THE ARCHAEOLOGY OF CHINA

From the Late Paleolithic to the Early Bronze Age

LI LIU AND XINGCAN CHEN



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THE ARCHAEOLOGY OF CHINA

This book explores the roles of agricultural development and advancing social complexity in the processes of state formation in China. Over a period of about 10,000 years, it follows evolutionary trajectories of society from the last Paleolithic hunting-gathering groups, through Neolithic farming villages, and on to the Bronze Age Shang dynasty in the latter half of the second millennium BC. Li Liu and Xingcan Chen demonstrate that sociopolitical evolution was multicentric and shaped by interpolity factionalism and competition, as well as by the many material technologies introduced from other parts of the world. The book illustrates how ancient Chinese societies were transformed during this period from simple to complex, tribal to urban, and preliterate to literate.

Li Liu is Sir Robert Ho Tung Professor in Chinese Archaeology in the Department of East Asian Languages and Cultures at Stanford University. She is the author of two books, *The Chinese Neolithic: Trajectories to Early States* and (with Xingcan Chen) *State Formation in Early China*, as well as more than seventy journal articles in both English and Chinese.

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Dedicated to

Professor Kwang-chih Chang

If we have been able to see further, it was only because we stood on the shoulders of giants.

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PREFACE

The development of early Chinese civilization occupies a unique position in world history, and new archaeological discoveries from China in recent decades have made Chinese archaeology a fascinating topic for both academic circles and the general public. Nevertheless, because of the linguistic, cultural, and social obstacles that have historically existed between China and the Western world, comprehensive studies of Chinese archaeology published in English for Western readers have been lacking.

The most widely used book on Chinese archaeology in English has so far been *The Archaeology of Ancient China* by the late Professor Kwang-chih Chang. It covers periods from the Paleolithic to early dynasties and was continuously revised during the course of twenty-three years, published in four editions in 1963, 1967, 1977, and 1986. It is a rich sourcebook for scholars and students interested in Chinese archaeology, but its last edition was published twenty-five years ago, and much of the information available then should be updated. As former students of K.-c. Chang, we are responsible for carrying on the mission to which he devoted much of his professional life.

Evidently, there has long been a great need for a book that would cover a longer period of early Chinese history and embrace broader topics commonly treated in the study of world archaeology. Such a book not only should provide basic and up-to-date information on Chinese archaeology, but it should also address some fundamental issues that concern the development of ancient civilization in China and are also relevant to the understanding of social evolution worldwide. This book, therefore, is intended to fulfill this need.

As the title of the book implies, the major theoretical topics covered in it are the roles of agricultural development and state formation in the processes of advancing social complexity within the area defined by modern China. It focuses on a period of about 10,000 years of ancient history, with a brief background of preceding cultural developments up to ca. 24,000 cal. BP. It involves evolutionary trajectories from the last Paleolithic hunting-gathering groups, through Neolithic farming villages, to the Bronze Age Shang dynasty. The book illustrates how ancient societies during this period were transformed from simple to complex, tribal to urban, "uncivilized" to "civilized," and preliterate to literate.

In Chapter 1 we review the history of Chinese archaeology and provide a sociopolitical background for the development of this discipline since the early twentieth century. Chapter 2 introduces the natural environment of China and the relationship between ever-changing ecosystems and human responses and adaptations. Chapter 3 focuses on the transitional period from Pleistocene to Holocene, emphasizing the early Holocene when the last foragers began to intensively exploit plant foodstuffs under conditions of reduced mobility, a subsistence strategy that eventually led to sedentary agriculture. Unlike a recent trend in some archaeological literature that classifies this period as the early Neolithic in China, on the basis of the presence of pottery, we use the term "Epi-paleolithic" to describe those early Holocene sites lacking clear evidence of domestication. A Neolithic revolution, based on current data, appeared around 7000 BC. Chapter 4 is devoted to the origins of animal husbandry and plant domestication; whereas some species were domesticated locally, others were introduced from outside China. Nevertheless, they all became economically significant and contributed to the development of complex society. Chapters 5, 6, and 7 cover the early, middle, and late Neolithic periods, respectively, lasting about five thousand years (ca. 7000-2000 BC). During this period, social stratification emerged, early complex societies rose and fell, populations increased and declined, and fortified settlements were built and collapsed. This turbulent era nevertheless formed the foundation for the development of early states in China. Chapter 8 discusses formation of the first states, Erlitou and Erligang. Social transformations took place not only within the states' core area in the Central Plain, but were also manifested through intensive interactions between the center and periphery, as the state rapidly expanded to the surrounding regions, to control key resources. In Chapter 9 we extend our scope to the Bronze Age cultures in the northern frontiers and beyond, which were contemporary with the Erlitou and Erligang states. This approach helps us to understand social and cultural changes that occurred over a broader region, and how these changes may have influenced the core area of early Chinese states. Chapter 10 is concerned with the late Shang dynasty, the first historical state. At this stage of the narrative, our study is facilitated by the increase in available types of materials to work with, including writing. Because the wealth of information from the late Shang period cannot be fully discussed in this chapter, we focus on the political landscape and regional interactions between Shang and its neighbors, as an overview of this extremely complex dynasty. We end this book, in Chapter 11, with a discussion on some particular characteristics of Chinese civilization, or Chineseness, without attempting to generalize.

In this volume we frequently use the concept "archaeological culture," such as Yangshao culture and Longshan culture. The term has been widely used in Chinese archaeological literature to describe material remains, a concept similar to complexities and horizons in archaeological literature in the West. It refers to a material assemblage with shared characteristics, found in archaeological contexts at multiple sites and distributed through a region. A culture is normally named after the location from which such a material assemblage was first identified (Xia, N. 1959). It is notable that, following Soviet practice introduced in the 1950s, an archaeological culture is often considered in China to correspond with a distinct ethnic entity (Xia, N. 2000). The term "culture" (as used in this book), however, is aligned with the conventional description of archaeological assemblages in time and space, and bears no implication as to the ethnic identity of the people who used these material items.

This book does not cover most of the Paleolithic period, because that subject deserves an independent volume and is beyond our present scope. We conclude the book with the late Shang period because there are already a number of publications devoted to archaeology of the Western Zhou and Eastern Zhou periods during the first millennium BC (Falkenhausen 2006; Hsu and Linduff 1988; Li, F. 2006, 2008; Shelach 2009a). Our primary objective is to present the developmental processes of prehistoric complex societies, which are best manifested by the evolutionary paths from first villages to first states.

To provide the most updated archaeological information, we draw primarily on findings reported in the Chinese literature. Because this book is written for English readers, we have also made efforts to use English sources as much as possible. As for carbon 14 dates, BP is used for uncalibrated dates before the "present" (i.e., 1950), cal. BP for calendar/calibrated dates before the "present" (1950), and BC for calibrated dates before the Common Era. We follow the custom in China for writing Chinese people's names, placing the surname before the given name (e.g., Tong Enzheng), when using references published in Chinese, but use the Western order of names (e.g., Kwang-chih Chang) if the original publication is in English.

We express our sincere gratitude to many individuals and institutions for their support of this project. Many ideas discussed in this book have been inspired by communications over the years with numerous outstanding scholars, who are, to name a few, Henry Wright, Norman Yoffee, David Keightley, Peter Bellwood, Richard Meadow, Ajita Patel, Gary Crawford, Tim Murray, Arlene Rosen, John Webb, Judith Field, Richard Fullagar, Gyoung-Ah Lee, Yun Kuen Lee, Han Wei, Wang Wenjian, Zhao Zhijun, Zhang Juzhong, Jin Zhengyao, Jiang Leping, Jing Zhichun, Tang Jigen, Xu Hong, Liu Guoxiang, Jiao Tianlong, Yang Dongya, Ma Xiaolin, Li Xinwei, Qiao Yu, Dai Xiangming, Sun Zhouyong, Sun Guoping, Zheng Yunfei, Shi Jinming, Song Yanhua, Jiang Zhilong, Min Rui, Fang Hui, Luan Fengshi, Jia Weiming, Ge Wei, Sheahan Bestel, and Duncan Jones. Thomas Bartlett and Victoria Bartlett painstakingly edited the manuscript, and Thomas Bartlett also provided many constructive comments. Wei Ming, Qiao Yu, Zheng Hongli, and Fu Yongxu helped create illustrations. Wang Tao and Qi Chen helped compile the glossary. Research related to this book project was generously supported by the Australian Research Council, the Chiang Ching-kuo Foundation, La Trobe University, Stanford University, and the Institute of Archaeology at the Chinese Academy of Social Sciences.

