicola Cathedral of the Orthodox faith was built on Southern Peak, the highest point in Harbin. The cathedral was laid out in the shape of the Greek cross and was built like a traditional Russian wooden structure with tent-like, octagonal roofs topped with onion-shaped domes. Once hailed as the symbol of the "Moscow of the East," the St. Nicola Cathedral has since been demolished. Built from 1923 to 1932, the St. Sophia Cathedral was the largest Orthodox Church in Harbin. Its design was chiefly defined by the Byzantine architectural style with the use of brick arches and its floor layout, in the shape of the Latin cross, had the highest points at each end sheltered by tent-like roofs topped with onion-shaped domes. The highest point at the intersection of the cross-shaped layout was topped by a giant onion-shaped dome, which functioned as the core structure of the cathedral, lending it an aura of magnificence akin to the St. Sophia Cathedral of Constantinople. It is still the visual highlight for visitors to Harbin today.

The New National Formalism Architecture

In the early twentieth century, many Chinese architects had mastered western architectural techniques through various educational channels, whilst China's own architectural education sector gradually took shape. Many students received standard western architectural training overseas and one after another returned to China to practice. Chinese architecture thus entered a period of collaboration between Chinese and western architects. In addition to the aforementioned Sinicization of church building, the design methods of western architects also influenced and stimulated experimentation by Chinese architects, resulting in architectural works that were compatible with both national and

western styles. Examples of this compatibility include the North Tower of Jinling University, built in Nanjing in 1919; the Sun Yat-sen Mausoleum in Nanjing, built between 1926 and 1929; and the Sun Yat-sen Memorial Hall, built in Guangzhou in 1931. The Sun Yat-sen Mausoleum and its surrounding commemorative buildings honor Sun Yat-Sen (1866–1925), the "founder of the nation" and one of China's greatest politicians and reformers. The mausoleum is on a north-south axis and covers a surface area of over 80,000 square meters. The cemetery takes on the shape of a bell, and the main structures are the arches, passageways, tomb doors, stone steps, stone tablet pavilions, sacrificial halls and burial chambers, all arranged along a central axis and thus reflecting the traditional Chinese architectural style.



Sun Yat-sen's mausoleum in Nanjing.

In the 1930s some of the insightful Chinese architects dealing with both the new functional requirements of architecture and the features of modern technology, brought into expression a national style of architectural forms called the "new national formalism architecture." This attempt by Chinese architects has made a significant contribution to the combination of modernization and nationalization of Chinese architectures, and after 1949 the designs of national formalism architecture had a

profound influence. This type of architecture can mostly be found in the then capital, Nanjing, including the Ministry of Foreign affairs, built in 1933, the main building of the Central Hospital, built in the same year, the National Museum of Art, built in 1935, and many more.

Exploring Chinese architectural culture became a necessity during this period, and the Chinese Construction Society, founded by Zhu Qiqian in Peking (Beijing) in 1930, was formed, and dedicated to the study of ancient Chinese architecture. In its fifteen year existence, renowned members such as Zhu Qiqian, Liang Sicheng, Liu Dunzhen, Han Duo, Liang Qixiong, Shan Shiyuan, Chen Zhongchi and Wang Biwen, took many field surveys and collated ancient records. They researched historical architectures in over 220 counties in 15 provinces. Having surveyed, studied and photographed more than 2,000 old buildings, they came to have a basic understanding of the architectures of the Tang, Song, Liao and Jin dynasties, from the third century to the twentieth century. As a result of this study, they developed a clearer understanding of historical development from time immemorial to the twentieth century, and laid a solid foundation for the further study of Chinese architectural history.

