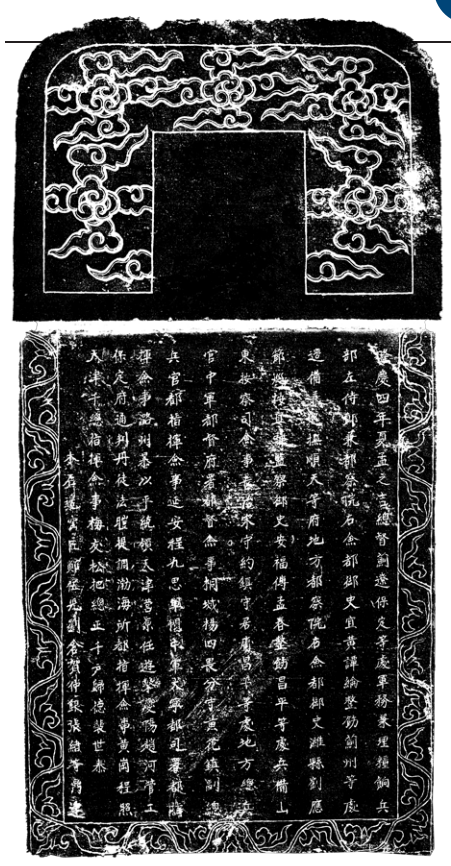
CULTURAL HERITAGE



Digging up our knowledge of the past

Archaeologists continue to add to the fascinating history of Beijing as a capital city, **Wang Ru** reports.









Top left: The earliest known stone tablet found from a lookout tower of the Jiankou Great Wall, Beijing, which records the date of construction and the names of builders of the tower. **Top right:** A ceramic vase found from the newly discovered graveyard of the Ming Dynasty (1368-1644) imperial family at the foot of Xiangshan Mountain in Beijing.
Clockwise from top: Archaeologists and technicians work on the excavation of the Ming imperial graveyard last year. A bird's-eye view of remnants of the lookout tower at the Jiankou Great Wall from which archaeologists discovered traces of the color red. The newly excavated part of Jin Zhongdu Site in Fengtai district, Beijing. PHOTOS PROVIDED TO CHINA DAILY

Fresh stories of Beijing's long history are gradually emerging, thanks to hard work by archaeologists. Details of new discoveries spanning 2,000 years from the Western Zhou Dynasty (c. 11th century-771 BC) to the Qing Dynasty (1644-1911) have recently been released by the Beijing Municipal Cultural Heritage Bureau.

The city's stint as the national capital began 871 years ago when the Jin Dynasty (1115-1234) moved its capital to Beijing in 1153, calling it Zhongdu ("the central capital"). It was located mainly in what is today's Xicheng and Fengtai districts.

The recent discovery of a gate from the Jin Zhongdu era is among the highlights revealed by archaeologists.

"This is our first discovery of a Jin Zhongdu gate, and also our first time excavating one of them," says Ding Lina, a researcher at the Beijing Institute of Archaeology. "It's a rare example of a large-scale building foundation on this site discovered with its structure intact."

Historical records

The gate is composed of two piers on the eastern and western sides of a 6-meter doorway, which reveals traces of wheels and possibly hoofs, suggesting the coming and going of carriages and people on horseback, Ding says.

Outside the gate is a horseshoe-shaped *wengcheng*, a type of defensive enclosure often built out of city gates in ancient China.

Inside the city, the remains of two streets have been discovered.

According to Guo Jingning, director of the Beijing Institute of Archaeology, although the rulers of the Jin Dynasty were the Jurchen people, nomads from what is now northeastern China, they made use of many Confucian ideas from the Central Plains in the building of Zhongdu.

"For example, they built gates for the city, whose names included the characters for *ren* (benevolence), *yi* (righteousness), *li* (propriety) and *zhi* (wisdom), some basic moral principles advocated by Confucianism. Among them was a southern gate called the Duanli Gate," Guo says.

Ding says that the location of the discovery accords with historical records, and its shape and size all suggest that it was the Duanli Gate.

