Natural Ecological Outlook from the Perspective of the Chinese Zodiac

Wang Haobin\textsuperscript{1,a}, Xie Jiguang\textsuperscript{2,b,*}

\textsuperscript{1}College of Foreign Studies, Guilin University of Technology, Guilin, China
\textsuperscript{2}College of Foreign Studies, Guilin University of Technology, Guilin, China
\textsuperscript{a}wanghobbyisme@163.com, \textsuperscript{b}xiejiguang88@126.com

*Corresponding author

Abstract: “The unity of heaven and man” is one of the most important thoughts in Chinese philosophy, which embodies the simple natural ecological view. From the perspective of the Chinese Zodiac, this paper demonstrates the relationship between man, nature, and the zodiac to reflect that China’s natural ecological view is closely related to the culture of the twelve zodiacs. Human reproduction is inseparable from nature, the invention of the phenological calendar is inseparable from the zodiac, and the development of agricultural civilization is inseparable from the zodiac animals. Twelve Chinese zodiacs, human and nature three intertwined, reflecting the Chinese simple natural ecology view - "harmony between man and nature".

Keywords: the Chinese Zodiac, the Unity of Heaven and Man, Traditional Chinese Culture, Natural Ecological Outlook

1. Introduction

President Xi Jinping stated in the Report on the 19th National People’s Congress on 18th October 2017 that only establish and put into the effort into the concept that lucid waters and green mountains are indeed the mountains of gold and silver, can we keep the harmony between humans and nature. The general secretary's two mountains theory embodies the simple natural ecological view of the "unity of heaven and man" held by the Chinese people since ancient times. Such views include "man follows the rules of earth, earth follows the rules of heaven, heaven follows the rules of Tao, and Tao follows the rules of nature” in the Tao Te Ching, and the Analects of Confucius in "a true man love the mountains, while a wise man loves the sea." The emergence of this natural ecological outlook can be traced back thousands of years ago. As a large country of agricultural civilization, as early as the agricultural era, the ancestors searched up and down in the cycle of alternating cold and heat, looking for a benchmark to measure the law of this period. After a long history, the ancestors invented the Heavenly Stems and Earthly Branches and used them to record time and years. Later, through the combination with the twelve birds, the twelve zodiacs came into being. The Chinese zodiac has also been infiltrated into the creation of the phenological calendar. From this point of view, the Chinese view of natural ecology is inextricably linked with the twelve zodiac signs.

2. The Definition of the Modern Concept of “Unity of Heaven and Man”

With the development of social productive forces and the progress of human civilization, human beings have different attitudes towards nature: from the worship at the beginning, then adaptation, to conquest and transformation nowadays. And the progress of modern society enables people to realize the importance of natural ecology and return to nature, so the practice of reconnecting man and nature is always on the way.

“The unity of heaven and man” is one of the most important thoughts in Chinese philosophy. It is almost the spiritual pursuit recognized and advocated by Confucianism, Buddhism, and Taoism. Although there are different interpretations in each school theory and different historical stages, generally speaking, the unity of heaven and man is the harmonious and unified relationship between human society and nature.

Today's "heaven" can be understood as all entities in the world and the laws of nature. It points out
the dialectical and unified relationship between man and nature, embodies the world outlook of China, describes the law of contradiction and change of things, and provides the observation tools and thinking mode needed in the process of socialization. In Chinese traditional culture, people have a sense of awe for "heaven", but man and heaven are not separated from each other, but correspond to each other. Therefore, there is a sense of unity between man and nature.

