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Translated by
Liang Yanjun
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Foreword

Pei Wenzhong and Chinese Prehistoric Archaeology[1]

As a Quaternary geologist and paleontologist, Pei Wenzhong (裴文中 1904–1982) was the founder of Chinese prehistoric archaeology. In his more than fifty years of scientific research, he devoted himself to the accumulation of Chinese prehistoric artifacts, the establishment of a theoretical system, and the cultivation of new forces in this field. In 1928, he began his research with the excavation of Choukoutien (Zhoukoudian); and the next year, he won world recognition by discovering the first skull fossil of *Sinanthropus pekinensis* (Peking Man). His assiduous research, extensive scientific knowledge, keen discernment, and sensible practical work methods resulted in great research gains that now constitute a great part of the basis of Chinese prehistoric archaeology.

In 1928, shortly after graduating from the Department of Geology, Peking University, Pei went to work at Choukoutien, initially as a bookkeeper, manager of workers' daily affairs, and worker in the excavation; but the following year, he took over the running of the whole operation. During this period, he learned palaeontological skills from Yang Zhongjian (杨钟健) and Pierre Teilhard de Chardin (1881–1955). As an enthusiastic worker combining theory with practice, he went on to do independent research and eventually became a famous paleontologist. On December 2, 1929, his discovery of the first skull fossil of Peking Man caused a sensation in academic circles; and the excavation at Choukoutien then became the focus of world attention.

Pei's confirmation of the Paleolithic time frame of the findings and evidence of fire remains are of great significance. He recalled the incident in a later article:

> In 1930, I found a lot of quartz in the cave of Longgu Mountain. According to my personal experience, I thought there were traces of artificial blows, so I took many specimens of the quartz back to Beijing. After washing and displaying them, I invited my colleagues to observe them. One colleague seemed very angry after examining them, picked up a piece straight away, hit it hard on the other stone fragments, and exclaimed, "These kinds of broken stones can be seen everywhere on the road!" I then scrutinized the material patiently with

[1] Written by An Zhimin (安志敏) in 1994 for the ninetieth anniversary of Pei's birth.

many experiments to show where there were traces of artificial blows and where there was natural breakage. I still could not convince several of my colleagues; but later, in the autumn of 1931, when Henri Breuil (Abbé Breuil, 1877–1961) was invited to come, his assessment convinced them that my observations were correct.

The discovery of stone artifacts was of epoch-making significance. Previously, a pile of stone artifacts had been thrown away along with the excavated earth; and without Pei's acute observation, the discovery of the *Sinanthropus* remains would have been impossible or at least delayed. The remains of fire became evident in burned bones, stones and pieces of wood that were tested and analyzed; and there were layers of ash and burnt soil in the remaining deposits. There was no doubt that the Choukoutien site was inhabited by *Sinanthropus.*

With his discovery of the Paleolithic nature of the site and the fire remains, Pei realized that the previously used excavation methods were not satisfactory. Since 1932, he began to adopt a method of grid division that was one of his important achievements. Earth was dug up in square sections, each measuring 9 m^2; all the important specimens were measured and drawn on the planar graphs and cross sections of graphs to establish a complete data archive. This was an important turning point in the Choukoutien excavation. In later years, he refined this method when dealing with stone artifacts. He sorted, classified, observed, measured and described the artifacts unearthed in each layer of the deposits of over 40 m^3 so as to identify the general properties of each layer. In this way he could systematically describe the characteristics and developmental trends of *Sinanthropus* culture.

In addition to *Sinanthropus* site Locality 1, systematic excavations were also undertaken at Locality 13 in 1933, Locality 15 in 1935, and the Upper Cave site in 1933 and 1934. This made considerable headway in providing a framework for the establishment of the sequence of Chinese Paleolithic culture.

The determination of what kind of production methods were used to make artifacts is needed to provide reliable material evidence for understanding prehistoric industries; and for this, it is necessary to distinguish between artificially made and naturally produced remains. In the history of archaeology, and even in the 1990s, it was not uncommon to mistakenly focus on what are simply naturally produced objects in anthropological studies.

