

Chun Chen

Theory and Perspective

Essays in Chinese Archaeology



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To Bruce G. Trigger

Preface

In mid-April 2023, I was a bit surprised to receive emails from Mr. Song Xujing and Ms. Fan Jingjing of Beijing Normal University Press, informing me of Springer's interest in publishing my book *Advance in Archaeological Research: Theories and Problems* (title of the Chinese version). Originally, it was Dr. Tan Xufeng, former editor of Beijing Normal University Press, who encouraged me to compile some of my papers published since 2000, and to apply for the nomination of National Achievements Library of Philosophy and Social Sciences. Thanks to the efforts of Beijing Normal University Press, this collection was approved through review and published in 2016.

Kwang-chih Chang once said that archaeological theory has never been taken very seriously in China and that "theory" has no place in contemporary Chinese archaeological practice. Having visited to China, Lewis Binford criticized Chinese archaeologists for failing to appreciate the role of theory and paradigms and for seeing theory as some kind of empty nonsense. Colin Renfrew also said that the theoretical issues in Chinese archaeology were not so as energetically debated as in the West. However, the work of reconstructing, understanding, and interpreting our early human history is an extremely challenging mental endeavor for any modern society. However, the project of reconstructing, explaining, and interpreting our early past is one of the most challenging intellectual endeavors for any modern society.

In 1982, I completed my master's thesis on microblade technology under the supervision of Prof. Jia Lanpo at the Institute of Vertebrate Paleontology and Paleoanthropology, Chinese Academy of Sciences. In 1985, Lewis Binford would like to study taphonomy at Zhoukoudian in collaboration with Chinese scholars and visited Jia Lanpo in Beijing. Under the arrangement of Dr. Chuan Kun Ho, a team of Chinese Paleolithic archaeologists attended the 50th Annual Meeting of the SAA in Denver, and as a member of the team, I for the first time learned about the New Archaeology and Middle Range Theory in the USA. In 1986, I went to Canada to study in the Department of Anthropology at McGill University, where I wrote my doctoral dissertation under the supervision of Fumiko Ikawa-Smith. At the same time, I took the course on the *History of Archaeological Thought* and theoretical seminars from Bruce Trigger, who was my spiritual tutor for my introduction to archaeological theory. In

addition, Michael Bisson's courses of lithic analysis helped me immensely in my professional training.

In 1996, I joined faculty of the Department of Cultural Heritage and Museology at Fudan University and to introduce archaeological theories into China. Influenced by intellectual tradition, archaeology in China has been regarded as a branch of history and a tool to provide new data for historiography. Moreover, due to a long period of academic isolation, China knew little about the advance of international archaeology. Both archaeological institutes and professional training in universities basically focus on field techniques and artifact classification, with little involvement in theory and explanation. As a result, bridging the gap between Chinese academy and overseas has been a very tough and controversial endeavor.

Since the 1990s, I have published essays on archaeological theory and methodology in a number of Chinese journals, especially on the paradigm of processual archaeology, and have endeavored to introduce the theories of functionalism, processualism, and system theory into China. Starting from 2000, I began to organize the translation of Gordon Childe's five books, including *The Dawn of European Civilization*, *Man Makes Himself*, *What Happened in History*, *Piecing Together the Past*, and *A Short Introduction to Archaeology*, which were published in 2008. I translated the second edition of Bruce Trigger's *A History of Archaeological Thought* (2010); retranslated his *Time and Tradition* (2011). From 2012, under the support of the National Social Science Major Project of China, I have hosted and organized translations of five books, including Colin Renfrew and Paul Bahn's *Archaeology: Theories, Methods, and Practice* (2015); Siân Jones' *The Archaeology of Ethnicity* (2017); Gordon Willey's *Prehistoric Settlement Patterns in the Virú Valley, Peru* (2018); Elman Service's *The Origins of State and Civilization* (2019), and Kent Flannery's *Guilá Naquitz: Archaic Foraging and Early Agriculture in Oaxaca, Mexico* (2019). Dr. Chuan Kun Ho and I translated Trigger's *Gordon Childe: Revolutions in Archaeology* (2020). I also translated John Napier and Russell Tuttle's *Hands* (2001), Kenneth Feder's 6th edition of *Frauds, Myths and Mysteries* (2008), Noel Boaz and Russell Ciochon's *Dragon Bone Hill: An Ice Age Saga of Homo Erectus* (2011) and Trigger early years' book *Beyond History: the Method of Prehistory* (2023). In addition, I and my students completed the translation of Chris Scarre's *The Human Past* in 2022 which will be published soon. All of these efforts are made to keep our Chinese colleagues abreast of archaeological developments in the world as well as the updated achievements.

