Circumscription Theory and the Political Evolution in Prehistoric China

Jianping Yi
Chinese Academy of Social Sciences

Carneiro has been well known for his circumscription theory since its publication in 1970. I was honored to read his new article, *The Circumscription Theory: A Clarification, Amplification, and Reformulation* and found that a few revisions made his theory logically more rigorous. The most important change is that the core of his theory, the circumscription, is somewhat de-emphasized, while the role of warfare is placed at an even more prominent position. This theory may thus be less vulnerable to criticism. However, Carneiro is known first and foremost for his unique circumscription explanation for chiefdom and state formation. As for the coercive theory, he is only one of the many championing that theory, among whom are Herbert Spencer, Ludwig Gumplowicz, Gustav Ratzenhofer, and Franz Oppenheimer, as mentioned by Carneiro himself (Carneiro 1970: 734). On the other hand, the circumscription theory was first systematically proposed by him alone, and he remains its most important proponent. The more important reason for us to stress the circumscription core of his theory is that the first states in human history did arise in the tightly constricted environments. Therefore, we are not surprised that so many scholars have been influenced by Carneiro's explanation, and as a consequence, great attention has been focused on the relations between the circumscribed environment and state formation. Regardless of whether such a scholar ultimately agrees or disagrees with Carneiro, those relations have been crucially highlighted.

Of course, the revisions in the new article do not mean that Carneiro has ignored the significance of circumscription, be it geographical or social one. He does de-emphasize its role relative to

Social Evolution & History, Vol. 11 No. 2, September 2012 120–130

that of the warfare, but does not ignore or abandon it at all. It can be reasonably expected that, for a long time in the future, circumscription in this theory, no matter what the author will do with it, will still attract great attention.

Just for this reason, I will focus my discussion on the role of circumscription in this theory. I note that in both the 1970 and 2012 articles Carneiro bases his arguments mainly on data from Egypt, Mesopotamia, Central America, South America, and Africa. He discusses quite a few evidences from India and China, two of the six regions where the pristine states arose. And, I have to tell that the information about the pristine state formation in China he talks about is somewhat outdated. We know that one of the most important bases for the establishment of a scientific theory is induction. Only after *all* the relevant cases have been studied, it is possible for a general scientific theory to be eventually established. For the circumscription theory, there is no exception either. However, the individual's ability is very limited. It is too difficult a task for a single person to study all the relevant cases. So, in practice, a scientist usually works in a different way. He may propose a tentative theory after studying a number of cases, and the scientific community on other cases continually tests the theory. Through the accumulation of evidence in support of or against, a theory will eventually be established or refuted. It is in this sense that I am going to talk about political evolution in prehistoric China, and test whether the case of China is compatible with the circumscription theory.

As Carneiro himself summarizes, his explanation 'came to be known as the *circumscription theory* since it pointed to the key role played by tight environmental constriction in giving rise to population pressure, which in turn had brought about recurring warfare, culminating, in certain areas, in the rise of the state'. He adds that social circumscription brought about by resource concentration works also as a geographic one, although it 'generally does so more *slowly*'. An interesting point that we may find in this theory is that a society evolves in a fixed area. Put it in another way: one of the basic characteristics of this model is that population pressure brought about by population growth and the consequent warfare and the social evolution all occur in a fixed area – the society is changing and the environment is not. Therefore, from this point of view, Carneiro's theory may be called a static one. However, many

materials found in China indicate that societies evolved from egalitarian villages to chiefdoms and to early states in a different way. The prehistoric map of China is large, much larger than those of Egypt and Mesopotamia. It comprises many areas with different environments, unlike the latter places. Except for that in the Chengdu Plain, we may hardly find a case of a complete series of political evolution in a fixed area in China. In other words, we may hardly find in a fixed area where a society evolved from an egalitarian village to chiefdom and then to a state. Chiefdoms or states did arise in a certain period in some circumscribed areas (according to Carneiro's new statement, 'most of the circumscribed environments where the earliest archaic states arose were *also* areas of resource concentration'), or in some areas of resource concentration of China. However, other than that in the Chengdu Plain, at least before Shang people settled in Anyang of Henan, the prehistoric people were always moving, which means we may find a chiefdom here at this time and a state there at another time. For example, we may find chiefdoms in Inner Mongolia and Liangning in the northeast of China in the period of Niuheliang (c. 3600 – c. 3000 BC) of the Hongshan Culture (c. 4000 – c. 3000 BC), or in the walled city of Liangzhu (c. 2600 or 2500? – c. 2300 BC) in Zhejiang in the southeast of China, or the first state in the walled city of Erlitou (c. 1900 – c. 1500 BC) in Henan in the center of China. Most of the cases in prehistoric China show that political evolution there can be generally described only by a dynamic model, though some individual cases do fit Carneiro's static model.

