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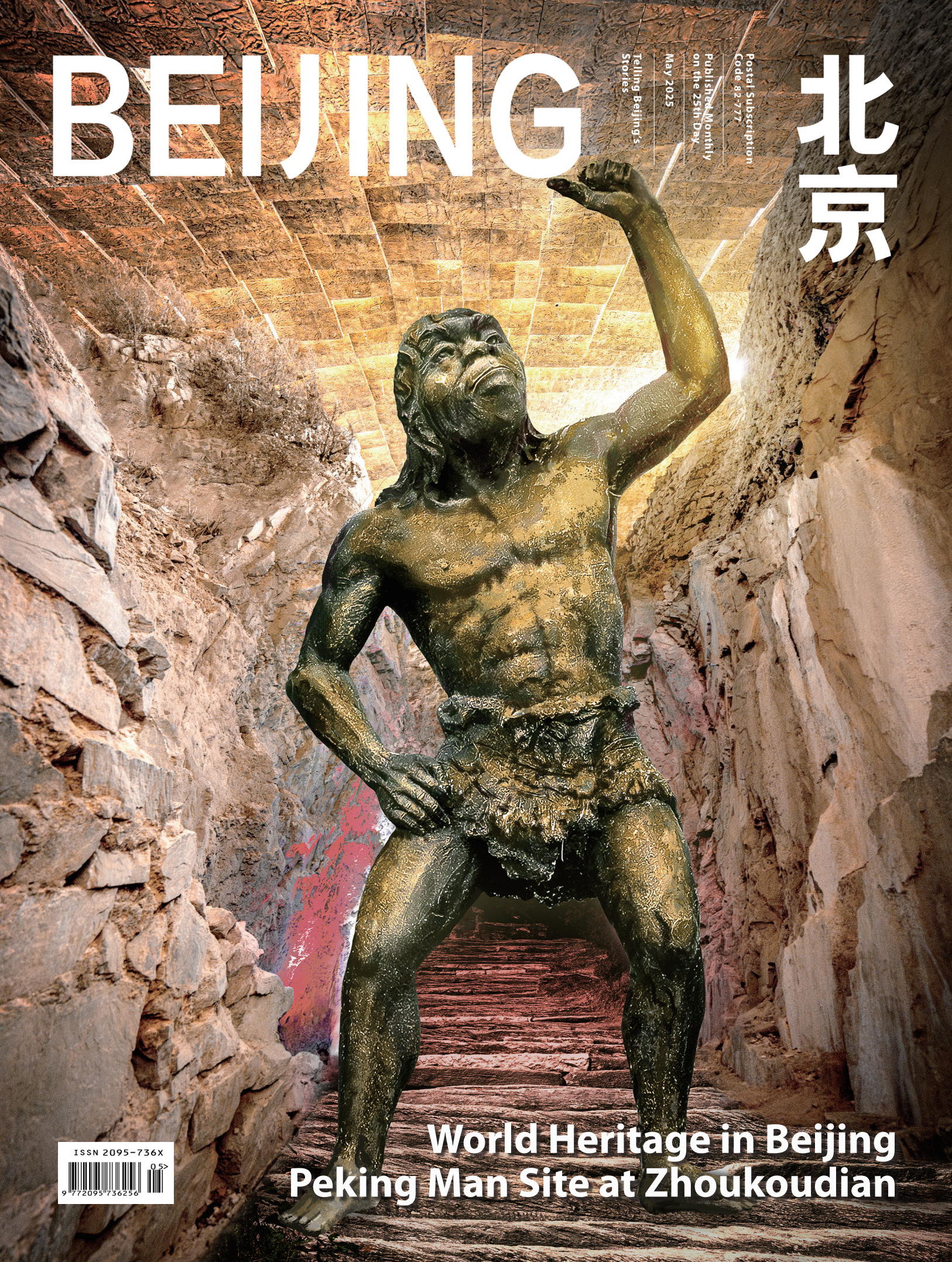

World Heritage in Beijing
Peking Man Site at Zhoukoudian

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Photo by Liu Weifeng

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Contents

The Nascent Civilisation of Humanity

Translated by Wang Wei Photos by Tong Tianyi, Yang Yunyan, Lyu Lingwu, Zeng Guoquan

Nestled at the foot of the towering western mountains in the town of Zhoukoudian in Beijing's Fangshan District lies a quiet, tree-covered hill. This is Dragon Bone Hill, the world-renowned site of Peking Man, or *Homo erectus pekinensis*.

Over a century ago, Swedish geologist Johan Gunnar Andersson (1874–1960) arrived in Zhoukoudian and began his quest to explore human origins. Since then, scientists have carried out extensive excavations and research at the Zhoukoudian Site, identifying over 20 localities with evidence of ancient human activity and fossil remains and uncovering a vast trove of both human and palaeontological discoveries.

The Peking Man Site at Zhoukoudian stands as one of the most significant scientific discoveries of the 20th century—a landmark in tracing the history of human evolution and powerful proof of China's prehistoric legacy stretching back millions of years. Even today, this hallowed site of human archaeology, having witnessed countless triumphs and challenges, continues to surprise and inspire. Some of its mysteries have been unravelled; others still await discovery.

Zhoukoudian Site Museum

A scene shows early use of fire

Vibrant Wilderness

From the moment prehistoric humans first stood upright and began to roam the earth, they left lasting traces on the land that is now Beijing. One of the most enduring of these is the world-renowned Peking Man Site at Zhoukoudian.

The Peking Man Site is located on Dragon Bone Hill in Zhoukoudian, Fangshan District, about 50 kilometres from central Beijing. Nestled in a hilly area at the foot of the mountains, it marks a natural transition between the plains and the highlands. The landscape is dotted with limestone formations and scattered hills, Dragon Bone Hill among them. With mountains rising to the northwest, fertile land stretching to the southeast and the Zhoukou River flowing gently to the south, the site is surrounded by striking natural beauty and charm.

Through a long process of geological evolution, Dragon Bone Hill and the surrounding mountains came to contain numerous natural caves. Approximately 700,000 to 500,000 years ago, Peking Man arrived at the hill and chose one such cave—stretching 140 metres from east to west—as their home. Though they still retained some apelike features, they had already adopted an upright, bipedal stance. They could craft tools and had learned to use fire. Compared to their predecessors, they showed notable progress in adapting to the natural environment.

The mastery of fire was a milestone in humanity's development. During the hundreds of thousands of years that Peking Man lived, they experienced periods of warmth and cold, and times of food abundance and scarcity. Their ability to use fire enabled them to survive harsh winters and to cook tough, indigestible raw foods, greatly expanding the range of edible resources available to them.

Their existence was far from idyllic. Wild animals, constant hunger, disease and an unforgiving environment posed threats that could take their lives at any moment. Yet, through perseverance and steadily growing knowledge, they endured and evolved, laying the essential groundwork for later human civilisations. The faint flame of civilisation they lit in the dark, damp caves of Dragon Bone Hill has continued to burn ever since.

Time passed. Around 18,000 years ago, a new group of inhabitants arrived at Dragon Bone Hill. Known as Upper Cave Man, they differed markedly from the earlier Peking Man. They wore clothing made from animal hides and adorned themselves with ornaments fashioned from animal teeth, shells and small stones. Their dwelling was a cave near the summit of Dragon Bone Hill.

Upper Cave Man marked an important phase in human evolution. They were skilled not only in making stone tools but also in crafting more advanced bone tools. They gathered plants and hunted larger animals. Crucially, they had learned to catch fish, a skill of great importance to human development. With fish being abundant, this skill allowed early humans to gradually overcome the constraints of climate and geography, paving the way for settlements to emerge along coastlines and near lakes and rivers.

Eternal Heritage

Where did we come from, and where are we going? These timeless questions have fascinated humankind for millennia, born of deep reflection on our origins and destiny. In China, the myth of Nüwa creating humans from clay has been passed down

for thousands of years and remains widely known. In the West, the religious narrative of God creating humanity has long been deeply rooted in cultural consciousness. It was only with the advent of modern times that these explanations began to be critically examined.

The renowned evolutionist Charles Darwin (1809–1882) proposed in *On the Origin of Species* that humans and anthropoid apes shared a common ancestor. In his essay "The Part Played by Labour in the Transition from Ape to Man," Friedrich Engels (1820–1895) explained how ancient apes gradually evolved into humans through the transformative process of labour.

However, these scientific conclusions failed to gain widespread acceptance due to the lack of compelling fossil evidence. It was not until the early 20th century that this began to change, with the discovery of a substantial number of ancient human fossils at the Zhoukoudian Site. The Peking Man Site offered an unprecedented wealth of information about the lives of our early ancestors. From that moment, humanity began to understand itself more clearly. The age-old question "Where did humans come from?" which had inspired countless myths and legends, now had a more concrete answer.

For a long time after the discovery of the Zhoukoudian Site, Peking Man was regarded as the earliest human ancestor in Asia, leading to the belief that Asia was the cradle of human civilisation. The find sparked intense interest among scholars both in China and abroad, fuelling a wave of exploration into human origins. As a result, numerous discoveries were made around the world. In China alone, over 1,000 new Palaeolithic sites have been identified since the Zhoukoudian discovery.

Despite the continued emergence of new discoveries covering even earlier time periods, the distinctive appeal of the Zhoukoudian Site remains undiminished. It continues to be a revered and frequently studied location for palaeoanthropologists. The abundance of unearthed fossils, the number of discovered stone tools, the early evidence of fire use by its ancient inhabitants and the rich cultural deposits found at the site remain unmatched among sites from the same era. Notably, the discovery of over 200 ancient human fossils representing over 40 individuals within the Ape-Man Cave has established the site as a globally recognised treasure trove of ancient human remains, setting a lasting benchmark in the study of human origins.

Observing a reconstructed sculpture of Peking Man

The Zhoukoudian Site is not just a single cave once inhabited by Peking Man but a complex of scattered locations bearing traces of ancient human activity. Since 1921, a total of 27 localities containing ancient human and animal fossils have been uncovered at Zhoukoudian. These span the early Palaeolithic period of Peking Man, the middle Palaeolithic period of New Cave Man, and the late Palaeolithic period of Tianyuan Cave Man and Upper Cave Man, collectively forming a relatively complete sequence of Palaeolithic cultures. As such, the Zhoukoudian Site is regarded as a birthplace of humans in East Asia and a vital repository of ancient human remains and Palaeolithic cultural heritage.

In December 1987, over half a century after the discovery of Peking Man, UNESCO officially designated the Zhoukoudian Site as a World Heritage Site. According to UNESCO's assessment, "the Zhoukoudian Site is not only an outstanding reminder of the prehistoric human societies of the Asian continent but also illustrates the process of human evolution." This underscores the enduring significance of Peking Man as a vital example in the broader chain of human evolution. In discussions on the enduring themes of human origins and development, its name will remain a central reference.

A Representative of China

Looking down on Dragon Bone Hill today, a large, verdant structure is nestled among the trees, blending seamlessly with the undulating landscape. Concealed beneath it lies the ancient dwelling once inhabited by human ancestors 700,000 years ago.

This seemingly enigmatic building serves a profoundly important purpose. It is a landmark project constructed on a site that bears witness to ancient human civilisation. Envisioned as a lasting structure and jointly developed by Chinese and international architects, it stands on the Peking Man Site at Zhoukoudian, a designated World Cultural Heritage site. Presenting unique design and construction challenges, it earned the only Gold Award for Conservation from the Asian Association of Architects Architecture Awards. Known as the "Conservation Project of Locality 1 of the Zhoukoudian Site (Ape-Man Cave)," it represents a major milestone in the study, preservation and management of the site.

Before this project was implemented, the Peking Man Site at Zhoukoudian had long been exposed to the elements, leaving the ancient habitat of Peking Man in a vulnerable state. Safeguarding this important World Cultural Heritage site had become an urgent priority. After careful review by experts, a conservation plan for the Ape-Man Cave—jointly developed by the Zhoukoudian Site Administration Office and the Architectural Design and Research Institute of Tsinghua University—was approved by both UNESCO and the National Cultural Heritage Administration.

This is an unparalleled conservation initiative for a prehistoric site, a scientific protection project built directly on the location itself. It employs a large-span, arc-shaped steel shell structure that covers the entire Ape-Man Cave. The structure is supported by a series of footholds set along the hilltop to the south and at the base of the hill to the north. This vast protective shelter is firmly anchored by 28 horizontal and 15 vertical steel beams, carefully arranged to span the full extent of the cave. The shelter consists of hundreds of small, blade-like components layered atop one another, with intentional gaps between them. This design helps prevent the intrusion of rain and snow while allowing for natural air circulation. Inspired by the contours of the hill, the designer created a form that blends with the surrounding undulating mountain landscape. Additionally, vegetation is grown on the shelter itself, allowing it to integrate seamlessly into the natural environment.


A statue of Upper Cave Man hunting

Following its completion in 2018, this bold yet carefully considered project set a new benchmark for heritage preservation in China, serving as a powerful testament to the preservation of world cultural heritage.

The conservation project at the Ape-Man Cave is not the only groundbreaking achievement associated with the Zhoukoudian Site. In fact, even the process of applying for World Cultural Heritage status set an important precedent. Yuan Zhenxin (1937–2021), then director of the Zhoukoudian Site Museum, swiftly produced a seven-page handwritten report accompanied by a 1:10,000 topographic map to meet an urgent deadline. On December 11, 1987, UNESCO officially voted to include the Zhoukoudian Site on the *World Heritage List*. Today, among China's 59 World Heritage Sites, the Zhoukoudian Site remains the only one representing the Palaeolithic period.


The Scientists Memorial at the Zhoukoudian Site

'Peking Man' Belongs to the World

On July 19, 2023, the discovery of a parietal bone fossil from an ancient human at the Peking Man Site in Zhoukoudian drew widespread attention. This fossil, which had lain undisturbed on Dragon Bone Hill for hundreds of thousands of years, contains clues about the evolution of humankind. It is, in a sense, a message from our distant ancestors—one that modern civilisation is now attempting to decipher.

The enduring legend of Dragon Bone Hill persists, and the story of Peking Man continues to unfold with new depth and dimension. Thanks to the implementation of innovative technological approaches such as ancient DNA (aDNA) analysis, three-dimensional modelling and advanced dating techniques, it has become possible to reconstruct ancient environments with greater accuracy and nuance. At the Peking Man Site Museum in Zhoukoudian, visitors are offered an immersive glimpse into this fascinating past. Within the exhibition hall, lifelike reconstructed scenes, invaluable fossil specimens and detailed archaeological information vividly depict the survival strategies of our human ancestors, illustrating how they hunted, gathered resources and even crafted sophisticated stone tools. Furthermore, the displays showcase how they utilised fire to ward off wild animals within the Zhoukoudian territory, enabling the audience to gain a more intuitive and engaging understanding of how ancient humans thrived in a challenging environment. Additionally, the original museum building has been transformed into a scientific popularisation and experiential hall, featuring nearly 20 interactive, body-sensing games that incorporate multi-touch technology, virtual reality recreations of ancient environments and immersive

journeys back to the Anthropolithic Age. The museum has also produced animated films such as *Exploring Dragon Bone Hill* and 4D cinematic experiences including *Peking Man* and *Upper Cave Man*, providing visitors of all ages with a more varied and captivating educational experience.

Today, the Zhoukoudian Site, a repository of the essence of human civilisation, thanks to diligent management and steadfast protection, enjoys a picturesque environment characterised by verdant trees and sustained by ongoing scientific and technological progress. The Peking Man Site draws visitors from around the world, each eager to trace the ancestral path of humanity. Inside the Zhoukoudian Site Museum, visitors are captivated by the celebrated story of the Peking Man's unearthing, a discovery credited to the joint efforts of Chinese and international scientists, including Andersson, Davidson Black (1884–1934), Pei Wenzhong (1904–1982) and Jia Lanpo (1908–2001). Moreover, in the Scientists Memorial, guests can pay tribute to distinguished archaeologists such as Yang Zhongjian (1897–1979, Pei and Jia, all of whom made significant contributions to the study of Peking Man. Visitors can also explore the intricate processes of archaeological excavation at a carefully simulated dig site and experience a depiction of the early human hunting and gathering lifestyle in the Scientific Popularisation Hall.

