



Cultural Connotation of Mountains, Rivers, Forests, Farmlands, Lakes, Grasslands and Deserts

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Authors' contributions

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ABSTRACT

“Nature is the mother of life, and it is a community of life for man and nature”. Since the emergence of human beings, the natural environment has been the source of human survival, development and innovation. Through combing ancient literature records and investigating and analyzing the cultural characteristics of China's different geographic environments, we attempt to discover the intrinsic roots of nature and culture. The relationship between human beings and nature also changes with the development of the times. From adapting to nature, utilizing nature, transforming nature, and then feeding nature, reshaping nature and protecting nature, it is not only a process of harmonious coexistence between human beings and nature, but also a process of creating culture, forming rich and distinctive cultural types and forms. Mountains, rivers, forests, farmlands, lakes, grasslands, deserts and human beings are interdependent and closely related to a community of life. In order to adapt to the different environments of mountains, rivers, forests, farmlands, lakes,

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grasslands and deserts, human beings have adopted different ways of living, production and life, and formed natural cultures of " Each place has its way of supporting its inhabitants". The cultures originating from nature are the ways of getting along with nature gradually formed in the harmonious coexistence between man and nature. They are also the excellent culture that we need to inherit and carry forward in the modern construction of harmonious coexistence between man and nature.

Keywords: Nature, culture; mountains, rivers, forests, farmlands, lakes, grasslands and deserts; culture connotation.

1. INTRODUCTION

Since the 18th National Congress of the Communist Party of China (CPC), the CPC Central Committee, with General Secretary Xi Jinping at its core, has defined the Five-Sphere Integrated Plan, giving the construction of ecological civilization top priority. In his report to the 20th National Congress of the CPC, General Secretary Xi Jinping pointed out that "Chinese modernization is a modernization in which human beings live in harmony with nature." [1] This is our action guide in dealing with the relationship between human beings and nature and is also in line with the laws of natural development. We aspire to build a more beautiful country with a blue sky, green mountains, lucid waters and green grass, and realize Chinese modernization of harmonious coexistence between humans and nature. Mountains, rivers, forests, farmlands, lakes, grasslands and deserts are a community of life and are an important viewpoint and scientific judgement in General Secretary Xi Jinping's theory of ecological civilization [2]. The relationship between human beings and the community of life of mountains, rivers, forests, farmlands, lakes, grasslands and deserts is one of the specific characterizations of the relationship between human beings and nature [2]. "We have acted on the idea that lucid waters and lush mountains are invaluable assets and have persisted with a holistic and systematic approach to conserving and improving mountain, river, forest, farmland, lake grassland, and desert ecosystems" [1]. The key to realizing the integrated governance and protection of mountains, rivers, forests, farmlands, lakes, grasslands, and deserts is to fully recognize the interconnection between human beings and mountains, rivers, forests, farmlands, lakes, grasslands, and deserts, especially the dynamic performance of human beings in adapting to the environment of mountains, rivers, forests, farmlands, lakes, grasslands, and deserts. Since the emergence of human beings to the present day, the natural environment has been the

source of human survival, development and innovation. From the Stone Age to the agricultural era, and then to the industrial era, digital era, and ecological civilization era, a series of changes has been seen in the interdependence and harmonious relationship between people and the natural environment, from adapting to nature, utilizing nature, transforming nature, and then to feeding nature and reshaping nature. This process is not only the process of harmonious coexistence between human beings and nature but also the process of human beings' creation of culture, forming rich and distinctive cultural types and forms, which is natural culture. Natural culture is the excellent traditional culture formed in the harmonious coexistence of man and nature. By investigating and analyzing different geographic environments in China, especially the geographical background and cultural characteristics represented by mountains, waters, forests, fields, lakes, lakes, grasses, and sands, and by combining them with relevant records in ancient Chinese literature, we are able to excavate the intrinsic connection between culture and nature. Exploring the cultural connotations of mountains, rivers, forests, farmlands, lakes, grasslands and deserts is not only a need to inherit the fine traditional culture, but also helps us to deeply understand the "modernization of harmonious coexistence between human beings and nature" in the context of Xi Jinping's thought on ecological civilization. It complies with the principle of "respecting, adapting to, and protecting nature" – an inherent requirement of building a modernized country in all respects [1].

2. CULTURE ROOTED IN NATURE

Natural culture refers to the results and processes of all cognitions, thoughts, behaviours and activities originating from, based on, due to and about nature [3]. It is the sum of material and spiritual wealth created in the process of human beings' understanding of nature, adapting to nature, utilizing nature and transforming nature.

