

农业发生与文明起源

严文明 / 著



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内 容 简 介

本书收集了作者 1991~2000 年的学术论文 47 篇, 共分为五部分: 一、二部分主要是研究农业发生与文明起源问题, 后三部分介绍的区域性考古研究、散论和考古随笔等也大多与前两个主题有关。农业起源方面, 作者提出稻作和粟作两种农业体系及稻作长江起源说; 作者关于文明起源多元一体的学说以及通过聚落形态演变来研究文明起源的方法, 将此项研究推向深入; 区域性考古研究方面, 就环渤海考古、长江流域考古和内蒙古考古等重大课题进行了讨论。散论和随笔中, 就中国环境聚落演变、史前陶文、胶东考古、石家河考古及良渚考古等进行了研究。本书在相当程度上反映了作者关于史前考古的系统性学术观点。

本书可供考古学、历史学、文博学、人类学研究者及相关专业师生阅读、参考。

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作者在中日东方思想研讨会上，1996 年



澧县城头山大溪—屈家岭文化城址鸟瞰



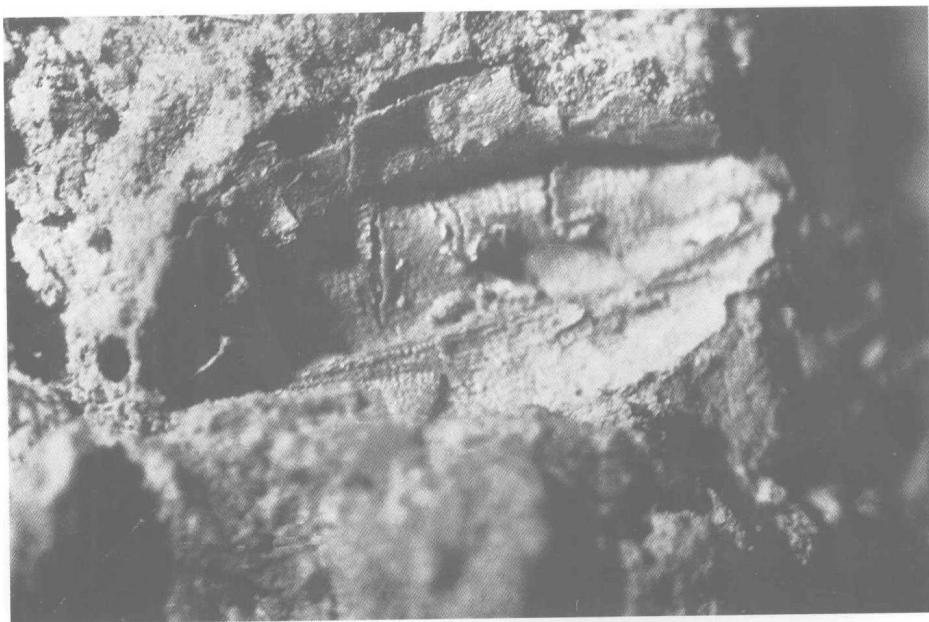
天门石家河古城西城墙及护城河（从南向北望）



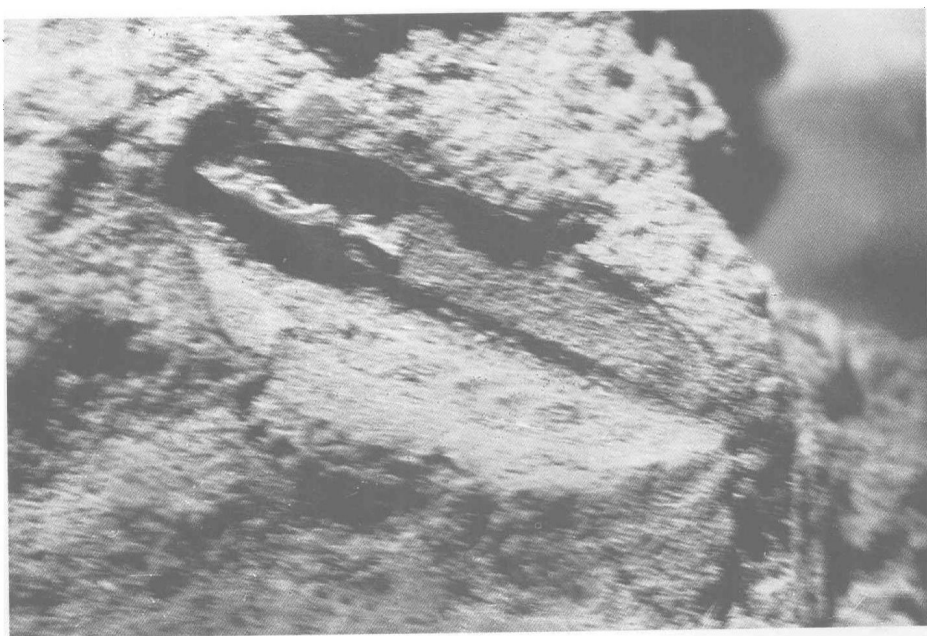
在良渚莫角山东南一个探方角上看到的用红烧土坯夯筑的情况



四川新津龙马古城东北部的一个剖面



栖霞杨家圈 H9 发现的稻谷印痕



栖霞杨家圈 H6 发现的稻谷印痕

前 言

本书实际上是《史前考古论集》的续集，共收入 47 篇文章。除一篇较早外，其余均发表于 1991~2000 年。在这段时间里，作者在研究史前考古和一般考古学问题时，比较集中地研究了农业发生和文明起源问题，有关文章占了本书将近一半的篇幅，其余文章也大多与这两个主题有关，所以就用《农业发生与文明起源》作为本书的名称。

我之所以研究农业的起源，实在是因为这个问题关系到整个新石器时代文化的起源与发展，进而也关系到文明的起源与发展，是所谓新石器时代革命的主要内容。从世界范围来看，农业的发生起初仅仅限于几个小小的地区，其面积大约仅占五大洲的 1%~2%，然而它对人类历史的影响却是革命性的、全局性的和划时代的，对于后来文明的起源也有巨大的影响。正因为如此，所以不少的学者认为文明起源应该从农业的发生开始算起。不过这毕竟是两个不同性质的问题，本书前两部分的文章相信已经说得很清楚了。