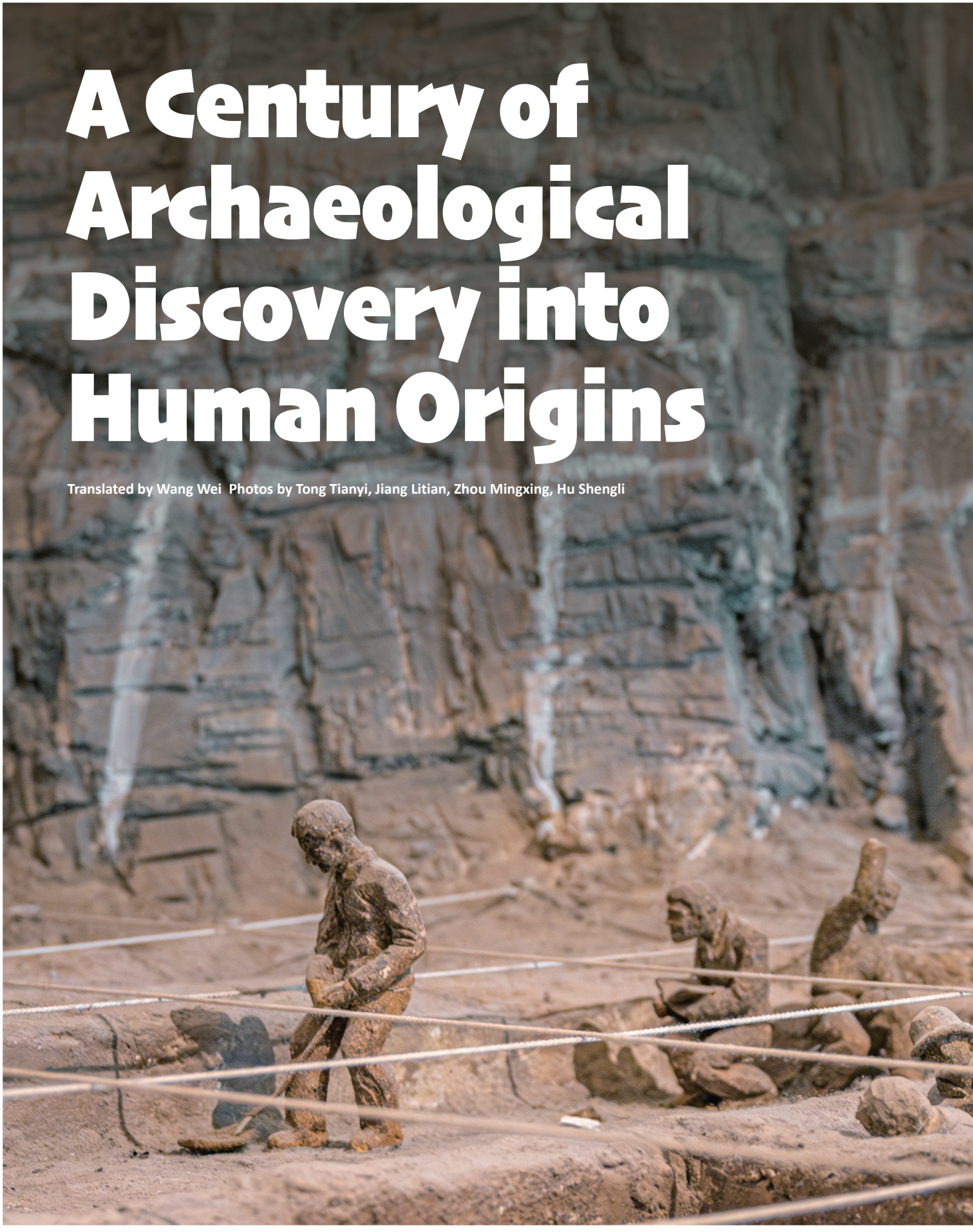
Published in May 2023, *The Zhoukoudian Site Protection Plan (2021–2035)* clearly states that, between 2026 and 2030, the comprehensive construction of the Zhoukoudian National Archaeological Site Park will officially commence. This initiative will focus on integrating the archaeological site itself with the Imperial Tombs of the Jin Dynasty (1115–1234), working towards the collaborative development of the Zhoukoudian Origins of Human Beings Cultural Park. This forward-looking strategy not only outlines a clear developmental path for the site but also presents an inspiring new blueprint and compelling vision for its long-term future.

Beginning with Andersson's initial archaeological excavation at the Zhoukoudian Site in 1918, the site's remarkable historical journey has now spanned 107 years. It has also been 95 years since the pivotal moment in 1929 when the Chinese scientist Pei Wenzhong unearthed the first skullcap of Peking Man. Over the past century, the Zhoukoudian Site has witnessed a tapestry of triumphs and tribulations, with periods of outstanding achievement as well as times of considerable challenge. A distinguished succession of celebrated Chinese and international scientists have devoted their expertise to the site, one after another. As a result, Peking Man has never faded from the collective memory of humankind. On the contrary, with the relentless passage of time, Peking Man has only grown more compelling, attracting a steady stream of scholars and visitors from across the globe. The evolving narrative of Peking Man, shaped by ongoing archaeological excavation, scientific research and protective efforts at the Zhoukoudian Site, continues to unfold, carrying forward the spirit of inquiry that began over a century ago and pointing to a future of continued discovery.

A nighttime aerial view of the Zhoukoudian Site Museum

A Century of Archaeological Discovery into Human Origins

Translated by Wang Wei Photos by Tong Tianyi, Jiang Litian, Zhou Mingxing, Hu Shengli



Where lies the source of civilisation's first light?

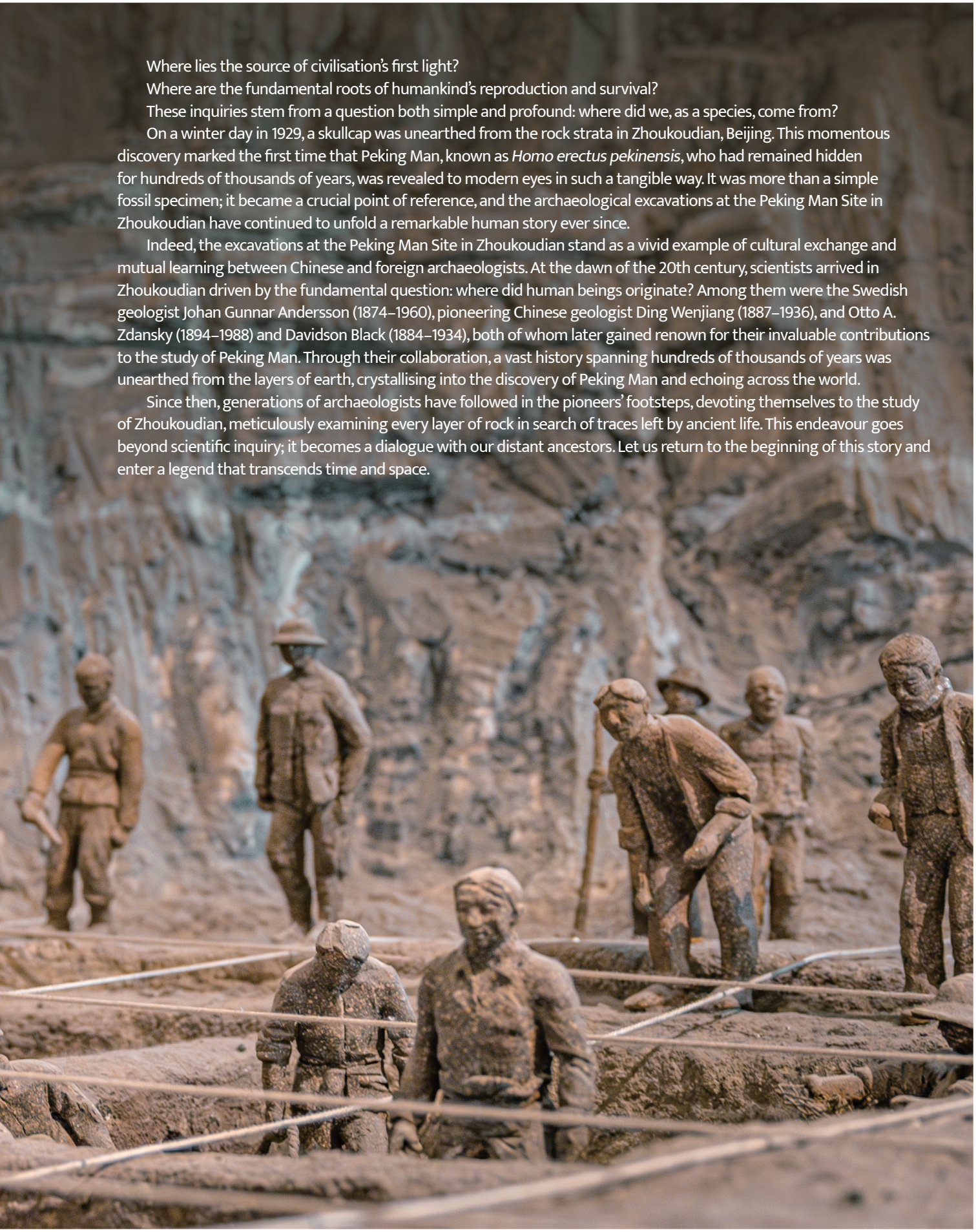
Where are the fundamental roots of humankind's reproduction and survival?

These inquiries stem from a question both simple and profound: where did we, as a species, come from?

On a winter day in 1929, a skullcap was unearthed from the rock strata in Zhoukoudian, Beijing. This momentous discovery marked the first time that Peking Man, known as *Homo erectus pekinensis*, who had remained hidden for hundreds of thousands of years, was revealed to modern eyes in such a tangible way. It was more than a simple fossil specimen; it became a crucial point of reference, and the archaeological excavations at the Peking Man Site in Zhoukoudian have continued to unfold a remarkable human story ever since.

Indeed, the excavations at the Peking Man Site in Zhoukoudian stand as a vivid example of cultural exchange and mutual learning between Chinese and foreign archaeologists. At the dawn of the 20th century, scientists arrived in Zhoukoudian driven by the fundamental question: where did human beings originate? Among them were the Swedish geologist Johan Gunnar Andersson (1874–1960), pioneering Chinese geologist Ding Wenjiang (1887–1936), and Otto A. Zdansky (1894–1988) and Davidson Black (1884–1934), both of whom later gained renown for their invaluable contributions to the study of Peking Man. Through their collaboration, a vast history spanning hundreds of thousands of years was unearthed from the layers of earth, crystallising into the discovery of Peking Man and echoing across the world.

Since then, generations of archaeologists have followed in the pioneers' footsteps, devoting themselves to the study of Zhoukoudian, meticulously examining every layer of rock in search of traces left by ancient life. This endeavour goes beyond scientific inquiry; it becomes a dialogue with our distant ancestors. Let us return to the beginning of this story and enter a legend that transcends time and space.



Chinese and international scientists at Zhoukoudian, 1928 (from left to right): Pei Wenzhong, Wang Hengsheng, Wang Gongmu, Yang Zhongjian, Birger Bohlin, Davidson Black, Pierre Teilhard de Chardin and George Brown Barbour

"I had a presentiment that the skeletal remains of human ancestors lie within this location. The sole challenge we face now is to locate them."

In the first half of the 20th century, in their search for the origins of humankind, palaeontologists turned their focus to Asia. Among them, Andersson made significant historical discoveries in China.

In 1914, Andersson, then director of the Swedish Geological Survey, became a mining consultant for the Beiyang government (1912–1928) in Beijing. Over the next decade, he devoted considerable effort to archaeological excavations alongside his mining work. In 1918, after hearing reports of possible fossils in Zhoukoudian, he explored a nearby hill and collected small animal fossils. Although not scientifically remarkable, the investigation marked the beginning of archaeological work at Zhoukoudian. Andersson then invited palaeontologist Carl Wiman (1867–1944) of Uppsala University, who, while mentoring doctoral students, sent his assistant, palaeontologist Zdansky, to assist Andersson in Beijing.

In early summer 1921, Andersson assigned Zdansky to excavate Chicken Bone Hill in Zhoukoudian. That August, Andersson invited Amadeus William Grabau (1870–1946), chief scientist of the American Museum of Natural History's Asian expedition, to visit the site. A local villager then mentioned the presence of larger and more impressive "dragon bones" nearby. Guided by the villager, they explored an abandoned limestone quarry—now known as Dragon Bone Hill.

Dragon Bone Hill was rich in "dragon bones"—remains of a legendary creature once used in traditional Chinese medicine to treat knife wounds, stop bleeding and relieve diarrhoea. Locals regarded the hill as a source of medicinal material. Andersson and Zdansky recognised that these "dragon bones" were more than ordinary animal remains. Through careful excavation, they unearthed many ancient animal fossils. More importantly, Andersson observed a large quantity of white quartz fragments not native to Zhoukoudian. These artificially sharpened stones suggested that early humans may have brought them to skin animals, butcher meat and dig roots. Andersson told Zdansky: "I had a presentiment that the skeletal remains of human ancestors lie within this location. The sole challenge we face now is to locate them. Don't worry. Dig out every inch of this cave if necessary!"

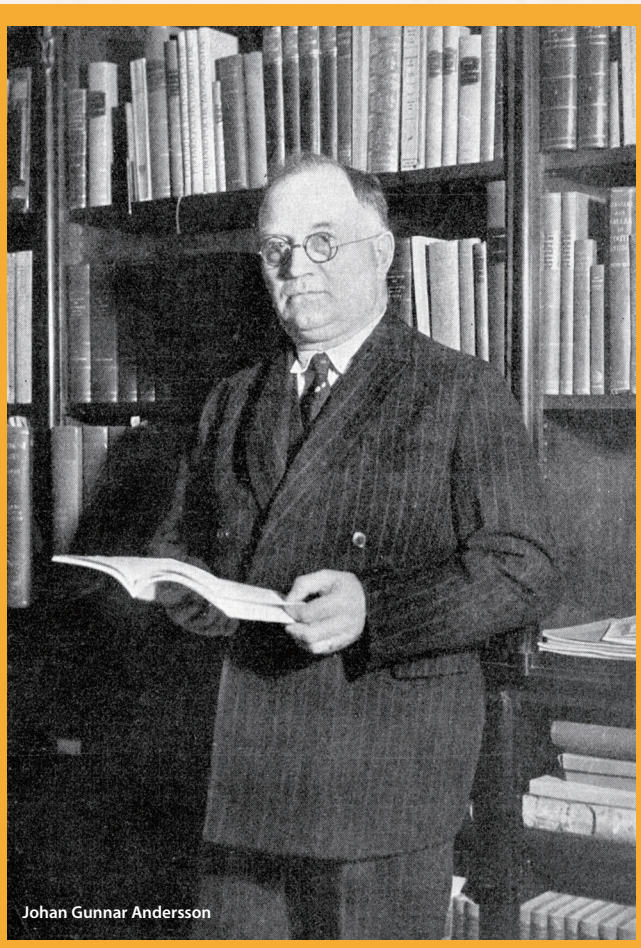
In the weeks that followed, Zdansky continued excavating the cave and uncovered a significant number of fossils. However, as the site shrank, the remaining area extended onto a cliff face. Faced with serious safety concerns, he was forced to suspend the excavation and return to Europe.

In 1918, over 400 boxes of excavated materials from Zhoukoudian and other parts of northern China were shipped to Sweden. In 1926, while sorting Zhoukoudian fossils in Professor Wiman's laboratory at Uppsala University, Zdansky discovered two human teeth and later confirmed that they belong to the same ancient human species.

These significant discoveries were made possible not only through scientific perseverance but also with the support of unsung contributors. One such figure was Axel Lagrelius (1863–1944), who established the "China Committee" in 1919 and raised 300,000 Swedish kronor to support Andersson's work in China. Crown Prince Gustav Adolf (1882–1973) served as the committee's chairman and helped raise funds for Swedish archaeological excavations and research in China.

In 1925, Andersson returned to Sweden, bringing with him the significant achievements of more than a decade of work in China. Prince Adolf allocated special funding to establish the Museum of Far Eastern Antiquities to preserve these artefacts of Eastern civilisation. Andersson became the museum's first curator. In accordance with the prior agreement between the two sides, the Swedish team gradually returned the cultural relics Andersson had collected during his time in China—bearing witness to the long-standing cultural exchange between the two nations.

In October 1926, during Prince Adolf's visit to China, Andersson formally announced the discovery of two human teeth from Zhoukoudian. The news had a profound impact on the scientific



Johan Gunnar Andersson

The Peking Man excavation site at Zhoukoudian, 1935

community at the time. Until then, no human fossils of such antiquity had been unearthed either in China or anywhere else in Asia.

The discovery at Zhoukoudian drew international attention. Canadian palaeoanthropologist Davidson Black, then serving as dean of the anatomy department at Peking Union Medical College, took a strong interest in the site. He collaborated with Weng Wenhao (1889–1971), director of the China Geological Survey at the time, to draft an agreement formalising their cooperation in research. The agreement stipulated that "all collected specimens belong to the China Geological Survey." In the spring of 1927, with support from the Rockefeller Foundation in the United States, large-scale archaeological excavations began at Zhoukoudian.

The Zhoukoudian cooperation project was overseen by Ding Wenjiang, a leading figure in the development of geological science in China. The work on the ground was led by Davidson Black and Weng Wenhao. Historical records list the following team members at the time: Li Jie (1894–1977), a geologist with the China Geological Survey, served as field director; Birger Bohlin (1898–1990), a Swedish palaeontologist, acted as field consultant; Liu Delin, technician to American palaeontologist Amadeus William Grabau (1870–1946), handled field excavation and fossil repair; and Xie Renfu, Black's clerk, served as Liu's assistant.

The Zhoukoudian excavation that year produced 500 boxes of fossils, including a well-preserved human molar. After examining its characteristics and origin, Black classified the tooth as *Sinanthropus pekinensis*. Following a suggestion by Grabau, the species came to be widely known as Peking Man—a name still used today.

In late 1927, Black returned to Canada. The next phase of excavation at Zhoukoudian was led by Weng and a specialist from Peking Union Medical College. It was the following year that Yang Zhongjian (1897–1979) and Pei Wenzhong (1904–1982)—both of whom would go on to become prominent Chinese scientists—began to participate in the excavations.

In 1928, Yang, a student recently returned from Germany, was invited by Weng to take charge of the excavation at Zhoukoudian. Pei was another new addition to the team, a graduate of the Department of Geology at Peking University. He managed the workforce and handled financial matters while also taking part in the excavation work. Pei soon became a capable assistant to Bohlin.

"A skullcap I unearthed a moment ago, exceedingly complete, resembles that of a human being."