Li Guangting (Qing Dynasty) said in *Xiang Yan Jie Yi (People Section)*: "When you enter a room full of orchids, you can't smell the orchid scent after a long time, because you become one with the scent. Similarly, if you are in a store that sells stinky salted fish for a long time, you will not be able to smell the stench of salted fish, and this is also because you have become one with the stench. Therefore, "each place has its way of supporting its inhabitants" [4]. This is to say that people living in different places, due to different resources and environments, have diverse habits, lifestyles, and even temperaments, personalities and physical fitness. In *Basic Questions- Methods of Treatment in Huang Di Nei Jing*, it says: "Why is it that different treatments have been used for one disease and all of them have worked? That is due to the different factors that lead to the disease for the difference in geography" [5]. In the east, west, south, north and center of China, the climate and natural resources are different, and the types and flavors of food and people's eating habits are not the same. Even diarrhoea may have different causes and different treatments. In folklore, there is a saying that different food may cause different diseases. All of the above reflect the different natural cultures that have developed because of the differences in nature.

In the *Royal Regulations in the Book of Rites*, it is written: "All the goods that are stockpiled to accommodate the people had to be determined according to the climate and terrain of the places where they live. For example, if the climate and terrain of the two sides of the canyon and those of the river are different, the customs of the people of the two places would be varied. To be specific, their personalities, the weight of their bodies, the speed with which they moved, their tastes, the shape of their utensils, and the texture and style of their clothes would all be different" [6]. That is to say, the differences in the natural environment will lead to differences in the way people live and produce. That is the reason why the houses, dresses, tastes, pronunciations, ways of speaking and so on are not identical in North and South China. This is just as Yanzi Chunqiu · Wenshang said, "As the saying goes, customs and traditions vary from place to place and from ethnic group to ethnic group" [7]. Whether they are the differences in people's ways of life, clothing, food, housing and transportation, they are all manifestations of natural culture. China spans more than 5,000 kilometres from north to south and from east to west, with great differences in natural

environments, resulting in different types of surface environments. It has dense forests and vast grasslands, as well as deserts and the Gobi Desert, where life is scarce; broad, endless plains, as well as rugged, undulating mountainous terrain; constantly-flowing rivers as well as turquoise lakes. In these different environments, people's ways of survival, production and living are diversified when adapting to nature, and the natural cultures formed are also different. In the following section, the relationship between mountains, water, forests, fields, lakes, grasses and sands and natural culture will be elaborated in detail, taking into account the cultural characteristics of various regions and ethnic groups in China collected by the survey.

3. DIFFERENCES IN NATURAL CULTURE IN THE CONTEXT OF MOUNTAINS, RIVERS, FORESTS, FARMLANDS, LAKES, GRASSLANDS AND DESERTS

3.1 Mountain Culture

As a well-known saying goes, people live off the fat of the mountains they live by. What do you eat when you eat "the fat of mountains"? Of course, it is a variety of resources, such as biological resources, water resources, mineral resources, geomorphological resources and so on. Here, "eating" does not simply have its literal meaning, but also includes the meanings of adaptation, utilization, development and so forth, that is, how people survive relying on the mountain. How do mountains raise human beings? Since ancient times, mountains have been the cornerstone of human survival and development. In the very beginning, human beings lived in caves in the mountains, such as Zhoukoudian Ape Cave and Upper Cave in Beijing, where the "Beijing Ape Man" (formally called *Homo erectus* Beijing or Beijing *Homo erectus*, commonly known as the "Beijing Man"), the Upper Cave Man (late *Homo sapiens*) once inhabited. Many ancient humans are living in caves all over the world. Caves provided them with shelter from the wind and rain, warmth and rest, and a place to flourish. The ancient humans who lived in caves created the living culture of that era, such as making stone tools and roasting meat over a fire.

There are also many food resources in the mountains, such as various kinds of wild fruits, wild vegetables, mushrooms, bamboo shoots, etc., which are important sources of food for

people, both in ancient times and nowadays. Different regions of the mountains have different types of resources and geomorphological features, forming varied food cultures, living cultures, farming cultures, dress cultures and so on. For example, bamboo shoots are plentiful in the mountains of south China, so they are used as an ingredient in a variety of delicious dishes there. Mountain dwellings were built on the side of the mountain, with stone and wood as the main materials. Examples are the wooden houses in South China, stilted buildings in western Hunan and Guizhou, and watchtowers and blockhouses built by the Qiang people in western Sichuan. Most dressings in the mountains and protecting the legs and heads, forming the characteristics of the mountain dress culture. Mountain roads are rugged and rolling. Going to the mountainous area are loose, and both men and women often tie their legs, wear hats (or with a scarf wrapped around the head), etc. These are for facilitating walking on uphill and downhill, people are forced by the inconvenience to carry kinds of stuffpieces of stuff more by using a carrying pole, shouldering, backing, or putting them on oxen, donkeys, and horses. Since the formation of the Porter culture, caravan culture, post-culture and so on. The ancient Tea-horse Road in Yunnan was one of the three channels of cultural and commercial exchanges between China and foreign countries at that time (the other two were the Silk Road and the marine channel). It shuttles through the lofty mountains of the Hengduan Mountains, forming a unique culture of the ancient Tea-horse Road [8], such as making Pu'er Tea into a tea cake for easy transportation, which fully embodies the ingenuity and innovation of the labouring people to adapt to the nature.