世界最重要的农业起源中心只有三个。一个是地中海东岸的新月形地带，那里是小麦和大麦的起源地，也是最早驯养绵羊和山羊的地方；一个是中国的黄河流域和长江流域，是小米（粟和黍）和大米（水稻）的起源地，也是最早驯养猪、可能还包括水牛的地方；一个是中美洲，是玉米的起源地，基本上属于无畜农业，那里除骆马外，没有驯养过一种对人类生活发生重大影响的家畜。与其他两个单一的起源中心不同的是，中国实际上包含有两个相互联系的起源中心。一个是黄河流域的粟作农业起源中心，一个是长江流域的稻作农业起源中心。两个中心逐步发展为两个紧密相连的农业体系，它们互相补充，互有影响，形成一个更大的复合的经济体系，进而为中国古代文明的孕育和发展奠定了坚实的基础。

农学家很早就提出中国北部或黄河流域应当是粟的驯化中心，但没有实际的证据。20 世纪 50 年代在西安半坡仰韶文化的窖穴和陶罐中发现了粟的朽壳，才知道中国史前时期确实是种粟的。70 年代在河北武安磁山遗址中发现了成百座粮食窖穴，其中不少保留有粟的朽灰，从而把种粟的历史提早到了公元前 6000 年以前。不但如此，鉴于那里储粮窖穴甚多，出土农具已然成熟配套，已经越过了农业起源的初始阶段，可见当地的农业还可以追溯到更早的年代，只是现在还没有找到确实的证据。此后在 80~90 年代，在西起甘肃，东至辽宁的整个华北地区，包括黄河流域与辽河流域，都发现了公元

前 7000~前 5000 年的粟和黍的遗存,有的地方虽然没有发现谷物遗存,却发现有着相应的农具。说明在这一广大地区,粟、黍已经成为主要的粮食作物。黄其煦曾经详细地分析了黄河流域气候和土壤的特点,分析了粟和黍的生长习性,认为黄河流域是最适于这两种作物生长和繁殖的地方,也应该是最理想的起源地区。我则注意到黄河流域有着漫长的冬季,天然食物相对匮乏。在史前文化发展到一定阶段,人口增加和相对集中之时,这一矛盾就变得突出起来。解决的办法自然是增加食物的储藏,最便于储藏的食物当然是谷物,而天然的谷物有限,想要增加产量只有实行人工种植。黄河流域现成的野生谷物就是狗尾草和野生黍,直到近代,遇到大饥荒的年代还有人采食它们的籽实,新石器时代的人们在食物不足时自然也会采食。在这里培育粟和黍,并且逐渐发展为以种植粟和黍为主要内容的旱地农业体系,就是很自然的事了。

