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Indo-Europeans in the Ancient Yellow River Valley

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INTRODUCTION

This paper was designed with two purposes in mind. The first is to convey the idea that there may have been a tribe of Indo-Europeans that conquered the Shang of the Yin dynasty, resulting in the establishment of China's longest lasting and possibly most influential dynasty, the Zhou. The second purpose is to investigate, if this is the case, whether the myths and legends of China are in fact those of this Indo-European conquering tribe, and to suggest also that their systems of science and philosophy heavily influenced the ancient Chinese.

1. WHO WERE THE INDO-EUROPEANS?

This discussion primarily attempts to establish the Indo-European presence in ancient China but also briefly discusses the three other geographic areas on which the Indo-Europeans had a significant influence.

The Kurgan Hypothesis is the idea that there was a series of cultures occupying the steppe and forest-steppe regions of southern Ukraine and southern Russia. It states that by the fourth millennium BCE this region evidenced all of the attributes of a putative Indo-European society reconstructed from linguistic evidence, including the most geographically indicative, such as the domestic horse and wheeled vehicles (Mallory 1989, 183). Another theory is called the Anatolian Hypothesis, which suggests that Proto-Indo-Europeans originated in Neolithic Anatolia after which they migrated into Europe in about 7000 BCE (Renfrew 2004, 17-48). The Indo-European languages have the largest number of speakers in the world when compared with any other language family. Some of its languages are: English, Ukrainian, Russian, White Russian, Bulgarian, Serbo-Croat, Czecho-Slovak, Polish, Latvian, Lithuanian, Swedish, Danish, Icelandic, Norwegian, English, Dutch, Flemish, Frisian, German, Irish, Breton, Welsh, Italian, French, Spanish, Portuguese, Romanian, and Albanian (Mallory 1989, 15).

The Asian group of Indo-Europeans includes the Anatolians, the Phrygians, the Armenians, the Indo-Aryans, the Iranians and the Tocharians. The European group includes: the Greeks, the Thracians, the Illyrians, the Slavs, the Balts, the Germans, the Italians and the Celts (Mallory 1989, 5). The Proto-Indo-European subfamilies include: Proto-Anatolian, Proto-Armenian, Proto-Slavic, Proto-Celtic, Proto-Germanic, Proto-Greek, Proto-Indo-Iranian, Proto-Italic and Proto-Tocharian (Mallory 1989, 15). By looking at the cultures they influenced and the spread of their language, it is possible to understand the extent to which the Indo-Europeans migrated around the world.

The oldest Indo-European language was that spoken by the Hittites (Lehmann and Slocum 2020). The Hittites were an Anatolian people who established an empire at Hattusa in north-central Anatolia (1700–1200 BCE) (Mallory 1989, 25). The Hittites could write, unlike many of their Indo-European cousins, and they used a variation of cuneiform that possibly came from foreigners hired or taken prisoner (Bryce 2014, 135). The name "Hatti" applied originally to a region in north-central Anatolia that became the Hittite homeland and was in use centuries before the Hittite Kingdom was

established. "Hatti" refers to the pre-Hittite occupants of the land (Bryce 2014, 129).

For our purposes, four groups are of particular interest:

- The Chinese Indo-Europeans, who may have a genetic connection to the Zhou rulers who conquered the Shang and came to control a large portion of the Yellow River Valley.
- The Indo-Aryan Indo-Europeans, who may have superimposed themselves on an indigenous population and taken control over the northwestern parts of the Indian subcontinent, including much of what is now Pakistan.
- The Greek Indo-Europeans who perhaps superimposed themselves on an early Bronze Age population by which means they came to control much of Greece.
- The Hittites who superimposed themselves on the Hattians, thus gaining control over north-central Anatolia.

2. COMMON CHARACTERISTICS OF THE INDO-EUROPEANS

- They possessed and used horses and chariots.
- They believed in a Sky God.
- Medicine was a major interest, whether it was developed natively or adopted from other cultures.
- They were governed by comitatus[1] and observed a hierarchical, social-ranking, non-rigid caste-like system based on a shared tripartite stratification (priests; warriors or kings; farmers or tradesmen or commoners).
- They were able to absorb easily a wide range of cultural elements from other peoples.

CHARIOTS AND HORSES

The chariot is one of the key characteristics that identify Indo-Europeans and their subgroups around the ancient Eurasian world. Chariots required well-trained horses and highly skilled archers to be effective in war. It was probably the development of spoked wheels that led to the creation of the war chariot. The earliest fully-developed chariots known are from the Volga-Ural region:

> It enables us to say that these chariots are the earliest known from the Old World and to propose that the chariot drawn by harnessed horses originated in the Volga-Ural region. (Kuznetsov 2006, 644)

Horses were a major part of Hittite culture, as attested by the Kikkuli Text. Kikkuli was the author of a chariot horse training text written in the Hittite cuneiform, dating back to the second half of the second millennium BCE (Raulwig 2009, 3). The Hittites were among the first to use chariots in warfare, which helped them to conquer north-central Anatolia (1600 BCE). The Hittite-style chariots (as well as other Middle Eastern equivalents) were considerably lighter than the Mesopotamian ones, with their solid wheels and central axle. Each carried a crew of three, consisting of a driver, a shield-

1 For the concept of comitatus, see Beckwith (2009, 12-28).

bearer and an archer (Chondros, et al. 2016, 230). The chariot probably had its origins with the Indo-Europeans, though this theory is not yet proven (Beckwith 2009, 54). Chariots figured prominently in the *Ṛgveda* and were also used throughout Eastern Europe. The Greeks and Romans used the chariot for different functions. The chariot is found in Zhou and Shang burials. The horse was most likely domesticated by the Indo-Europeans in Central Eurasia. It was probably originally hunted for its meat (Beckwith 2009, 50) until other uses were found. The horse has been an integral part of the Indo-European culture for four millennia:

> The earliest evidence for the domestic horse is from the Pontic-Caspian region and all present evidence suggests that it diffused from there through the Caucasus into Anatolia and perhaps around the eastern Caspian into northeast Iran. Hence, the appearance of both the horse and chariot have frequently been attributed to an expansion of Indo-Europeans from the north into Western Asia. (Mallory 1989, 41)

Sky God

Although few details are known about Hittite mythology, from its very beginning the Storm God held the most exalted place among the gods (Bryce 2002, 143). He may have had some connection to Teshub, the Hurrian god of sky or thunder (Bryce 2002, 137). He dwelt among mountain-tops close to the heavens (sky) and traveled across the mountains in a chariot pulled by a pair of bulls. In art he is depicted with an axe and lightning flash. The bull is his sacred animal, the symbol of his strength and his power of fertility (Bryce 2002, 143–144). It is impossible to ignore the similarities between Tengri,[2] Zeus, Thor and other sky gods of the Indo-Europeans. The people of the Zhou dynasty also had reverence for a Sky God, a special and important characteristic of the Indo-Europeans.

2 According to Chinese sources, the Xiongnu called the sky *chengli*《漢書.傳.匈奴傳.匈奴傳上》匈奴謂天為「撐犁」.

MEDICAL SYSTEMS

> As elsewhere in the Near East, medicine in the Hittite world was a skilled and respected occupation. It was also an internationally shared one. Medical expertise frequently crossed national boundaries, and foreign doctors found ready acceptance in the lands of their neighbors, particularly if they came from Egypt or Babylon. On more than one occasion the kings of these countries lent doctors to Hattusa for service in the Hittite court (Bryce 2002, 163).

Greek mythology provides an indication that some Indo-European medical systems were quite advanced:

> According to Greek mythology, the original birth place of all magic and medical herbs is not Crete, as commonly claimed, but the Pílion mountain chain in eastern Thessaly. This was the home of Chiron the centaur, son of Cronos and Philyra, half-brother of Zeus and unlike other centaurs blessed with immortality. (Marianthi 2004, 166)

A centaur is a mythological creature with the head, torso and arms of a human and the body and legs of a horse, thus regarded as half-human and half-horse. It is possible the centaurs appeared in the myths in response to seeing humans riding horses for the first time:

> Although he [Chiron] was indeed one of these reputedly wild and unruly creatures, he differed from them in not only origin but in nature. He was regarded as just, gentle and very wise and consequently the highest gods entrusted him with the task of educating their children. Asclepius originally gained his knowledge of healing properties of plants and how to treat various diseases from Chiron. (Marianthi 2004, 166)

It is important to note here that Greeks were most likely Indo-European too:

> The logical consequence to all of this [loan words borrowed into Greek] is that the Greeks are not native to Greece but were the product of Indo-European intruders who superimposed themselves on an earlier bronze age population. (Mallory 1989, 68)

In India, the copious medical literature in Sanskrit certainly attests to this Indo-European interest. With regard to the Zhou people, up till now the author has been unable to see any obvious interest in medicine except for stories about Shennong (神農), who taught the people about agriculture and possibly the difference between healing and poisonous plants.

> 《淮南子.脩務訓》嘗試問之矣：「若夫神農，堯，舜，禹，湯，可謂聖人乎」有論者必不能廢。以五聖觀之，則莫得無為，明矣。古者，民茹草飲水，采樹木之實，食贏蠃之肉。時多疾病毒傷之害，於是神農乃始教民播種五穀，相土地宜，燥濕肥墝高下，嘗百草之滋味，水泉之甘苦，令民知所辟就。當此之時，一日而遇七十毒。

In the *Huainanzi* passage quoted above we are told that, prior to Shennong, there were many diseases; he taught the people how to sow the five grains and agriculture. He tried hundreds of plants, so the people knew what not to use, and he even consumed seventy poisons in one day.

COMITATUS

"Comitatus" means a community headed by a chieftain, and those closest to him in it are his personal warriors. These warriors protect and fight alongside the chieftain, and from this they receive great rewards (Beckwith 2009, 12-23). When the chieftain dies, his chariot, riches and personal belongings are buried with him and sometimes so are his slaves (Beckwith 2009, 12-23). The comitatus may have been the basis of a system in which society was divided into different classes such as priest, warrior and peasant.

Caste System

The Indo-Europeans seem to have followed a hierarchical social ranking, with a non-rigid caste or class system based on a tripartite division. The groupings could be loosely divided into: priests, warriors/kings and farmers/tradesmen/commoners. This system is notable across the various Indo-European cultures, including the Hittites, where they were the ruling caste:

> The important point is that these people do not form part of the gathering that Hattusilis is addressing. That is, they do not have political rights in conjunction with the Hittite ruling caste. They are the subject people to whom full political rights have not been accorded. This is direct proof that the people addressed by Hattusilis are the ruling caste which has superimposed itself upon the native population of Asia Minor. (Hetherington 1962, 93)

> It is clear that the king's kinsmen, called the "Great Family," enjoyed special privileges, which they constantly abused. The highest offices of state were generally reserved for them. (Hetherington 1962, 48)

Hetherington talks about a ruling caste and a priestly class:

> This killing of the foremost subjects must have been disastrous to the Hittites as a minority ruling caste. (Hetherington 1962, 123)

> This was not only in the interests of keeping the favour of the gods but it is also to be seen as a means of preventing the priestly caste from becoming too wealthy and thus powerful. (Hetherington 1962, 96)

The Indian caste system is well known and may have come from the Indo-Europeans as it was first mentioned in the *Ṛgveda, Puruṣasūkta,* 10.90, verses 11–13. Vedic Sanskrit and Avestan are similar

and nearly mutually intelligible. It is likely that both evolved from a common ancestor language, some five hundred years prior to the composition of the two texts (*Ṛgveda* and *Avesta*) (Cohen 2017, 12). A description nearly identical to the one given in the *Ṛgveda Puruṣasūkta* mentioned above is found in the *Shikand I Gumānik Vichār* (16.1), showing a strong connection to the writers of the Pahlavi scripts. It says:

> Likewise, the work manifested by him in the world-which-is-man is in the likeness of these four classes of the world. As unto the head is priesthood, unto the hand is warriorship, unto the belly is husbandry and unto the foot is artisanship. (Muller 1885, 118-119)

With regard to the Indo-European-India connection, and taking into account the fact that Sanskrit probably does not come from India, it is important to note that the sacred language of India (and especially the Brahmins), Sanskrit, was first recorded in inscriptions found not in the plains of India but in what is now northern Syria. In the Mitanni Treaty, which was carved in stone, we find that parts of the inscriptions are written in a very early form of Sanskrit. Vedic gods such as Mitra, Varuṇa and Indra are invoked in the treaty. The linguistic forms of the Mitanni Treaty indicate that the text is probably a few centuries older then the *Ṛgveda* (Cohen 2017, 12–13).

A genome study, done in 2001, also portrays the Indo-European-Sanskrit connection:

> The origins and affinities of the ~1 billion people living on the subcontinent of India have long been contested. This is owing, in part, to the many different waves of immigrants that have influenced the genetic structure of India. In the most recent of these waves, Indo-European-speaking people from West Eurasia entered India from the Northwest and diffused throughout the subcontinent. They purportedly admixed with or displaced indigenous Dravidic-speaking populations. Subsequently they may have established the Hindu caste system and placed themselves primarily in castes of higher rank. … Analysis of these data demonstrated that the upper castes have a higher affinity to Europeans than to Asians and the upper castes are significantly more similar to

> Europeans than are the lower castes. Collectively, all five datasets show a trend toward upper castes being more similar to Europeans, whereas lower castes are more similar to Asians. We conclude that Indian castes are most likely to be of proto-Asian origin with West Eurasian admixture resulting in rank-related and sex-specific differences in the genetic affinities of castes to Asians and Europeans. (Bamshad, et al. 2001)

Ease of absorbing other cultural traits

The ability to absorb cultural elements from other lands was first noted amongst the Hittites. One of their key foreign acquisitions was the technology of writing (Bryce 2014, 135). With regard to China, the point about absorbing cultural elements is currently up for debate and this paper will attempt to shed more light on the subject.

3. THE INDO-EUROPEAN-TURKIC CONNECTION

There are many crossovers in the cultures of the Indo-Europeans and the Turks, making it difficult sometimes to differentiate between them historically. The Altai mountains have been identified as a possible starting point of the Seima-Turbino phenomenon (Koryakova and Epimakhov 2007, 108). The transcultural Seima-Turbino phenomenon is a distinctive and enigmatic occurrence in the Late Bronze Age archaeology of Eurasia and has been a key area of research for decades. It refers to an emergence and widespread, rapid distribution of specific bronze objects in Siberia and eastern Europe, mainly represented by weaponry such as spears, celts and knives. These weapons are often decorated with geometric figures or feature figured surfaces on knife handles (Marchenko, et al. 2017, 1). The findings of weaponry (spears, knives, axes), bone and horn armor plates in burials suggest the military lifestyle of the population that left the objects. The horse was a domesticated animal and appeared to play an important role in human life (Marchenko, et al. 2017, 2).

In 2004, a scientific study was done to help clarify the debate on the western and eastern genetic influences in Central Asia. The conclusion was that the distribution of east and west Eurasian lineages through time in the region is concordant with the available archaeological information. Prior to the thirteenth-seventh centuries BCE, all Kazakh samples belong to European lineages, while later on, an arrival of east Eurasian sequences that coexisted with the previous west Eurasian genetic substratum can be detected. The presence of an ancient genetic substratum of European origin in West Asia may be related to the discovery of ancient dried corpses with European features in Xinjiang and to the existence of an extinct Indo-European language, Tocharian (Lalueza-Fox, et al. 2004).