The major transformations in China's modern political and economic conditions meant that the main factor influencing construction activity was war and the major political events closely associated with war. As a result of China's Civil War and the War of Resistance against Japanese Aggression between the years of 1937–1949, China's construction activity entered a period of stagnation. Throughout the wars, the inland city of Chengdu was the only place to experience any development. After the Second World War, modernist architecture dominated the building process. After the war China constructed a small number of buildings that employed pure modernist architectural

styles: in 1935, the Allied Architects designed the American Advisory Group's AB building. Completed in 1945, the building's exterior had a flat roof, simple façade and a large area of banded steel windows that formed and divided horizontal lines—a model example of modern architecture. In 1948, Allied Architects designed the First Commercial Bank of Zhejiang Province. The building's smooth horizontal lines, simple shape and sensible interior all demonstrated a mastery of modernist architectural techniques. Yang Tingbao with Kwan, Chu and Yang Architects' designs for the expansion of the Nanjing Xiaguan Railway Station in 1946, the Public Highways Administration building at Fuhougang Nanjing in 1947, the Xinsheng Club at Xiaoying, Nanjing, New Life Club in 1947, the Central News Agency in 1948–1949, Sun Ke's Residence in 1948 and many others are all archetypes of pure modernist architecture. In short, although post-war construction in China was relatively slow, it nonetheless clearly followed the worldwide trend of modernist architectural design.

Towards a New Architecture

The People's Republic of China was established on October 1, 1949. After that time, everything in China, from its social system to the domestic and international political, economic and cultural environment underwent tremendous change. In the 1920s and 1930s, China's first generation of architects began to put modernist architectural techniques into practice. The growth of modernist architectural ideology, as well as China's objective requirements for it, together formed the basis for the self-renewal of Chinese modernist architecture after 1949. The development of Chinese modernist architecture displayed a seamless historical continuity before and after the founding of the new Chinese nation. In the first half of the twentieth century, the course of

China's modernist architecture traveled through the gunpowder smoke and wounds of war, and then by virtue of fresh hope and inspired vision gave birth to a new beginning.

The 1920s and 1930s experience for Chinese modernist architecture culminated in the severe test of China's War of Resistance against Japanese Aggression. The first generation of famous Chinese architects such as Yang Tingbao, Zhao Shen, Chen Zhi, Tong Jun, Zhuang Jun, Dong Dayou, Lin Keming and others joined the ranks of the builders of the new nation. Towards the end of the 1930s and the early 1940s, architectural students such as Wang Dingzeng, Huang Zuoshen, Feng Jizhong, Wang Daihong, Chen Zhanxiang and Jin Jingchang began to return from abroad, as well as Hua Lanhong and Lin Yueyi and others in the early 1950s. While abroad they witnessed firsthand the modernist architectural movement, and brought back the latest concepts in western modernist architectural design and urban planning. Furthermore, they brought China's architectural circles into closer contact with architecture's international modernist movement and vice versa. Meanwhile, in the 1940s, a new generation of talented architects coming out of China's advanced training programs gradually formed the backbone of Chinese modernist architecture.

Between the years of 1949 and 1957, the PRC established a national economy and worked to restore construction and development. It was faced with healing the wounds of war, reinstating production and stability, and the difficult task of improving the standard of living. In addition, modernist architecture's functionalism and opposition to ornamentation meant that design was to be used to change the lives of ordinary working people, while new building materials and tools were used to adapt to the requirements and principles of an industrializing society. The early 1950s saw the nationwide birth of a set of outstanding works of domestic modernist

architecture, for example the Sun Yat-sen Medical School's biology building in Guangzhou province, designed by Xia Changshi and built in 1953, the Beijing Children's Hospital, designed by Hua Lanhong and Fu Yitong and built between 1952 and 1954, Tongji University's Wenyuan building in Shanghai, designed by Huang Yulin and Ha Xiongwen, and built between 1951 and 1954, the Wuhan Medical School's hospital, designed by Feng Jizhong and built between 1952 and 1953, the Tongji University faculty club, designed by Li Dehua and built in 1956, and many others. These structures all served to reflect the continuity of modernist architectural design after the founding of the PRC in 1949.