As regarding warfare, what Carneiro takes as 'the fuel – the propellant – that powers political evolution', the earliest powerful evidence for it is the appearance of walled settlements. People fought each other for increasingly scarce arable land or other resources when population pressure grew. In prehistoric China, to defend themselves they had been building walls for about two thousands years (c. 4000 – c. 2000 BC). Its peak period lasted for about five hundred years (c. 2800 – c. 2300 BC). So far archaeologists have found more than seventy prehistoric walled settlements in different areas of China (Zhao 2011: 35–45), which may be roughly divided into three categories, basing on the degrees of their environmental circumscription.

The first category includes the areas tightly constricted by physical barriers. The best example is the Chengdu Plain in the Sichuan Basin. This basin goes from west to east: the Chengdu Plain in the west is followed by the hills of the Middle Sichuan, and then by the parallel mountains in the Eastern Sichuan. Many rivers, such as the Yangtze River and its tributaries the Min River, the Tuo River, the Fu River, the Jialing River, the Wu River, and the Chishui River, flow through the basin. The river valleys and hills in the middle of the basin, with altitudes varying from 300 to 700 meters, are surrounded by mountains and plateaus, whose altitudes vary from 2,000 to 3,000 meters. So this area is a typical example of geographic circumscription, and also of resource concentration, good example for Carneiro's present supplement. It is in the Chengdu Plain, the best arable land in this basin, that nine prehistoric walled settlements have been discovered: Xinjin Baodun, Pixian, Wenjiang Yufu, Dujiangyan Mang (Shangmang Cheng), Chongzhou Shuanghe (Xiamang Cheng), Chongzhou Zizhu, Dayi Yandian, Dayi Gaoshan, and the most famous city Sanxingdui (c. 2000 – c. 1600 BC). The site of Sanxingdui covers an area of 3.5 square kilometers, and its population, estimated by Mao Xi, peaked between 12,000 and 24,000 persons (Mao 2006: 7–11). Scholars believe this city was already a state (*e.g.*, Duan 1999: 83–157; Shen and Zhang 2009: 314–331). Different from other areas of China, in the Chengdu Plain we can find a complete series of political evolution, that is, from equalitarian villages to chiefdoms and to states. Thus, political evolution there can be well described by Carneiro's static model.

The areas of the second category are not tightly geographically circumscribed and thus, are still open to other areas. Some of them are mountainous, some hilly, and some located between the mountains and the plain. For example, in the middle reaches of the Yangtze River, a few prehistoric walled settlements have been found in the crescents area, located in the transition zone between the mountains and the Lianghu Plain: to the south of the Dahong Mountains, and to the east of the mountainous region of the West Hubei and the Wuling Mountains (Zhang Zhiheng 1998: 6–14). In the low-lying Lianghu Plain, one can find thousands of lakes. Another example is the Hetao of the Yellow River in Inner Mongolia – a hilly area, located to the south of the Yin Mountains. Eighteen

prehistoric settlements with stone walls have been found there (Wu 1999: 48–54; Qiu and Yao 2003: 100–106). The third example is some areas in the Central Plains, where archaeologists find several prehistoric walled settlements: in the eastern feet of the Taihang Mountains, and of the Xionger Mountain as well as of the Funiu Mountain of the Qinling Mountains (Zhang Yushi 2001: 29–30). The fourth example is in Shandong, where fifteen prehistoric walled settlements were concentrated in the Haidai area, of which thirteen located in the northern feet of the Mount Tai and of the Mount Yi (Zhang Yushi 2001: 30).

