



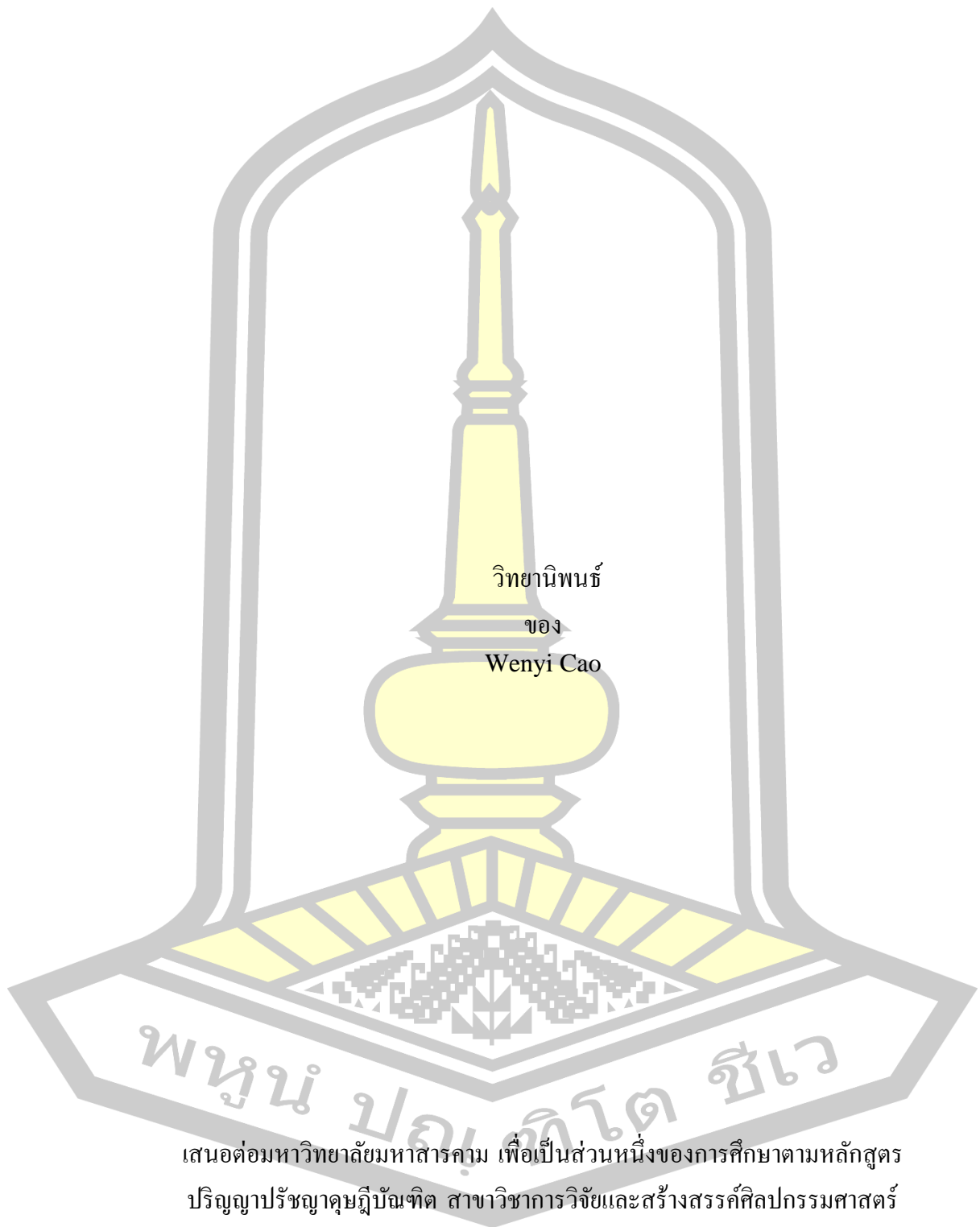
The White Crane Ridge in Fuling District Cultural Heritage and The Production of Space the Relationship between China's Past and Modernity

Wenyi Cao

A Thesis Submitted in Partial Fulfillment of Requirements for  
degree of Doctor of Philosophy in Fine and Applied Arts Research and Creation  
March 2025

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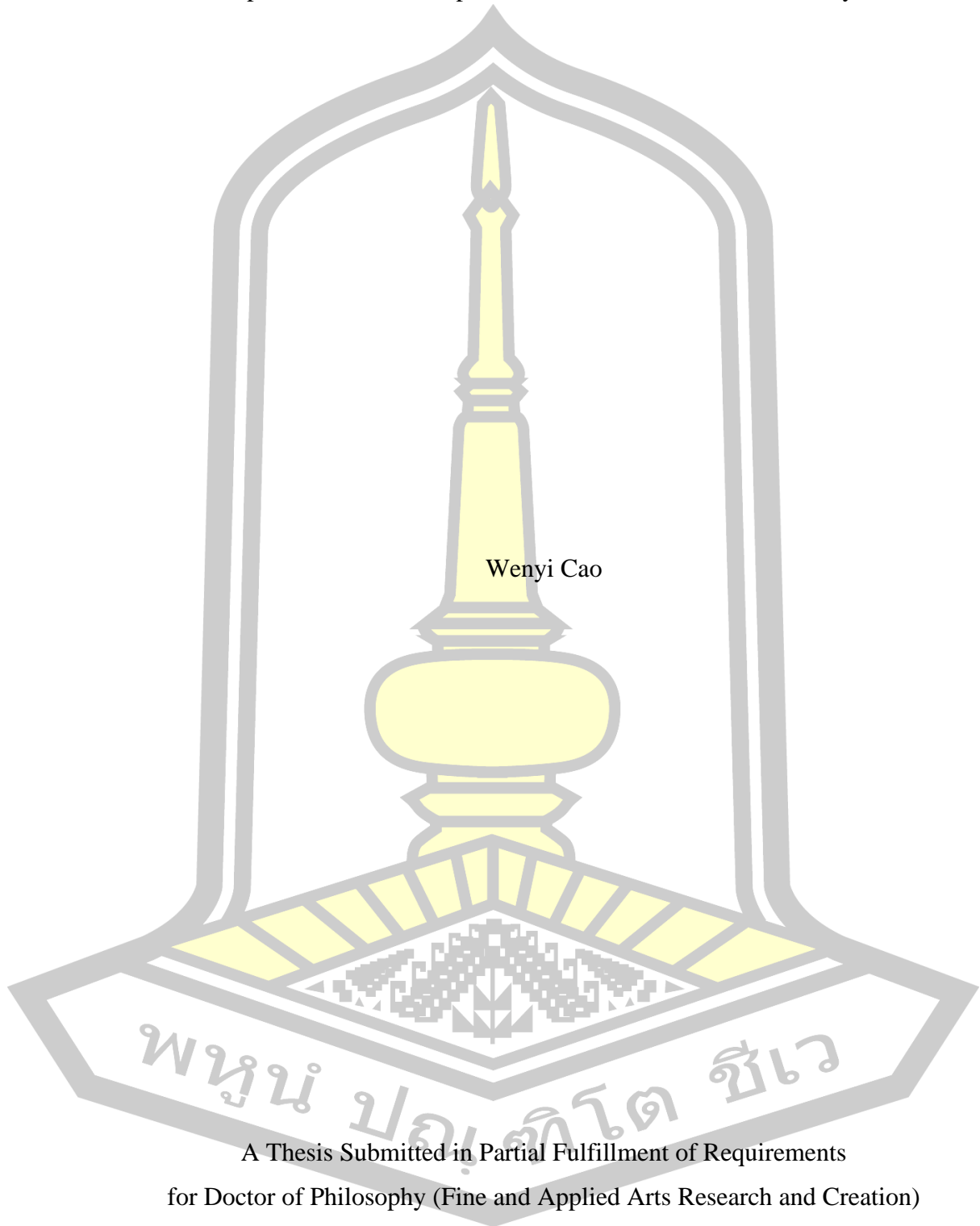
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เสนอต่อมหาวิทยาลัยมหาสารคาม เพื่อเป็นส่วนหนึ่งของการศึกษาตามหลักสูตร  
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A Thesis Submitted in Partial Fulfillment of Requirements  
for Doctor of Philosophy (Fine and Applied Arts Research and Creation)

March 2025

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### ABSTRACT

This study is a Qualitative research and it studies the cultural heritage and spatial production of the White Crane Ridge. There are four main research objectives: 1) to study the history and development of the White Crane Ridge from the past to the present; 2) to study the formation of the past space and heritage from the perspective of space production; 3) to study the current space production and heritage of the White Crane Ridge from the perspective of space production; 4) to analyze the role of the cultural festival between the past and the present space production.

