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The Rise of Agricultural Civilization in China: The Disparity between Archeological Discovery and the Documentary Record and Its Explanation

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The Rise of Agricultural Civilization in China:

The Disparity between Archeological Discovery and the

Documentary Record and Its Explanation

Looking for the Source of Civilization in the Delta of the Yellow River (2)

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Abstract This research project puts forward an entirely new viewpoint on the prehistory of the Yellow River area and the evidence for it: the civilization of the Yellow River is not a result of an independent evolution, but of the impact of a foreign upon a native culture. The earliest Chinese agriculture, as revealed by Chinese archeology, rose earlier than 4000 BC in the middle reaches of the Yellow River and the Yangtze River. But according to ancient documents, the earliest agriculture occurred in the period of Hou Ji 后稷¹ (about 2100 BC) in the middle reaches of the Yellow River. Why is there such a large disparity in time? The explanation is this: the story of agriculture and Hou Ji represented the beginning of agriculture only among the people of the nation of Huang Di (the Yellow Emperor), who were originally nomadic. Hou Ji and his people learned to cultivate grains from the earlier native people, who lived in the area of the Yellow River and the Yangtze River 5,000 years ago, yet so far they have been neglected by conventional history. The Yellow Emperor's nation held the middle reaches of the Yellow River because of their strong force, but they consolidated, expanded, and continued their rule in China by accepting the indigenous agricultural culture. The occupying nation was a branch of the Proto-Indo-European. The historical records, such as Shang Shu, Shi Jing, Zuo Zhuan (Annals of Feudal States), and Shi Ji, etc., were all only descriptions of the rise and fall of the Yellow Emperor's nation. The earlier native civilizations of the Yellow River and the Yangtze River of 5,000 years ago were excluded from the traditional historical record and therefore have been covered up for 3,000 years. This paper tries to reveal the historical facts with the evidence of archeology, ancient documents, and historical linguistics.

Keyword origin of agriculture, archeology, ancient documentary, historical linguistics.

¹ Hou Ji (about 2100 BC) was the forefather of the Zhou tribe, which later grew to be the strong kingdom that established the Zhou dynasty in China (1046-220?BC). Hou Ji was also one of the significant leaders of the reigning group of Huang Di's descendants, based on the accounts of Chinese classical documents.

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I. The Beginning of Agricultural Civilization as Attested by Archeology

1.1 The Outline of Prehistoric Agriculture in China

Regarding the significance of the meaning of cereal agriculture for human civilization, Paul C. Mangelsdorf had this to say:

No civilization worthy of the name has ever been founded on any agricultural basis other than the cereals.... It may be primarily a question of nutrition.... Cereal grains, like eggs and milk, are foodstuffs designed by nature to supply carbohydrates, proteins, fats, minerals and vitamins.... Perhaps the relationship between cereal and civilization is also a product of the discipline which cereals impose upon their growers. The cereals are grown only from seed and must be planted and harvested in their proper season. In this respect they differ from the root crops, which in mild climates can be planted and harvested at almost any time of the year.... The growing of cereals has always been accompanied by a stable mode of life.... Cereal agriculture in providing a stable food supply created leisure, and in turn fostered the arts, crafts and sciences. It has been said that "cereal agriculture, alone among the forms of food production, taxes, recompenses and stimulates labor and ingenuity in an equal degree" ("Wheat," *Scientific American*, CLXXXIX, July 1953, 50-59. Quoted in Ho 1975: 44-45, fn.).

Cereal agriculture was the necessary basis of any civilization in early ancient times.

In the last half-century, Chinese archeologists have made many new discoveries about Chinese prehistoric civilization. From the Neolithic period to the beginning of the Xia dynasties (about 7000-2000 BC), there were many prehistoric cultural sites in the middle Yellow River Valley and the middle and lower Yangtze River valley, such as the Yangshao 仰韶 Culture sites (4600-3000 BC), the Longshan 龙山 Culture sites (3000-2200 BC) in the Yellow River valley, the Hemudu Culture sites (5000-4000 BC), and the Liangzhu 良渚 Culture sites (2800-1800BC) in the lower reaches of the Yangtze River. These sites showed that the Yellow River and Yangtze River valleys are among the earliest areas in the world to yield agricultural civilization. It is surprising that many of these sites possessing very developed agriculture occurred long before the emergence of agriculture (about 2100 BC) as it was mentioned repeatedly in a number of Chinese classical books. There is a large disparity in the times (and in the areas) between the archeological discoveries and the ancient documentary records.

The area of the early Chinese agricultural civilizations can be divided into two regions: the middle reaches of the Yellow River and the middle and lower reaches of the Yangtze River. There were different cultivated cereals in the two regions: millet in the former² and rice in the latter. Chinese

²A few relics of rice were discovered at the sites of the Yangshao Civilization in the Yellow River valley.

millet grains belong to the two different genera of *Setaria* and *Panicum*. The former is represented by the species *Setaria italica*, which is named in Chinese su粟. The latter includes the two subspecies of *P. miliaceum*, which in Chinese are called *shu* 黍 and ji 稷(Ho 1975: 57). Chinese rice belongs to the two different subspecies of *Oryza sativa japonica*, which is the late-ripening rice with round grains that the Chinese call 粳稻, and *O. sativa indica*, which is the early-ripening "tropical" rice with long grains that the Chinese call 籼稻 (Ho 1975: 62). We will review the origins of millet and rice agriculture in China, based on the studies of other scholars and archaeological materials in recent decades.

1.2 The Date of the Rise of Millet Cultivation

Professor Ho Ping-Ti says in his work The Cradle of the East:

In the Old World, field agriculture first occurred in southwestern Asia, on the hilly flanks of the "Fertile Crescent," around 7000 B.C. Some time after 5000 B.C. more intensive agriculture took place on the irrigated fields of the great flood plains of the Tigris and Euphrates. The ancient agriculture of Egypt and the Indus River valley also depended on flood plains and primitive irrigation. Among the main characteristics of the earliest Chinese agricultural system, however, was its freedom from the influence of the great flood plain of the lower Yellow River and, as a corollary, the absence of primitive irrigation (Ho 1977: 44).

In his work, he proves that the Neolithic center in North China, in addition to Mesopotamia and Meso-America, is another area in which field agriculture independently developed. The Neolithic area of the middle reaches of the Yellow River was one of the three centers in the world in which the earliest agricultural civilization occurred. "It was field agriculture based on cereal grains that gave rise to the first civilizations in both the Old World and the New" (Ho 1977: 40).

The following is a summary of the main evidence in Prof. Ho's 440-page work. These quotations are from *The Cradle of the East* (Ho 1977).

We know without question that *Setaria italica* was grown extensively in the loess highlands during Yangshao times. The most important archeological evidence is the fact that at the typical early Yangshao site of Pan-p'o 半坡, jars filled with husks of *S. italica* have been found in several storage places. The quantity of the stored millet, along with the abundance of agricultural implements and the whole complex layout of the village, established beyond a doubt that *Setaria italica* was a crop cultivated and harvested by men (p. 57).

The Pan-p'o phase is of utmost importance for an understanding of the beginnings of Chinese civilization because it is the earliest known phase of field agriculture based largely on millet, animal domestication centered mainly on pigs, settled village communities with well-patterned graveyards, painted pottery, and the archetypal Chinese script and numerals. A series of four radiocarbon dates together

with converted bristlecone-pine dates show that this site was almost continuously occupied for six hundred years during the fifth millennium BC (p. 16).³

Site	Culture	Carbon-14 Dates	Bristlecone-Pine
		(half-life: 5,730 years)	Dates
2. Banpo, Sian	Yangshao	4115±110 B.C.	4865±110 B.C.
4. Banpo, Sian	Yangshao	3955±105 B.C.	4555±105 B.C.
5. Banpo, Sian	Yangshao	3890±105 B.C.	4490±105 B.C.
6. Banpo, Sian	Yangshao	3635±105 B.C.	4235±105 B.C.
7. Hougang 后岗	Yangshao	3535±105 B.C.	4135±105 B.C.
Anyang 安阳			
Henan			

Table I: Available Carbon-14 Dates for China's Prehistory

Prof. Ho pointed out that *Setaria* and *Panicum* millets are indigenous plants (in the loess highlands of China), according to evidence from ancient documents, wild species of millets that exist in the loess area today, and the long history of their cultivation.

Prof. Ho also discussed the ethnic and geographic origins of the Yangshao people. He concluded that the Yangshao people came from southern China, using the evidence of geographical environment, physical anthropology, typical artifacts, and culture. The following summarizes his arguments.

The evidence of soil and botany: Continental ice sheets never covered China as a whole during the Pleistocene. In many localities in northern and southern China, the soils developed from the Cretaceous (120 million to 60 million years ago) and the Tertiary (60 million to 1 million years ago). The existence of these soils is evidence that they formed long before the onset of the great ice age. "The extraordinary richness of the ligneous flora of eastern Asia exceeds in number of genera all the rest of the North Temperate Zone [in the world]...the richness of the flora of eastern Asia, especially China, is due to its great diversity in topographic, climatic, and ecologic conditions. Historically, the absence of extensive glaciation during the Pleistocene permits the preservation of a large number of genera formerly extensively distributed but which later became extinct in other parts of the world." Ginko biloba and Metasequoia⁵ are the most famous of the "living fossils" that testify to the absence of continental ice sheets in China. Therefore during the last glacial

³ Sources (following Ho): the Laboratory of the Institute of Archaeology, "Fang-she-xing tang-su ce-ding nian-dai bao-gao (I)" [Report on Radiocarbon-Determined Dates (I)], *KK*, 1972, No. 1, pp. 52-56; and "Fang-she-xing tang-su ce-ding nian-dai bao-gao (II)" [Report on Radiocarbon-Determined Dates (II)], *KK*, 1972, No. 5, pp. 56-58.

⁴ Hui-lin Li, "Endemism in the Ligneous Flora of Eastern Asia," *Proceedings of the Seventh Pacific Science Congress*, V (1953), p. 1, quoted from Ho 1975: 37.

⁵ *Ginko biloba* is the only survivor of an entire order of gymnosperms, and *Metasequoia* is the unique primeval surviving conifer.

period the lowlands in the south of China were likely to have been more congenial to early man than those of northern China, in terms of climate and of natural resources for human survival.

- 2. The evidence from physical anthropology: As compared with other Mongoloid groups, the Yangshao people bear the closest physical resemblance to the modern Chinese of the southern half of China and to the modern Indo-Chinese. Their next closest resemblance is to the modern Chinese of North China. They have physical characteristics markedly different from those of the Eskimos of Alaska, the Tungus of Manchuria, the Tibetans, and the Mongoloids of the Lake Baikal area. According to the Soviet anthropological terminology adopted by mainland Chinese scholars, the Yangshao Chinese are classified under the "Pacific branch of the Mongoloid" or under the "Southern Mongoloid race," and thus are distinguished from the proto-Tungus of Manchuria, who are classified under the "Northern Mongoloid" (Ho 1975: 38).
- 3. The evidence of the characteristic artifacts of the Yangshao Culture. "The most striking trait of the stone artifacts of the Yangshao Culture, apart from their typological uniqueness, is the prevalence of polished tools. The people of this culture did not know the techniques of flaking and chipping. In manufacturing axes, spear points, and arrowheads, and ploughs, sickles, and punch awls, they used the grinding method. This demonstrates the specific cultural traditions and sources of the Yangshao Culture, which are not related to the north, where the percussion technique was prevalent, but to the south and the eastern maritime regions of China". 6
- 4. The evidence of the cultural sequence: Mainland Chinese archaeologists verify that the earliest phase of the Yangshao Culture is exemplified by the artifactual complex of the Lijiachun site in Xixiang County, Shensi, on the southern side of Qinling Mountain. At Lijiachun, many of the pottery shapes are similar to those of other Yangshao sites, but with two important differences: the prevalence of cordmarked pottery and the absence of painted pottery. Since along the Pacific coast of East and Southeast Asia in many parts of the southern half of China the earliest pottery is invariably cordmarked, and since Li-chia-ts'un is on the southern side of the Qinling and on the upper Han River which links up Shensi with central Yangtze, a southern cast to the cultural heritage of the Yangshao people can no longer seriously be doubted (Ho 1975: 39-40).

Professor Ho's conclusion is: In the long-range perspective, the foundation of the world's most persistently self-sustaining agricultural system, a system which has had so much to do with the enduring character of Chinese civilization, was laid in the Yangshao nuclear area in Neolithic times (Ho 1975: 48).