With the introduction of the Soviet Union's socialist architectural ideology, however, many modernist architectural concepts such as cosmopolitanism and deconstructionism were criticized as capitalist and imperialist. The nation then began to emphasize its own movement towards a unique national style. Influential works such as the Beijing Xiyi Hotel, the Chongqing Great Hall of the People, the office buildings of the ministries under the State Council at Sanlihe, Beijing, and several others all had enormous, palace-like roofs that were covered with colored glazed tiles, eaves structurally reinforced with steel bars and imitation wood made of concrete, covered with colorful pictures, and doors and windows in the ancient style. Not long after these buildings were constructed, a campaign to promote efficiency criticized these "big roof" designs as revivalist, and their use was discontinued. Due to the intervention of politics, the architectural ideology of the time could not prevent the withdrawal of China's architectural scene of the 1930s and 1940s from reaching a consensus with modernity.

During this period, with Beijing at the center, the artistic value of architecture was affirmed. In 1959, to celebrate the tenth anniversary of the founding of The People's Republic of

Built in the 1950s, the Great Hall of the People is one of Beijing's "Top Ten Architectural Buildings".

China, the central government decided to construct ten large-scale building projects in the capital. On September 5, 1958 the government assessed the projects' architectural requirements, and on 25 October construction began. By October 1959, after only one year, the following 10 buildings had been completed: the Great Hall of the People, the Museum of Chinese Revolution and Chinese History, the Military Museum of the Chinese People's Revolution, the Beijing Railway Station, the Beijing Workers Stadium, the National Agricultural Exhibition Center, the State Guest House, the Nationalities Cultural Palace, the Nationalities Hotel and the Overseas Chinese Hotel. This marked a national mass movement in architectural planning. Precisely because the nation focused on these "Top 10" buildings, the level of both design and construction reached its peak, symbolizing the milestone that marked the first decade after the founding of the new nation.

The Beijing Fragrant Hills Hotel was designed by renowned Chinese architect Pei Leoh Ming, making it the first building designed by a foreigner since China's reform began in 1978.

During the period of the Cultural Revolution between 1966 and 1976, construction in China essentially stopped, as all government design departments were paralyzed. From the point of view of architectural development, the Cultural Revolution was a decade of "all-around regression, partial progression." The "partial progression" in this phrase refers to some construction that met specific demands in a few sectors such as sports, diplomacy, and foreign aid, and which all reflected elements of modernity.

In October 1976 the Cultural Revolution ended, and over the next ten years Chinese society underwent great changes, especially in the building sector. The greatest change came as the influence of politics waned, allowing Chinese architecture to enter a new atmosphere of innovation and exploration.

With China's architectural scene having been isolated from the international modernist movement for almost thirty years,

its gaze once again returned to the west and began a new a process of wide-ranging introduction of western architectural concepts. As modernist architecture recovered from its long-term suppression by public attitudes and official policy, out of China's architectural scene emerged an ideological trend and movement towards the large-scale introduction of modernist architectural theory. Within China many projects were built by famous architects from abroad, such as the Beijing Fragrant Hill Hotel, designed by Ieoh Ming Pei from the United States and built between 1979–1982; the Beijing Jianguo Hotel, designed by the Chen Yiyuan architectural firm from the United States and built between 1980–1982; the Nanjing Jinling Hotel, designed by the P & T Group from Hong Kong and built in 1980–1983; the Beijing Great Wall Sheraton Hotel, designed by international architectural firm Ferraro Choi from the United States and built in 1979–1983, as well as many others.

Reaching a deeper understanding of architectural traditions necessitated a reflection on the long road that had been taken in Chinese architecture, as well as Chinese and foreign cultures and ideas. In addition to the unprecedented scale of the construction tasks, this reflection contributed to an age of pluralism in Chinese architecture. In this period, China had rich and varied architectural styles, which can roughly be categorized as archaism, neoclassicism, neo-regionalism, native pluralist modernism and neo-environmentalism.