"In the past, our understanding of Jin Zhongdu was limited to literature and a few archaeological discoveries, but we had failed to find such a landmark structure. The study of an ancient city is not complete or satisfactory before finding its gates and streets, and efforts this time helped fill in the blank," Guo says.

Zhang Lixin, director of Beijing Municipal Cultural Heritage Bureau, says the discovery was testimony to Beijing's history as a capital for more than 870 years.

Great Wall in color

Beijing boasts eight UNESCO World Heritage Sites, among them the Great Wall. Ongoing archaeological efforts on the Jiankou Great Wall in Huairou district, a section built during the Ming Dynasty (1368-1644) and known for its steep ridges and rugged terrain, have revealed surprising details about its color.

According to Shang Heng, an associate researcher at the Beijing Institute of Archaeology, traces of red were found on the window of a lookout tower on the Jiankou Great Wall in June, which echoes details of a Ming Dynasty map in which the wall was painted red.

"This was the first time we found red pigment on the Ming Great Wall," Shang says. "At first, we thought it was decoration, but later we realized the window was probably red during the Ming period."

The traces are clearly visible and linear. Shang adds that as windows are exposed to the elements, their surface is often weathered, leading to bleaching, so it's rare for color to be identifiable after nearly 400 years.

Shang says the major requirement of the Great Wall during the Ming period was that it be solid and imposing, and painting it red was probably a way to add its grandeur.

"In the past, our understanding of the Great Wall was that it was gray, but this new discovery has shown us that its red color would have looked more beautiful in the wild," Shang says.

Archaeologists also discovered the earliest stone tablet found so far on the Jiankou Great Wall in another lookout tower, which records its date of construction and the names of its builders.

"We have pursued archaeological studies on the Great Wall for many years, achieving remarkable progress. This time we discovered the red pigment, which indicates that our excavation has become more precise," Guo says.

Royal resting places

The latest discoveries have also shed light on another World Heritage Site: the imperial tombs of the Ming and Qing dynasties. Beijing has long been known for the tombs of 13 Ming emperors and their families in Changping district, but in 2022, archaeologists discovered a new imperial graveyard at the foot of Xiangshan Mountain, and began excavating.

Zhang Lifang, an associate researcher at the Beijing Institute of Archaeology, says the graveyard is ringed on three sides by mountains, and has three south-facing cemetery complexes ranged from east to west.

"The three complexes have clear layouts and intact structures of tombs and memorial halls," Zhang says.

Based on epitaphs found on the site, and the layout of the tombs, archaeologists believe the eastern complex was for imperial children who died young, among them, Princess Yunmeng, one of Emperor Wanli's daughters. Lying beside her is a tomb inferred to belong to her sibling Zhu Changxu, who died soon after birth and whose mother was Emperor Wanli's beloved concubine.

Zhang says the layout of this complex is very similar to the tomb of Emperor Wanli, which has been excavated and is open to the public.

The middle complex belonged to Emperor Jiajing's concubine, surnamed Wang, and the western complex possibly contained the tombs of several concubines buried together.

Archaeologists also found sacrificial vessels, stone tables, thrones, bottles and wooden figurines in the tombs.

"This is the largest imperial tomb group we have excavated since the Ming tombs in Changping. Although some have been destroyed or looted, their remaining layout, size and artifacts demonstrate their scale and strict building methods," Guo says.

"This provides a direct reference for understanding imperial burial customs, rites and the engineering of the dynasty."

Other discoveries released include the analysis of female bones found in a well at the Luxian Gucheng Site in Tongzhou district, identified as the location of Luxian county during the Western Han Dynasty (206 BC-AD 24), which revealed how they died, and the possible reasons for their deaths, as well as an imperial stone road dating back to the Qing Dynasty in Fengtai district.

"We have uncovered many of the human stories behind the heritage," Guo says. "Through archaeological discoveries we can make guesses about life and death in ancient times, as well as the experience of those who lived then to develop a better picture of society at the time."