The environments of the third category are even more open and thus, more accessible. The basin around the Taihu (the Great Lake) in the lower reaches of the Yangtze River is typical of this category. More than a hundred and thirty sites of the Liangzhu Culture have been found there, distributed over the south of the Jiangsu Province and the north of the Zhejiang Province, dating back to c. 3300 – c. 2000 BC. Among them, the site in Liangzhu of Yuhang of Zhejiang Province is the largest, occupying an area of 2,900,000 square meters. In this basin, it is the only one surrounded with defensive walls. In some other sites, such as in Quemuqiao of Jiaxing, Fuquanshan of Shanghai, and Sidun of Wujin, settlements were ranked.

It is interesting to note that only in the areas under the first and second categories we find complete series of political evolution. In the areas under the third category the highest social stage found was the chiefdom. And it is clear that, in the basin around the Taihu, warfare did not play such a significant role in social evolution as in the areas under the other categories for only one walled settlement has been found there. For a period of time (c. 2600 or 2500? – c. 2300 BC), compared with the prehistoric cultures found in other areas of China, the Liangzhu Culture might have reached the highest level. How could warfare not have been as frequent and intense as in other areas? And why did not the societies advance to the stage of the state after become the number one? I do not know. What I know is that those facts cast doubt on the idea that the progress of political evolution was at any time directly proportional to the frequency and intensity of war, which in turn were at any time directly proportional to the degree of circumscription, be it geographical or social. In addition to war, in addition to circumscrip-

tion, there must be other important factors for the structural change of a society.

Another important point needs to be noted. While the political evolution in the areas under the first category can be described by Carneiro's static model, the evolution in the areas under the second category looks like a dynamic one. The latter seems to be worthier of discussion. With growing population pressure and intensifying competition for resources, warfare became more and more intense. In such areas, the environment was not tightly constricted, and therefore, the victor and vanquished were constantly moving from one place to another, trying to find better land; it was thus they left abundant sites of walled settlement in the basins of the Yangtze River and the Yellow River. Finally some of them arrived in Yanshi of Luoyang of Henan and built the famous walled city (c. 1900 – c. 1500 BC) in Erlitou, which was considered as a state by most Chinese scholars (*e.g.*, Li 1997: 279–316; Liu 2007: 207–217; Shen and Zhang 2009: 182–188). One should note that many walled settlements were occupied for quite short periods, as Zhang Yushi points out (Zhang Yushi 2001: 31), which may be good evidence for that the prehistoric people were constantly moving, and which in turn suggests that their environment were not tightly constricted. People did keep moving. At this point, Chinese historians and archaeologists, classic and contemporary, all agree with one another. For example, Zhang Guanming believes that Yushun, the tribe dominant before the Xia Dynasty (c. 2070 – c. 1600 BC), which is considered the first state in most of the Chinese historiographies, was gradually moving westward from Shandong to Henan (c. 2500 – c. 2300 BC) and left many walled settlements: Wulian Danshi → Shouguang Bianxianwang → Linzi Tonglin → Huantai Lizhai, Shijia, and Tangshan → Zouping Dinggong → Zhangqiu Chengziya → Yanggu Jingyanggang → Huaiyang Pingliangtai (Zhang Guangming 2009: 30–40). Interestingly, many Chinese archaeologists believe that Yao, who demised his position Di[1] to Shun, the chief of the tribe Yushun, lived in the walled city Taosi of Shanxi (*e.g.*, Xu 2010: 34–39), far from where Shun lived. And Yu, the successor to the Shun's position of Di and the actual founder of Xia Dynasty, lived in his 'Capital' Yangcheng, which, many archaeologists believe, might be located in Wangchengang of Dengfeng of Henan, a walled settlement dating back to about 2100–2050 BC