CHAPTER 1

CHINESE ARCHAEOLOGY: PAST, PRESENT, AND FUTURE

The archaeological materials recovered from the Anyang excavations... in the period between 1928 and 1937... have laid a new foundation for the study of ancient China.

(Li, C. 1977: ix)

When inscribed oracle bones and enormous material remains were found through scientific excavation in Anyang in 1928, the historicity of the Shang dynasty was confirmed beyond dispute for the first time (Li, C. 1977: ix–xi). This excavation thus marked the beginning of a modern Chinese archaeology endowed with great potential to reveal much of China's ancient history. Half a century later, Chinese archaeology had made many unprecedented discoveries that surprised the world, leading Glyn Daniel to believe that "a new awareness of the importance of China will be a key development in archaeology in the decades ahead" (Daniel 1981: 211). This enthusiasm was soon shared by the Chinese archaeologists when Su Bingqi announced that "the Golden Age of Chinese archaeology is arriving" (Su, B. 1994: 139–40). In recent decades, archaeology has continuously prospered, becoming one of the most rapidly developing fields of social science in China.

As suggested by Bruce Trigger (Trigger 1984), three basic types of archaeology are practiced worldwide: nationalist, colonialist, and imperialist. China's archaeology clearly falls into the first category. Archaeology in China is defined as a discipline within the study of history that deals with material remains of the past and aims to reveal the laws of historical evolution, based on historical materialism (Xia and Wang 1986: 1–3). This definition, to some extent, summarizes the practice of archaeology in China since the early twentieth century. It consists of two important components: Archaeology is a means to discover the evidence for reconstructing China's national history, on the one hand, and its goal is to verify the Marxist theoretical framework, on the other. The former, in particular, has been the essential objective throughout the development of Chinese archaeology (Chang 1999).

THE FORMATIVE PERIOD (1920s-1940s)

The beginning of modern archaeology can be traced back to 1928, when the Institute of History and Philology, Academia Sinica, launched the excavation of Yinxu (The Waste of Y in), a capital city of the late Shang dynasty, at Xiaotun in Anyang, Henan province. This excavation was the first state-sponsored archaeological project in China. Fifteen seasons of excavation took place between 1928 and 1937, and were ended at the outbreak of the Sino-Japanese War. This series of excavations at Anyang was not a random occurrence, but was preceded by several lines of cultural, political, and technological development that served as the foundation for the establishment of archaeology as a new discipline.

The Historical Context of Chinese Archaeology

There has been a tradition of interest in antiquarianism throughout Chinese history. Many antiquities were thought to possess a divine nature, and some bronze vessels were regarded as symbols of power and authority. This tradition encouraged the collecting and recording of ancient artifacts and, at the end of the nineteenth century, led directly to the discovery and decipherment of oracle bone inscriptions of the Shang dynasty. The discovery of the original source of the oracle bones at Xiaotun in Anyang further facilitated the identification of the late Shang capital city Yinxu at that site (Li, C. 1977).

The emergence of nationalism around the turn of the twentieth century was a significant political stimulus to the development of modern archaeology. Toward the end of the Qing dynasty, many revolutionary intellectuals were discontent and sensed that China under the Manchus was politically and militarily inferior to foreign countries. This discontent led to awakening nationalism. Liang Qichao, a Confucian reformer, was the first to heighten the Chinese national consciousness, particularly in response to Japanese aggression. Writing in a journalistic context, Liang argued in 1900 that people in China had failed to give a consistent name to their own country through history, and had always referred to themselves as people of the current ruling dynasty, which was in some cases not established by Han Chinese. Thus, the name "China" (*Zhongguo*), Liang noted, "is what people of other races call us. It is not a name which the people of this country have selected for themselves" (Liang, Q. 1992: 67–8).

In the early twentieth century, the concept of nationalism was ethnically centered on the Han Chinese, and minority groups were largely neglected (Dikotter 1992: 123–5; Townsend 1996). This ethnocentric nationalism was explicitly addressed by Sun Yat-sen when he said, "China, since the Qin and Han dynasties, has been developing a single state out of a single race" (Sun, Y. 1943: 6). According to Sun, although the Chinese people were distinct from

all other "races" of the world, the boundaries of the race were drawn along the borders of the Chinese state, and no comparable ethnic distinctions were made within China itself. Minority peoples were thus expected to adjust their beliefs and behavior if they wished to be counted among the "Chinese people" (Fitzgerald 1996: 69). Within this broad political climate that emphasized China as a whole entity, many Chinese intellectuals constantly endeavored to promote broader consciousness of national identity, and the search for Chinese cultural origins became an important part of their intellectual agenda. The initial impetus for archaeological research was closely tied to this issue.

It should be noted that, after the 1911 revolution, as the revolutionaries gained power and controlled the country, the Chinese nationalism moved away from its racialist/ethnocentric orientation to one of a state-based political entity. In time, the Nationalist government prescribed an elaborate cultural regimen to assist the people of Tibet, Mongolia, Manchuria, and the Xinjiang and Han regions to achieve a thorough comprehension of their common national identity as joint members within a republic of five ethnic peoples (wuzu gonghe), and to "recover" the sentiment of "central loyalty" toward the state (Chiang, K.-s. 1947: 10-13). This new concept of multiethnic nationalism, however, seems to have been practiced more in the political arena than in the cultural domain, with the dominant ideology in China remaining centered on the cultural superiority of the Han race. The legendary sage-ruler known to the Chinese as Huangdi (often translated as "Yellow Emperor") was progressively elevated to the status of the founding ancestor of the Han Chinese, as a symbol of national identity (Leibold 2006; Liu, L. 1999). It was only after the 1950s, under the rule of Communism, that multiethnic nationalism began to affect archaeology. This is evident in the shift of emphasis from the Central Plain (Zhongyuan) to a focus on multiregional development (see later in this chapter). It is not surprising, therefore, that the choice of locations for early excavations done by Chinese archaeologists was based on the primary concern to search for the indigenous cultural origins of the Han Chinese. Moreover, influenced by the May Fourth Movement of 1919, the traditional Confucian ways of learning were criticized, while western science and field methodology became influential (Li, C. 1977: 34-5; Xia, N. 1979). A group of young historians, referred to as "Doubters of Antiquity" (vigupai), led by Gu Jiegang (1893-1980), developed a skeptical view of textual accounts of Chinese history. Their mission was to search for scientific evidence by which to reconstruct Chinese history (Schneider 1971). Archaeology, therefore, was endorsed by the *yigupai* as a scientifically based discipline to achieve this goal.

In the early twentieth century, modern archaeological fieldwork methods were introduced into China by Western scholars, who were not, however, necessarily archaeologists. The major investigations by foreigners included surveys of Paleolithic sites in Ningxia, Inner Mongolia, and northern Shaanxi by E. Lecent and P. Teilhard de Chardin; excavations of *Homo erectus* remains at Zhoukoudian near Beijing by O. Zdansky, D. Black, and J. F. Weidenreich; and excavations of a Neolithic site at Yangshao in Henan by J. G. Andersson (Chen, X. 1997; Li, C. 1977).