In 1929, responsibility for the excavation at Zhoukoudian was ultimately entrusted to Pei Wenzhong.

Pei recalled, "By the beginning of December in 1929, the weather turned cold after a light snow. We were instructed to cease the excavation immediately. However, I felt that only several Peking Man teeth had been discovered and I refused to halt the work as we had not yet unearthed any significant fossils. Consequently, I persevered for an additional two days."

▲ Pei Wenzhong (right) and Yuan Zhenxin at Zhoukoudian, 1979

▼ Discovery of the third Peking Man skullcap by Jia Lanpo on November 26, 1936

At 25, Pei could not have foreseen the profound impact that two extra days of digging would have on the study of human evolution.

As the sun set around 4 p.m. on December 2, Pei and his team continued digging by candlelight. Suddenly, Pei spotted a dark, rounded object. He carefully brushed it clean and realised it was a remarkably complete human skullcap fossil.

To report the discovery, Pei sent what would become one of the most famous telegrams in archaeological history: "A skullcap I unearthed a moment ago, exceedingly complete, resembles that

1. Locality 1 of the Zhoukoudian Site excavation in 1929
2. The Zhoukoudian Site excavation on July 9, 1937, which was suspended the next day due to war
3. The first skull-cap of Peking Man was discovered here in 1929

of a human being." The brief message sent shockwaves through the global scientific community.

After a detailed examination, experts reached a unanimous conclusion: the skullcap belonged to an ancient human species. The discovery marked a historic and indisputable breakthrough. At that exhilarating moment, Pei's colleague Wang Cunyi captured a photo of him—now a part of scientific history. In the image, Pei holds the Peking Man skullcap, freshly unearthed and wrapped in plaster.

The discovery of Peking Man established the crucial *Homo erectus* stage in the evolution of early humans. In the years that followed, more remains of human ancestors were unearthed, including *Sahelanthropus tchadensis* (seven million years ago), *Orrorin tugenensis* (six million years ago), *Ardipithecus* (four million years ago) and *Australopithecus* (three million years ago), as well as other *Homo erectus* (between 2 million year and 200,000 years ago) specimens—together forming a clearer timeline of human evolution. The Peking Man discovery at Zhoukoudian undoubtedly played a vital role in tracing this chain of evolutionary evidence.

Zhoukoudian—and Pei in particular—seemed to enjoy a stroke of luck. In 1933, Pei turned his attention to the Upper Cave, located above the site where the Peking Man skullcap had been found. Not long after excavation began, Pei's assistant Tang Liang discovered a fox tooth. Upon closer inspection, Pei noticed a small, man-made hole in the tooth, suggesting it may have been used as an ornament by ancient humans. This hinted at a higher level of intelligence among the area's early inhabitants.

As excavation continued, Pei uncovered three skulls and several limb bones in the Upper Cave. These fossils were dated to between 34,000 and 27,000 years ago and identified as belonging to late *Homo sapiens*, now referred to as Upper Cave Man. Compared to Peking Man, the skulls of Upper Cave Man were more rounded and fuller, with a significantly larger cranial capacity.

From 1929 to 1933, Pei devoted himself fully to the excavation, bringing Peking Man and Upper Cave Man together across hundreds of thousands of years. This connection not only shed light on human evolution but also provided valuable evidence supporting the early survival and continued development of humans in East Asia.

"They are not 'leeks' at all, but clearly belong to human skulls!"

Following Pei Wenzhong, another key figure in the archaeological history of Zhoukoudian was Jia Lanpo (1908–2001).

In 1935, at the invitation of renowned French Palaeolithic

archaeologist Henri Breuil (1877–1961), Pei went to Paris for further study. Yang Zhongjian then recommended Jia to take over Pei's role and assume responsibility for the Zhoukoudian excavation.

Jia once recalled, "Even a mouse tooth that was no larger than a sesame seed could not be overlooked. Any sand and gravel demanded separate and careful placement." His unwavering attention to detail laid the foundation for many later discoveries. Jia went on to uncover important fossils, including several Peking Man teeth, skull fragments and stone tools. These seemingly modest finds proved essential to his later breakthroughs.

On November 15, 1936, a worker placed a collection of bone fossils into a basket for further examination. Immediately, Jia realised they were not the remains of ordinary animals. He exclaimed, "They are not 'leeks' (excavation slang for useless bone fragments) at all, but clearly belong to human skulls!" He immediately called over three experienced workers for careful, meticulous excavation. Soon, human ear bones, brow ridges and occipital bones began to appear one after another. That night, Jia barely slept as he carefully glued the fragments together, piece by piece. Within 10 days, he had unearthed three complete Peking Man skullcaps, propelling the site to global prominence in archaeological research.

However, in 1937, following the outbreak of the Marco Polo Bridge Incident, archaeological excavations at Zhoukoudian were forced to stop. Moreover, the Peking Man skullcap fossils that had been unearthed were later lost during the war. Unfortunately, this enforced cessation lasted for 12 years. It was not until the eve of the founding of the People's Republic of China in 1949 that work at the Zhoukoudian Site was able to resume.

A skull-cap of Peking Man was discovered here in 1966


Pei Wenzhong studying an animal fossil, 1972

In early autumn of that year, Jia returned to the Zhoukoudian Site with Pei Wenzhong, Liu Xianting and Su Bingqi. Fifteen days later, Jia and Liu discovered three Peking Man teeth in Locality 1. These fossils provided new evidence for further academic study and laid a strong foundation for future excavations at the site.

In 1966, Pei returned to Zhoukoudian to oversee the site's excavation. During this period, under his leadership, the team unearthed two valuable skull fragments. Remarkably, these fragments fit seamlessly with two others that had been discovered in 1934, forming a relatively complete skullcap of a Peking Man individual. This remains the only original example of a Peking Man skullcap in existence, apart from the replicas of earlier finds. This exceptionally rare specimen is carefully preserved at the Institute of Vertebrate Paleontology and Paleoanthropology of the Chinese Academy of Sciences.

"Having taken over the torch from Pei Wenzhong and Jia Lanpo, we are committed to better fulfilling the mission that has been entrusted to us at the Zhoukoudian Site."

In the 1980s, American archaeologist Lewis Robert Binford (1931–2011) published a paper based on his own research at the Zhoukoudian Site. In it, he questioned several of the site's archaeological conclusions from the previous six decades. According to his interpretation, many of the fire-use relics widely attributed to ancient humans might not have been of human origin. He argued that the presence of ash did not necessarily prove the site had been inhabited, suggesting it may have resulted from natural causes.

After thoroughly re-examining decades of excavation and

research at Zhoukoudian, Chinese archaeologists resolved to address the doubts raised by Western scientists using more rigorous methods and stronger evidence.

"The excavation date has been confirmed for next Wednesday, June 17. The Peking Man skullcaps, stone tools and relics of using fires that were unearthed from the Zhoukoudian Site under the leadership of Pei Wenzhong, forging a significant achievement in the 20th century. Now, we are honoured to assume the mission and commence new excavations and research, representing both an opportunity and a challenge," wrote Gao Xing, a researcher at the Institute of Vertebrate Paleontology and Paleoanthropology of the Chinese Academy of Sciences, in his 2009 diary.

In 1999, while debates about the nature of the Peking Man Site at Zhoukoudian were still ongoing, Gao, then pursuing his doctorate in anthropology at the University of Arizona, was invited to take part in related academic discussions.

In 2009, salvage excavations began in the western section of Locality 1 at the Zhoukoudian Site, also known as the Ape-Man Cave. Using new theories and methods, Gao's team carefully re-examined the nature of the site.

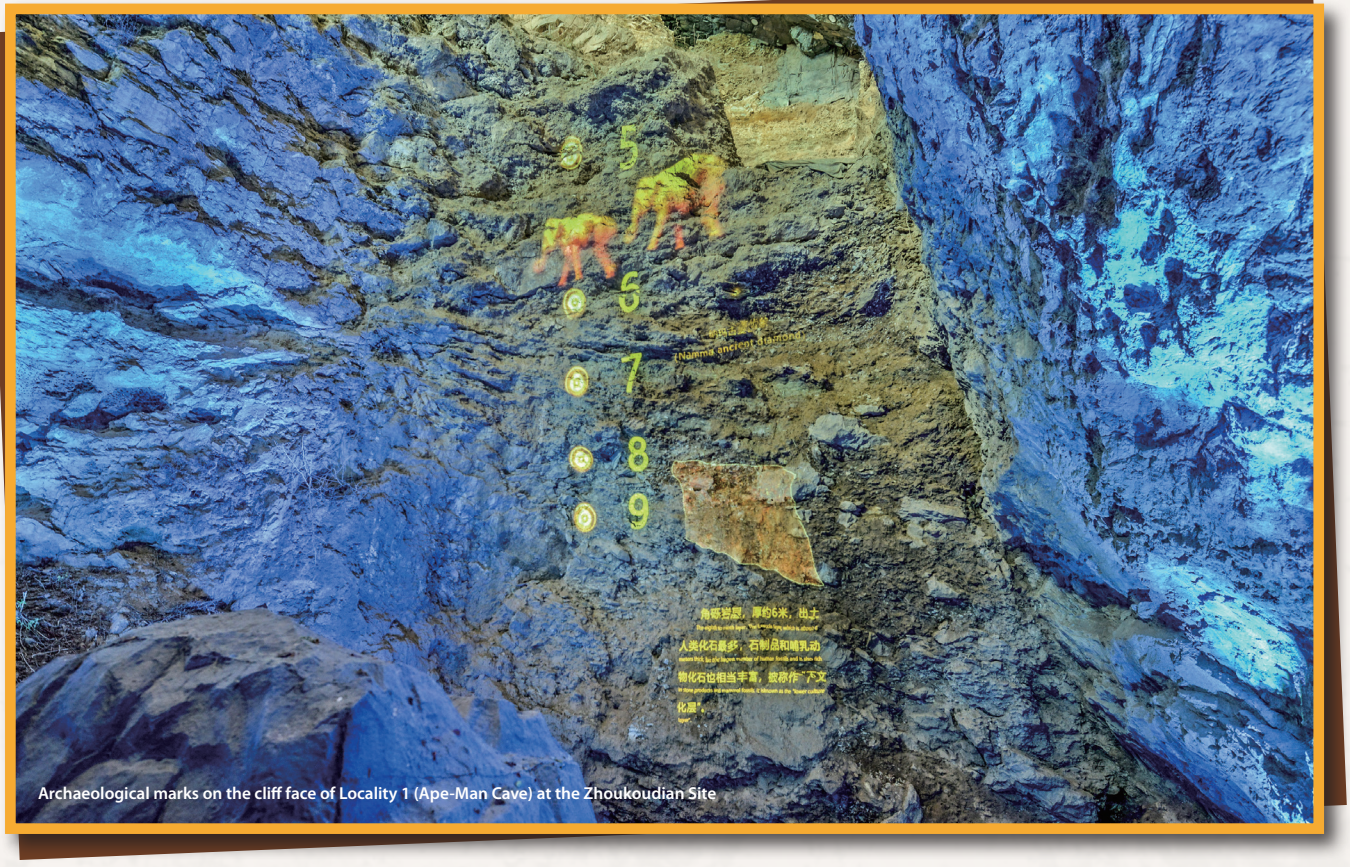
Between 2009 and 2014, archaeologists completed excavations of the third and fourth layers in the western section of the Ape-Man Cave. Upon reaching the third layer, they identified a distinct cave roof feature. Excavation of the fourth layer then revealed nearly 4,000 stone artefacts, over 3,000 large and medium-sized animal fossils, and more than 2,000 small animal fossils.

Gao's team discovered fine, non-natural markings on excavated stone tools and animal bones, indicating that ancient humans had used the tools to cut and scrape hides. This marked a key breakthrough, providing clear evidence that humans had once settled in the cave at the Zhoukoudian Site and had used their own stone tools for survival and hunting.

They gained new evidence supporting the use of fire by Peking Man at Zhoukoudian through this excavation. Within the fourth accumulation layer of the Ape-Man Cave, researchers unearthed fire pits, sintered soil, and burnt stones and bones, all identified as fire relics. To determine whether Peking Man had the ability to control fire, the researchers conducted a multidisciplinary investigation, including analyses of magnetism, luminescence and infrared spectroscopy. The findings indicated that the presence of fire pit structures, encircled by stones and containing a mixture of ash and red soil, served as compelling evidence that the ancient cave dwellers had mastered the use of fire. This groundbreaking discovery provided strong support for the conclusion that Peking Man possessed the capacity to control fire.

The academic debate that had lasted for more than two decades entered a new phase. In 2018, Gao wrote in his diary: "Since 2009, we have employed modern technology to meticulously excavate the western section of the Locality 1. Having taken over the torch from Pei Wenzhong and Jia Lanpo, we are committed to better fulfilling the mission that has been entrusted to us at the Zhoukoudian Site."

Today, along the steep cliffs rising 20-30 metres (m) inside the Ape-Man Cave, numbers projected through light and shadow mark



Archaeological marks on the cliff face of Locality 1 (Ape-Man Cave) at the Zhoukoudian Site

Inside the Ape-Man Cave with a protective shelter

the geological layers identified through archaeological exploration. These projections represent the excavation records left by Gao's team, bearing witness to each step forward in scientific exploration.

"My greatest wish is to find similar or better fossil sites near Tianyuan Cave."

Zhoukoudian is far more than just the Ape-Man Cave. As a broader archaeological complex, it has become a vital repository for the study of human origins and evolution.

In 2001, the discovery of Tianyuan Cave once again brought the Zhoukoudian Site into the spotlight of the international academic community. While searching for a water source to irrigate fruit trees, the manager of Tianyuan Farm came across some fossils at the entrance of a cave. He promptly sent the fossils to the Institute of Vertebrate Paleontology of the Chinese Academy of Sciences. Tong Haowen, a researcher at the institute, examined the specimens. The next day, he travelled to the site, where he uncovered a large number of animal teeth and bones near the cave entrance, allowing him to open a magnificent archaeological undertaking.

Tianyuan Cave, designated as Locality 27 of the Zhoukoudian Site, is situated approximately 10 kilometres from the Ape-Man Cave on Dragon Bone Hill. In May 2003, Tong began leading the excavation at Tianyuan Cave. He expressed that this undertaking would not only follow Chinese standards but also align with international best practices. As a result, every phase of the excavation was carried out with careful adherence to globally recognised procedures.

The topography of Tianyuan Cave features a winding interior and irregular geological formations. Under Tong's guidance, the team adopted the high-precision Wheeler–Kenyon method. Anchor points were set into the cave ceiling, from which ropes were suspended to form a three-dimensional coordinate system, ensuring accurate spatial positioning of each stratum and artefact. This approach greatly enhanced the precision of archaeological work in a cave setting.

In the summer of 2003, a complete fossilised mandible was unearthed in Tianyuan Cave, identifying its owner as a late representative of *Homo sapiens*. To date, a total of 34 ancient human bone fossils and 39 mammalian bone fossils have been definitively identified, dating from approximately 42,000 to 38,500 years ago.

The human fossils unearthed from Tianyuan Cave are not only rich in well-preserved skeletal elements but also hold scientific value in terms of physical traits. Most intriguing is a subtly deformed toe bone, which suggests that this ancient human may have developed the skill of crafting footwear for protection against the cold.

Over the past decade, with the rapid advancement of ancient DNA (aDNA) technology, scientists around the world have

increasingly been able to trace human ancestry by extracting tiny amounts of DNA from fossilised remains. In 2017, thanks to improvements in these methods, the complete genome was successfully extracted for the first time from human remains found in Tianyuan Cave. This ancient East Asian genome offers valuable insights into the complex gene history of human and genetic exchange during that time.

In 2023, a team from the Chinese Academy of Sciences identified a human parietal bone among mammalian fossils at Zhoukoudian's Locality 15 using CT scanning and 3D reconstruction. This marked the first discovery of Pleistocene human fossils at the site in 50 years, following the unearthing of tooth fossils in 1973. While the *Homo erectus* fossils at Locality 1 date to around 500,000 years ago, Locality 15—just 70 m away—dates to approximately 200,000 years ago, helping to bridge the evolutionary gap between *Homo erectus* and later *Homo sapiens*. Analysis of the parietal bone may offer new insights into the site's history and the continuity of human evolution in China.

Previous geophysical surveys have confirmed the presence of undiscovered caves and fissures beneath Dragon Bone Hill, indicating that ancient sites may still lie buried and awaiting discovery. Furthermore, significant primary deposits remain in the western section of the Ape-Man Cave, offering valuable opportunities for future systematic excavations.

"Without the inscription of the Zhoukoudian Site on the *World Heritage List*, China would possess no World Cultural Heritage sites whatsoever."

"During my investigative travels across 40 to 50 countries, I have observed that none of the heritage sites I have encountered, as China's has done, is implementing such comprehensive and influential measures aimed at enhancing the environment to more effectively preserve a world heritage site and the shared values of all humanity." This statement was made with deep emotion by an international expert after visiting the Peking Man Site at Zhoukoudian.

Ever since Pei Wenzhong unearthed the first fossilised Peking Man skullcap in 1929, Zhoukoudian has evolved from an obscure hill into a landmark site in the study of human origins. For over a century, archaeological efforts have pressed forward, adapting with the times. After the founding of the People's Republic of China in 1949, preservation efforts entered a new phase. In 1953, the Chinese Ape-Man Exhibition Hall, covering 300 square metres (sq. m), was established based on earlier excavations. When the site was designated a key national cultural relic protection unit by the State Council in 1961, the hall was expanded into the 1,000-sq.m Peking Man Exhibition Hall in 1972.