It has been stated that the Andronovo culture was Indo-Iranian (Mallory and Adams 1997, 20). Andronovo is a blanket term for a series of Bronze Age cultures that spanned western Siberia from the southern Urals to the Yenisei River and that are broadly identified with pre-historic Indo-Iranians (2000–900 BCE) (Mallory and Adams 1997, 20). The Andronovo culture consisted of both communities that were largely mobile as well as those settled in small villages. Settlements are especially pronounced in its Central Asian parts. Fortifications include ditches and earthen banks, as well as timber palisades, of which an estimated twenty have been discovered. Andronovo villages typically contained between two and twenty houses, but settlements containing as many as a hundred houses have been discovered.

Andronovo houses were generally constructed from pine, cedar or birch and were usually aligned overlooking the banks of rivers. Larger homes ranged in size from eighty to three hundred square meters and probably belonged to extended families, a feature among early Indo-Iranians (Mallory and Adams 1997, 20).

Nowadays, the Kazakhs, along with most other Central Asian inhabitants, speak Turkic languages. This raises many questions, as the area also corresponds to the region where the Indo-Iranian branch of Indo-European speakers expanded, the Bronze Age Andronovo culture and the Iron Age Scythian territory. The question is, therefore, why did the Indo-European language survive only in Slavic Russia and the southern parts of Central Asia (Tajikistan, Afghanistan and some parts of Turkmenistan)? The Uyghurs, Uzbeks, Kazakhs, Kyrgyz, Crimean Tatars, Nogais, Bashkirs and Chuvash all speak Turkic vernaculars (Hay 2020).

Genetic studies tell us that these Turkic-speaking people do carry Indo-European R1a and to a lesser extend R1b (Hay 2020). With regard to the oldest Turkish language, it seems to have appeared with the Göktürks and in the Orkhon inscriptions. The most probable reason the Turkic language became dominant over the Indo-European language in the places mentioned above, was due to the expansion of the Turkic peoples across most of Central Asia into Eastern Europe and West Asia (sixth and eleventh centuries AD).

Looking back at the Xiongnu (匈奴) tribe, a nomadic people that formed a state centered roughly on current day Mongolia, we can begin to see how possible crossovers between language and culture occurred. Many of the Xiongnu elite were buried in Mongolia (UNESCO 2014). It is sometimes said that the Xiongnu were Turkic speakers and spoke Bulgharic (Bulghar Turkic) (Schönig 2011, 405). Whether the Xiongnu were Indo-European or Turkic is unclear. Their political confederation certainly contained a significant Turkic component (Schönig 2011, 405).

There are some connections between the Huihe, Xiongnu, Gaoche, Chile and Tiele:

> 《新唐書.列传第一百四十二上回鹘上》回纥，其先匈奴也，俗多乘高輪車，元魏時亦号高車部，或曰敕勒，讹為鐵勒。其部落曰袁纥，薛延陀，契苾羽，都播，骨利干，多览葛，仆骨，拔野古，同罗，浑，思结，斛薛，奚结，阿跌，白霫，凡十有五种，皆散处碛北。

In the above passage from *Xin Tangshu* we are told that the Huihe came from the Xiongnu and had a custom of riding high-wheeled carts. They were also called the Gaoche tribe during the Yuan (元) and Wei (魏), or they were called Chile (敕勒) or mistakenly Tiele (鐵勒).

《新唐書.列传第百四十上突厥上》突厥阿史那氏，盖古匈奴北部也。

《周書.卷五十.列传第四十二》或云突厥之先出于索國，在匈奴之北。

In the above lines we are told that the Tujue (突厥) (who are sometimes equated with the Göktürks) and the Ashina (阿史那) lived north of the Xiongnu.

《周書.卷五十.列传第四十二》 突厥者，盖匈奴之别种，姓阿史那氏。

In the passage here from the *Zhoushu,* a strong connection between the Tujue, Xiongnu and Ashina clans is established, stating that they are the same people.

If it is true that Xiongnu, Ashina, Tiele and Tujue are all strongly connected to such an extent that they are one and the same people, then there may also be a connection to the Wusun (烏孫) as Zuev (2002) suggests that the Wusun were the Ashina.

《漢書.卷九十五至九十六.漢蘭台令史班固撰》烏孫國大昆弥治赤谷城师古
曰焉孫于酉域诸戎其形最异今之胡人青眼赤须状类獮猴者本其种也。

The *Hanshu* says in the passage above that, among the Rong, they (the Wusun) had the strangest appearance: green eyes, red skin and a face like a kind of (macaque)[3] monkey.

3 獮猴 most likely means "macaque monkey"; the modern characters for this type of monkey are 獼猴.

> 《漢書·卷九十五至九十六.漢蘭台令史班固撰》烏孫國 ... 与匈奴同俗. 國多馬，富人至四五千匹。

In the *Hanshu*, in the passage above, we are also told the Wusun had the same customs as the Xiongnu, and their country had many horses.

> 《漢書·卷九十六下.西域傳》 穹廬為室兮旃為牆，以肉為食兮酪為漿。居常土思兮心內傷，願為黃鵠兮歸故鄉。

In the *Hanshu*, in the above passage, the Wusun are described as living in yurts and eating meat.

Even though Wusun is commonly believed to mean the "decendants of ravens," some scholars suggest that this is not the case. Mair compared "Wusun" with Sanskrit "aśvin" and Lithuanian "ašva," both meaning "mare"; the name therefore meant "the horse people" (Victor H. Mair, personal communication, April 18, 2020). Beckwith (2009, 376) also reconstructs the Chinese term Wusun to the Old Chinese **aświn*, which he compares to the Old Indic *aśvin* "the horsemen."

The comparisons between these various tribes (Xiongnu, Ashina, Tiele, Chile, Gaoche, Huihe, Wusun and Tujue) are important because they seem to be the same people. The Xiongnu may have been one of the earliest or even the earliest of these tribes in China; it is therefore they who may yield some answers as to the ethnicity of these peoples.

> A majority (89%) of the Xiongnu sequences can be classified as belonging to an Asian haplogroup (A, B4b, C, D4, D5 or D5a, or F1b) and nearly 11% belong to European haplogroups (U2, U5a1a and J1). (Keyser-Tracqui, Crubezy and Ludes 2003, 258)

In regard to discovering the exact ethnicity of the Xiongnu, there are some difficulties:

> The results of the craniofacial study of Xiongnu crania from Altai, Buryatia, show that the studied population was not anthropologically homogeneous. Xiongnu sample from

> Altai is characterized by more pronounced Caucasoid features than Xiongnu samples from Buriatia. The Euclidean distance methods applied for comparative analysis of craniofacial data on inhabitants from Xiongnu and subsequent historical period of Asia displays several major clusters. (Tumen 2008, 172)

The Xianbei (鮮卑) and Xiongnu seem to have also been related:

> The studied Xianbei and Xiongnu people from Baikal lake region and Mokhe people from Far East are included into same cluster, showing their common anthropological features. (Tumen 2008, 172)

> In accordance with the conclusion, the studied Xiongnu and Xianbei samples from Baikal and Inner Mongolia, morphologically, belong to the Central Asiatic variant of North Mongoloids. (Tumen 2008, 173)

All these possibly Turkic tribes appear to have an affinity according to classical textual references in that they have the same culture. You will see throughout this paper that there is another group of semi-nomadic peoples linked together: Yuezhi, Qiang and Tocharian. They are similar in that both groups are nomadic to some degree but are two different peoples.[4] One is Indo-European at its base and the other founded on some form of Proto-Turkic. As discussed later in this paper, it appears that the Indo-Europeans were in China before these Turkic tribes. The Indo-European tribes at a later date seem to have been a minority and, after some major defeats combined with the later Turkic expansion, lost their language to a Turkic one.

In regard to the Indo-European-Turkic connection, this paper proposes the following: while the

4 Further evidence to suggest that the Qiang and Yuezhi should be grouped together while the Xiongnu and Wusun should be grouped separately is as follows: **1.**The Yuezhi and Xiongnu fought against each other. **2.**The Yuezhi and Wusun also fought each other. **3.** If Beckwith (2009, 46) is correct, the Qiang were Indo-European. **4.** The Yuezhi and the Qiang are described as having a similar culture.

Turks may have some form of a specific origin point, just as do the Han Chinese, who are the mixed ethnic majority of China and who speak Mandarin (漢語, 國語, 普通話), these Turks were the mixed ethnic majority nomadic group who spoke a type of Turkic language and originally took on much of Indo-European culture with an emphasis on horses and the culture that comes with them.

4. INDO-EUROPEAN MIGRATIONS

These migrations began very early, were swift and quickly covered vast distances. They were not made en masse, nor were they centrally organized. They consisted primarily of separate clans or more likely warrior bands (Beckwith 2009, 30). They brought with them their chariots and horses, their weapons, comitatus and caste systems, reverence for the Sky God and sometimes a medical system. These characteristics are generally consistent across the four specific areas they went into: Greece, the Indus Valley, north-central Anatolia and the Yellow River Valley.

ANCIENT INDO-EUROPEAN MIGRATIONS

There were eight primary Indo-European groups in Europe and six in Asia:

Europe (Mallory 1989, 5)

- Greeks
- Thracians
- Illyrians
- Slavs
- Balts
- Germans
- Italians
- Celts

Asian: (Mallory 1989, 5)

- Hittites
- Phrygians
- Armenians
- Indo-Aryans
- Iranians
- Tocharians

The migrations of the Indo-Europeans began in their homeland in Central Eurasia, specifically in the mixed steppe-forest zone between the southern Ural Mountains, the North Caucasus and the Black Sea. They began around 2000 BCE and appear to have taken place in three distinct phases, making three different groups (Beckwith 2009, 29-34).

Group one migrated at the end of the third millennium to the area of the Anatolian Plateau and the eastern Tarim Basin. They are the ancestors of the Anatolians and Tocharians.

Group two's migration (seventeenth century BCE) established them in parts of Europe, the Near East, India and China. They formed the Indic, Greek, Italic, Germanic and Armenian speakers. It was with this second wave of migration that the Iranians came to dominate all of the Central Eurasian steppe zone. The migrations also lead to the Germanic peoples' living in the temperate zone of Central Europe.

Group three's migration was late in the second millennium BCE and would become the Celtics, Baltics, Slavs, Albanians and the Iranian people who had remained in their homeland in Central Eurasia proper outside the regions inhabited by group two. Group three moved north and westwards away from the Iranians who nevertheless continued to expand and dominate them.

It appears that when these Indo-Europeans went to the new lands, they either worked for the locals as hired mercenaries or simply conquered them. The migratory bands tended to be male and were therefore most likely warrior bands. Evidence points to the fact that they married local women whereby their own language was mixed with the local language and a creole dialect was formed.

The reasons the Indo-Europeans migrated around the world are unclear but seem to be cultural:

> Both Tacitus and Sima Qian not only point out barbarian reluctance to live in permanent settlements, but also give us an image of barbarian freedom in contrast to the crowded layout of Roman cities and the excessive manual labour required of Chinese citizens. Although they write with a tone of superiority when confronted with barbarian simplicity, one senses a latent admiration for the immediate convenience and practicality of the barbarians' unfettered way of life. In the case of the Xiongnu, the contrast presented is even more striking, for Sima Qian not only shows the comparative

ease of barbarian lifestyle but also explicitly points out the misery produced by the empire's conscript labour. (Ford 2010, 10)

The Germani, desirous of open spaces, lived at considerable distance from one another and spread over a large area. Thus, Tacitus refers to their almost excessive freedom as a potential vice, seeing as it takes them so long to gather for the deliberation of business. (Ford 2010, 23)

5. ANCIENT CHINA

NON-CLASSICAL VIEW OF ANCIENT CHINA

Certain Chinese scholars, of whom Ho Ping-ti was the leading exemplar, believed in the "in-to-out model." Ho's theory was that the Yellow River Valley people created technologies and sciences which they spread from within China to surrounding areas and beyond. In his writings there has been an obvious bias possibly based on "nationalistic sentiment" (Chang 1978, 86).

Since China has opened up, however, evidence for the out-to-in model has emerged that is far more convincing. The nomads and Indo-Europeans in particular could be seen as vehicles for cultural exchange across many thousands of miles, connecting the eastern and western parts of the ancient world. The long-distance contacts between societies in the Yellow River regions and those beyond the northern and western frontiers of present-day China go far back in time. For example, the finding of a a large amount of carbonized grain at sites in western Gansu suggests that wheat was domesticated in Western Asia and entered China via its northwest at around the fourth or early third millennium BCE, before reaching the Central Plains at around the second millennium BCE (Shelach-Lavi 2015, 15).

The primary evidence that supports the out-to-in model and its link to the Indo-Europeans is as follows:

Chariots

There was no sign of wheeled conveyances in China until the late Shang Period (1250 BCE): some examples were found in the Yinxu (殷墟) sacrificial pits. On the other hand, chariots have been found in Central Asia (Kazakhstan) as early as 2000–1800 BCE. What links these two finds of chariots is their highly similar style and technology. The general consensus is that this attests to the transmission of a new technology to the Yellow River basin from the west (Shelach-Lavi 2015, 15). The ability to create a chariot does not rest only on the technical skills needed to make it, as the following discussion demonstrates:

> The arrival of chariots to China indeed constitutes a long-distance transfer of a very complex product that involved many challenging aspects (e.g. the construction of light

> yet sturdy wheels and the harnessing of horses so as to channel their power efficaciously) and the synthesis of various industries (foremost among them carpentry, bronze casting and ornamentation). It also entailed the mastery of new and diverse realms of knowledge, like charioteering and horse grooming (including specialised breeding and veterinary knowledge). The manner in which such a sophisticated range of interrelated technologies and expertise was conveyed over thousands of kilometres of rugged terrain is still unclear. (Shelach-Lavi 2015, 16)

It is possible that both chariots and horses entered China through the interaction of the eastward-moving late Afanasievo and early Andronovo cultures. As Stuart Piggot indicated some thirty years ago, it is inconceivable that the use of the horse-drawn chariot entered China as an idea, but that it rather must have arrived there physically, with accompanying experts in the use of the technology, as a fully developed technological package (Didier 2009, 69).

The idea that chariots were not independently created in China has been discussed by various authors:

> Anyang chariot burials thus seem to indicate a substantial interaction with the northern neighbours beginning about 1200 BCE: not an invasion but not a border incident either. The mere capture of enemy chariots and horses would not have brought the skills to use, maintain and reproduce them. (Bagley 1999, 208)

> It is now accepted that the chariot is an intrusive cultural artefact that entered Shang China from the north or north-west without any wheeled vehicle precursors. (Beckwith 2009, 44)

> The Chinese did not have wheeled vehicles before this period. They adopted the chariot from the foreigners who brought the fully formed artefact with them from the northwest. (Beckwith 2009, 401n43)

> The excavation of the royal graves of Anyang brought to light single-axle light chariots with horses in harness and their charioteer, as well as sophisticated bronze objects, which show that northern central China suddenly mastered innovations in metallurgy, horse husbandry, the use of draught animals, wagons and carts in a highly developed form, which undoubtedly accelerated the cultural-technological development of China at that time. Since these technologies appeared in northern and north-western China without any preceding developmental steps, it may be assumed that they were provided by neighbouring steppe peoples, most likely from the sphere of the late Afanasievo and early Andronovo cultures. Interfaces for this cultural transfer may have been the Bronze Age cultures of Xinjiang and Gansu or the steppe peoples of Inner Mongolia. The simultaneous arrival in central China of wheat and barley, horses and sheep, which could not have been domesticated within China due to a lack of wild ancestors, supports the hypothesis of a mediating role for Afanasievo and Andronovo. (Baumer 2012, 122)

> The introduction of the chariot and comitatus burials in China can only be due to the appearance of Central Eurasian people there. (Beckwith 2009, 45)

From the available archaeological evidence, it seems as though the rate and intensity of long-distance contacts between the Chinese and central Asian lands picked up during the latter half of the second millennium BCE (Shelach-Lavi 2015, 15).[5]

Bronzes

There are many bronze items that pre-date the Shang dynasty and come from Xinjiang and Western China. These artifacts tend to be weapons, including curved bronze knives and bronze daggers with leaf-

5 In the Spring-and-Autumn Period (770–453 BCE), chariots were considered the Zhou states' most advanced military technology, and a state's military strength was expressed by the number of battle chariots at its disposal. Interestingly, other types of vehicles, such as chariots and carts for traveling and transporting goods, were apparently modeled after the Shang and Zhou battle chariots (Shelach-Lavi 2015, 24).

shaped and pierced blades, spear-heads and socketed axes. They are sometimes known as the Andronovo artefacts. There are also axes and a knife found from Wanliu in northern Liaoning, which are derived from the northeast (Shelach-Lavi 2015, 16).