The Chinese character 岳 (Yue) means mountain. In fact, in ancient times, it has different meanings, which include both "mountain" and cultural attributes. In remote ages, it is said that Tang Yao had four ministers, Xizhong, Xishu, Hezhong and Heshu, who were the seigniors in charge of east, south, west, and north China. They were called the four yue, representing the tribal leaders. Later, Xia Yu's father, Xia Gun, divided the rainy season of China into five yue and twelve zhou, of which yue is the gentle highland in the mountain range. The five yue are Chongyue, Daiyue, Hengyue, Yuanyue and Huayue, which represent the five regions of ancient China. These five yue and the later five yue (East Yue, West Yue, North Yue, South Yue and Middle Yue) have different

meanings, but they are all endowed with humanistic attributes.

Since Emperor Qin Shi Huang climbed East Yue Mt. Tai to worship the Heaven and Earth, successive emperors as well as ancient sages have shown their admiration and love for mountains. The soaring mountains, which are difficult to climb, always make people look up. The Chinese people often compare high mountains with those of virtue and prestige to express their admiration. Confucius once said, "The knowledgeable love waters, the benevolent love mountains" [9]. Mencius said, "When Confucius climbed the East Mountain, he felt that the state of Lu had become smaller, and when he climbed Mount Tai, he felt that the world had become smaller" [10-11]. On top of Mt. Tai, Du Fu exclaimed, "Only by ascending Mt. Tai will you find how dwarfed all mountains under heaven are". These reveal that mountains give people a sense of enlightenment and spiritual sublimation. On top of the mountain, looking around, you would be filled with a sense of joy and conquest of victory. Climbing mountains can broaden people's horizons, make them open-minded and cultivate their sentiments—Those are the reasons why people love it. In the Double Ninth Festival, there are traditions of mountaineering to look far and pray for good luck and longevity. This festival falls in the autumn each year. After the festival, the weather is getting cooler and the grass began to wither. Therefore, it is said that the Double Ninth Festival climbing "removes the green", corresponding to the spring outing activity in March.

3.2 River Culture

There are many types of water in earth, including seawater, rivers, lakes, groundwater, glaciers, etc. The relationship between water and culture is discussed here with rivers as representatives. People living close to water rely on water shows that water is closely related to human beings. Water is the source of life and the root of survival. On land, there are mountains, and only then there are changes in heights and ridges. When the water on the land gathered to the flow of the gully in the formation of the river, the flow of the river is the land's "blood", the "nutrition" transported to all parts of the earth to make the life on earth flourish, lifting the civilization of mankind, such as the world's four rivers. The river is also a great "sculptor", who carefully carves the landing surface, forming a beautiful

appearance of canyons, mountains, rapids and waterfalls, plains and terraces, providing a place for human beings to feel nature and cultivate their sentiments, so mountains and rivers are interdependent and inseparable.

Rivers bring rich materials to the people along the banks of the river, creating a living environment, where people live and produce according to the river. Around six thousand years ago, the Hemudu people planted rice and built a stilt house [12], adapted to the way of life in the humid climate zone, creating a brilliant culture of the Yangtze River Basin. In some big rivers, the fishermen along the rivers make their living by fishing, casting nets and cormorants, using boats as their homes and drifting in the rivers, forming a fishermen's culture, which was widespread in the middle and lower reaches of the Yangtze River, and a rich culture of fishing gears in the southern part of the Yangtze River. However, with the development of society, this traditional fishing culture once popular will gradually away from us, being left in the historical memory.

In Turpan, Xinjiang, where the climate is hot in summer, evaporation is very high while precipitation is very low, desertification is very serious and water resources are very short. Ice and snow melt water from the Tianshan Mountains, when it flows into the Turpan Basin, to reduce evaporation, to protect precious water resources, people use the karez to divert water for irrigation, which is a great creation. The Dujiangyan Water Conservancy Project in Sichuan fully demonstrates the wisdom of the Chinese people. It is the oldest and only remaining grand water conservancy project in the world today, featuring water diversion without a dam, and it also continues to perform its functions of irrigation, flood control and power generation, which is considered to be the ancestor of the world's water conservancy culture. China's water conservancy culture is very rich, all over the north and south of the river, the world's top 20 super hydroelectric power stations, China occupies 11, and the top 5 now occupy 4. In the 1960s, in Linzhou City, Henan Province, the construction of a water diversion project - the Hongqi Canal, hard in the cliffs of the Taihang Mountains carved out a total trunk canal up to 70 kilometres long diversion canal, known as the artificial river of heaven, which not only shows the wisdom of the Chinese people but also shows the spirit of the fear of hardship and danger. The great rivers are important inland ship navigation, and the waterways are rich in