Zhoukoudian is located at a cluster of limestone hills in Fangshan County, 48 km southwest of Beijing. It became world famous after some of the earliest human fossils were discovered there in limestone caves. The site with abundant fossil remains - referred to as dragon bones (longu) by the locals - was first discovered in 1918, with large-scale excavations following in 1927 under the leadership of the Geological Survey of China. During the first year of excavation (1927) an extremely well-preserved hominid lower molar was discovered, and was named Sinanthropus pekinensis, or "Peking Man" (now classified as Homo erectus pekinensis), by the Canadian anatomist Davidson Black. In 1929 the Chinese scientist Pei Wenzhong (Pei Wen-chung) discovered the first complete skullcap of Peking Man. Until the excavations were interrupted by World War II in 1937, a large workforce essentially "mined" the deposits at the cave site, removing more than half a million tons of material in the quest for fossils (Jia, L. and Huang 1990; Wu, R. and Lin 1983). At this time in the 1930s, when national unity and ethnic identity were major concerns, the discovery of Peking Man led some academics and government officials to argue that these fossils showed evidence of an indigenous genesis of Chinese ethnicity (Leibold 2006).

The hominid fossils found before World War II and subsequently lost in the confusion of wartime were studied by the German paleontologist J. F. Weidenreich. On the basis of twelve morphological features present in both Peking Man and modern peoples in East Asia, he concluded that some of the genes of Peking Man were transmitted into the modern Mongoloid populations who inhabit the same region of the world (Weidenreich 1943). This view, although controversial, was later adopted by many Chinese archaeologists to support the multiregional development theory of human evolution (Wu, R. and Olsen 1985; Wu, X. 2004).

An equally important discovery around this time was the Yangshao culture found by Johan Gunnar Andersson, a Swedish geologist. He was employed by the Chinese government in 1914 to conduct geological surveys, but it turned out that his achievements in archaeology surpassed those in geology. Andersson first participated in the early expeditions at Zhoukoudian. What made him famous, however, was not Zhoukoudian, but Yangshao village in Henan, where he found and undertook the first excavation of a Neolithic site in China. The name of this village was then used to designate the first recognized Neolithic material assemblage in the region: the Yangshao culture. Andersson asserted that the Yangshao material remains belonged to the ancestors of the Han Chinese, but suggested that the Yangshao pottery was probably transmitted from the West, as the stylistic patterns of Yangshao painted pottery looked similar to those from the Anau culture in Central Asia and the Tripolje culture in southern Russia (Andersson 1923). As a result, Andersson's diffusion hypothesis initiated a decades-long debate on the origins of Chinese culture and civilization (Chen, X. 1997; Fiskesjö and Chen 2004).

It should be noticed that not all foreign expeditions in China were for the purpose of scientific archaeological fieldwork. After the Opium War in 1840, China was forced to open its doors to the world. China soon became a hunting ground for foreign imperial powers, as well as for adventurers from Europe, North America, and Japan – such as Aurel Stein, Sven Hedin, D. Klementz, and P. Pelliot – who were in search of exotic antiquities in the Far East, especially in the northwestern part of China (Chen, X. 1997: 42-51; Hopkerk 1980). These activities began when the government was weak and local officials were corrupt. The treasure hunters were able to carry away large quantities of artifacts from China to their own countries without significant hindrance.

The behavior of these treasure hunters in China was humiliating to Chinese who had a strong nationalist consciousness, especially historians and archaeologists (Brysac 1997). These activities, which were later stopped by the Chinese government, have had a long-term impact on state policies regarding the handling of cultural relics and excavations in China. These policies include the prevention of the export of antiquities from China and prohibitions on foreigners unilaterally conducting archaeological work in China.

The Beginning of Modern Chinese Archaeology

Although the scientific field methods used by Western archaeologists were enlightening to Chinese scholars, their general research orientations were not considered satisfactory. Paleolithic and Neolithic remains were thought by some Chinese scholars to be too remote to be connected directly to early Chinese history (Chen, X. 2009: 109–27; Li, C. 1990 [orig. 1968]), especially the Three Dynasties. Andersson's proposal, which traced the origins of the Yangshao painted pottery to the Near East, was even less appealing. As Fu Sinian (Fu, S. 1996: 187) complained, "the foreign archaeologists in China do not pay any attention to the material which represents indigenous Chinese culture, but are only interested in the remains which indicate cultural connections between China and the West."

Excavations in Anyang

It was in the 1920s that a group of Chinese scholars, who had received training in modern archaeology from Western universities, returned to their homeland with a high spirit of nationalism to build a strong country with science and technology. The first was Li Chi, a PhD trained in physical anthropology at Harvard, who, with others, launched a series of archaeological research projects beginning in 1926. Excavations in Anyang from 1928 through 1937, organized by Li Chi in his position at the Institute of History and Philology, Academia Sinica, were the first attempts to search for indigenous Chinese cultural origins through archaeology.

The excavations in Anyang yielded numerous material remains, including hundreds of bronze objects, nearly 25,000 pieces of inscribed oracle bones, bronze workshops, palace and temple foundations, and large royal tombs. These discoveries proved the site to be a capital city of the late Shang dynasty, and for the first time provided archaeological evidence confirming the existence of ancient indigenous Chinese culture (Li, C. 1977).

The excavations in Anyang not only marked the beginning of modern field archaeology conducted by Chinese scholars in China, but also became a field station where many leading Chinese archaeologists were trained. Most associates of Li Chi who worked in Anyang (such as Tung Tso-pin, Liang Siyong, Kao Ch'ü-hsun, Shih Chang-ju, Guo Baojun, Yin Da, and Xia Nai) became the first generation of Chinese archaeologists who dominated the field for decades on the two sides of the Taiwan Strait (Chang 1981b, 1986a).

Despite the success of the archaeological work at Anyang, there was still a gap in the evidence of material cultures between the historical Shang dynasty and the Neolithic Yangshao, as the latter was then regarded to be a cultural diffusion from the Near East. Chinese scholars were still dissatisfied with the general notion that predynastic cultures in China were derived from ripples of influence extending from the West. Fu Sinian (Fu, S. 1934) made the objection that the study of Chinese history by foreigners was mainly focused on Sinoforeign relationships, which was only a "semi-Chinese" (*ban Han*) endeavor. He continued, however, that the more important issues to be studied were those "completely Chinese" (*quan Han*), that is, concerned with building the basic structure of Chinese history.

Discovery of the Longshan Culture

The evident cultural disconnect between Yangshao and Anyang prompted archaeologists to search for a direct progenitor of the Shang, and the general consensus among archaeologists and historians was that the most likely area was in eastern China. After work at Anyang was halted around 1930 due to the civil war, the excavation team moved its operations to Chengziya in Longshan township, Shandong, where Wu Jinding's (Wu Chin-ting) previous preliminary surveys revealed promising discoveries (Fu, S. 1934; Li, C. 1990 [orig. 1934]; Wu, C.-t. 1938).

The excavations at Chengziya were more fruitful than the excavators had expected. Distinctively different from the Yangshao painted pottery, the black pottery from Chengziya was similar to the Neolithic remains found at Hougang in Anyang, which were found directly beneath the Shang cultural remains. Uninscribed oracle bones found at Chengziya provided an even more direct link between the Longshan and the Shang cultures. The Longshan culture of black pottery in the east (representing indigenous Chinese culture) thus came to be viewed as a system independent from the Yangshao culture of painted pottery in the west (thought to be a result of foreign diffusion). Chinese archaeologists hoped that "if we can trace back the distribution and development of the black pottery culture at Chengziya, most problems in the formative period of Chinese history would be resolved" (Li, C. 1990 [orig. 1934]: 193). Therefore, as Li Chi further pointed out, this discovery not only identified a homeland for a part of the Shang culture but also made a major contribution to knowledge about the origins of Chinese civilization (Chen, X. 2009).

Excavations at Doujitai in Shaanxi

While the Academia Sinica headed by Li Chi was working in Henan and Shandong, the National Beiping Academy, led by Xu Xusheng, carried out excavations at Doujitai in Shaanxi province in 1934–7. The intention of this project was to search for the prehistoric origins of the Zhou dynasty. Su Bingqi, who later became the paramount senior archaeologist in China, participated in this project, which established his first research achievement in ceramic typology, focusing on changing forms of the *li* vessels (Falkenhausen 1999a; Su, B. 1948). Su regarded *li* as a vessel form of diagnostic value for distinguishing ethnic affiliations and Chinese civilization. His approach has served as a model of archaeological methodology for several generations of Chinese students.