In 1986, as China began applying for World Heritage Site status


A reconstructed sculpture of Upper Cave Man

for landmarks such as the Great Wall and the Forbidden City, UNESCO raised a pivotal question: how could China's *World Heritage List* be considered complete without the Zhoukoudian Site? Yuan Zhenxin (1937–2021), then director of the Zhoukoudian Site Museum, responded swiftly to the urgency of the moment.

"In the history of human evolution, there exist but a limited number of such compelling witnesses to this historical narrative. From the remnants of hominid bones discovered at the Lower Valley of the Awash in Ethiopia (2.3 million years ago) to the Grotte Chauvet in France (35,000 years ago), they collectively constitute a chain representing the progression of human evolution, which is incomplete. However, the Zhoukoudian Site stands as a unique, indispensable and profoundly significant testament to this chain of events." Yuan used just seven pages to articulate the importance and value of the Zhoukoudian Site as world heritage.

In December 1987, the Peking Man Site at Zhoukoudian was officially inscribed on the *UNESCO World Heritage List*. The World Heritage Committee's formal assessment recognised the site as not only an exceptional reminder of prehistoric human societies in Asia but also a vivid illustration of the process of human evolution.

In 2002, the People's Government of Beijing Municipality and the Chinese Academy of Sciences signed a joint agreement for the co-construction of the Zhoukoudian Site. Later, in 2009, Beijing introduced a protection mechanism combining legal and administrative frameworks through the implementation of *The Zhoukoudian Site Protection and Management Measures*.

However, Locality 1 of the Zhoukoudian Site—commonly known as the Ape-Man Cave and revered as a cradle of human civilisation—faced environmental challenges after nearly a century of erosion. In 2008, a conservation initiative began to take shape: to create a comprehensive "protective umbrella" for the cave.

In 2018, the initial concept came to life with the construction of a protective shelter distinguished by its wide span and complex structural design. This single-layer reticulated shell posed a significant engineering challenge. It needed to cover an irregular 3,700 sq.m terrain with an elevation difference of nearly 40 m, all while ensuring stable ventilation and humidity. Just as importantly, the shelter had to integrate seamlessly with the natural environment, offering maximum protection for the relics without compromising the site's openness or scenic value.

The design adopts a semi-open, arcuate shell that stretches across the cave's summit, composed of 805 uniquely angled blade-like members. Each steel plate is precisely positioned in three-dimensional space, forming an integrated drainage system that channels rainwater naturally while allowing air to circulate freely. From a distance, this "protective umbrella" resembles a drifting

Milestones in the Archaeology and Conservation of the Zhoukoudian Site

1921
Ancient fossils and stone tools unearthed on Dragon Bone Hill by Johan Gunnar Andersson

1926
Discovery of two ancient human teeth announced by Andersson

1929
First Peking Man skullcap unearthed by Pei Wenzhong

1930
Discovery of the Upper Cave Man Site

1936
Three Peking Man skullcaps successively unearthed by Jia Lanpo

cloud shadow, softly settling over the hilltop and merging with the surrounding landscape. Rather than a stark imposition of steel and concrete, it serves as a gentle gesture of care toward an ancient civilisation.

Preservation goes beyond the structure itself. Beneath the shelter, 140 precision monitoring devices gather 330 real-time data points on rock stability, microclimate and air quality, all relayed to a central monitoring hub. This intelligent system offers a digital health check for the site, supporting scientifically informed preservation efforts.

Advanced technologies are also contributing to the preservation of the Peking Man Site. In 2012, the inauguration of the Zhoukoudian Site Monitoring Centre marked the start of its digital conservation era. In October 2013, the Zhoukoudian National Archaeological Site Park opened, transforming the site into a vibrant cultural landscape. Visitors could now explore the ancient habitat and experience echoes of early human life and fire use. Completed in 2014, the Zhoukoudian Site Museum employs exhibits, historical recreations and interactive technologies to immerse visitors in daily life hundreds of thousands of years ago—highlighting how Peking Man used fire, gathered food and hunted.

Digital technology has become a key force in preserving and sharing the Zhoukoudian Site. High-precision 3D scanning has produced a digital model of the site. An exhibition hall showcasing 3D surveying results and an immersive experience space have opened, allowing the public to explore archaeological work and witness the dawn of civilisation. In addition, the virtual characters Yuanyuan and Digital Peking Man, both developed with the site's cultural significance in mind, offer the story of human evolution in an engaging, accessible way.

Preservation is regarded as both a legacy and a continuing responsibility. In May 2023, the city released *The Zhoukoudian Site Protection Plan (2021–2035)*, a forward-looking blueprint demonstrating revival and transmission.

At the Peking Man Site, a white marble tombstone commemorates the archaeological pioneers who dedicated themselves to the site: Pei Wenzhong, Jia Lanpo, Yang Zhongjian and others. Over the past century, they wielded hammers like pens, inscribing the story of human evolution across the geological layers. While we celebrate the achievements enabled by modern technology and cultural confidence, we also acknowledge that this site is more than a collection of bones and tools—it is an ongoing exploration of the origins of humanity.

This legacy will continue to unfold in Beijing and across China, with the hills as an endless scroll and the spirit of scientific exploration as the brush that writes upon it.

1. A replica of the skull of *Megaloceros pachyosteus*
2. A replica of the mandible of *Homo sapiens*
3. Replicas of choppers from the Middle Pleistocene

1973
Excavation of the New Cave Man Site

1987
Peking Man Site at Zhoukoudian inscribed on the *UNESCO World Heritage List*

2001
Discovery of the Tianyuan Cave Man Site

2014
Completion of the new Zhoukoudian Site Museum

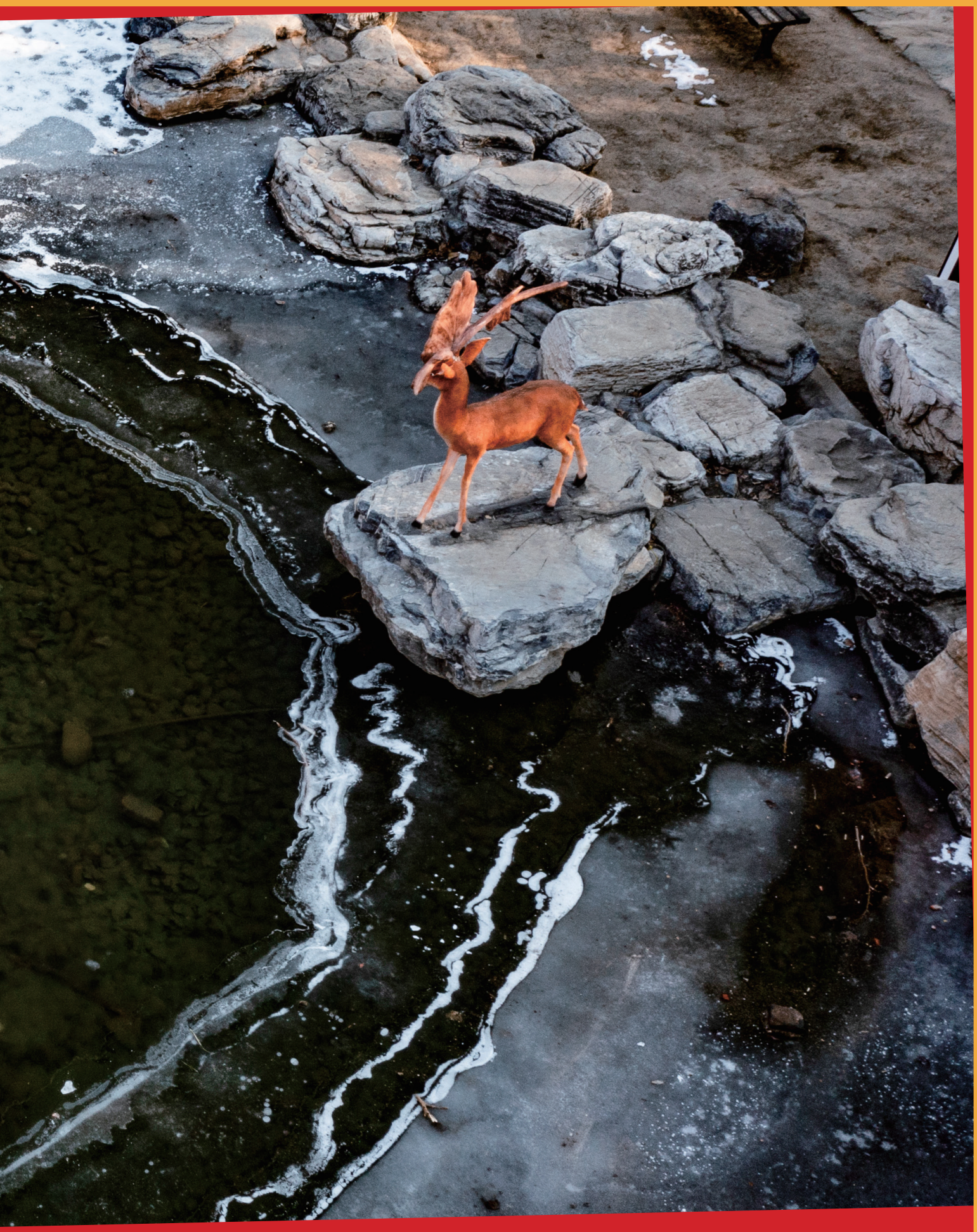
2018
Protective shelter completed for Locality 1 (Ape-Man Cave) of the Zhoukoudian Site

Ancestors' Codes: Stones and Bones

Translated by Lei Liangqiong Photos by Zeng Guoquan, Tong Tianyi, Hu Shengli

In the southwest of Beijing, about 50 kilometres from the city's centre, lies the Peking Man Site at Dragon Bone Hill in the town of Zhoukoudian in the city's Fangshan District. It is a sacred site preserving over 700,000 years of natural history and ancient human civilisation. Surrounded by rolling mountains and shaded by lush greenery, a winding mountain path leads visitors through a "tunnel of time" to the mysteries of the ancient past. Since large-scale and systematic excavations began in 1927, 27 localities of fossils and cultural relics from different periods have been discovered, like pearls scattered along the river of time, binding together the brilliant pages of human history. More than 200 human fossils have been unearthed, each seemingly imbued with the warmth of antiquity, telling stories of our ancestors. More than 100,000 stone wares, weathered by time, bear witness to the arduous journey of Peking Man (*Homo erectus pekinensis*) from a primitive existence to civilisation. Along with abundant evidence of fire use and over 100 animal fossils, they formed a vivid picture of ancient life.

Stepping into the Zhoukoudian Site Museum is like embarking on a time-travel journey spanning over 700,000 years. The museum houses artefacts from archaeological excavations at the Peking Man Site at Zhoukoudian over the years and many cultural relics in its collection. These are witnesses to history and the "storytellers" of ancient human life.



Legends of Ancestors

Since the 1920s, the Zhoukoudian site has yielded six relatively complete Peking Man skullcaps and hundreds of human bone fossils such as skull fragments, teeth and limb bones belonging to about 40 individuals of different ages and genders. These fossils serve as tangible evidence for studying early human biological evolution and cultural development. In the museum's soft light, these human fossils rest quietly in display cases, as if whispering their stories.

What Did Peking Man Look Like

Palaeoanthropologists reconstructed Peking Man's skull based on skeletal fossils from Zhoukoudian, anatomical principles and knowledge of ape anatomy, and deduced their appearance. The skull retains many primitive features: its lower part was wide while the upper part tapered, forming a steamed bun-like shape, with a brain capacity roughly 80 percent of the modern human average. Peking Man had a low flat forehead, unlike the protruding one of modern humans, and thick brow ridges above the eye sockets like eaves. Their mandible protruded, looking as if they had no chin. They also had wide nasal bones and high cheekbones, indicating a broad nose and a low, flat face. Their teeth were much sturdier than those of modern humans, with more complex tooth surface structures, yet weaker and simpler than apes'.

The limb bones of Peking Man were basically similar in shape to those of modern humans. Peking Man's thigh bones resembled present-day people's in size, shape, proportion and muscle attachments, but retained some primitive traits. Their upper arm bones also resembled those of modern humans but had thicker walls and smaller medullary cavities. Unlike the *Australopithecus* with longer upper limbs than lower limbs and a hunched posture while walking, Peking Man stood relatively upright. Due to labour, their upper arms and hands were nearly as dexterous as modern humans. They could use their hands freely for labour, with movements similar to those of modern humans. Based on the limb bone length, it is estimated that their average height reached 1.5 metres (m) for females and 1.6 m for males, slightly shorter than modern humans.

Peking Man generally had short lifespans. Anthropologists have determined Peking Man's average life expectancy based on dental and skeletal ages of unearthed teeth and bone fossils. Out of a sample of 22 individuals, about 68.2 percent died under the age of 14, 13.6 percent from 15 to 30 years and 13.6 percent from 40 to 50 years, with only one woman dead between 50 and 60 years.

Moreover, what did the Upper Cave Man, another ancient human species found at Zhoukoudian, look like? The human bone fossils discovered at the Upper Cave Site represented eight individuals of varying ages and genders. Analysis of three relatively complete skull fossils by palaeoanthropologists showed that Upper Cave Man had a longer skull, a shorter facial structure, lower eye sockets and wider nasal openings than modern humans, displaying features associated with early East Asian populations. Over 20,000 years, their descendants evolved into present-day East Asians. Based on the thigh bone length, male Upper Cave Man stood 1.74 m tall, while females 1.59 m, taller than Peking Man.

The Diet of Peking Man

Hundreds of thousands of years ago, the Zhoukoudian area was the homeland of Peking Man. They thrived on this land, relying on the abundant natural resources around them, and developed unique dietary habits. These habits not only reflected their way of survival but

▼ A replica of Peking Man skullcap No. V

Statistical Table of the Peking Man Lifespan

Lifespan	Number of individuals	Percentage
Total	22	100%
Less than 14 years old	15	68.2%
15-30 years old	3	13.6%
40-50 years old	3	13.6%
50-60 years old	1	4.6%

Locality 1 (Ape-Man Cave) at the Zhoukoudian Site

also revealed the wisdom of early humans in adapting to their environment.

Meat held a significant place in the diet of Peking Man. Archaeologists have discovered a large number of animal fossils at the Zhoukoudian Site, such as *Megaloceros pachyosteus* (commonly known as the swollen-mandible giant deer), *Cervus grayi* (Gray's spotted deer), wild boars, rhinoceroses and *Equus sanmeniensis* (an extinct species of ancient horse native to northern China). These animals were not only abundant in the surrounding landscape but also served as key targets in the hunting activities of Peking Man. The meat provided them with rich protein and fat, helping them maintain their physical strength in harsh conditions and survive the cold winters.

In addition to large mammals, small animals and birds were also part of the food sources for Peking Man. Fossils of rodents, birds and other small animals unearthed at the site indicate that Peking Man would seize every opportunity to obtain food. They might have used traps, stone throwing tools or other methods to capture these small creatures. Although these animals provided relatively little meat, collectively, they contributed significantly to the nutritional diversity of Peking Man's diet.

Plant-based foods were equally indispensable in the diet of Peking Man. At the Zhoukoudian Site, charred hackberry seeds were found, suggesting that Peking Man picked fruits and seeds as food. Hackberry seeds are rich in starch, serving as an energy source. In addition, it is likely that Peking Man gathered tender leaves, roots and stems.

LINKS

Century-Long Mystery: Missing Peking Man Skullcap Fossils

The Peking Man skullcap fossils displayed in museums are all replicas. So where are the real ones?

In the winter of 1929, Chinese palaeontologist Pei Wenzhong (1904–1982) unearthed a complete Peking Man skull from a cave on Dragon Bone Hill in Zhoukoudian. Subsequently, several other skull fossils were discovered. These precious fossils were stored at Peking Union Medical College Hospital.

However, after the outbreak of the Marco Polo Bridge Incident in 1937, archaeological work in Zhoukoudian was suspended. As United States-Japan tensions escalated, these invaluable fossils could be looted. With special approval from the Kuomintang government in Chongqing, the fossils were to be shipped to the United States for temporary safekeeping until the war's end. According to Chinese palaeoanthropologist Hu Chengzhi (1917–2018), who was assistant to German physical anthropologist Franz Weidenreich, honourary director of the Cenozoic Research Laboratory of the Geological Survey of China, one day in mid-to-late November 1941, he was required to package the Peking Man skull fossils and deliver them to the office of Trevor Bowen, controller of Peking Union Medical College. Hu meticulously wrapped the fossils and placed them in two wooden cases, one large and one small, and delivered them to Bowen's office. He was informed that the two cases would be secretly transported to the United States (US) legation in Beijing that night. Pursuant to arrangements by the US legation, the cases were to be taken out of Beijing under the guise of personal luggage of the American army doctor William Foley, escorted to Tianjin, handed over to the US Marine Corps stationed there, and then to Qinhuangdao, before shipping to the US.

However, the fossils' fate had a change on December 5, 1941. That morning, the Peking Man skull fossils departed Beijing by train. If all had gone smoothly, they would have been escorted by the US Marine Corps to Camp Holcomb in Qinhuangdao and then onto the SS President Harrison bound for the US. However, on December 7, the Japanese attacked Pearl Harbor, sparking the Pacific War. Camp Holcomb fell to Japanese forces, the US Marines were captured, and the cases containing the Peking Man skull fossils vanished in the chaos. Since then, these precious fossils have gone missing, becoming a century-long mystery.