3. The Overview of the Origin and Selection of Chinese Zodiac Animals

3.1. The Overview of the Origin of the Chinese Zodiac

"Zodiac", also known as "Zodiac", "Twelve Chens (an ancient division of time equal to two hours and abbreviated to "shi" when named (after the twelve earthly Branches starting from 11 p.m.) ", "Twelve Genera" and "Twelve Zodiac Gods", is a chronological method formed by matching twelve kinds of animals with twelve earth branches, which can also specifically refer to these twelve kinds of animals. The Chinese Zodiac has remained vigorous all the time since before, but the source of the Chinese Zodiac culture has not been determined, attracting people's curiosity to trace back to the source. Among the ancient and contemporary people discussing the culture of the Chinese zodiac, many people regard the famous work, Lun Heng, by Wang Chong (published in 80 CE, as a wide-ranging Chinese classic text containing critical essays by Wang Chong (27-100 CE) on natural science, Chinese mythology, philosophy, and literature.), a materialist thinker of the Eastern Han Dynasty, as the earliest document in China to fully describe the twelve Chinese zodiacs. However, the Day Book unearthed in Yunmeng County, Hubei Province in 1975 broke the record. The section of Stealing Book in its Qin Bamboo Slips recorded the twelve zodiac animals. This is nearly 300 years ahead of the records in Lun Heng. The origin of the Chinese zodiac is mainly divided into two factions: local theory and foreign theory.

Foreign theories include "Indian theory", "Western regions" or "Western Turks theory” and “Twelve palaces of Babylon theory" centered on Europe.

The native theory can be divided into "totem theory" and "non-totem theory", and the latter can be further divided into "astronomy theory", "earth branch theory" and "animal worship theory".

This article will explain the origin of the Chinese zodiac in detail from the theory of totem worship and animal worship, and discuss the primitive relationship between man, the Chinese zodiac, and nature from this aspect.

3.2. The Overview of the Selection of Chinese Zodiac Animals

3.2.1. About the mystery number— “12”

The question of why the twelve Branches and the twelve zodiacs choose the number twelve can be verified from ancient books. Zuo Zhuan · the Seventh Year of the Duke Ai records that "The Zhou Dynasty formulated the Zhou rites. There were strict grade regulations from wearing clothes and hats to sacrificial animals, and the big number was twelve, because it was the “extreme number”. It is impossible to use the etiquette of a hundred pigs and sheep, and all things cannot exceed the number of twelve." The biography of Gou Shuang in the Book of the Later Han Dynasty contains: "Because the emperor married only 12 concubines, which is the limit that God can allow. The concubines of other princes can't exceed this number". In Mulan Ci, "there are twelve volumes of military books with her father’s name written on them". Therefore, the number "twelve" is a huge number, which exists in calendar and folk customs. Besides, the ancients also attached great importance to the multiple of twelve. For example, there are 36 blessing caves in Taoist theory, the Sun Wukong in the Journey to the West can change 72 various shapes and thirty-six stratagems

3.2.2. Various Undetermined Theories of the Selection of Twelve Animals

From the perspective of totem and animal worship, the choice of twelve animals shows people's worship or fear of animals. Although the size of the rat is small, its fecundity is petrifying, ranking the first among the twelve zodiac animals. To pray for their reproduction, the ancestors turned their attention to the mouse, worshipped the mouse as a totem, and hoped to bring good luck to human reproduction. Under the condition of extremely low productivity in the early stage of mankind, the six domestic animals had their advantages. In an agricultural society, they provide basic guarantees and important help for people's life. The Three Character Classic (Trimetric Classic or San Zi Jing is one of the Chinese classic texts. It was probably written in the 13th century and attributed to Wang Yinglin during the Song dynasty.)
exegesis says: "cattle can farm, horses can carry heavy loads, sheep can serve as sacrificial utensils", "chickens can announce the dawn’s coming in the morning, dogs can guard against unknown risk at night, and pigs can be served for guests when giving a feast." Six domestic animals are a great help for people.

The long in the Chinese zodiac is a divine object created by the ancient Chinese with many animal characteristics and imagination, hoping to connect with heaven through long.