This volume is primary aimed at Chinese readers, so when Springer intended to publish it in English, I initially did not see much value in it. Because what I have discussed is a bit new to my Chinese colleagues, but regarding to oversea counterparts, it seems nothing more than the basic knowledge, which is too superficial. However, on the other hand, these articles may give oversea colleagues some concrete understanding of the research and current situation of Chinese archaeology.

The volume is divided into five parts, depending on the topic of discussion. First part is Epistemology and Methodology; second part covers Paleolithic Archaeology; third part is the Study of the Origin of Agriculture; fourth part deals with The Origin

of Civilization and Early States; and fifth part is Postprocessual Archaeology and Others.

The Chinese version of this volume needs to thank the professional journals including *Historical Research*, *Fudan Journal*, *Journal of Literature, History and Philosophy*, *China Scholarship*, *Southeast Culture*, *Archaeology and Cultural Relics*, *Jiangnan Archaeology*, *Cultural Relics in Southern China*, *Sichuan Cultural Relics*, *Social Evolution and History*, and *Quaternary International* for their contributions in the process of revising and finalizing the manuscripts. Secondly, as co-authors I would like to thank my colleagues and students, who are An Jiayuan, Zheng Jianming, Chen Hong, Gong Xin, Pan Yan, Xie Yinling, Wei Min, Yin Min, and Kong Dezhen. Ren Xiaoying and Zhang Meng helped me to standardize the style and to add references and index. For English translation, I am grateful to Ren Xiaoying, Guo Lusa, Wu Shuang, and Hao Xuelin for their assistance in unifying terminology and completing the first draft of the translation. I have adjusted and rewritten many of the paragraphs, so that oversea readers could have a better understanding of the context of the expression. I would like to thank Zhu Yi a Ph.D. student at New York University for helping me find and check the electronic literature of the original English work. Many citations of the foreign literature which came from Chinese version have consulted the original paper in English to avoid the difference in meaning caused by the translation. Zhu Yi contributed greatly to my search for these English originals. Finally, I would like to thank Edward Allen, a Ph.D. student from UK at Fudan University, for his careful and rigorous proofreading of the final translation.

Finally, I would like to dedicate this book to the late Professor Bruce G. Trigger.

Shanghai, China

Chun Chen

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Epistemology and Methodology

The History of Archaeology is First of All the History of Ideas



After reading the second edition of *a History of Archaeological Thought*

Colin Renfrew (1999:3–4) commented that it took about forty years or so for archaeologists to come to realize, especially in Britain and the United States, that the true history of archaeology was not simply one of archaeological discovery—of unearthing new settlements or important unplundered tombs, nor simply the development of new scientific techniques of research. In fact, the true history of archaeology is as much that of the development of archaeological thought. He also pointed out that experience has shown that the most difficult advances are the conceptual ones. To answer the questions of historical reconstruction is to answer on the conceptual level. These questions can be answered not so much by new discoveries or excavations as by analytical progress and conceptual advances. This is a remarkable insight, and one reason why the Canadian archaeologist Bruce Trigger's *A History of Archaeological Thought* came to prominence when it was published in 1989. After the publication of the first edition, the book was well received by the academic community and was listed as a required reference book for archaeology, anthropology and art history majors in European and American universities—a testament to its influence in the academic community.

The second edition of *A History of Archaeological Thought*, published in 1996, reflects a refreshing revision and expansion in length and content over the first edition. In comparison, the length of the first edition increased from 500 to 710 pages, and bibliography increased from 47 to 97 pages. Since the first edition, there had been a significant upsurge of interest in the history of archaeology, and a vast increase in publication of books and papers to this topic in Europe and the United States. In addition, archaeological theory and practice had also changed radically in the ten years after the first edition came out. Post-modernism had an unprecedented impact on the theory of archaeology, and so in his preface to the second edition, Trigger pointed out that academic community had increasingly recognized the influence of social background on the interpretation of archaeology, that this had made a new edition of *A History of Archaeological Thought* essential. The second edition not simply examined the results of significant advances in archaeological theory since

the first edition, Trigger stated, but would also rectify the shortcomings of his original work, trying to provide a more balanced coverage. Although the new edition was based on the first, it was also grounded on considerable original research and had been rewritten and reshaped from beginning to end. Numerous additions of new information and insights added to the contemporary brilliance of this classic.

Like the first edition, *A History of Archaeological Thought* traces the development of archaeology in Europe and the United States, but the second edition pays more attention to other forms of archaeology around the world, including Chinese archaeology. Trigger does not comment much on the nature of Chinese archaeology other than to list it as a nationalist discipline and its method as culture-historical one. This is partly related to his inability to read first-hand Chinese sources, but also to the fact that Chinese archaeology has long been in a marginalized position compared to European and American archaeology. Chinese archaeology has not been in the global archaeological mainstream aside for some important discoveries. Thus, despite the fact that China is a major country in cultural heritage and archaeological resources, the mainstream of the advance of archaeological thought and practice in the world seems to be irrelevant to China due to its long academic closure.