During the third millennium BCE bronze-making technology spread north and east across Eurasia as part of the diffusion of this technology from the Near East throughout southwestern, southern and central Asia and into Europe. Bronzes spread to the areas north and west of China proper with subsequent waves of the gradually eastward-extending Yamna or Yamna-displaced peoples. In the forest zones of Siberia north of the steppe one cultural complex in particular, the Siberian Seima-Turbino, seems to have transformed the sheet-metal forging and lost-wax casting metallurgical traditions transferred from the eastern-moving Yamna into a multi-component, multi-valve hollow casting technique that produced the hollows of the socketed axes so prevalent in subsequent East Asian bronze-making practices (Didier 2009, 65).

The Seima-Turbino's hollow-casting technique in particular explains the origins of the later development in the Erlitou, Erligang and Shang civilisations in China of the hollow-casting process by which the great bronze vessels of the early Chinese bronze industry were produced (Didier 2009, 65-66). By 1700 BCE bronze making had been imported into the Yellow River corridor of northwestern China and there, in the Erlitou culture, developed the first large-scale metallurgical industry that employed complex casting techniques (Didier 2009, 67). These technologies and techniques were then diffused through the subsequent Erligang culture, which seems to have served as a bridge between the Erlitou and Shang cultures such that Erligang is often identified as the early Shang. With the Shang (1545–1045 BCE) a truly massive ore-mining and bronze-casting industry developed in China's Yellow River corridor and North Central Plain (Didier 2009, 68).

Sanxingdui Culture

The Sanxingdui is the name for an archaeological site of a highly developed culture in the area of Chengdu plain of Sichuan (1100 BCE). The remarkable artifacts found include elaborate bronze artifacts pointing towards production levels at least on par with the Shang. The bronze items were mainly statues and not vessels, pointing quite clearly to an independent culture. The pits also included gold and bronze

items, jade artifacts, whole elephant tusks, curved ivory objects and over 4,500 cowry shells (Shelach-Lavi 2015, 25).

Celestial Knowledge

Like other early civilizations of Eurasia, the earliest verified organized polity in China whose name is known and that kept written records, the Bronze Age Shang (1545–1045 BCE) took note of its celestial surroundings and accordingly organized its calendar. The Shang did so on the basis of both the sun's and the moon's cyclical movements, in ten-day weekly cycles, or *xun* (旬). This decimal luni-solar calendrical system is of the same sort used in ancient Mesopotamia and Egypt. This fact further strengthens the case for a West-to-East Eurasian transfer during the second millennium BCE (Didier 2009, 145).

The Classical view of ancient China

The Four Regions and Peoples according to the Ancient Chinese Classics

> 《尔雅.释地》东至于泰远，西至于邠國，南至于濮铅，北至于祝栗，謂之四极，觚竹，北户，西王母，日下，謂之四荒。九夷，八狄，七戎，六蛮，謂之四海，岠齐州以南，戴日為丹穴，北戴斗极為空桐，东至日所出為大平，西至日所入為大蒙，大平之人仁，丹穴之人智，大蒙之人信，空桐之人武。

In this passage from the *Erya* we are told of the four seas and their groupings:

- The nine Yi
- The eight Di
- The seven Rong
- The six Man

This gives us five dominant groups, with the fifth being the group describing the other four. The people in the middle, around the Yellow River, could be called the Huaxia.

《春秋左傳正義.卷五十六定公十年.盡十五年》中國有禮儀之大，故稱夏；有服章之美，謂之華。

In this passage we are told that *Hua* (華) referred to their splendid clothing (maybe because they wore silk), and *Xia* (夏) was for the large amount of etiquette and ceremonies these people practiced.

They were not necessarily the first people to settle in the region but were probably one of the first to form a confederation, with common customs and rituals. The Han Chinese (漢族) claim them to be their ancestors.

In the *Liji*, we find the same four names as above, but this time with the area where these groups lived:

《禮記.曲禮下》九州之長入天子之國，曰牧。天子同姓，謂之叔父；異姓，謂之叔舅；於外曰侯，於其國曰君。其在東夷，北狄，西戎，南蠻，雖大，曰子。於內自稱曰不穀，於外自稱曰王老。庶方小侯，入天子之國，曰某人，於外曰子，自稱曰孤。

This passage says that they were:

- (Northern) Beidi (北狄)
- (Eastern) Dongyi (东夷)
- (Southern) Nanman (南蛮)
- (Western) Xirong (西戎)

The Northern Beidi

The Northern Di seemed to have a very primitive society, quite different from the people living amongst the Rong. There is little information about them. What can be gathered is as follows:

《淮南子.原道训》雁門之北，北狄不谷食，贱长贵壯，俗尚气力；人不弛弓，馬不解勒；便之也。

> [In the] north of Yanmen (Wild Goose Gate: Yanman or Yanmen pass may refer to a mountain pass in Shanxi Province) [lived the Beidi], [the] Beidi [did] not eat cereals. [With] contemptuous [observation], [they appeared] old [but with] careful [observation], [they were actually] robust, [their] prevailing customs [was one of] energy [and] strength. [They did] not use bows [and] arrows [and their] horses [did] not use halters.

> 《盐铁論.卷七.崇礼》 夫犀象兕虎，南夷之所多也；騾驴駏驉，北狄之常畜也。

In the *Yantielun* passage above we are told that in the area of the Nanyi there were lots of rhinoceros and tigers. The Beidi people raised donkeys, mules and camels.

The Eastern Dongyi

The Eastern Yi or Dongyi people seem to be those in the Northeast. They were described in the *Liji* as having dishevelled hair and tattooed bodies, and some groups were recorded as eating raw meat (Reed 2000, 7). They had one of the most ancient writing systems ever found in Neolithic China (Liu 2016, 12). It is sometimes said they invented the bow, as their character *yi* 夷 has a bow symbol in it.

> 《说文解字·矢部》古者夷牟初作矢。

In the *Shuowen Jiezi*, the passage above says, the Yi were the first to use the arrow. It is unclear though exactly which foreign Yi is being referred to, though, as Yi refers to both the Dongyi and the "foreign barbarians" in general.

> 《後漢書.列傳.東夷列傳》時遼東太守祭肜威讋北方，聲行海表，於是濊，貊，倭，韓萬里朝獻，故章，和已後，使聘流通。

In this passage from the *Hou Hanshu*, written about 445 AD, we can see the usage of the

character *wa*, 倭 with the Dongyi, which was the ancient name for Japan. We also see the character 韓; the name for Korea is 韓國. It seems as though the Dongyi may have been loosely associated with Korea and Japan at later dates.

> 《論語.子罕》子欲居九夷。 或曰：陋，如之何。 子曰：君子居之，何陋之有。

In the *Lunyu*, chapter 9, verse 14, above, Confucius spoke about how he wanted to live with the Nine Yi (Dongyi).

There is not much information on the Eastern Yi. Some scholars such as Sarah Nelson (1994, 1) mention the Hongshan culture of Liaoning and Inner Mongolia two thousand years before the Shang. This culture is in the area that may roughly be described as that of the Eastern Yi. Their economy was mixed herding and agriculture. If one of the Dongyi tribes was from the Hongshan culture then they were clearly not Chinese because their nude female figurines and Goddess Temples point towards non-Chinese type traits (Nelson 1994, 1–2). They did have some characteristics though that we now see as predominantly Chinese, such as dragon iconography (Nelson 1994, 1). Commonly found in their Neolithic sites were black and red painted pottery (Nelson 1994, 2) and jade carvings (Nelson 1994, 3). Their staple was millet, and they mainly ate pig (Nelson 1994, 4).

Something to note is that Zhou Wen Wang was born amongst the Dongyi:

> 《新語.術事》 文王生於東夷。

> Wen Wang [was] born in Dongyi.

The Southern Nanman

The Southern Man lived in south China. There is little information about them. The Baiyue (百越), however, were the people who lived in south and southwest China and northern Vietnam in the Qin-Han era (Meacham 1996, 93). The area from Jiangsu to Yunnan is considered to have been their homeland in the Zhou and Han dynasties (Meacham 1996, 93). They do indeed have a connection to

Vietnam, as some of the Zhuang/Nung, who stem from the southern branch of the Yue (越) people, live not only in Guangxi but also in Viet Bac, the northern region of Vietnam (Barlow 1997, 2).

The southern Chinese may owe a large part of their history and a large part of their genetic pool to the Baiyue. But discovering exactly who these people were is not easy:

> The attempt to link the archeologically defined "Yue culture," which occupied southern China during the Neolithic through Han periods, with the Tai-speaking groups currently living in southwestern China today is far from conclusive. First, it is questionable whether or not we can assume that the Yue people cited in the historical sources are in fact one ethnic group. Second, the methodology applied by Chinese archaeologists and ethnographers to this issue raises many problems. (Peters 1990, 19)

They appear to have lived on stilt houses and were very different to the Northern Chinese:

> Archaeological evidence excavated at Hemudu, a site in northern Zhejiang Province south of Shanghai, suggests that were we to step back in time to the fifth millennium BCE in southern China, we would find people cultivating wet rice, raising water buffalo and living in houses perched high on stilt posts. Culturally, these people differed radically from the millet growing pit dwellers found in the Yellow River Valley region; their discovery has raised new and important questions regarding the development of culture and civilization in southern China. (Peters 1990, 1)

Sima Qian describes them in the *Shiji* as having short hair and tattooed bodies; they were clothed in plant fibers and lived in villages, presenting a sharp contrast to the northerners who had long hair bound up with a hairpin, had no tattoos, were clothed in luxurious silk and lived in urban centers (Peters 1990, 2).

Henry (2007, 3) explains how these two neighbors were different in nearly every way; language, music, folklore, religion, diet, writing script (in the south they used serpentine characters), temperament, weapons, boat construction, etc.

> How different, then, were the people of Yue from the early Chinese? Putting together all that is said about them in Warring States and Han texts and combining this with archaeology, we can see that they differed from their Sinitic neighbours in language, music, folklore, religion, diet, village layout, boat construction, weapons, terrain preferences (mountain tops), domestic architecture (stilt-houses), coiffure (short), personal adornment (tattooing), funerary behaviour (more following in death, not to speak of outlandish-looking tombs), clothing (bare-foot, short sleeves, short trouser legs), script (serpentine characters) military practices (deep-throated copper war drums, riverine raids, guerrilla tactics) and temperament (fiery, audacious, risk-taking). (Henry 2007, 3)

Historically there has been a belief that the Han Chinese in the north have nearly always viewed themselves as superior to all nations and may have showed their distaste for other nations by making tattoos taboo.

> There does not ever seem to have been a widespread acceptance of tattoo of any type by the "mainstream" society; this was inevitable, partly due to the early and long-lasting association of body marking with peoples perceived as barbaric, or with punishment and the inevitable subsequent ostracism from the society of law-abiding people. (Reed 2000, 3)

In early Chinese sources, tattoos were used as the single defining characteristic of a people culturally different from the majority population: tattoo as punishment; tattoo of slaves; tattoo as facial adornment; tattoo in the military; figurative and textual tattoo (Reed 2000, 3). One such example is described below.

> In the section on illicit sexual relationships we read that, in general, on the first offense the adulterous couple will be separated, but if they are "caught in the act" a second time,

> the man (it is not clear if the woman is tattooed as well) will be tattooed on the face with the words 'committed licentious acts two times' and banished. (Reed 2000, 17)

The *yue* (越) character in Baiyue (百越) is the main character for Vietnam, 越南; the second character means south. The origins of the Yue are speculative, but it may be that they came from Southeast Asia. Their distribution covers the modern-day provinces of Zhejiang, Fujian, Guangdong, Jiangxi, Hunan, Guangxi, Guizhou and Yunnan (Peters 1990, 3). Meacham (1996, 93) explains that the character for *yue* may have come from a pottery mark of unknown meaning in the Dawenkou culture of Shandong 2000 BCE—meaning that they didn't come from Southeast Asia. He further explains that it may have been an emblem or personal name and that the term *yue* occurred quite frequently in the oracle bone writings of the late Shang dynasty, 1200 BCE.

It is important to note that among the hundreds of tribes living in the south there were also many distinct from these tattooed, stilt-living peoples. Within Sichuan was the Shu (蜀) state and its people. It was among these people that the Sanxingdui (三星堆) civilization emerged, along with their unique bronze works.

> The people who inhabited the Chengdu Plain from around 2000 BCE to the demise of their culture in the ninth century BCE adored mountains and birds and revered the sun. They believed in an omniscient deity and in bird-man hybrid beings. They made offerings to the deities of or in the mountains. Artisans recreated some of these activities in bronze and as decoration on jade. They cast in bronze representations of altars, sacred birds, mountains and trees. Among these elements of the natural world, they placed themselves, priests, laymen and women; members of a religious segment of the community. They tattooed themselves and embellished their garments with sacred images. (Winkle 2005, 2)

The Western Xirong

> 《史記.列傳.匈奴列傳.卷一》秦穆公得由余，西戎八國服於秦，故自隴以西有綿諸，緄戎，翟，獂之戎，岐，梁山，涇，漆之北有義渠，大荔，烏氏，朐衍之戎。

The passage above, from the *Shiji*, tells us there were eight countries in Western Rong. One of these names correlates to a modern-day area in Shaanxi (大荔县). Below are some descriptions of the Rong in ancient books:

> 《風俗通義.佚文》戎者，凶也。

> The Rong are a bad omen.

> 《說文解字. 卷十二.戈部》戎：戎， 兵也。

> The Rong are (the same as) soldiers.

Even Laozi indirectly spoke about the Rong:

> 《道德經.第四十六章》天下有道，却走馬以粪；天下无道，戎馬生于郊。

> [When] all under [the] sky has [the] Dao, horses are retired [and used for their] dung, [when] all under [the] sky [does] not [have the] Dao, Rong horses [give] birth [in the] outskirts.

The Western Rong seem to incorporate all Indo-Europeans (which is one grouping of people) and possibly all Turkic nomadic confederations (which is another grouping). Their cultures were similar, as seen below:

> 《漢書.卷九十五至九十六.漢蘭台令史班固撰》大月氏本行國也随畜稷徙与匈奴同俗。

In this passage from the *Hanshu* we are told that the Da Yuezhi and Xiongnu have a similar culture in that they follow and raise livestock, grow millet and move from one place to another.

> 《漢書.卷九十五至九十六.漢蘭臺令史班固撰》烏孫國大昆弥治赤谷城师古曰焉孫于酉域诸戎其形最異今之胡人青眼赤须状类弥猴者本其種也。

In the above from the *Hanshu*, the Wusun are described as being part of the Rong, and they are the strangest looking among them. These lines show that the Indo-Europeans and the Turkic confederations were both included in the peoples of the Rong.