A hunting scene

While these plant-based foods might not have been as palatable as meat, they were rich in vitamins, minerals and dietary fibre, playing a crucial role in maintaining the health of Peking Man.

The diet of Peking Man gradually took shape through long-term survival practices. By obtaining and utilising various food sources, they managed to survive in the harsh natural environment, and continued to thrive. These ancient dietary habits were not only survival strategies for Peking Man to adapt to their environment but also important foundations for the development of human civilisation, providing valuable clues for us to understand the evolutionary journey of humankind.

The Home of Peking Man

The Ape-man Cave on Dragon Bone Hill in Zhoukoudian served as the home where Peking Man found refuge from the elements and thrived. This unique place was not only filled with primal atmosphere, but also teemed with survival wisdom. It is like a mysterious fortress from ancient times, bearing countless untold stories.

The Ape-man Cave was a natural shelter meticulously "carved" by nature itself. During harsh winter, it could capture the maximum amount of sunlight, keeping the cave's interior from becoming too cold. While in scorching summer, it cleverly avoided direct glare of the blazing sun, maintaining a relatively cool environment inside. It also provided protection for its inhabitants from storms, lightning and other severe weather conditions, as well as attacks by ferocious beasts, making it the ideal dwelling for Peking Man.

About 500,000 to 600,000 years ago, Peking Man moved into this large cave located midway up Dragon Bone Hill. Archaeological studies suggest that the cave had a fairly expansive interior space, offering ample space for a group of Peking Man to live, gather, rest and share food, spending days that were either peaceful or perilous. Around 200,000 years ago, due to geological changes and erosion caused by rain and snow, the cave roof gradually thinned until one day it collapsed, burying the cave under debris and forcing Peking Man to abandon the Ape-man Cave.

The home of Peking Man in Zhoukoudian not only bore witness to their survival trajectory, but also cradled their lives and reproduction. Though primitive and simple, it was inestimably invaluable.

The Dawn of Civilisation

On the miraculous land of Zhoukoudian, Peking Man quietly began to write the earliest chapter in the story of human civilisation. Like faint glimmers of light slowly gathering across a vast and untamed ancient world, these sparks burst forth with a brilliant and unique radiance, showcasing the awe-inspiring spectacle of civilisation's nascent stages.

The stone artefacts unearthed at the Zhoukoudian Site stand as powerful testaments to Peking Man's ability to adapt to the environment and begin shaping the natural world around them. Stepping into the museum where these artefacts are displayed feels akin to being transported

back through the corridors of time to the very dawn of the Stone Age. Before the eyes of visitors unfold an astonishing array of stone implements, each unique in form and size. Though appearing rough and simple, these time-worn artefacts hold within them a profound historical significance. They are the crystallisation of Peking Man's accumulated wisdom, and practical tools crafted by early humans for survival. Some stones were carefully shaped to produce sharp edges, perhaps used to cut the hides and flesh of hunted animals, helping Peking Man obtain food essential for survival. Other stones were fashioned into forms that could be easily gripped, possibly serving as implements for digging up roots or defending against wild beasts. What is particularly remarkable about these tools is that their creation was not the result of random or haphazard actions, but rather the outcome of Peking Man's long-term practice and exploration. Over generations, Peking Man gradually mastered complex skills such as selecting appropriate types of stone, controlling the force and angles of striking. This was undoubtedly a significant step for early humans toward civilisation. These tools were key to Peking Man's conquest of nature and survival in the wilderness. Every mark left by the strike of stone upon stone tells the story of early humans striving to carve out a place for themselves in a harsh world.

The primary means by which Peking Man secured sustenance predominantly revolved around hunting and gathering, practices that were essential for their survival. The capture and utilisation of animal resources by ancient humans has always been one of the key issues of interest for archaeologists. Sophisticated hunting capabilities are even considered a critical factor in human evolution. At the Ape-man site, the discovery of burnt bones and stone tools used for butchering activities, such as cutting and scraping meat from bones, suggests that Peking Man hunted and obtained meat through relatively simple methods. This suggests not only their adeptness at utilising available resources but also an understanding of fire and its application in food preparation. At that time, it is believed that Peking Man lived in small groups based on family units, maintaining close cooperative relationships with one another. These groups would have worked together closely, engaging in collective hunts where tasks were divided based on expertise and physical capability, ensuring the survival of the entire group. Although there is no clear evidence of complex social hierarchies among Peking Man, their lifestyle and use of tools indicate that they already developed a certain level of organisational ability. The communal life of Peking Man exemplifies the social nature and cooperative spirit of early humans. According to archaeological research, there may have been some form of leadership or coordination mechanism in place to facilitate more efficient hunting and resource distribution. Such structures would have facilitated better coordination during hunts and ensured that resources were shared equitably within the group. In addition, the discovery of various types of tools and artefacts at some sites also indicates possible communication and cooperation between different groups. Such social interactions laid the foundation for the subsequent development of civilisations, showcasing the diversity and adaptability of early human societies and demonstrating how cooperation and exchange could lead to improved survival strategies and the eventual flourishing of more complex social structures.

The use of fire stands as one of the most transformative and defining achievements in the early development of Peking Man's way of life—a true milestone marking the dawn of what can be considered rudimentary human

The fire of civilisation emerges in the cave where Peking Man once lived

A painting depicting the daily life of Peking Man

civilisation. The archaeological evidence uncovered at the Zhoukoudian Site, particularly the well-preserved fire pits and layers of ash found within ancient cave dwellings, offers an extraordinary glimpse into a time when early humans first began to harness and control this elemental force. Within the caves once inhabited by Peking Man, four large and thick layers of ash deposits were discovered from top to bottom. These concentrated deposits indicate that Peking Man not only used fire but also learned to contain and manage it—a skill that marked a turning point in their survival strategy. At the uppermost layer, resting on a massive limestone boulder, two large piles of ash were found. The fact that these ashes remained in concentrated piles without spreading outward strongly implies that Peking Man not only used limestone as a floor but also developed the ability to manage and contain fire. It is likely that Peking Man's initial encounter with fire came about through natural phenomena—perhaps a lightning strike igniting a forest fire, showing its power and wonder to Peking Man for the first time. Rather than fearing this unfamiliar and formidable force, clever Peking Man learned to preserve and harness it. For modern humans, fire may seem like a simple and ubiquitous element of daily existence, but for Peking Man, its mastery marked a revolutionary turning point. After learning to use fire, nearly every aspect of the lives of Peking Man underwent profound transformation. With fire, Peking Man could keep warm on frigid nights, no longer dreading the long darkness. Perhaps most importantly, fire enabled them to cook their food, moving beyond the consumption of raw food, reducing disease and promoting physical evolution. With fire, they could also drive away wild animals, making their living spaces safer. Those piles of ash were like sparks of civilisation lit by ancient humans—faint yet powerful enough to alter the destiny of an entire species. It can be said that the mastery

LINKS

The First Experience of Beauty

Beauty is the oldest belief of humanity. Twenty thousand years ago, the Upper Cave Man crafted rather exquisite ornaments using materials such as animal teeth, stone beads, small pebbles, clam shells and bone tubes. The discovery of these decorative items not only demonstrates that Upper Cave Man had already mastered skilled grinding and perforating techniques but also reveals that, at this stage, they had gradually emerged from barbarism and ignorance, beginning to develop a vague awareness of beauty.

From the animal-tooth necklaces of Upper Cave Man to the diamond brooches at Paris Fashion Week, throughout the 20,000-year-long history of fashion, the same instinct has shone brightly: humanity's relentless pursuit of beauty.

of fire was like lighting a beacon of civilisation, illuminating the path for Peking Man toward a more advanced way of life.

After the passage of countless years, the Upper Cave Man era arrived. By then humans had developed the ability to sew clothing. Although their garments were no more than leaves strung together around the body or pieces of animal hides tied around the waist, they represented a significant advancement compared to the Peking Man era. A sharp-tipped needle crafted from a tiger's bone, unearthed at the Upper Cave site, is a representative artefact of Upper Cave Man culture.

During excavations at the Upper Cave site, archaeologists found that human bone fossils were often surrounded by hematite powder, and some fossils were adorned with decorative items arranged in what appears to be a deliberate manner. Experts speculate that these findings may indicate the presence of primitive religious or sacrificial rituals. The vivid red colour of hematite powder easily evokes the colour of blood. The Upper Cave Man may have believed that sprinkling this symbolic blood around the deceased would allow them to continue living in an imagined afterlife. This practice suggests that Upper Cave Man held deep reverence and awe for death.

The ancient humans who lived in Zhoukoudian were true pioneers in a primordial world, carving out a path towards civilisation with their wisdom and efforts, laying a solid foundation upon which all future human civilisations would flourish. Even today, when we look back through the veil of history, we can still feel the radiant glow from hundreds of thousands of years ago—the earliest and most captivating blossoming of human civilisation.

Symbiosis of All Living Beings

The Zhoukoudian site stands as a veritable treasure trove of ancient

LINKS

A Brief History of Barbecue

Humanity's love for barbecue traces back to ancient times. Charred bones found at Zhoukoudian showed humanity's transition from "eating raw flesh" to "savouring roasted meat." By chance, early humans discovered fire's magic and began using it, sparking an eternal bond with barbecue.

By the Neolithic Age, pottery grills appeared, indicating that people had started using tools for barbecue, transforming it from an occasional activity into a more systematic cooking method.

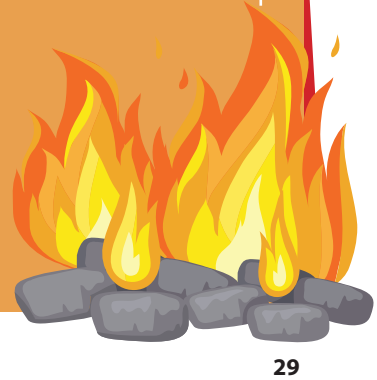
During the Shang (16th century–11th century BC) and Zhou (11th century–256 BC) dynasties, barbecue techniques were upgraded, and roasted meat was called "炙" (pronounced "*zhi*," meaning "roast"), featuring "肉" (pronounced "*rou*," meaning "meat") on top and "火" (pronounced "*huo*," meaning "fire") below, vividly depicting the scene of roasting meat.

The Qin (221–206 BC) and Han (206 BC–AD 220) dynasties witnessed the prevalence of barbecue. Emperor Gaozu of Han (reign: 206–195 BC), Liu Bang, "often enjoyed roasted deer liver and beef tripe with wine," showing his fondness for barbecue. Emperor Zhao of Han (reign: 87–74 BC), Liu Fuling, even held a "barbecue festival," turning barbecue into communal celebration.

The Tang (AD 618–907) and Song (AD 960–1279) dynasties saw an even richer variety of barbecue foods. The "roasted camel hump" introduced from the Western Regions to the Central Plains was highly favoured, as recorded in *Youyang Zazu*, "General Qu Lianghan was skilled at roasting camel humps."

During the Ming (1368–1644) and Qing (1644–1911) dynasties, barbecue gained greater importance in culinary culture. The Manchu-Han Imperial Feast featured an array of barbecue dishes such as roasted pheasant, roe deer meat, lamb, fish and venison jerky. The imperial kitchen of the Qing Dynasty even had a Baoha Department dedicated to roasting food. A chapter of *A Dream of Red Mansions* depicts a lively scene of aristocrats roasting venison in Grand View Garden, showcasing the fun of barbecue in aristocratic life.

Today, barbecue has become a beloved culinary delight enjoyed by all. From Xinjiang's rose willow lamb skewers and Zibo's pancake-wrapped meats to Guangdong's seafood barbecue and Inner Mongolia's whole-roasted lamb, each region boasts its unique flavours and specialities.



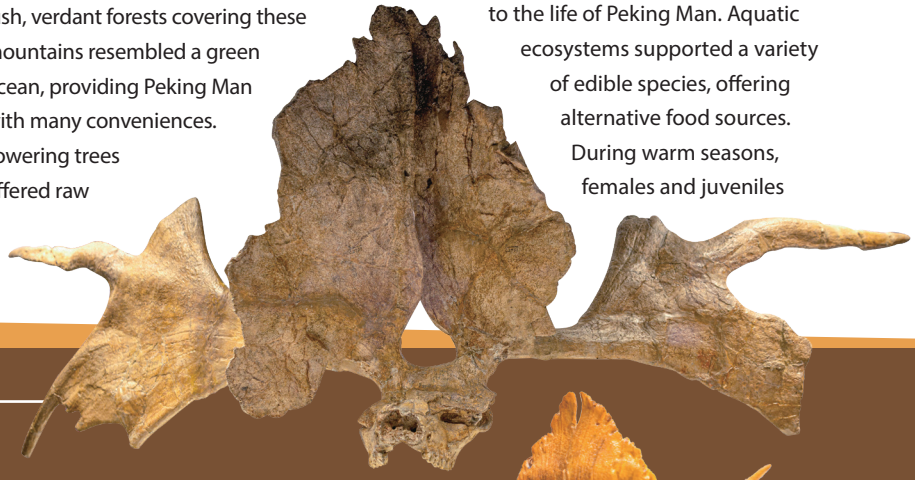
A schematic diagram of various animals from the time of Peking Man

vertebrate fossils, with an astounding wealth of animal fossils that offer a profound insight into the biodiversity of the distant past. Nearly 200 species of animal fossils have been discovered across the entire site, collectively forming a complete ancient ecosystem.

Hundreds of thousands of years ago, the landscape around Zhoukoudian was characterised by rolling mountains that played a crucial role in the daily lives of Peking Man. Those mountains were not merely picturesque landscapes we see today, but natural barriers and resource-rich environments essential for survival. The lush, verdant forests covering these mountains resembled a green ocean, providing Peking Man with many conveniences. Towering trees offered raw materials for crafting tools. Branches of suitable sizes could be crafted into hunting aids or gathering implements after simple modifications, while dense foliage offered habitats and breeding grounds for numerous animals. As the "residents" of that era, Peking Man coexisted with these animals and also faced challenges this "treasure trove" posed.

In the vibrant forests, various animals thrived. Archaeological findings reveal that many deer species such as *Megaloceros pachyosteus* and *Cervus grayi* roamed the area freely. These docile creatures were primary hunting targets for Peking Man. Besides deer, the area was home to fierce wild boars, massive rhinos, swift *Equus sanmeniensis* and other large mammals, as well as apex predators like sabre-toothed tigers and cave bears. Smaller rodents and various birds also flourished here.

The waters surrounding the Zhoukoudian site were equally crucial to the life of Peking Man. Aquatic ecosystems supported a variety of edible species, offering alternative food sources. During warm seasons, females and juveniles



LINKS

The 'Companions' of Peking Man

Hundreds of thousands of years ago in Zhoukoudian, Peking Man coexisted with a variety of animals. In a sense, these animals could be considered the "companions" of Peking Man, intricately linked to the survival and development of humanity.

Megaloceros pachyosteus

One of the most representative species in the Zhoukoudian fauna, its fossils reveal exceptionally robust bones and enormous antlers, likely related to mating competition and defence against predators.

Cervus grayi

Slightly smaller than the *Megaloceros pachyosteus*, it likely sported sika deer-like spots. Their abundant fossils attest to their widespread distribution in Zhoukoudian.

Hyaena sinensis

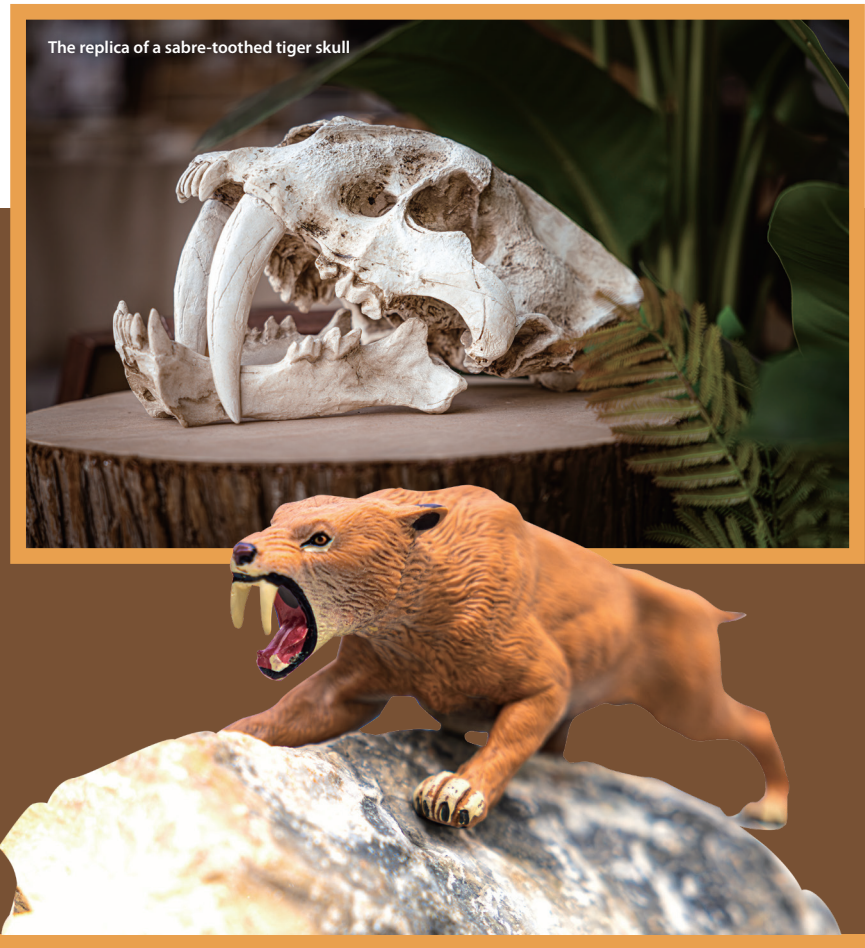
A powerful carnivore of that era, it had a sturdy body, a short and heavy skull, and strong molars with an astonishing bite force, capable of easily crushing bones.