(Pei 1996: 60). In some ancient books it is said that Yu might also have lived in other places. In *Shiben* cited by *Zhengyi* of *Fengshanshu* of *Shiji* (*History* by Simaqian) the following description can be found: 'Xia Yu made Yangcheng as his capital … and Pingyang too, which might be in Anyi, or in Jinyang'. And Xu Guang wrote, cited by *Jijie* of *Zhoubenji* of *Shiji*: 'Xia (Yu) lived in Henan, at first in Yangcheng, and then in Yangzhai'. About where the kings of the Xia Dynasty after Yu lived, we find in *Guben Zhushu Jinian* (*Ancient Edition of Bamboo Annals*) the following records: 'Taikang lived in Zhenxun', 'Houxiang lived in Shangqiu,[2] and also in Zhenguan', 'Dining lived in Yuan, and moved from Yuan to Laoqiu', 'Yinjia lived in Xihe', and 'Jie lived in Zhenxun'. About Yin People who established the Shang Dynasty (c. 1600 – 1046? BC) after the Xia Dynasty, the great historian Simaqian (145 or 135 – 87 BC) of the Western Han Dynasty wrote in *Yin Benji* of *Shiji*: 'From Qi to Tang, who started to live in Bo, (they) moved eight times'. Zhangheng (78–139 AD), the great astronomer of the Eastern Han Dynasty, wrote in his famous *Xijing Fu*: 'Yin people moved frequently. They moved eight times before (the direct successor to the King Tang) and five after'. Modern scholars even think that Yin people moved more times. For example, Wang Hui believes that only the first king Tang (? – 1588 BC) moved three times and had three formal 'capitals' and one second 'capital' (Wang Hui 2009: 151–159). Abundant evidence of moving from Yin people has been found over Henan, Hebei, Shandong, and other provinces (Chao 1985: 65–73). All those seem to be sufficient to prove that the political evolution was taking place when the prehistoric people and even the people who already came in history were always moving. So we need a much larger spatial scales and a dynamic model to describe what happened in the areas under the second category. Most of the areas in China, where chiefdoms and pristine states arose, did not have tightly constricted environments, and thus were not able to prevent the vanquished from fleeing to other areas, or to prevent the victors from exploring or conquering other areas. Otherwise, we would not have found in so vast a land so much evidence of migration. Situations for many prehistoric people in China must have been somewhat the same with that in 'Western Europe, the Congo, and the Peten in Mexico and Guatemala'. Even if some of their environments were more

constricted, there were still enough 'leakages' for those who wanted to leave.

In addition to the discussion above, in prehistoric China, in many areas of resource concentration, we should pay special attention to migration that might have played an important role in population growth, which ultimately increased population pressure, particularly the sudden population growth in some areas around 5500 BP and 4000 BP, when the climate changed greatly causing many natural disasters that might have forced people to move (Shi 1993: 65–73; Wu and Liu 2002: 155–161; Wu and Liu 2004: 278–284; Wu 2010: 143–152). Situation in such areas was clearly different from the circumstances in the areas that Carneiro took as samples for his static model. He believes population pressure in those areas was mainly the result of local population growth.

And one more difference from what Carneiro states. He says that with social circumscription the degree of constriction on the impacted population is generally *less tight* than with physical circumscription, allowing a certain amount of 'leakage' to occur, which may reduce the incidence of warfare, and therefore delay the onset of the usual political consequences of such fighting and thus chiefdoms and states will take longer to emerge. However, in some areas under the second and third categories in China where social circumscription might have played a more important role than geographic constriction, chiefdoms and/or finally states arose not later, or we might even say, earlier, than in the Chengdu Plain where the environment was tightly constricted. I mentioned this above when spoke about the Liangzhu culture. So it had better simply not to apply what Carneiro concluded to China. Of course, he has pointed out: 'it may even be the case that under certain circumstances – albeit unusual ones – resource concentration may actually *trump* environmental circumscription in giving rise to chiefdoms and states'. I do not know whether the situations in the above mentioned areas were 'unusual ones' or not. If they were, they remained 'unusual ones' for hundreds of years or even longer over so broad a land. History is much more complicated than we imagine. It really needs further study for the explanation of the political evolution in prehistoric China.

Of course, what I have discussed above surely does not negate the circumscription theory. I agree with Carneiro's remark in the end of his new article: 'Whatever shortcomings may remain

in the theory, it needs not be *abandoned,* but only *supplemented*'. It is really so. Perhaps, the circumscription theory will be more effective if it is well supplemented by the study of Chinese prehistory.

NOTES

[1] Title of the paramount chiefs in the Wudi (five Di) Age (the 26th century – 22nd century BC). The Chinese character 'Di' has acquired the meaning 'emperor' since the Qin Dynasty (221–206 BC).