Xiongnu

As mentioned in the Turkic-Indo-European connection section, various tribes were named that made up the various Turkic confederations. The most important, as they had the most impact on China, were the Xiongnu. Before and after the unification of China in 221 BCE the word "*hu*" (胡) referred exclusively to the Xiongnu, but during the Han dynasty usage broadened to include the Xiongnu and other peoples of the north and west. In the Six dynasties, Sui (隋) and Tang (唐) dynasties the term "*hu*" came to refer to the people of deep eye-sockets and high noses who lived in the far western regions of modern China (Wu 2002, 1). This word "*hu*" most likely represents the guttural sound of the Xiongnu language, for when you pronounce it in Mandarin, you need to use your throat.

Ford (2010) compares the writings of Roman Tacitus on the Germani and the writings of Sima Qian on the Xiongnu. He explains that when these two famous scholars took the time to learn about their barbarian neighbors, they couldn't help but find they harbored both abhorrence and admiration

for them, and they realized that civilization comes at price (Ford 2010, 2). We lose an essential part of ourselves as we give up intimate ties to the natural world. He continues on in his paper to show how both Tacitus and Sima Qian explain that the Germani and Xiongnu regarded their freedom to roam as paramount, how both cultures were obsessed with warfare (Ford 2010, 14), that they both used spoken language for agreements and were fierce warriors by nature (Ford 2010, 11).

In Xiongnu customs it was the young and strong who ate the best foods while elders ate the left overs (Ford 2010, 14). The Germani custom was to compete with each other in battle to see who was braver (Ford 2010, 15). Both Sima Qian and Tacitus commented on the laziness of these people in times of peace (Ford 2010, 18-19). Sima Qian contrasted barbarian freedom with the Chinese citizens who had government labor imposed on them (Ford 2010, 20). The foods of both the Germani and Xiongnu were plain and simple: meat and milk (Ford 2010, 21). Both were extremely fond of alcohol and their laws were very strict as were their codes; there was probably little corruption (Ford 2010, 21-25).

The Indo-European Rong

- Qiang
- Yuezhi
- Tocharians

Qiang（羌）

In modern times the name Qiang (羌) refers specifically to an ethnic group in China. Their language belongs to the Qiangic branch of the Tibeto-Burman family of Sino-Tibetan stock (LaPolla and Huang 2003, 2). The ancient name of Qiang however was a name given to various groups of people at different periods in ancient China. At one point the Qiang were known for being enemies of the Shang (商) and skilled chariot warriors. These Qiang are different from modern ones (Beckwith 2009, 46).

Who exactly were the Qiang people? Beckwith (2009, 46) gives a summary:

> The Qiang, the main enemies of the Shang … are generally accepted to have been a non-Chinese people … evidently skilled chariot warriors. It has been shown that the Tibeto-Burman word for 'horse' though ultimately Indo-European in origin was borrowed from

> Old Chinese … It is probable that the early Qiang were not Tibeto-Burman speakers but Indo-Europeans.

The Qiang were the main foreign enemies of the Shang (Beckwith 2009, 375). About half of all the humans sacrificed as listed on oracle bone inscriptions were Qiang and they were the only non-Shang people mentioned specifically as sacrificial victims in the Shang rituals (Shelach-Lavi 1996, 13). The Qiang were probably horse breeders as various words describing the Qiang also included the Chinese characters for horse (Loewe and Shaughnessy 1999, 908). The Zhou and the Qiang had an especially close relationship:

> There is no doubt that the Qiang were a nomadic people. The Qiang had a close relationship with the Zhou people. The mother of Houji, the forefather of the Zhou, was named Jiang Yuan 姜原. She was a woman of the Qiang people, as is shown by her family name, Jiang 姜, which was usually taken as a family name by the Qiang people. The wife of Duke Danfu was a woman from Qiang, too. The Zhou and the Qiang people married each other for generations. The nobles of the Zhou people married women with the family name 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. (Zhou 2006, 28)

> 《說文解字.卷五.羊部》羌：西戎牧羊人也。

In this passage from the *Shuowen Jiezi*, we are told the following: Qiang: [are from the] Western Rong [are the] people [who] tend sheep.

Beckwith (2009, 375) explains that the word "Qiang" has an Indo-European etymology and that the word, "**klānk*" from Tocharian means "to ride or go by wagon," hinting that they were Indo-Europeans. This makes sense as there is no archaeological data from the area where the Qiang lived to

suggest any form of sheep raising was taking place. Pastoral nomadism was not developed in China or Central Asia until the beginning of the first millennium BCE (Shelach-Lavi 1996, 10).

《魏略.卷二十二》西戎传（羌，货虏，葱茈羌，白馬，黄牛羌，西域南道鄯善四属國，于寘四属國，大月氏四属國，临儿國，車离國，盘越國，中道焉耆三属國，龟兹三属國，疏勒十二属國，迤西大宛安息条支乌弋四國，大秦國，北新道車师后部五属國，烏孫，康居，馬伊别國，柳國，岩國，奄蔡，呼得，坚昆，丁令，浑窳，屈射，丁令，隔昆，新黎　馬胫，短人）。

In the *Weilüe* by Yu Huan (魚豢), quoted above, we are told of some of the tribes living in the Western Rong: Qiang, Zilu (these words have the connotation of slaves), Congzi Qiang, White Horse and Yellow Ox Qiang.

《史記.列傳.匈奴列傳》右方王將居西方，直上郡以西，接月氏，氐，羌。

In the *Shiji,* we are told of certain tribes living in the west next to each other; Yuezhi, Di and Qiang.

《新語.術事》大禹出於西羌。

In the *Xinyu*, we read that Great Yu [was] born in Western Qiang.

Yuezhi (月氏) (*Moon Clan*)

The original home of the Yuezhi or Yuzhi was possibly on the borders of Gansu or farther to the northwest (Mallory and Mair 2000, 282). In Han dynasty sources, the Yuezhi were described as having reddish-white skin and being skilled in horse riding and shooting arrows (Romgard 2008, 18).

The Yuezhi maintained a long trading relationship with agricultural China, which may explain their role on the Silk Roads in later periods. They were known to the Chinese as suppliers of jade in the

first millennium BCE. By the third century BCE, when the Xiongnu became a real threat to the border of the Chinese empire, the Yuezhi were better known as suppliers of horses (Liu 2001, 272).

《後漢書.列傳.西羌传》月氏 ... 被服饮食言语略与羌同。

In the *Houhan Shu,* it says the Yuezhi's clothes, food, drink and language were similar to those of the Qiang.

《逸周書.卷七.王会解》禺氐。

《穆天子传.卷一》禺知。

《管子.國蓄篇》玉起于禺氏。

In the passages above, the Yuezhi seem to have been given three different names: Yudi (禺氐), Yuzhi (禺知) and Yuzhi (禺氏) and were connected to jade.

It is commonly believed that, after a major defeat by the Xiongnu in the second century BCE, the Yuezhi split into two groups: the Greater (Da) Yuezhi (大月氏) and Lesser (Xiao) Yuezhi (小月氏). The Xiao Yuezhi went south to defeat the Wusun. The Da Yuezhi are believed to have a strong connection to the Kushan Empire (Beckwith 2009, 84-85).

The finality of this defeat by the Xiongnu was mentioned in the *Shiji*:

《史記.列傳.大宛列傳》大宛之跡，見自張騫。張騫，漢中人。建元中為郎。是時天子問匈奴降者，皆言匈奴破月氏王，以其頭為飲器，月氏遁逃而常怨仇匈奴，無與共擊之。

In the above lines we are told that head of the Yuezhi king was made into a utensil (most likely a drinking cup).

THE TOCHARIAN AND YUEZHI DEBATE: WERE THEY THE SAME PEOPLE OR DIFFERENT?

There are those who argue that they were different:

> The Xiongnu tombs in the East Tianshan-Barkol grasslands, dating to 200±70 B.C., were identified with the use of cultural factor analysis. Cultural elements of human sacrifices in these tombs are related closely to the archaeological culture in the same region in an earlier age. On the basis of both the analysis of written records from ancient China and the results of archaeological excavations in the last decade, the Yuegongtai-Xiheigou (岳公台-西黑沟) remains of a Yuezhi group. When compared to all the other archaeological cultures in Xinjiang in this period, a distinctly different origin was observed for the Yuegongtai-Xiheigou group as opposed to those cultures related to the Tocharians, including the Xiaohe (小河) culture and the Charwighul culture. Ancient DNA data portrayed a great diffusion of populations of different genetic makeup into this area of Xinjiang during the prehistoric period. Conclusion: In this study, we used archaeological discoveries of the last decade to propose a separate origin for the Tocharians and the Yuezhi group. Further re-evaluation is needed to understand the interaction and fusion of the Tocharians and Yuezhi in the following historical age. (Wei, Li and Xu 2013, 277-278)

There are those who argue that they were the same:

Beckwith (2009, 380-383) explains that the identity of the Tokharoi and the Yuezhi is quite certain and has been for at least half a century, though this has not become widely known outside the tiny number of philologists who work on early Central Eurasian and early Chinese history and linguistics. He goes on to explain that we know they are the same based on two key points:

- The Tokharoi-Tokhwar-Yuezhi-Tukhār of Bactria and the Tukhār-Toχar-Toγar-Yuezhi of the Tarim Basin are identified as one and the same people in every source that mentions them.
- In one of the high archaic border dialects of Old Chinese in antiquity the word "moon" 月 would have been pronounced **tokwar* or **togwar*. The 月 part of 月氏 (Yuezhi) is therefore pronounced very similarly to the Bactrian name Τοχοαρ (Toχwar – Tuχwar) and the medieval name Toχar - Tuχār.

Mallory (2015, 12-16) gives an opinion in addition to the above two and says that the evidence is inconclusive:

> There are so many minutiae involved here regarding both historical and linguistic details that it often obscures rather than demonstrates that such evidence can actually provide information that we can regard as archaeologically useful. (Mallory 2015, 12)

He goes on to collect all of the arguments that he has encountered into a series of nine critical points that affect any use of the Yuezhi-Tocharian equation in resolving the problem of Tocharian origins and comes up with the following conclusion:

> In short, I doubt that the analysis of potential ethnonyms or tribal names, no matter how ingenious, can actually lead us to recovering archaeological proxies for the linguistic ancestors of the Tocharians. (Mallory 2015, 16)

To further complicate matters, we have the Tarim dried corpses that were discovered in the Tarim Basin. Building on analyses of both Y-chromosomal and mitochondrial DNA (mtDNA), the following conclusion has been drawn:

> Mitochondrial DNA analysis showed that the Xiaohe people carried both the East Eurasian haplogroup (C) and the West Eurasian haplogroups (H and K), whereas Y chromosomal DNA analysis revealed only the West Eurasian haplogroup R1a1a in the male individuals. Our results demonstrated that the Xiaohe people were an admixture from populations originating from both the West and the East, implying that the Tarim Basin had been occupied by an admixed population since the early Bronze Age. To our knowledge, this is the earliest genetic evidence of an admixed population settled in the Tarim Basin. (Li, et al. 2010, 1)

With this in mind the automatic assumption would be that these dried corpses are those of the Tocharians and/or the Yuezhi. Mallory (2015, 46), though, points out that no such assumption can be made:

> Many of the inadequate solutions to the problem of Tocharian origins probably stem from a tendency to take unacceptable shortcuts in developing arguments (e.g., Tocharians are "Westerners," the Tarim mummies are "Westerners," therefore, the Tarim mummies must be Tocharians).

In conclusion, all that can be said in regard to the Tocharians, the Yuezhi and the dried corpses of the Tarim Basin is that the connection among them is still being debated among scholars.

Further scientific evidence for Indo-Europeans in China

China was just as much a melting pot of cultures in ancient times as it is today. Graves found in Anyang (capital of the Shang dynasty) contained chariots, metal knives, axes of northern provenance and bronze mirrors of western provenance (Hayes 2004, 1). The following evidence is cited by Hayes:

Three distinctive groups of Caucasoid people have been found in China (Hayes 2004, 1):

- Afanasevo/Tocharian
- Pamir Ferghana
- Indo-Afghan

Anyang Sacrificial Pits (Hayes 2004, 2–6)

Five pits:

- 30 victims: Classic Mongoloids (from southern China)
- 34 victims: Oceanic Negroids (Austro-Asiatic language speakers)
- 2 victims: Caucasoid (Proto-European)
- 50 victims: Eskimoid (similar to Pamir-Fergana)
- 38 victims: Unknown (crania that are notably smaller, possibly Indo-Afghan)

> There are twelve major archaeological sites in Xinjiang.
>
> In the majority of sites, mummies and human skeletons of Caucasians have been found. At some locations, people of exclusively European or Asian origin were found but in others Caucasian and Mongoloid persons were buried together. (Romgard 2008, 18)

Xinjiang has been the main source of discussion when it comes to Indo-Europeans in China as not only was this the home of the Tocharians, but also DNA and cranial studies have scientifically proven an Indo-European presence.

6. THE INDO-EUROPEAN-ZHOU CONNECTION

The previous section demonstrates that Indo-Europeans were present in China and that they lived in the areas of Xinjiang, Gansu, Ningxia and even parts of Shaanxi. Before providing evidence for the Indo-European-Zhou connection, it is important to discuss the ways in which the Shang and Zhou were different.

The Shang worshipped a supreme ancestor deity (上帝), while the Zhou believed in a Sky God (天). The Shang used a calendar in which the month was divided into three ten-day weeks. The Zhou used lunar months divided into four terms based on the phases of the moon, each roughly seven days in length (Shaughnessy 1989, 6n13). The Shang ran their government differently from the Zhou, who seemed to have a governmental structure much more similar to the one that would eventually be used in Europe.

The Shang did have some Indo-European type characteristics in that they were very war-like and used chariots. There is little evidence that points to the Shang being foreigners, and for this reason we have to assume they were indigenous to the Yellow River Valley (see discussion below of the *taotie* and Liangzhu culture).

There are scholars such as Scarre and Fagan (2008, 193) who portray a type of lineal succession: "considerable continuity in many aspects of Shang and Zhou culture." One of the lineal continuation theories comes from the idea that Zhou ritual bronze vessels followed the Shang style. It was also said that the structure of the early Zhou state was similar to that of Shang. The arguments that form the basis of the succession theory are weak, and deeper analysis has placed them in doubt.

The Zhou used the bronze vessels in a different way to Shang. The patterns used on the bronze vessels also changed. In the Shang and also early western Zhou bronzes, the single most characteristic decorative motive was the *taotie* (饕餮), a face or mask of a mythical creature. In the latter half of the Western Zhou period and early half of the Eastern Zhou period, the *qiequ* (竊曲紋) and *panchi* (蟠螭紋), which are patterns of interlocking serpents in pairs or groups, became dominant.

With regard to Zhou and Shang life, the importance of bronzes should never be underestimated. Changes in motifs should probably be regarded as especially significant, as motifs also represent culture.