Western Origin, Dual Origins, and Indigenous Origin of Chinese Civilization

Identifying the origins of Chinese culture has been one of the most sensitive issues in Chinese archaeology. Upon his discovery of the Yangshao culture, Andersson determined to find the route of the eastward cultural diffusion in northwestern China. On the basis of his findings in the Gansu region, Andersson established a sequence of ceramic cultures that perfectly supported his hypothesis. According to this sequence, the Yangshao culture was preceded by the indigenous Qijia culture in far western China, so that, by extension, an even more remote Western origin of the Yangshao pottery seemed plausible. Discovery of the Longshan culture in the 1930s, however, changed the paradigm that proposed a solely Western origin for Chinese civilization, as inferred from the Yangshao painted pottery. The Longshan culture, characterized by black pottery, was thought to represent the indigenous Chinese culture that arose in eastern China. As a result, a new concept about the dual origins of Chinese civilization was put forward: Whereas the Yangshao

culture diffused from west to east, the Longshan culture moved from east to west. The two traditions were thought to have encountered one another and mixed, later becoming the progenitor of the Shang civilization (Chen, X. 1997: 217–27). This proposition dominated in archaeological circles until the 1950s (Chen, X. 2009: 69–74).

During the Sino-Japanese War (1937–45) and the subsequent civil war (1945–9), major archaeological projects were halted, although some fieldwork was still occasionally carried out in peripheral regions. Xia Nai participated in Academia Sinica's expedition in the northwest, where his excavations yielded stratigraphic evidence indicating that the Qijia culture was in fact later than the Yangshao culture (Xia, N. 2000 [orig. 1946]). This conclusion challenged Andersson's sequence of prehistoric cultures in western China and therefore subverted his theory on the Western origin of the Yangshao culture. Xia Nai's victory over Andersson on this issue became a legend, which has inspired Chinese archaeologists for decades.

During this formative period of the discipline, Chinese archaeologists struggled to achieve two primary objectives: (1) to defend their belief in the indigenous origins of Chinese culture against foreign diffusionism, and (2) to reconstruct a reliable cultural history based on material remains, to resolve awkward uncertainties found in textual records, which had been highlighted by radical historical revisionists known as "Doubters of Antiquity." These objectives, in turn, determined the nature of archaeology as an enterprise closely aligned with the ethnic nationalism centered on the Han Chinese.

DEVELOPMENT OF ARCHAEOLOGY IN THE PEOPLE'S REPUBLIC OF CHINA (1950–PRESENT)

When the Communist Party took over China in 1949, the archaeologists in the Institute of History and Philology at the Academia Sinica divided into two groups. Li Chi and several of his colleagues moved to Taiwan, and Xia Nai and Liang Siyong stayed in the mainland. Xia Nai was the one who eventually gained the most international recognition in the discipline (Chang 1986b; Falkenhausen 1999b). Since the 1950s, archaeological fieldwork, research, and training developed rapidly, but dramatic fluctuations occurred in accord with the vicissitudes of varying political tides. Archaeological activities can be divided into three periods: before, during, and after the Cultural Revolution.

Archaeology Before the Cultural Revolution (1950–65)

Soon after the founding of the People's Republic of China, in the 1950s and early 1960s, archaeology was in high demand by the state, as the country undertook groundbreaking construction projects on a tremendous scale. In 1950, the Institute of Archaeology, led primarily by Xia Nai, was established under the Chinese Academy of Sciences (or Academia Sinica), which changed its name to the Chinese Academy of Social Sciences in 1977. Then, in 1952, Peking University's Archaeology Program, headed by Su Bingqi, was set up under the Department of History. These two newly created organizations were the leading forces in conducting archaeological research and in training young archaeologists at that time. Many provinces also set up an archaeological institute or a Management Bureau of Cultural Relics, which was primarily involved in salvage archaeology. In addition to Peking University, two other universities (Northwest and Sichuan) started archaeology programs to train students. The number of professional archaeologists multiplied from a mere handful before 1949 to more than two hundred by 1965. Moreover, the first radiocarbon laboratory was set up in 1965 at the Institute of Archaeology, Chinese Academy of Sciences, soon followed by a second one at Peking University. Three major archaeological journals - the so-called Three Great Journals, including Kaogu Xuebao (Acta Archaeologica Sinica), which resumed its previously interrupted publication under a new name, as well as Kaogu (Archaeology) and Wenwu (Cultural Relics) - were established in Beijing.

Paleolithic Archaeology

Paleolithic archaeology was carried out by the Institute of Vertebrate Paleontology and Paleoanthropology, Chinese Academy of Sciences. Excavations at Zhoukoudian were resumed after the 1950s. This site has so far yielded hominid fossils of more than 40 individuals dating from 550,000 to 250,000 years ago, more than 100,000 stone artifacts, and a large number of mammalian fossils. In addition, cranial remains of *Homo erectus* dating to 700,000 years ago were discovered in Lantian, Shaanxi province, and two incisors of *Homo erectus* dating to 1.7 million years ago were found in Yuanmou, Yunnan province. Hominid fossils and stone implements belonging to archaic *Homo sapiens* and *Homo sapiens sapiens* were found in many locations over northern and southern China (Liu, Q. 2010; Lü, Z. 2004b; Wu, R. and Olsen 1985).

Neolithic Archaeology

Most fieldwork projects in the 1950s were carried out in the Yellow River Valley in connection with hydraulic construction projects in the region. The excavations at Miaodigou in Shanxian County, Henan province, were a breakthrough that completely changed the proposition of dual origins for Chinese civilization. Archaeologists identified a ceramic assemblage, which they named Miaodigou Phase II, representing a transitional culture between Yangshao and Longshan (Zhongguo Kexueyuan 1959). This discovery confirmed the relationship between the Yangshao and Longshan cultures as being successive, rather than contemporaneous. Chinese civilization, therefore, seems to have derived from a single source – the Yangshao culture, which originated in the Central Plain region (Chang 1963; Chen, X. 2009: 69–74).

It should be noted that the first attempt to interpret ancient Chinese history by using a Marxist model can be traced back to Guo Moruo's (Guo, M. 1930) A study of ancient Chinese society (Zhongguo Gudai Shehui Yanjiu). In this publication, Guo introduced the Morgan-Engels evolutionary theory described in Engels's (1972 [orig. 1884]) The Origin of the Family, Private Property and the State; accordingly, Guo applied concepts such as matrilineal and patrilineal society to Chinese prehistory. These two extremely influential books have shaped archaeological and prehistoric research in China for decades. Under the Communist regime, implementing the Marxist interpretation of Chinese history was seen as a new mission for the discipline, in addition to the search for Chinese cultural origins. The first application of this evolutionary scheme in archaeology was the analysis of a Yangshao site at Banpo near Xi'an. The excavations, led by Shi Xingbang, revealed a large portion of a Yangshao settlement. Based on burials and residential patterns, the Banpo Neolithic village was described as a matrilineal society in which women enjoyed high social status and in which "pairing marriage" was practiced (Zhongguo Kexueyuan 1963). Such statements soon became standard phrases adopted in many interpretations of Neolithic sites dating to the Yangshao period. Although some criticisms demonstrated faults in both theory and applications (Pearson 1988; Tong, E. 1998: 262-72; Wang, N. 1983, 1987), the classic evolutionary model was commonly accepted among Chinese archaeologists then, and has continued to be influential, but to a lesser extent, today (e.g., Zhongguo Shehui Kexueyuan 2010: 204, 413, 652–3).