Reading *A History of Archaeological Thought* not only provides insight into the process by which humans have come to understand their own history, but it also provides a deep appreciation of the ways in which their own ideas have constrained and driven the development of the discipline. The process of its development is fraught with the restraint of religious belief, the baptism of the Renaissance, the edification of the Enlightenment movement, the guidance of evolutionary thought, the counter-current of racist thinking, the waves of nationalism, and the collision of positivism and relativism. This ups and downs process of ideological development, together with the process of accumulating major archaeological discoveries and research results all over the world, constitute a magnificent history of the development of archaeology. Reading this book brings the profound realization that while discoveries and materials are important in our exploration of the past from archaeological findings, what is more important is how we come to observe and study these materials. This exploration is closely related to people's view of history, the social context of the time, and the cognitive abilities of archaeologists of that era. The following is my superficial experience on this issue after reading the second edition of *A History of Archaeological Thought*.

Archaeology and History

We tend to think antiquarianism and epigraphy were the precursors of archaeology. But Trigger points out that an interest in material remains in the past does not inevitably lead to the development of archaeology. Archaeology largely based on an interest in the past that has nothing to the development of antiquarianism. For much of human history, what we call the past was satisfied by myths and legends concerning the creation of the world. Hence, the form of the basic religious beliefs underlying

myths and legends about the past long antedated archaeological exploration (Trigger, 1996:40–42).

Scientific Archaeology was developed in the Western Europe, and its predecessor was antiquarianism. However, early antiquarianism was limited to the appreciation of the aesthetics of artifacts themselves and the hobby of collecting, not necessarily related to the study of the human past. Moreover, under the influence of Medieval Christian doctrine, the Bible provided the authoritative interpretation of the human past: exploring the origins of artifacts and antiquities was both unnecessary and could get into trouble. Religious teachings led to the widespread belief that: (1) the world was thought to be of recent origin, i.e. no more than 6000 years old. (2) the physical world was believed to be in an advanced state of degradation, and most natural change to represent the decay of God's original creation. (3) humanity was affirmed to have been created by God in the Garden of Eden, and to have spread from the Middle East to other parts of the world. (4) human wisdom derived from God, those groups that had moved away from the Middle East and failed to have their faith renewed by divine revelation tended to degenerate into polytheism and immorality. (5) the history of the world was interpreted as the result of by God's predetermined intervention and as a succession of unique events (Trigger, 1996:50–52).

The greatest influence of religious thought on archaeology was in human prehistory. Under the influence of the biblical account of the chronology of human history, European paleontologists used the theory catastrophism to explain the existence of various extinct animals in strata, denying that stone tools associated with some extinct mammals were man-made. Since the sixteenth century, a number of people had speculated that the unearthed prehistoric stone tools predated divine creation. As a result, their works were burned and authors forced to renounce their beliefs to the Papal authority. Even in the age of the great voyages, when western navigators discovered Stone Age aborigines from other continents, some began to associate the prehistoric stone tools of Europe with the tools of these aborigines. However, influenced by biblical teachings, people continued to interpreted this evidence in terms of intellectual deterioration, believing that these aborigines had fallen from grace until they would use only stone tools.

It was not until the middle of the nineteenth century that the notion that stone tools might have predated metals as human tools began to be seriously considered. But a true understanding of human history in terms of stone tools depended, on the one hand, on Darwinian evolution providing a much longer history of evolution for human history than the biblical chronicle, and on the other hand, on a method of dating to determine the age of unearthed artifacts.

For a long time, it was thought that, except for the Bible, which provided a reliable chronology of human history, knowledge of the human past could only come from written documents. In the fourteenth century, during the Renaissance, antiquarianism meant the study of books in monasteries, with a special emphasis on Latin materials in history, law and literature. By the fifteenth century, scholars were paying more attention to ancient Greek literature. Classical antiquarianism uncovered detailed information about the glorious history of Italy and ancient Greece that was not found in the Bible. Even Egyptology and Assyrian studies were initially

inspired by mysterious civilizations recorded in Hebrew. By the seventeenth century, as the avenues for studying history from documents became increasingly narrower, some scholars turned from classical texts to the collection of materials related to the past. However, this kind of research is far less prominent than document-centered historical research. By the end of the nineteenth century, the classical archaeologist D.D. Hogarth still believed that archaeology illuminated by written texts was greatly superior to archaeology that was not. This led most archaeologists to regard their position as subordinate within these larger disciplines. Trigger pointed out that once classical studies, Egyptology and Assyriology were formed, they proved remarkable resistant to fundamental change into the 1960s. Archaeologists in these fields are primarily concerned with combining the investigation of antiquities and monuments with the classical literature, and making their discoveries available to researchers in other disciplines. This cast archaeology in an inferior role compared to the study of epigraphy, ancient literature, history, or art history (Trigger, 1996:78–79).