> The *ding* 鼎 is the most important vessel in Chinese tradition and history. Since the origin of Chinese civilization, the *ding* 鼎 has been considered the symbol par excellence of the legitimacy of supreme royal power. Thus, the ability to produce or obtain a *ding* 鼎 and to continue to possess a *ding* 鼎 was considered a concrete sign of heaven-bestowed legitimacy and continuing heavenly protection and favour. Confirmation of this can be found in the classical books and especially the *Zhouli* 周禮 (*The Rites of Zhou*, written during the Spring and Autumn 春秋 period (circa 770–476 BCE) and the *Zuozhuan* 左傳 (variously translated as *Zuo's Annals of the Spring and Autumn*, *The Chronicles of Zuo*, etc., written in the fifth century BCE by Zuo Qiuming 左丘明). During the Zhou 周 dynasty, *ding* 鼎 vessels were always placed in uneven numbers in a tomb, with a set of nine *ding* 鼎 reserved for the king or emperor. (Deydier 2015 , 24)

> We have seen that from earliest times, bronze vessels and especially bronze tripod *ding* 鼎 were regarded as sacred vessels, tangible symbols of heaven-bestowed royal power and the supreme right of their royal possessor to worship heaven, the spirits and the royal and clan ancestors on the nation's behalf. According to legend, Yu 禹 of Xia 夏 cast 9 *ding* 九鼎, which symbolized the mandate to rule which heaven bestowed upon him and his dynastic successors. Ancient Chinese chronicles record that when the Xia 夏 became morally corrupt and lost heaven's favour, these 9 *ding* 九鼎 were taken by the conquering Shang 商. Several hundreds of years later, when the Shang 商, in turn, showed themselves lacking in virtue or "*de*" 德, the chronicles say, these 9 *ding* 九鼎 were taken by the royal house of Zhou 周, with whom they remained until they were carried off by the First Emperor, Qin Shi Huang 秦始皇 around 221 BCE. (Deydier 2015 , 107)

Motifs have played an important role in Chinese culture throughout its history, and even to this day they are still used, though in a different way. In the early dynasties, there was a focus on worship of the sky, the spirits and the ancestors, as well as on divination, to predict the auspiciousness or

inauspiciousness of planned activities. Decorative patterns on bronze ritual vessels were believed to have been instilled with the power to offset inauspicious forces, whether of the spirit world or of nature. They not only facilitate the worshipping ruler's contact with the spirit world, but also, when used properly in the worship of the sky, the spirits and the ancestors, to endow the ruler with power to overcome and control evil and harmful elements and promote auspiciousness (Didier 2009, 108). Important motifs included the *taotie*, dragon, cicada, owl, snake, elephant, rhinoceros, silk worm, turtle, fish, phoenix (神鳥鳳凰紋), deer, water buffalo, sheep/goat/ram motif, tiger, horse, rabbit, thunder, *jiongwen* (冏紋), *qiequ*, *chonghuan* (重環紋), *boquwen* (波曲紋), coiling snake, coiling hornless dragon and feather (Deydier 2015, 103–162).

What can be learned from these with regard to bronze vessels?

Strange motifs quite similar to the *taotie* can be seen on the Neolithic Liangzhu culture (circa 3400– 2250 BCE) *cong* (琮) and *yue* (鉞) axe jades from the Yangzi River Delta, with its center in present-day Hangzhou (Deydier 2015, 116).

The Zhou bronze vessels differ from the Shang in that some shapes were no longer produced (觚) (Deydier 2015, 41), while others appeared (盨) that had not previously been in existence (Deydier 2015, 77), and certain ones became extremely popular that had not previously been known (鼎) (Deydier 2015, 27). More important is the change in motifs as they represent cultural change. During the Western Zhou dynasty (circa twelfth-eleventh centuries – 771 BCE), bird motifs became far more prominent (Deydier 2015, 140). The "Waves and Curves" *Boquwen* (波曲紋) or "Bands of Links" *Huandaiwen* Motif (環帶紋) was very popular as well (Deydier 2015, 158). The most crucial change though is with the *taotie*, which was such an important and prominent motif in Shang. With the ascension of the Zhou dynasty, the *taotie* mask gradually became less important as a motif on ritual bronzes and gradually disappeared as a major decorative motif (Deydier 2015, 118).

In regard to oracle bones, the Zhou changed their use so that they came to be supplemented with a new Zhou practice of divination by hexagrams. Keightley (1994, 78-79) explains how the oracle bones were ascribed a less important meaning and the subjects of oracle bone divination were limited to topics such as the ritual cycle and royal hunts. Instead, the Zhou increasingly used divination to reflect on the nature of life in general, where the Shang had focused on such topics as harvest, sickness

and rain. These changes in divination practices reveal that the Zhou's approach to the world was radically different from that of the Shang.

EVIDENCE FOR THE ZHOU-INDO-EUROPEAN CONNECTION

The aim of this section of the paper is to convey the Zhou-Indo-European connection. It is important to mention that other scholars have had similar ideas.

> Unlike the Yangshao and Hemudu people who came from Southern China, the Yellow Emperor nation came from the 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 Yellow Emperor's people gradually developed a splendid new civilisation 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 Yellow Emperor nation was a branch of the archaic Indo-European people is one of the most remarkable facts thus far known to human history. A large number of Indo-European words in Old Chinese language clearly attest to this fact. The relics left by the Yellow Emperor's people are related to the Longshan Culture in the archaeological chronicle and the civilisation of the Xia, Shang, Zhou and Qin dynasties were its successors. (Zhou 2006, 18)

As was demonstrated earlier in this paper, Indo-Europeans were present in Western China long ago. Three specific pieces of concrete evidence are especially important:

- Tarim dried corpses with R1a1a Y-Chromosome: Indo-European DNA (Li, et al. 2010)
- Indo-European skulls found in the Shang sacrificial pits of Anyang (Hayes 2004, 2–6)
- The physical descriptions of Indo-Europeans in ancient texts (Romgard 2008, 18).

There are nine key points of evidence for the Zhou-Indo-European connection:

1. Discrepancy between archaeological discoveries and ancient documented records in terms of the beginning of agriculture

The Yellow River Valley together with the Yangzi River were among the earliest areas in the world to host agricultural societies. But there is a large discrepancy between archaeological discoveries and ancient records. The areas of the earliest agricultural confederations can be divided into two zones: the middle reaches of the Yellow River and the middle and lower reaches of the Yangzi River (Zhou 2006, 1).

Neolithic cultures existed along the upper, middle and lower reaches of the Yellow River and middle areas of the Yangzi River. The Longshan and the Yangshao culture were two of the most important. The current consensus, based on archaeological and linguistic evidence, is that rice was first domesticated in the Yangzi River basin. This was supported by a genetic study in 2011 that showed all forms of Asian rice, both *indica* and *japonica,* sprang from a single domestication event that occurred 8,200 to 13,500 years ago in China from the wild rice *O. rufipogon* (Molina, et al. 2011, 8351).

In the north they grew millet and in the south rice:

> Among current views are that early agricultural activities practiced by seasonally mobile cultivators focused on millets in northern China were well established along the Yellow River and Inner Mongolia by ~8,000 (cal) B.P. and domestication may have even begun 2,000 years earlier. (Larson, et al. 2010, 7686)

> In southern China, available evidence can be interpreted to suggest that it was sedentary hunter-gatherers who first began cultivating rice along the Yangtze about 9,000–8,000 B.P., a process that culminated in the dependence upon domesticated rice agriculture by ~ 6,000 B.P. (Larson, et al. 2010, 7686)

According to some archaeological evidence, animal domestication centered on pigs, even though deer was still the meat most prevalently eaten.

> Although dogs were likely the earliest domesticated animal in these regions, available zooarchaeological evidence has been interpreted to indicate that domestic pigs were

> prevalent in both northern and southern China by at least 8,000 B.P. In both regions, however, pigs make up a small percentage of the earliest mammal bone assemblages that are instead dominated by remains of hunted deer. (Larson, et al. 2010, 7686)

The Chinese character for house is a pig underneath a roof "*jia*" 家. In the north it is generally accepted that the people were northern Mongoloid, a group that includes the Eskimos of Alaska, Tungus of Manchuria and Mongoloids of Lake Baikal. The people of the south were Southern Mongoloid. All the evidence points to the fact that a mature agricultural civilization existed in the Yellow River Valley in the period 5000–4000 BCE (Zhou 2006, 4-5).

There are four periods of development for Chinese prehistoric rice cultivation (Zhou 2006, 5-7):

- **The Origin:** 10,000 BCE, at two sites: Xianren Cave in Wannian County, Jiangxi Province, and Yuchan Cliff in Dao County, Hunan Province. The area is part of the Yangzi River delta, with a climate in the subtropical zone of southern China. They are geographically in the center of southern China, south of Qinling and the Huai River.
- **The Rise:** 7000– 5000 BCE, at three sites: western Hubei Province, central and eastern plains in Henan province, central basin of Zhejiang Province.
- **Developing Period:** 5000–3000 BCE: The primary rice-cultivating culture had been extended to the middle and lower reaches of the Yangzi River, the deltas of the Ganjiang River, the Minjiang River, the Zhujiang River and part of the area of the middle and lower reaches of the Yellow River.
- **Developed Period:** 3000–2000 BCE: The most abundant relics of rice cultivation were discovered in the Liangzhu culture, the Qujialing culture, the Shijiahe culture and the Fanchengdui culture in the middle and lower reaches of the Yangzi River. Rice and millet were both planted in the zone between the Yellow River and the Huai River. The most advanced was the Liangzhu culture.

The fact that agriculture has long been established around both the Yellow and Yangzi rivers is extremely important because we hear no mention of any agriculture in China's myths and legends up until the time of Shennong, the Flame Emperor, and then the Millet King, Houji (后稷). According to

the Chinese classics it is with Houji that agriculture in the Yellow River Valley became truly developed. Houji was credited with introducing millet to humanity in the Xia dynasty (2070–1600 BCE). Here we have the so-called Millet King introducing millet at around 2000 BCE when archaeological evidence tells us millet had been developing since 8000 BCE.

> 《孟子.滕文公上》禹疏九河，瀹濟漯，而注諸海；決汝漢，排淮泗，而注之江，然後中國可得而食也。當是時也，禹八年於外，三過其門而不入，雖欲耕，得乎？后稷教民稼穡。樹藝五穀，五穀熟而民人育。人之有道也，飽食，煖衣，逸居而無教，則近於禽獸。
>
> When Yu conquered the floods, it became possible for the people of the middle plain to cultivate the ground and attain food for themselves. The Minister of Agriculture—the Millet King—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. (Zhou 2006, 10)

How is it that there is such a great discrepancy between archaeology findings and history books? Was it that only this area of the Yellow River received agriculture much later? Or is it that the myths, legends, stories and history we read are from a different people?

Throughout the older classics there is lots of praise and admiration for Houji, to such an extent that he was revered among the Zhou people. It is also clear that much of this admiration came from the new society that developed—a society in which people had social duty and proper order.

> 《詩經.頌.周頌.清廟之什.思文》思文后稷，克配彼天，立我烝民，莫匪爾極。貽我來牟，帝命率育。無此疆爾界，陳常于時夏。
>
> Accomplished Millet King, you proved yourself the correlate of the sky, you gave grain-food to our multitudes, the immense gift of your goodness. You conferred on us 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. (Zhou 2006, 14)

Why the sudden praise? Were the times before the development of Xia without social order—the times of Shennong, Yellow Emperor and the Flame Emperor? Or did social order mean these nomads were settling down for the first time, becoming civilized, moving away from the nomadic life, where there needed to be social duty and proper order as people lived in close proximity and relied on one another.

《史記.本紀.周本紀》周后稷，名棄。其母有邰氏女，曰姜原。姜原為帝嚳元妃。姜原出野，見巨人跡，心忻然說，欲踐之，踐之而身動如孕者。居期而生子，以為不祥，棄之隘巷，馬牛過者皆辟不踐；徙置之林中，適會山林多人，遷之；而棄渠中冰上，飛鳥以其翼覆薦之。姜原以為神，遂收養長之。初欲棄之，因名曰棄。棄為兒時，屹如巨人之志。其游戲，好種樹麻，菽，麻、菽美。及為成人，遂好耕農，相地之宜，宜穀者稼穡焉，民皆法則之。帝堯聞之，舉棄為農師，天下得其利，有功。帝舜曰：「棄，黎民始饑，爾后稷播時百穀。」封棄於邰，號曰后稷，別姓姬氏。后稷之興，在陶唐，虞，夏之際，皆有令德。

The Houji (后稷) (the Lord of the Agriculture or Millet King) 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 (帝嚳). 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 modelled themselves on him. When Emperor Yao heard of this, he brought Qi into service as the Master of Agriculture. The world benefited 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 Houji and distinguished him with the cognomen Ji 姬. The Houji'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. (Zhou 2006, 16-17)

In the story above we have a child who will become the Millet King (of agriculture). He was initially disregarded by his mother, who first abandoned him in a narrow alley and later threw him into a forest, but he did not die and became accepted. Is it possible that in this story there is the record of a struggle among the people to accept an agricultural life as opposed to a nomadic one?

> Compared with Xia and Shang, Zhou had the most developed farming civilisation. 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 BCE), some of them keep their nomadic way of life alive; at the period of the Spring and Autumn (720–450 BCE), the descendants of Zhou in nomadic tribes still kept their ancestor's family name. 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 (Western) 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 keeping 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). 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 (Chinese) 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. (Zhou 2006, 25)

2. Sky God reverence

The Indo-Europeans believed in a Sky God as did the Zhou. The Indo-European Sky God has gone by various names, depending on the language (Mallory 1989, 128):

- Sanskrit: Dyaus Pita
- Greek: Zeu Pater
- Latin: Ju Piter
- Umbrian: Luve Patre
- Illyrian: Dei Patyros

In Zhou, the supreme Sky God 天, *tian,*[6] also played an important role, as he gave the Zhou rulers the Mandate [of the] Sky [to rule] (天命) (Yates 1994, 91). The Sky God was also known to the Mongols and Turks as Tengri, the Romans as Jupiter and the Greeks as Zeus.

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6 It is unclear to the author why the standard translation for *tian*, 天 has become "heaven." The more appropriate translation, especially in ancient Chinese, is "sky." The character 天 in pre-Qin and Han times is commonly used with the following additions: 天命 (Mandate of the Sky), 天子 (Son of the Sky), 天地 (sky and earth), 天下 (under the sky). In modern times the informal word for sky is *tian*, 天, while the formal is *tiankong*, 天空.

3. Development of writing

Beckwith (2009, 401n43) explains that the Chinese writing system appears fully formed in the thirteenth century BCE, two millennia after writing had been developed in the west. He also notes that this fully developed system of writing appears at the same time as the fully developed chariot, which also came from the west. The development of writing as a way in which history could be recorded may have begun at the end of Shang dynasty or right at the start of the Zhou dynasty. This is important because it means that all history pre-Zhou would be their history, their myths, their legends and their stories, and not that of the Shang. It is also important to mention that the Zhou had an interest in recording history, unlike the Shang:

> The Zhou were notably different (from the Shang) in that they were far more conscious of history than their predecessors: they engraved long inscriptions in the vessels they used in sacrifices to their ancestors, often describing the circumstances under which the vessels were manufactured. (Yates 1994, 92)

The Zhou dynasty lasted for nearly a thousand years (Yates 1994, 91). To grasp the ability of the Zhou people to influence writing and history, we must not forget that it was in this dynasty that people such as Laozi and Confucius lived and wrote the classics that still dominate East Asian thinking to this day.

4. Political ideology of the Zhou dynasty

According to Yates (Yates 1994, 91), traditional historians attribute to the Zhou a completely new system of governance (compared to the Shang) and a new political ideology that profoundly affected future conceptions of the relationship between the sky and humanity and the role of a king within this relationship. The Zhou believed that their success over the Shang was based on the fact that they had remained sober and moral while the Shang were the opposite. Thereby the supreme Sky God gave the Zhou the Mandate of the Sky to rule (天命), which they would maintain as long as their kings continued to behave in the correct ritual manner. While the Zhou ruler held the mandate, he was the Son of the Sky.