[2] 'Shangqiu' was corrected as 'Diqiu' by Wang Yinglin in his *Tongjian Dili Tongshi* (*Complete Interpretation of the Geography in the Comprehensive Chronological History*).

REFERENCES

Carneiro, R. L.
1970. A Theory of the Origin of the State. *Science* 169: 733–738.

Chao, F.
1985. The Development of the Fangguo Federacy as an Important Cause for Yin People Moving their Capital Frequently. *Beijing Shifan Daxue Xuebao (Journal of Beijing Normal University)* 1: 65–73. *In Chinese* (Chao, F. Cong Fangguo Lianmeng de Fazhan kan Yindu Lüqian Yuanyin. *Beijing Shifan Daxue Xuebao* 1: 65–73).

Duan, Y.
1999. *Political Structure and Cultural Model: Study of Ancient Civilization in Bashu*. Shanghai: Xuelin Chubanshe. *In Chinese* (Duan, Yu. *Zhengzhi Jiegou yu Wenhua Moshi: Bashu Gudai Wenming Yanjiu.* Shanghai: Xuelin Chubanshe).

Li, X. (ed.)
1997. *Study of the Chinese Civilization and State Formation*. Kunming: Yunnan Renmin Chubanshe. *In Chinese* (Li, Xueqin (ed.), *Zhongguo Gudai Wenming yu Guojia Xingcheng Yanjiu.* Kunming: Yunnan Renmin Chubanshe).

Liu, L.
2007. *The Chinese Neolithic: Trajectories to Early States*. Beijing: Wenwu chubanshe.

Mao, X.
2006. City Origin and Formation in the State Shu before Qin Dynasty. *Dalian Daxue Xuebao (Journal of Dalian University)* 27(3): 7–11. *In Chinese* (Mao, X. Xianqin Shuguo Chengshi Qiyuan yu Xingcheng Yanjiu. *Dalian Daxue Xuebao* 27(3): 7–11).

Pei, Mingxiang
1996. On the Nature of the Castle of Wangchenggang in Dengfeng. In Zhongguo Xianqinshi Xuehui, and Luoyangshi Dier Wenwu Gongzuodui (eds.), *Essays on the Xia Culture* (pp. 60–65). Beijing: Zhonghua Shuju. *In Chinese* (Pei, Mingxiang. Lun Dengfeng Wangchenggang Chengbao de Xingzhi. *Xia Wenhua Yanjiu Lunji* / Ed. by. Zhongguo Xianqinshi Xuehui and Luoyangshi Dier Wenwu Gongzuodui, pp. 60–65. Beijing: Zhonghua Shuju).

Qiu, Shijing, and Yao Yibing
2003. Analysis on the Distribution and the Function of the Cities in Prehistoric China. *Zhongguo Lishi Dili Luncong (Collections of Essays on Chinese Historical Geography)* 18: 100–106. *In Chinese* (Qiu, Shijing, and Yao Yibing. Zhongguo Shiqian Chengzhi de Fenbu ji Gongneng Fenxi. *Zhongguo Lishi Dili Luncong* 18: 100–106).

Shen, Chanyun, and Zhang Weilian
2009. *Origins and Formations of Ancient States in China*. Beijing: Renmin Chubanshe. *In Chinese* (Shen, Chanyun, and Zhang Weilian. *Zhongguo Gudai Guojia Qiyuan yu Xingcheng Yanjiu.* Beijing: Renmin Chubanshe).

Shi, Shaohua
1993. Climate Abrupt Change Events and their Impact on Human Civilization during Holocene Megathermal in China. *Haiyang Dizhi yu Disiji (Marine Geology & Quaternary Geology)* 13(4): 65–73. *In Chinese* (Shi, Shaohua. Zhongguo Quanxinshi Gaowenqizhong de Qihou Tubian Shijian jiqi dui Renlei de Yingxiang. *Haiyang Dizhi yu Disiji* 13(4): 65–73).

Wang Hui
2009. *Study of the Legendary Era and the Archaic History*. Beijing: Kexue Chubanshe. *In Chinese* (Wang Hui. *Gushi Chuanshuo Shidai Xintan.* Beijing: Kexue Chubanshe).