China has a very well-developed tradition of chronicle history, which has kept the development of Chinese epigraphy in the position of compiling anonymous books or revising historical records. Even when during the Qing dynasty the scope of epigraphy expanded from inscriptions on stone and bronze to the studies of ancient objects, this was still far away from the exploration of field archaeology and unable to develop into an independent discipline. Trigger put it that although these scholars have been interpreted as providing an indigenous basis for the development of archaeology in modern China, they made no effort to recover data. Their studies still remained a branch of general historiography rather than developing into a discipline in its own right, as classical studies in Europe, Egyptology and Assyriology. Although Chinese archaeologists eagerly studied antiquities, they also had a deeply rooted antipathy against carrying out excavations (Trigger, 1996:74–75).

On the other hand, the supremacy of historiography has kept archaeology in a subordinate position since its introduction to China. Wang Guowei's Dual Evidence Method¹ embodied the value expectations and professional orientation of archaeology in the early Chinese academic community, and is still considered by some scholars to be characteristic of Chinese archaeology. For example, some senior scholars have argued that integration with history is a distinctive feature of Chinese archaeology, extremely different from the integration of archaeology with art history, anthropology and social sciences in the West. Some have also pointed out that there are two kinds of archaeological finds, those with words and those without, and that the worded category is loaded with richer information (Li & Guo, 2002). There are still many scholars who still insist that archaeology has to be linked to documentation, and that what is excavated has to be illustrated with documentary material in order to be valuable (Zhang, 1999).

We now know that written history constitutes much less than one percent of the entire history of mankind. Prehistoric archaeology has extended human history from the thousands of years of recorded history to 3 million years ago. As Childe said,

¹ This method means to use unearthed historical texts such as inscriptions on oracle bones or bronze vessels to verify the documents of historical documents.

not only for prehistoric phases but also for periods illuminated by written texts is archaeological evidence needed for the elucidation of economic and demographic as well as technological problems. Even the Domes day Book can profitably be supplemented, not just illustrated, by excavations of village sites. Archaeological evidence alone indicates the use of water power in Roman Britain that would never have been suspected from a study of ancient inscriptions. The excavations at Olynthos have brought us nearer to an estimate of the population of a fifth-century Greek city than any of the erudite studies of texts and inscriptions (Childe, 1958).

Man's understanding of his own past, from his faith in biblical teachings, to reliance on documents, and finally to the independent distillation of information from cultural remains, reflects the discipline's evolution and maturing trajectory. This development in archaeology was not the result of an accumulation of material, but was realized by conceptual advances and under conditions of increasing refinement of methods of analysis.

Archaeology and Society

The development of archaeology is closely related to specific social background and trends, and the interpretation of archaeological materials will also reflect the political orientation and social values of the time, affecting the practice and development of archaeology.

The Three Age System that marked the birth of archaeology arose in the time of heightened patriotism in Denmark. In the early nineteenth century, British forces destroyed most of the Danish navy in Copenhagen harbor in 1801. Foreign invasions and national calamities encouraged Danes to study their past as a source of consolation and reassurance to face the future. Some insightful individuals advocated the founding of a Danish National Museum of Antiquities modeled on the Museum of French Monuments in Paris after the Revolution, as a way to inspire patriotism. In 1816, the Danish Royal Commission invited Christian J. Thomsen to catalogue and prepare the collection for exhibition. Thomsen decided to proceed chronologically by subdividing the prehistoric period into successive ages of stone, bronze, and iron, and combining the Danish prehistory into a successive chronological sequence (Trigger, 1996:122–123). Thomsen's three age system was regarded as "the basis of prehistory" and "the corner-stone of modern archaeology" (Daniel, 1975:51).

Darwin's *On the Origin of Species* exerted a great influence on the social and scientific thinking of the nineteenth century, and became the mainstream of contemporary thought. Therefore, Darwin's doctrine is both a doctrine of biological evolution and a proof of philosophical thought. Unexpectedly, however, the extension of this theory in the fields of archaeology and anthropology became the theoretical basis and ideological backbone of the genocidal and colonial activities of racists and imperialists on a global scale. The British naturalist John Lubbock was convinced of the linear evolutionary view of culture and that it was natural selection that led to the differences between human races. He argued that modern Europeans had been the product of

strong cultural and biological evolution, and that backward peoples were inferior to progressive peoples not only culturally but also in terms of intellectual and biological traits.

This racist view of evolution held that primitive peoples or groups were doomed to die out with the expansion of civilization. It was no matter of regret that inferior peoples would be replaced by advanced ones, for this is the only way of improvement and progress for human populations. Darwinian evolutionary theory, as played out by John Lubbock, linked the racist interpretation to prehistoric archaeology, becoming part of the worldview of entire societies of the time and influencing archaeological interpretation around the world.