In the early excavation of Choukoutien, Pei first confirmed the existence of Paleolithic artifacts and further identified differences between artificially struck stones and those that had been naturally broken. During his scholar days in France in 1935, he did a full analysis of the fundamental differences between humanly made stone artifacts and naturally formed 'phoney' artifacts by experiments combining the effects of temperature, mechanics and handmade blows on naturally broken rock samples collected by Breuil over more than thirty years. His doctoral thesis from the University of Paris "The Effect of Natural Phenomena on the Breaking and Forming of Hard Rocks Used by Prehistoric Humans" occupies an important position in the history of international Paleolithic archaeology, and it is helpful even today for students of archaeology. Pei made an in-depth analysis of the 'fake bonewares' generated naturally at Choukoutien. On a visit to China in 1931, Breuil thought that *Sinanthropus*

made implements from bones and horns and later discussed this in his 1939 monograph *Bone and Antler Industry of the Choukoutien Sinanthropus Site.* Pei initially agreed with Breuil, but after re-examining specimens from Choukoutien and the Cenozoic Research Laboratory, he came to hold that the bone and horn artifacts that Breuil gave as evidence for his view were not artificially made. At about the same time as Breuil's book, Pei published his book *Non Artificially Broken Bone Fossils*, in which he gave evidence for the natural origin of broken bone fossils based on what he observed of bite marks of rodents and carnivores, claw marks of carnivores, corrosion lines, and chemical and water erosion. Although the two books presented opposite viewpoints, Breuil later praised Pei's book, and Pei's view has had theoretical and practical significance for the study of prehistoric archaeology.

Regarding the chronological stages and cultural system of China's Paleolithic culture, Pei presented a paper on "Chinese Paleolithic Culture" at the International Symposium on Early Humans held in Philadelphia in 1937. As the first comprehensive work by a Chinese scholar, the paper attracted extensive attention in the academic community. In it, he established a system of stages in the development of Chinese Paleolithic culture from early *Sinanthropus*, through the middle Ordos Loop (Hetao 河套) culture and the late Upper Cave (Shandingdong 山顶洞) culture; and he stressed that these stages have little relationship with European Paleolithic culture.

After the 1940s, Pei became committed to establishing a system of Chinese prehistoric archaeology, which can be found in his collected papers *A Study of Chinese Prehistory.* After the founding of the People's Republic of China in 1949, he continued to publish important works, such as *Paleolithic Research* and *Paleolithic Period of China.* In these works, he expanded and revised previously held ideas, drawing upon new discoveries and research like those of Shuidong Gorge (Choei-Tong-Keou) and Salawusu (Sjara-osso-gol) rather than the earlier touted Ordos Loop culture. His manuscript "Introduction to Prehistoric Archaeology" discussing the prehistoric cultures of Europe and China in more than 300,000 characters lost before 1949. Only the introduction has been preserved, published as "Basis of Prehistoric Archaeology," with six chapters: definition and classification, human history, prehistoric chronology, prehistoric research materials, field work, and historical errors. As published, the work comprehensively introduces the basic knowledge and methodology of prehistoric archaeology which still have reference value today, though issued half a century ago.

Following his research on the Paleolithic Period, Pei also made many important contributions to Mesolithic and Neolithic archeology. He always approached his study with pioneering spirit. In 1935, he was the first to see that many stone implements with marks of being struck and a small number of ground stone implements found in caves in Wuming, Guangxi (also known as Kwangsi) and areas of Guilin from the Mesolithic Period, though many Chinese scholars had attributed similar remains to the Early Neolithic Period. He reasoned with profound insight that such remains should be identified as early examples of some primitive economy. After initial excavations in 1943, moreover, he discerned that the remains of Dalai Nur, Inner Mongolia, should likewise be regarded not as Paleolithic, but as Mesolithic,

like those from Guxiangtun Village in Heilongjiang Province. Following Pei's lead, discoveries since 1949 of abundant Mesolithic remains in the Yellow River Basin have provided further evidence of his insights on Mesolithic origin, age and distribution.

From July to October 1947, Pei and his colleagues conducted initial excavations in Gansu and Qinghai.[2] They found a total of ninety-three sites, and their findings not only produced a new understanding of the distribution and stages of prehistoric culture in Gansu, but also corrected past misidentifications. For example, the nomenclature he gave to Qijia (齐家) culture rectified the chronological framework of the six periods of Gansu prehistoric culture proposed according to typology by the Swedish archeologist Johan Gunnar Andersson (1874–1960). From June to August 1948, Pei made further investigations in Gansu and Qinghai,[3] which yielded a new assessment of the distribution and stages of prehistoric sites in this area and along the Silk Road. In particular, the naming of Shajing (沙井) culture amounted to another correction of Andersson's six periods.

After the founding of the People's Republic of China in 1949, Pei became responsible for the management of national archaeological findings; but he still participated in the excavation and research of many important sites, such as the Ziyang human fossil site in Sichuan in 1951. In 1950, as head of cultural relics exploration, he investigated sites and tombs around Yanbei in present-day Shanxi and reported on the Neolithic sites at Yungang, Gaoshan Township and Liyu Village. He was also in charge of the excavation of the stone coffin grave in Xituanshan Mountain, Jilin Province, which bore great fruit.