Archaeology of the Three Dynasties

After 1949, Shang archaeology remained a focus of research, and Anyang resumed its importance as a center of archaeological excavations that yielded royal tombs, sacrificial pits, craft workshops, and inscribed oracle bones. These finds provided enriched understanding of the spatial organization of the site (Zhongguo Shehui Kexueyuan 1994b). In the early 1950s, Shang material remains datable to a period earlier than Anyang were first recognized at Erligang, near Zhengzhou, Henan. A fortified Shang city belonging to the Erligang phase was then found at Zhengzhou. The enormous size of the rammed earth enclosure (300 ha in area) and the abundance of remains found at the site (craft workshops, palace foundations, and elite burials) indicate that it may have predated Anyang as a capital city (Henansheng Wenhuaju 1959). This discovery encouraged archaeologists to search for the earliest remains of the Xia and Shang dynasties. Endeavors devoted to such a search proved fruitful, as the subsequent survey in Yanshi County, western Henan, by Xu Xusheng revealed an even earlier large site, known as Erlitou, which was thought to have been an early dynastic capital city (Xu, X. 1959).

The discovery of Erligang and Erlitou generated considerable debate on many critical issues, such as whether Erlitou was a capital city of the Xia or Shang, which phases of the Erlitou culture belong to the Xia or Shang cultures, and to which capital cities named in ancient texts Erligang and Erlitou correspond. Most such arguments were made on the basis of textual records that were written a thousand or more years after the existence of the putative Xia and documented Shang dynasties, and were reinterpreted by many individuals afterward. As people use different textual sources, which frequently contradict one another, to support their opinions, these debates have continued for decades without reaching consensus (see Chapter 8).

The Central Plain Focus

Archaeological research during the pre-Cultural Revolution period primarily focused on the Central Plain of the Yellow River Valley, where a clear sequence of cultural development could be traced from Yangshao through Longshan to the Three Dynasties. Many Neolithic sites in southern China were also found and excavated, such as Beiyinyangying near Nanjing, Qianshanyang in Zhejiang, and Qujialing in Hubei. These sites, however, yielded neither a material assemblage as old as the Yangshao culture, which was viewed as the earliest Neolithic culture, nor a continued sequence illustrating a regional cultural development. They were regarded as the peripheries of the Central Plain with minor significance for Chinese civilization proper. Such a paradigm of ancient Chinese cultural development was accepted by archaeologists in China and abroad, not only because of the limitations of archaeological findings, but also because the traditional view of Chinese civilization's origins was focused on the Central Plain (Chang 1963, 1977).

Archaeology During the Cultural Revolution (1966–77)

Similar to other disciplines in academic institutions, archaeology was stalled during the early part of the Cultural Revolution. Research and teaching were replaced by insurrection, as most junior members of archaeological institutes and students in universities were busy criticizing the senior archaeologists and professors. Excavations never completely ceased, however, as continuing construction projects always required salvage archaeology. It was also soon recognized by the leadership of the Cultural Revolution that archaeology could serve as an instrument of propaganda for political purposes. Sending museum exhibitions of archaeological findings to foreign countries was considered useful to improve China's international relationships and promote China's image as a great civilization; evidence of a highly developed material culture recovered from ancient times could reconfirm Chinese people's national pride; and the wealth discovered from elite burials could be used for mass socialist education, in terms of class consciousness. Cultural relics unearthed in the People's Republic of China were displayed for the first time in Paris and London in 1973 to demonstrate the glory of Chinese civilization and the achievements of archaeology in New China (Xia, N. 1973). Elaborately constructed ancient architecture, burials, and artifacts were interpreted as testimony of class oppression and exploitation of the poor by the rich.

To meet these new demands, the three major archaeological publications – *Kaogu, Kaogu Xuebao*, and *Wenwu* – were resumed in 1972, after being discontinued in 1966. *Wenwu* became a popular magazine, as most journals with intellectual content in the social sciences ceased publication. Between 1972 and 1977, eight new archaeology programs were established in universities (Shanxi, Jilin, Nanjing, Xiamen, Shandong, Zhengzhou, Zhongshan, and Wuhan), to train much needed archaeologists for the rapidly expanding discipline.

Excavations of Neolithic sites were carried out in many regions, such as Dawenkou in Shandong, Cishan in Hebei, Jiangzhai in Shaanxi, Liuwan in Qinghai, Daxi in Sichuan, Honghuatao in Hubei, Caoxieshan in Jiangsu, Hemudu in Zhejiang, Sanyuangong in Hunan, and Shixia in Guangdong. These sites provided rich information for the understanding of prehistoric development in different regions. In addition, by 1977 the Radiocarbon Laboratories at the Institute of Archaeology and Peking University had published four sets of ¹⁴C dates, providing some early absolute dates from Neolithic sites outside the Central Plain, which revolutionized archaeological research (Xia, N. 1977).

The discoveries of several Neolithic sites in southern China were especially important. The Hemudu site in the lower Yangzi River Valley yielded the earliest evidence of rice cultivation in China, as radiocarbon dates pointed to a period as early as the Yangshao culture. The Hemudu culture seems to have been succeeded by a series of Neolithic assemblages, referred to as Majiabang, Songze, and Liangzhu, which formed a continued cultural sequence in the region. These new data seriously challenged the traditional view that regarded the Central Plain as the only center of the developmental process of Chinese civilization, as for the first time it was realized that the notion of a single origin of Chinese Neolithic culture needed to be reconsidered (Xia, N. 1977) and that southeast China, meaning primarily the lower Yangzi River Valley and environs, may have played an important role in the development of Chinese civilization (Su, B. 1978a; Xia, N. 1977).

Most discoveries that made newspaper headlines during the Cultural Revolution were elite tombs that had been discovered accidentally. In 1976, for example, archaeologists excavated a well-preserved, late Shang royal burial, Tomb no. 5, in Anyang. Based on bronze inscriptions found in the burial, the tomb was determined to have belonged to Fuhao, who was referred to as a consort of King Wuding in oracle-bone inscriptions. In addition to a large amount of bronze and jade artifacts unearthed from the tomb, this discovery served a more significant function: For the first time, a named individual in the oracle-bone inscriptions was identifiable in an archaeological context (Zhongguo Shehui Kexueyuan 1980).

Despite numerous new discoveries, theoretical interpretations were dry and dogmatic. This situation was inevitably affected by the political climate of the era. Restrictive policies regarding foreign relations blocked exchange of information between China and Western countries, and the only theoretical frameworks applicable at the time were those of Marxism and Maoism. Mortuary and settlement data obtained from many Neolithic sites were commonly used to support Morgan-Engels or Marx-Lenin style propositions regarding the emergence of private property, class differentiation, the practice of matrilineal or patrilineal social organizations, and state formation as the result of class conflict. In some publications, which were purely data descriptions, Marxist and Maoist slogans were formulaically inserted into the contents but appeared superficial and far-fetched. Lack of fresh theoretical approaches prevented archaeologists from engaging in critical discussion, and rapid accumulation of archaeological data also forced scholars into preoccupation with articulating the relevant sequences of material culture, leaving no time for theoretical thinking. Chinese archaeology, therefore, remained a discipline largely defined by efforts to correlate dual traditions of artifact-oriented typology and textually based historiography (Chang 1981b).

Archaeology in the Post-Cultural Revolution Era (1978–Present)

After the Cultural Revolution, the relatively relaxed political atmosphere and the implementation of economic reform promoted new developments on all fronts of Chinese archaeology. Salvage excavations conducted by regional archaeological institutes have been in extremely high demand, as a decentralized economic system has stimulated construction projects across the country. Provincial institutes have become financially dependent on salvage archaeology. Many more universities have developed archaeology programs, training hundreds of archaeologists each year. These new graduates soon become the key staff of local archaeological institutes. The number of archaeological periodicals multiplied from a few (mainly the Three Great Journals) before the Cultural Revolution to a list (by 1991) of some 140 periodicals on archaeology-related subjects, most of which are published at local venues (Falkenhausen 1992). As a result, provincial archaeological institutions have become increasingly independent of the Institute of Archaeology in Beijing with regard to administrative, academic, and financial matters (Falkenhausen 1995).

Economic reform has also opened China's doors to the world more broadly. As a result, scholarly exchange between China and Western countries has been actively encouraged, and Western archaeological methods and theories have been introduced. Archaeology in China has found itself facing new challenges from the outside world. During the 1980s and 1990s, as Deng Xiaoping was seeking a route for China to become a Chinese-style socialist country, archaeologists were struggling to define and formulate an archaeology with Chinese characteristics. Nationalist feelings have recently increased among Chinese intellectuals in various fields, partially as a reaction to rapidly changed relationships between China and the rest of the world. Therefore, archaeology in this era has also been influenced by the new concept of multiethnic nationalism.