Neo-traditionalism, also known as archaism, is a modernist expression of traditional forms. Part of the new architectural style is based on the specific conditions, needs, and traditional forms of practical usage, but such buildings have even greater differences in their exterior appearance compared to traditional buildings. An example of this style can be found in the Queli Hotel, built in 1985 in the city of Qufu in Shandong province and designed by Dainian Ci, Fu Xiurong and Yang Jianxiang. It

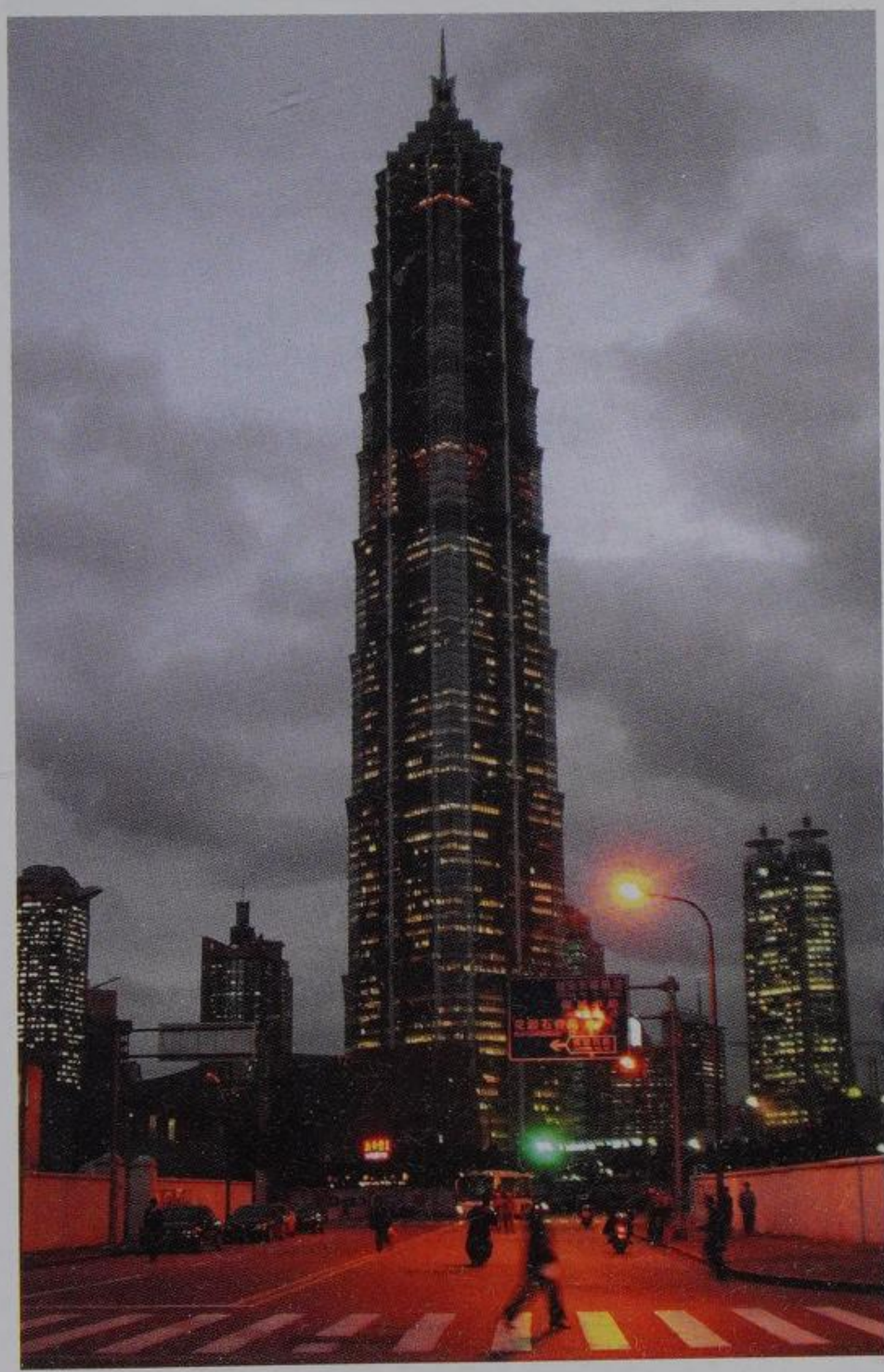
utilizes modern structural systems, with the central hall adopting a quadruple support square fulcrum, the exterior boasting a cross-shaped hip and gable roof, and the interior space in the natural form of an umbrella, with none of the usual structural constraints. Another example of this is the three engineering marvels of the Big Wild Goose Pagoda scenic area in Xi'an, which use Tang Dynasty architectural forms combined with modernist and functional facilities, materials and landscapes. These works draw on tradition rather than simply imitating the conventional, well-known ancient buildings of the area.

