

CHINA'S EARLIEST NEOLITHIC CULTURES: THE DIFFERENCES BETWEEN SOUTH AND NORTH

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ABSTRACT

In this paper, it is suggested that environmental factors might account for the current situation in Chinese Neolithic archaeology whereby agriculture appears to be earlier in southern China than in the north.

After the discovery and recognition of the pre-Yangshao Cishan and Peiligang cultures in North China, the beginning of Neolithic cultures in North China has become one of the most important topics of concern to Chinese archaeologists. Now, most archaeologists have adopted the following opinion. The transition from the Paleolithic to the Neolithic was roughly coincident with the beginning of the Holocene. This transitional period was one of critical change both in terms of the evolution of human culture and of the natural environment, and there are deep inter-relationships between them.

However, up until the early 1990s archaeologists found very few data on the transition in North China. In the meantime, accumulating evidence concerning the domestication and cultivation of rice, the development of ceramic technology and older radiocarbon dates have suggested that Neolithic cultures in South China developed earlier and were more sophisticated than those in the North.

I believe that the north-south differences in the pace of cultural evolution have some relationship with the environmental evolutionary factors. At the end of the Pleistocene the climate was becoming warmer and the glaciers retreated. During this process, North China was more sensitive to these changes than was the south, and the changes in the north were also more severe than were those in the south. A substantial amount of pollen and spore data show that warm-latitude plants began to spread towards the north and to higher elevations at this time.

Although we have very few data on early Holocene precipitation patterns, as a rule the south has always enjoyed more precipitation than the north. Thus, it is possible to imagine that the increase of precipitation in the north was also more substantial than in the south.

Human cultures were adapting to these environmental changes in both the north and the south, but because conditions differed in terms of the intensity of environmental change, their patterns of adaptation diverged. Both developed increasingly sophisticated technologies, and began to exploit a wider range of floral and faunal species. But we also have found that the south began cultivating rice as the staple food source and began using pottery earlier and more widely than in the north. The apparent result was that human populations in the south developed a settled way of life earlier than in the north. On the other hand, we find that there is a large gap in the archaeological record in the north during the time span 10,000-8500 BP, and we suggest two possibilities to account for this:

1. environmental changes during the transition from the Pleistocene to the Holocene destroyed most traces of human activity;
2. environmental instability during this interval made it very difficult for humankind to live in the north.

The data from the Mianchi-Bancun site of Henan Province and the Xushui-Nanzhuangtou site in Hebei Province are of very particular relevance to this hypothesis. At the Mianchi-Bancun site, there is a mixed layer underlying the Peiligang stratum. This layer exhibits the same soil matrix as the Peiligang layer and also includes some ashy deposits and stone fragments apparently resulting from human activity. However, no undisturbed traces of features such as pits, hearths or houses were encountered. This pattern suggests pre-Peiligang activities at the site, but also that most traces of this occupation were destroyed by flooding and other natural forces that were still forming the natural terrace upon which the Bancun site lies. Thus, the contents of the pre-Peiligang layer have

been redeposited. The Xushui-Nanzhuangtou site includes the earliest known pottery in North China (C14 dated to 10,800 BP) and exhibits a more intensively deposited cultural layer, but it also has no traces of features. Significantly, the cultural layer at Nanzhuangtou lies beneath a lacustrine deposit formed in the early Holocene.

Recently, archaeologists found more data in the strata of the early Holocene at sites such as Yujiagou in Hebei, and Donghulin and Zhuanni in Beijing, North China. At all of these sites, the archaeological data include chipped small stone tools. At Yujiagou, there are even pottery sherds dated as early as 10,000 BP, but still very little evidence of settled life and plant domestication. Examined from an environmental perspective, these strata of the early Holocene were formed between the end of the Pleistocene and the Megathermal period of the Holocene, which commenced c.8000 BP. The contents of the strata show a quick change and an arid climatic pattern. At the bottom of these strata there is a layer of small sized gravel which may be looked upon as marking the division between the Holocene and Pleistocene strata. It appears to be evidence, in the form of a remnant deposit, for the removal of the deposits in bulk belonging to the transitional period.

All of this leads us to believe that, during the beginning of the Holocene, although the glaciers had retreated and the climate was becoming warmer, the conditions were still unstable. Rainfall and aridity occurred at intervals and sometimes there was widespread flooding in North China. These made for a very difficult environment for prehistoric humans in North China and also resulted in severe damage to the archaeological deposits. This was a formidable constraint on cultural evolution. And in the meantime, Southern China provided human groups with a more accommodating natural environment, cultural developments flourished and more cultural remains were preserved in the comparatively undamaged archaeological deposits.

However, in the long term the comparatively placid environmental conditions of the south served to restrict cultural evolution and creativity. Once the inhabitants of North China began to settle in the river valleys and the North China Plain, they developed larger and more advanced social organizations and cultures, and took the leading role in the formation of Chinese civilization.