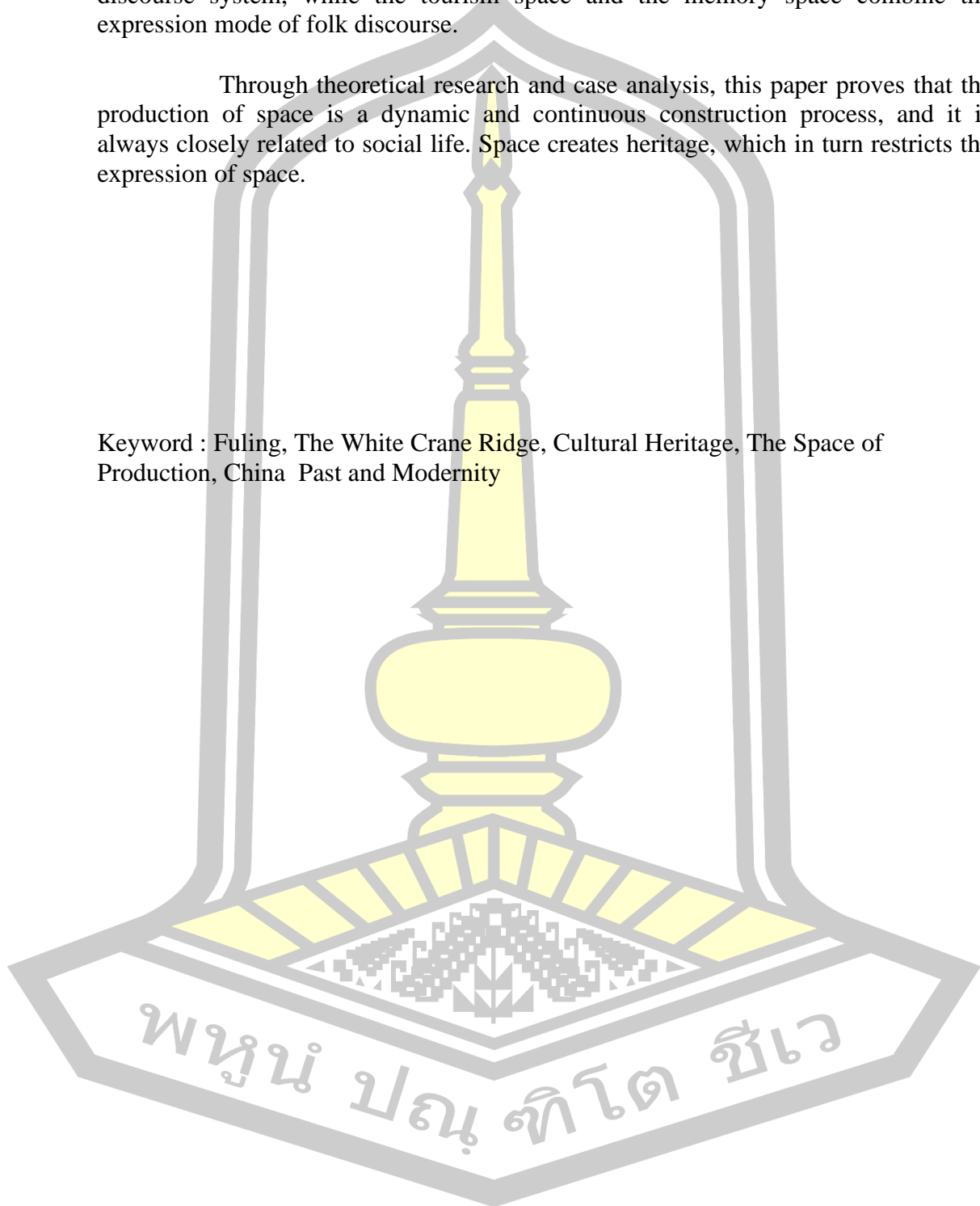
The results show that the space of the White Crane Ridge is shaped by the natural environment and human activities. From the stone fish scale in the Sui and Tang Dynasties, to the spring fish watch and poetry inscriptions in the Song and Yuan dynasties, to the modern underwater museums and cultural festivals, the space of the White Crane Ridge has undergone an evolution from practical functions to cultural symbols. This evolution not only reflects the change of social and economic structure, but also reflects the evolution of human space utilization mode. The research adopted Lifer's theory of "production of space" to explain the physical space, social space and spiritual space in the past, as well as the spatial practice of people in this space. Research shows that the past space production of the White Crane Ridge is a cultural production process, and the past space practice has created cultural heritage.

The research in this paper also explores the close connection between the current spatial form and the heritage of the White Crane Ridge. The research shows that the current space production of the White Crane Ridge is a dynamic construction process for the continuous utilization of heritage, and it is completed by the synergistic effect of "authoritative discourse" system and "folk discourse" system. "Authoritative discourse" is scientific, objective and rational. In the current space production process of the White Crane Ridge, the government usually effectively controls the utilization of heritage through the "authoritative discourse" system, so as to ensure that its value utilization conforms to the core goal and does not deviate from the objective facts. "Folk discourse" is relaxed and lively, not confined to any form of expression. In general, most people choose the expression mode of "folk

discourse". For example, the White Crane Ridge Cultural Festival is a typical example of innovative heritage expression. The academic space is based on the authoritative discourse system, while the tourism space and the memory space combine the expression mode of folk discourse.

Through theoretical research and case analysis, this paper proves that the production of space is a dynamic and continuous construction process, and it is always closely related to social life. Space creates heritage, which in turn restricts the expression of space.

Keyword : Fuling, The White Crane Ridge, Cultural Heritage, The Space of Production, China Past and Modernity



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I sincerely wish you all good health, smooth work and a happy life!

Wenyi Cao

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## CHAPTER I

### Introduction

#### 1.1 Background of Research

The White Crane Ridge used to be a natural giant stone beam in the center of the Yangtze River, approximately 1600 meters long and 15 meters wide, extending from west to east and parallel to the river flow (Wang Xingguo, 2003: PP.40-42). It is a special natural space in the Yangtze River, and its uniqueness lies in its floating and sinking in the center of the Yangtze River as the water level changes with the rise and fall of the Yangtze River during the dry season. This elusive phenomenon of ups and downs shares similarities with the traditional Chinese Taoist school's pursuit of immortality and blessings. It is said that in ancient times, there were Taoist practitioners who rode white cranes here and ascended to the sky to become immortals. The Water Classic Commentary (Northern Wei, Li Daoyuan) records: "The White Crane Ridge was cultivated here by the Immortal Erzhu, who later rode on the Crane Immortal and left, hence its name." It is also known as the "White Crane Ridge" because it attracted countless white cranes to gather here during the dry season (December March) when it appeared on the water surface.

The White Crane Ridge is submerged under the Yangtze River all the year round, and only in the dry season of low water years will be exposed to the surface. This unique natural advantage makes it the basis for judging the change of water level in the low water year of the Yangtze River. On this stone beam, a clever Fuling man carved a double fish pattern stone sculpture here, which is used as a standard for measuring the low water level of the Yangtze River. At the same time, the wise man also carved the line of the extremely low water level at that time on the stone wall parallel to the river. It is his operation that makes this natural space evolve into a real sense of hydrology station, thus having social function value. Later people followed the previous methods, not only observed, measured and recorded the low water level of the Yangtze River here, but also carried out various activities here, so that the white crane space was constantly innovated and utilized.