resources, such as the Yangtze River, the Heilongjiang River, the Songhua River, the Pearl River, the Yellow River, and the Lancang River, etc., which provide an important channel for human beings in terms of the transport of goods, the circulation of people, the exchange of commerce and trade, and travel and tourism, as well as the formation of the culture of shipping. In the Yangtze River Delta region, the development of water networks, waterways in all directions, merchant ships, civilian ships shuttling, the river on both sides of the staggered whitewashed residential houses, in front of the house is the street, behind the house is the river, the formation of the unique architectural style and streetscape of the Jiangnan water town.

The mighty river also brings creative inspiration to the literati and writers, who have written many immortal masterpieces. Li Bai's *Leaving the White Emperor Town at Dawn* and *Looking at Tianmen Mountain* shows the turbulence of the Yangtze River and the grandeur of the canyon. The lyrics of the song *Shipwright's Horn* show the courage, bravery and skillfulness of shipwrights in the Yangtze River's waves: through the waves, treading on the dangerous shoals, breaking through the whirlpools, meeting the rapids, the water flying for thousands of miles, the ship like an arrow, riding on the wind and waves to run to the sea, and the sound of the waves keeps on singing and echoing between the white clouds. In ancient times, the Yangtze River was an important channel for material, trade and personnel exchanges between Bashu and Jingchu, Wu and Yue, and ship navigation was relatively busy, leaving many trestles on both sides of the Yangtze River where boat trackers walked, which has now become history.

3.3 Forest Culture

The forest is one of the most important ecosystems on the land surface, known as the "lungs" of the earth, an important contributor to the improvement of the atmospheric environment, and an important protector of soil erosion. There are various types of forests, such as tropical rainforests, subtropical broad-leaved evergreen forests, temperate broad-leaved mixed forests, and taiga forests. Although bamboo is a herbaceous plant, it grows taller and has the characteristics of a woodland, so bamboo forests are also categorized as forests. Forests not only have an important ecological value, being a reservoir of carbon dioxide and a

natural oxygen bar, but also have a very important aesthetic value of the landscape, and many of China's forest parks are important tourist destinations.

Forests provide an abundance of wood, and people living in forested areas often use the wood locally for their livelihoods, production and economic activities. Housing is often made of wood, with one-story huts in the north and two-story stilt huts or hammocks in the forested areas of the south. Wooden houses are more comfortable to live in and always give people a natural, warm and cosy feeling with a unique style. Furniture made of wood in the forest area is various, such as wooden beds, wooden tables, wooden chairs, wooden stools, wooden buckets, wooden ladles, etc., which have influenced China for thousands of years, and even some of the furniture has been influenced to the present day, which is part of the forest culture. However, with the development of the times, some wooden furniture was replaced by plastic furniture, and that emotion can only stay in the memory, so the barrel of the barrel maker is now also difficult to find.

In the bamboo areas of the south, the use of bamboo and bamboo shoots to the fullest extent, from living, using to eating, a wide range of everything, forming a rich bamboo culture. The bamboo houses built with bamboo are chic and practical, suitable for living in the climate conditions of these regions. The walls, tiles and stairs of the house are all made of bamboo, and the bamboo beds, mats, tables, chairs, stools, cabinets and trays compiled by skilled gimps and all kinds of handicrafts fill the house, making it a bamboo museum. There are various kinds food which is made of bamboo shoots, such as fresh bamboo shoots, pickled bamboo shoots, dried bamboo shoots, smoked bamboo shoots, etc., and various delicious dishes are cooked using bamboo as cooking utensils, such as stewed rice, stewed meat, stewed chicken, etc., in raw bamboo tubes, the aroma of meat, rice and the fragrance of bamboo are mingled together, which is also the fusion of man and nature. In the forested areas of the Jiangnan region, especially in Jiangxi, Hunan, Hubei, Guizhou and other provinces, where the winter climate is wet and cold, in the past, when there was no air conditioning, in the winter, we dug a fire pit in the house, burned the fire with wood, and sat around the fire pit and roasted the fire, which was lively and warm. The cured meat was hung on the top of the fire, and the smoked bacon was made by

the fire. The bacon can be stored for a year without spoiling and is preserved for a longer period than ordinary cured meat. This is a culture of harmonious coexistence between man and nature.

In the past, wild animals in the forest are also an important source of food, but nowadays there has been a fundamental change, people from hunters to protectors, the formation of a harmonious relationship between people and animals, wild animals are also close to people, which is a cultural change in human behavior. There are many kinds of mushrooms in the forest, such as shiitake mushroom, matsutake mushroom, fungus, chicken fir, matsutake mushroom, hazelnut mushroom, etc., which not only become the industry for residents to develop the economy and tourism, but also form a rich and colorful dietary culture, Yunnan to the whole fungus feast to sincerely treat all the world's guests, and the Northeast's signature dish is the chickens stewed with mushrooms.