A complete cave bear skeleton

might have gone to the riverside with simple tools to catch fish and shrimp or gather shellfish, thereby supplementing the group's protein intake and diversifying their diet.

These animal fossils serve as vivid records of the ecological environment of that era. For instance, the massive bones of *Megaloceros pachyosteus* suggest that the Zhoukoudian area once boasted lush grasslands, serving as habitats for many large animals. Conversely, the sharp fossilised teeth of sabre-toothed tigers testify to the brutal competition for survival that characterised this period. Amid these formidable challenges, Peking Man relied on wisdom and courage to carve out a living space amidst formidable competitors. By examining these animal remains, we can reconstruct a comprehensive view of the ancient food chain and ecosystem, revealing Peking Man's position within it and the myriad challenges they faced.

These rare treasures unearthed at the Peking Man Site in Zhoukoudian offer a comprehensive and systematic window into the lives of Peking Man, revealing how they survived, evolved, and gradually adapted to their environment hundreds of thousands of years ago. These extraordinary artefacts, imbued with the weight of history and shaped by the passage of countless millennia, enable people to peer directly into the development process of human history. Through them, we are able to almost physically touch and emotionally feel the faint glimmers of ancient civilisation. These glimmers, though small, possess incomparably powerful vitality and have been passed down and developed through the ages, ultimately converging into the brilliant human civilisation of today.



The replica of a sabre-toothed tiger skull

Cave bear

A robust bear species with a broad and thick skull, sturdy limbs, large paws and sharp claws. These physical traits indicate its formidable strength.

Two-horned rhinoceros

A large herbivore with one horn on its nose and another on its forehead. Its thick and tough skin was like a heavy suit of armour.

Sabre-toothed tiger

A fierce carnivore of large size, most notably characterised by its prominent upper canines which could grow over 10 centimetres long, resembling two sharp swords.

The Lasting Heritage of Early Humanity

Translated by Wang Wei Photos by Tong Tianyi, Qu Bowei, Zhang Quanyue, Zhou Shijie

The Zhoukoudian Site, a cradle of ancient civilisation, lies nestled in the rolling mountains southwest of Beijing. It was home to Peking Man, or *Homo erectus pekinensis*, hundreds of thousands of years ago. Long before modern cities or written records existed, this land bore witness to the earliest chapters of human life.

If an individual from the Peking Man population, dormant for hundreds of thousands of years, were to awaken today, he would find Zhoukoudian transformed from a wild expanse into a celebrated World Heritage site. Southeast of Zhoukoudian lies the Liulihe Site of the Western Zhou Dynasty (11th century–771 BC), a testament to the era's social structure and civilisation. To the northwest, the Imperial Tombs of the Jin Dynasty (1115–1234) embody the period's distinctive funeral culture and historical legacy. To the southwest, at the foot of Shijing Mountain, lies Yunju Temple. Both sites symbolise Buddhist cultural heritage and preserve treasures amassed from the Sui Dynasty (AD 581–618) to the end of the Ming Dynasty (1368–1644). Over the past century, archaeologists have carefully and meticulously excavated and studied the layers of history buried beneath Zhoukoudian. Today, the site features well-arranged paths and a modern museum, welcoming children eager to explore the origins of humankind. On this land, where ancient humans once battled wild beasts and harsh weather, their intelligent descendants now pursue a better, more harmonious life.

The bonfire that first burned in Peking Man's cave, a symbol of civilisation passed down through hundreds of thousands of years, now illuminates countless households across the city.

The Origins of Humanity
Primitive Fire

Around 700,000 years ago, in what is now Beijing, before the existence of any nation or city, the region was home only to mountains, rivers and fields, alongside the recurring cycle of the four seasons. In the southwest, the Zhoukoudian area, nestled against the Taihang Mountains and facing a broad plain, enjoyed an exceptional natural environment. That era coincided with an interglacial period characterised by a warm and humid climate. Dragon Bone Hill at Zhoukoudian boasted lush vegetation and abundant water systems. This not only created a favourable habitat but also provided a rich supply of food. Together, these conditions made it an ideal home for life to flourish and multiply.

At the time, a group of ancient humans—now known as Peking Man—dwelt on Dragon Bone Hill. Although the natural environment and climate were relatively favourable, Peking Man lived under constant threat from biting wind, frost, snow and rain, as well as from fierce beasts and the inefficiency of primitive labour. In such harsh conditions, over half the population lived only to the age of 13 or 14, and only a very small number survived beyond 30 years.

By chance, the fossilised skullcap of a Peking Man individual survived erosion and the rise and fall of dynasties. Buried underground for hundreds of thousands of years, it was eventually rediscovered during a modern archaeological excavation in the late 1920s. Later generations, studying this fossil, determined that Peking Man's brain capacity was approximately three-quarters that of modern humans. Their brow ridges and cheekbones were prominent, their noses relatively flat and their mouths protruding and elongated. Crucially, they were capable of walking upright. They primarily lived in caves and survived through hunting. Natural caves offered excellent shelter from wind, rain, lightning and attacks by fierce beasts. In one such cave, experts uncovered ash layers up to six metres (m) thick. Although the original flames most likely came from natural wildfires, the evidence clearly demonstrated Peking Man's ability to use and preserve fire. In addition, rough and rudimentary stone tools were unearthed within the cave.

Within a cave on Dragon Bone Hill at Zhoukoudian, a Peking Man group lived by gathering and hunting. They knapped rough gravel to create their first tools—weapons to fend off sabre-toothed tigers, whose canine teeth could pierce the thick hides of large herbivores, and to hunt the *megaloceros pachyosteus*, a species of deer with antlers spanning up to two m in diameter. They learned to harness fire within the cave and struggled against wind, snow, disasters and hunger. The surrounding trees and creeks bore witness to their arduous lives from sunrise to sunset and their deep connection to the earth. Though they lacked written language, they used the most basic tools to forge a path of survival for humanity. They were unable to articulate the meaning of civilisation, yet their very existence stands as its earliest evidence. The first glimmer of civilisation emerged on the land of Zhoukoudian, imbuing it with both mystery and profound historical significance.

▲ A statue of Peking Man capturing prey

The spark of civilisation has not been extinguished in Zhoukoudian. Hundreds of thousands of years later, on this very land, Upper Cave Man, a species of *Homo sapiens*, began to multiply and thrive. In contrast to Peking Man, Upper Cave Man more closely resembled modern humans. Unlike Peking Man, who lived exposed to the elements and relied solely on nature, they used polished bone needles to sew leaves or animal hides into simple garments that covered their upper bodies and waists. A remarkably sharp bone needle, crafted from tiger bone, was found at the Upper Cave Site—a testament to the cave dwellers' advanced tool-making skills.

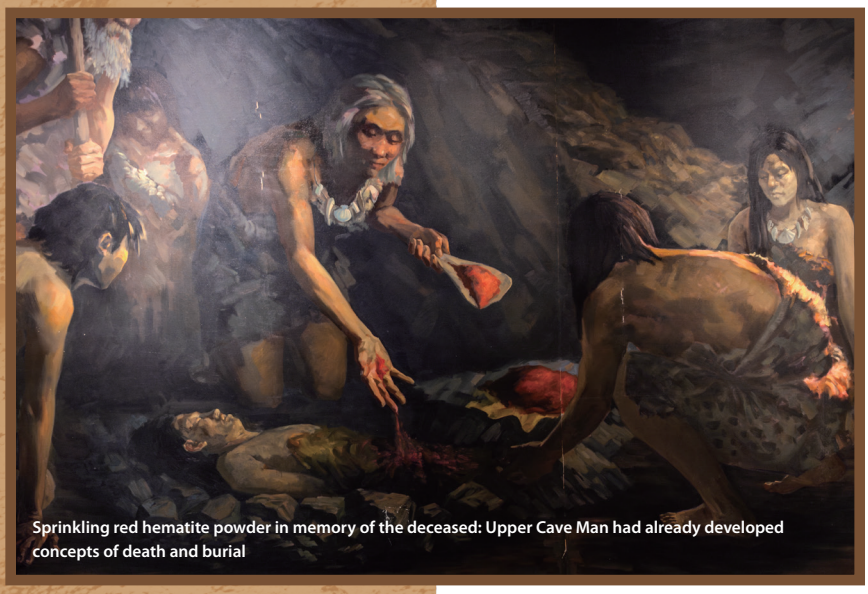
Further cultural relics unearthed from the Upper Cave included animal teeth, sea clam shells, pebbles, stone beads, fisheye orbital bones and small bone tubes. These small objects were carefully knapped or ground thin, shaped into polygons, and some were pierced with small holes. In the soil adhering to the skull of a young woman, archaeologists uncovered seven small stone beads. It is reasonable to infer that these crafted items were collected by the cave dwellers with the intention of creating adornments, enhancing their appearance and evoking a sense of beauty. This marks the earliest form of human aesthetic expression, in which the embryonic designs of modern headwear and necklaces can already be seen.

Even more striking is the presence of burial practices among Upper Cave Man, suggesting a clear awareness of death and related customs. The human remains found were not simply left behind in the cave on Dragon Bone Hill in Zhoukoudian. Their placement indicates that the cave dwellers had already developed a sense of how to handle the dead. Evidence shows that hematite powder was used to stain the area around some skeletons red. Hematite, a red iron oxide also known as ochre, was the earliest red pigment used in ancient China.

Archaeologists have also found traces of hematite powder next to remains in the lower layer of the Upper Cave and on some perforated artefacts. Together, these findings suggest that sprinkling hematite powder was a deliberate act, most likely for burial purposes. In the Neolithic period, hematite was replaced by cinnabar, another red mineral, continuing the earlier practice. Traces of cinnabar have been discovered on bones and burial items in ancient tombs.

Why did ancient humans favour the colour red when dealing with the deceased? One simple explanation is that the colour is bright and vibrant. Upon the death of their companions, they applied the most beautiful colour as a primitive form of comfort, signifying a wish for the deceased to rest in peace. This mysterious, tacit understanding seems to reflect a rudimentary, collective unconscious that transcends race and time. Some scholars believe red resembled a blazing flame or bright sun, symbolising warmth and vitality. Thus, Upper Cave Man arranged the deceased with hematite powder, likely hoping for auspiciousness through this simple, rustic practice.

While there is no concrete evidence to definitively support these viewpoints, one certainty remains: a form of tomb had already appeared on the land of China by at least the Palaeolithic period. Although distinct from the more formal funeral practices of later societies, Upper Cave Man—in this early stage of self-awareness—had already developed concepts of death and burial, along with a vague sense of the afterlife.



Sprinkling red hematite powder in memory of the deceased: Upper Cave Man had already developed concepts of death and burial

The Origins of Settlement
A Single Spark Can Start a Prairie Fire

In April 1966, geology and geography students from Peking University discovered three skeletons at Donghulin Village in Beijing's Mentougou District. This discovery became known as the Donghulin Site.

In 1973, archaeologists discovered the New Cave Man Site at the southeast corner of Dragon Bone Hill, dating from 135,000 to 175,000 years ago. Existing between the times of Peking Man and Upper Cave Man, evidence from the New Cave Man Site suggests that its inhabitants had begun to consume cooked food.

In 2003, a team from the Chinese Academy of Sciences unearthed a relatively complete ancient male skeleton at Tianyuan Farm in Zhoukoudian. DNA extracted from the leg bones represents the oldest East Asian human genome, genetically classified as belonging to ancient East Asians.

The Zhenjiangying Site, dating back

roughly 8,000 years to the Neolithic period, was unearthed in Fangshan District in 1986.

The Shangzhai Cultural Site, discovered in Pinggu District in 1984, represents the earliest Neolithic culture found in Beijing to date. Dating back 6,000 years, the Shangzhai Culture emerged during the early stages of primitive agriculture.

Boju Li

Discovered in Xueshan Village, Changping District in 1958 and excavated from 1962, the Xueshan Cultural Site dates back approximately 4,000 years. The later phase of Xueshan Culture shows similarities to both the Xiajiadian Lower Layer Culture and the Shang Culture of the Central Plains region.

Over time, the culture of the Central Plains began to solidify. Ancient China witnessed a transition from primitive commune society to dynastic rule. Beijing has a long history of early human settlement, particularly in what is now Fangshan District. According to the *Records of the Historian*, in the early years of the Western Zhou Dynasty, King Wu (reign: 1056–1043 BC) of the Zhou Dynasty (11th century–256 BC) overthrew the Shang Dynasty (16th century–11th century BC) and enfeoffed Duke Shao (Ji Shi) to Northern Yan. This marks the earliest historical record of the region of Yan.

For years, the exact location of Northern Yan remained unknown. Historian Chen Mengjia (1911–1966) wrote that determining the location of the Yan capital during the Western Zhou Dynasty was difficult. In 1945, archaeologist Su Bingqi (1909–1997) acquired pottery shards from Dongjialin Village, later identified as relics from the Shang and Zhou dynasties. This discovery led to the excavation of the Liulihe Site, which became, in effect, an accidental encounter with the Yan capital.

In 1962, archaeologists conducted investigations and excavations at the villages of Liulidian, Huangtupo and Dongjialin in Fangshan District. This initial effort focused on the Yan State's original territory at the Liulihe Site, located on the north bank of the Dashi River in present-day Dongjialin Village. Aside from the Zhoukoudian Site, the Liulihe Site has seen the most frequent and sustained archaeological work in Beijing's history. Since the 1960s, five large-scale excavations have uncovered a city site, a palace residence and tombs dating to the early Western Zhou Dynasty.

On snowy November 29, 1986, as their work neared completion, an archaeological team excavated tomb M1193 at the Liulihe Site. Rushing to finish before the ground froze, they found a hole three m in diameter, previously dug by tomb robbers, leading into the coffin chamber, suggesting that most artefacts might have been looted. However, spirits soared when the team unearthed two complete bronze vessels, a *lei* and a *he*, in the tomb's southeastern section, both bearing lengthy inscriptions. The discovery was met with cheers from the team.

Two months later, following careful rust removal and restoration, the once heavily corroded bronze vessels were brought back to life. Inscriptions on the inner walls and lids, previously obscured, became legible, with only

Ke He

Ke Lei

minor differences in calligraphy. These inscriptions detail the earliest known origins of the Yan State, stating, "Ke, the eldest son of Duke Shao, was appointed as a ruler of Yan," marking his appointment and governance. This inscription is considered crucial to understanding the site's historical significance. The two vessels, later named Ke Lei and Ke He after their inscriptions, have since gained national recognition as invaluable treasures.

The Ke Lei and Ke He inscriptions confirm Liulihe as the Yan State's first Western Zhou fiefdom, tracing Beijing's urban history back to that period. Pinpointing when the Yan capital was established leads to astronomy. Historical records state that King Wu of Zhou defeated the Shang Dynasty in the 11th year of his reign and then granted Northern Yan to Duke Shao. The precise timing of this campaign was long debated, but the 1976 discovery of an inscription on the Li Gui bronze vessel, which mentions Halley's Comet, offered a valuable clue. Astronomers calculated that the comet's appearance, noted in connection with the campaign, occurred in 1057 BC, suggesting that the fall of the Shang took place then. However, drawing upon the *Book of History* and the *Bamboo Annals*, scholars have identified 1045 BC as the year of King Wu's assault on King Zhou (reign: 1075–1046 BC) of Shang. Further investigation, notably through research like The Xia, Shang and Zhou Dynasties' Chronology Project, later confirmed 1046 BC as the year in which King Wu defeated the Shang Dynasty.

This means Beijing's history as a city stretches back at least 3,070 years. The Liulihe Site not only reveals the long-sought location of the Northern Yan fiefdom, it also sheds light on the early appearance of Beijing. It reinforces the view of Beijing as a city with an extraordinarily long and rich history, and provides a vital foundation for understanding its urban development and evolution.

In 2021, bronze wares marked with "Zuoce Huan" were unearthed at the Liulihe Site. "Huan" was the owner's surname, while "Zuoce" referred to his profession, roughly equivalent to a historiographer or registrar. An archaeological survey covering over 800,000 square metres revealed over 930 Western Zhou Dynasty ruins and remains, including building foundations, pits, tombs and smaller civilian cemeteries. These cemeteries are well-preserved and primarily oriented north to south. Most tombs contain a single coffin, while a smaller number include an inner coffin placed within an outer one. This practice developed as the number of burial objects increased, exceeding the space of a single coffin and requiring an outer coffin to preserve proper funeral etiquette.

Archaeological excavations revealed numerous burial objects placed within the coffins, including bronze *li* and *gui* vessels, pottery jars, lacquerware and silk fabrics. Animal remains were also discovered in some tombs, suggesting they were buried alive alongside their masters, a practice reflecting customs from the Shang Dynasty. The prevailing belief in lavish burials, based on the

Site of the Imperial Tombs of the Jin Dynasty

concept of "treating the deceased as if still living," held that the dead should receive the same treatment in death as in life. Elaborate funerals and ornate tombs became sources of pride, motivated by the hope that the deceased would enjoy a comfortable afterlife. This explains the abundance of burial items, each representing careful preparations to meet the needs of the dead in the afterlife.