As to whether or not the Yangshao Culture in the Neolithic period independently rose and developed, there is still much debate (Zhang 2004). But the evidence that is quoted above is enough to prove the historical fact: a mature agricultural civilization existed in the Yellow River valley in the

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⁶ Source: V. Y. Larichev, "Ancient Cultures of North China," in Henry N. Michael, ed., *The Archaeology and Geomorphology of Northern Asia: Selected Works* (Toronto, 1964), pp. 233-234, quoted from Ho 1975: 39.

⁷ Painted pottery is one of the prevailing characteristics of the Yangshao Culture.

period 5000-4000 BC.

1.3 The Date of the Rise of Rice Cultivation

Another nuclear area of the earliest agricultural civilization in China was located in the Yangtze River valley. In 7000-5000 BC, there was a mature rice-cultivating agriculture in the middle and lower areas of the Yangtze River. Chinese archeologists have achieved a considerable amount in this field since the 1950s. There is a general introduction to this question in Prof. Zhu Naicheng's paper "A Summary of the Chinese Prehistoric Rice-cultivating Agriculture" (Zhu 2005). The following presents the outline of his article.

The origin of cultivated rice in China was in about 10,000 BC, according to Chinese prehistoric archeology and the results of the analysis of ancient botanic remains. There are four periods of the development of Chinese prehistoric rice-cultivation, according to Zhu's article.

1. The origin (about 10,000 BC)

Two sites are Xianren Cave in Wannian County, Jiangxi province, and Yuchan Cliff in Dao County, Hunan province. The area is part of the Yangtze River delta, and the climate is in the subtropical zone of southern China. They are geographically in the center of southern China, south of Qinling 秦岭 and the Huai River 淮河.

2. The rise (7000 BC-5000 BC??)

The main cultural remains are from the Pengtoushan 彭头山 Culture, the Jiahu 贾湖 type of the Peiligang 裴李岗 Culture, and the Shangshan 上山 site in Pujiang County in the Qian-tang River valley.

The Pengtoushan Culture sites are located in the plain around Dongting Lake and the zone along the Yangtze River in western Hubei province. These sites date back to 6500-5500 BC. Much evidence of cultivated rice was unearthed in these sites, providing critical proof of the rise of the cultivation of rice.

Sites of the Jiahu type of the Peiligang Culture are distributed in the central and eastern plains in Henan province, dated to 6800-5500 BC. Remains of the cultivation of rice were found in Jiahu site in Wuyang 舞阳 County. The tools excavated from the site are mainly stoneware, many of which were made by the polishing method. The tools that can be identified are the stone spade, sickle, knife, millstone, millstone-stick, bone spade, etc. The significant sign of the rise of the primary agriculture is the occurrence of polished stone tools.

The Shangshan上山 site in Pujiang浦江 County is located in the central basin of Zhejiang province. Rice cultivation remains discovered there can be traced back to about 7000 BC. There are many imprints of rice-shells on unearthed pieces of pottery. The soil is made of pottery mixed with a large number of rice-shells, identified as the remains of cultivated rice. Carbon-14 dating, performed by experts at the College of Arts and Science of Beijing University,

shows that the pottery fragments with the rice date to from 9000 to 11000 BP. The excavated tools are millstones, millstone-sticks, stone balls, chisels, axes, and adzes. The pottery ware includes jars, pots, and basin-type vessels, as well as pieces with a circle foot, the earliest found in China so far.

3. The developing period (5000 BC-3000 BC)

The primary rice-cultivating culture had been extended to the middle and lower reaches of the Yangtze River, the deltas of the Ganjiang River 赣江, the Minjiang River 闽江, the Zhujiang River 珠江, and part of the area of the middle and lower reaches of the Yellow River during the period 5000 BC-3000 BC. Significant rice cultivation remains were discovered in the lower reaches of the Yangtze River, such as in the Hemudu 河姆渡 Culture, the Majiapang 马家浜 Culture, and the Songzhe 崧泽 Culture, and also in the middle reaches of the Yangtze River, such as the Tangjiagang 汤家岗 Culture, Daxi 大溪 Culture, and Longqiuzhuang 龙虬庄 Culture in the eastern area of the Huai River. The region of rice cultivation had stretched to the north, reaching the latitude 35° north in the area of the middle and lower reaches of the Yellow River.

We can see the cultural characteristics of this period at the Hemudu site, dated about 5000 BC. There are large numbers of carbonized rice relics with full grains and even with their awns, in addition to a whole set of excavated agricultural tools, including bone spade, wood pestle, millstone, stone-ball, etc. The number of bone spades exceeds 170. Pottery fragments with carbonized boiled rice were discovered. The excavated pottery wares are mainly black pottery mixed with carbon, and the types are pot, bowl, plate, standing cup, basin, jar, he 盉(drinking utensil), ding 鼎 (tripod caldron), and calyx, etc. These can be classified into three groups: cooking, drinking, and storage wares. The excavated hunting and fishing tools, such as bone whistle, bone arrow, stone bullet, and the many fruit remains, such as dark date, acorn, gordon euryale, and water chestnut, show that hunting, fishing, and collecting were still part of the life of the Hemudu people. Plenty of tools used for spinning and weaving were discovered at the site, which verifies the developed textile technique in that period. The shelters of the Hemudu people were built on wooden stakes to raise the house above the land in case of flooding, and they were made with wooden structural members. The Hemudu building style is unusual in the Neolithic period in China. The Hemudu site has been recognized as one of the most significant archeological sites in China, and the word "Hemudu" is used to name all the sites that belong to the same cultural type.

4. The developed period (3000 BC-2000 BC)

The range of the mature primary rice cultivation culture is almost coincident with the range of the developing one. The most abundant relics of rice cultivation are discovered in the Liangzhu 良渚 Culture, the Qujialing 屈家岭 Culture, the Shijiahe 石家河 Culture, and the Fanchengdui 樊城堆 Culture in the middle and lower reaches of the Yangtze River. Rice and millet both were planted in the zone between the Yellow River and the Huai River. The most advanced was the Liangzhu Culture.

There are various sets of cultivating tools in the Liangzhu Culture. The excavated stone tools are

⁸ According to the data, the Shangshan site can be classified within the previous period, described in the "origin" section.

the plow, *shi* 耜 (a kind of spade), spade, hoe, and sickle, etc., and they were finely made. The tools show a higher technique of cultivation than in the previous period. The breeding of domestic animals had obviously developed. The primary handicrafts had begun to mature. The manufacture of pottery, jade ware, and lacquer, weaving, the making of bamboo ware and wooden ware, the crafts of ivory engraving, and inlay—all these crafts developed unprecedentedly. The manufacture of jade ware became especially notable in this period.

The above outlines Prof. Zhu's article.

In his discussion of the cradle of rice cultivation, in his work *Cradle of the East*, Prof. Ho also states that: "In any case, our combined archeological and historical data seem reasonably to have established China as one of the original homes of rice and probably as the first area in the world where rice was cultivated" (Ho 1975: 70-71). The following chart shows the Carbon-14 dating from the three sites of the remains of cultivated rice (Ho 1975: 16-17).

Site	Culture	Carbon-14 Dates	Bristlecone-Pine
		(half-life: 5,730 years)	Dates
8. Songze 松泽	Qingliangang	3395±105 B.C.	3395±105 B.C.
Qingpu 青浦	青莲岗		
Shanghai			
10. Qianshanyang 钱山漾	Liangzhu	2750±105 B.C.	3300±105 B.C.
Wuxing 吴兴	良渚		
Zhejiang			
14. Huanglianshu 黄楝树	Qujialing	2270±95 B.C.	2720±95 B.C.
Xichuan 淅川	屈家岭		
Henan			

The time of the Carbon-14 dating from the Hemudu site is 7000 BP; the time from the Shangshan site in Pujiang County is 9000-11,000 BP, according to Zhu's article.

Rice cultivation greatly promoted ancient Chinese social civilization. Prof. Zhu summarized this as follows:

The primary rice-cultivation agriculture started to dominate the social economy in the period of the Songze 崧泽 Culture in the lower reaches of the Yangtze River after 4000 BC. The numbers and types of animal bones and hunting tools unearthed from the sites was clearly reduced in the period of the Songze Culture. This shows that the collecting and hunting economy declined, and that food production, mainly of rice, obviously boomed. That the lower jawbones of the tamed hog were used as funerary objects shows that the raising of domestic animals had progressed.

The establishment of rice cultivation as the primary agriculture matured in the period of the Liangzhu Culture in the area of the lower and middle reaches of the Yangtze River. The

⁹ See fn. 2 for the source.

main evidence is the occurrence of the whole set of cultivating tools, needed for plowing, cultivating, and reaping. Brewing emerged, the breeding of domestic animals developed, and the proportion of the domestic animals used as meat increased. The primary handicrafts prospered. Groups of central settlements were discovered at the site of the Mojiaoshan 莫角山, showing the increase of the population. Altars and tombs were built in the Yaoshan 瑶山 and Fanshan 反山 sites. All these phenomena mark that ancient Chinese society had entered the formative civilization that led to the "old kingdoms" about 3000-2800 BC.

The proportion of rice cultivation as the primary agriculture gradually increased in the period of the Daxi 大溪 Culture in the area of the middle reaches of the Yangtze River. The excavated large pottery jars that may have been used to store grains show that food production had risen. The number of villages increased, and central settlements with an enclosing circumvallation were established in about 4000 BC.

From the statement above, we can see that the marked characteristics of agricultural civilization, such as the central settlements, wall-enclosed towns, developed ceramics, and large religious sites, formed in 4000-3000 BC. The areas of the Yangtze River and the Yellow River had entered the era of a mature agricultural civilization by 4000 BC at the latest.

Where did the people who lived in the region of the Yangtze Valley, and the culture of rice cultivation come from? Using the evidence from physical anthropology and human genetics, many anthropologists and geneticists point out that the physical characteristics of the ancient humans who lived in the southern area of the Yangtze River shared a close relationship with those of the Southern Asian group, and had obvious distinctions from the humans who lived in the northern area of the Yangtze River. The facts show that the ancient humans who lived in the delta of the Yangtze River were from southern Asia. In addition, the four pieces of evidence used to support the southern source of the Yangshao people in Prof. Ho's work (see above) can also be applied here.

II. The Beginning of Agricultural Civilization as Recorded by Chinese

Historical Documents

2.1 The Calculation of Historical Times

As to calculating the historical ages when the events recorded in the archaic documentation occurred, this paper is based on two sources: One is the data from "Xia Shang Zhou duan dai gong cheng [The Project of the Determination of the Eras of Xia, Shang, and Zhou Dynasties]" carried out by the Historical Institute of the Social Science Academy of China. According to this, the timetable of the earliest three dynasties in ancient China is as follows: Xia 2070-1600 BC, Shang 1600-1046 BC, Zhou 1046-221 BC. The other source is the genealogy of the early ancient kings who reigned in the area of the Yellow River before the Xia dynasty, as recorded by Wudi Benji "The Basic Annals of Five

Emperors" in *Shi Ji* (Sima Qian ?-89 BC). With regard to the timetable mentioned above, there are still many different ideas. As a very accurate schedule is not necessary in our discussion, so the dispute about the details of the eras will not be significant to the conclusion of this work. With regard to the genealogy mentioned above, *Shi Ji* is one of the most credible of the several archaic documents recording the ancient Chinese chronicle. In the view of Sima Qian, it is difficult to know about the period earlier than the Five Kings, but the period of the Five Kings and later can be determined. ¹⁰ The order calculated according to "The Basic Annals of Five Emperors" before the Xia dynasty is as follows: (six **rulers** in nine generations)

The Genealogy of Huang Di (following Shi Ji)