Apart from the theory of totem and animal worship, there are many other explanations for why the ancients chose these twelve animals as their zodiac. For example, there are fairy tales about Yellow Emperor (formerly romanized as Huang-ti and Hwang-ti, is one of the legendary Chinese sovereigns and cultural heroes included among the Three Sovereigns and Five Emperors.) selecting the twelve zodiac animals, and there are also versions of the stories of other ethnic minorities. Although there is no scientific explanation for these myths, they show people's desire to explain the twelve zodiac signs.

4. The Relationship Between Chinese and Chinese Zodiac Animals

4.1. Origin from the Perspective of Totem Worship

Totem is a transliteration of North American Indian dialect, which means "its relatives" and "mark". John Lang, an interpreter, and businessman of the British East India Company, found totem worship in Indian tribes. He first used the name "totem" in his travel notes describing the lives of local people. Primitive people believed that certain animals or natural objects had a blood relationship with the clan and were used as the emblem or symbol of the clan. This is a totem.

When choosing the object of worship at that time, it was usually the concrete image of some animal, plant, and natural object, or a simple combination of the above concrete images. All the twelve zodiac animals have appeared in the form of totems, which were once the objects of worship of a nation or multiple nationalities. For example, in today's southeast coastal areas, dragons and phoenixes were used as totems, followed by sheep; Sheep, horses, and cattle are usually totems in Northwest China, and there are similar totems in other regions.

4.2. The Animal Worship of Chinese

There is a certain relationship between animal worship and totem worship, but they cannot be equated with. In the relatively backward period of human civilization and social productivity, people's attitude toward nature is worship, awe, and adaptation. Their worship is especially reflected in animals. On the one hand, many habits of animals are similar to human beings, especially higher organisms; On the other hand, people at that time thought that animals were better than humans in many aspects, such as the flying ability of birds, the reproductive ability of rats, the power of cattle and the ferocity of tigers. This is not only because of the limitations of productivity and cognitive ability but also out of awe and respect for all things in the world, including animals and plants. This reflects the wish of our ancestors to live in harmony with nature.

The twelve zodiac animals are the animal calendar used to record the years and months under the influence of people's primitive belief in animal worship. On the relationship between the zodiac and primitive animal worship, scientists who went to the Yi inhabited areas in 1981 recorded some precious materials. The twelve Xiao beasts of the local Yi nationality are the same as those of the Han nationality, but they can be explained in connection with totem worship. In his theory of totem hierarchy, Yang Hesen said: "In Yi areas, a calendar is widely used to record the years and dates of the twelve animals, such as tigers, rabbits, dragons, snakes, horses, sheep, monkeys, chickens, dogs, rats and cattle. The twelve animals were first regarded as totem objects of the Yi people and their ancestors. They had found a calendar called the" mother tiger calendar " by locals from the stone carvings written in the Yi language. There are statues of the" twelve animals "painted on the front wall of the mountain temple where the local people are dedicated to the" mother tiger calendar ". Yi people worship the tiger as their totem which ranks first on the left because the Yi nationality regards the left as the superior, and a giant black tiger head is painted in the middle of the wall. The tiger belongs to the enlarged original totem of the Yi people, and the other 11 animals are deriving totems. " In addition, the folk custom of Yi people is also good evidence of totem worship. There are twelve animal days. Today is rat day and tomorrow is cow day. On Tiger day Yi people would go to the market on Tiger Street. On pig day they would go to the market on pig street. Some clans of the Yi people are named after the zodiac. In some places, twelve animal temples are built, sacrificial activities are held every year, and twelve animal gods dance in a solemn atmosphere.
One of the characteristics of animal totem worship is totem dance. Nuo dance is directly related to totem dance, which is a popular folk dance with the functions of exorcising ghosts, expelling diseases, and offering sacrifices. It is generally performed from the first day of the new year to the 16th day of the first month. The existing Nuo dance is mainly distributed in Jiangxi, Anhui, Guizhou, Guangxi, Shandong, Henan, Shaanxi, Hubei, Fujian, Yunnan, Guangdong, and other places, with local titles such as “Nuo dance”, “ghost dance” and “fun dance”. The ancestors danced the Nuo dance to expel all kinds of ghosts, hoping to get protection and live a safe life. After the Han Dynasty, Nuo was still followed, but some changes began to take place gradually. We can see that the twelve zodiac animals originated from the traces of totem worship from the exorcism of the twelve animals in or before the Han Dynasty. To put it another way, the twelve animals and Twelve Gods in the Nuo ceremony are to take care of the twelve months of the year for the safety of the months; At least, it means to expel the plague ghosts from the four directions and take care of the twelve directions. However, these two kinds of care are inseparable from Zi Chou Yin Mao, which is linked to the twelve zodiac signs. These folk customs provide materials for the study of the relationship between man and zodiac culture.