Neoclassicism, also known as modern classicism, promotes the application of both western and Chinese classical architectural rules to contemporary architecture. Balance and solemnity are the artistic effects of neoclassical buildings, the proportions, composition, details and layouts of which are carefully designed. An exemplar of neoclassical architecture in China is the New Building of Tsinghua University Library. Designed by Guan Chaoye and completed in 1991, it was integrated with the existing buildings completed in 1919 and 1931 respectively to form a harmonious unity.

Neo-regionalism emphasizes the expression of local and national cultural traditions, and attempts to find a meeting point between modern technology and traditional culture. Additionally, urban redevelopment and its related construction activities promote the protection of the traditional urban fabric as well as important cultural heritage buildings, making it one of the most innovative fields in contemporary architecture. In their search to diversify modernist architecture with the distinct ethnic traits of different areas, many Chinese architects are struggling to design buildings that incorporate these local characteristics. Some example works can be found in the Fujian Village Hotel, which possesses a flavor of the local residential dwellings of Wuyi Mountain in northern Fujian province, and the Huangshan

Cloud Valley Villa Hotel in Anhui province, which uses traits from dwellings in the south. Meanwhile, the Shanghai Jinmao Tower reflects Chinese architecture's perfect combination of modern science and technology.

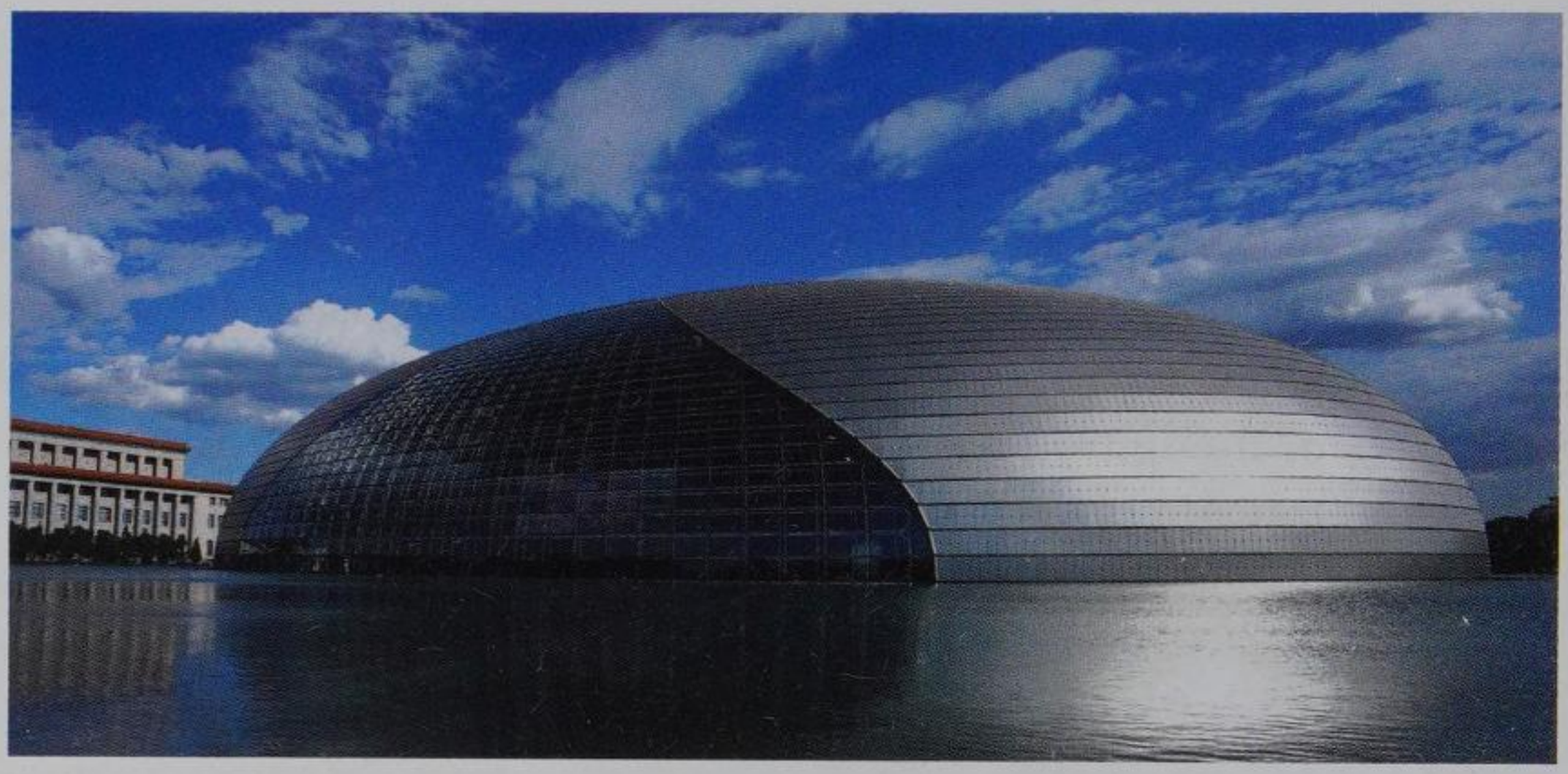
Modern pluralism strives to keep architecture in vogue and contributes to the introduction of contemporary currents of thought in western architecture to China. One can find in China buildings in a range of different contemporary architectural styles such as postmodern, light-tech, high-tech and structural.