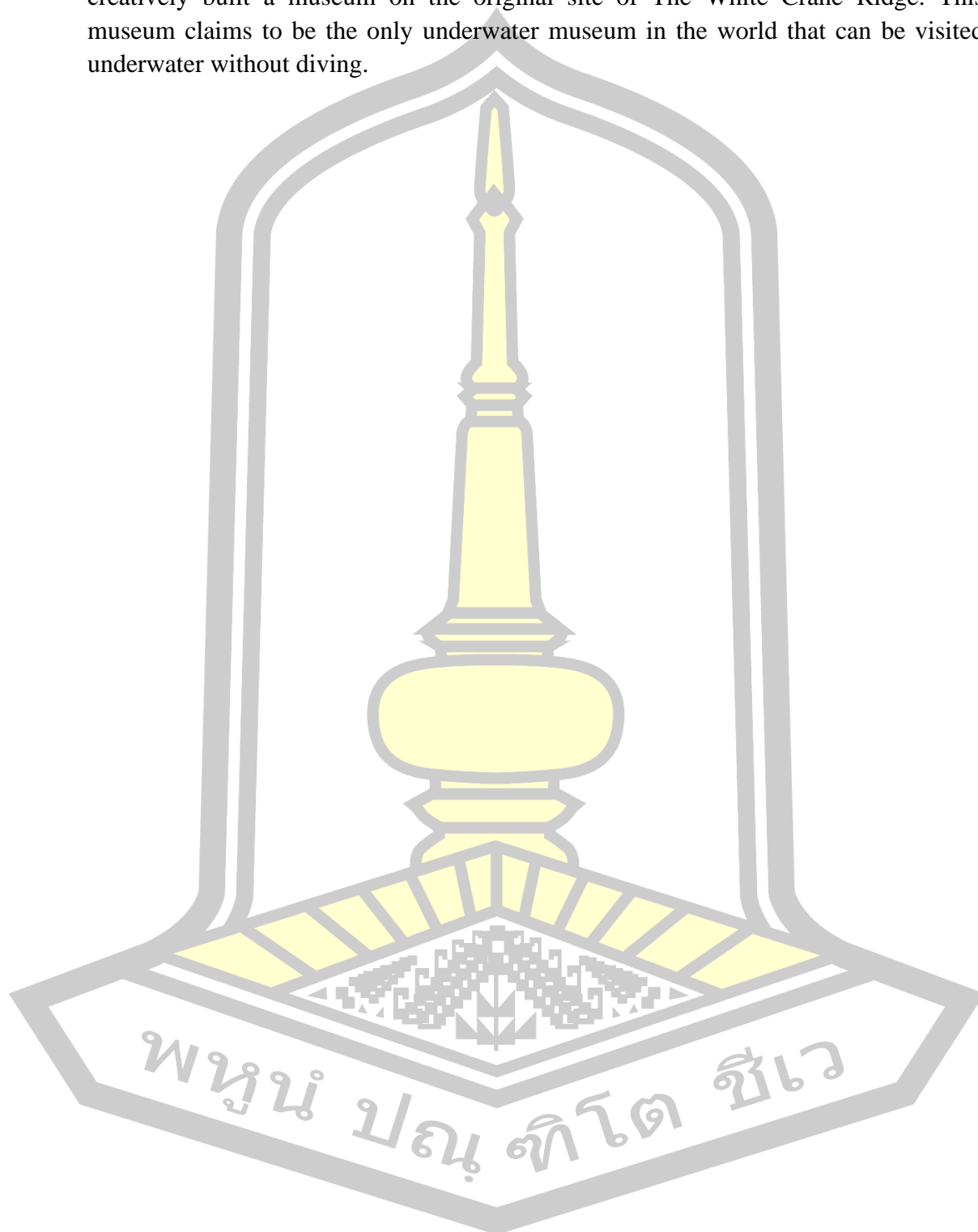
Since entering modern times, influenced by the Three Gorges Project<sup>1</sup>, The White Crane Ridge has been submerged in the bottom of the Yangtze River at a depth of 40 meters after the Three Gorges Reservoir<sup>2</sup> was filled with water. Taking

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<sup>1</sup> The Three Gorges Project, also known as the Three Gorges Hydro-power Station Project, is the Three Gorges Water Conservancy Hub Project of the Yangtze River. The Three Gorges Project is the world's largest hydroelectric power station project and also the largest construction project in Chinese history. The Three Gorges Project was approved for construction by the National People's Congress of China in 1992, and construction officially began in 1994. It began storing water and generating electricity on the afternoon of June 1, 2003, and was fully completed in 2009.

<sup>2</sup> The Three Gorges Reservoir is an artificial lake formed by the Three Gorges Project.

advantage of the construction of the Three Gorges Project, the Chinese government creatively built a museum on the original site of The White Crane Ridge. This museum claims to be the only underwater museum in the world that can be visited underwater without diving.



The construction of the White Crane Ridge Underwater Museum. One reason is that the cultural heritage the White Crane Ridge has multiple values and importance, which requires us to protect it. Secondly, the cultural heritage of the White Crane Ridge has attracted international attention<sup>3</sup>. It not only represents the protection and management of material cultural heritage along the Three Gorges of the Yangtze River<sup>4</sup>, in the construction process of the Three Gorges Project, but also represents the voice of the Chinese government to the world. The Three Gorges Project of the Yangtze River in China is not a barbaric project, but a beneficial measure for human development. China's material cultural heritage is also being protected and managed in a more modern and comprehensive way during this process. The third is to demonstrate to the world the comprehensive strength of modern China, which is not only a display of past history, culture, folk customs, technology, art, etc., but also a comprehensive practice of modern science and technology in China. The fourth is to create conditions for local economic development and create a modern tourism space. These factors have led the modern space of the White Crane Ridge to develop in a new multi-dimensional direction, not only forming a museum, but also expanding into other spatial places.

The multiplicity and importance of the value of the White Crane Ridge itself are reflected in its diversity of identity and the importance of its value.

Firstly, it is an ancient hydro-logical station in Chongqing, reflecting the past hydro-logical technology, technological inventions, and recording methods. At this hydro-logical station, people used to use carved stone fish as "water markers" to measure the low water level of the Yangtze River, and recorded historical low water level information through symbols and written records. The hydro-logical data system it records reflects the water level evolution of the upper reaches of the Yangtze River during the dry years of 1200 years, providing important physical evidence for studying the historical laws of the Yangtze River hydrology, regional climate, and global climate change. The integrity and reliability of its data attracted attention at the 1974 International Hydro-logical Conference and was praised by UNESCO in 2008 as the "only well preserved ancient hydro-logical station in the world."

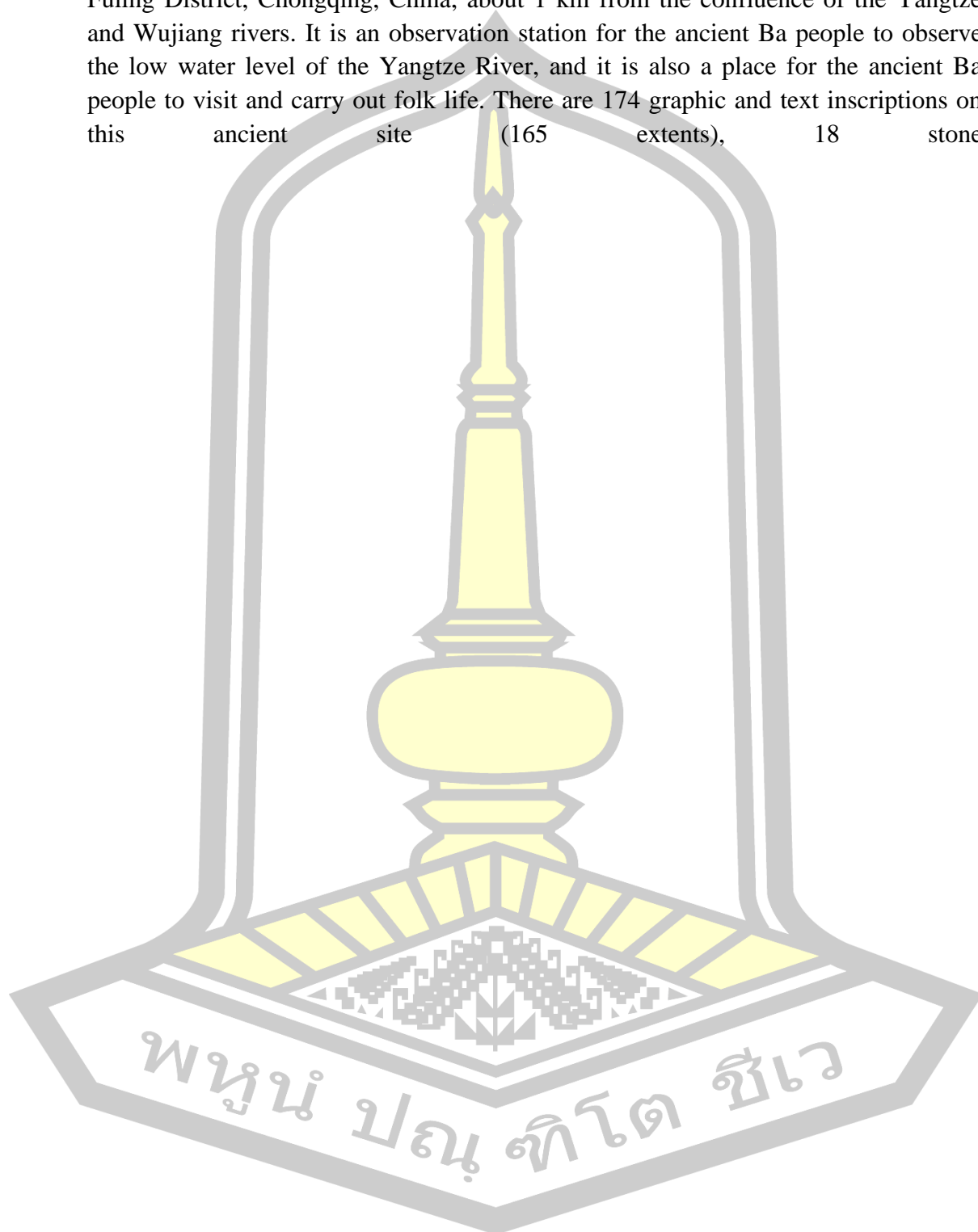
Secondly, it is an ancient site, leaving many ancient ruins, with historical and archaeological value. This site, known in ancient times as "Bazi Ridge<sup>5</sup>" (Fuling