4.3. The Application of Chinese Zodiac Animals in the Agricultural Era

4.3.1. The Domestication of Chinese Zodiac Animals

Six domestic animals are the most important livestock for farming in ancient China. This concept was formed in the Western Zhou Dynasty or earlier.

Similarly, the six animals are also an important part of the Chinese zodiac, namely oxen, horses, sheep, pigs, dogs, and chickens. The role of the Chinese zodiac in production and life reflects the simple ecological view of the Chinese people. Shi Ruiling divides the purpose of human domestication of animals into two categories: the material aspect and the ability aspect.

In terms of materials, in China's agricultural era with insufficient productivity, the most important thing for people is their survival needs, that is, to obtain enough food and survival tools. It includes meat, eggs, and milk, followed by animal skin, bone (horn, shell), hair, fat, tendon, and silk, which can be used to make clothing, shelter, bedding, fuel, medicine, etc.

In terms of ability, different animals have different abilities. The main Chinese characters reflecting the information of the six livestock in ancient times are home, chicken, plow, victim, etc. These capabilities include plowing, ringing, carrying, transportation, defense, warning, etc.

4.3.2. The Relationship Between Chinese Zodiac and Phenological Calendar

The Chinese zodiac is a combination of the year of the main branches of China and the year of the twelve birds. The heavenly stems and earthly branches originated from astronomy and astrology in ancient China. In the long-term agricultural work, people understood the concept of the hour, and divided a day into 12 hours, corresponding to 12 kinds of animals. According to the living habits and characteristics of 12 kinds of animals, there are corresponding animals at each hour, forming the prototype of the twelve zodiacs. People further observe and accumulate the natural phenomena of life and draw laws. Among them, the heavenly stems and earthly branches chronicle reflects the changes of solar terms, the annual movement of the sun, not the moon cycle, while the first and fifteenth full moons of the lunar calendar reflect the changes of the moon cycle.

The creation of the phenological calendar needs to observe astronomical phenomena and record animal work and rest, so the twelve zodiacs also play a corresponding role. At the same time, the 24 solar terms come from the phenological calendar. The cooperation between the zodiac year and the 24 solar terms cycle is a real one-year cycle. In the long years when agricultural science and technology were underdeveloped and agricultural harvest depended on God's will, farmers summarized their own set of laws, used them to record drought years and rainy years, recorded them with the corresponding Zodiac years, and then planned their crops in the plantation with regards. Up to now, the proverb "in the year of the sheep and the horse, the field should be planted widely to prevent the year of the dog and cock when the harvest is terrible."

5. The Relationship Between Chinese and Nature

5.1. The Agricultural Culture in China

General Secretary Xi Jinping states in Taking the road of Socialist Rural Revitalization with Chinese
Characteristics that “Chinese civilization is rooted in agricultural civilization. From the farming solar terms with Chinese characteristics to the ecological ethics of nature and the unity of heaven and man; From the unique houses and villages to the wonderful agricultural landscape; From local festivals to colorful folk art; From the ancestral family precepts of farming and reading, father kindness and filial piety, to the local customs of neighborhood watch, honesty and courtesy, all are distinctive labels of Chinese culture, carrying the genetic code of Chinese civilization, and highlighting the ideological wisdom and spiritual pursuit of the Chinese nation.”