Located in Shanghai's Pudong district, the Jinmao Tower is 420.5 meters tall, making it China's second highest building behind the 492 meter Shanghai World Financial Center.

In recent years neo-environmentalism, also known as eco-ism, has emerged as a new concept in the development of architectural thought. Strategies involving sustainable development, resource conservation, green building, and other ecological-environmental topics have begun to enter the scope of architectural thought.

A vigorous boom in construction at the start of the twenty-first century led to new global architectural styles and a fresh direction in the development of



The National Grand Theater in the heart of Beijing.

architectural thought and debate. Nothing represents this trend better than China's National Grand Theater, the Beijing Olympic Stadium and the new CCTV tower.

The National Grand Theater is located in central Beijing's West Tian'anmen Square, on the western side of the Great Hall of the People and south of West Chang'an Avenue. On both the north and south sides of the main building are underwater corridors, underground parking garages, artificial lakes and green spaces. The theater has a total area of 118,900 square meters and a total construction area of about 165,000 square meters, of which the main building occupies 105,000 square meters and affiliated underground facilities an additional 60,000 square meters. The main building's external space is enveloped by an oval-shaped steel shell, while the inside consists of an opera house with 2,091 seats, a concert hall with 1,859 seats, a theater with 957 seats, as well as a large public hall and supporting spaces. The oval shaped shell is surrounded by an artificial lake with an area of 35,500 square meters, and numerous passageways and entrances exist under the water.

The design of The National Grand Theater was presided over by French architect Paul Andreu. Construction started on December 13, 2001, and was completed in September of 2007. The theater has an avant-garde style and the large oval shape seen from Chang'an Avenue appears somewhat "extraterrestrial" and clashes with the surrounding environment. Ever since the building's design was chosen, not a day has passed without some controversy over the cost, environmental impacts and effects on the surrounding atmosphere.

The best known of the 2008 Olympic venues is "The Bird's Nest," designed by Swiss firm Herzog & de Meuron and the China Architecture Design & Research Group. In addition, the famous National Swimming Center, better known as "The Water Cube," was jointly designed by the China State Construction and Engineering Corporation and the two Australian firms PTW Architects and ARUP.