Under the influence of such racist thinking, there was a general tendency in American archaeology to reject the cultural evolution perspective on archaeological phenomena. Scholars and the general public alike agreed that Native American cultures were so primitive that they could be ruled out as having undergone any changes throughout their history. The most prominent case was the interpretation of mounds in the American Midwest, which had given rise to a "mound-builder" debate, with most believing that the native Americans could not have had such advanced cultural heritage because they could not have possessed the intellectual capacity to build these ancient structures. They believed these mounds were the work of Toltecs from Mexico, Indians who went to Mexico from Asia, Welsh, exiled Israelis and even Vikings. American archaeologist Cyrus Thomas investigated the mounds in the late nineteenth century. After ten years of survey and excavation, it was concluded that American Indians were the builders of the mounds, but this conclusion still could not reverse the public's prejudice against indigenous people as a whole (Willey & Sabloff, 1993:48).

In South Africa, discrimination against aborigines was reflected in the debate over stone ruins found in what is now Zimbabwe. Cecil Rhodes, a British financier, in an attempt to justify European colonization of South Africa and gold mining, argued that the ruins were made by the Phoenicians. In 1891, under the auspices of the Royal Geographical Society, the antiquarian Theodore Bent undertook a survey of these stone buildings. He discovered that the buildings were no more than a few centuries old and might have been built by the local Bantu people, but he eventually succumbed to social pressure that they might have been built by "a northern race" that had come to southern Africa from Arabia in biblical times (Trigger, 1996:197).

In 1906, archeologist David Randle-Maclver, who had worked with Flinders Petrie in Egypt, investigated Great Zimbabwe and concluded that the stone ruins might have belonged to the Middle Age and probably the work of African aborigines. In 1929, British archaeologist Gertrude Caton Thompson took a closer look at the site. After detailed stratigraphic works and archaeological excavations, both Randall-Maclver and Caton Thompson demonstrated that the ruins were entirely of Bantu origin. But these findings were not welcomed by European settlers in Rhodesia and South Africa, and a protracted conflict arose between colonizers and archaeologists. Under intense political pressure, many archaeologists had to leave South Africa. It was not until after Zimbabwe's independence in 1980 that local stone ruins and archaeological remains were rewritten in accordance with indigenous history.

The rise of cultural-historical archaeology at the beginning of the twentieth century was also inextricably linked to social development. At that time, the upsurge of nationalist movements in Europe caused the racially discriminatory theory of cultural evolution to be questioned and challenged. Many European countries, bullied by foreign powers, wanted to find their identity and dignity of the nation in their own history. Tracing the origins and attributes of their ethnicity from archaeological evidence became a common public concern. In Eastern Europe, archaeology became a means of strengthening the national consciousness of Nations and states living under the rule of Russia and the Austro-Hungarian Empire, and played an important role in the disintegration of these empires and the birth of a series of new nations. Archaeological culture, the key concept of culture-historical archaeology, became the product of this social trend.

In the early twentieth century, the German archaeologist Gustaf Kossinna declared archaeology to be the most national of all sciences and the ancient Germans the most noble subject for archaeology. As early as 1895, he attempted to identify settlements of Germanic peoples in Europe. Kossinna believed that cultural continuity indicated ethnic continuity. He assumed that cultural regions were ethnic regions, cultural groups are peoples, so cultural differences are ethnic differences. Hence, he argued in favor of mapping the distribution of types of artifacts that were the characteristic of specific tribal groups, whose homelands could be pinpointed for the early historical period. He published a series of books that emphasized the use of archaeological materials to inspire nationalism. His nationalist ideas were later propagated by the Nazi regime, and his prehistoric outlook became the official position of the Nazis regime and the basis for the ultra-nationalist teaching and racist curricula in the schools of the Third Reich (Trigger, 1996:236–241).

There had long been political and social pressure on Japanese archaeologists to emphasize the veneration of the emperor as the direct descendant of the Gods to promote national unity and impeded them from excavating and studying certain periods, as well as sites that were identified as tombs of the royal family. Archaeologists were careful not to contradict official accounts of ancient Japanese history. In the ultranationalist atmosphere of the 1930s, it became extremely dangerous to engage in any research that even inadvertently might cast doubt on the divine origin of the royal family. As a result of these pressures, physical anthropologists and linguists avoided discussions of ethnicity, while archaeologists concentrated on elaborating artifact typologies and did not engage in discussions of cultural change that could have any bearing on the official version of history (Trigger, 1996:263–264).