<sup>3</sup> The reason why White Crane Ridge has attracted the attention of the international community is that in 1974, the International Hydro-logical Conference held by UNESCO in Paris, the Chinese representative introduced the ancient hydro-logical site of the White Crane Ridge and the existing inscriptions, which aroused great interest of scholars.

<sup>4</sup> The Three Gorges of the Yangtze River is the general name of the three gorges of Qutang Gorge, Wu Gorge and Xiling Gorge. It is located on the main stream of the Yangtze River in Chongqing, Enshi Prefecture and Yichang City. From Baidi City, Fengjie County, Chongqing in the west, to Nanjin Pass, Yichang City, Hubei Province in the east, the total length of 193 kilometers. The land spans Chongqing and Hubei provinces and cities, and the terrain is high in the west and low in the east. It is one of the top ten scenic spots in China.

<sup>5</sup> The Fuling area where White Crane Ridge is located is the capital of the ancient state of Ba, and the people here are also called "Ba people". Hence the name "Bazi Ridge".

Dictionary,2003:P.24), is located in the middle of the Yangtze River in the north of Fuling District, Chongqing, China, about 1 km from the confluence of the Yangtze and Wujiang rivers. It is an observation station for the ancient Ba people to observe the low water level of the Yangtze River, and it is also a place for the ancient Ba people to visit and carry out folk life. There are 174 graphic and text inscriptions on this ancient site (165 extents), 18 stone



fish, 2 statues of Guanyin and 1 white crane, with a total of more than 30,000 characters (Chongqing Municipal People's Government website, 2023). According to the available information [Record of the Taiping World written by the historical geographer Le Shi in the Northern Song Dynasty, Record of Zhongguang in Shu compiled by Cao Xuequan in the Ming Dynasty, etc.] Evidence shows that the earliest of these inscriptions was carved in 763 AD, and the last one ended in 1963, lasting 1200 years, which is the earliest, longest and largest number of hydro-logical inscriptions known in the world. These inscriptions cover the entire stone beam, and in 1988 The State Council of China officially named it the "White crane Beam Inscriptions".

Thirdly, it is also a group of dry water inscription art, integrating literature, calligraphy, painting, and stone carving art, with high artistic value. It involves the poetry, inscriptions, calligraphy, and painting works of literati such as Huang Tingjian, Zhu Xi, and Wang Shizhen from various dynasties, as well as the calligraphy masterpieces of over 300 calligraphers over the past 1200 years after the Tang Dynasty. Its inscriptions include poetry and articles, and are recorded in a narrative or lyrical manner. The meaning of the inscription is profound, the calligraphy is exquisite, the carving is exquisite, and it is well preserved. The stone fish carving is exquisite and smooth, with considerable skill. Therefore, the White Crane Ridge Inscription is also known as the "Underwater Stone Carving Art Group" or "Underwater Stele Forest". It was awarded a national key cultural relic protection unit in 1988 and was included in the "China World Cultural Heritage Reserve List" in 2006 and 2012 (Xie Xianglin, 2020: P.24).

In addition, it is also a cultural landscape and has been awarded the only national key cultural relic protection unit in the Yangtze Three Gorges cultural relic landscape. Here is the confluence of the Wujiang River into the Yangtze River, the confluence of clear boundaries, since ancient times there is a "Qianjiang clarification" reputation. When the White Crane Ridge comes out of the water, there will also be Jianhu fishing flute and white crane singing<sup>6</sup>. These beautiful natural landscapes attract tourists who are fascinated by their fame and have become the online celebrity punch points of ancient people. Especially in the two Song Dynasties, 57 Jinshi<sup>7</sup> and 11 royal relatives came to the White Crane Ridge successively, and they wrote poems and lyrics on the White Crane Ridge and left their names, which made the White Crane Ridge develop from a natural landscape into a cultural landscape. People wrote lyrics, poems and inscriptions here, and this behavior later developed into local cultural customs.

It is precisely these diverse cultural values and local customs that have made the White Crane Ridge Cultural Heritage a key protected and utilized object. Whether

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<sup>6</sup> Jianhu fishing flute, white crane Songs and Qianjiang River are three of the eight scenic spots in Fuzhou. The fishing flute of Jianhu Lake and the sound of the White Crane Ridge only appear when the White Crane Ridge leaks out of the water. The eight landscapes of ancient Fuling refer to Qianjiang Clarification (Qianjiang: today's Wujiang), Gualou autumn moon, Lipu (Lizhi Garden), white crane singing, Jianhu fishing flute, iron cabinet song, Songping Licui, pig beach.

<sup>7</sup> Jinshi was the highest rank among ancient Chinese officials, equivalent to a modern senior official. The Jinshi system began in the Tang Dynasty, and became the most important and highest examination subject in the imperial examination system of ancient China through the continuous development and improvement of the Song, Yuan, Ming and Qing dynasties.

in ancient or contemporary society, its importance and value have always been praised, developed, utilized, and disseminated by people.

In ancient times, the record and dissemination of the White Crane Ridge culture and space utilization was first seen in the Taiping World Record<sup>8</sup> written by the famous geographer Le Shi<sup>9</sup> in the Northern Song Dynasty. He said in the book about the customs of Qianzhou said: "Four years of Qiannan, there is a stone fish in the heart of the river. There is an ancient record, cloud: Guangde first year in February, big river water retreat, stone fish see, the ministry of people according to the sign of abundance." Since then, many ancient books of geography, related books and dictionaries have included the culture of the White Crane Ridge. The Ming Dynasty Cao Xuequan's "Shu Zhongguang Record" also recorded, " Kaibao four years, Qiannan on the word, Jiangxin stone fish now. On the ancient record, cloud: Guangde first year in February, big river water retreat, stone fish see. The omen of prosperity is passed down from generation to generation. According to its place, it is in the middle of the near Zhou Jian Lake. Carved on the stone double fish, a bit of grass, a bit of lotus, each thirty-six petals. There are stone scales and stone buckets beside them. Or ten years, or three or five years. There are many engrave poems in the first year of Tang Dashun."