Branch A:

```
1 Huang Di (Yellow Emperor 黄帝) → 2A Xuanxiao 玄嚣 → 3A Qiaoji 蟜极→
4A Di ku 帝喾→
5A-1 Zhi 挚
5A-2 Yao 尧 →
5A-3 Xie 契 (the forefather of the Shang dynasty)
5A-4 Qi 弃(Hou Ji, the forefather of the Zhou dynasty)
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Branch B:

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1 Huang Di (Yellow Emperor) → 2B Changyi 昌意→
3B Zhuanxu 颛顼 →
4B-1 Gun 鯀→5B Yu 禹( the forefather of the Xia dynasty)
4B-2 Qiongchan 穷蝉 →5B Jingkang 敬康→6B Gouwang 句望→7B Qiaoniu 桥牛→8B Gusou 瞽叟→9B Shun 舜
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Rulers of the Huang Di Group (following Shi Ji)

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1 Huang Di (Yellow Emperor) \to3B Zhuanxu \to 4A Di Ku \to5A-2 Yao \to9B Shun \to5B Yu
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If the average reign were about 30 years for each generation, 11 the chronology may

¹⁰ Refer to Zhou Jixu, "Falsehood-discerning of the Opinion about Yan Di炎帝 and Shennong神农" (unpublished).

¹¹ "While Yao was in power for seventy years, he got Shun to assist him in dealing with government affairs. Yao retired in another twenty years and appointed Shun as his successor and recommended Shun to Heaven." "When Shun was twenty, he became well known for his filial piety. When he was thirty, Yao lifted him from crowd. Shun acted as the son of Heaven when he was fifty. And when he was fifty-eight, Yao died. Shun was crowned at sixty-one years of age. He traveled throughout the southern area in his thirty-ninth year in power, and died there. He was buried at the field of Cangwu" ("The Basic Annals of Five Emperors," *Shi Ji*). According to this, Yao was in power for 90 years, and Yun for 50 years, for a total of 140 years. We did not take this data into account when devising our timetable.

be given as follows:

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Huang Di (Yellow Emperor) (2250 BC);
Zhuan Xu (2220 BC), Di Ku (2190 BC);
Yao to Shun (2160 BC-2100);
Yu (2100–2070 BC);
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According to $Shi\ Ji$, the last three rulers (Yao, Shun, and Yu) were sequential in time. And Yu was the father of Qi Ξ , who was the first king of the Xia dynasty (2070 BC-). The former three (Huang Di, Zhuan Xu, and Di Ku) went through only four generations and were not allowed to rule for long intervals. The paragraph from Mencius (372-289 BC) can be quoted as one of the supports of this calculation:

From Yao 尧 and Shun down to Tang 汤¹² was 500 years and more.... From Tang to King Wen¹³ was 500 years and more.... From King Wen to Confucius was 500 years and more.... (James Legge 1969: 501-502).

Because the dates when Confucius lived are established (551-479 BC), we know that the last two periods (from Confucius to Zhou and from Zhou to Shang) that Mencius claimed are very near to the historical fact that we know today, and in consequence we know the first times (from Shang to Yao) that Mencius states should also be near to the fact. From the beginning of Shang to Yao more than 500 years passed, so 1600 BC plus 500 years equals 2100 BC. That is just thirty years before the beginning of the Xia dynasty (2070 BC). This is consistent with our calculation above. We should acknowledge that the schedule is only a rough estimation as to the early ancient dates, and the error in the limited range would not affect the result that we discuss here.

2.2 The Beginning of Field Agriculture as Recorded in Chinese Classical Documents

The prehistoric civilizations of the Xia, Shang, and Zhou dynasties that arose in the Yellow River valley, especially the civilization of the Zhou dynasty, were no doubt based on the cereal agricultures. The abundant wealth provided by the agricultural production procured for the Chinese nation a great advance in cultural development. Mencius described the circumstance in that historical period:

[When Yu conquered the floods,] it became possible for the people of the middle plain ¹⁴ to cultivate the ground and get food for themselves. ...The Minister of Agriculture (*viz*. Hou Ji) taught the people to sow and reap, cultivating the five kinds of grain. When the five kinds of grain were brought to maturity, the people all obtained subsistence. But men possess a moral nature, and if they are well fed,

¹³ King Wen was Wen Wang, who was the father of Wu Wang. Wu Wang was the first king of the Zhou dynasty (1046 – 221 BC).

¹² T'ang was the first king of the Shang dynasty (1600-1046 BC).

¹⁴ The middle plain here indicates the middle reaches of the Yellow River.

warmly clad, and comfortably lodged, without being taught at the same time, they become almost like the beasts. It was the duty of the Minister of Instruction (*viz*. Qie¹⁵) to teach the correct relations of humanity: how, between father and son, there should be affection; between sovereign and minister, righteousness; between husband and wife, attention to their separate functions; between old and young, a proper order; and between friends, fidelity (Legge 1969: 250-252).

This is a story that describes the agricultural society and the civilized way of life that developed in the Xia, Shang, and Zhou dynasties. From the start of the Xia dynasty to the establishment of the Zhou dynasty, the Chinese people went through this progression in just over a thousand years. ¹⁶ This was the way in which the agricultural overcame the nomadic way of life. The archaic Chinese people reached the prosperous period of civilization that was brought by the agricultural life before the time of the West Zhou dynasty (1046-721 BC). So we hear Confucius praise the civilization of the West Zhou dynasty: "Zhou accepted and developed [the culture of] the two preceding dynasties [*viz.* Shang and Zhou]. How great a wealth of culture! I follow upon [the culture of] Zhou" (*The Analects*, Chapter "Ba Yi," 14th section).

The earliest documents to describe the onset of cereal agriculture in ancient China are *Shang Shu* and *Shi Jing*, and the description in *Shi Jing* is much more particular. On the basis of these records, the cereal agriculture in the area of the Yellow River began in about 2160-2100 BC, the period of Yao and Shun (refer to section 2.1 of this paper). And all the stories were related to Hou Ji, the beginning ancestor of the Zhou nation.¹⁷

2.2.1 The Account in Shang Shu

"The emperor [Yao] said: 'Qi, the black-haired people are still suffering the distress of hunger. It is yours, O prince, the minister of Agriculture, to sow for them various kinds of grain" (The Canon of Yao, *Shang shu*).

Yu¹⁸ said: "I also opened passages for the streams throughout the nine provinces, and conducted them to the sea. I deepened moreover the channels and canals, and conducted them to the streams, at the same time that Ji was sowing grain and showing the multitudes how to procure the food of toil in addition to flesh meat. I urged them further to exchange what they had for what they had not, and to dispose of their accumulated stores. In this way all the people got grain to eat, and all the States began to come under good rule" (The Canon of Yao, *Shang shu*).

¹⁵ Qie was the founding ancestor of the Shang clan, which established the Shang dynasty under the leadership of T'ang. Refer to sect. 2.1 of this paper, "The Genealogy of Huang Di"

¹⁶ According to "The Basic Annals of Five Emperors," "The Basic Annals of Xia," "The Basic Annals of Shang," and "The Basic Annals of Zhou" in *Shi Ji*, the people of the Xia, Shang, and Zhou dynasties were all the descendants of Huang Di's nation in different branches. They shared a common language.

¹⁷ Hou Ji was one of the ministers of Yao, according to Shang Shu. His name was Qi, and Hou Ji was his title.

¹⁸ Yu was the beginning ancestor of the Xia dynasty, another minister of Yao, according to *Shang Shu*.

In light of the timetable above, we see that the two descriptions were written in 2100 BC or earlier. The phrase "zheng min nai li烝民乃粒" (all the people got grain to eat) should be given special attention. A sentence with the same meaning is "li wo zheng min粒我烝民" (Thou didst give grain-food to our multitudes) in Shi Jing ("Si wen," Eulogies of Zhou, Shi Jing). Both of these express that the multitudes, Huang Di's descendants, began to use cereals as their staple food. Before Hou Ji, when they followed a nomadic life, the Zhou tribe could be provided only limited foods; ¹⁹ they had only meat and milk as their staple foods. Without ample food, the population could not increase. The word "li粒" in ancient Chinese means "grain (noun) or to use grain as food (verb)." It is Hou Ji who taught the people to cultivate and brought the people the new way of life. Compared with the nomadic life style, the agricultural life offered a much more steady and ample source of food. The Zhou people praised Hou Ji: It is you who allowed us to fill ourselves with cereals; it is you who brought us the life style of agriculture (xia夏) instead of the life style of the nomad (rong戎²⁰) (cf. the poem "Si wen," Shi Jing; see below). The famous scholar Wang Yinzhi王引之 in the Qing dynasty thought that "li粒" is a phonetic loan character for "li 元" here, and meant "make achievement or stabilize." He understood the vivid description of the original text in Shang Shu to be a blurry concept, and missed a critical detail in its history. It is due to this reason that the ancient Chinese scholars did not understand the evolutionary process of the various life styles of human history.

2.2.2 The Account in Shi Jing

The beginning of cultivation by the descendants of the Yellow Emperor clan is more elaborately described in Shi Jing. These records are preserved in the poems compiled in "Da Ya大雅" (the Great Xia²¹) and "Zhou Song" (the Eulogies of Zhou) in *Shi Jing*. These poems were written about the great ancestors of the clan and sung in the sacrificial ceremony to their god *tees. ²² In consequence it is a reliable account of the historical fact.

The "Sheng Min," a poem in Da Ya, is an epic that praised Hou Ji's achievement in establishing and developing agricultural cultivation. The Zhou people handed down the poem for more than a thousand years. They honored Hou Ji as God *tees' heavenly companion in the sacrifice ceremony. From this we can see how important Hou Ji and the agricultural life style that he brought were for the development of the Zhou people. In Old Chinese, the word "Hou" means king, and "Ji" means millet, which was the crop originally planted in the area of the Yellow River. (See section 1.2 of this paper.) Thus "Hou Ji" means "the king of millet." The following verses describe the circumstance that Hou Ji planted cereals, invented the cultivating craft, brought high-quality seeds, and gathered the harvest.

> When he [Hou Ji] was able to crawl, He looked majestic and intelligent, When he was able to feed himself,

¹⁹ The Zhou people were originally a nomadic nation. See section 3.1.1-2 of this paper.

²⁰ For the explanation of the original meanings of "xia" and "rong," please refer to section 3.1.1.6-7 of this paper.

²¹ 大雅 was written as 大夏 on the Chu bamboo sticks unearthed in recent decades. See section 3.1.1.6 of this paper.

²² Refer to the article "Old Chinese '帝*tees' and Proto-Indo-European '*deus': Similarity in Religious Ideas and a Common Source in Linguistics" (Zhou 2005).

He fell to planting large beans.

The beans grew luxuriantly;

The rows of his paddy shot up beautifully;

His hemp and wheat grew strong and close;

His gourds yielded abundantly.

The husbandry of Hou Ji

Proceeded on the plan of helping [the growth].

Having cleared away the thick grass,

He sowed the ground with the yellow cereals.

He managed the living grain, till it was ready to burst;

Then he used it as seed, and it sprang up;

It grew and came into ear;

It became strong and good;

It hung down, every grain complete—

And thus he was appointed lord of Tai.

He gave his people the beautiful grains—

The black millet, and the double-kernelled:

The tall red, and the white.

They planted extensively the black and the double-kernelled,

Which were reaped and stacked on the ground.

They planted extensively the tall red and the white,

Which were carried on their shoulders and backs,

Home for sacrifices [to *tees] which he founded ("Sheng Min," Da Ya, Shi Jing).

In fact, Hou Ji's cultivating skills did not come from invention but from learning. It was impossible for any one person to invent so many complicated tasks by himself, such as to select and breed fine seeds, to invent farm tools, and to accumulate farm experience, etc. These kinds of work need the efforts of more than one generation to accomplish them.

"Duke Liu," another poem of "Da Ya," describes that story in the critical period when the Zhou people returned to agricultural life again after they had retrogressed to nomadic life. At the end of the Xia dynasty, the leader of the Zhou tribe lost his position as the Xia agricultural minister, and the Zhou people gave up farming and began to lead a vagrant life. Many years passed, and a new leader, the great Duke Liu (Kong Liu公坟山),²³ led the Zhou people to move to a new place, Bin, to start a new farming life that the Zhou people hadn't had for a long time. That was a milestone of the time from which the Zhou people settled, developed, and finally prospered in the life style of agriculture, saying good-bye to the nomadic life forever. The repeated experience of the Zhou people shows that the old custom of the nomadic life was very stubborn. It unexpectedly took several hundred years for the Zhou people to adapt to the new cultivating life to which Hou Ji had introduced them. The following verses describe how, under the leadership of Duke Liu, the Zhou people engaged in agriculture on a