After 1945, archaeologists helped to provide a view of the development of the Japanese people that filled the ideological vacuum left following military defeat in World War II. For most Japanese, Japanese archaeology provided tangible contact with the past and helped to reinforce a sense of stability through successive phases of postwar economic and cultural change and uncertainty. For this reason, There has been a growing tendency to trace the Japanese as an ethnic group as far back as the Jomon or even the Palaeolithic period (Trigger, 1996:264). The astonishing but fraudulent discovery and scandal of October 2000 was the result of this trend. Shinichi Fujimura, known as the “hand of God” of archaeology, buried a cluster of

stone tools in a layer one meter below the volcanic ash layer at the Kamitakamori site in Miyagi Prefecture, more than 500,000 years ago. Based on this discovery, Japanese scholars believed that *Homo erectus* had arrived in Japan at least during the Quaternary Mindel Ice Age, via an exposed land bridge. The fact that Shinichi Fujimura's forgeries consistently succeeded and were promoted by society perfectly suited to Japan's desire to become a political power and an ancient civilization after emerging as an economic power (Chen, 2000).

In the Middle East, most Arab and other Muslim countries exhibit relatively little public interest in the archaeological remains of pre-Islamic times. As early as the late 1920s, Moslem intellectuals were claiming that Egypt could not exist in isolation but had to take part in, or lead, a broader pan-Arab or pan-Islamic world. Since the 1940s, the growing influence of pan-Arabism and more recently of Islamic movements has resulted in a political discourse that is increasingly hostile to the glorification of ancient Egypt. The Pharaonic heritage has largely been reduced to a source of tourist revenue. In Israel, the development of archaeology was quite different. Archaeological studies have been used to strengthen Israeli ties to the land they settled. Israeli archaeology was not primarily religiously oriented, but was promoted by Zionist movement to heighten national consciousness and to affirm links between an immigrant population and the homeland they believed God had granted their ancestors. By encouraging Israelis to view the Bible as a source of national history, archaeologists also promoted a secular view of modern Israel. Therefore, Israeli archaeology from its beginnings was primarily a nationalist and not a religious enterprise. Israeli archaeology was selective. It was primarily interested in studying the history of Jewish settlement and culture in the region and relatively little attention was paid to the archaeology of the Christian and Islamic periods. Most Israeli archaeologists were trained in history and biblical studies and devoted much time to studying history, philology, and art history. Today, Israeli archaeology is interpretationally far less unified than it was in the 1960s and 1970s. It is challenged from within by critical scholars and by ultraorthodox Jewish religious groups who oppose it on the grounds that excavation violates ancient Hebrew burials (Trigger, 1996:273–274).

In much of Europe, with the political and economic integration and rising living standards after World War II, archaeology has gradually abandoned the practices used to promote national identity. However, European archaeology has largely continued to focus on European history at the local, national and continental levels. At many universities, prehistoric archaeology is still attached to history departments, as branch of the historical discipline. Most Europeans still believe that the first and most important task of archaeology is to understand man's past.

After the October Revolution of the Soviet Union, archaeology had a crucial role to play in ideological struggle. Due to its bourgeois attributes, the concept of archaeology was rejected and replaced by a "Marxist history of material culture". Thomsen's Three-Age System was abandoned and Morgan's Three-Stages model of savagery, barbarism and civilization advocated for. The typological approach was criticized as "naked artifactology", and archaeological research was called upon to

reconstruct the mode of production, social organization and ideology of ancient societies from archaeological materials and to justify the Marxist theory of social development. Although the reorientation of Soviet archaeology was fraught with far-left and parochial initiatives, it opened up many entirely new areas of research methodology and interpretation. Use-wear analysis, social perspective of ceramic studies, settlement pattern analysis, and especially explanation of cultural change from the perspective of social dynamics were in sharp contrast to the diffusionist interpretation in the West. After the collapse of the Soviet Union, the Marxist approach fell out of fashion, and cultural-historical archaeology re-emerged as the favored research method to compensate for the shortcomings of chronological framework in the past (Trigger, 1996:326–344).

In China, archaeology is the product of learning from the West in the early twenty century. Its development was also influenced by native social background and traditional values. First of all, the social background for the introduction of archaeology was the May Fourth Movement at the beginning of the last century, which advocated the concepts of science and democracy and laid the foundation for the introduction of modern sciences into China. The popularity of Western learning caused a major shift in Chinese perceptions and values of traditional culture, which endured unprecedented challenges. The most important of these was the relentless review of China's ancient history by the Doubting Antiquity School represented by Gu Jiegang, who used modern textual criticism to described ancient documents as "layered accumulations of ancient history" and thus shook up the entire historiography. Since the old idol was broken, a new system had to be created to replace them, yet neither Gu Jiegang's school nor the traditional school could provide a convincing ancient history. The Chinese academic community came to realize that the only way to access ancient history was by means of physical artifacts. This is the fundamental reason why archaeology entered China in the 1920s when the Doubting Antiquity School was at its peak, and was accepted by the Chinese community.