农学家关于稻作农业起源地的推测意见比较分歧,有印度说、东南亚说和中国南部说等。70 年代以来,从印度阿萨姆到中国云南的山地起源说颇占势力。不过所有这些说法都缺乏考古学的证据,甚至明显地同考古学的证据相抵触。50 年代以来,中国、印度、越南、泰国和印度尼西亚等地陆续发现了史前时期的栽培稻遗存,就中以中国长江流域发现得最多,年代也最早。从 70 年代末浙江河姆渡发现丰富的史前稻作遗存以来,我就特别注意到稻作农业在长江流域起源的可能性。以后随着史前栽培稻遗存的不断发现,我曾先后发表了一系列文章阐述稻作农业的长江流域起源说,强调中国其他地区以及东北亚的稻作农业最初都是由长江流域直接或间接传播过去的。由于印度和东南亚的稻作农业起源较晚,那里接受长江流域的影响应该比其影响长江流域的可能性要大。据此可以断定长江流域不但是稻作农业最早的起源地,往后也是稻作农业最发达和对周围影响最大的地区。然而华南、东南亚和印度的普通野生稻远比长江流域为多,为什么长江流域反而最早栽培水稻,并且很快发展为最重要的稻作农业区呢?为此我曾经提出了一个稻作农业起源的边缘理论或称为边缘起源论。它不但能够解释长江流域稻作农业起源的问题,也能够解释世界其他地区包括印度的稻作农业起源的问题。本书第 1~3 篇比较明确地阐述了这一理论。

至于我个人关于文明起源的探索,完全是由于 70 年代末期以来的一系列考古发现的驱动而着手进行的。过去关于原始社会晚期发展的理论,总是按照母系—父系两阶段来安排,而父系晚期又经历一个军事民主主义的过渡时期,也就是氏族制度解体的时期,然后进入第一个阶级社会即奴隶社会。但母系—父系说并不完全符合历史发展的实际情况,在考古学资料中也难于找到确切的证据。中国历史文献中有许多资料证明进入阶级社会以后的一个相当长的时期内,仍然保留有氏族—宗族制,并没有彻底解体,只是以新的形式出现而已。至于中国的第一个阶级社会是不是应该称为奴隶社会,也还有商榷的余地。我们不能用纯逻辑的推理来建构具体的历史框架,只能根据历史的实际情

况来研究历史。一个显著的事实是，在公元前 4000 年以前的新石器时代聚落与墓地中，人们看到的是相对平等的社会，生产出来的是人人都可以享用的一般性物品。到公元前 4000~前 3500 年，在一些主要的考古学文化中，已经可以清楚地看到个别聚落开始从其余聚落中分化出来而成为中心聚落。在中心聚落内部也开始出现人数不多的贵族阶层，跟着就出现了一些专供贵族享用的高档化的手工艺品，从而迈开了走向文明的第一步。公元前 3500~前 2600 年是一个非常值得注意的时期。在以黄河流域和长江流域为主体的广大地区内，许多考古学文化都出现了中心聚落、次中心聚落和一般聚落的金字塔式的结构，不少中心聚落或次中心聚落筑起了防御性的城墙。武器普遍改进，战争越来越频繁和激烈化。从墓地中反映贵族与平民的分化更为明显也更为普遍了；宗教上升到十分重要的地位，并且为贵族所把持。社会物质生产有了显著的发展，铜器、玉器、漆器、丝绸和象牙雕刻等都有了初步的发展。一些考古学文化中出现了很像文字的符号系统。凡此等等，说明这一时期已经在许多地区全面地向文明社会迈进，文明化程度越来越高了。文明化进程的第三阶段约当公元前 2600~前 2000 年。前一时期的黄河流域与长江流域为主体的广阔地域内那种群星灿烂的局面为之一变，许多地区走向低谷而黄河流域则更加迅速发展起来。这一带全局性变化的原因可能是多方面的，各地的具体情况也不相同，但总体说来应该是人文的因素大于自然的因素。不管怎样，这一变化是实际存在的，它是走向以中原为中心的多元一体格局的关键性步骤。往后的发展便是夏的勃兴和夏与东夷的斗争。等到少康中兴，中原的中心地位才逐渐突出起来，从而出现了夏商周三代的灿烂文明。由此可见，中国古代文明的起源曾经有一个十分深广的基础，其起步不晚于公元前 4000 年，其领域包括了两种农业体系所涵盖的广大空间，即以黄河流域和长江流域为主体的广大地区。当中原地区广泛吸收各地的优秀文化因素而迅速发展 to 前列时，周围地区则经历一个短暂的低谷以后也逐渐发展起来，并且通过与中原地区的交往而逐渐华夏化，以至于先后融入商周文明的体系之中。与此同时又把更外围的文化逐渐带到文明化的轨道上来。这样一种由多元一体到多元一统格局的形成，乃是中国古代文明的重要特征，是她具有强大凝聚力和自我更新能力的重要原因，也是她经历多次政治大变动而能够连续发展下来的重要原因。以上是我根据现有资料对中国文明起源和早期发展的基本看法，是不是基本正确有待于方家的斧正，更有待于新的考古发现的检验、充实、纠正或重建。本书里面的各篇文章，不过是提供一些讨论和思考的粗浅见识而已。