3.4 Farmland and Farming Culture

The farmland here is arable land in the broad sense, such as rice fields in the south, dry land in the north, terraces on slopes, etc. Arable land is the lifeblood of human existence and the cornerstone of human development, and we have to protect it. Ever since the agricultural civilization, human beings have been exploring and promoting the development of farming culture, such as farming methods, irrigation methods, planting methods, cultivation methods, plant species, soil and water conservation, soil improvement and so on. China is one of the earliest countries in the world to see the emergence of an agricultural civilization. The world's earliest artificially cultivated rice was unearthed from the Yuchanyan site in Dao County, Hunan Province, 16,000-14,000 years ago [13], which is much earlier than the emergence of farming civilizations as we usually perceived them in the past. This may be due to the fact that during the late Last Ice Age, the cold climate caused food to become scarcer on the surface of the earth, which inspired the Chinese to cultivate rice, a great initiative that brought China into the earliest age of farming. In China, there are two basic types of fields, the paddy field and the dry land, usually referred to as Tian for the former and Di for the latter. The fields are different, and the crops grown are also different. The former is mainly rice, while the latter has a wider variety of wheat, barley, buckwheat, oat, corn, sorghum, corn, and soya beans.

In the southern region of the humid climate, high precipitation, surface water is sufficient, there are water flows in the ravine, and water network development, which is suitable for growing rice, therefore, in the river valley, the ravine in the flatter places are reclaimed paddy fields too. Paddy field cultivation has its unique ways and methods, such as the ploughing, harrowing, middle of the field, the field must be levelled, and all paddy fields have to have ridges above the surface of the field, otherwise, there is no way of storing water to grow rice, which is completely different from the dry land. Farming tools are also different, such as buckets, fan carts, woven mats, and gabion trays, and rice is processed with a mortar or a water pestle, forming its unique farming culture. The south produces rice and develops a variety of foodstuffs using rice as raw material, such as rice noodles, rice cake, steamed cake, maguo, youguo, etc., which also forms a unique food culture.

In the arid northern region, dryland crops, such as wheat and corn, are mainly planted. Farming methods are not as complicated as paddy fields, and they can be cultivated in large areas, only by ploughing and raking, and there are few ploughing fields because there is no need to arrange the land very flat, even if the ground fluctuates, it will not affect farming, so it is quite different from the south in terms of farm tools. It is also different in the way of grain threshing. For threshing and grain processing, stone rollers, and stone wheel mill are mainly processed into flour (such as wheat flour, corn flour, buckwheat flour, etc.), which is different from that in the south, which is mainly processed into granules (rice). This has formed the farming culture in the arid climate area.

3.5 Lake Culture

Lake is a waterlogged depression on land, both natural and artificial, and it is a very important ecosystem type. It is one of the regulators of land water resources and local climate, and it is the habitat, wintering ground and resting place of migratory birds. Large lakes can also play a role in regulating drought and flood. There are many lakes in China. According to incomplete statistics, there are 2,759 lakes with an area of more than 1 square kilometre [14], with different sizes, different shapes, different water quality and diverse causes. The largest lake in China is Qinghai Lake, with an area of 4,583 square kilometres. Lake water includes fresh water, salt water and salt lake. Poyang Lake is the largest

freshwater lake (3,583 square kilometres) in China, the largest saltwater lake is Qinghai Lake, and the largest salt lake is Qarhan Salt Lake in Qinghai, covering an area of 5,856 square kilometres.

Lakes are rich in resources, such as water resources, biological resources, landscape resources, tidal flat resources and mineral resources, which provide a guarantee for the survival of human beings. Lakes located in different climatic zones and geomorphic zones have different resource types, which have different impacts on human life and production activities, resulting in different cultural characteristics. In the past, the lake was an important fishing place. Fishing boats of all sizes shuttled through the reeds of the lake, fishing by hand-casting nets, sticking nets, longlining, cormorants, stationary lift net, bamboo cages and so on, forming a beautiful scenery, and lake fishermen also made a living from it. Nowadays, cormorant fishing is developed as a tourism project in some places, which reproduces the ancient fishing culture and also shows the harmonious coexistence between man and nature. There are many lakes in Hubei Province, which has the reputation as "the province of thousands of lakes". Nowadays, the lake aquaculture of fish, crabs, shrimps, turtles and others is very prosperous. It is also rich in lotus roots, the planting area and output rank first in the country, accounting for one-third of the country's output. There are countless delicacies with lotus roots as ingredients, and it is a veritable land of lotus roots and land of fish and rice. Herbs such as reeds, sedges and *Typha orientalis*, which grow by the lake, not only provide habitats for waterfowl, migratory birds and small animals, but also protect the ecological environment, forming a beautiful landscape of water, grass and birds flying and swaying, and are also good weaving materials. These plants can weave straw hats, straw mats, straw curtains, straw sandals and handicrafts after drying, which is a model for human beings to make full use of these resources.