According to Mosher, in a chapter called "Hegemon: The Invention of the Totalitarian State (2017)," the prerogatives of the Zhou kings did not initially lead to complete centralization of power but rather its dispersal to feudal lords. To govern their vast territory, the Zhou kings enfeoffed kinsmen, bestowing on them limited sovereignty over portions of their domain along with hereditary titles or ranks:

- 公 – *Gong* – Duke
- 侯 – Hou – Marquee
- 伯 – Bo – Count/Earl
- 子 – Zi – Viscount
- 男 – Nan – Baron

The aristocracy thus created an extended family, with the king heading the main branch of the family tree while his uncles, brothers and cousins headed secondary branches. Within this decentralized administration (封建), there were 172 feudal domains. This feudalism here bore a strong resemblance to that found centuries later in Western Europe. The loyalty of these vassals was guaranteed by kinship rather than a sacred oath and regulated by a patriarch kinship called *zongfa* (宗法), which reserved certain powers to the clan patriarch, who was of course the king.

Four Occupations

As previously discussed, the caste system or social class system was a common characteristic among Indo-Europeans. Towards the end of the Zhou dynasty, a kind of caste system with four groups was formalized.

- 士 – Shi – Scholars
- 农 – Nong – Farmers
- 工 – Gong – Craftsmen
- 商 – Shang - Merchants

5. Chariots

The use of chariots among the Indo-Europeans has been mentioned throughout this paper, in particular the low-level Shang chariots and the extensive use of chariots during the Zhou dynasty. In further

evidence, we note that the Chinese unearthed in Luoyang, Henan, four beautifully preserved pits with chariots and horses dating back to the early Western Zhou. The main pit is comprised of five chariots and twelve horses (Daily Mail 2011).

6. The Zhou family name and the connections between the Yellow Emperor, the Zhou royalty and the Western Rong

> 《史記.本纪.五帝本纪》自黃帝至舜，禹，皆同姓而異其國号，以章明德。故黃帝為有熊，帝顓頊為高陽，帝嚳為高辛，帝尧為陶唐，帝舜為有虞。帝禹為夏后而別氏，姓姒氏。契為商，姓子氏。異為周，姓姬氏。

In the above lines from the *Shiji,* we learn that Huangdi, Shun and Yu all have the same family name but different country names. Then it tells us that, after the Xia, Emperor Yu had a different clan and his family name was (changed to) the Si (姒) clan name (Zhou Wen Wang's wife was called Tai Si (太姒). We are also told that the Zhou are the Ji (姬) clan. In regards to lineage, Zhou Wen Wang's personal name was Jichang 姬昌 and Zhou Wu Wang's personal name was Jifa 姬發.

> 《國語.晉語四》黃帝以姬水成。

In the *Guoyu*, we are told that Huangdi grew up at Ji (姬) Shui (水).

> 《潛夫論.志氏姓》黃帝之子二十五人，班為十二：姬，酉，祁，己，滕，葴，任，荀，釐，姞，衣氏也。

In this *Qianfulun* passage we are told of Huangdi's twenty-five children, of which one group was called Ji 姬.

It is also important to point out the following:

> 《史記.列傳.匈奴列傳.卷一》秦穆公得由余，西戎八國服於秦，故自隴以西

有綿諸，緄戎，翟，獂之戎，岐，梁山，涇，漆之北有義渠，大荔，烏氏，胸衍之戎。

In the *Shiji* passage above we are told of the eight countries in the Western Rong of which some are probably in modern-day Shaanxi.

《說文解字.卷七.邑部》邑部: 邠：周太王國。在右扶風美阳。从邑分声。

The *Shuowen Jiezi* in the above passage tells us where Zhou Tai Wang, whose great grandson was Zhou Wu Wang, lived. The mountain he lived at is usually said to also be in Shaanxi (Liu 2009, 71).

《說文解字.卷七.邑部》邑部: 郊：周文王所封。在右扶風美陽中水鄉。从邑支聲。

In the *Shuowen Jiezi* we are told of Zhou Wen Wang, who is in the same area.

7. Myths and legends

Fuxi (伏羲)

Fuxi and Nüwa are the first two tribes mentioned in ancient Chinese history books. The word "tribe" is used because they were described not only as mythical people but also as clans.

《白虎通義.卷六》伏羲氏之王天下也于是始作八卦。

The passage from *Baihu Tongyi* tells us that it was the Fuxi clan who created the eight trigrams.

The idea of three is expressed throughout Indo-European mythology. In the Iranian *Avesta* there are three types of medicine: spell-medicine (administered by the priests), knife-medicine (used by warriors in battle) and herb-medicine (used by the farmers) (Mallory 1989, 132). The origins of these three class functions are common in Indo-European myths and can be called the "war of functions." The

Roman account of the Sabine War is one such example (Mallory 1989, 139). Another example is in punishment, with what could be called, "the three-fold death," where death was always applied in a trifunctional fashion. The Gauls made offerings to three gods (Esus, Taranis, Teutates) by hanging, burning and drowning. The Germanic pagans had hanging, stabbing and drowning. This again relates to the three class functions of sacrifices to the war god (burning and stabbing), farming god (drowning) and priestly/judicial role (hanging) (Mallory 1989, 138-139).

The trigram names from the *Yijing* (易經) may have come from Indo-European stems. The idea that the *Yijing* trigrams may have an Indo-European connection was mentioned by Wei (2005). While Indo-European society followed a tripartite ideology, its myths and religions were based on dualism (Mallory 1989, 139-140). The first-class function was expressed in the paired gods: Varuna-Mitra or Jupiter-Dius Fidius or Odinn-Tyr, who are in charge of magico-religious and judicial-contractual aspects of rulership (the first-class function or priesthood). There are also the "twins" who were the progenitors of mankind. The twin was named Yem in Proto-Indo-European, Yama in Indic and Yima in Avestan (Mallory 1989, 140).

Mallory (1989, 140) says we can go beyond the dualism expressed by twins to outright binary opposition as one of the underlying structures of Indo-European ideology. The *Yijing* lines were based on a simple binary put into lines of three and eventually doubled to make lines of six. This approach appears to be very Indo-European. It is this dualism that the Chinese eventually called yin and yang, on which they based every traditional Chinese science. The system may have been passed down by the Indo-Europeans through their binary divination system, now called the *Yijing,* which was developed by both Fuxi and King Wen Wang.

> 《白虎通德論.卷一.號》三皇者，何謂也。謂伏羲，神農，燧人也。或曰伏羲，神農，祝融也。《禮》曰：「伏羲，神農，祝融，三皇也。」謂之伏羲者何。古之時未有三綱，六紀，民人但知其母，不知其父，能覆前而不能覆後，臥之詰詰，起之吁吁，飢即求食，飽即棄余，茹毛飲血而衣皮葦。於是伏羲仰觀象於天，俯察法於地，因夫婦正五行，始定人道，畫八卦以治下。

What [were the] three emperors called? [They were] called Fuxi, Shennong and Suiren,

> or [they were] called Fuxi, Shenong [and] Zhurong. [In the] *Lijing* [they were] called Fuxi, Shennong, Zhurong; [the] three emperors. Who [was] called Fuxi? "[In] ancient times [they did] not have [the] three principles [and] six orders."[7] People only knew [their] mothers [and] not [their] fathers, [they] could [only] move forward [and] not backward (*wo zhi qu qu, qi zhi yu yu*), [when] hungry [they] looked for food, [when] satisfied, [they] threw away [the] leftovers, [they] ate bloody raw meat [and] wore raw hide [for] clothes. Then [came] Fuxi [who] looked upward [and] observed [the] images [of the] sky, [and] looked downward [and] examined [the] regulations on earth. Therefore, [he united] husband [and] wife, [made] right [the] Five Movements, began [to] establish [a] way of living [and] drew [the] eight trigrams, so [as to] manage [all that is] underneath [the sky].[8]

In the above lines we learn the importance of Fuxi in regard to the people and culture that would develop within the Yellow River Valley.

Nüwa (女娲)

> 《山海經.卷十六》有神十人名曰女媧之腸化為神處栗廣之野女媧古神女而帝者也。

In the *Shan Hai Jing,* the text above describes how Nüwa's (女娲) intestines had ten spirits.

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7 《白虎通德論.卷七.三綱六紀》三綱者何謂也，謂君臣，父子，夫婦也。六紀者，謂諸父，兄弟，族人，諸舅，師長, 朋友也。"What [are the] three principles called, [they are] called, [the] ruler [and his] ministers, father [and] son, husband [and] wife. [The] six orders [are] called, [your] various father[s] (which means your father and his brothers), brother[s], clansmen, various uncle[s] (which means your mother's brothers), teacher[s] and friend[s]."

8 "wo zhi qu qu (臥之詰詰)," "qi zhi xu xu (起之吁吁)." 卧 means to lie down, 起 means to get up. 詰 "qǔ" means 安静沉稳的样子 (Chen 2006, 1290): like quiet, deep and steady. 吁吁 means 喘气声: wheezing/panting/grasping for breath.

It can only be guessed, with no evidence to support it, that maybe this represented that there were ten tribes. There are numerous accounts in the ancient books where Nüwa (女娲) is regarded as a creator deity (Yang 1993, 51).

《白虎通德論.卷一.號》民人但知其母，不知其父 ... 於是伏羲。

People [only] knew [their] mothers, [and did] not know [their] fathers ... [then came Fuxi].

I suggest that maybe Nüwa came before Fuxi and that Nüwa may have been a matriarchal society, shown by the doubling of the Chinese character for female 女 and the fact that people only knew their mothers. Matriarchal societies have been noted in southern China (Mosuo [摩梭] culture is one such example). Nevertheless, it appears that Fuxi and Nüwa were not the same tribe originally and had different cultures, as Fuxi taught new technologies.

Fuxi and Nüwa were commonly described as being married or related:

《全唐詩.卷三百八十八.與馬異結交詩》女娲本是伏羲妇。

Fuxi and Nüwa were regarded as husband and wife.

《漢碑引經考》伏羲氏，風姓也。

《元豐九域志.卷三》伏羲氏，風姓也。

The clan of Fuxi had the family name of wind.

《水經注疏.卷四》:《西征記》伏羲，女媧，風姓也，此當是女媧之墓。

Both Nüwa and Fuxi had the family name of wind.

《连山易》伏羲氏，燧人子也，因風而生，故風姓。

The Fuxi clan was called wind because he was born of the wind.

《天中記.卷十一》春秋世谱云华胥生男子為伏羲女子為女娲故世言女娲伏羲之妹。

Here we are told that Nüwa is the sister of Fuxi.

《獨異志.第三卷卷下》昔宇宙初开之時，只有女娲兄妹二人在崑崙山，而天下未有人民，议以為夫妻，又自羞耻。兄即与其妹上崑崙山，兄曰：天若遣我兄妹二人為夫妻而烟悉合；若不使，烟散。于是烟即合，其妹即来就兄，乃结草為扇，以障其面。今時人取妇执扇，象其事也。

Later on, during the Tang dynasty, Nüwa is connected with the Kunlun Mountains, which has a special significance in Daoism.

> The cult of Tai Shan centred on a real mountain ... It was identified with Sumeru, the axial mountain of Indian cosmic theories. Once these became known to the Chinese, who seemed to find no incongruity in its peripheral location. It was thought of as the source of the Yellow River ... Kunlun was deemed to be the earthly home of the Lord of Sky ... As the Daoist canon developed, interest in the nature of Kunlun increased; it became more and more a paradise ... but never lost its role as a cosmic pillar. (Christie 1968, 74-75)

The Western Queen Mother (Xiwangmu)

《山海經.西山經》曰玉山，是西王母所居也。

In the *Shan Hai Jing,* the text describes the Jade Mountain as the home of Xiwangmu (西王母), the Western Queen Mother, which may place Kunlun Mountains right in the home of Indo-Europeans.

> This was Xiwangmu, the royal mother of the western paradise. Her home was said in the *Shan Hai Jing* to be on a jade mountain to the north of Kunlun and to the west of the Moving Sand. (Christie 1968, 78)

In terms of discovering exactly who Xiwangmu was, Knauer (2006, 62) gives a possible answer:

> As we shall see, images of the initially nameless Western divinity first appear in Neolithic Anatolia. Revered in that same region and called Kubaba by the Hittites in the second millennium BCE, she only slightly changes name and appearance under the succeeding Phrygians and Lydians, as well as the Greeks, for whom she was Kybele … Both the Western and Chinese goddess go through numerous transformations over time. Although the Chinese textual and visual evidence is fragmentary, I hope to demonstrate the iconography of the Queen Mother of the West is influenced by that of her somewhat older Western counterpart, Kybele.

Knauer (2006, 90–91) goes on to explain Xiwangmu's connection to Daoism and the West:

> It is noteworthy that the first images of Xiwangmu are found in Sichuan province in the west of China—that is, close to the trade routes leading into central and western Asia—and in the coastal provinces of Shandong and Jiangsu, regions open to early maritime trade. Note parenthetically that it is precisely these two areas where Buddhism—

> another cultural import from the "Western regions" —first took root in China and where its images first appeared. The fact that "Daoist" religious movements initially arose in these same areas and at around the same time also gives one pause concerning the ultimate sources of their inspiration. It has long been the opinion of Victor Mair, to whom these observations are due, that religious "Daoism" was, in a very real sense, a Chinese response to Buddhism and other Han period importations from abroad. The intimate affinity of the "Daoist" religion with Buddhism can be seen in its scriptures, doctrines, practices, monastic and lay organization, pantheon, terminology and iconography.

The connection between the Western Queen Mother, Kunlun Mountains, jade, Daoism, Western Rong, Yuezhi (jade traders), the Qiang, Yu the Great, Zhou Wen Wang, Fuxi and Nüwa is extremely important:

> 《竹書紀年.穆王》穆王十七年，西征崑崙丘，见西王母。

> King Mu (of Zhou went on a) seventeen-year west[ern] expedition [to the] Kunlun mountain [to] see [the] Western Queen Mother.

> 《庄子.大宗師篇》夫道 … 西王母得之。

According to Zhuangzi, Xiwangmu obtained the Dao.

> 《帝王世纪.作者简介.总叙.帝王叙事》伯禹帝夏后氏。《帝王世纪》曰：禹，姒姓也。其先出顓頊。顓頊生鯀，尧封為崇伯，纳有莘氏女曰志。是為修已，见流星贯昴，又吞神珠，意感而生禹于石纽。名文命，字高密，长于西羌，西夷人也。

Yu the Great grew up with the Western Qiang, he was a person of the Western Yi (most likely another name for the Western Rong).

《荀子.大略》 禹學於西王國。

Yu [the Great] studied in [the] Western Queen [Mother's] country.

《史記.列傳.匈奴列傳》右方王將居西方，直上郡以西，接月氏，氐，羌。

In the *Shiji,* we are told of the tribes living in the west: they included the Yuezhi, Qiang and Di.

《史記.本紀.周本紀》武王曰：「嗟。我有國冢君，司徒，司馬，司空，亞旅，師氏，千夫長，百夫長，及庸，蜀，羌，髳，微，纑，彭，濮人，稱爾戈，比爾干，立爾矛，予其誓.」。

According to the *Shiji* quoted above, it seems that the Qiang were possibly allies of the Zhou as those were included in their dominion.

《管子.國蓄篇》 玉起于禺氏。

《管子.揆度》 玉起于禺氏之邊山。

The *Guanzi*, in this passage, tells us that jade comes from the Yuzhi and their mountain.

《孟子·卷八》舜生於諸馮，遷於負夏，卒於鳴條，東夷之人也。文王生於岐周，卒於毕郢 ，西夷之人也。

Mengzi says: Shun was a Dongyi person. The founding father of the Zhou dynasty, Zhou Wen Wang, was a person from Western Yi.

In conclusion, we have been told, there is a country in the west of China where there is a sacred mountain. The mountain may have been sacred because it provided jade to its people, such as the Yuzhi who were able to trade with it. Yu the Great grew up in Western Yi and studied in the Western Queen Mother's country. We are then told that King Wen Wang, the founding father of the Zhou dynasty, was a man of Western Yi.