本书第三部分是区域性考古研究，虽然着墨不多，涉及范围却比较广泛。其中有的是第一次论述，有的若是与《史前考古论集》的相关文章联系起来，也许可以看得更加清楚。

这些年关于专题性研究的文章也写了几篇，不成系统，也提出了一些重要意见。名

为散论一束，编为本书的第四部分。

本书第五部分是考古随笔，文字风格与前四部分的学术论文有所不同，内容则还是关于考古学研究和考古学史的重要问题。其中大多反映作者从事若干重要考古工作的原委和产生某些课题的思路，对于了解我个人的学术思想也许是有帮助的。科学的道路是漫长而崎岖不平的，考古学当然也不例外。假如我的工作能够成为铺垫这条道路的几块碎石，我将感到十分的荣幸。

最后我要特别指出的是，承蒙科学出版社的厚意，这本文集才得以顺利出版。与《史前考古论集》一样，由韩建业重新描绘了全部插图，秦岭和英国留学生亚当（Smith Adam）完成目录、前言的英文翻译，在此一并表示深切的谢意。

Preface

This book is a continuation of *Papers on Prehistoric Study* and comprises forty-seven papers that, with one exception, were published between 1991 and 2000. During this period, my work in prehistoric archaeology and general archaeological issues was focussed primarily on the origins of agriculture and the rise of civilization. Papers related to these issues thus make up near upon half of this volume, and the rest mostly concern these two issues too. Therefore, this book is named *The Origins of Agriculture and the Rise of Civilization*.

My interest in the origin of agriculture reflects its status as a core issue of the so-called “Neolithic Revolution”, related to the origins and development of Neolithic cultures as a whole and, further, to the problem of the rise of civilization. In global terms, the origins of agriculture were confined to several small regions making up no more than about 1% ~ 2% of the world’s landmass. However, the impact on human history and in particular on the origins of later civilizations was epochal and revolutionary. It is for precisely these reasons that many scholars have considered the rise of civilization to have begun with the adoption of agriculture. However, the two are in fact questions of a quite distinct nature, and it is hoped that this distinction has been made clear in the papers contained in the first two sections of the book.

World-wide, three centres for the origins of agriculture are of overwhelming importance, the Levant Crescent, where wheat and barley as well as domesticated sheep and goats made their first appearance, the valleys of the Yellow River and Yangtze River in China, which saw the earliest millet and rice, and the earliest domesticated pigs and possibly water-buffalo, and finally Central America, where corn was first domesticated but where the vicuña was the only important domesticated animal. In contrast with the other two regions, China is distinguished by having two interrelated centres, the first being the Yellow River valley where millet agriculture had its source, and the second, the Yangtze River valley where rice agriculture began. The two gradually evolved to become two intimately related agricultural systems, exerting a mutual influence on each other and eventually forming a larger, integrated economic system that was to form a solid basis for the subsequent birth and development of Chinese civilization.

Agronomists proposed North China or the region of the Yellow River drainage as the centre for the cultivation of millet long before there was any hard evidence to support the claim. Only when re-