According to the content recorded and disseminated in "Taiping Huanyu Ji", the White Crane Ridge Inscription had already existed before the first year of Guangde, and it had also formed a cultural belief that the stone fish carving water gauge) on the surface of the water indicated the arrival of a harvest year. In addition to the above meanings, the recorded content in "Guangji of Sichuan" clearly describes the specific location of the White Crane Ridge stone fish carving, the specific image of the stone fish carving, graphic patterns, and other details. And next to the stone fish carving, there are also stone scales and stone buckets (stone scales, representing measurement. Stone buckets were used as tools to calculate grain in ancient times. The author speculates that these two symbols depicted here symbolize harvest and abundance. Therefore, local people believe that the stone fish carving exposed on the water surface must indicate that a harvest year is approaching). In addition, many inscriptions were also engraved around the stone fish carving, with the highest number of poems and writings recorded in the first year of the Tang Dynasty's Dashun era (890 AD). The author believes that at that time, people had already summarized the evolution law of the low water situation in the Yangtze River, either every ten years or every three to five years. These are the results of the ancient people's use of the spatial phenomenon of the White Crane Ridge, which is the result of spatial production.

The invention of the White Crane Ridge hydrology technology was invented before the first year of Guangde in the Tang Dynasty (AD 763). It is a kind of space creation for ancient people to understand, master and use natural laws. Its creation came from a clever Fuling man, who carved a double fish figure on the rock face of the White Crane Ridge stone wall. He used this stone carving as a standard for measuring the low water level of the Yangtze River, and used it to measure and judge the water level of the Yangtze River during the low water period. Using this standard,

<sup>8</sup> The book of the Taiping World is the earliest and most influential general geographic record compiled in the Northern Song Dynasty, which began to be written in the period of Taiping Xingguo.

<sup>9</sup> Le Shi (930-1007) was a famous writer and geographer of the Northern Song Dynasty.

he measured the dry water level at that time and engraved the very low water level on the rock face of the White Crane Ridge stone wall. Later generations used this method to record the time<sup>10</sup> and scene when the carved stone fish pattern appeared on the water surface, the scale of the distance from the low water level and the name of the observer in detail on the stone beam. Over the years, the rock face of the White Crane Ridge stone wall is covered with dense texts and graphic symbols, forming extremely valuable hydro-logical records. This is the original intention of space utilization and space dissemination of the White Crane Ridge, and its precious hydro-logical record is the spatial output of the White Crane Ridge as a hydro-graphic station.

In the past, people carved stone fish figures, wrote poems and inscriptions on the White Crane Ridge, which were originally used to observe hydrology and record hydro-logical information. It is a means of recording and symbol identification, and is a unique technical invention in ancient times. Later, this behavior became a local custom, and at the turn of each old year and New Year (winter and spring), a special person would come here to observe hydrology and record hydro-logical information. In long-term observation practice, people have found that once the carved stone fish pattern is exposed to the water, this year is often a harvest year. So in the development of history, the White Crane Ridge stone fish carving pattern was gradually endowed with mysterious beliefs. It is believed that the carved stone fish pattern appearing on the surface of the water must indicate that a good harvest year is coming. In ancient society, the result of the stone-fish water will be reported to the government. Such as "Taiping world record" contained "Kaibao four years Qiannan, Jiangxin stone fish see." There is an ancient record, cloud: Guangde first year in February, big river water retreat, stone fish see, the ministry of people according to the sign of abundance." In addition, in the inscriptions on the rock face of the White Crane Ridge, there is also an inscription of "stone fish out of water in a good harvest".

Therefore, in the past, every time the White Crane Ridge encountered low water, local officials would lead the people by boat to the stone beam in the river, observe the hydrology, leave inscriptions, and divine the abundant year. Literati and ordinary people also go to watch, step on the water to play and enjoy the scenery, and write inscriptions, compositions, poems, prayers and memories of the deceased here. White Crane Ridge hydro-logic data, local traditions, inscription art, folk activities, etc. are continuously enriched, developed and created by people in this countless local activities during the dry period, forming a unique material culture and non-material culture. These cultures make the spatial significance of the White Crane Ridge continuously expand, and then create more space and culture.

In modern times, especially since China's economy entered the modernity<sup>11</sup>, development, the implementation of the Three Gorges Project has raised the production of the White Crane Ridge cultural heritage and space to the national consciousness, and has been given more important significance.

The Three Gorges Project is also known as the Three Gorges Hydro-power project. The Three Gorges Project has more than ten functions, such as flood storage, flood

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<sup>10</sup> After generations of ancestors using stone fish carving to measure water level standards, they discovered the pattern of changes in the low water cycle of the Yangtze River. The White Crane Ridge stone fish carving is exposed once every three to five years, which is a small cycle. It is exposed once every ten years, which is a large cycle. It is extremely exposed once every six hundred years, which is an extremely low water level cycle.

<sup>11</sup> Chinese modernity emerged from the 1978 economic reform., These policies make China as a whole a modern society different from the rest of the world.

control, power generation, shipping, planting, tourism and so on. However, there are many problems in the construction of the Three Gorges project, the first of which is the problem of migration and ecological environment<sup>12</sup>. Secondly, soil erosion, hydrology, meteorological changes and other problems. More importantly, it will also drown some cultural relics and natural landscapes, causing irreparable losses. Therefore, from the moment it began to build, it has always been accompanied by great controversy.

However, in order to develop the economy of the Yangtze River and avoid floods in the middle and lower reaches of the Yangtze River. On April 3, 1992, the Chinese government passed the resolution of the Three Gorges Project on the Yangtze River with 1,767 votes, and the Three Gorges Project was put on the agenda. This means that once the Three Gorges project is completed, the White Crane Ridge water level will be raised from 137.81 meters to 175 meters above sea level. After the Three Gorges Reservoir is filled, the White Crane Ridge will be permanently submerged in the bottom of the river nearly 40 meters deep, and in 30 years, it will be completely buried in the sand of the Yangtze River. How to ensure the smooth construction of the Three Gorges Project, and protect the millennium hydro-logic station site and special space production, became a big problem at that time.

The Chinese government attaches great importance to this problem. Because it represents the Chinese government's voice to the world that China's Three Gorges project on the Yangtze River is not a barbaric project, but a beneficial measure for human development. In this process, China's material cultural heritage is also being protected and managed in a more modern and all-round way. During the construction of the Three Gorges Project (1994-2009), the state organized many experts, scholars and scientists to carry out research, and various protection schemes have been discussed for nearly a decade. When the protection plan<sup>13</sup> entered the final round of review, Ge Xiurun, an academician of the Chinese Academy of Engineering, raised objections. He insisted that cultural relics should be protected in situ and preserved in situ. And put forward a new spatial planning idea, that is, to protect the ruins of the White Crane Ridge in the original "non-pressure vessel" concept scheme<sup>14</sup>.

The disappearance of the old space inevitably leads to the growth of new space. The "non-pressure container" scheme is not only a solution to the problem of protection and management of material cultural heritage, but also a new idea of space planning and space utilization. After the feasibility demonstration of the "non-pressure vessel" space scheme, many scholars have confirmed that the "non-pressure vessel" scheme can realize the original site, original and original environment protection and appreciation of the immovable cultural relics of white crane beam.

<sup>12</sup> The Three Gorges Reservoir will flood two cities, 11 counties and 1,711 villages, including more than 150 national-level cultural relics and monuments.

<sup>13</sup> A plan to build a replica on shore for the exhibition.

<sup>14</sup> The so-called "non-pressure vessel" scheme is to build a non-pressure vessel on the dense section of the White Crane Ridge. The idea is to build a large, hard protective shell to cover the middle of the White Crane Ridge. The protective shell is filled with water and connected with the Yangtze River through pipes, so that the internal and external water pressure is basically the same. At the same time, water can also become a natural protective medium for white crane beam inscriptions. A pressure-resistant channel is built along the White Crane Ridge inscriptions in the container. Visitors can walk in the channel and view the original appearance of the White Crane Ridge inscriptions through the observation window of the channel. On February 13, 2003, the project "no pressure vessel" (that is, "Underwater palace") was officially started, and in 2009, "the world's first non-diving accessible underwater museum" was officially completed.

However, in this special space of the White Crane Ridge, people carry out spring walks, poems, inscriptions, prayers for a good harvest and blessings, etc. These traditional activities in the past cannot be carried out on the original site again. Therefore, in order to realize the continuation of the White Crane Ridge culture, show the civilization of the White Crane Ridge to the world, and show the world that the Three Gorges project has not caused serious damage to the cultural heritage along the Three Gorges. The Chinese government is thinking about the creation of a new cultural space in the White Crane Ridge, where people can continue and innovate traditional activities of the past.