As large quantities of archaeological data from all periods have been accumulated during recent decades, three major topics have become the focal points of Chinese archaeological research on ancient China: the origins of early humans, the origins of agriculture, and the origins of civilization.

In China to date, approximately 1,000 Paleolithic sites have been located and more than 100 excavated (Lü, Z. 2004a). As world Paleolithic archaeology has been engaged in the debate between the "out-of-Africa" (single-place origin) and "multiregional development" schools regarding the origin of modern humans, evidence from China has become crucial. Whereas some scientists are favorable to the "out-of-Africa" theory on the basis of genetic evidence (e.g., Jin, L. and Su 2000; Ke, Y. et al. 2001), the majority of Chinese archaeologists and paleontologists supports the multiregional development model, proposing a hypothesis of regional continuity with hybridization between immigrants and indigenous populations in the evolution from H. erectus to H. sapiens in East Asia (e.g., Gao, X. 2010; Gao, X. and Wang 2010; Wu, X. 1997, 2004). This argument is primarily based on two factors. First, in accordance with Weidenreich's observations published in 1943, paleontologists continue to find morphological characteristics that are shared by East Asian hominid fossils and modern populations in the same region; the continuous evolution of a series of inherited characteristics indicates that no major population replacement occurred in China (cf. Jin, C. et al. 2009; Shang, H. et al. 2007; Wu, X. 1997, 1999). Second, after decades of fieldwork, archaeologists have gradually defined regional lithic traditions throughout the Paleolithic period in China, which show strong local continuities and are evidently distinct from those in Africa and Europe (Gao, X. and Hou 2002; Wang, Y. 2005; Zhang, S. 1990). Apparently, archaeological data show continuous human activities in the region with no evidence for a large-scale interruption of evolution (Gao, X. 2010).

The Peking Man site at Zhoukoudian has continued to play an important role in the reconstruction of early Chinese history. Lewis Binford and Chuan Kun Ho challenged the long-established conclusions that Peking Man controlled fire and that the Zhoukoudian cave was the home of Peking Man (Binford and Ho 1985). Many Chinese archaeologists were outraged, and Jia Lanpo, one of the excavators of Zhoukoudian, defended the original understanding of Peking Man's unique status with great passion (Jia, L. 1991). The strong reaction from the Chinese archaeological community is understandable if the issue is placed in the context of rising nationalist sentiment in China. Within the framework of the regional evolutionary model, Peking Man appears to have been one of the direct, albeit remote, ancestors of the nation.

The origins of food production and civilization are the topics that have drawn the most attention from Chinese archaeologists, and they will be discussed in detail in the following chapters.

During recent decades, numerous archaeological discoveries have been made, mostly in areas outside the Central Plain. In southern China, new evidence indicates that this region not only had its own indigenous origins of Neolithic traditions (earliest rice and pottery), and evolved into complex societies at the same time as, if not earlier than, the Central Plain, but also developed high-level, Bronze Age cultures with characteristics distinct from those of the Central Plain. Several Neolithic walled settlements have been found in the Yangzi River Valley, and the one found at Bashidang in Hunan (ca. 7000–5800 BC) marks the earliest example of walled settlements in China. In the lower Yangzi River Valley, distinctive elite tombs filled with large quantities of jade objects first occurred in the Songze culture (Dongshancun in Zhangjiagang City, Jiangsu) (ca. 3800 BC) (Zhou, R. et al. 2010) and then became prevalent in the Liangzhu culture (ca. 3200-2000 BC). The high level of craftsmanship, reflected in jade manufacture and construction of large burial mounds, has led some archaeologists to argue for the existence of early states in the Liangzhu culture. In the upper Yangzi River Valley, sacrificial pits containing large numbers of bronze figurines - life-size or bigger - have been discovered at Sanxingdui in Sichuan, revealing a previously unknown kingdom with a highly developed bronze culture contemporary with the earliest dynasties in the Central Plain.

In northeastern China, the Neolithic tradition now can be traced back to the Xinglongwa culture (ca. 6200–5200 BC) in Liaoning and Inner Mongolia. Complex societies seem to have evolved around 3500 BC in this region, indicated by the construction of large public architecture and elite burials in the late Hongshan culture, especially at the Niuheliang site. These astonishing discoveries completely changed the traditional view, which regarded peoples outside the Central Plain as barbaric and uncivilized.

In eastern China, including Shandong and northern Jiangsu, archaeologists discovered the earliest Neolithic assemblage at Houli in Shandong (ca. 6200–5600 BC), which was followed by the Beixin, Dawenkou, and Longshan cultures, forming another regional tradition of cultural development. Many elaborately furnished elite burials and more than a dozen walled settlements dated to the Dawenkou and Longshan periods (ca. 4100–2000 BC) have also been found, generating more claims for the emergence of state-level societies in the Neolithic period in this region.

In the Central Plain, primarily including the middle Yellow River, the Fen River, and the Wei River Valleys, and traditionally regarded as the center of Chinese civilization, archaeological findings seem to demonstrate a cultural tradition that may not have been much more advanced than those in the "peripheries" during the Neolithic period. Similar to the antiquity of other locally developed regional cultures, the Neolithic traditions of the Central Plain can be traced to the Peiligang culture of 7000 BC, which was followed by continuing development through the Yangshao and Longshan cultures. Although Yangshao elite burials associated with jades and large houses used for ritual purposes occurred by 3500 BC in the middle Yellow River region (Wei, X. and Li 2003; Zhongguo Shehui Kexueyuan and Henansheng 2010), these features are not unique among, and certainly not earlier than, comparable remains in other regions.

Diversified regional cultural traditions are easily observable based on these new data, which have encouraged new interpretations concerning the origins of civilization in China.

INTERPRETATIONS

Interpretations of archaeological findings have been primarily concerned with two major topics: reconstruction of spatiotemporal framework of material remains and reconstruction of national history.

Multiregional Development of Civilization in China

A research model known as "regional systems and local cultural series," quxi leixing, was first proposed by Su Bingqi in the early 1980s (Su, B. and Yin 1981; Wang, T. 1997). It is based mainly on ceramic assemblages, with an emphasis on the independent development of, and interaction between, different regional cultural traditions. The quxi leixing concept was intended to provide a methodological framework for the reconstruction of Chinese prehistory, as it shifted away from the center-periphery model toward a multiregional approach to the development of Chinese civilization. As stated by Su Bingqi (1991), after 10,000 BP six relatively stable regional divisions (quxi) had formed within the area much later embraced by historical China. The six regional cultures are further divided into a number of local phases (leixing). Each of these regions, according to Su, had its own cultural origins and developments, and interacted with the others in the developmental processes of Chinese civilization. Yan Wenming (Yan, W. 1987) also suggested a similar model for "the unity and variability of Chinese prehistoric culture," seeing the Central Plain as the center of a flower and cultural traditions in the surrounding areas as layers of petals. Instead of giving equal weight to all regional cultures, as implied in Su's hypothesis, Yan's model emphasizes the leading role of the Central Plain in the processes toward civilization, while acknowledging the existence of elements of civilization in the peripheries during prehistory.

The general trend, of a shift from monocentered to multicentered development of Chinese civilization, which Falkenhausen (1995: 198–9) observed, is also reflected in the four editions of *Archaeology of Ancient China* by K. C. Chang, which have been the most comprehensive and authoritative reference sources on Chinese archaeology in English for decades. In the first three editions, published in 1963, 1968, and 1977, the Central Plain was seen as the nucleus within which complex society and dynastic civilization rose. In the fourth edition published in 1986, this view was replaced by the concept of "Chinese interaction sphere," covering a geographic dimension much broader than the Central Plain, and providing an enlarged foundation for the development of the Three Dynasties (Chang 1986a: 234–42).

Such a change of paradigm in Chinese archaeology seems to integrate well with a new perspective in the reconstruction of national history.