²³ According to some scholars, the period of Duke Liu was roughly equal to that of Pan Geng盘庚, a king of the Shang dynasty, about 1300 BC-1250 BC (Chen 1956: 208-216).

large scale. The information that the verses offer indicates that it is possible that they had grasped the technique of irrigation.

Of generous devotion to the people was Duke Liu,

[His territory] being now broad and long,

He determined the points of the heavens by means of the shadows; and then, ascending the ridges,

He surveyed the light and the shade,

Viewing [also] the [course of the] streams and springs.

His armies were three troops;

He measured the marshes and plains;

He fixed the revenue on the system of common cultivation of the fields;

He measured also the fields west of the hills;

And the settlement of Bin became truly great ("Duke Liu", Da Ya, Shi Jing).

"Si Wen," another poem of "the Eulogies of Zhou" in *Shi Jing*, gives us a historic fact: the cultivation of wheat by the people of Zhou began in the time of Hou Ji (2100 BC). And the varieties of wheat and barley were not bred from their own plants, but introduced from other places. The introduction may have had some relation to Hou Ji, so the story was imagined that Hou Ji got the seeds of wheat and barley from the God *tees. The following is the entire poem of "Si Wen":

O accomplished Hou Ji,

Thou didst prove thyself the correlate of Heaven;

Thou didst give grain-food to our multitudes—

The immense gift of thy goodness.

Thou didst confer on us the wheat and the barley,

Which God appointed for the nourishment of all;

And, without distinction of territory or boundary,

The rules of social duty were diffused throughout the region of Xia.²⁴

("Si Wen," Eulogies of Zhou, Shi Jing)

In the verse, wheat is called "来麰." The name was the same as that used in *Shuo Wen Jie Zi*. "来, it is the lucky grain that the Zhou people received (from God). The character was drawn as a wheat plant with two awns. Wheat is what came from heaven" (the section来, *Shuo Wen Jie Zi*) (Old Chinese 来*C-гиш; Greek $p\bar{u}r\dot{o}s$; Lithuanian $p\bar{u}rai$; Lettic $p\bar{u}r\dot{i}$, wheat; Church Slavic pyro, spelt [Buck 1988]). There was probably a non-stressed syllable in front of来: *C-гиш > * гиш. This correspondence between OC and PIE shows the western origin of wheat.²⁵

"The Seventh Month" in "Bin Feng" (豳风, "Poems of Bin"), a poem in *Shi Jing*, describes the life of the Zhou people in the Bin, the new home of the Zhou tribe, a long time after they settled there

²⁴ Cf. section 3.1.1.5 of this paper for the meaning of the word "Xia 夏."

²⁵ The large number of corresponding words between Old Chinese and ancient Indo-European languages can be pursued in my book *Comparison of Words between Old Chinese and Indo-European* (Zhou 2002). The words for "wheat" present a new pair that was not previously recorded.

under Duke Liu's leadership. By this time, the agricultural life style of the Zhou people was very stable and mature. The people of the Zhou tribe had accumulated ample experience in agricultural production. The verses told people what kind of farm work should be done in each of the twelve months of the year. The poem was a farmer's proverb verse that summed up valuable agricultural knowledge and handed it down through the generations, to teach all the people the rules of the farming life. The Zhou people treasured the agricultural way of life, which they had lost for a long time and had regained, and enjoyed it. The following verses describe the autumn harvest, spring sowing, repairing of houses, and winter festivities. These offer an overview of the culture of the Zhou people in that time.

In the ninth month, they prepare the vegetable gardens for their stacks,

And in the tenth they convey the sheaves to them;

The millets, both the early sown and the late,

With other grain, the hemp, the pulse, and the wheat.

"O my husbandmen,

Our harvest is all collected.

Let us go to the town, and be at work on our houses.

In the daytime collect the grass,

And at night twist it into ropes;

Then get up quickly on our roofs—

We shall have to recommence our sowing.

• •

In the days of [our] second, they hew out the ice with harmonious blows;

And in those of [our] third month, they convey it to the ice-houses,

[Which they open] in those of the fourth, early in the morning,

Having offered in sacrifice a lamb with scallions.

In the ninth month, it is cold, with frost;

In the tenth month, they sweep clean their stack-sites.

The two bottles of spirits are enjoyed,

And they say, "Let us kill our lambs and sheep,

And go to the hall of our prince,

There raise the cup of rhinoceros horn,

And wish him long life—that he may live forever ("the Seventh Month," Poems of Bin, *Shi Jing*).

The following verses in *Shi Jing* were about how his mother gave birth to Hou Ji:

The first birth of [our] people

Was from Jiang Yuan (姜原).

How did she give birth to [our] people?

She had presented a pure offering and sacrificed [to God *tees],

That her childlessness might be taken away.

She then trod on a toe-print made by God, and was moved,

In the large place where she rested.

She became pregnant; she dwelt retired; She gave birth to, and nourished [a son], Who was Hou Ji.

When she had fulfilled her months,
Her first-born son [came forth] like a lamb.
There was no bursting, nor rending,
No injury, no hurt—
Showing how wonderful he would be.
Did not God give her comfort?
Had he not accepted her pure offering and sacrifice,
So that thus easily she brought forth her son?

He was placed in a narrow lane,
But the sheep and oxen protected him with loving care.
He was placed in a wide forest,
Where he was met by the wood-cutters.
He was placed in the cold ice,
And a bird screened and supported him with its wings.
When the bird went away,
Hou Ji began to wail.
His cry was long and loud,
So that his voice filled the whole way ("Sheng Min," Da Ya, Shi Jing).

2.2.3 The Account in Shi Ji

With regard to the birth of Hou Ji and his invention of cereal cultivation, the *Shi Ji* gives a similar story, a little different from the one of the *Shi Jing*:

The Hou Ji 后稷 (the Lord of the Agriculture) of the Zhou [state] had the praenomen Qi 弃. His mother was a daughter of the Yutai 有邰 Clan, called Jiang Yuan 姜原. Jiang Yuan was the primary wife of Di Ku 帝喾. Once Jiang Yuan went out into the wilderness and saw a giant footprint. She happily rejoiced and had the desire to step in it. When she stepped in it her abdomen moved as if she were carrying a baby inside. When she reached term, she gave birth to a son. She regarded him as inauspicious, so she discarded him in a narrow alley. The livestock which passed by all avoided him and would not step on him. So she removed him and put him in a forest, but it happened that there were a lot of people in the forest. So she moved him again and discarded him on the ice in a ditch, [but] a flock of birds used their wings to cover and cushion him. Jiang Yuan then regarded him as divine; subsequently she took him back and raised him. Because she wanted to discard him at first, she called him Qi (the Discarded).

In his childhood Qi was as lofty in his ambitions as a giant. When he played, he loved to plant hemp and beans. The hemp and beans he planted were luxuriant. By the time he became an adult, he loved to farm. He would observe what was suitable

for the land. Where it was suitable, he would plant and harvest grain. The people all modeled themselves on him. When Emperor Yao heard of this, he brought Qi into service as the Master of Agriculture. The world benefitted from his method and considered him meritorious. Emperor Shun said, "Qi, the common people are on the point of starvation. Take charge of agriculture to sow and plant the hundred grains! Emperor Shun enfeoffed him at T'ai, called him the Hou Ji, and distinguished him with the cognomen Ji 娅. The Hou Ji's rise to power was during the time of Yao Tang [Yao], Yeu [Shun], and Xia [Yu]. Every one [of his successors] in this position did good deeds (Sima Qian 1993: 55; "The Basic Annals of the Zhou," *Shi Ji*).

In comparing the account of *Shi Jing* to that of *Shi Ji*, we see that the former is more elaborate and lifelike, because *Shi Jing* was a first-hand account.

The documents concerning the earliest Chinese agriculture in Chinese classic books, such as *Shang Shu* and *Shi Jing*, show that the Zhou people who lived in the middle reaches of the Yellow River became agriculturists in about 2100 BC. *Shi Jing* records the cultivation of grains, the populated villages, the various farm tools, and raising of domestic animals in that time. These four were recognized as the critical signs of the rise of agricultural civilization (Zhu 2005). The five poems in Da Yia, ²⁶ one of the parts of *Shi Jing*, are a summary of Zhou agricultural history in the prehistoric period. These narrated the onset of agricultural life, the founding of agricultural technique, and the heroes who resumed and drove the agricultural lifestyle. The Zhou people's most significant foundation, which sustained them in their progress from the weakest to the strongest nation and which finally made them the greatest power in China for a thousand years, was summed up in these epic-like series of verses. The agricultural society is much higher in level of productivity and civilization than is nomadic society. Why was only the Zhou tribe able to grow more numerous than other tribes and to become the ruler of the area of the Yellow River and then the Yangtze River? The most important decision in their varying progress was to give up the nomadic life and choose and adhere to the life of agricultural cultivation.

III. Explanation of the Disparity between Archeological Discovery and

the Historical Documents

As discussed in the first part of this paper, the development of agricultural civilization in the Yellow River valley took place in 5000 BC or earlier. The archeological materials show that the cultivation of millet was important in the area of the Yellow River by 5000 BC. The rice cultivation agriculture in the middle reaches of the Yangtze River was established much earlier. The mature period of the cultivation of rice is in evidence at the site of Jiahu in Wuyang County of Henan province by 6800 BC, and in the site at Hemudu in Zhejiang province in 5000 BC. Why was the onset of field agriculture in the Yellow River valley stated in ancient documents to be much later, about 2100 BC?

²⁶ The five poems are about five leaders in different periods of the Zhou tribe. The names of the poems (and the leaders) are Shengmin (Houji), Gong Liu (Duke Liu), Mian (Duke Danfu), Huang Yi (King Wen), and Da Ming (King Wu), all in "Da Ya," *Shi Jing*.

How can the time gap of three thousand years be explained?

The answer is that the Zhou people, who belonged to the Huang Di (Yellow Emperor) nation, were not the native people who lived in the loess plateau beside the Yellow River from early times. Zhou agriculture was formed by absorbing the native agricultural tradition that was invented and preserved by people who had lived in the area of the Yellow River and the Yangtze River since remote ancient times. The Zhou agricultural lifestyle was a result of learning from others. The Huang Di (to which the Zhou people belonged) was a nomadic nation. When they immigrated into the area of the Yellow River, they were influenced by the advanced agricultural lifestyle of the native people, although it was a long march for the nomads to change to a new lifestyle. The thorough change from the nomadic to the cultivating life came about in the society of the Zhou people. In about 2300 BC, the Yellow Emperor's nation was the conqueror and ruler of the area of the Yellow River. This was also the time at which the earliest Chinese historical legend in the ancient documents occurred. So in the earliest historical documents and in successive ones, the Huang Di nation and their descendants played the leading roles in recorded history. From Shang Shu, Shi Jing, and Zuo Zhuan up to Shi Ji, all the classical books legitimized the Huang Di group and its descendants and excluded the other peoples. So in these ancient documents, we can see only that the beginning of Chinese agriculture was in 2100 BC, the period of Yao, Shun, and Yu, who were all the great leaders of the Yellow Emperor's nation. Field agriculture was said to have been started by the Zhou people. The beginnings of agricultural civilization in the area of the Yellow River and Yangtze River was thus excluded from recorded history.

Unlike the Yangshao and Hemudu people, who came from southern China, the Huang Di nation came from west of China, from the western part of the Eurasian continent. They conquered the native people of the Yellow River and the Yangtze River, who possessed a developed agricultural culture. By combining their own imported cultural factors with those of the native culture, the Huang Di people gradually developed a splendid new civilization in the Xia, Shang, and Zhou dynasties. They superseded the original native people to take the leading role on the stage of Chinese history. That the Huang Di nation was a branch of the archaic Indo-European people is one of the most remarkable facts thus far known to human history. But a large number of Indo-European words in Old Chinese language clearly attest to this fact. The relics left by the Huang Di people are related to the Longshan Culture in the archaeological chronicle, and the civilization of the Xia, Shang, Zhou, and Qin dynasties were its successors. 27