Secondly, after its introduction to China, archaeology has experienced a different development path from that of the West, due to the influence of traditional Chinese culture. History has always occupied the center of China's wisdom and culture and has become an eminent science, used by successive rulers as a tool to maintain legitimacy, and considered a necessary path to moral learning and a prerequisite for one's official career. Although the New Culture Movement had an unprecedented impact to Chinese traditional culture, but by virtue of the leading position of historiography in China's academic community, archaeology from outside was too weak to become an independent discipline. This, coupled with the commonality of research objectives, made archaeology naturally dependent on historiography as a tool. Even Li Ji (Li Chi), who trained in the West, clearly exercised a historical orientation in the excavations of the Xiyincun and the Yinxu sites that marked the maiden voyage of Chinese archaeology. In particular, the coincidence of Yinxu uncovered materials and historical texts made the history of the Shang dynasty a convincing one, strongly consolidated the status of traditional historiography, and finally established the academic position of archaeology as a servant to Chinese historiography.

Although archaeology has benefited from China's long chronicles, the disadvantages of attaching archaeology to history are becoming increasingly apparent. On the one hand, the historiographic orientation has caused many archaeologists to look exclusively towards historical texts for their research objects and goals, and to view corroborating historical texts as the most fulfilling work of all, or to simply align archaeological records with historical documents. Invariably, the potential of archaeology to study human behavior and social evolution has been limited. On the other hand, influenced by the value judgment of historiography, archaeology has found it difficult to independently develop and update its own theoretical approaches, and has also lacked the motivation to absorb the latest advances from international colleagues. The constraint of academic tradition has become the principle reason why Chinese archaeology has not changed much in terms of its basic paradigms more than eighty years following its introduction.

Trigger has argued that, like historiography, archaeology appeared to develop in complex, rapidly-changing societies. In these societies an understanding of past changes was used to give meaning to the present. Thus, archaeology is neither a simple reflection of society nor entirely independent of it. At least as long as human beings continued to be divided by the invidious distinctions of ethnicity, class, and gender, there would be no fundamental consensus on the interpretation of the archaeological record. Until then, alternative theories, when not simply ignoring one another, might constitute a stimulus for further research (Trigger, 1986:13–14).

Archaeology and Researchers

To reconstruct history from fragmentary material remains, archaeologists, like other natural scientists, must understand the world by observing complex phenomena. As a result, archaeologists in the process of reconstructing history may face a serious problem, namely, through their own observation and research to show people whether the past constitutes a real history. Therefore, this issue not only involves the accumulation and completion of archaeological materials, but also involves the archaeologist's own cognitive ability and whether or not his way of investigation is proper.

European and American archaeologists viewed their colleagues prior to the 1960s as naive empiricists, relying on intuition and experience to make taken-for-granted or seemingly reasonable interpretations of research objectives. Empiricists believe that the objects of human cognition are concrete things or entities in the objective world, and therefore rely primarily on experience to realize and accomplish such cognition. Hyperempiricists go so far as to believe that all knowledge comes from experience. They emphasize only perceptual experience and deny rational thinking. In their view, rational thinking is abstract and indirect knowledge, and the more abstract the emptier, the less reliable, and further away from the truth. Therefore, they oppose abstract thinking and deny the existence of general concepts and universal academic propositions about the object of research.

The opposite of empiricism is rationalism. Rationalism refers to the acquisition of truth through logical reasoning rather than on the basis of appearances. In the seventeenth century, the French philosopher René Descartes emphasized the importance of transcending human experience to explain dominant natural laws, marking the attention paid by scientific inquiry to rationalism. It has been realized that, while objectivity and perceptual awareness of materials are important in scientific cognition, experience and intuition can yield only representational views, and representations can also be misleading. Therefore, empirical knowledge devoted entirely to representational observation was unreliable and its depth of understanding of the objective world is limited. The nineteenth century French philosopher Comte proposed that science should go beyond empiricism and base its knowledge on verifiable and systematic positivist evidence. He argued that no true observation of any phenomenon was possible without some scientific theory to precede it and provide the final elucidation (Lenzer, 1975).

Positivism holds that the task of science is to demonstrate which subjective intuitions are reliable and emphasizes that scientific explanations must establish some kind of law between observations of different phenomena and causalities or regularities about those phenomena. Deduction is one commonly used method of positivism, which emphasizes the formulation of hypothesis about the latent causes of dominant appearances, which are then tested experimentally in order to understand the nature of things. Although European and American archaeology recognized the impact of subjective and objective factors on archaeological research at an early stage, the adoption of explicit methods to overcome these difficulties did not formally begin until the 1960s. In overcoming subjectivity, new archaeologists argued that the serious drawback of empiricist and inductive approach was that it was unable to judge the validity of interpretations and conclusions, and they called for positivist approach to rule out subjectivity and to provide objective and scientific interpretations of archaeological records. So as to achieve such rigor, archaeologists must adopt the deductive approach like the natural sciences to test their conclusions and forestall potential biases. This work also requires a thorough examination of the archaeologist's own professional abilities and integrity (Trigger, 1996:393–444). While adopting a positivist approach, processual archaeologists also emphasized the importance of generalizations and explicitly resorted to a variety of materialist determinism to explore general laws of socio-cultural change, such as Julian Steward's environmental determinism, Leslie White's technological determinism, and Esther Boserup's demographic determinism.