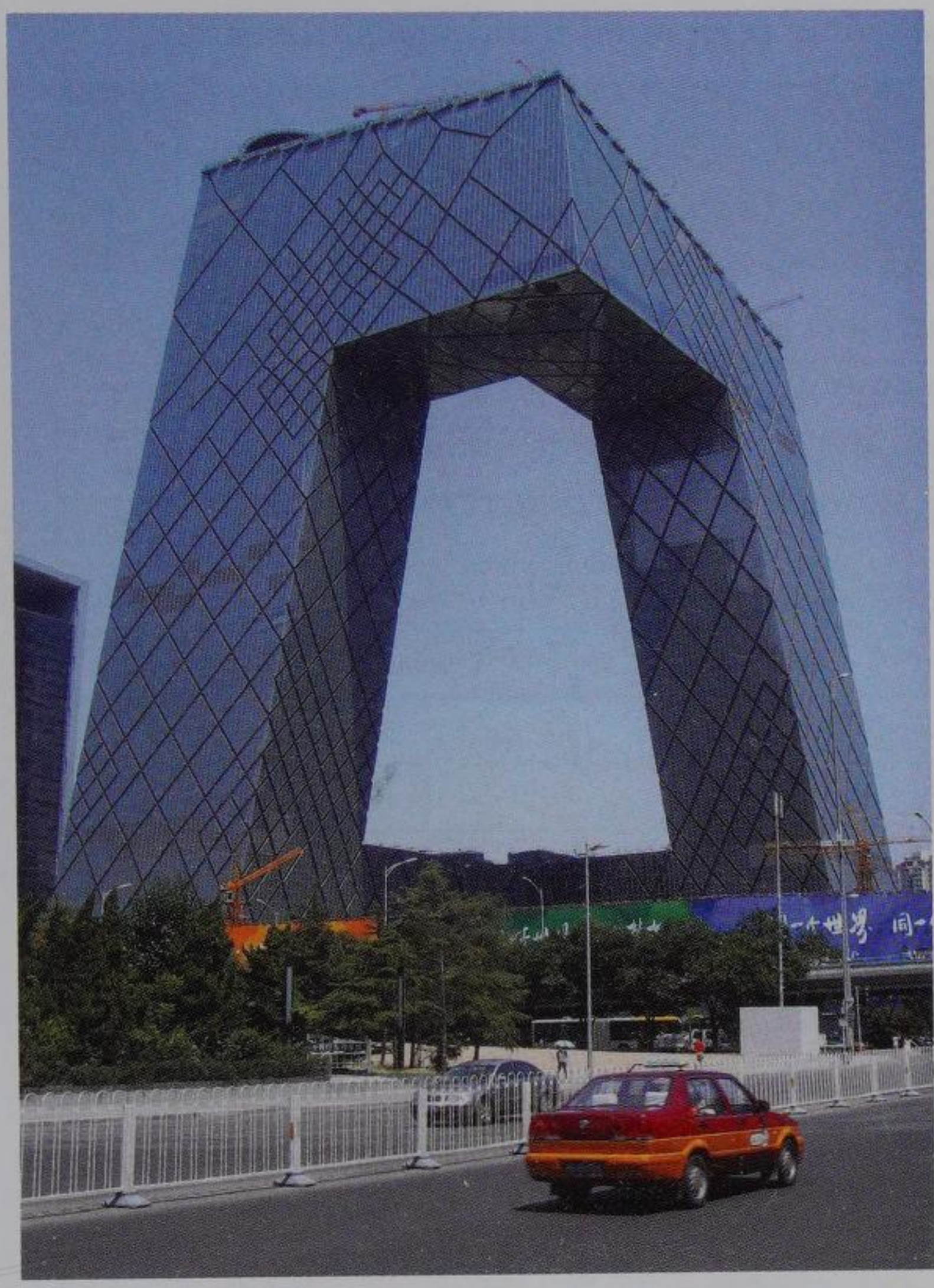
The Bird's Nest is located in the south central area of the Beijing Olympic Park, and was the main stadium of the twenty-ninth Olympic Games in 2008. It has a total area of 210,000 square meters and a construction area of 258,000 square meters. The inside of the stadium can seat 91,000 spectators, with an

The main stadium of the 2008 Beijing Olympics, the "Bird's Nest."