In China, where "food is the most important thing for the people" this motto is prevalent among people, agriculture is the foundation of the Chinese nation. As an ancient agricultural country, China's social economy has been inextricably linked with agricultural culture since ancient times. It can be said that Chinese civilization is produced and developed based on agricultural culture. In the past, when farming technology and production technology were not developed enough, people mostly held the idea of "Heaven's favor, relying on heaven to eat" or "relying on mountains and rivers to eat water", and deeply felt the close relationship between nature and people's livelihood. In the alternation of severe cold and heat, the Chinese people searched up and down, trying to find the periodic law of nature, to better adapt to nature, Reproduce. The phenological calendar and 24 solar terms were the crystallization of people's wisdom at that time.

5.2. The Creation of Phenological Calendar and 24 Solar Terms

The phenological calendar in ancient China was formulated according to the weather, climate, animal work and rest, and the growth, prosperity, and decline of plants, and guided the production of agriculture. Most of the current 24 solar terms are related to phenology and meteorology. Xia Xiaozheng (This almanac can see the agricultural development level of the Central Plains in the pre-Qin period and preserve the astronomical and calendar knowledge of ancient China. It is generally believed that the writing time is between the Warring States period and the Han Dynasty.) has recorded the phenology, meteorology, celestial phenomena, and agricultural activities of animals and plants for 12 months a year. It is the first phenological calendar invented by the Chinese people more than 3000 years ago to facilitate agricultural production.

The 24 solar terms are derived from the phenological calendar. As an agricultural calendar, the twenty-four solar terms are always associated with agricultural life. As an ancient farming nation, Chinese farming life is closely related to the rhythm of nature. However, in the long historical evolution process, the solar term system has been endowed with rich cultural connotations, which reflects the ancient wisdom of Chinese people to respect natural order and pursue harmony between heaven and man, which provides an opportunity for its continuous inheritance and cultural creation under the condition of modernization.

Initially, in different regions, due to different altitudes and climates, different arrival times and duration of seasons, different ways of crop planting, and livelihood, the local unique phenological calendar will be formed. Even not long ago, a natural calendar with ten "seasonal months" in a year was popular among the Lisu People in Yunnan, with different lengths of time each month.

5.3. The Connotation of Chinese Agricultural Culture

Professor Peng Jinshan of Northwest Normal University summarized the connotation of agricultural culture into eight words: "following the season, adaptation to local condition, abide by the rules and laws of nature and harmony". These words embody the Chinese concept of ecological nature - the unity of heaven and man.

5.3.1. Following the Season

"Following the season" reflects the predecessors' attention to the laws of nature. In ancient China, people lived in the time are arranged according to the natural rhythm and agricultural production cycle. The phenological calendar of the Xia Dynasty, Xia Xiaozheng, has listed the celestial phenomena, phenology, meteorology, and corresponding agricultural activities together, which is convenient for the people to master. Later, the year was divided into 24 solar terms, according to which people arranged agricultural activities. Until today, solar terms are still the basis for people to carry out agricultural production activities. Agricultural production is a labor activity with strong seasonal characteristics according to solar terms, phenology, meteorology and other conditions, and its timeliness is very strong. Therefore, meeting the time is the principle that people have adhered to for thousands of years, and "not
violating the agricultural time” is the "Bible" in the hearts of generations of farmers. It is recorded in
Lvshi Chunqiu (an encyclopedic Chinese classic text compiled around 239 BC under the patronage of
the Qin Dynasty Chancellor Lü Buwei): “If the crops are not harvested in time, they will be affected by
natural disasters. Crops are planted by people, born by the earth and raised by the sky.”; “Therefore,
planting timely crops will flourish and yield, and planting untimely crops will weaken and yield.”