National History and the Origins of Civilization

Ever since the day of its birth in the Anyang excavation of 1928, Chinese archaeology has had one clear objective: to reconstruct the national history. The concepts of nation, and thus also of the national history, however, have changed over time. These reconstruction tasks have been inevitably affected by new perspectives on national history.

As the state has attempted to bring China's multiethnic population into a viable political entity since the 1950s, the concept of the Chinese nation has become equivalent to that of the state, best described by Fei Xiaotong (Fei 1989) as a "single entity with multiple components" (*duoyuan yiti*). As argued by Fei, China as a nation (a substance without self-consciousness) has gradually come into existence through thousands of years. This formative process was amalgamative, with a dominant core constituted by the Huaxia, and then by the Han people. The cultural interaction between the Huaxia–Han and other groups, however, was not a matter of one-way diffusion, but of mutual influence. This national entity now, according to Fei, includes all ethnicities (more than fifty) residing within the entire territory of modern China. It seems that this new concept of national identity fits relatively well with the archaeological *quxi leixing* paradigm and, in particular, with the "unity and variability" hypothesis. Evidently the archaeological and sociological models mutually support each other in constructing the national history.

With increased knowledge of regional archaeological cultures, scholars have developed a strong willingness to construct cultural history based on archaeological material remains in conjunction with the historical record. There has been a tendency to identify archaeological cultures, phases, sites, and even artifacts directly with specific ancient groups of people or places named in legendary or historical literature. The continuous debates on textual identification of several Bronze Age cities – such as Erlitou, Erligang, the Yanshi Shang city near Yanshi, and Xiaoshuangqiao near Zhengzhou – best exemplify this attempt (see Chapter 8). By doing so, archaeological assemblages (mainly defined by pottery types) become historically meaningful, although the logical connections between the two sets of information – ceramic typology and ethnic affiliation – have not been made explicit.

The phrase "five-thousand-year history of civilization" has been commonly used in China to summarize the national history, and the archaeology profession is committed to tracing its origins and to demonstrating the processes of this history. Because dynastic history, as recorded retrospectively in late antiquity, is said to have begun no earlier than ca. 2070 BC (Xia Shang Zhou 2000), much effort has been made to connect regional Neolithic cultural developments with the putative activities of predynastic legendary kings and sages, such as the so-called Wudi (often dubiously translated as "Five Emperors"), to fill the time gap of a thousand years. Attempts have also been made to link certain cultural achievements with the dawn of civilization, such as the manufacture of jade objects and the construction of large ceremonial monuments, which are traceable to the Neolithic period. As a consequence, not only are legends read as reliable history and used to interpret Neolithic archaeology, but also the origins of Chinese civilization are pushed back 1,000 or more years to match counterparts in Mesopotamia and Egypt (Su, B. 1988, 1997). In the early twentieth century when the *yigupai* questioned traditional texts, they hoped that archaeologists would uncover reliable ancient history from the field. For many archaeologists today, these legendary accounts are seen as blueprints for reconstructing prehistory, and the *yigupai* has become the target of criticism (e.g., Li, X. 1997b).

A state-directed project in the 1990s pushed this endeavor to its peak. In his visit to Egypt, State Councilor Song Jian was introduced to a detailed chronological record of dynastic Egypt that started from 3100 BC. Dissatisfied with the Chinese dynastic chronology, which not only begins 1,000 years later but also is less precise than that of Egypt, Song Jian called for a project to reconstruct an accurate chronology of the Three Dynasties, so that Chinese civilization would be comparable to that of Egypt. This project, known as the Xia-Shang-Zhou Chronology Project, was officially launched in 1996. For nearly four years, more than 200 experts in history, archaeology, paleography, astronomy, and radiocarbon dating technology were involved in the project, focusing on nine primary research topics, which were further divided into 44 subtopics. The project has achieved four of its originally prescribed objectives: (1) to provide accurate dates for a time period from the conquest of the Shang by the Zhou to the beginning of recorded chronology in 841 BC; (2) to determine relatively accurate chronology for the late Shang period; (3) to define a relatively detailed time frame for the early Shang period; and (4) to outline a basic time frame for the Xia dynasty. By completion of the project, the chronology of the Three Dynasties has indeed become more precise and

detailed than before (Lee, Y. 2002; Xia Shang Zhou 2000). The project, however, has not made Chinese civilization temporally comparable with some older civilizations in other parts of the world, but instead has generated much debate on its goals, methods, and results (e.g., Jiang, Z. 2002; Liu, Q. 2003; Liu, X. 2001; Shaughnessy 2008).

Regardless of the ongoing debate on details of the project results, the Xia-Shang-Zhou Chronology Project has inspired a series of programs under a new research scheme, known as the Searching for the Origins of Chinese Civilization Project. By using multidisciplinary methods, this project aims to determine dynastic ancestries and the earliest civilizations in Neolithic times (Wang, W. and Zhao 2010; Yuan, J. and Campbell 2008).

INTERNATIONAL COLLABORATIVE RESEARCH IN CHINA

Since the 1980s, scholarly exchange between China and foreign countries has increased dramatically. It has also evolved from exchanging ideas at international conferences to jointly conducting field research. In 1991, the Chinese National Bureau of Cultural Relics released a document on policies for Sino-foreign collaborative research in archaeology (Guojia 1992), which, after more than forty years, reopened the door for foreign archaeologists to work on China's soil. Many collaborative projects have been carried out in recent years in regions across the country. International scholarly exchange has also introduced Western theories to China, which have to some extent enriched research orientations and interpretations. New methods and technologies introduced in fieldwork and laboratory analyses include systematic use of the flotation method in recovering macrofaunal and macrofloral remains; full-coverage regional survey methods, incorporation of regional survey with geoarchaeology, geographic information system (GIS) applications, and remote sensing in the study of settlement patterns; mineralogical studies of archaic jade; development of interdisciplinary approaches such as zooarchaeology, archaeobotany, and environmental archaeology; and application of advanced laboratory technology such as the Accelerator Mass Spectrometry dating method, genetic studies, and analyses of phytoliths, starch, isotopes, and stone tool usewears. The introduction of these methods and techniques has brought Chinese archaeological research to a higher level of sophistication.

A new generation of Chinese archaeologists who received PhDs from foreign universities in North America, Europe, Australia, and Japan since the 1990s has either returned to China or worked in archaeological institutions outside China. With their up-to-date knowledge of Western archaeological method and theory, they have also been making important contributions, by introducing new ideas and using new methods and techniques in collaborative research projects. The discipline has become more internationalized than ever in this Golden Age of Chinese archaeology. Interestingly, the research orientations of these Sino-foreign collaborative projects seem to follow some traditional patterns. Most projects initiated by Western archaeologists have primarily focused on Paleolithic and Neolithic sites or on cultures in peripheral areas, which appeal to internationally oriented research topics, whereas projects designed by overseas Chinese archaeologists tend to focus on the Central Plain in search of the developmental processes of Chinese civilization (Liu, L. and Chen 2001c).

CONCLUSIONS

The birth of modern Chinese archaeology in the early twentieth century was a product of the introduction of Western scientific methods, the rise of nationalism, and the search for the cultural origins of the nation. These three factors have had a continuing influence on the development of this discipline, with the consequence that archaeology in China has been firmly placed in the general field of history. Its research orientations and interpretations have been significantly affected by different political agendas of the nation – especially the ever-changing concept of nationalism in particular eras (Chang 1998).

Archaeologists have worked hard to overcome all kinds of economic, social, and political difficulties during turbulent eras, and have made extraordinary contributions to the field. Our understanding of ancient China has been markedly improved because of these archaeological achievements. In many cases, archaeology has been driven by the contemporary trend toward a more multiethnic concept of nationalism and used as an instrument to support, rather than to evaluate, particular theoretical themes or political agendas. In other situations, it has provided independent data for creating new paradigms, which changed traditional perspectives toward Chinese national history. Statepromoted nationalism has indeed played an important role in shaping the discipline. For many individual archaeologists, participating in the construction of national history confers dignity and pride as Chinese citizens.