mains of millet husks were found in storage pits and pottery jars during the excavation in the 1950s of the Yangshao culture site at Banpo was it possible to confirm the cultivation of millet during China's prehistory. In the 70s, hundreds of crop storage pits, many still containing millet remains, were found at the Cishan site, in Wu'an, Hebei Province, pushing back the date for millet cultivation to beyond 6000BC. Moreover, the very large number of storage pits and the sets of sophisticated agricultural implements found at that site suggested an agriculture that had already evolved beyond its most rudimentary form, implying that the earliest agriculture in the region belonged to a still earlier, and as yet undiscovered, stage. During the 80s and 90s, remains of millet-*su* and millet-*shu* agriculture dating to the period from 7000BC to 5000BC were found throughout North China, from Gansu in the west to Liaoning in the east, in the regions of the Yellow River and Liaohe River valleys. Although some of these sites lack remains of the millet crop itself, they nevertheless possess the associated agricultural tools. Clearly, millet had become the major grain crop throughout this extensive region. Mr. Huang Qixu concluded from his studies of the climate and soil of the Yellow River region, and from his analysis of the characteristics of the millet species themselves, that the region was ideally suited to support this crop and was likely to have been the area where it was cultivated earliest. My attention has been drawn to the extended winter season of the Yellow River region during which naturally-occurring foods would have been scarce. The development of prehistoric cultures saw a rise in population and population density that would have made the problem of this seasonal scarcity of food sources increasingly acute. The natural solution to this problem would have been an increased reliance on food storage, and grains are of course the most easily stored of foodstuffs. Since the supply of uncultivated grains was limited, the need for increased production could only have been met by cultivation. Wild grain species growing today in the Yellow River region include green bristlegrass and wild millet, and even in comparatively recent times their seeds have been exploited for food in times of famine. It is therefore natural to expect that they would also have been collected by the region's Neolithic inhabitants when food was scarce. From this perspective, the cultivation of millet species in the region and the gradual development of a dry land agricultural system based around the millet crop appear to be a perfectly natural phenomenon.

There is much less consensus, however, regarding the region of origin of rice agriculture, with proposals ranging from India to Southeast Asia and South China. Since the 70s, a proposed origin in the hilly region between Assam and Yunnan has attracted considerable support. However, all of these opinions lack, or might even be said to be in direct contradiction to, archaeological evidence. Beginning in the 50s, remains of prehistoric cultivated rice have been discovered in China, India, Vietnam, Thailand and Indonesia, and of all these, the remains discovered in the Yangtze valley are both the most plentiful and the earliest. Since the discovery during the late 70s of abundant prehis-

toric rice remains at Hemudu in Zhejiang, I have been particularly interested in the possibility of an origin for rice agriculture in the Yangtze valley, and subsequently, following successive discoveries of further prehistoric cultivated rice, I have published a series of papers putting forward the view that the Yangtze valley was home to the origins of rice agriculture. In these papers I have emphasized that the appearance of rice cultivation in other areas of China and in Northeast Asia was the result of direct or indirect transmission from the Yangtze valley. Since the appearance of rice agriculture in India and Southeast Asia was comparatively late, it is more likely that those regions were the recipients of influence from the Yangtze region rather than the other way round. For these reasons, the Yangtze region is identified not only as the locality where the earliest rice cultivation took place, but also as the region which subsequently saw the best-developed rice agriculture, and which exerted the most significant influence on surrounding regions. However, given the fact that ordinary non-domesticated rice (*Oryza rufipogon*) occurs more plentifully in South China, Southeast Asia and India than it does in the Yangtze region, the question remains, why did the Yangtze valley witness the earliest rice cultivation and so swiftly become the most important region for rice agriculture? In answer to this question I have proposed what might be called "A Theory of Peripheral Origin" for rice agriculture which explains both the origin of rice cultivation in the Yangtze region and also its beginnings in other areas of the world including India. The first three papers in this volume are devoted to an exposition of this theory.

My personal interest in questions related to the rise of civilization was stimulated by a whole series of archaeological discoveries made since the end of the 70s. In the past, the model used to understand the development of the late stage of primitive society always posited a transition from a matrilineal to a patrilineal stage. According to this model, the late period of the patrilineal stage also saw a military-democracy stage in which the system of patrilineal clans disintegrated. This was followed by the progression to slave-owning society, the first stage of hierarchical society. However the model of matrilineal and patrilineal society is not all together in keeping with the real history, and finding archaeological data that supports the model is not easy. A great deal of evidence from Chinese historical texts supports the view that, for a considerable period of time after the beginning of hierarchical society, the clan system continued in existence, and rather than disintegrating, simply took on a new form. There is also room for further debate over the question of whether the term "slavery society" is an appropriate descriptive term for China's first stage of class society. A specific historical framework cannot be constructed by *a priori* reasoning alone; history must be studied on the basis of the actual circumstances of history.