The Three Gorges Project has triggered a subversive change in the physical space of the White Crane Ridge, and has also led to the climax of academic research on the White Crane Ridge.

In this period of research, the first to emerge were a number of works with the nature of data copying, organizing, and compiling. Such as "Underwater Stele Forest: White Crane Ridge" edited by Chen Xizhen, "The World's First Ancient Hydro-logical Station: White Crane Ridge" compiled by the Fuling Regional Working Committee of the Chinese People's Political Consultative Conference, and "Cultural Relics Atlas of Hydro-logical Inscriptions in the Three Gorges Project Reservoir" compiled by the Yangtze River Water Resources Committee of the Ministry of Water Resources. These are all comprehensive compilation and organization of the White Crane Ridge inscription materials in the form of ultra-high definition picture albums, becoming important foundational image materials and valuable historical evidence for studying the history of the upper reaches of the Yangtze River, Yangtze River shipping, basin meteorology, urban planning, water conservancy construction, and Chinese inscription art. It is also collected as valuable reference materials and appreciation brochures by historians, entrepreneurs, travelers, and connoisseurs at home and abroad.

Secondly, there are a number of treatise on heritage conservation and conservation engineering design. The common points of these works are the overall planning, engineering design, engineering construction, engineering plan and feasibility demonstration of the White Crane Ridge protection project. Such as Xie Xiangrong et al. "the White Crane Ridge inscriptions original underwater protection project", Wu Jianjun et al. "Three Gorges Reservoir Area the White Crane Ridge inscriptions original underwater protection project design", Zhao Bing's "the White Crane Ridge inscriptions protection planning overall plan", Gao Yuan's "the White Crane Ridge inscriptions museum construction and underwater cultural heritage protection", Shen Zhiliang "Three Gorges Reservoir Area the White Crane Ridge inscriptions protection program exploration", Xu Runsheng's "On the protection of the Three Gorges of the Yangtze River" and Zhou Jianjun's "On the Reliability of Fuling, White Crane Ridge Girder inscribed protection Project" and so on.

Others, there have been a number of research treatise on the White Crane Ridge's own cultural value, which mainly focus on four aspects. First, the value of low water hydro-logical data reflected in the inscription of the White Crane Ridge. Scholars have explored the hydro-logical value and historical contribution of the White Crane Ridge's inscriptions through calculation, research, textual research and evaluation of these data (Sun Hua et al., 2014: P.11). The second is the thematic research of the White Crane Ridge's inscriptions, mainly focusing on literature,

calligraphy, painting and stone art. Among them, there are more integrated studies and very few academic studies, and some aspects are even academic gaps. The third is the archaeological research of the inscription of the White Crane Ridge, demonstrating its historical value and archaeological contribution. The fourth is the study of the custom of the White Crane Ridge, but this part of the study is quite small, only a few words mentioned in several articles.

After the completion of the Three Gorges Project (May 2009 to now), the White Crane Ridge physical space has formed a new space composed of underwater parts, above-water parts and above-water parts. The completion of the new space is a reflection of China's comprehensive strength, which has transformed the White Crane Ridge from a submerged stone beam into a modern underwater museum. In this museum, all the history, folk customs, inscriptions, poems and cultural arts produced here in the past are displayed to show the difference between the past and the present of a place. The most exciting thing is that people can freely enter the underwater space from the land space to see the true face of the White Crane Ridge inscription up close. The folk activities of the past have also been relocated to the nearby ground and river, and are being participated in, displayed and disseminated in a more modern way.

During this period, people's attention to the academic problems of the White Crane Ridge also fell back to the previous state with the end of the Three Gorges Project. Only a small number of teachers from Yangtze Normal University and surrounding universities continue to follow up the study of the White Crane Ridge, and the research content of the White Crane Ridge has shifted from the protection and management in the past to the study of cultural heritage itself and the study of the use of heritage. On the one hand, this change is related to the disciplinary direction of the researchers themselves, and on the other hand, it is related to the construction of local urban culture and economic development. Therefore, the research results of this period are relatively limited, and most of the articles are focused on the annotation of the White Crane Ridge's inscriptions, and a small part of them are applied research articles on the utilization of the White Crane Ridge's heritage. For example, Jiang Rui proposed to use the cultural image of the White Crane Ridge to build Fuling cultural brand (Jiang Rui, 2015: p.19-20). Deng Dexiang proposed to make use of the cultural heritage value of the White Crane Ridge to develop local economy and spread the White Crane Ridge culture (Deng Dexiang et al., 2022: P.172-174). Miao Yuan applied the art of white crane beam inscriptions to hand-made designs (Miao Yuan, 2023: P.97-99.).

From before the Three Gorges Project to after the Three Gorges Project, domestic scholars and related institutions have an explosive and phased research trend on the White Crane Ridge's academic problems. The key to the discussion of the problem is the change of the physical space or the imminent change of the physical space, and then the various protection schemes and technical demonstration such as planning and imagination. This academic discussion also returned to a quiet state after the completion of the Three Gorges project.

The White Crane Ridge has been formed since the mountain building movement, and its spatial utilization, production, and reproduction are products of human social activities. The Three Gorges Project has brought unprecedented changes to the physical space of the White Crane Ridge. After the Three Gorges Project, the

new space of the White Crane Ridge has become a place for people to travel and a place for local economic development. In the future, people's utilization of the White Crane Ridge space will also be a sustained and long-term topic. Therefore, this is a valuable research topic.

It can be said that the White Crane Ridge culture reflects the special geography, history, culture and local social life of Fuling area in the upper reaches of the Yangtze River, and records the wisdom, talent and elegance of the ancestors. It is a kind of local wisdom and a kind of local memory. People enter this special space at a special time to carry out various activities, so that it has functional value and becomes a social space, a political space and a belief space. The Three Gorges Project has brought about a subversive change in the physical space of the White Crane Ridge, giving birth to a new physical space, and also contributing to the birth of the "only" title of the White Crane Ridge in another world. The past space and the present space of the White Crane Ridge form a strong contrast, all of which is because of the needs of China's modern economic development.

Therefore, the White Crane Ridge has two academic issues of the production of space and cultural heritage utilization that need to be studied.

From the perspective of material cultural heritage, an ancient hydrographic station is explained by the concept of "the generation of space" (Lefebvre Henry, 1992). Lefebvre believes that the space we live in has physical space, spiritual space and social space. He believes that space is an important part of social relations, which is generated in the development of social history, and also re-deconstructed and transformed with the evolution of history. The matrix of "social space" is social relations; "the social relations of production are a social existence, or a spatial existence; They project themselves into space, they imprint it, and at the same time they themselves produce space. That is, social relations promote the emergence of social space, and social space will make social relations reproduce in space. The art, customs and beliefs of the White Crane Ridge inscriptions are constantly produced in this space (social relations), and at the same time, the space is produced again.

From the perspective of geographical latitude, the White Crane Ridge is located in the middle of the Yangtze River in the north of Fuling District, Chongqing, China, at 29°43' north latitude and 107°24' east longitude. It is 1600 meters long and 10-15 meters wide, extending from west to east in a zigzag pattern parallel to the river. About 400 meters from the north bank of the Yangtze River and 100 meters from the south bank of the Yangtze River; To the east is the confluence of the Yangtze River and the Wujiang River (Chen Xizhen, 2003: P.1). The Fuling district is located in the Sichuan basin and the mountain transition zone, the terrain is high in the west and low in the east, subject to the mountain terrain barrier, it is far away from the political center. The special geographical location, so that the ancestors<sup>15</sup> here to agriculture, forestry, animal husbandry and fishing, forming a unique local culture. The fish-shaped symbols and many inscriptions they left on the White Crane Ridge are the spatial products of social relations at that time.

Due to the limitations of land transportation and the backwardness of economy in ancient times, Fuling was a place where political officials were banished before the Southern Song Dynasty. Prime ministers Changsun Wuji and Wei Yuanzhong in the

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<sup>15</sup> This is the capital of the ancient Ba nation. The people here are called "Ba people", which is a common name for the ancient people living in this region.