Wu, Chunming
1999. The New Archaeological Discoveries of Prehistoric City Sites and the Origin of Chinese Civilization. *Xiamen Daxue Xuebao* (*Journal of Xiamen University*) 3: 48–54. *In Chinese* (Wu, Chunming. Shiqian Chengshi de Kaogu Xinfaxian yu Zhongguo Wenming de Qiyuan. *Xiamen Daxue Xuebao* 3: 48–54).

Wu, Wenxiang
2010. Circumscription Theory and the Origins of Chinese Civilization. *Huaxia Kaogu* (*China Archaeology*) 2: 143–152. *In Chinese* (Wu, Wenxiang. Xianzhi Lilun yu Zhongguo Gudai Wenming Dansheng. *Huaxia Kaogu* 2: 143–152).

Wu, Wenxiang, and Liu Dongsheng
2002. 5500 BP Climate Event and its Implications for the Emergence of Civilizations and Neolithic Cultural Development in Egypt, Mesopo-

tamia, and China. *Dixue Qianyuan* (*Earth Science Frontiers*) 9(1): 155–161. *In Chinese* (Wu, Wenxiang, and Liu Dongsheng. 5500 BP Qihou Shijian zai Sanda Wenming Guguo he Guwenhua Yanhuazhong de Zuoyong. *Dixue Qianyuan* 9(1): 155–161).

2004. Varitions in East Asia Monsoon around 4 000 BP and the Collapse of Neolithic Cultures around the Central Plains. *Disiji Yanjiu Quarternary Sciences* 24(3): 278–284. *In Chinese* (Wu, Wenxiang, and Liu Dongsheng. 4000 BP Qianhou Dongya Jifeng Bianqian yu Zhongyuan Zhouwei Diqu Xinshiqi Wenhua de Shuailuo. *Disiji Yanjiu* 24(3): 278–284).

Xu, Shunzhan

2010. Study of the Type of Settlement Clusters of Taosi of Longshan Culture in Linfen. *Zhongyuan Wenwu (Cultural Relics in the Central Plains)* 3: 34–39. *In Chinese* (Xu, Shunzhan. Linfen Longshan Wenhua Taosi Leixing Juluoqun Yanjiu. *Zhongyuan Wenwu* 3: 34–39).

Zhang, Guangming

2009. Archaeological Study of the Areas where the Yushun Tribe Lived and Moved Westward in their Earlier Time. *Guanzi Xuekan (Journal of Guanzi)* 3: 30–40. *In Chinese* (Zhang, Guangming Yushun Buzu Zaoqi Huodong Quyu he Xiqian Shiji de Kaoguxue Yanjiu. *Guanzi Xuekan* 3: 30–40).

Zhang, Yushi

2001. The Prehistoric Walled Towns and the Evolutionary Trajectory of Ancient Civilization in the Central Plains of China. *Huaxia Kaogu (China Archaeology)* 1: 29–36, 49. *In Chinese* (Zhang, Yushi. Shiqian Chengzhi yu Zhongyuan Diqu Zhongguo Gudai Wenming Zhongxin Diwei de Xingcheng. *Huaxia Kaogu* 1: 29–36, 49).

Zhang, Zhiheng

1998. Study on the Prehistoric Walled Settlements in the Valleys of the Yangtze River. *Dongnan Wenhua (Cultures in the Southeast)* 2: 6–14. *In Chinese* (Zhang, Zhiheng. Changjiang Liuyu Shiqian Gucheng de Chubu Yanjiu. *Dongnan Wenhua* 2: 6–14).

Zhao, Chunqing

2011. Study of the Walled Settlements in Prehistoric China: Past, Present and Future. *Zhongguo Shehui Kexueyuan Gudai Wenming Yanjiu Zhongxin Tongxun (Bulletin of the Center for Ancient Civilizations at the Chinese Academy of Social Sciences)* 21: 35–45. *In Chinese* (Zhao, Chunqing. Zhongguo Shiqian Chengzhi Yanjiu de Guoqu, Xianzai yu Jianglai. *Zhongguo Shehui Kexueyuan Gudai Wenming Yanjiu Zhongxin Tongxun* 21: 35–45).