Apart from the macro study of Chinese Neolithic culture, Pei was also committed to the study of utensil typology, his influential masterwork being "Research on Ancient Chinese Pottery Tripods." His works set forth the definition, classification and appellations of relevant parts of tripod vessels like the *taoli* (陶鬲) and *taoding* (陶鼎) and their developmental trends from the Neolithic Period to the Shang Dynasty (c.1600–1100 BCE) and the subsequent Zhou Dynasty (c.1100–256 BCE). He presumed that the shapes of *taoli* and *taoding* are representative of Central Plains culture, but those variants of *taoli* found in border areas were influenced by the Yellow River basin culture and their age is relatively late. Pei broke out of the research trend of simply assigning the typological differences of such vessels to chance variations in cave air movements and thus set a model for archaeological research. His draft of "Ancient Chinese Pottery", if not lost, could serve as a further reference.

In the course of his more than fifty years of academic research, Pei published more than 160 monographs and papers, mainly on prehistoric archaeology. Most of his early works were published in foreign languages. His students later compiled

[2] These included Tianshui (天水), Gangu (甘谷), Wushan (武山), and the upper reaches of the Weihe River (渭河) in Gansu; Chengxian (成县), Xihe (西和) and Lixian (礼县) in the Xihanshui River basin; Taosha (洮沙), Lintao (临洮) and Ningding (宁定) in the Taohe River basin; and along the Yellow River near Lanzhou.

[3] He went to Yongdeng (永登), Wuwei (武威), Minqin (民勤) and other areas of the Gansu Hexi Corridor and to Xiangtang (享堂), Ledu (乐都), Xining (西宁) and Qinghai Lake in the Huangshui River basin of Qinghai.

Treatises on Pei Wenzhong's Prehistoric Archaeology, which contains forty-eight papers, eighteen of which were translated into foreign languages. We continue to deeply cherish Pei's great accomplishments in Chinese prehistoric archaeology. His forging ahead with wholehearted enthusiasm for archaeology throughout his life, his pioneering spirit of seeking truth, and his scaling of ever new scientific heights will always be our model.

The original version of the book has been revised. A correction to this book can be found at https://doi.org/10.1007/978-981-96-1675-6_5

Preface

In the fall of 1931 (twentieth year of the Republic of China), at the invitation of the Institute of Geology, the French archaeologist Henri Breuil (1877–1961) spent three weeks in Peking (present-day Beijing), aiding in research on the remains of Peking Man. I was assigned to escort him, and I learned that he was the only modern archaeologist who had a particular interest in art forms of the Paleolithic Period and that he had contributed a great deal to this field. Most later scholars have referred to him and his theories when they discuss prehistoric art. It was under his guidance that I made my fledgling attempts in this field. Later he was invited by the Peking Society of Natural History to deliver a lecture on art in the Paleolithic Period. In that English lecture, he introduced his lifelong research on the art of this period and discussed aspects of its development which had never before been touched upon by archaeologists or other scholars. After the lecture, he gave me the original French draft of the lecture, entitled "Art in Caves of the Reindeer Age in Europe," along with an English abstract. It was published in the *Bulletin* of *the Peking Society of Natural History*, Vol. 6, No. 2. I translated the English version into Chinese and intended to publish it in installments for Chinese readers, but neither the original French draft nor the English abstract met the minimum word requirement for publication.

Two years later, after referring to other books, I drafted my own article "An Introduction to Paleolithic Art" and published it in the weekly Natural Science to *The Supplement* to *World Daily News* (*Shijie Ribao Fukan* 世界日报副刊). Based on a revision of that article with added illustrations and notes, I publish it here as a book under the same title.

Archaeology in China has developed at a rapid pace in recent years. However, there has been no Paleolithic object identified as a piece of art other than the bone fragments discovered at the site along the Ordos Loop of the Yellow River. Nor has there been any artwork found in the Peking Man excavations at Choukoutien. Except for some ornaments with holes drilled in them, there is no artwork found in the Upper Cave (*Shandingdong* 山顶洞). Most scholars thus hold that it is premature to discuss art from that period. Moreover, few Chinese scholars are conscious of the need to shift our focus from Chinese excavations to those studied globally. Most take it for granted that art from this remote era could not be worth academic investigation.

Nonetheless, art has its own unique value. So despite my own shaky background in the field of art, I have managed to write this book to introduce art in the Paleolithic Period to those who have some knowledge of it, not only archaeologists, but historians and art lovers. I hope future scholars can elaborate in greater depth on what I discuss superficially in this book.

Pei Wenzhong (裴文中), on the Longgu Mountain at Choukoutien, October 24, 1934 (twenty-third year of the founding of the Republic of China).

Illustration 1

1. Henri Breuil visiting the Choukoutien excavation site in 1931, photo by the author.
2. Bust model of Cro-Magnon Man based on the skull.