Evidence for this claim comes from two sources: the first uses the evidence of ancient documents to show that the Zhou people, and thus the Yellow Emperor's nation, were originally a nomadic people, and the second is to reveal that there were a large number of Indo-European words in the Zhou language, using the evidence of historical linguistics. The third is the similarity in religion between the Huang Di people and Proto-Indo-European. As to the last point, please refer to the author's paper "Old Chinese '帝*tees' and Proto-Indo-European '*deus': Similarity in Religious Ideas and a Common Source in Linguistics" (Zhou 2005).

²⁷ The author plans to discuss this topic in a later monograph.

3.1 The Nomadic Character of the Zhou People

3.1.1 The Zhou People, the Rong, and the Di

In early ancient times the Rong and Di people lived a nomadic life in the land spread west to east in the large northern area of the Yellow River. In some places, they lived near to the Zhou people and even in the center of the area of the Yellow River. A traditional idea is that the Zhou people were the descendants of Huang Di, who was the father of the Chinese, but that the Rong and Di people belonged to other nations. But the classical documents do not support this argument if we examine them carefully.

1. The Zhou and the Rong Were Blood Relatives

The relationship between the Zhou and the Rong people can be observed from the relationship between the people of the Jin kingdom and the Rong. The Jin was a vassal kingdom established in the beginning of the Zhou dynasty. The first king of the Jin kingdom was the prince Tang Shu, who was the younger brother of King Cheng, the second king of the Zhou dynasty. The peers of the Jin kingdom shared the same surname with the royal family of the Zhou dynasty and were their direct consanguine relatives. The relation between the Jin people and the Rong and Di can stand for the relationship between the Zhou people and the Rong and Di.

The following story was recorded in the twenty-third year of Duke Xi (635 BC), in Zuo Zhuan. The prince of the Jin kingdom, Chong Er 重耳, was pursued to the death by his brother Duke Huai, who had come into power in the Jin kingdom and considered the other princes of Jin to be a threat. Chong Er escaped to the Di kingdom to take refuge. He chose it in this emergency because it would be secure. The "Di kingdom was the homeland of Chong Er's mother" ("Pedigree of the Jin State," Shi Ji). Sima Qian (the author of Shi Ji) returned the question: Why did the prince of the Jin kingdom choose the Di tribe to protect him? His grandfather, the king of the Di, had dominated the place. Who dared to chase and kill the Di king's grandson in the territory of the Di kingdom? What followed was also reasonable: Chong Er married the princess of the Red Di kingdom and lived there for twelve years. She bore two sons to Chong Er. We can assume that it was unnecessary for Chong Er and his wife to use an interpreter while they were talking in daily life. Chong Er's minister Zhao Suai married the older sister of Chong Er's wife, and she bore Zhao Dun. Chong Er and his followers left the Di kingdom to continue their political efforts to return to their state. They left their wives and children in the Di kingdom. After all their difficulties, Chong Er and his followers finally came into power in the Jin kingdom after eight years. The king and his ministers took their wives and children to the Jin kingdom. Zhao Dun was a famous prime minister of the Jin kingdom for many years. Zhao Dun's mother tongue must have been the Di language. And this language was not an obstacle to his administration of the Jin kingdom. Another eminent minister of the Jin kingdom, Hu Yan, Chong Er's uncle and the brother of his mother, was certainly of the Di people.

The Di language must have been very near to the Jin language, a branch of Old Chinese. The

situation is similar to that of the Qiang²⁸ and Zhou languages. Professor Yu Min²⁹ said: "The Qiang tribe and the Zhou tribe certainly speak two dialects of the same language. Please consider this: did Hou Ji (one of the Zhou people) not learn his language from his mother Jiang Yuan (one of the Qiang people)? Was it possible that Jiang Yuan talked to Hou Ji's father (of the Zhou people) with a interpreter? And is this how Duke Danfu talked to his wife?³⁰" (Yu Min 1999: 210) Similarily, we can prove that the same situation existed between the Di (or Rong) language and the Zhou (or Jin) language, by looking at later ancient documents.

In the twenty-eighth year of Duke Zhuang (665 BC), Zuo Zhuan reports: "Duke Xian of the Jin kingdom married two women of the Rong tribes. Hu Ji, who was from the Great Rong tribe, bore Chong Er, and Zi, who was from the Small Rong tribe, bore Yi Wu. Duke Xian attacked Li Rong and the baron of the Li Rong offered him a woman as another wife; she was named Li Ji, and she bore Xi Qi when they returned to the Jin kingdom." The three wives of Duke Xian were all from the Rong; he made the son of Li Ji his crown prince. The son of Hu Ji, Chong Er, later became the king of the Jin kingdom. This section of the ancient document tells us three things: 1. The mother of Chong Er was from the Rong, according to Zhuo Zhuan, but she was from the Di according to the record of Shi Ji. So we know that the Rong and Di were the same group with different names. 2. Hu Ji: Hu is the first name, Ji is the surname. According the custom of this period of early ancient China, a woman added her ancestor's family name to the end of her own name during her whole life. Ji 姬 was the family name of the royal family of Zhou. So Hu Ji was a descendant of the Zhou people. Li Ji was similar to Hu Ji, both of them being surnamed Ji, but she was from the Rong people. They were both of the blood of Jin, a group that was also descended of the Zhou clan. This indicates that at least some of the Rong people were descendants of the Zhou. "If a man married a woman with the same surname as himself, their offspring would not prosper. The prince of the Jin kingdom (Chong Er) was born of a woman surnamed Ji, but he is still alive today" ("The Twenty-Third Year of Duke Xi [635 BC]," Zuo Zhuan). There was a taboo in ancient China that prohibited a couple with the same surname from marrying (同姓不婚). The quotation here says that the parents of Chong Er were both surnamed Ji, and this was against the taboo. This is solid evidence that the Jin (also Zhou or Chinese) and the Rong had a common ancestor. 3. The sons of Hu Ji, Zi and Li Ji, were not hybrids who were a different race from the Jin people and could not speak their language, namely the Old Chinese language. How could they have become the crown prince and the king of the Jin kingdom if they were? Chong Er got his language from Hu Ji and lived in the Jin kingdom as a prince, and he also harmoniously lived in the Di kingdom, marrying a Di woman as his father had done. All these things indicate that the Di and the Jin languages were mutually intelligible, and, further, that the Di and the Jin (or Zhou) people were from one nation.³¹ Some scholars have always confused the relationship among the Rong, Di, and Old

²⁸ Qiang was one of the largest human groups in the delta of the Yellow River. The mother of Hou Ji, the first ancestor of the Zhou people, was of the Qiang people. See section 2.1-2.2, 3.2 of this paper.

²⁹ Yu Min (1930-1994), linguistic professor in Beijing Normal University.

³⁰ Duke Dan-fu's wife. Tai Jiang, was princess of a Jiang tribe. See section 3.2 of this paper.

³¹ The thirteenth year of Duke Cheng (577 BC), *Zuo Zhuan*: "Duke Jin sent Lu Xiang as an envoy to refuse the request of the Qin kingdom (to attack Di), and said: 'the White Di and Your Majesty are the enemies in the common area, but Di is our relative by mariage."

Chinese because they did not penetrate the complicated superficial phenomena. Prof. Fu Sinian, a senior Chinese history scholar,³² complained, "They should be Chinese, but, bewilderingly they married Di. How confused their relationship was! Which ones were Chinese? And which ones were Rong and Di?" (Fu Sinian 1996: 168).

"Di" here indicates the mother of Xie, the primogenitor of the Shang dynasty. She was the daughter of a clan named the You Song 有娀, which belonged to the Rong. The princess of the You Song was named Jian Di 简狄. This is also evidence that the Di and the Rong were identical. The character Song 斌 is undoubtedly the character Rong 戎, to which was added the meaning part 女 due to its being used as the name of the nomadic clan. Most characters used as Chinese surnames had the signific part 女 in early ancient times.

Prof. Fu did not include the story of the Jin kingdom, or else the situation would be even more chaotic. The Rong and the Di were various appellations of one nation. The mother of Chong Er was called "the Great Rong's Hu Ji" in *Zhuo Zhuan*, but another name, "Di's daughter from the fox clan," is given to her in *Shi Ji*. It is a reasonable explanation that the Di was one of the branches of the Rong, because the Di could be called by both names, that is, the Di or the Rong. The relationship is just like that between the Qiang and the Rong. (See section 3.2 of this paper.)

The difference between Zhou speech and Rong and Di speech is likely similar to that between agricultural area and pastoral area speech now in the Tibetan area of the Qinghai autonomous region of China.

2. The Zhou Returned to Become the Rong

In the early ancient period, the life of the tribes that had changed their way of life from the pastoral to the agricultural was unstable. Thanks to affection for the persistent old customs and the constant intrusion by the adjacent pastoral nations, the tribes that had already discarded the nomadic way of life and begun their farming life style, sometimes resumed their old ways. One group of the Zhou people offers an example. "Hu Ji from the Great Rong bore Chong Er 大戏狐姬生重耳" ("The Twenty-eighth Year of the Duke Zhuang," *Zhou Zhuan*). The classical annotation by Du Yu (third century AD) says: "The Great Rong were the descendants of Tang Shu 唐叔, and they were separated and lived in the Rong and the Di." Tang Shu was the younger brother of the Wu king, the founder of the Zhou dynasty. Tang Shu was feudal lord of the territory in the Tang area (Shanxi province today) and became the founder of the Jin kingdom. The Zhou people had embraced the farming life style, but a group of the offspring of Tang Shu returned to the nomadic way of life. The tribes of the Great Rong, the Small Rong 小戏, and the Li Rong 骊戏 all behaved in the same way.

We have another example of this kind.

The descendants of Hou Ji, the father of farming of the Zhou people, retreated often to the pastoral life in the period of about the sixteenth century BC. "When the Xia dynasty (2070-1600BC) waned, the Xia people discarded cultivation and were not engaged in farming, and the descendant of Hou Ji后稷, named Bu Ku不窋, lost the position of agricultural minister and exiled himself to the territory of the Rong and the Di" ("Preface of the Poems of Bin," *Shi Jing*). "In the final years of Bu

³² Fu Sinian was the president of the History and Linguistic Institute of the Academia Sinica from the 1930s to 1960s.

Ku, when the king of the Xia dynasty was incapable of administering the country, the rulers abandoned agriculture and the people were not engaged in it. Therefore Bu Ku lost his official position, and escaped to the Rong and the Di" ("The Basic Annals of the Zhou," *Shi Ji*). The great Duke Liu was able to "resume the career of Hou Ji" and made farming prosperous again in the Zhou tribe. It was Duke Liu who saved the Zhou people from being ever again immersed in the obsolete life style, and who let the Zhou people be farmers a second time. That is the critical turning point in the blossoming of Zhou people in history, and that is why the poem "Duke Liu" (cf. section 2.2.2 of this paper) was written. Another poem, "The Seventh," Poems of Bin (cf. the same section), sang the praises of the farming life that had been developed and consolidated for a long time. It is said that Duke Zhou wrote the poem to advise King Cheng. Thus it can be seen that the rulers of the Zhou dynasty had learned well their historical lesson.

3. The Zhou and the Rong Shared Common Customs

The following story shows that the Zhou and the Di tribes had a deep relationship and early on shared common customs.

Duke Danfu³⁵ cultivated the legacy of the Hou Ji and Duke Liu, accumulated virtue, and carried out justice. The people of the country all supported him. The Xunyu, the Rong, and the Di attacked him, seeking his wealth and goods, and he gave these to them. After that they attacked again, seeking his land and people. The people were all angered and desired to fight back. Duke Danfu said, "The people enthrone a ruler in order to benefit from him. Now the Rong and the Di come to attack because of my land and people. For the people to be with me or with the Rong and the Di—what is the difference? The people would fight back for my sake, but I cannot bear to kill fathers and sons to be their ruler!" then he left Bin with his personal attendants, crossed the Qi and the Zu rivers, traversed Mount Liang, and stopped at the foot of Mount Qi岐. The entire populace of Bin, holding their old and carrying their children, again turned to the Duke at the foot of Mount Oi. When other states learned of Duke Danfu's benevolence, many of them allied themselves with him. It was then that the Duke forsook the customs of the Rong and the Di, built city and walls and houses, and built several towns in which to settle his people ("The Basic Annals of the Zhou," Shi Ji).