In western China, the climate is dry, and the surface evaporation is much greater than the precipitation. The lakes in these areas are inland lakes, so many saltwater lakes and salt lakes are formed. The four major salt lakes in China are Qarhan Salt Lake and Chaka Salt Lake in Qinghai Province, Yuncheng Salt Lake in Shanxi and Barkol Salt Lake in Xinjiang, among which Jiechi in Yuncheng (Shanxi Province) is the salt

lake with the longest development history in China, and it is also named as "the city of salt transportation". Salt lakes are rich in all kinds of salt, brine, biological resources and some rare elements. For example, lithium in lithium batteries produced today is rich in some salt lakes, such as Zabuye Chaka Salt Lake in Tibet, which is the third largest lithium mine salt lake in the world and the largest in Asia. Salt Lake is also a major characteristic landscape in western China. It has become one of the important tourism destinations in Qinghai, Tibet and Xinjiang, and it is a bridge to build harmony between man and nature, allowing people to feel the magic, charm and gift of nature and experience a baptism of caring for nature.

3.6 Grassland Culture

Grass, of course, refers to grassland, which is mainly composed of herbaceous plants. It is an important ecosystem type on land. It plays a vital role in soil and water conservation, wind and sand fixation, water conservation, climate regulation, carbon fixation and oxygen production, and biodiversity maintenance, forming a horizontal ecological barrier. Therefore, grassland is also called the "skin" of the earth. Grassland is also an important production base of human material products and the cornerstone of animal husbandry development, which provides all kinds of food, fluff leather, living places and tourist landscapes for human beings. Grassland is widely distributed in China, 80% of which is mainly distributed in the north, such as in Inner Mongolia, Xinjiang, Qinghai, Gansu and other provinces have the most distribution, and a small amount in Yunnan-Guizhou Plateau in the south.

Grassland is mainly inhabited by nomadic people, who live by grazing. With the changes in seasons and grasslands, they have to switch between summer pastures and winter pastures every year, herding sheep, carrying living materials and yurts, and taking their families. The journey is tens of kilometres to one or two hundred kilometres, so the mobility is frequent, which is to live by water and weeds. Pasture transition in summer and winter is a scientific grazing method, which is convenient for the restoration and sustainable utilization of grassland, just like the way of land rotation and fallow. To adapt to this nomadic life, herders have formed their lifestyle, eating habits, clothing characteristics, living characteristics, customs and artistic styles. The nomadic culture of

nomadic people is the result of respecting, adapting to and protecting nature

Mongolian yurts are the most distinctive residence. White yurts are scattered on the vast green grassland with a unique style. The blue sky, white clouds, grasslands, yurts and sheep form a beautiful scene of harmony. From the point of view of the ecological environment, no matter building or dismantling yurts, the damage to grassland is very small, leaving no construction waste, which is convenient for grassland restoration and is the most environmentally friendly and ecological way of life. The whole yurt is cylindrical. Why should the yurt be made cylindrical? In the Inner Mongolia Plateau, the wind is relatively strong in winter, and the round surface of the yurt reduces the resistance to the wind, which facilitates the stability and firmness of the yurt; The inner space of a cylinder is larger than that of a cuboid or a cube with the same surface area; The round yurt is easy to build and disassemble, which adapts to the transition life of herders; In the concept of Mongolian people, circle represents the meaning of satisfactory, perfection and completeness.

The diet of Mongolians living on the grassland is also self-sufficient, mainly based on meat and dairy products, with few vegetables. The Mongolian people live mainly in the Mongolian Plateau, where the climate is dry and cool, and it is not suitable for growing vegetables. In summer, there are some wild Allium and leek, but in winter, the whistling north wind is cold, the vegetation has withered, and there are no wild vegetables available. To supplement vitamins, they formed the habit of drinking tea (milk tea), which can also relieve greasy. The preservation method of meat in these places is air-drying. The climate in these areas is dry and windy, which is suitable for making air-dried meat. There are air-dried beef, mutton and camel meat, which are special foods in grassland areas. Mutton is eaten mainly by hand-grabbed meat and barbecue, especially hand-grabbed meat. Its production method is relatively simple. Fresh mutton is put into a pot, sprinkled with a handful of salt and cooked. This simple and practical cooking method is also related to the lack of other ingredients in grassland areas.