Shennong (神農)

> 《白虎通德論.卷一.號. 聖人》何以知帝，王聖人也。《易》曰：「古者伏羲氏之王天下也，於是始作八卦。」又曰：「聖人之作易也。」又曰：「伏羲氏沒，神農氏作。神農沒，黃帝，堯，舜氏作。」文俱言作，明皆聖人也。

In the above lines from the *Baihu Tongde Lun* we are told that the Shennong clan came after the Fuxi clan, and that after the Shennong clan came the Huangdi, Yao and Shun clans (all these were described as sage-emperors).

> 《白虎通德論.卷一.號》謂之神農何？古之人民，皆食禽獸肉，至於神農，人民眾多，禽獸不足。於是神農因天之時，分地之利，制耒耜，教民農作。

> Why [was] Shennong called (Shenong)? [In] ancient times [the] people all ate raw birds [and] animal meats. At [the time of] Shennong, [the] people [were] multitudinous, [and the] birds [and] animals [were] not enough [to feed the people]. Therefore, Shennong [gave] reason [to the] times of [the] sky (seasons), divided [the] ground for the benefit of the people, made [the] plough, [and] taught [the] people [how] to farm.

Chiyou (蚩尤)

> 《藝文類聚.卷一十一.帝王部一.黃帝軒轅氏》《龍魚河圖》曰：黃帝時，有蚩尤，兄弟八十一人，並獸身人語，銅頭鐵額，食沙石子，造立兵杖，刀戟大弩，威振天下，誅殺無道，不仁慈，萬民欲令黃帝行天下事，黃帝仁義，不能禁蚩尤，黃帝仰天而嘆，天遣玄女下，授黃帝兵信神符，制伏蚩尤，帝因使之主兵，以制八方，蚩尤沒後，天下復擾亂，黃帝遂畫蚩尤形像，以威天下，天下咸謂蚩尤不死，八方萬邦，皆為弭伏。

In the above lines we find a description of Chiyou. The key point is that Chiyou is described as having a copper head and a metal forehead. There is also a description of weapons such as a knife or sword. The ability to make these advanced metal implements implies metallurgy at a very early stage, a stage in China's history where the technology to make such advanced metal implements was not yet developed.

Chiyou is especially well known for war with Huangdi.

> 《莊子.雜篇.盜跖》然而黃帝不能致德，與蚩尤戰於涿鹿之野，流血百里。

> However, Huangdi [was] not able [to] arrive [at this] virtuous [state], [he] fought [with] Chiyou [in the] wilds [of] Zhuolu [till the] blood flowed [over a] hundred *li*.

It is sometimes colloquially mentioned that the Miao (苗) people take Chiyou to be their ancient ancestor.

> Wu Shuguang, Deputy Editor-in-Chief of the five volumes on the General History of the Miao People … did explain that, although there is no archaeological evidence that links Miao groups to Chiyou, historians believe that Chiyou was the ancestral king of the Miao-Man people. (Yang 2010, 5)

In certain ancient Chinese texts such as the *Tizi Fayan*, there is certainly some negativity towards Chiyou:

> 《揚子法言.淵騫卷第十一》秦將白起不仁，奚用為也。長平之戰，四十萬人死，蚩尤之亂，不過於此矣。原野厭人之肉，川谷流人之血，將不仁，奚用為。
>
> In the above lines we are told that; General Bai Qi [of] Qin [was] inhumane. Why [was he put] to use? [In the] battle at Changping four hundred thousand men [were] killed. [The] chaos [caused] by Chiyou was similar. [The] plains [and] fields [were covered with] human flesh [and the] rivers [and] streams flowed [with] blood. [An] inhumane general, how [could he] be used?

It seems that there is a strong connection between Shennong, Chiyou and the Flame Emperor. They were separate tribes but seemed to be of the same nation, one different from that of Huangdi.

> 《史記.本纪.五帝本紀》軒轅之時，神農氏世衰。諸侯相侵伐，暴虐百姓，而神農氏弗能征。於是軒轅乃習用干戈，以征不享，諸侯咸來賓從。而蚩尤最為暴，莫能伐。炎帝欲侵陵諸侯，諸侯咸歸軒轅。軒轅乃修德振兵，治五氣，蓺五種，撫萬民，度四方，教熊羆貔貅貙虎，以與炎帝戰於阪泉之野。三戰然後得其志。蚩尤作亂，不用帝命。於是黃帝乃徵師諸侯，與蚩尤戰於涿鹿之野，遂禽殺蚩尤。而諸侯咸尊軒轅為天子，代神農氏，是為黃帝。天下有不順者，黃帝從而征之，平者去之，披山通道，未嘗寧居。

In the above lines from the *Shiji*, Xuanyuan (connected to Huangdi), the Shennong clan, Chiyou and Yandi (Flame Emperor) are all mentioned as separate tribes.

> 《路史.卷十三》阪泉氏蚩尤，姜姓炎帝之裔也 。

This passage of the *Lushi*, an ancient history book from the Song dynasty, says that Chiyou was a descendent of the Flame Emperor, and that Chiyou's family name was Jiang (姜), which is the same family name as that of the Flame Emperor.

《說文解字》释姜：神農居姜水以為姓。

The *Shuowen Jiezi* passage above says: Shennong lived at "Jiang" 姜 river and his family name was "Jiang" 姜.[9]

According to this paper, the 姜 and 羌 do not have a connection in the way that the Chiyou, Shennong, Flame Emperor and the Miao (who are being presented as one group of the same peoples) are not Indo-European but instead have had an intimate connection to Huangdi's predecessors and successive clans such as the Zhou, through both warring and intermarriage.

《帝王世紀.帝王敘事》神農氏，姜姓也，母曰任姒，有蟜氏女，名女登；
為少典婦，游於華陽，有神龍首，感生炎帝。

In the *Diwang Shiji* it says: Shennong's clan was named Jiang 姜. The text then hints that Shennong gave birth to the Flame Emperor.

《獨斷.卷下》炎帝為神農氏。

In the above lines we are told the Flame Emperor is of the Shennong clan.

To conclude, it seems plausible, according to ancient texts, that Shennong, the Flame Emperor, Chiyou and Miao (in this order) were one and the same people, but had different tribal names.

9 The 姜 character, in this case, should not be confused as being the simplified version (簡體字) of the traditional character (繁體字) 薑 (ginger). 姜 is by itself an ancient character and has been written in all scripts (甲，金，篆，康，楷).

Huangdi—Yellow Emperor (黃帝) and Yandi—Flame Emperor (炎帝)

《史記.本纪.五帝本纪》而诸侯咸尊轩辕為天子，代神農氏，是為黃帝。

In these lines we find that Xuanyuan and Huangdi are one and the same. We also learn that Huangdi replaces Shennong clan as Son of the Sky.

《史記.本纪.五帝本紀》轩辕之時，神農氏世衰。

In this *Shiji* passage we learn that in the times of Xuanyuan, Shennong was weak.

The tribes of the Yellow Emperor and Flame Emperor are said to be the ancestors of the Han Chinese people as goes the saying "炎黃子孫." It is also said that they were of the same clan but had different belief systems that eventually lead to a war between them:

《國語.晉語四》昔少典娶于有蟜氏，生黃帝，炎帝。黃帝以姬水成，炎帝以姜水成。成而異德，故黃帝為姬，炎帝為姜，二帝用師以相濟也，異德之故也。異姓則異德，異德則異類。異類雖近，男女相及，以生民也。

A long time ago, the prince of the Shaodian clan married a daughter of the You Qiao clan and they bore Huang Di (Yellow Emperor, 黃帝) and Yan Di (Flame 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. They two fought against each other due to their different ideologies. (Zhou 2006, 28)

《論衡.率性》黃帝與炎帝爭為天子，教熊羆貔虎以戰于阪泉之野，三戰得志，炎帝敗績。

[When] Huangdi fought [with] Yandi to be [the] Son of the Sky, [he] taught bears,

leopards, [and] tigers to fight [for him] in [the] wilds of Banquan. [After] three battles [he] gained [the victory], [and] Yandi [was] completely defeated.

In summary, if Nüwa was matriarchal then, she was clearly not Indo-European. Fuxi may have been an Indo-European nomadic tribe. Shennong, the Flame Emperor and Chiyou probably represented a local agricultural tribe. What was the Yellow Emperor's tribe?

The Yellow Emperor (clan) has gone by two other names:

- Xuanyuan shi (軒轅氏):

《獨斷.卷下》虙犧為太昊氏，炎帝為神農氏，黃帝為軒轅氏少昊為金天氏，顓頊為高陽氏，帝嚳為高辛氏，帝堯為陶唐氏，帝舜為有虞氏，夏禹為夏后氏，湯為殷商氏，武王為周，高祖為漢。

- Youxiong shi (有熊氏):

《帝王世紀》故有熊氏之墟黃帝之所都也。

The first name has two Chinese characters, both exhibiting the wheel radical on the left. The first character is a type of carriage, while the second means the shafts of a wheel. Why would the Yellow Emperor be given such a name? Was it because of the use of chariots, the trademark of the Indo-Europeans. The Yellow Emperor's father was Shaodian:

《孔子家語.五帝德》孔子曰：可也。吾略聞其說，黃帝者，少典之子，曰軒轅。

The passage from *Kongzi Jiayu* tells us that Huangdi was the son of Shaodian, who was called Xuanyuan. Based on the myths and legends described above, I loosely propose the following:

- A band of Indo-Europeans entered into west China early on and began to inhabit an area near a mountain where jade could be obtained.
- As time went on, a tribe from this original area began to move eastward and eventually came into contact with a local tribe that was very primitive and that might have been a matriarchal society. These two tribal confederacies intermixed and formed one confederation.
- As more time elapsed, this same intermixed tribe came into contact with an agriculture-based society. They learned from each other, though with some unease.
- Eventually war broke out between them, and this already intermixed Indo-European tribe defeated the agricultural society from which it had initially learned (primitive) agriculture. For this reason the Indo-European tribe came to be in control of a larger population and wider area.
- These same leaders, who were now already heavily mixed with various local tribes, kept some form of contact with their cousins in the west.
- Eventually these same rulers, following the Zhou confederation, might not even have looked like their ancestors. These rulers continued to follow their old customs and culture, however, and most likely spoke a creole language.

8. Indo-European words in Old Chinese

Wei (2005) wrote about the origins of the characters used to name the eight trigrams of the *Yijing*. The eight trigrams were said to have been developed by Fuxi but the line statements are attributed to Zhou Wen Wang, the founding father of the Zhou dynasty. Anyone who can read Chinese will ask why the eight trigram characters mean something totally different to what they mean in Chinese. For example, "*gan*" 乾 can mean "dry," but in the *Yijing* it means "sky" (天) and is pronounced "*qian*" (Wei 2005, 1–2). How can this be? If you read the word "Dao" in an English text, it would immediately strike you as non-English. You would find this word strange until someone told you that it was actually a Chinese word. The characters of the eight trigrams of the *Yijing* represent words or roots/stems of the Indo-European language. Wei (2005, 6–10) goes through these eight characters and their corresponding Indo-European stems.

We have a similar issue with the ancient Chinese system of measuring time and creating their calendar called the Heavenly (sky) Stems and Earthly Branches (天干地支). There are ten stems and twelve branches making a total of twenty-two characters. The Phoenician alphabet also has twenty-two symbols. Wei (1999, 60) noticed these correspondences. In her paper she goes through the twenty-two symbols, and notes that the Phoenician alphabet and Chinese calendrical signs correspond to each other. The Heavenly (sky) Stems were first used by the Shang kings and also appear in their names. This does not mean that the Shang Kings were Phoenician; what it implies in the overall picture is that they had very early contact with peoples from the west. As a result, there are some changes among the meaning of the twenty-two symbols but not many.

Chang (1988, 32) notes that among Indo-European dialects, Germanic languages seem to have been most akin to Old Chinese. Many irregularities in Old Chinese such as the ones mentioned above can be answered when we understand the interaction between the Indo-Europeans and the indigenous Chinese.

The Shang dynasty was the first dynasty of China for a considerable time (there is no archaeological evidence to prove there was a Xia dynasty)[10]; it was extremely powerful and influential in the region. Archaeology tells us that during this interval the dynasty obtained the technology of the cultures north and west of them. The Shang were powerful but still primitive in many ways; their

10 Mair (2013) goes through some of the works by previous scholars in regards to the existence of a Xia dynasty. There is much evidence to show that the Xia dynasty did not exist. Matthew Anderson: "It is entirely possible there was a Xia (I am sure I would have been sceptical about the existence of the Shang if Yinxu had never been discovered), but many, many things are entirely possible and there is no evidence for the existence of the Xia (unless you count things written down a millennium or more after the fact)" (Mair 2013, 36). The character Xia in its early usage may mean large or grand (Mair 2013, 7). In modern Chinese it means summer. Connecting the Erlitou to the Xia dynasty seems to be more nationalistic than scientific. "Opinions are divided among scholars about the nature of Erlitou culture. The majority of archaeologists and historians in China agree that Erlitou culture represents a state-level society and that the Erlitou site represents a capital city of the Xia or Shang dynasties, although they disagree about the identity of the capital city, named in textual records, to which the Erlitou site corresponds. Many Western Sinologists and archaeologists, from a culturally external viewpoint and detached from textual tradition, have challenged all suggestions that there was a historic link between the Xia and Erlitou and that Erlitou was a state-level society" (Mair 2013, 33-34).

interactions with the more northern tribes and western Indo-Europeans brought many new sciences and developments.

9. The Zhou-Qiang Connection

As mentioned previously, there is evidence to suggest that the Qiang were Indo-European: "It is probable that the Qiang were not Tibeto-Burman speakers but Indo-Europeans" (Beckwith 2009, 46).

Summary

The evidence conveying that the Zhou had received Indo-European influence is as follows:

- The Western Rong consisted of several Indo-European tribes.
- King Wen Wang, who was from Western Yi, was the founder of the Zhou dynasty.
- The Zhou and the Qiang (an Indo-European tribe) people intermarried for generations.
- Fuxi, who may himself have been Indo-European, created the trigrams, a type of binary and tripartite system of divination, which are classical Indo-European cultural beliefs.
- There are Indo-European words (stems) in Old Chinese. The trigram names of the *Yijing* are one such example.
- The connections between Huangdi, Xiwangmu, jade, Yuzhi or Yuezhi, Qiang and the Western Rong, together with the special place they hold in ancient China's myths, demonstrate that the myths were possibly Indo-European in origin.
- There is a large discrepancy between archaeological discoveries and classical records in terms of the beginning of agriculture.
- The historical records portray a nomadic tribe struggling to accept a "civilized"—non-nomadic—life.
- Houji was revered perhaps because he may have introduced sophisticated agricultural ways to these semi-nomadic peoples.
- The Zhou worshiped a Sky God, which is a core Indo-European belief.
- A level of writing adequate for creating records was developed only in the late Shang and early Zhou, and that, combined with the Zhou's culture of an interest in recording history, is the reason we read the Zhou's history and not that of the indigenous people.

- The Zhou eventually developed a type of caste or social class system, another Indo-European trait.
- The Zhou chariots in China present in many burials, also a Indo-European trait.
- The Yellow Emperor and the Zhou royal classes were connected through the name or character Ji 姬.
- The Yellow Emperor used characters that hint of a chariot-like vehicle.

7. CONCLUSION

By reviewing ancient texts and looking at historical archaeology, we see that a strong case can be made for the hypothesis that the Zhou royalty were Indo-Europeans. In the end, though, to make a final judgment on such a subject, there will need to be further evidence. One such piece of evidence may in the future be found in the DNA of the ancient Zhou kings.