Having settled at the foot of the Qi mountain, Duke Danfu abolished the traditional customs the people had inherited from their ancestors, which resembled those of the Rong and the Di. This fact shows that the Zhou tribe too had always been a nomadic tribe. Duke Danfu ordered his people to build their houses to form several towns with defensive walls for their permanent dwellings. It was an important measure in adapting the Zhou people to the agricultural life. Before this period, the Zhou

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³³ Duke Zhou (1046-1100 BC), the prince regent of the Zhou dynasty after King Wu's death.

³⁴ King Cheng (1042-1021BC), the second king of the Zhou dynasty.

³⁵ Duke Danfu 古公亶父 (about 1200-1100 BC) was the head of the Zhou tribe and the eleventh descendant of Duke Liu. Duke Danfu's successor of the fourth generation was King Wu, who was the first king of the Zhou dynasty.

people had never entirely settled.

Duke Danfu (and his people), Lived in the kiln-like huts and caves 陶复陶穴, Ere they had yet any houses" ("Mian," Da Ya, *Shi Jing*).

In the explanation of Mao Heng (first century BC) and Zheng Xuan (second century AD) of the verses, it is accounted that the Zhou people still lived in primal dwellings that looked like kilns or caves. They must have been simple huts that could be built in a short time and were convenient to move around, for people who followed pastoral customs.

4. The Zhou and the Rong: Internal Feud

The explanation of *Shi Jing* by Mao Heng gives this report: "Duke Danfu summoned the old ones of the Zhou tribe to tell them: 'The Di want to take our land. I have heard that the man of honor doesn't harm his people for what should have fed them. Why are you worried that there would be no king over your tribe?" ("Mian," Da Ya, *Shi Jing*). In order to avoid a war, it was possible to let the Di rule over the Zhou tribe. This fact shows that the Zhou shared a close relationship with the Di. The version of the same story in *Shi Ji* is this: "Duke Danfu said: 'There is no difference whether the people belong to me or to the Di." If they had been different nations, under the rule of the Di the Zhou people would have been debased, becoming the captives or slaves of the Di. But this would not happen, according to what Duke Danfu said. It is further evidence to show that the Zhou and the Di people were not two different nations or races.

The war between the Zhou and the Rong continued a long time. Wang Ji, the son of Duke Danfu and the father of King Wen, was granted his rank by the king of the Shang dynasty, due to his achievement in battle with the Rong. The war was a conflict of two different ways of life, and also an internal feud of the descendants from a common ancestor.

The verse of the *Shi Jing* says: "...They reared the great altar [to *gjaħ, the god of the land ³⁶] 迺 立家土. Your crowd held its meeting of worship there戎丑攸行." ("Mian," Da Ya, *Shi Jing*). The Zhou people here are called "rong chou 戎丑" in the verse. The annotation of Mao Heng (second century BC) explained the word "chou" as "crowd," and "rong" meant "large (number of)." This explanation was based on the context and is not an original meaning of "rong." The basic meaning of the word "chou 丑" in Old Chinese was crowd or species. "Rong chou" is a phrase consisting of an adjective plus a noun and should mean "Rong people." Therefore we see that the Zhou people could also be called the "Rong." Yu禹 was called "Rong Yu戎禹" and the Shang people "Rong Yin戎殷" in old Chinese classical books and the Bronze Scripts. This evidence shows that the Chinese people could be called "Rong."

³⁷ The annotation of Mao Heng to "The Mian, Da Ya," *Shi Jing*: "Rong戎, large; Chou醜, crowd. Zhong tu冢土, the great altar to the god of the territory."

 $^{^{36}}$ See section 3.3 of this paper for the reconstruction of the OC words "祗" and "社" and their corresponding words in PIE.

5. What Were the Distinctions between the Land-granting Rules for the Zhou and for the Rong?

When King Wu of the Zhou dynasty conquered the Shang dynasty and incorporated the three vassal kingdoms of Lu, Wei, and Tang, he located the capital of the Lu kingdom at the city of Shao Hao (now in Shandong province, in eastern China), of the Wei kingdom at the city of Yin (now in Henan province, in the middle of China), and of the Tang kingdom at the city of Xia (now in Shanxi province, in northwestern China). King Wu employed different political measures and different land-dividing models to administer each country, according to the record of *Zuo Zhuan*:

When King Wu had subdued Shang, King Cheng³⁸ completed the establishment of the new dynasty, and chose and appointed [princes of] intelligent virtue, to act as bulwarks and screens to Zhou....

...(When Duke Lu, the son of Duke Zhou, was dispatched to the Lu kingdom), lands [also] were apportioned [to Duke Lu] on an enlarged scale, with priests, superintendents of the ancestral temple, diviners, historiographers, all the appendages of state, the tablets of historical records, the various officers, and the ordinary instruments of their offices. The people of Shang-yin were also attached; a charge was given to Bo Qin (Duke Lu), and the old capital of Shaohao was assigned as the center of his state.

...[When Kang Shu, the first marquis of the Wei, was dispatched to the Wei kingdom], the boundaries of his territory extended from Wufu southwards to the north of Putian. He received a portion of the territory of Youyan, that he might discharge his duty to the king, and a portion of the lands belonging to the eastern capital of Xiangtu, that he might be able to better attend at the king's journeys to the east. Tan Ji delivered to him the land, and Tao Shu the people. The charge was given to him, as contained in the "Announcement to Kang" and the old capital of Yin was assigned as the center of his state. Both in Wei and Lu the rulers commenced their government according to the principles of Shang, but their boundaries were defined according to the rules of Zhou.

...[When Tang Shu, the first lord of Jin, was dispatched to the Jin kingdom], the charge was given to him, as contained in the "Announcement of Tang," and the old capital of Xia was assigned as the center of his state. He was to commence his government according to the principles of Xia, but his boundaries were defined by the rules of the Rong.

The rulers of the Zhou dynasty took the political principles and the land-dividing rules from the model of Shang to govern the Lu and the Wei, but took the political principles of the Xia and the land-dividing law from the model of the Rong to govern the Jin. Why did they make these different? Du Yu (a scholar in the third century) said in his annotation of *Zuo Zhuan*: "The area of Tai Yuan³⁹ was near to Rong, and the weather was cold, and [the customs and environment] differed from the central area. Therefore it was governed separately, using the Rong model." The Lu and the Wei were

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³⁸ King Cheng was the son of King Wu, who died two years after he conquered the Shang dynasty.

³⁹ Tai Yuan was the capital of the Jin kingdom, located in the northwest of China, on the northern bank of the Yellow River.

in the area of the middle and lower reaches, and the land was a plain. The people there mainly lived on cultivation. That is why they took the model of Zhou, namely the model of cultivation, for the government of the people. Jin was in an area of pasture and mountains, and the people lived in nomadism. That is why the model of Rong, namely the model of nomadism, was used. We are aware from this source that the political system and the model of dividing land in the Shang and Zhou dynasties were suitable for farming life, and those in the Xia dynasty were suitable for nomadic life. This is reasonable: society in the Shang and Zhou (1600-1000 BC) had developed into an agricultural society, but society in the Xia (2070 –1600 BC) was still in the period of changing from the nomadic to the farming life. The Xia dynasty was at most a half-agricultural and half-nomadic society. That is why "the political principle of Xia and the land-dividing law of the Rong" were suitable for the nomadic way of life.

Compared with Xia and Shang, Zhou had the most developed farming civilization. But there were still some people living in the way of pasturage in the Zhou dynasty, for example, in the Jin kingdom. At first, the Zhou people were nomads; at the beginning of the Zhou dynasty (1046 BC), some of them keep their nomadic way of life alive; at the period of the Spring and Autumn (720-450 BC), the descendants of Zhou in nomadic tribes still kept their ancestor's surname. From a completely nomadic tribe to a half-nomadic and half-farming kingdom, and then to a completely agricultural country, these are the three sections of the history of the Zhou people. Zhou and Rong differed in their way of life, not in their race. If we are aware of this, we are not surprised that a mother from Rong (Hu Ji) bore a Chinese king (Chong Er). The Great Rong tribe was of the same nation as the Zhou people even though kept its old pastoral life. It would also not be surprising that the sons of the Rong were Chinese kings (Chong Er重耳 and his brothers) and ministers (Hu Yan狐偃 and Zhao Dun赵盾⁴⁰). They were Zhou nobility, in addition to being the sons of the Rong and Di.

We should change the traditional idea that the Rong and the Xia (Chinese⁴¹) were different races. They were different only in life style. The Xia people were farmers, and the Rong people kept their pastoral life unchanged. If their way of life had been changed to the agricultural style, the Rong would have become the Xia; if the agricultural life style had been abandoned and the pastoral life resumed, the Xia would have become the Rong. This was the situation especially in early times.

6. The Early Meaning of "Xia 夏"

The area in which the Xia people (that is, the agricultural people) lived also was called "Xia." From this clue we can resolve the following questions:

1. In the unearthed bamboo strips "Kong Zi Shi Lun" (Confucius talking about *Shi Jing*), the chapter title "Da Ya大雅" and "Xiao Ya小雅" were written as "Da Xia大夏" and "Xiao Xia小夏." This confirms that the character "Ya雅" is only a phonetic loan character of "Xia夏." And this shows that all the names of the chapters of *Shi Jing* 42 were place names of those kingdoms or areas. "Xia" indicates the agricultural area located in the middle reaches of the Yellow River.

41 — See section 5.1.1-1 of this pape.

⁴⁰ See section 3.1.1-1 of this paper.

⁴¹ The word "Xia" indicates the Chinese people (Hua Xia), as well as the Xia dynasty, in Old Chinese.

⁴² They include the fifteen Fengs (the names of the kingdoms), two Yas (the name of the area), and three Songs (the names of the two dynasties and a kingdom).

2. The Zhou people called themselves "Xia" in *Shi Jing* and *Shang Shu*. For example:

I will cultivate admirable virtue, and display it throughout the region of Xia. (我求懿德,厕于时夏) ("Shi Mai," Eulogies of Zhou, *Shi Jing*)

And without distinction of territory or boundary, the rules of social duty were diffused throughout the region of Xia. (无此疆尔界,陈常于时夏.) ("Si Wen," Eulogies of Zhou, *Shi Jing*)

It was thus he (King Wen) who laid the first beginnings of our small region of Xia. (文王有肇造我区夏。) (the chapter "Kang Gao康诰," *** Shang Shu)

But that King Wen was able to conciliate and unite our nation of Xia. (惟文王尙 克修和我有夏.) (the chapter "Jun Shi," *Shang Shu*)

Why did the Zhou people call their land or themselves "Xia"? Xia, Shang, and Zhou were different dynasties. The relationship between Zhou and Shang was much closer than that between Zhou and Xia. 44

There have been many arguments about the question for a long time among Chinese scholars, with no convincing explanation. Now, we can explain "Xia" as meaning "the area of cultivation." It is a reasonable meaning, suitable for all the texts that we quoted above. It can also explain why the Xia people had some kind of "superiority complex" with regard to the Rong people: The level of civilization in the cultivated area was significantly higher than that in the pastoral area. We can see hence that the concept "Xia" was always related to the meaning of "cultivated area" or "the people living in the way of cultivation" and was contrary to the concept "Rong."

7. Why Did the Shang and Zhou People Praise Yu 禹?

This verse of the Shang people praises Yu: "The Feng River flows eastward—that is the achievement of Yu" (丰水东注,维禹之绩) ("Chang Fa," Eulogies of Shang, *Shi Jing*).

This verse of the Zhou people also praised him: "The flood was boundless; Yu [overcame it and] calmed our land" (洪水茫茫, 禹敷下十方) ("Wen Wang You Sheng," Da Ya, Shi Jing).

Yu was the ancestor of the Xia dynasty. Why did the Shang people and Zhou people admire him? If the Xia, Shang, and Zhou were different nations, the phenomenon would be incomprehensible. But it would be reasonable if they all were descendants of Huang Di as stated in "The Basic Annals of Five Emperors" of *Shi Ji*. First, in early ancient times, Yu 禹 conquered the cataclysm and first pioneered cultivation of the area in the middle reaches of the Yellow River; the Shang and the Zhou people continued to live in that territory and prospered. They respected Yu, and the Zhou people kept alive the old name (*viz*. Xia) of Yu's land. Therefore, all the people that lived the agricultural way of

⁴⁴ Zhou and Shang were descendants of the same branch of Di Ku of the Yellow Emperor; Xia was the offspring of the other branch of Zhuan Xu of the Yellow Emperor. See section 2.1 of this paper, "The Genealogy of Huang Di."

⁴³ "Kang Gao" is "The Announcement to Kang [kingdom]." Cf. the quotation of *Zuo Zhuan* in section 3.1.1.5 of this paper.

life in the Yellow River valley admired Yu. Second, Yu was a great leader of the Huang Di nation, so the Shang and Zhou people, who shared a common source with the Xia people, also praised him.