The most distinctive clothing of Mongolians is the Mongolian robe and boots, which are exquisite in production, elegant in appearance, convenient to put on and take off, good in warmth, and are most suitable for nomadic riding and the cold

climate of the Mongolian plateau. In terms of color, Mongolians especially prefer bright and shiny red and gold and also advocate pure and bright white and sky blue, so the colors of Mongolian robes are mostly combined above all, which matches the green grass. We can imagine that on the vast grassland, blue sky and white clouds, green grass and red clothes, constitute a natural beauty. Both men's and women's Mongolian robes are loose, with more slits on both sides, and the upper body of the Mongolian robe is close to the body by wearing a belt, which is more suitable for the long-term riding life of nomadic people. Leather boots, cloth boots or felt boots not only have the function of keeping warm from the cold, but also are convenient for wading through the grass, preventing sand and insects, etc., and when riding a horse, they can protect their feet from being bruised by stirrups.

Grassland songs are unique. Mongolian "Ma Touqin"(horse-head string instrument) sound and long-tune melody are characterized by vastness, openness, stretching and undulating and stretching and undulating. They fully show the beautiful scenery of a blue sky, floating white clouds, white sheep, galloping horses, soaring eagles, round yurts and winding rivers blending on the endless and soothing green grassland, and also express the heroic and free-spirited people of Inner Mongolia grassland, as well as their upwardly-motivated and sincere folkways.

3.7 Desert Culture

In arid regions, such as western China, North Africa, the Middle East and other places, the desert is a widely distributed ecosystem type on the surface, and it is also a unique landscape type. The endless yellow "sand sea" and undulating dunes in the desert give people the feeling of being desolate, daunting and forbidden in life. Although most areas of the desert are covered by yellow sand, oases are often formed in rivers and lakes for human survival and become the main distribution points of villages and cities in the desert. In the hinterland of the Taklimakan Desert, the largest desert in China, there is a village named Daliyabuyi, with a population of about 1,000. It lives on the oasis named "the navel of Taklimakan" formed at the end of the Kriya River originating from Kunlun Mountain, which is about 240 kilometres from here to the edge of the desert. From the name of this oasis, it is not difficult to see its position in the desert. There are many oases in the hinterland of Badain Jaran Desert and Tengger

Desert in China, all of which are inhabited by people.

The weather in desert areas is often windy and sandy, and when the wind blows up, the air is dusty, full of yellow sands and suffocating. The temperature difference between winter and summer here is very big, that is, the summer here is unbearably hot with the burning sun, and the winter here is unbearably cold with the chilling wind. All kinds of resources are also relatively short, in addition to the extremely rich sand resource, other resources are badly lacking. The unique environment also formed the unique desert culture. In the Xinjiang region of China, the food culture is unique, which makes beef, mutton, tomatoes, carrots and onions the food ingredients and roasting, braising and boiling as the major cooking methods. These easy cooking methods and food habits are formed in line with the animal husbandry and arid climate there. The most typical type of diet is Hand Grab Rice, which is widely spread from the Xinjiang region in China westward to Central Asia. Cattle and sheep are fed in the animal husbandry here. Beef and mutton have rich proteins, onions can remove the smell of beef and mutton, and carrots contain a variety of vitamins. Therefore, Hand Grab Rice is made of these ingredients and rice is not only delicious and easy to cook but also nutritious, which formed a unique food culture. In the Xinjiang region of China, there is also a unique food made of flour, namely "nang". The just-baked "nang" is delicious and soft, and "nang" can be preserved for a longer time without going bad than steamed buns. Moreover, the flat "nang" is convenient for herdsmen to carry so that they can herd in desert areas.

Most of the folk houses here are relatively low, with one floor. And the windows are small, mostly installed on the lee side and in a higher position to prevent being flooded by sand. The walls facing the wind are dense and strong, without windows generally. The building materials are made of local materials, the exterior walls and roofs are made of clay, and the wood is taken from local dry-resistant red tamarisk, haloxypop ammo dendron and Populus. The exterior walls of houses here are relatively thick to keep warm, resist heat, and withstand the abrasion of the wind and sand, such as the early soil houses in Turpan, with the 1-meter thickness of the walls.

The most special costume in desert areas is a gown and headscarf, which are most common

and representative in the Middle East and different from other desert areas. In the Middle East, men's gowns are generally white, looser, and longer to the ankles, and never open. And their heads are often covered with white headscarves. While women's gowns are tighter. Such costume is designed to adapt to the hot climate, windy and sandy environment in desert areas. The white gown has the high reflectivity of the sunshine, which makes people feel cool and is conducive to blocking the strong sun and protecting the skin from damage. The main function of the costume is sand and sunshine prevention. In the Xinjiang region of China, the climate is not as dry and hot as that in the Middle East, which results in different costumes. Men in Xinjiang wear gowns named "Qiapan", which have the characteristics that the right collar is under the left, there are no buttons, the length is above the knee, the long silk scarf or cloth scarf is tied around the waist, and the color is also diverse. They often wear bonnets, not the headscarves. Women love to wear dresses, prefer to choose bright silk or woollen dresses, commonly in red, green, golden and other colors of material, and wear an inner skirt in light color.