BIBLIOGRAPHY

Bagley, Robert. 1999. “Shang Archaeology.” In *The Cambridge History of Ancient China: From the Origins of Civilization to 221 B.C.*, ed. Michael Loewe and Edward Louis Shaughnessy, 124–231. Cambridge: Cambridge University Press.

Bamshad, Michael, Toomas Kivisild, Scott W. Watkins, Mary E. Dixon, Chris E. Ricker, Baskara B. Rao, Mastan J. Naidu, et al. 2001. “Genetic Evidence on the Origins of Indian Caste Populations.” *National Center for Biotechnology Information.* 11 June. Accessed May 17, 2020. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC311057/.

Barlow, Jeffrey G. 1997. “Culture, Ethnic Identity and Early Weapons Systems: The Sino-Vietnamese Frontier.” In *East Asian Cultural and Historical Perspectives: Histories and Society—Culture and Literatures*, edited by Steven Tötösy de Zepetnek and Jennifer W. Jay, 1-15. Alberta: Research Institute for Comparative Literature and Cross-Cultural Studies, University of Alberta.

Baumer, Christoph. 2012. *The History of Central Asia: The Age of the Steppe Warriors* (*Volume 1*). London: I.B. Tauris.

Beckwith, Christopher I. 2009. *Empires of the Silk Road: A History of Central Eurasia from the Bronze Age to the Present.* New Jersey: Princeton University Press.

Bryce, Robert Trevor. 2014. “Hatti and Hittites.” In *A Companion to Ethnicity in the Ancient Mediterranean*, ed. Jeremy McInerney, 127–141. New Jersey: Wiley-Blackwell.

Bryce, Robert Trevor. 2002. *Life and Society in the Hittite World.* Oxford: Oxford University Press.

Chang, Kwang-Chih. 1978. "The Origins of Chinese Civilisation: A Review." *Journal of the American Oriental Society* 98 (1): 85–91.

Chang, Tsung-tung. 1988. "Indo-European Vocabulary in Old Chinese: A New Thesis on the Emergence of Chinese Language and Civilization in the Late Neolithic Age." *Sino-Platonic Papers* (University of Pennsylvania), no. 7.

Chen, Fuhua. 2006. *Gudai Hanyu Cidian.* Beijing: Shangwu Yinshuguan.

Chondros, G. Thomas, Kypros F. Milidonis, Cesare Rossi, and Nenad Zrnic. 2016. *The Evolution of the Double-Horse Chariots from the Bronze Age to Hellenistic Times.* April. Accessed April 2020. https://www.mas.bg.ac.rs/_media/istrazivanje/fme/vol44/3/2_tghondros_et_al.pdf.

Christie, Anthony. 1968. *Chinese Mythology.* London: Hamlyn Publishing Group Ltd.

Cohen, Signe. 2018. "The Date of the Upaniṣhads." In *The Upaniṣhads: A Complete Guide*, ed. Signe Cohen, 11–17. Abingdon: Taylor and Francis.

Daily Mail. 2011. *Dailymail.* 2 September. Accessed 16 April, 2020. https://www.dailymail.co.uk/news/article-2032697/Trip-Zhou-Remains-horses-chariots-unearthed-3-000-year-old-Chinese-Dynastys-tomb.html.

Deydier, Christian. 2015. "Understanding Ancient Chinese Bronzes, Their Importance in Chinese Culture, Their Shapes, Functions and Motifs." Accessed May 16, 2020. https://www.deydier.com/livres/iaba/Livre%20EN.pdf.

Didier, John C. 2009. "In and Outside the Square: The Sky and the Power of Belief in Ancient China and the World, c. 4500 BC – AD 200." Part 1. *Sino-Platonic Papers* (University of Pennsylvania), no. 192.

Ford, Randolph. 2010. "*Barbaricum Depictum*: Images of the Germani and Xiongnu in the Works of Tacitus and Sima Qian." *Sino-Platonic Papers* (University of Pennsylvania), no. 207.

Hay, Maciamo. 2020. *Eupedia.* February. Accessed April 18, 2020. https://www.eupedia.com/europe/Haplogroup_R1a_Y-DNA.shtml.

Hayes, Kim. 2004. "On the Presence of Non-Chinese at Anyang." *Sino-Platonic Papers* (Universtiy of Pennsylvania) no. 132.

Henry, Eric. 2007. "Submerged History of the Yue." *Sino-Platonic Papers* (University of Pennsylvania), no. 176.

Hetherington, Lindsay Graeme. 1962. "Hittie Domestic and Foreign Policy in the Old Kingdom." *University of Tasmania.* 4th July. Accessed April 16, 2020. https://eprints.utas.edu.au/20223/1/whole_HetheringtonLindsayGraeme1963_thesis.pdf.

Keightley, David Noel. 1994. "Sacred Characters." In *Cradles of Civilization: China: Ancient Culture, Modern Land*, ed. Robert E Murowchick, 71–80. Norman: University of Oklahoma Press.

Keyser-Tracqui, Christine, Eric Crubezy, and Bertrand Ludes. 2003. "Nuclear and Mitochondrial DNA Analysis of a 2,000-Year-Old Necropolis in the Egyin Gol Valley of Mongolia." *The American Journal of Human Genetics* 73 (2): 247–260.

Knauer, Elfriede R. 2006. "The Queen Mother of the West: A Study of the Influence of Western

Prototypes on the Iconography of the Daoist Deity." In *Contact and Exchange in the Ancient World*, ed. Victor H. Mair, 64–117. Honolulu: University of Hawai'i Press.

Koryakova, Ludmila, and Andrej Epimakhov. 2007. *The Urals and Western Siberia in the Bronze and Iron Ages.* Cambridge World Archaeology. Cambridge: Cambridge University Press.

Kuznetsov, P. F. 2006. "The Emergence of Bronze Age Chariots in Eastern Europe." *Antiquity* (Cambridge University Press) 80 (309): 638–645.

Lalueza-Fox, C., M. L. Sampietro, M. T. P. Gilbert, F. Facchini, D. Pettener, and J. Bertranpetit. 2004. "Unravelling Migrations in the Steppe: Mitochondrial DNA Sequences from Ancient Central Asians." *National Centre for Biotechnology Information.* March 31. Accessed April 14, 2020. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1691686/pdf/15255049.pdf.

LaPolla, J. Randy, and Chenlong Huang. 2003. *A Grammar of Qiang: With Annotated Texts and Glossary.* Berlin: Walter de Gruyter.

Larson, Greger, Ranran Liu, Xingbo Zhao, Jing Yuan, Dorian Fuller, Loukas Barton, Keith Dobney, et al. 2010. "Patterns of East Asian Pig Domestication, Migration, and Turnover Revealed by Modern and Ancient DNA." *Proceedings of the National Academy of Sciences of the United States of America* 107 (17): 7686–7691.

Lehmann, Winfred P., and Johnathan Slocum. 2020. *University of Texas Austin: Linguistics Research Centre.* 15 April. Accessed April 15, 2020. https://lrc.la.utexas.edu/eieol/hitol.

Li, Chunxiang, Hongjie Li, Yinqiu Cui, Dawei Cai, Wenying Li, Victor Henry Mair, Zhi Xu, et al. 2010. "Evidence That a West-East Admixed Population Lived in the Tarim Basin as Early as the Early Bronze Age." *BMC Biology.* Feburary 17. Accessed May 8, 2020. https://bmcbiol.biomedcentral.com/articles/10.1186/1741-7007-8-15.

Liu, Soleilmavis. 2016. *Chinese-American Scholars Association.* Janurary 1. Accessed April 20, 2020. https://www.g-casa.com/conferences/vienna16/paper_pdf/Liu.pdf.

Liu, Xingchu. 2009. *Gansu Wenshi Jingcui* 2. Xueshujuan Kindle Edition. Lanzhou: Gansu Renmin Chubanshe.

Liu, Xinru. 2001. "Migration and Settlement of the Yuezhi-Kushan: Interaction and Interdependence of Nomadic and Sedentary Societies." *Journal of World History* (University of Hawai'i Press) 12 (2): 261–292.

Loewe, Michael, and Edward L. Shaughnessy. 1999. *The Cambridge History of Ancient China: From the Origins of Civilization to 221 BC.* Cambridge: Cambridge University Press.

Mair, Victor Henry. 1994. "The Biography of Hua-t'o from the 'History of the Three Kingdoms.'" In *The Columbia Anthology of Traditional Chinese Literature*, by Victor Henry Mair, 688–696. New York: Columbia University Press.

Mair, Victor Henry. 1998. "Canine Conundrums: Eurasian Dog Ancestor Myths in Historical and Ethnic Perspective." *Sino-Platonic Papers* (University of Pennsilvania), no. 87.

Mair, Victor Henry. 2013. "Was There a Xia Dynasty?" *Sino-Platonic Papers* (University of Pennsylvania), no. 238.

Mallory, James Patrick. 2015. "The Problem of Tocharian Origins: An Archaeological Perspective." *Sino-Platonic Papers* (University of Pennsylvania), no. 259.

Mallory, James Patrick. 1989. *In Search of the Indo-Europeans: Language, Archaeology and Myth.* London: Thames & Hudson.

Mallory, James Patrick, and Douglas Quentin Adams. 1997. *Encyclopedia of Indo-European Culture.* London and Chicago: Fitzroy Dearborn Publishers.

Mallory, James Patrick, and Victor Henry Mair. 2000. *The Tarim Mummies: Ancient China and the Mystery of the Earliest Peoples from the West.* London: Thames & Hudson.

Marchenko, Z. V., S. V. Svyatko, V. I. Molodin, A. E. Grishin and M. P. Rykun. 2017. "Radiocarbon Chronology of Complexes with Seima-turbino Type 1 Objects (Bronze Age) in Southwestern Siberia." *8th Radiocarbon & Archaeology Symposium*, 1–17. Cambridge: Radiocarbon.

Marianthi, Milona. 2004. *Culinaria Greece.* Konigswinter: Konneman.

Meacham, William. 1996. "Defining the Hundred Yue." *Indo-Pacific Prehistory Association Bulletin* (Indo-Pacific Prehistory Association) 15 (2): 93–100.

Molina, Jeanmaire, Martin Sikora, Nandita Garud, Jonathan M. Flowers, Samara Rubenstein, A. Reynolds, P. Huang, et al. 2011. "Molecular Evidence for a Single Evolutionary Origin of Domesticated Rice." *Proceedings of the National Academy of Sciences* 108 (20): 8351–8356.

Mosher, Steven W. 2017. *Bully of Asia: Why China's Dream Is the New Threat to World Order.* Washington: Regnery Publishing.

Muller, Max. 1885. *The Sacred Books of the East Vol. XXV*. Oxford: Clarendon Press.

Nelson, Sarah M. 1994. “The Development of Complexity in Pre-Historic North China.” *Sino-Platonic Papers* (University of Pennsylvania), no. 63.

Peters, Heather. 1990. “Tattooed Faces and Stilt Houses: Who Were the Ancient Yue?” *Sino-Platonic Papers* (University of Pennsylvania), no. 17.

Raulwig, Peter. 2009. *Academia.* 12 December. Accessed April 18, 2020. https://www.academia.edu/3039204/The_Kikkuli_Text._Hittite_Training_Instructions_for_Chariot_Horses_in_the_Second_Half_of_the_2nd_Millennium_B.C._and_Their_Interdisciplinary_Context.

Reed, Carrie E. 2000. “Early Chinese Tattoo.” *Sino-Platonic Papers* (University of Pennsylvania), no. 103.

Renfrew, Colin. 2004. “Time Depth, Convergence Theory, and Innovation in Proto-Indo-European 'Old Europe' as a PIE Linguistic Area.” In *Languages in Prehistoric Europe*, ed. Alfred Bammesberger and Markus Bieswanger, 17–48. Heidelberg: Universitätsverlag Winter.

Romgard, Jan. 2008. “Questions of Ancient Human Settlements in Xinjiang and the Early Silk Road Trade, with an Overview of the Silk Road Research Institutions and Scholars in Beijing, Gansu, and Xinjiang.” *Sino-Platonic Papers* (University of Pennslyvania), no. 185.

Scarre, Christopher, and Brian M. Fagan. 2008. *Ancient Civilisations.* New Jersey: Prentice Hall.

Schönig, Claus. 2011. “Turko-Mongolic Relations.” In *The Mongolic Languages*, ed. Juha Janhunen, 403–420. London and New York: Routledge.

Shaughnessy, Edward L. 1989. “Western Cultural Innovations in China.” *Sino-Platonic Papers* (University of Pennsylvania), no. 11.

Shelach-Lavi, Gideon. 1996. "The Qiang and the Question of Human Sacrifice in the Late Shang Period." *Asian Perspectives* (University of Hawai'i Press) 35 (1).

Shelach-Lavi, Gideon. 2015. “Steppe Interactions and Their Effects on Chinese Culture during the Second and Early First Millennia BCE.” In *Nomads as Agents of Cultural Change: The Mongols and Their Eurasian Predecessors*, ed. Michal Biran and Reuven Amitai. Honolulu: University of Hawai'i Press.

Tumen, Dashtseveg. 2008. “Anthroplogy of Archaeological Populations from Inner Asia.” *Mongolian Journal of Anthropology, Archaeology and Ethnology* (National University of Mongolia) 4 (312): 162–183.

UNESCO, Mongolian National Commission for. 2014. "UNESCO." *Funeral Sites of the Xiongnu Elite.* 19 December. Accessed April 15, 2020. https://whc.unesco.org/en/tentativelists/5951/.

Wei, Julie Lee. 1999. "Correspndences between the Chinese Calender Signs and the Phoenician Alphabet." *Sino-Platonic Papers* (University of Pennsylvania), no. 94.

Wei, Julie Lee. 2005. "The Names of the *Yi-Jing* Trigrams: An Inquiry into Their Linguistic Origins." *Sino-Platonic Papers* (University of Pennslyvania), no. 161.

Wei, Ryan Lan-Hai, Hui Li, and Wenkan Xu. 2013. "The Separate Origins of the Tocharians and the Yuezhi: Results from Recent Advances in Archaeology and Genetics." *International Conference on Tocharian Manuscripts and Silk Road Culture* (Vienna), 277–299.

Winkle, Kimberley S. Te. 2005. "A Sacred Trinity God: God, Mountain and Bird: Cultic Practices of the Bronze Age Chengdu Plain." *Sino-Platonic Papers* (University of Pennsylvania), no. 149.

Wu, Zhen. 2002. "'Hu' Non-Chinese as They Appear in the Materials from the Astana Graveyard at Turfan." *Sino-Platonic Papers* (University of Pennsylvania), no. 119.

Yang, Kou. 2010. "Commentary: Challenges and Complexity in the Re-Construction of Hmong History." *Hmong Studies Journal* (Directory of Open Access Journals) 10 (1): 1–17. Accessed April 1, 2020. https://www.ingentaconnect.com/content/doaj/10911774/2010/00000010/00000001/art00002.

Yang, Lianfe. 1993. "Water in Traditional Chinese Culture." *The Journal of Popular Culture* (Wiley-Blackwell) 27 (2): 51–56.

Yates, Robin D. S. 1994. "Philosophers and Statesmen." In *China: Ancient Culture, Modern Land*, ed. Robert E. Murowchick, 90–99. Norman: University of Oklahoma Press.

Zhou, Ji Xu. 2006. "The Rise of Agricultural Civilization in China: A Disparity between Archaeological Discovery and Documentary Records and Its Explanation." *Sino-Platonic Papers* (University of Pennslyvania), no. 175.

Zuev, Yuri Alexeyevich. 2002. "World Heritage Encyclopedia." *Project Gutenberg Self Publishing Press.* Accessed April 15, 2020. http://self.gutenberg.org/articles/Ashina.

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