The emergence and development of an interest in archaeology cannot be understood apart from contextualization within the prevailing local sociopolitical framework. In many countries, nationalism has shaped the assumptions, methods, and practices of the discipline of archaeology, and archaeological inquiry and achievements have also influenced ideals concerned with the building of national identity (e.g., Diaz-Andreu 2001; Kohl and Fawcett 1995; Smith A. 2001; Trigger 1984). Nationalist archaeology, as Trigger (1984: 360) observed, tends to become strongest among peoples who feel politically threatened, insecure, or deprived of their collective rights by more powerful nations. This was certainly the case when archaeology was first established in China. Today, although China has become much more secure and prosperous economically, the need for building national identity seems to have not diminished. Therefore, despite growing influences from Western ideology and technology during recent decades, which in many cases are positive, the general objective for the mainstream of Chinese archaeology has not changed significantly – the discipline is committed to the reconstruction of national history. This mission will probably continue (Su, B. 1991). It is also notable, however, that more varied research approaches have emerged in recent years. Whereas some archaeologists continue to pursue regional historical issues, others have become engaged in theory building and cross-cultural comparative studies, which have endowed the discipline with a more international outlook.

Chinese archaeology has made enormous contributions to our understanding of world history, and its Golden Age is likely to continue for many years to come.

CHAPTER 2

ENVIRONMENT AND ECOLOGY

In all their settlements, the bodily capacities of the people are sure to be according to the sky and earthly influences, as cold or hot, dry or moist. Where the valleys are wide and the rivers large, the ground was differently laid out; and the people born in them had different customs.

Chapter, "Royal Regulations" in *Book of Rites* (written in 475–221 BC); translated by James Legge (1960b)

凡居民材,必因天地寒暖燥湿,广谷大川异制,民生其间者异俗。((礼记·王制))

Situated between latitudes 20° and 54°N and between longitudes 30° and 75°E, China has a vast territory, measuring approximately 9,600,000 km² in area. The current administrative districts include 22 provinces, five Autonomou Regions, and four municipalities, in addition to Taiwan (Figure 2.1), comprising 56 ethnic groups. China is characterized by geographic, climatic, cultural, and ethnic diversities.

GEOGRAPHY

Viewed within a broad geographical perspective, China is surrounded by a series of natural barriers: boreal, desert, and high mountains stretch along its northern, western, and southwestern borders, and oceans embrace its eastern and southeastern shores. It has long been recognized that, under such circumscribed physical conditions, China's prehistoric culture developed without significant direct interactions with other major Old World civilizations (Murphey 1972; Yan, W. 1987). It is notable, however, that China's northern frontiers are open, as the mountain chain from the northeast to northwest leaves many wide gaps, through which pathways formed that have facilitated contacts between China and its neighbors since antiquity. Therefore, Chinese civilization was far from evolving in isolation. Such interactions started long before the dramatic expansion, some 2,000 years ago, of cross-continental trade



Figure 2.1. Administrative divisions of China.

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along routes (known since the nineteenth century as the "Silk Road") that connected ancient Chinese dynastic capitals with the Roman Empire.

China can be topographically described, in brief, as highlands in the western part and lowlands in the eastern, and the entire country can also be divided into seven ecological zones, on the basis of natural conditions, agricultural potential, and current provincial units. These zones are (I) North China, in the middle and lower Yellow River Basin; (2) humid, temperate Northeast China; (3) arid Northwest China, including most of Inner Mongolia; (4) Central China, in the middle and lower Yangzi River Basin; (5) humid subtropical and tropical South China; (6) humid subtropical and tropical Southwest China; and (7) the Tibetan Plateau, in China's far west (Figure 2.2) (Zhao, S. 1994). These zones are each characterized by particular geomorphological features (Figure 2.3).

All of western, together with part of southwestern, China consists of great upland subregions, separated from each other by massive mountain systems. The most dramatic part of the western landscape is the Tibetan Plateau, which averages well over 3,500 m in altitude and is surrounded by mountains, including the Karakoram, Pamir, Kunlun, and Himalayan ranges. Most of Tibet is a dry and cold alpine desert, unsuitable for farming except in a few lowland pockets (Tregear 1965, 1980).

The most northwesterly subregion is Xinjiang. In southern Xinjiang the Tarim Basin, with a general altitude of 1,000 m, is hemmed in by great mountain ranges: the Pamirs on the west, the Tian on the north, and the Kunlun on the south. The basin is dominated by the Taklamakan desert in the center and is sparsely watered by glacier-fed streams that originate in the surrounding heights, supporting many oases that fringe the northern and southern edges of the desert. To the northeast of the Tarim Basin is the Turpan Basin, which is 154 m below sea level and well known for its extremely dry climate. Further to the north lies the triangular Dzungarian Basin, where the lowest point is 300 m above sea level. Its sides are bordered by mountain ranges: the Tian on the south, the Altai on the northeast, and the Tarbagatai on the northwest; the three corners are relatively open to access (Tregear 1965, 1980). Through the oases scattered in these basins lie ancient trade routes, the Silk Road. After the Han dynasty extended its rule through the Hexi corridor (or Gansu corridor) around 2,100 years ago, the Yellow River heartland of China became directly linked to these ancient trade routes and thus distantly connected with remote regions in Central Asia and beyond. The arid climate in Xinjiang has helped to preserve enormous numbers of artifacts and human burials, providing unique opportunities for archaeologists to study ancient ways of life there.

East of Xinjiang lies the vast Mongolian steppe, divided by the Gobi desert into Inner Mongolia to the south and the independent republic now called simply Mongolia, to the north. Much of Inner Mongolia is a long-grass steppeland ideally suited to grazing, and has served historically as the basis for pastoral and,



Figure 2.2. Ecological zones of China.

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later, pastoral-nomadic economies (Tregear 1965, 1980). The developmental process of pastoralist adaptations in the steppe has included complex and contradictory interactions with agriculturalists to the south, including both trade and warfare. Walls to separate the pastoral and agricultural domains were first built by several feudal states in north China during the pre-imperial late Eastern Zhou period. Under unified imperial rule of the Qin and Han dynasties, when abiding patterns of Sino-barbarian relations took form, remaining early northern walls were consolidated and extended to form the Great Wall, made of tamped earth. Repeatedly rebuilt in later centuries, and finally of stone in the sixteenth century, it manifests the long-term recurrence of hostile relations between the sedentary and nomadic societies.

East of Inner Mongolia lies the Northeast Plain, also known as Manchuria. It is bounded by the Greater Xing'an Mountains on the west, the Lesser Xing'an Mountains on the north, and the Changbai Mountains on the east, separating China from Korea. The northern part of the Northeast Plain, which is bitterly cold in winter, is marginal for farming, whereas the southern part, especially the Liao River valley, is milder (Tregear 1965, 1980). Some early Neolithic villages have been found in the Liao River region, marking it as one of the earliest sites of sedentary communities in China.

The heartland of China proper is generally described as composed of three great river valleys, with their adjacent plains: The Yellow (Huang) River in north China, the Yangzi River (Changjiang) occupying most of central China, and the Pearl (Zhu) River in the far south. The Huai River and Qinling Mountains demarcate North from Central China, and the Nanling Mountains separate Central from South China. In addition to this geographically accurate three-part division, another influential two-part distinction is often cited, by which subtropical south China and temperate north China are divided along an east-west axis formed by the Huai River and the Qinling Mountains (Figure 2.3). This demarcation marks general ecological and cultural differences between south and north, which can be traced back to early historical times (Gong, S. 1994; Wang, Y. 1988; Yu, W. 2010). In this book both of these systems of geographical division are used, as both have been adopted by researchers in various contexts. To avoid confusion, in the following chapters "north China" and "south China" will refer to the two parts of China proper, as described earlier in this section, whereas "North China," "Northeast China," and "South China" are used in reference to two of the seven ecological zones defined at the start of this chapter.

RIVER SYSTEMS

Three major river systems in China formed great alluvial plains, where agriculture was most productive and water transport was possible. It is in these river valleys and flood plains that the major centers of early Chinese civilization were formed.