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DNA helps uncover ancient ordinary families linked through marriage

By WANG RU





From left: Guo Jingning, director of the Beijing Institute of Archaeology (center, back row), with students who worked as interns, at the Liulihe Site in Beijing in June. Remains of a buried dog from a newly excavated tomb at the site. The burial of dogs with humans was a custom of the Shang Dynasty (c. 16th century-11th century BC). PHOTOS PROVIDED TO CHINA DAILY

DNA technology has decoded information about a newly discovered cemetery and the intriguing relationship between two extended families living nearly 3,000 years ago in what is now Beijing.

The cemetery at the Liulihe Site in the capital's Fangshan district is a large-scale tomb area in the presumed capital of the Yan state of the Western Zhou Dynasty (c. 11th century-771 BC) in what is now Beijing, Tianjin and Hebei province.

Yan was once one of the seven leading states of the Warring States Period (475-221 BC) but was conquered by Ying Zheng in 222 BC, the year before he established the Qin Dynasty (221-206 BC) and became China's first emperor, Qinshihuang.

Earlier studies show the city site in the Liulihe Site had the rammed earth remains of palaces and sites related to handicrafts. They also recovered precious bronze artifacts from tombs outside the city.

Since 2022, archaeologists have carried out another survey on the site to see if there are relics supporting the subsistence of the city, like farmland or farmers' residences, says An Nina, a researcher at the Beijing Institute of Archaeology.

They have discovered pits where people dumped garbage, tombs and an ancient ditch beyond the city.

They found 39 tombs in a cemetery covering 800 square meters to the north of the walled city and excavated 33, which belonged to members of two families. Ancient DNA studies further revealed the secrets of the relationship between the buried individuals.

According to An, the earliest tomb was found to be from the early Western Zhou Dynasty. Others are mostly from the middle stage of the dynasty. Considering their positioning, archaeologists believe the ditch was abandoned not later than the middle period of the Western Zhou Dynasty, offering clues for further studies on when the entire site was deserted.

The tombs are believed to belong to nontitled people. "The size of the burial tools and tombs directly reflect the status of the tomb owners. Most of the tombs only have a coffin and are relatively small," An says. "Only nine have inner and outer coffins and are larger. None of them have bronze vessels as funerary objects, often seen in tombs of the aristocracy of that time."

She says this is the first time finding these types of tombs on the site.

According to An, nearly half the tombs have dogs buried with humans, a custom favored by people of the Shang Dynasty (c. 16th century-11th century BC) but not so much by Zhou people.

As a result, archaeologists infer that the people were descendants of the Shang people, although they lived in the Yan state.

"We all know that King Wu of the Zhou Dynasty ended the rule of the Shang Dynasty," says Guo Jingning, director of the Beijing Institute of Archaeology. "But from the study, we can surmise that some descendants of Shang still lived in the realm of the Western Zhou Dynasty. This is an interesting phenomenon."

Ning Chao, a researcher at Peking University, has conducted DNA tests on the human bones discovered at the tombs and shed light on their detailed relationship.

According to An, those buried there belonged to two families — researchers refer to them as A and B — related by marriage. The cemetery is found to have buried at least four of their generations and three male tombs from Family A appear to be siblings.

One sibling's adult daughter is buried beside him. At that time, women were often buried with their husbands as a characteristic of a patrilineal family. The fact that the woman had scoliosis helped archaeologists' realize that she was disabled and could not marry. As a result, she was buried with her father, An says.

The two families are buried in clusters. A female individual buried in the middle of the two clusters is found to be a descendant of their intermarriage.

"The research findings combining DNA tests indicate that during the Western Zhou Dynasty, ordinary people who lived at the Liulihe Site were buried with extended family members in groups. That's why the three siblings were buried together," An says.

They applied DNA analysis on more than 30 ancient individuals, forming large-scale and systematic studies on their family trees.

"This is a rare example of such technologies being used in China's archaeological studies of the Western Zhou Dynasty. As a result, the discoveries and the new technologies applied this time are vitally important," Guo says.