8. The Original Meaning of "Rong 戎"

According to Professor Yu Min: "... [The word 'Rong 戎'] was meant to indicate a style of life—nomadism—in the spoken language of the Zhou dynasty. The seed of agriculture was germinated in the period of Shennong (神农 Holy Peasant). Whoever reverted to the life of the nomads could be called 'Rong'" (Yu Min 1999: 210).

Accepting the meaning "nomadism" for the word "Rong戎" in archaic times, we now turn to the corresponding word "Rong" in the Proto-Indo-European languages. ⁴⁵ The origin of "nomad" is quoted from *The Oxford Dictionary of English Etymology* (p. 613):

nomad adoption of French *nomade*, Latin *Nomad-*, *Nomas*, pl. *Nomades* pastoral people wandering about with their flocks. Adoption of Greek *nomad-*, *nomás* roaming about, esp. for pasture, pl. *Nomádes* pastoral people, formed on *nom-, *nem- (némein pasture)...

Rong 戎, Old Chinese *num > *nung, Middle Chinese nžong, Mandarin rong. Shuo Wen Jie Zi (The Analysis and Annotation of Characters, Xu Shen, 121 AD): "Qiang 羌, the western Rong people who live on pasturage of sheep (or goats)." (羌,西戎牧羊人也。) It is clear that the root of Proto-Indo-European *nom- is a cognate of OC *num. The sounds and the meanings are both equivalent. This is a good example of the fact that there were PIE words in the Old Chinese language.

We need to revise the conventional definition of Rong. If Rong and Qiang were regarded as two different nations, it would be a matter of great confusion why Qiang was also Rong at the same time, according to the explanation of *Shuo Wen Jie Zi*. Now we know that Rong was the name of followers of the nomadic way of life, and Qiang was the name of a nomadic tribe. So the exact translation of the explanation to Qiang 羌 in *Shuo Wen Jie Zi* should be this: "Qiang, the western nomadic people who live on pasturage of sheep." There were the compound words "Qiang Rong 羌戎" and "Shan Rong 以 戎" in classical Chinese documents. They can be understood more exactly now as "the nomads who pasture sheep and goats" and "the nomads who live in a mountainous (山) area."

Shuo Wen Jie Zi: "Rong戎 means arms. The character consists of a spear and a loricate" [from the item戎, Shuo Wen Jie Zi]. Xu Shen (the author of Shuo Wen Jie Zi) probably was not unaware that Rong invariably meant nomads. But he had to abide by his rule of deriving the meaning of any characters from the several parts of which the character consists, a rule he followed in all of his works from A to Z. He had no choice but to set aside the earlier and obvious meaning of Rong because the structure of Rong means military affairs. ⁴⁶ The meaning derived from the pictorial structure of a

⁴⁶ Shuo Wen Jie Tsi: "Qiang羌, the west Rong people who live on pasturage of sheep (or goats)." This shows that Xu Shen certainly knew the meaning "nomadic people" of the character Rong.

⁴⁵ The large number of corresponding words between Old Chinese and ancient Indo-European languages can be pursued in my book *Comparison of Words between Old Chinese and Indo-European* (Zhou 2002). But "rong戎" and "nomad" are a new pair that were not discovered before its publication.

Chinese character certainly was not the original meaning of the word, though the character was created in very early times. ⁴⁷ Enough evidence shows that the original meaning of Rong is "nomads," and the meaning of "arms" is only a derivate meaning due to the warlike nature of the nomadic people in the early ancient period.

3.1.2 The Zhou People and the "Qiang 羌"

There is no doubt that the Qiang were a nomadic people. The Qiang had a close relationship with the Zhou people. The mother of Hou Ji, the forefather of the Zhou, was named Jiang Yuan姜原. She was a woman of the Qiang people, as is shown by her surname, Jiang姜, which was usually taken as surname by the Qiang people. The wife of Duke Danfu was a woman from Qiang, too. ⁴⁸ The Zhou and the Qiang people married each other for generations. The nobles of the Zhou people married women with the surname of Jiang姜 as a rule from early times up to the period of the Spring and Autumn. The characters Qiang羌 and Jiang姜 are composed of a common part 羊 (Yang, goat) because of the fact that the goat is the totem of the Qiang people. The following are their word forms in Old Chinese (OC), Middle Chinese (MC) and Mandarin (M).

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Jiang 姜, OC *klan > MC kian > M tçian55
Qiang 羌, OC *khlan > MC khian > M tçhian55
Yang 羊, OC *lan > MC jian > M jian 35
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The three words are obviously cognates.

In early ancient times, the two branches of the Huang Di nation were the Huang Di clan and the Yan Di 炎帝 clan. The Huang Di were surnamed Ji 姬, and the Yan Di were surnamed Qiang 姜.

The minister of public works, Jizi, said: "A long time ago, the prince of the Shao Dian clan married a daughter of the You Qiao clan, and they bore Huang Di (Yellow Emperor 黄帝) and Yan Di (Fire Emperor 炎帝). Huang Di grew up by the Ji River 姬水, and Yan Di grew up by the Jiang River 姜水. They had different morals when they became adults. Therefore Huang Di was surnamed Ji, and Yang Di was Jiang. These two fought against each other with military force, due to their different ideologies. ("The Recorded Speeches of the Jin Kingdom," *Guo Yu*)

The tribes of Huang Di and Yang Di were originally brothers and different branches of one nation. They once had a civil war, and Yang Di was beaten by Huang Di. The Huang Di tribe united with the Yang Di tribe to reign over the area of Xia, in the middle reaches of the Yellow River. ⁴⁹ As everyone knows, the brave and wise prime minister of King Wu in the Zhou dynasty was Jiang Shang姜尚, a noble of the Jiang tribe. The author of *Shuo Wen Jie Zi*, Xu Shen (?-121 AD), was a descendant of the Jiang clan, and he gave a detailed description of his ancestors' history in the preface of his work *Shuo Wen Jie Zi*. His story is about how the Jiang (i.e., Qiang) people assisted the Ji people (i.e., Huang Di

⁴⁷ The character Rong 戎 occurred in the text of an oracle bone (about 1300 BC).

⁴⁸ Refer to the verse "Mian, Da Ya," *Shi Jing*.

⁴⁹ Refer to my "Distinguishing Yan Di炎帝 from Shennong神农" (forthcoming).

people), and the descendants of Huang Di and Yan Di allied and reigned over the Yellow River valley for more than two thousand years. He was very proud of the history of his ancestors. This fact shows that the nobles of the Han dynasty recognized themselves to be the offspring of Huang Di and Yan Di.

As narrated above, Zhou and Qiang were affinal and close cooperators in the nucleus of Chinese rulers in early ancient times. Qiang was nomad; at the beginning Zhou was, too.

From the details described in *Shi Jing*, we find some traces that indicate that the Zhou people used to be herdsmen:

When she had fulfilled her months, Her first-born son [came forth] like a lamb. (Refer to section 2.2.2 of this paper)

The poet compares a woman bearing a child to a sheep bearing a lamb. This is obviously the custom of a nomadic people. We see the following sentence in the same verse:

He was placed in a narrow lane, But the sheep and oxen protected him with loving care.

From this detail we know that there were many oxen and sheep in the village of the Zhou tribe, and pasturage was an important part of the life of the Zhou people in ancient times.

There are many words that name various cows, horses, sheep, and goats in different species, colors, genders, and ages in *Shuo Wen Jie Zi*. It is language characteristic of a nomadic people. These words prove that the Zhou people underwent a period of pastoral life.

In the western area of Sichuan province of China today, the ethnic group Qiang dwells. They are the descendants of the ancient Qiang people. They claim that their forefather in early ancient times was Yu 禹. According to *Shi Ji*: "Yu ascended in the western Qiang" ("The Chronological Table of Six States," *Shi Ji*). "King Wen of Zhou was born in the western Qiang" ("The Language II," *Shi Shuo Xin Yu*). All these materials are consistent with our conclusion that the Xia, Shang, Zhou, and Qiang people descended from a common ancestor.

We thus conclude that the Zhou people had a close relationship with the Di and Qiang. They were all nomadic peoples and had a common source. Rong was the general term for nomad in Old Chinese. In the period of Hou Ji (about 2100 BC), the Zhou people learned the skill of cultivation from the natives who had lived the agricultural life for a long time, and gradually developed themselves into a people who mainly lived an agricultural life style. Eventually the Zhou people became the rulers of the area of the Yellow River.

3.2 The Evidence of Historical Linguistics

The people of Huang Di were not only nomads, but also immigrants moving into the Yellow River valley in the prehistoric period. It is the linguistic evidence that provides this previously unrevealed history. Many Old Chinese words have been thought of as coming from the native people, but it has been found that in fact they share common origins with Proto-Indo-European languages. This fact shows us where Huang Di's nation actually came from. The following corresponding words

are quoted from my work Comparison of Words between Old Chinese and Proto-Indo-European (Zhou 2002) and Correspondences of Cultural Words between Old Chinese and Proto-Indo-European (Zhou 2003). Please refer to these for more details and discussion.

3.2.1 Words Concerning Domestic Animals

The following Old Chinese words concerning domestic animals (except the last) have a corresponding relationship with archaic Indo-European words; half of these are still used in Modern Chinese today (quoted from Zhou 2002: 594).

- 型**maarg, *mraag (horse): PIE root *marko- (horse) 1.
- 2. *狗*koog (dog): Old Irish cū, Tokharian A ku (dog)
- 3. *犬**koond, *koong (dog): Old Frisian hund, Gothic hunds (dog)
- 4. 準**breese, *breeg (dog with short legs): Old French basset (basset, short dog)
- 5. 豝*praa (hog): Old English bār (male hog), Latin porcus (hog)
- 6. 猳*kraa (male hog): Old English hogg (hog) <*k-
- 7. #**kwш, *ngwш (cow, bull): PIE root *gwōw- (cow)
- 8. 糒*bшs (cow, bull): Greek bous, Latin bos (cow)
- 9. 驹**kwor, *kwo (horse): Old Frisian hors, Old Norse hross (horse)<*k-
- 10. *羧**kaad, *kaag (goat): PIE root ghaid- (goat)
- 11. 骠*bleus (yellow horse with white speckles): Old Norse bles (white mark on the forehead of cow or horse)
- 12. 犥*phleu (yellow cow with white speckles): (id.)
- 13. 羳*ban (a kind of goat with a yellow belly): Greek Pan (the god of shepherds)⁵⁰
- 罢(*bral > 51)*pral (bear): PIE root *bhar- (bear)

It is the equivalent words concerned with the horse that are most worthy of discussion. The horse was not an ordinary domestic animal used for daily life in the Yellow River valley in early ancient times. As with the ancient Egyptians and Hebrews, horses were not yet being used as sacrifices in the old custom of China. Horses and their concomitant chariots were significant advanced military equipment in those times. Shuo Wen Jie Zi: "*mraag (马 horse) is mighty and martial."(马, 怒也,武 也。) The words "horse" and "martial" (武*ma?) were cognate in OC. The Chinese words "horse," "chariot," and "march" all correspond to PIE words (Zhou 2002: 251-254). Primitive Indo-European people brought the horse and chariot into the Yellow River valley and conquered the region. The native people could never take advantage of the horse and chariot in war or for other purposes in early ancient times. It appears that the occurrence of the horse and chariot may be taken as a symbol of the Indo-European emergence in the Yellow River valley. *mraas 祃 (the god of war; see section 3.2.3, item 6) is another cognate of this group, which was used in Shi Jing and therefore much earlier in time than was the Latin word Mars.

⁵⁰ The god was made from a figure of a goat with horns and hoofs.

⁵¹ The character is pronounced with the second tone in Mandarin, so it should have a voiced initial in MC and OC.

OLD CHINESE INDO-EUROPEAN

*mraag (马 horse): PIE root *marko- (horse)
*mag (武 martial, march): Latin *marcare (march)
*mraas (祃 the god of war): Latin. Mars (the god of war)

Mars should have an etymological relationship with the PIE root **marko*- horse, like the relationship between other corresponding Old Chinese words. Thus we can reconstruct a cognate family around the nuclear word "horse," crossing Indo-European and Old Chinese languages.

3.2.2 Words Concerning Houses and Other Constructions

The city was the center of any archaic civilization. The occurrence of the city was one of the symbols that indicated a civilized society. Human beings took up agricultural life, settled themselves in a fixed place, and then built shelters. Nomads have not had immobile houses for thousands of years. Descriptions of built houses and towns appear in the verses concerning the life of the Zhou people in *Shi Jing*:

In the seventh month, in the fields;

In the eighth month, under the eaves;

In the ninth month, about the doors;

In the tenth month, the cricket

Enters under our beds.

Chinks are filled up, and rats are smoked out;

The windows that face [the north] stopped up;

And the doors are plastered.

"Ah! Our wives and children.

Changing the year requires this:

Enter here and dwell."

. . .

O my husbandmen,

Our harvest is all collected.

Let us go to the town, and be at work on our houses.

In the daytime collect the grass,

And at night twist it into ropes;

Then get up quickly on our roofs—

We shall have to recommence our sowing"

("The Seventh Month," Poems of Bin, Shi Jing). (Legge, 1969: 232)

He called his superintendent of works;