The use of hematite by Upper Cave Man marked the beginning of ancestor veneration, reflecting early awareness of funeral practices. Over time, this developed into the elaborate Western Zhou Dynasty custom of treating the deceased as if still living. This enduring funeral tradition reveals humanity's quest to understand life and honour ancestral spirits, while also demonstrating the societal shift from clans to monarchical rule. Each artefact uncovered bears witness to the evolution of human aesthetics and craftsmanship, from rudimentary stone beads to finely crafted ceremonial objects.

Dating back over 3,000 years, the Liulihe Site, the original capital of the Yan State, confirms that Beijing's urban civilisation has spanned over three millennia, proudly earning the title "source of Beijing." Rich in cultural heritage, the site reveals that Beijing is not merely a modern metropolis but a vibrant, enduring city rooted in the Taihang Mountains and North China Plain, connecting prehistoric and dynastic civilisations.

Founding of the Capital City
A Long-Standing Urban Development

Dragon Bone Hill, home to the Zhoukoudian Site, bears a name rich in tradition. The dragon, a symbol of good fortune, was once reserved for the imperial family in feudal China. A dragon-like feng shui element was often incorporated into emperors' tombs to secure dynastic stability for future generations. Northwest of the Zhoukoudian Site, the Imperial Tombs of the Jin Dynasty, an invaluable historical legacy, lie quietly within the Taihang Mountains. This 6.5 square kilometre complex contains the remains of 17 Jin emperors and members of the imperial family. Predating the UNESCO World Heritage Site Ming Tombs by over 260 years, it remains a more understated presence.

The Imperial Tombs of the Jin Dynasty hold immense historical value for Beijing. Situated in the Dafangshan Mountain area, eight kilometres northwest of Zhoukoudian, the site features the semi-circular terrain of Liansanding Peak. To its south is Jiulong Mountain, which splits into nine branches to form the gently sloping area where the main tomb area is located. The surrounding landscape, with its towering peaks and deep, sunlit valleys, evokes a timeless atmosphere. Having endured for over eight centuries, this cluster of tombs stands as a powerful testament to the dynasty's rise and fall, deeply tied to its destiny and marking the moment when Beijing first emerged as a national capital.

To understand the site's significance to modern Beijing, let us consider the year 1153. Despite opposition from his ministers, Wanyan Liang (reign: 1149–1161), the fourth emperor of the Jin Dynasty, made the decisive move to shift the capital from Acheng, in present-day Harbin, to Yanjing, the predecessor of Beijing. This pivotal decision shaped the course of the Jin Dynasty and marked the beginning of Beijing's over 870-year history as a capital. To solidify the transition, he ordered the construction of the Imperial Tombs at the foot of

Dafangshan Mountain, selecting the site with care due to its favourable feng shui. He also arranged for the relocation of the tombs of three former emperors from the previous capital in Harbin.

Beginning with Wanyan Liang's early efforts, and continuing through over 60 years of construction by Emperor Shizong (reign: 1161–1189), Emperor Zhangzong (reign: 1190–1208), Prince Weishao (reign: 1208–1213) and Emperor Xuanzong (reign: 1213–1224), the area gradually developed into a substantial cluster of imperial tombs. Classified by function, the site was mainly divided into the emperors' tombs, Kunhou Tomb (the resting place of Empress Zhaode) and burial grounds for other members of the Jin imperial family. After overcoming many challenges, the tomb cluster was completed within the mountains, serving as a lasting tribute to the dynasty's legacy and prosperity. Its completion marked the formal establishment of a capital city and left an indelible mark on civilisation.

After the fall of the Qing Dynasty (1644–1911), the Imperial Tombs of the Jin Dynasty fell into disrepair and became obscured by time. In 1986, an accidental discovery brought them back into focus. While digging a tree pit, a farmer in Longmenkou Village unearthed a stone tablet adorned with a dragon. He reported the find, leading Lu Qi, head of the Archaeological Team for the Imperial Tombs of the Jin Dynasty, to investigate. The team identified the inscription on the two-m-high stele as belonging to the tomb of Wanyan Zongfu (1096–1135), a member of the Jin imperial family, marking a major archaeological breakthrough.

Despite being buried for many years, the stele remained relatively well-preserved. Closer inspection revealed traces of gold powder decorations. The discovery of Wanyan Zongfu's stele offered the first solid archaeological evidence identifying the location of the Imperial Tombs of the Jin Dynasty, enabling archaeologists to determine the main area of the tomb cluster with accuracy. The stele is still preserved at the site, located at the foot of Jiulong Mountain in Zhoukoudian Town, Fangshan District.

The archaeological excavation of the tomb cluster has helped fill a significant gap in the study of imperial tombs throughout China's long history. Since its initial discovery, archaeologists have conducted numerous detailed investigations and excavations within the cluster's boundaries. Over the years, these efforts have led to the unearthing of many cultural relics of notable historical value, including stone carvings from the Jin Dynasty featuring dragon and phoenix motifs. Among these are intricately carved marble sitting dragons, stone railings with twin dragon designs, blue and white stone dragon columns and stele bases adorned with dragon-like figures. These relics display remarkable craftsmanship, varied styles and a range of sizes. Although some dragon-themed carvings were damaged in the past, pieces such as a stone outer coffin decorated with phoenix patterns and the eastern wall of another outer coffin bearing dragon motifs have survived, allowing the public to admire artistic achievements created nearly 1,000 years ago.

▲ Statue of a green glazed phoenix with cloud decorations

Like the funeral culture observed at the Liulihe Site, the Imperial Tombs of the Jin Dynasty reflect the great importance ancient Chinese society placed on elaborate burial rituals. Within the tomb cluster, the careful design of the tombs, the thoughtful selection of coffins and the purposeful arrangement of burial objects all demonstrate deep respect for the deceased and express auspicious expectations for their afterlife. For instance, unearthed jade ornaments carved with phoenix patterns exhibit a crystal-clear quality and stunning aesthetic beauty. In addition, the main area of the tomb cluster features a Sacred Way extending over 100 m. At its northern end stands an exquisite marble railing with prominent carved dragon motifs. Even the surface of the stone steps is embellished with meticulously carved floral decorations, marking a unique discovery among China's known imperial tombs.

An ancient tomb reflects the politics, culture, religion and art of its

▼ Sitting bronze dragon statue

Shijing Mountain, Fangshan District

Partial view of stone-carved Buddhist scriptures on Shijing Mountain

dynasty, embodying its aesthetic values and level of civilisation. From Upper Cave Man's use of red burial materials to the refined funeral practices of the Western Zhou Dynasty and the Imperial Tombs of the Jin Dynasty, funeral culture and the perception of death have been continuously passed down and developed, supporting the ongoing continuation and evolution of civilisation.

Fruitful Legacies A Myriad Twinkling Lights

From the discovery of the Zhoukoudian Site to the excavation of the Liulihe Site and the unearthing of the Imperial Tombs of the Jin Dynasty, it has become clear that Beijing's rich history of human settlement, urban development and capital status has been built up and sustained over a long period. The city's cultural context has remained continuous, never suspended or interrupted throughout its long and storied past.

Recognising the impermanence of paper, some ancients turned to stone carvings to preserve their writings. Master Jingwan, a monk of the Sui Dynasty devoted to the eternal Dharma, dedicated his life to carving scriptures. He led his disciples to a remote mountain in Fangshan, known for its durable stone, and vowed to engrave all Buddhist scriptures onto stone slabs. He believed stone would outlast paper or bamboo, protecting the texts from damage and helping to spread them widely. This effort transformed the once-unknown mountain into Shijing, or "Stone Scripture" Mountain, initiating a millennium-long endeavour to carve Buddhist scriptures onto stones.

Despite the harsh conditions of life in the wilderness, they worked with diligence, maintaining care and precision throughout the stone-carving process. Later examination of the inscriptions on the mountain's stone tablets revealed an extraordinary fact: among the densely packed 35 million characters, not a single engraving error was found. The smooth and steady progress of the project was closely tied to support from the ruling

Zhengyangmen Gate Tower at night

class. When Empress Xiao (AD 567–647) of the Sui Dynasty learned of Jingwan's sutra carving initiative, she donated 1,000 bolts of silk. Following her example, both officials and ordinary people contributed generously, allowing the work to continue and flourish. Jingwan died in the 13th year of the Zhenguan period of the Tang Dynasty (AD 639), having completed carvings on 146 stone slabs. These included the *Nirvana Sutra, Avatamsaka Sutra, Vimalakirti-Nirdesa Sutra* and *Srimaladevi Simhanada Sutra*. His passing did not bring an end to the endeavour. In accordance with his final wishes, his cremains were placed in a stone box and enshrined on Shijing Mountain, bearing witness to the continuation of his mission by generations of disciples.

In 1956, a formal archaeological investigation of Shijing Mountain in Fangshan began, bringing renewed attention to the value of the millennium-long carving project. Leiyin Cave was the first site to be explored. Over time, the cave had deteriorated, with stone slabs scattered across the ground. With the help of skilled craftspeople, the archaeological team collected and carefully reassembled the fragments. This effort led to a major finding: experts confirmed that the *Nirvana Sutra*, rather than the *Avatamsaka Sutra*, was Jingwan's first engraving, correcting the historical record.

The excavation of Shijing Mountain's sutra tablets has provided Beijing with a site of immense historical and cultural significance, now comparable to the renowned Mogao Grottoes in Gansu Province. Over 1,000 years ago, Master Jingwan embarked upon a monumental undertaking, a career that ultimately required generations to bring to completion. More than 1,000 years later, it seems as though the echoes of chiselling stones from that distant era still linger over the ancient capital. Generations of devout monks and dedicated believers left behind not only a substantial legacy of Buddhism in Beijing but also a profound testament to the continuous inheritance and ongoing development of civilisation upon the very land of the city, as embodied by these enduring texts.

Numerous natural and cultural landmarks, including the Zhoukoudian Site, the Liulihe Site, the Imperial Tombs of the Jin Dynasty, Shijing Mountain, Yunju Temple and Shihua Cave, are scattered across Fangshan like pearls, together forming a rich and varied historical and cultural landscape. Fangshan, which proudly boasts a profound cultural heritage, also plays a leading role at the crossroads of modern technology and traditional heritage. As time moves forward, the district is gradually becoming a key force in the high-quality development of the capital, drawing on its unique geography and abundant resources to bring new vitality to Beijing's growth and prosperity.

Today, Beijing has grown into a modern metropolis celebrated for its open-minded culture and advanced technology. From the first flicker of flame in the primitive caves of the Zhoukoudian Site to the bright lights of the international city it has become, the enduring spark of civilisation has been passed down through the ages, converging and flourishing in the vibrant Beijing we know today.

Listening to the Echoes of Ancient Civilisations

Translated by Wang Wei Photos by Tong Tianyi

"Although I had only a few interactions with influential scientists such as Wu Xinzhi, I still vividly remember their humour and approachable nature. Wu's lessons on the importance of precision in any kind of work also left a lasting impact on me throughout my career."

——Song Dongyong

Song Dongyong, Director of the Heritage Office at the Zhoukoudian Site Museum, has a brief official biography, yet his career is full of rich and remarkable experiences. A long-serving staff member with nearly 30 years at the site, he has witnessed and contributed to numerous significant events. These include the lighting of the "Chinese Holy Fire" at the China Millennium Monument, kindled at the Zhoukoudian Site in 1999; the Beijing 2008 Summer Olympic Games torch relay held at the site; the creation of the new Zhoukoudian Site Museum's core exhibitions; the founding of the Office of the Committee for Searching for Peking Man Skullcap Fossils; and the formation of a dedicated search team.

For Song, joining the Zhoukoudian Site team was both chance and destiny. A native of Beijing's Fangshan District, he had known of the site from an early age, especially the story of Dragon Bone Hill. In high school, his essay titled "Nascent Fire: The Starting Point of Civilisation from Dragon Bone Hill" won first prize in the high school division of the "I Love Beijing and I Love its Museums" Composition Competition. In 1997, as he approached university graduation, the Zhoukoudian Site Museum Administration Office—then under the Institute of Vertebrate Paleontology and Paleoanthropology of the Chinese Academy of Sciences—began recruiting in Fangshan. When submitting his application, Song included that heartfelt essay. Soon after, the young graduate joined the museum's administration office.

At the time, the Zhoukoudian Site Museum Administration Office consisted of just the Office and the Public Education Department, with only 11 permanent staff members. Song was the sole young man in the Public Education Department, where he was primarily responsible for displaying and explaining the site's exhibits. He recalls receiving early guidance from Academician Wu Xinzhi (1928–2021), a distinguished palaeoanthropologist. Among the fossils unearthed from the Upper Cave were three relatively intact skulls, one with a small hole at the top. Some guides initially claimed this showed that Upper Cave Man had mastered craniotomy 10,000 years ago. Song repeated this to visitors, but Wu corrected him. "Song, young man," he said, "the interpretation of the Zhoukoudian Site must be scientifically accurate and rigorous. Anything without a scientific basis must not be presented as fact. Every explanation must be supported by verifiable evidence."

When asked about his impressions of the senior scientists, Song smiled and said, "I distinctly remember something Yang Zhongjian (1897–1979) once said. He compared research to rolling a snowball—the more you roll it, the bigger it gets. Later, Jia Lanpo (1908–2001) added, 'If you don't keep rolling it, it will melt.'" Although Song had only a few interactions with influential figures such as Jia Lanpo, Liu Dongsheng (1917–2008), Wu Xinzhi and Huang Wanpo, he still vividly remembers their humour and approachable nature. Wu's lessons on the importance of precision in any kind of work also left a lasting impact on Song throughout his career.

On August 16, 2002, the People's Government of Beijing Municipality and the Chinese Academy of Sciences signed an agreement to jointly manage the Zhoukoudian Site. On January 1, 2003, the Fangshan District People's Government established the Zhoukoudian Peking Man Site Administration Office (Museum). After working in the office for two years, from 2003 to 2004, Song transferred to the Heritage Office in 2005. There, he became responsible for cultural relic protection, with a primary focus on preserving fossils at Locality 4 and in the Upper Cave of the Zhoukoudian Site. During that time, Song conducted twice-daily inspections of the various fossil localities on the hill. He meticulously measured rock crevices with a vernier calliper, recorded data, photographed weathering patterns and manually monitored temperature, humidity and rock mass displacement.

Today, with the establishment of the Zhoukoudian Site Protection and Monitoring Centre, advanced instruments have replaced manual inspections. Using state-of-the-art equipment, key indicators of the Upper Cave—including temperature, humidity, soil moisture and fissure width—are now tracked in real time via electronic sensors and displayed on a large screen at the centre. With the help of modern technology, the mysterious traces left by ancient ancestors seem to converse across time and space with the present-day guardians of the site. Here, early humans once struggled to survive by mastering fire, a symbol of their ingenuity. Over the years, the site has hosted sacred flame-lighting ceremonies. Since 1990, five such events have taken place at the Zhoukoudian Site. Song has had the good fortune to witness two of them, including the Beijing 2008 Summer Olympic Games torch relay.

At 7 a.m. on August 8, 2008, the final leg of the Beijing Summer Olympics torch relay began at the Zhoukoudian Site Museum. Olympic flame guards lit the first torch, symbolically uniting the fire of human civilisation with the Olympic flame. To ensure the event's flawless execution, Song and his colleagues, under the site administration's guidance, began rehearsals in July. Eleven torchbearers took part in the Zhoukoudian Site relay, following a route that started at the Ape-Man Cave entrance, climbed to the Upper Cave, continued to the Scientific Popularisation Hall, then descended back to the entrance. Song meticulously walked the under-500-metre route countless times, mapping each torchbearer's section and calculating the precise pace. He even rehearsed contingency plans, such as dealing with slippery roads in the rain, ensuring wind protection for the flame and managing unexpected tourist intrusions, leaving no detail unchecked.

As dawn broke on the day of the relay, the Zhoukoudian Site stood solemn in the rising sun. A red carpet stretched along the hillside path from the museum entrance to the base. The torchbearer, holding the Xiangyun torch aloft, moved steadily along the carefully planned route. The sacred flame lit up the ancient rock walls of the Ape-Man Cave, as if passing through a tunnel spanning hundreds of thousands of years, merging the first sparks of human civilisation with the spirit of the Olympics.

Even now, as Song reflects on his diverse personal experiences throughout the years working in the administration office, he still grows visibly animated. What he guards is the heritage site itself, what he protects are the origins of the civilisation it represents and what he records are the urban memories that belong not only to Beijing but to the entire nation. It is not only a milestone in his professional life but also a source of deep pride and honour, especially as a native of Beijing.

A Light behind the Curtain

Translated by Wang Wei Photos by Tong Tianyi

"In fact, visitors are often our best teachers. In dealing with audiences from diverse backgrounds and with varying needs, I came to appreciate the importance of patience and the value of empathy."

——Ma Lihua

She is neither an archaeologist, nor a curator, nor a social media influencer. Yet for 22 years, she has quietly and patiently accompanied a celebrated and profound museum.

Her position draws no spotlight and receives no applause, yet she keeps the entire exhibition space orderly and gleaming, as if new.

She attends to each exhibition, display and piece of equipment, ensuring everything functions smoothly and the environment remains tidy and almost like new.

Her story may not be flamboyant, but it is as meaningful as the history preserved within a valuable fossil.

Her name is Ma Lihua, and she is the director of the Logistics Service Department at the Zhoukoudian Site Museum.