Tang Dynasty, Cheng Yi and Huang Tingjian in the Song Dynasty, etc., were banished here. After being demoted, the scholars gathered here and developed the local culture, which reached its peak in the Southern Song Dynasty, showing the coexistence of local culture and foreign official culture. This phenomenon is also reflected in the White Crane Ridge inscriptions, such as the White Crane Ridge inscriptions on both the Song Dynasty calligraphy master Huang Tingjian's ink treasure "Yuan Fuweng", but also famous unknown people inscriptions, as well as ethnic minority characters.

With the development of water transportation in ancient China. Located at the confluence of the Yangtze River and the Wujiang River, Fuling, with its unique water resources, has been developed into a dock city, and has become an ancient water transportation hub center and a necessary place for water transportation. Its magnificent natural landscape and superior water transportation system<sup>16</sup> have attracted more literati, tourists and past business travelers, and left precious ink treasures here, constantly enriching the cultural connotation of the White Crane Ridge.

As an ancient hydro-graphic station, the White Crane Ridge used to be a natural giant stone beam. Its physical space is formed by the physical substance of mountains, rivers, stone beams, white cranes, fish schools, reeds and other physical forms, as well as man-made stone fish carvings, graphic symbols and other inscriptions. These man-made material forms are reflected in the physical space of the White Crane Ridge, which is the result of space practice. In this ancient hydro-graphic station, there are 174 graphic and text inscriptions (165 extants), 18 stone-fish, 2 statues of Guanyin and 1 white crane, with a total of more than 30,000 characters (Chongqing Municipal People's Government website, 2023). Now the White Crane Ridge serves as an underwater museum, it is a modern building and also a site. The space construction of this site (The White Crane Ridge Underwater Museum) shows all the history, folk customs, inscriptions, poems and cultural arts produced in this space in the past, to show the difference between the past and the present of a place. The purpose of its diversified space display and space dissemination is exactly the problem to be discussed in the White Crane Ridge's current space production. These material elements displayed in the present space constitute the present physical space of the White Crane Ridge.

As far as spiritual space is concerned, it should be all the local beliefs and fairy beliefs generated by people on this natural stone beam, such as "the stone fish comes out of the water and the auspicious year" and "the immortal fortune and wisdom", etc. These factors make everyone who comes here produce psychological identity. All these elements constitute the macroscopic scene of the White Crane Ridge culture and outline the morphological representation of the White Crane Ridge art space. For example, Zhao Liang et al. narrated the local folk customs and customs on the White Crane Ridge in the past from a narrative perspective, reflecting the spiritual sustenance of local people (Zhao Liang et al., 2012: P.8). In combination with the local customs of "general arrow" and "worship", Ran Yi discusses that the local people have worshipper "fish" as a totem in history, and concludes that the "stone fish figure" on the White Crane Ridge is both a functional creation and a spiritual symbol (Ran Yi, 2013: P.2). With the development of history, the stone fish

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<sup>16</sup> The Yangtze River is one of the three major rivers in the world and an important waterway in China.

picture has changed from this worship significance to scientific value (Yang Bin, 2013: P.5).

Heritage Utilization <sup>17</sup>(Laura Jane Smith, 2006) , Laura Jane Smith believes that heritage is dynamic and dynamic, rather than solidified in the material form, which includes a series of actions that occur in a particular place or space. The use of heritage mainly revolves around how to understand heritage, how to use heritage, who belongs to heritage and what the role of heritage. Smith's "authoritative heritage discourse"<sup>18</sup> theory (Authorized Heritage Discourse, AHD). According to Smith, the AHD first defined a clear boundary, a good place to exercise power; a power to determine the present and the future by determining the past. Although this discourse has a very powerful power in heritage research and practice, there are still three groups of people beginning to challenge it. First, non-Western, and the comprehensive rise of non-Western material forces in the past decades, it will naturally make cultural demands. The second is the marginal groups within the West. The third is the postmodern and critical scholars. As a postmodern and critical scholar, Smith raises two basic points for his own criticism. First, an inheritance is a process. Second, the analysis and research heritage should be from the audience perspective rather than the authority perspective.

Therefore, Smith proposed a theoretical framework involving the seven concepts of experience, recall and memory, identity, intangible, performance, sense of place, and dissonance. As an "experience", Smith believes that the "legacy behavior" can provide a scene, a stage, to help and promote people to recall some specific aspects in the scene experience. As a "memory and memory", Smith believed that memory will not be passed down from generation to generation, and that memories will be forgotten. One of the functions of a legacy is to reconstruct a memory that you need when you forget, blur, and can't remember something. Heritage practice does not copy the western AHD theory of "repairing the old as the old" and "intact", but to redistribute it for the current needs. The purpose of this is to get "recognition". Smith believes that heritage, as an antiquities certified by authority, can be constructed by identity. Heritage can be used as a symbol to control, strengthen and solidify people's identity, and then to consolidate power. That is, the inheritance creates an identity, and then it generates the power.

The "Incorporeal" of heritage, Smith believes that material is valuable because people think it is valuable, and heritage is also because of the various meanings and values that people give it, just like all constructionists, people build value through the knowledge attached to the heritage. In other words, heritage produces knowledge, and knowledge builds value. For the knowledge generated by heritage to be seen and accepted, it is necessary to use the "performance" attribute of heritage, that is, the game from different perspectives. This is linked to heritage as an experience, gaining knowledge and experience about heritage through watching and participating in the performance. Its important role is to bring the tourists in and interact with them, thus arousing the emotions of the participants, which is very important for the formation of

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<sup>17</sup> By Laura Jane Smith. Translation by Su Xiaoyan and Zhang Chaozhi. (2020). Heritage utilization. science press.

<sup>18</sup> The "authoritative heritage discourse" was based on the high degree of confidence that 19th century Europe had in its own cultural and constructive achievements. Its core idea was to pass on the wisdom of European sages to future generations. This Western-centered "arrogance" has caused resentment among non-Westerners.

identity and identity. However, if the audience can buy it, it needs to play a variety of games.

The others, the sense of place is also a very important attribute. According to Smith, the sense of place is a process of consolidation, rewriting and cohesion. According to the viewpoint of constructionist, any place, just like any material existence, is meaningless in itself, and any meaning of it needs to be constructed by the society. Therefore, the sense of place is also an extremely important emotion to form the identity. The more microscopic the sense of place, the more detailed it is, the more it can arouse the resonance as the same microscopic individual. Therefore, the sense of place is also the most primitive and powerful emotional appeal of identity of human society. So many different roles, means, appeals and attributes act and interact together, and it is natural that conflicts and disorders are inevitable. So Smith believes that the root cause of the heritage imbalance is in heritage interpretation, what to interpret, how to interpret, who to interpret, what impact the heritage has, and what consequences will be identified as a legacy.

Therefore, heritage utilization is essentially a process of cultural production of manufacturing meaning. People are often actively, consciously, and critically involved. Heritage activities bring about the emotions and experiences that people create, and the memories of them. These will give people a sense of identity and belonging. In addition, in this process, social networks and connections are constantly being created and reconstructed, rather than maintaining the status quo. Heritage activities facilitate the reconstruction of these networks and relationships. In heritage activities, people produce, examine, think, reject, welcome or change the social and cultural values, meaning and understanding of the past and present. Identity is not just a static object that arises from the heritage site and is reproduced by the heritage site. When people, communities and institutions reinterpret or evaluate the past, remember or forget the past based on today's social, cultural and political needs, identity is constantly and actively reconstructed and negotiated.<sup>19</sup>

In addition, different social groups have diverse understandings of the use of heritage. In the past, the prevailing view was that cultural heritage faced a universal threat and that it would eventually be commercialized, devalued or destroyed. However, modern theories believe that the protection and utilization of cultural heritage is successful, and its greatest success is that it integrates into social and economic life, contributes to creating employment and increasing income, and can also provide financial benefits for further utilization<sup>20</sup>. For example, according to the cultural identity, cultural value and cultural symbol of the White Crane Ridge, Chinese scholar Jiang Rui proposed to use the "stone fish" image symbol of the White Crane Ridge to establish the cultural image of the White Crane Ridge, and proposed to establish the characteristic cultural brand of the White Crane Ridge and develop the cultural industry of Fuling (Jiang Rui, 2015: P.19-20). Deng Dexiang et al. made use of the artistic value of calligraphy, sculpture, hydrology, history, literature and cultural tourism of the White Crane Ridge cultural heritage, and proposed strategies to

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<sup>19</sup> From Smith, L. 2011. All heritage is intangible: critical heritage studies and museums. Reinwardt Academy, Amsterdam School of the Arts.