He called his minister of instruction;

And charged them with the building of the houses.

With the line they made everything straight;

They bound the frame-boards tight, so that they should rise regularly.

Uprose the ancestral temple in its solemn grandeur.

Crowds brought the earth in baskets;

They threw it with shouts into the frames;

They beat it with resounding blows;

They pared the walls repeatedly, and they sounded strong.

Five thousand cubits of them arose together,

So that the roll of the great drum did not overpower [the noise of the builders].

They set up the gate of the enceinte;

And the gate of the enceinte stood high.

They set up the court gate;

And the court gate stood grand....

("Main, Da Ya," Shi Jing) (Legge, 1969: 490)

Having entered into the inheritance of his ancestors,

He has built his chambers, five thousand cubits of walls,

With their doors to the west and to the south.

Here will he reside; here will he sit;

Here will he laugh; here will he talk.

They bound the frames to the earth, exactly over one another;

T'oh-t'oh went on the pounding;

Impervious [the walls] to wind and rain,

Offering no cranny to bird or rat.

A grand dwelling it is for our noble lord.

Like a man on tip-toe, in reverent expectation;

Like an arrow, flying rapidly;

Like a bird which has changed its feathers;

Like a pheasant on flying wings;

Is the [hall] which our noble lord will ascend.

Level and smooth is the court-yard,

And lofty are the pillars around it.

Pleasant is the exposure of the chamber to the light,

And deep and wide are its recesses;

Here will our noble lord repose

("Sigan," Xiao Ya, Shi Jing) (Legge, 1969: 303).

We can see in these verses the scene in which the Zhou people constructed houses and towns. Many Old Chinese words concerning the house, the facilities of a city, and the methods of their construction correspond to those of ancient Indo-European languages. But as we know, the Chinese people used these words from the early ancient period. (The following examples are quoted from Zhou 2002: 591.)

- 2. 防*ban (bank of a river): Old Frisian bank (bank of a river, mound)
- 3. 都*taa (city): Old Italian tota (city)
 [the homonymic correspondence: 都*taa (all): Latin tōtus (all)]
- 4. 苑**qord, *qong (enclosed garden): PIE *ghortos (enclosed garden)
 (Concerning the alternative *-r / *-n in Old Chinese, cf. Bodman 1995: 90, 94. He reconstructed the earlier form as *-r.)
- 5. 园*Gon (orchard): Old Frisian garda (orchard, vegetable garden)
- 6. 埤**bes, *be (to increase a building): Italian bastire (to build)
 (The spelling 卑 corresponds with the archaic IE bas-; therefore the Old Chinese should be
 *bes, departing tone, but it does not follow the rule by having a form of level tone *be.
 Therefore I reconstruct an earlier form **bes > *be.)
- 7. [土寮]**raugs, *raus (enclosing wall): Old Frisian lok (castle), Old High German loh (enclosing wall)
- 8. 垣**Gol, *Gon (wall of a yard): Latin uallum (railings, fence)
 (Concerning the alternative *-1 / *-n between Old Chinese and Proto-Chinese, cf. Bodman 1995: 93, 94)
- 9. 桓**Gool, *Goon (wooden post): Latin uallus (wooden post)
- 10. 埘*blos (to add height to the enclosing wall of a city): Latin plūs (to add)
- 11. 版**praaŋka, *praang (wooden plates used as tools in building walls): Late Latin planca (wooden plank)
- 12. 冓**krooks, *koos (wooden crosses that stand on the ground to form the frame of the house): Latin crux (wooden post erected on ground with a level bar near its top), the Cross (the symbol of Christianity)
- 13. 溝**kroob, *koo (ditch dug for draining water): PIE root *ghrobh- (dig), Old Norse grōf (ditch) (Old Chinese should be*koo?, rising tone, and does not follow the rule.)
- 14. 渎*dook (drain ditch in a town): Old Frisian dika (to dig a ditch), English dug (past participle, dig)

3.2.3 Words Concerning Religion

I discussed the religious similarities of the Zhou people and the ancient Indo-Europeans in an earlier article (Zhou 2005). Apart from that, there are also many words concerning ancient religion and myth that share a common source between OC and PIE. The following is quoted from Zhou 2002: 603:

- 1. 帝*tees (God): Greek *Diwos (God)< PIE root *dei-
- 2. 天**thiim, *thiin (sky): Latin diem, Sanskrit dyām (day, sky)
 (黍*theem is written with the phonophore 天, so 天 must go back to the form with a final
 *-m)
- 3. 萜**gaad, *gaag (the blessing given by God): Sanskrit *ghūta (God)

- 4. 祇*ge (the god of the earth): Greek gaja (Gaea, the goddess of the earth, gaia)
- 5. 社**gjare, *gjag (a god who rules a part of a land): (id.)
- 6. 闷 **maars, *mraas (to worship the war god): Lat. Mars (the god of war)
- 7. 醋**baaks, *baas (bacchanalia, a festival in which much rice wine is consumed): Latin Bacchus (the god of wine, Dionysius)< Greek Bakis
- 8. 羲和**sŋral-gwaal (>*hŋral-gool) (the sun god who drives the solar chariot): PIE root *sawel- (the sun, later the sun god, Helios)
- 9. 望舒*mans·hlja (God of the moon): Hittite meinulas (crescent)
- 10. 若*nak (the god of the sea): Greek Nēreus (a sea god, Nereus)
- 11. 若*nak (spirits who look like trees and live in the forest): PIE *na-, Greek naias (naiad, nymph)

3.2.4 Why Did We Not Find the Relationship Earlier?

If there are so many cognates between OC and PIE, why did we not find the close relationship earlier? The most significant reason is the Chinese character. This writing system, unique in the world, has been used continuously for at least 3,300 years. The Chinese language has changed very much and produced many daughter languages in East and South Asian areas, even in Australia and the Pacific Ocean islands, which are as many as the daughter tongues of PIE in the current Eurasian continent. But the system of Chinese characters is like a heavy curtain that covers all the differentiations and evolution of Chinese language, because this kind of writing system has almost never been revised since the second century BC. This non-spelling writing system was not changed to correspond to the changes in the language that is being recorded. Thus it would be very difficult for us to trace back the appearance of the Chinese language to three, or four, 52 thousand years ago on the basis of Chinese characters. And, therefore, a window through which we might peep into human prehistory was closed. In addition, the time at which the Huang Di people entered the area of the Yellow River was more than a thousand years before the Aryan people entered the Indian subcontinent (about 1300-1200 BC). The languages changed much more, and were more difficult to trace back. Taking 1000 BC as the jumping-off point, basing their study on the archaic spelling systems of Sanskrit, Greek, Latin, and Germanic, the European linguistic scholars in the nineteenth century were successful in deciphering the relationship between Sanskrit and European languages, and they thus concluded that the modern Indian people had the same source as the European people. But in the study of the history of Chinese language, scholars have to take the modern period as their jumping-off point, and base their study on modern languages in China and on non-spelling Chinese characters. Under these conditions, pursuing the history of a language is like crossing the Pacific Ocean by a canoe. The wisdom and bravery shown by the international scholars in the field of the history of Chinese language is really admirable.

That is the reason that previously we were unable to reveal the very intimate relationship between OC and PIE in the prehistoric period.⁵³

⁵² According to archaic legend, the Chinese characters were created by Cang Jie仓颉, the historical minister of Huang Di.

⁵³ Concerning the method of comparison of OC and PIE, refer to the Zhou 2002, section II, "The Method and

IV. Conclusion

Chinese civilization did not grow up in isolation in early ancient times. The oldest civilizations all over the world, including the Egyptian, the Greek, the Indian, and the Anatolian—none developed separately from the others. It is a general law in human history that the various civilizations polarized, syncretized, and affected each other. By the evidence of historical linguistics and archaeology, the Aegean Sea civilization and the Hellenic civilization, the Indus Valley civilization and the Ancient Indian civilization, the Hattic civilization and Hittite civilization, were all pairs in which the latter conquered the former and formed their new civilizations. In addition, all these conquerors were prehistoric Indo-European people (about 2000-1200 BC). Just as with these, Chinese civilization went through cultural collision in early ancient times. The European people from the west of the central Asian steppe brought new cultural components to the Yellow River valley in about 2300 BC. They combined their advanced techniques, such as bronze metallurgy, metal tools and arms, and chariot and tamed horses, with the native developed agricultural culture in the area of the Yellow River and the Yangtze River. This combination grew into the splendid civilizations of the Xia, Shang, and Zhou dynasties. Contrary to the popular viewpoint that "the Yellow River civilization had an independent history," it was actually a syncretized one.

The idea that the Chinese civilization had an independent history came about very largely because of the strong affection for the special Chinese writing system, which has been used from the Shang dynasty (1600 BC) to today. The Chinese characters curtain off our sight with their special method of recording language, so it is difficult to find the relationship between Old Chinese and other archaic languages. The age-old quadrate characters confused people with the illusion that the archaic Chinese language was as persistent and unchanging as the quadrates. If this were so, how could we understand this fantastic language by a general linguistic method? How could we find the relationship of OC and other languages? In fact, Old Chinese is one of the ordinary human tongues, like others, if we strip the coat consisting of its characters from the language. In the study of prehistory, historical linguistics possesses a special function, which can be used to identify the nature of a civilization and its origin of nationality, based on the evidence of linguistics. Because language is the special seal of every nationality, it cannot be rubbed out by passing time.

The discovery that the ancient Indian civilization came from the European people was entirely proved by historical linguistics in the eighteenth-nineteenth centuries. In about one hundred years, archaeologists found the earlier native civilization, the Indus Valley civilization, which lay under the former. And at the same time, genetic investigation testified that the Indian people shared the genes of the European people. The discovery that historical linguistics had previously made was confirmed. Historical linguistics consequently got a reputation for being "the science leaping ahead." We cannot undervalue the special function of historical linguistics in the study of the human prehistory, we cannot turn a blind eye to the evidence offered by linguistics, and we cannot deny historical linguistics, as a positive science that has shown its general value in the study of human language, history, and prehistory. Historical linguistics is a scientific method used in the prehistoric studies of all human

beings; in consequence scholars in linguistic history all over the world, including the Chinese, should share it.

It is a prevalent view that Chinese history began with Huang Di (Yellow Emperor, about 2300 BC), who defeated all his enemies and reigned in the area of the Yellow River. But it is not well known that Huang Di and his people were immigrants from western Eurasia and that their descendants actually have taken leading roles on the historical stage of the Yellow River valley since about 2300 BC. The history recorded in the traditional documents recounts only that Huang Di's people went into the Yellow River valley and developed a civilization there. The other peoples who lived there earlier and who created the marvelous prehistoric civilization of the two rivers (the Yellow River and the Yangtze River) have been deeply veiled behind the curtain of history (refer to part I of this paper). They have been excluded from the traditional chronicles, which included almost all Chinese historical books, from *Shang Shu, Shi Jing*, and *Zuo Zhuan* to *Shi Ji* and so on.

This is a history to some extent of reversing the position of the host and the guest. One reason for this situation is the suppression and exclusion of the facts by the strong Huang Di faction. The other reason is that, while other nations had not invented their own writing systems, the Huang Di nation had; one which has been used by Chinese people to the present. The age-old Chinese characters recorded only the rise and fall of the Huang Di people in ancient times. That is why there is a great disparity between the archaeological sites in the Yellow River and the Yangtze River and the traditional historical records with regard to the dates of the beginning of agriculture in the region. Concerning the civilization of the "East Asian Two Rivers," created by the earlier habitants (see also part I of this paper), we can also find some significant information from the historical records which can be mutually confirmed by current archaeological discoveries and historical linguistic evidence. The difference in ways of life, customs, and language between the native inhabitants and the Huang Di people offers us more evidence that the Huang Di people were the acquirers of an existing culture. We shall discuss these issues in later papers.

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