The Zhoukoudian Site Museum embodies the profound roots of human civilisation. Each stone tool, bone and relic on display speaks to our shared quest to understand our origins and answers the question, "Where do we come from?" In 2003, Ma, a 21-year-old Fangshan native, fresh out of university, joined the museum as a guide, bringing with her a hint of naivety and a sense of awe.

At first, she saw the job as a stable option, never imagining it would shape the course of her life. She jokingly says that fate brought her here, but behind that fate lies a story of long-term dedication and quiet passion.

Before stepping into the world of cultural relics and museums, Ma, a law major, had little connection to archaeology or history. Determined not to remain a novice, she studied museum management and worked hard to fill the gaps in her knowledge. She explained that her legal background makes her more meticulous in her work, while her museum role has broadened her perspective and deepened her sense of awe and enthusiasm for cultural relics.

"This place has truly made me realise the importance of cultural relic conservation. It's more than just a job, it's a responsibility and a legacy we must uphold."

This deep connection with Peking Man, or *Homo erectus pekinensis*, became an inexhaustible source of motivation for Ma as she transitioned through various roles in the museum. From guide to administrative staff, from the Public Education Department to the Logistics Service Department, she has worked in nearly every position. This broad experience has shaped her into a thoughtful all-rounder, skilled not only in guiding visitors but also in understanding the museum's equipment and organisational systems.

The Zhoukoudian Site, a World Cultural Heritage Site, not only preserves the life traces of Peking Man from hundreds of thousands of years ago but also serves as a cultural legacy for generations to come.

"This is a truly honourable job," Ma admitted. Now serving as Director of the Logistics Service Department, she is responsible for the museum's landscaping, water and power supply, heating systems, property services, environmental sanitation, safety education and vehicle management. Though the job involves countless details, she handles each task with care and a strong sense of duty.

Logistical work often goes unnoticed by visitors. But if the museum's lights fail, the water supply is cut or the air conditioning breaks down, the entire operation is disrupted. "Our work requires extreme caution," she explained. Replacing a single light bulb, maintaining

each water pipe or updating a sign all carry serious importance for heritage preservation. Even a small oversight can set off a chain reaction.

The museum's closing day is the busiest time for the Logistics Service Department, requiring deep cleaning, air conditioning checks, circuit inspections and hazard prevention. Every task must be carried out with meticulous execution. In Ma's view, logistics is not just a service, but a form of protection and a guiding belief. She has always followed the principle that "there is no best, only better." Whenever visitor feedback is received, she reflects seriously: "Can we do more to ensure a smooth and rewarding visit?" Even minor tasks like "adding a bin or wiping a window" are never taken lightly. She believes every detail shapes a visitor's first impression and reflects the dignity all cultural sites should uphold.

"We must pass it on to the next generation in pristine condition. We cannot afford to ease up on this responsibility."

When asked about her 22-year tenure at the Zhoukoudian Site Museum, Ma gave a simple but firm reply: "I'm quite traditional, and I love what I do."

Before taking on her role in logistics management, Ma spent a significant period in the museum's Public Education Department, where she had frequent interaction with the public. She received student groups, tourists from afar, elderly visitors and foreign guests, including experts and scholars. "In fact, visitors are often our best teachers," she reflected. In dealing with audiences from diverse backgrounds and with varying needs, she came to appreciate the importance of patience and the value of empathy.

"After working in a service-oriented role, I rarely complain when visiting other scenic spots. I understand that the staff at those places also face challenges. Every ticket reflects the hard work of many behind-the-scenes individuals quietly doing their jobs."

"I hope visitors can understand us, and equally, we must strive to be understood by them." With this in mind, Ma consistently pays close attention to the details that shape the museum experience: clear signage, clean restrooms and sufficient rest areas. She firmly believes that a good exhibition experience often begins with these small, yet important touches.

Ma shared that she always remembers the words of a senior colleague when she first entered the field: "Conserving cultural relics and passing on historical legacies is not only our job but also our mission."

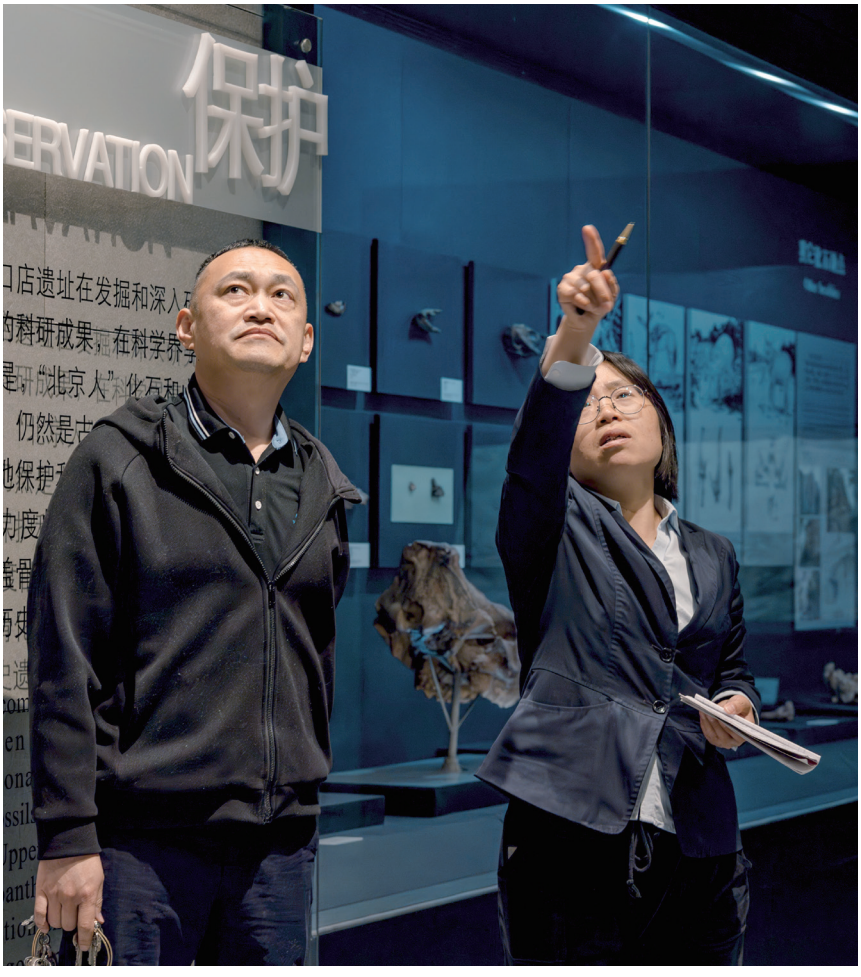
She has remembered and practiced this for over two decades. Whether as a guide, an administrator or in logistical services, she has diligently fulfilled her responsibilities in every role, never allowing herself to grow complacent.

She describes herself as "rather traditional," but it is precisely this mindset that has shaped her professional ethos: to love what you do, commit to a place and persevere through challenges.

"I often feel there are still many imperfections and details that need improvement. But it's this awareness that keeps me moving forward, always striving to do better."

In the cultural heritage and museum sector, many individuals like Ma work quietly behind the scenes. They may not have glamorous resumes or lofty titles, yet they remain steadfast, working tirelessly day after day to preserve our profound cultural legacy.

In her 22 years of service, Ma has exemplified the true meaning of dedication and perseverance. Her story reminds us that the warmth, cleanliness and order of a museum are not solely the result of its dazzling exhibits, but also of the many "behind-the-scenes protagonists" like her.



A Cultural Messenger of the Zhoukoudian Site

Translated by Wang Wei

"As museum guides, we act as cultural ambassadors, shouldering a significant responsibility. We help the public appreciate the importance of the Zhoukoudian Site to our nation and society, ensuring that every visitor feels their trip was worthwhile."

——Liu Bo

As a repository of humanity's enduring heritage, the Zhoukoudian Site Museum preserves the invaluable legacy of early humans. Every day, it welcomes visitors from around the world, guiding them through time to uncover the mysteries of human origins. Among the museum's guides, Liu Bo stands out for her expertise and engaging personality. Her vivid explanations serve as a key, opening the door to the primitive world for all who come to explore.

Liu's career began in a seemingly unrelated field. After university, she worked for two years as a clerk at the People's Court of Fangshan District. Her days were filled with legal texts and court documents, a time marked by diligence and contentment. Yet, the course of her life was quietly beginning to change.

By chance, Liu came across a recruitment advertisement for a guide at the Zhoukoudian Site Museum. At the time, she was approaching a significant turning point in her life—marriage. The museum's proximity to her home immediately appealed to her. With a try-it-and-see attitude, she took the written test and interview. To her delight, the process unfolded remarkably well. In 2016, Liu made the bold decision to leave her court position and begin a new journey at the Zhoukoudian Site Museum, stepping into a world of unfamiliar challenges and rewarding discoveries.

Upon joining the museum, Liu did not map out a grand blueprint for her career. At first, she simply appreciated the job's proximity to her home and the potential for a better work-life balance. She had no idea that this temporary arrangement would evolve into a fulfilling nine-year journey. Over time, the Zhoukoudian Site Museum has witnessed her growth. She steadily progressed from a novice and ordinary guide into a respected professional, highly regarded by countless visitors. Reflecting on her journey, Liu shared with enthusiasm, "I initially chose this job purely for its convenience. However, once I truly immersed myself in it, I discovered a deep passion for the role. The rewards I've received here have far surpassed my initial expectations."

At the Zhoukoudian Site Museum, working as a guide is much like delivering a series of live performances. While seemingly repetitive, each tour is a unique presentation. During peak season, the museum bustles with visitors, and Liu tirelessly leads groups through its rich history four or five times per day. Even during the off-season, she conducts at least one or two tours daily, each session lasting around 45 minutes. Year after year, her accumulated experience acts as a marker of time, reflecting her unwavering commitment to the profession.

When welcoming a diverse range of visitors, Liu consistently tailors her approach to suit each audience, transforming every tour into a memorable cultural experience. Her introduction is simple yet warm, invariably beginning with the words: "Hello everyone, welcome to the Zhoukoudian Site Museum. I'm your guide." This seemingly standard greeting serves as the prelude to an enriching exploration. In her explanations, she adjusts her style according to the visitors' traits. When addressing experts, she helps them delve into the subject's intricacies, offering more formal and rigorous insights to satisfy their intellectual curiosity. When interacting with lively primary school students, she takes on the role of a caring older sister. Using light-hearted and engaging language, she shares vivid, animated stories, making complex historical knowledge easy to understand. This allows children to appreciate the

charm of ancient civilisation through laughter and curiosity.

International visitors also make up an important part of Liu's duties as a guide. While the Zhoukoudian Site Museum may not attract as many foreign tourists as iconic sites like the Forbidden City or the Great Wall, it still welcomes cultural exchange delegations and international students attracted by its reputation. Many of these guests have a strong interest in early humans and archaeology. On such occasions, Liu acts as a cultural ambassador. She offers detailed explanations of the museum's invaluable fossils and shares the fascinating stories behind them. She also takes foreign visitors to the excavation areas, giving them a chance to experience the historical legacy of the Zhoukoudian Site and appreciate its scientific significance firsthand.

Liu understands that adapting interpretations to individual needs is a core skill for any museum guide. By carefully observing visitors' reactions, she tailors the content of her explanations to match their interests. If some audience members show strong curiosity about the discovery process at the Zhoukoudian Site, she transports them back to that era of exploration, narrating events like a captivating story. If others are fascinated by ancient human fossils, she shares relevant information to help deepen their understanding of early hominids. Throughout each explanation, she also pays attention to her delivery. Sometimes, she speaks gently and fluidly; other times, with passionate enthusiasm—like performing a musical piece—so the audience remains engaged from start to finish.

At the Zhoukoudian Site Museum, the guides carry out a wide range of responsibilities. Liu and her colleagues serve in multiple roles, functioning as versatile professionals. They are not only disseminators of knowledge but also act as security, carefully monitoring visitor safety and protecting this important cultural heritage. In emergencies, they serve as first responders, offering prompt assistance and support to visitors. During special events, they take on the role of enthusiastic hosts, managing the flow of activities. They even step in as salespeople, promoting cultural and creative products with energy and dedication.

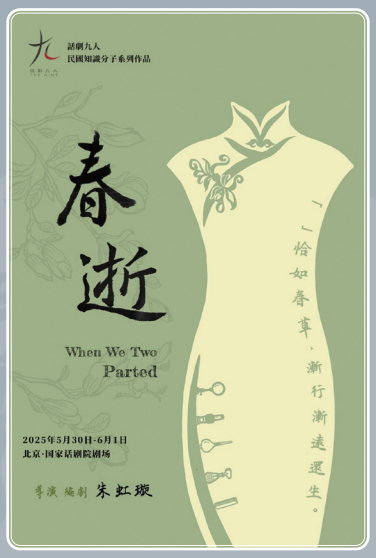
Each of these cultural and creative products carries its own unique significance. Liu patiently explains the design inspiration behind each item to visitors. For example, when presenting a necklace inspired by ancient adornments, she describes the aesthetic values and lifestyle of early humans, helping visitors better appreciate the cultural story behind their chosen souvenirs.

Temporary exhibitions within the museum present both a challenge and an opportunity for guides to enhance their skills. Prior to each exhibition's debut, Liu actively participates in training and carefully researches the relevant historical period and context. Even for seemingly simple content, she never treats the task lightly. Instead, she steadily expands her knowledge by consulting a wide range of resources and seeking advice from experts. Whenever the museum hosts expert lectures to share the latest archaeological findings, she is always among the first to attend, eagerly absorbing new information and continually refining her professional expertise.

Reflecting on her gains over the past nine years, Liu feels a deep sense of contentment. Her presentation skills have greatly improved. While she once felt shy speaking in public, she now shares the stories of ancient civilisations with confidence and passion. More importantly, her understanding of the Zhoukoudian Site has undergone a remarkable transformation. At first, like many visitors, her knowledge of the site was fairly superficial. But after years of dedicated study and guiding experience, she has come to fully appreciate the site's global significance. Its history predates even the Forbidden City and the Great Wall, standing as a shining jewel in the story of human civilisation.

"As museum guides, we act as cultural ambassadors, shouldering a significant responsibility. We help the public appreciate the importance of the Zhoukoudian Site to our nation and society, ensuring that every visitor feels their trip was worthwhile," Liu states with conviction. After a tour, a visitor could be heard saying, "It's essential to listen to the guide's explanations when visiting. Otherwise, the experience just isn't the same." This simple feedback is, to Liu, the highest form of recognition.

With her enthusiasm, professionalism and dedication, Liu has steadily progressed on her path of cultural dissemination. She conveys the allure of ancient civilisation to every visitor, helping more people appreciate the significance of the Zhoukoudian Site. Within this trove of human heritage, she has helped build a cultural bridge connecting ancient and modern, past and future.



话剧《春逝》

国家话剧院剧场于 2025 年 5 月 30 日 –6 月 1 日上演由朱虹璇编剧并导演的话剧《春逝》。故事取材于一段真实的历史脚注。有“东方居里夫人”之称的物理学家吴健雄，于 1936 年远赴美国留学之前，曾在中央研究院物理所工作了一年。彼时她朝夕相处的同事兼指导老师，便是“中国第一位物理学女博士”顾静徽。而担任物理所所长的，正是当时著名的爱国物理学家和剧作家丁西林。围绕着三人在物理所的有趣日常，激烈地展示着时代偏见与内心选择的碰撞，也温柔安放了细密绵长的情感。

The Drama *When We Two Parted*

The National Theatre of China will stage the drama *When We Two Parted*, written and directed by Zhu Hongxuan, from May 30 to June 1, 2025. Inspired by true events, the play centres on Wu Jianxiong (Chien-Shiung Wu, 1912–1997), an esteemed physicist known as the “Madame Curie of the East,” who spent a year at the Institute of Physics of the Academia Sinica before moving to the United States in 1936 to continue her studies. During her time at the institute, her colleague and mentor was Gu Jinghui (1900–1983), recognised as “China’s first female doctor of physics.” The institute’s director was Ding Xilin (1893–1974), a renowned physicist and playwright of the era. The drama explores the daily lives of these three figures at the institute, revealing the tensions between societal prejudice and personal choice, and conveying their meticulous and tender emotional connections.

舞台剧《看不见的客人》

国家大剧院 – 戏剧场于 2025 年 6 月 5 日 –8 日上演舞台剧《看不见的客人》。该剧改编自西班牙悬疑大师奥里奥尔·保罗的同名代表作电影，曾被意大利、韩国等多地翻拍，2025 年国内首次进行舞台剧改编。作品通过环环相扣的叙事结构与多重反转的情节设计，将观众带入人性博弈的风暴中心，沉浸式虚实交织的表演空间，让剧场成为真相拼图的关键现场。该剧融合东方传统戏曲的写意性与西方实验戏剧的先锋性，将西班牙原片的冷峻悬疑转化为更具东方哲学色彩的“人性寓言”。

The Stage Play *The Invisible Guest*

The Theatre of the National Centre for the Performing Arts will present the stage play *The Invisible Guest* from June 5 to 8, 2025. Adapted from the film of the same name by Spanish master of suspense Oriol Paulo, the story has been remade in countries such as Italy and the Republic of Korea. In 2025, China produced the first stage adaptation of the film. With its intricate narrative structure and multiple plot twists, the play draws the audience into the heart of a psychological game, creating a performance space where reality and illusion merge, and the theatre itself becomes the central stage on which the puzzle of truth unfolds. Blending the refined aesthetic of traditional Eastern opera with the experimental edge of Western drama, the production transforms the cold suspense of the Spanish original into a more philosophically Eastern “fable of human nature.”