5.3.2. Adaptation to Local Condition

“Adaptation to local condition”, namely grasp an appropriate time, condition, and grain, hereby the
soil can implement its full potential. Chinese traditional agriculture emphasizes adjusting measures
according to time, place, and conditions, and regards the "three measures" as the principle that all
agricultural practices must abide by. The ancients believed that adaptation measures to local conditions
were an important measure to guarantee agricultural production. Our ancestors had a good command of
the principle of "considering all the appropriate factors" very early in agricultural activities. The concepts
of "adaptation to the land" and "Yin and Yang" in agricultural culture are the summary of the practical
experience of "considering all the appropriate factors” which has played an important role in guiding
people to understand nature and engage in agricultural production.

5.3.3. Abide by the Rules and Laws of Nature

“Abide by the rules and laws of nature”, namely regulations, norms, and order is a practical principle
formed by the long-term interaction between man and nature. As the foundation of Chinese traditional
culture, agricultural culture contains many excellent cultural characteristics, taking agriculture as the
foundation, peace as the precious, morality as the honor, and etiquette as the emphasis”. Farming culture
is an important source of Chinese traditional culture. It has played an important role in the cultivation of
the fine qualities of the Chinese nation, such as perseverance, advocating harmony, conforming to nature,
adjusting measures to local conditions, and daring to innovate. It is the spiritual soil for the continuous,
vigorous growth and development of the Chinese nation.

5.3.4. Harmony

"Harmony”, following the season, adaptation to local conditions, abide by the rules and laws of nature,
boils down to the establishment of a harmonious symbiotic relationship among heaven, earth, and people,
which is the core concept of agricultural culture.

6. The Chinese Ecological Natural Outlook Influenced by Three Aspects

Totem worship and animal worship began in the primitive period. At that time, people hoped to have
some connection with the totems and animals they believed in. This is also the embodiment of awe and
obedience to human nature. It is the initial stage of the formation process of the thought of "unity of
heaven and man”. On the other hand, the twelve zodiacs also played an important role in agricultural
civilization. The cooperation with the twenty-four solar terms was of positive significance to farming at
that time, and the animals in the zodiac also provided a lot of conveniences and help for the ancient
Chinese people.

Different times and religions have different understandings of "the unity of heaven and man". However, today, "the unity of heaven and man" is the dialectical unity between man and nature, which
can be summarized as that man is a part of nature. We should follow the laws of nature and strive to
achieve the ideal state of harmonious coexistence between man and nature. As an organic and unified
whole, the zodiac integrates the profound wisdom of our ancestors and good wishes for life, praying for
good weather, prosperity, wealth, and well-being. In the farming era when Gu was the life of the people,
the phenological calendar created by the Chinese people, including 24 solar terms, reflected that people
at that time complied with the weather and hoped to reproduce and continue civilization in harmony with
nature. Human reproduction is inseparable from nature, the invention of the phenological calendar is
inseparable from the zodiac, and the development of agricultural civilization is inseparable from the
zodiac animals. Twelve Chinese zodiacs, human and nature three intertwined, reflecting the Chinese
simple natural ecology view - "harmony between man and nature".

7. Conclusions

This paper demonstrates the relationship between man, nature, and the zodiac to reflect that China's
natural ecological view is closely related to the culture of the twelve zodiacs. In their production and life,
members of primitive tribes gradually understood that human beings could not control nature at will. Therefore, the ancestors took totem worship (the origin of the zodiac Culture) as a way to adapt to the environment, created a phenological calendar, and followed the laws of nature to seek the coexistence of themselves and nature. The three are closely linked, reflecting the Chinese people's natural ecological view - "the unity of heaven and man".

References

[4] Li Xiaochun. (2021) "Twenty-four solar terms: the intellectual pursuit of agricultural civilization and the unity of heaven and man -- reading the twenty-fours - creation and inheritance written by Professor Chen Guangzhong," Journal of Huaian Normal University 23.04: 47-50