Since the 1980s, under the influence of postmodernism, archaeology in Europe and the United States, like other social sciences, has revived its interest in the complexity, particularity and contingency of human behavior, and began to adopt postprocessual approach to study the impact of human ideology on cultural change. Unlike processual archaeology, which focuses on ecology, economic contexts and demographic conditions, postprocessual archaeology focuses on ideologies reflected in material culture, bringing symbolic, structural, cognitive, and gender approaches to the study of archaeological materials. Postprocessualists believe that human ideas and ideology is also a positive factor in social relations and can be used to manipulate political and economic activities and influence social change.

On the other hand, postprocessual archaeologists have followed the idealist philosophy advocated by Robin Collingwood in the 1930s, scrutinizing the influence of subjective factors on scientific epistemology in a more rigorous manner. Collingwood pointed out that the concept of learning played an important role in archaeologists' cognition, and that exploring the past depended not only on the material we discover, but also on the problem we want to solve. Archaeologists only perceive what they are conditioned to look for and nothing acquires meaning except in relation to clearly formulated questions that the archaeologist poses. The archaeologist's cognition could not be separated from his own learned concepts, and he would be unable to understand phenomena outside of these concepts (Trigger, 1996:304).

This postmodern thinking, known as relativism, assumes that each generation, class, and individual may interpret history differently, and that there are few objective criteria that would enable scholars to assess differing opinions. In the historical field, it is argued that even historical documents themselves were selectively compiled by ancient historians and scholars based on their value judgment of what they considered to be worthy of being recorded, that such records or historical documents were inevitably adulterated with the author's personal interests, social values, and historical biases. In the field of archaeology, it has been argued that even archaeology becomes less subjective as material accumulates and technical methods improve, social contexts still influence which materials scholars consider important and how they are interpreted. These social influences include national consciousness, political orientation, research funding, and the views of academic authorities. As a result, there is no difference between scientific knowledge and other forms of cultural belief.

Traditional Chinese culture is generally regarded as lacking in rationalism, and Chinese cognitive philosophy has emphasized "seeking facts", while the Western philosophy emphasizes "seeking truth". This kind of empiricism is manifested in archaeological research by emphasizing materials over theories, and phenomena over interpretations. The lack of rationalism not only makes it difficult to develop a natural science in China, but also severely restricts the minds and horizons of Chinese scholars. Although traditional Chinese learning does not offer philosophical reflections on its own epistemology, there exists a twofold characterization emphasizing objectivity and subjectivity respectively. On the one hand, it insists "disbelief in face of lack of evidence", which reflects a kind of objectivity, but on the other hand, however Chinese thinking manifests an idea of "the heart knows what it means", characterized by a belief in perceptual awareness, reliance on subjectivity and empiricism. K.C. Chang (2011) described this tradition as manifested in paying special attention to the recording of objective historical facts while also indicating the subjective judgment of one's own values to describe and select historical facts. That is to say, interpreting history based on subjective judgment. This kind of standpoint in archaeology has manifested in the special importance attached to the acquisition and verification of materials, and distrust of abstract theories which are nothing more than preconceived ideas and empty talk without factual basis.

Conclusion

In an article reviewing the history of his inquiry into archaeological thought, Trigger pointed out that epistemology parallels life. Human minds are not black boxes but organisms with biologically grounded drives and emotions. The human mind has evolved as an adaptive mechanism but, in the course of doings, has acquired its own ways of analyzing information. Trigger agreed with idealist viewpoint that the world as it is conceived is different from the world as it really is. How the human mind works, and how it influences human behavior were no longer topics for of psychological discussion—they were subjects for scientific research (Trigger, 2003:27–28). This led postprocessual archaeology in Europe and the United States at the end of the last century not only to study the symbolism of material culture, human cognitive capacity and agency, but also to a deep introspection of the impact of archaeologists' own conceptions on archaeological interpretation. Thus, the archaeological reconstruction of history was not as simple as we once thought, not simply based on the accumulation of materials alone, and such work is inevitably laced with contemporary values and personal judgments. Trigger (1996:39) also pointed out that that while subjectivity exerted a strong influence, the accumulation of archaeological records also imposes constraints on interpretation, which in turn enhances the objectivity of archaeological research and increases the value of the discipline in understanding human history. I think the biggest lesson of studying *A History of Archaeological Thought* for Chinese scholars is that if we want to keep pushing this discipline forward, the most urgent task is not to unearth and discover more and better materials, or to introduce new techniques and analytical methods, but to try to update our intellectual concepts.

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