The National Aquatics Center, the "Water Cube", at night.

additional 11,000 temporary seats. The characteristic feature of the stadium is the saddle-shaped steel trusses that weave into an encompassing structure that resembles a bird's nest. After the Olympics it became a special venue for Beijing citizens to participate in a wide range of sporting activities and athletic enjoyment. The Bird's Nest has become a sporting landmark and carries on the Olympic legacy.

"The Water Cube" blends the architectural and structural designs into one. The form and arrangement of the cells create a membrane structure that resembles natural soap bubbles. The designers wrapped the "square box" in a layer of architectural skin, with the exterior surface all covered with ETFE film, which resembles the geometric molecular structure of water and also gives the building an ice-like appearance. In addition, it allows for a great deal of natural light to enter the venue and creates a unique and dazzling visual effect. Furthermore, it reflects a number of technological



The new CCTV building, which many people think subverts traditional concepts of architectural design.

and environmental features such as the streamlined layout of natural ventilation, a water recycling system and the efficient and abundant usage of high-tech building materials. Taken together, they make the National Aquatics Center a sign of the times.

Located in Beijing's central business district, the new China Central Television (CCTV) Tower is another example of architectural exploration. Designed by the Dutch architect Rem Koolhaas, the project has a total construction area of about 550,000 square meters. The main building is 234 meters high, with two towers that tilt inwards at a six-degree angle. For 163 meters the L-shaped arms link into a single structure, completely overturning the conventions of current architecture. The building's exterior, spatial effects, design, cost and other factors all caused considerable domestic controversy. Throughout the design and construction process and until its final completion, the CCTV building has always been the subject of public discussion.

If one was to say that some celebrated buildings still bear traditional, conservative characteristics, then the buildings constructed at the end of the century reflect the period of pluralistic coexistence that has been in evidence since China's reform in 1978. The National Grand Theater, the Olympic venues, the new CCTV tower and other avànt-garde architectural designs have triggered a huge amount of discussion and reflection. They reflect the dynamic atmosphere of contemporary China's architectural scene and signal the future direction of Chinese architecture.

Appendix:
Chronological Table of the Chinese Dynasties

The Paleolithic Period	c. 1,700,000–10,000 years ago
The Neolithic Period	c. 10,000–4,000 years ago
Xia Dynasty	2070–1600 BC
Shang Dynasty	1600–1046 BC
Western Zhou Dynasty	1046–771 BC
Spring and Autumn Period	770–476 BC
Warring States Period	475–221 BC
Qin Dynasty	221–206 BC
Western Han Dynasty	206 BC–AD 25
Eastern Han Dynasty	25–220
Three Kingdoms	220–280
Western Jin Dynasty	265–317
Eastern Jin Dynasty	317–420
Northern and Southern Dynasties	420–589
Sui Dynasty	581–618
Tang Dynasty	618–907
Five Dynasties	907–960
Northern Song Dynasty	960–1127
Southern Song Dynasty	1127–1276
Yuan Dynasty	1276–1368
Ming Dynasty	1368–1644
Qing Dynasty	1644–1911
Republic of China	1912–1949
People's Republic of China	Founded in 1949

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Ancient Chinese architecture not only is a source of reference for modern Chinese design, it also has had an international influence and attracted global attention. Moreover, architectural remains in China reveal much about the history of this ancient civilization. The palaces, gardens, temples, tombs, and dwellings of the Chinese people reflect, for example, the military achievements of the Qin emperor, the spirit of the Tang Dynasty, the palace intrigues of the Ming Dynasty, the diversity of Chinese culture through the ages, and the skill of countless generations of craftsmen and laborers. *Chinese Architecture* provides an accessible, illustrated introduction to this essential part of China's cultural heritage.

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