4. HOLISTIC GOVERNANCE AND UTILIZATION OF MOUNTAINS, RIVERS, FORESTS, FARMLANDS, LAKES, GRASSLANDS AND DESERTS FROM THE CULTURAL PERSPECTIVE

The mountains, rivers, forests, farmlands, lakes, grasslands and deserts represent different natural or semi-artificial environments. The cultural features, contents and forms formed in different natural environments are not the same. The spans of longitude and latitude in China are large, the natural environment between north and south, east and west is different, and there are differences in landforms, climate conditions, biological resources, water, land and mineral resources. Therefore, distinctive natural cultures are formed through the process of adapting to and utilizing the natural environment (Fig. 1). Although the showing forms of culture are different, it reflects that human beings, as same as the mountains, rivers, forests, farmlands, lakes, grasslands and deserts, are a living community, and reflects the harmony between humanity and nature. Differentiated natural culture is the cultural expression of respecting,



Fig. 1. Nature culture distribution map of China

accommodating and protecting nature in the process of human development. Here, the terrace with Chinese characteristics is taken as an example to show the holistic governance and utilization of mountains, rivers, forests, farmlands, lakes, grasslands and deserts in Chinese traditional culture.

The earliest cultivation of terraced fields appeared in China in Qin and Han dynasties, and China was one of the earliest countries that constructed terraced fields in the world, with a history of at least two thousand years. The Longji Terrace in Longsheng, Guangxi is the earliest developed terraced field in our country. In the Chapter Zhengyue of *The Book of Songs*, there is a poem “Look at the terraced fields called *Beitian* on the hill, the crops are growing well [15].” The *Beitian* is the terraced field on the hillsides. The word “terraced field” first appeared in Fan Chengda’s *The Book of Canluan* in the Song dynasty. In the book, it is said that “The stone steps on the side of the mountain are very high, the hillside is covered with fields, layer by layer until reaches the top of the hill. These fields are terraced.” [16] The terraced field is a great innovation of farming culture, which solves the contradiction between more mountains and fewer plains and food production, between field cultivation and soil and water conservation, and is also a production of respecting, accommodating, and protecting nature. In the mountains and hilly areas of south China, where the annual precipitation is high, rain can easily wash away the soil if people directly cultivate on the hillsides, causing the land impoverished and the rocks exposed. In the Loess Plateau of north China, cultivation on the hillsides will aggravate water and soil loss and desertification. Therefore, the construction of terraced fields effectively alleviates the contradiction between human beings and mountains, rivers and deserts, and plays the role of water preservation, soil preservation, fertilizer preservation, light transmission, ventilation and production increase. When the Chinese people build terraced fields, they also build ponds according to the terrain to further decrease water and soil loss. Then China’s unique pond-terrace model comes into being. China has terraced fields all over the north and south of the Yangtze River, no matter in the humid climate area or the arid climate area, there are terraced fields. In the 1960s to 1970s, a vigorous campaign of terraced fields was launched across the country. To adapt to different climates and terrain environments, China has agricultural terraced fields, orchard

terraced fields and afforestation terraced fields, realizing the holistic governance and utilization of mountains, rivers, forests, farmlands, lakes, grasslands and deserts. Longsheng Terrace in Guangxi and Yuanyang Terrace in Yunnan Province are famous both at home and abroad. They are not only models of terracing reclamation, but also a geographical card of holistic governance and utilization of mountains, rivers, forests, farmlands, lakes, grasslands and deserts, and harmony between humanity and nature.

5. CONCLUSION

General Secretary Xi Jinping pointed out that “Nature gives birth to life, and humanity and nature are a community of life”. At present, our country is in a critical period of ecological civilization construction. By fully understanding the relationship between human beings and nature, we can scientifically and correctly protect, govern and utilize “mountains, rivers, forests, farmlands, lakes, grasslands and deserts” to realize the coordinated development of human society and nature [17]. Due to the environmental differences of mountains, rivers, forests, farmlands, lakes, grasslands and deserts, human beings have different ways of survival, production and life in the process of adapting to nature, forming the natural culture of “Each place nurtures its inhabitants”. The natural culture is the product of respecting, accommodating and protecting nature, and the excellent culture that needs to be inherited and carried forward in our current modernization construction of harmony between humanity and nature. Realizing the cultural connotation of mountains, rivers, forests, farmlands, lakes, grasslands and deserts is beneficial to understanding and recognising the harmony between humanity and nature, to promote the holistic governance and utilization of mountains, rivers, forests, farmlands, lakes, grasslands and deserts.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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