Neolithic settlements and cemeteries prior to 4000BC reveal relatively egalitarian societies in which production was directed towards the manufacture of ordinary goods to which everyone had the

right of access. By 4000~3500BC, in a number of major archaeological cultures, particular settlements had begun to distinguish themselves clearly from the majority as central settlements, and within these central settlements an elite minority began to appear with privileged access to the products of refined craft technologies. Such was the first step in the process toward civilization. The period 3500~2600BC is of particularly crucial importance. In a broad area centred on the Yellow River and Yangtze River regions, a pyramidal hierarchy of central settlements, secondary centres and ordinary settlements appeared in many archaeological cultures, and many of these primary and secondary centres were enclosed within defensive walls. Weaponry became increasingly sophisticated and warfare more frequent and more intense. Cemeteries reflect an increasingly clear and widespread disparity between the elite and commoners. Religion rose to a position of great importance and was controlled by the social elite. The production of material goods also underwent a marked change with development in bronze, jade and lacquer items, in silk production and in ivory carving. Systems of symbols strongly resembling writing appeared in several archaeological cultures. All of these phenomena show that during this period many regions were progressing in a comprehensive and cumulative fashion towards civilization. The third stage in the process, which occurred during the period from about 2600BC to 2000BC, saw a profound change away from the pattern of scattered local centres distributed widely across the Yellow River and Yangtze River regions; many of these local centres now began to lag behind the Yellow River region which went through a phase of increasingly rapid development. There are likely to be many reasons for this extensive change and circumstances differ from region to region, but in general it is likely to have been the result of cultural rather than environmental factors. Whichever be the case, this transformation was undoubtedly a real one, and was a crucial step in the formation of a multifaceted but integrated totality centred on the Central Plains region. This was followed by the establishment of the Xia polity and the conflict between the Xia and Dongyi, the population groups referred to in historical texts as the Eastern Yi. After the reestablishment of Xia dominance by Shao Kang, the dominance of the Central Plains region gradually became assured, a dominance that was embodied by the brilliant civilization of the Xia, Shang and Zhou dynasties.

It is clear from what has just been said that early civilization in China evolved from an exceedingly deep and broad foundation, in a process that began no later than 4000BC and which encompassed the extensive area centred on the Yellow River and Yangtze River together with their respective agricultural systems. While the Central Plains region adopted cultural traits from surrounding regions and developed swiftly to occupy a position of pre-eminence, those same neighbouring regions, after a period of relative decline, also began to develop gradually, being progressively assimilated by Huaxia through their interaction with the Central Plains and ultimately being absorbed into the sys-

tem of Shang-Zhou civilization. At the same time, increasingly far-flung cultures were brought within the orbit of civilization. This move from the multifaceted, integrated pattern mentioned above to a similarly multifaceted but more strongly unified pattern is one of the key features of Chinese civilization; it is one of the chief reasons behind its powerful cohesiveness and self-renewal, and is an important reason why, despite repeated political upheavals, it was able to continue its uninterrupted development.

The foregoing is a statement, based on presently available data, of my views regarding the rise of civilization in China and its early development. Whether or not it is basically correct is a question that awaits the critical attention of colleagues, and perhaps even more, the discovery of fresh archaeological material with which these ideas may be tested, supplemented, corrected or rebuilt from scratch.

The third section of the book is devoted to studies in regional archaeology. Although not particularly large, this section covers a very broad range of topics. Some of these are questions that I was approaching for the first time, whereas others may possibly be best read in conjunction with related articles in the first volume of *Papers on Prehistoric Study*.

Over the last decade I have also written a few papers on a variety of specific topics, which, while not particularly systematic, nevertheless contain a number of important opinions. These more discursive papers make up the fourth section of the collection.

The fifth section comprises more impressionistic essays on archaeological topics in a style that differs from the more strictly academic writing of the foregoing sections. That said, these essays nevertheless address a number of important questions related to archaeology and the history of the discipline. These provide an autobiographical account of the author's involvement in several important archaeological projects and of the lines of thought that have led to various avenues of research. They may be of some use to those who wish better to understand my opinions. The road of science is a long and tortuous one, and archaeology is of course no exception; only those who have experienced it at first hand can really appreciate the hardships there to be overcome. I would be greatly honored if anyone felt that my efforts had gone some way towards paving this difficult road!

I would also like to make clear my indebtedness to the Science Press, the publishers of this volume, whose goodwill ensured the successful publication of the book. As with the previous volume of *Papers on Prehistoric Study*, all illustrations have been redrawn by Han Jianye; Qinling and Smith Adam translated this Preface and the contents; I would like to express here my most heartfelt thanks.

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