<sup>20</sup> Record in International Council of Museums Research and Exchange Centre (ICOM-IMREC), European Heritage Association (EHA).2023. Collection of the World's Best Heritage Use Cases (1), Jiangsu Phoenix Literature and Art Publishing House.

build the White Crane Ridge cultural brand, promote the integrated development of culture and tourism, and spread the White Crane Ridge culture (Deng Dexiang et al., 2022: P.172-174). Chen Rong et al. demonstrated the feasibility and practicability of 360° panorama technology, and proposed the design of establishing a panoramic virtual roaming system for the White Crane Ridge (Chen Rong et al., 2015: P.127-129).

In the context of modern economic development, cultural heritage is considered to be the engine and catalyst of economic and social development, while heritage can create and embody its identity through the branding of a space, place, city or country (European Heritage Society, 2023). Traditional museums control the discourse power of exhibits as "spokesmen of collections", and this single narrative of exhibits is increasingly broken by multiple perspectives. Just as the World Museum in Vienna, Austria, shows us the transformation of museum narrative perspective, the museum no longer speaks as a single expositor of the consistent narrative, but deduces into the form of a collection of individuals, becoming a narrator of diversity (Lv Jianchang, 2023). The Showa Daily Museum in Japan uses "nostalgia method" care to prevent Alzheimer's disease and provide lifelong learning opportunities for the elderly (Pan Shouyong, 2023). At present, 5G, cloud computing, artificial intelligence, virtual reality, blockchain, Internet of things, human-computer interaction and other new emerging, the development of science and technology innovation is rapid and full of vitality. We should always remember that heritage can adapt to the development of technology, but it cannot be controlled by technology, and we should choose the most appropriate technology rather than the most cutting-edge and cool technology (Huang Yang, 2023).

Although the above heritage utilization model is different from the author's research model, the relationship of cultural heritage in social space is the same. Therefore, my research can also draw on other people's research models to study the problem that the author is describing now, and its research essence is the same. Today, as a cultural and social phenomenon, the White Crane Ridge heritage plays an important role in the local economy, culture and social life. How to integrate the research results of the past culture, customs, values and space practice of the White Crane Ridge? How to jointly promote the utilization of the White Crane Ridge Heritage through government-led, cross-border cooperation between enterprises, the process of applying for World Cultural Heritage and cooperation between universities? This is an interesting research topic.

From a global perspective, to study the production of white crane beam space is to show the world that China's historical and cultural heritage is protected and utilized in a new, more comprehensive and modern way under the modern economic background of China. It also shows the world that the Three Gorges Project has not caused serious damage to the cultural heritage along the Three Gorges. From the national point of view, the study of the White Crane Ridge culture and space is to help the White Crane Ridge successfully apply for World cultural Heritage, but also to promote the construction of local functions of the White Crane Ridge "the world's first ancient hydrology station" and expand cultural influence, and enhance national cultural soft power. From the perspective of local development, the research on the production and heritage utilization of the White Crane Ridge space can influence the building of local city image, tourism development and economic development.

Based on this, the author, starting from his own discipline direction, puts forward the research on the spatial production of the White Crane Ridge, compares the differences between its past space and present space, puts forward strategies and suggestions on the utilization of, the White Crane Ridge cultural heritage from the perspective of artistic synthesis, and puts forward several target points to be studied.

## **1.2 Purpose of Research**

(1) To Study the history and development of the White Crane Ridge from the past to the present.

(2) To study the past space and the present space of the White Crane Ridge from the perspective of the production of space.

(3) To analyze the Relationship, between China's Past and Present with the White Crane Ridge Cultural Festival as an analytical unit.

## **1.3 Research question**

(1) What kind of geographical environment, social economy and cultural ecology in Fuling area of Chongqing in the upper reaches of the Yangtze River in China have enabled the White Crane Ridge to form the famous material culture and intangible culture? What is the historical formation and development of these cultures? What is its importance and value in the development of modern society?

(2) With whom are the poems, inscriptions, calligraphy and paintings on the White Crane Ridge associated? How does it come into being, and what are the spatial relationships when it comes into being? What have people created and produced with these cultural heritages? What are the local, national and international implications of these creations and productions?

(3) In the context of modernity, how do people make use of the relationship between the cultural heritage of the White Crane Ridge and modern life to create a new festival on the old one? What is the purpose of the festival, what does it show people and what does it spread?

## **1.4 Definition of Terms**

### **1.4.1 About the text**

(1) White Crane Ridge

The "White Crane Ridge" in this study is a huge natural stone beam in the center of the upper reaches of the Yangtze River, known as "bazi Ridge" in ancient times. In the past, as an ancient hydro-logical station in Chongqing, it produced 175 sections of pictures and text inscriptions, 18 stone fish, 2 Guanyin statues and 1 white crane in this space, a total of more than 30,000 words. Now it is an underwater museum, the only national key cultural relics protection unit in the three Gorges landscape of the Yangtze River, also known as "the world's first ancient hydrology station".

(2) White Crane Ridge culture

The "White Crane Ridge culture" in this study refers to all the material culture and non-material culture related to the White Crane Ridge . Such as hydro-logical heritage, inscription, graphic and stone carving, stone fish water logo, white crane,

two rivers of natural landscape, folk customs, stories, poems, characters and legends, etc.

#### **1.4.2 About the concept**

##### **(1) Space production**

"The generation of space" (Henry, 1992), who believes that the space we live in includes physical space, spiritual space, and social space. He believed that space is an important part of social relations, which occurs in the development of social history, and also deconstructs and transforms it along with the evolution of history.

The "past space" in this study refers to the physical space, spatial practice, and other spatial manifestations of the White Crane Ridge before it was flooded."Space now" refers to the White Crane Ridge was built a modernity museum and public cultural space, in this space builds the scene of the past, tells the story of the past, to the past happened here provides the scene and reality, it is a display space, education space and cultural communication space, etc.

##### **(2) Legacy Utilization**

Heritage Utilization (Laura Jane Smith, 2006), Laura Jane Smith believes that heritage utilization is essentially a cultural production process of making meaning, and different social groups have various ways of using and understanding the heritage. Heritage activities will give people a sense of identity and belonging. In this study, the "heritage utilization" it refers to the past culture, customs and values of the White Crane Ridge(Results of the spatial practice).Through the application of the concept of "heritage utilization", expand and rebuild the cultural memory, cultural performance, identity reconstruction and consultation, to achieve the purpose of heritage utilization.

#### **1.4.3 About the context**

The "modernity" in this study, Chinese modernity appeared in the economic reform in 1978. During the Deng Xiaoping government, China experienced a major national policy transformation and formulated policies to develop and reform the national economy. These policies make China as a whole a modern society different from the general society of the world. With the economic development and the needs of national economy and people's livelihood, the Chinese government implemented the Three Gorges Project, which promoted the subversive change in the physical space of the White Crane Ridge.

### **1.5 Scope of Research**

#### **1.5.1 Research area**

Main location: White Crane Ridge Underwater Museum in Fuling District, Chongqing China, The China Three Gorges Museum

Sub-location: other related platforms for the research and utilization of the White Crane Ridge Cultural Heritage. Such as university scientific research institutions, domestic related associations, international conferences, exhibition and communication platforms and enterprises and institutions.

#### **1.5.2 Time**

It was divided into three time periods

The first period: 763 AD to 1993, before being submerged (the past White Crane Ridge). With its natural law, the White Crane Ridge emerges on the middle of the Yangtze River in a special period, forming a unique natural space. People observe

the special scenery of the intersection of the Yangtze River and the Wujiang River, and form folk customs such as An outing in winter and spring, Welcome to the New Year, The stone beam prayed for a son and legend stories. The literati view the scenery, poetry, carved on the stone beam to the continuous enrichment and development of the art of the White Crane Ridge.

The second period: 1994 to May 2009, the construction process of the Three Gorges Project (the construction of modern space and heritage protection process). The water level of the White Crane Ridge has increased from 137.81 meters to 175 meters, and the White Crane Ridge is always submerged at a depth of nearly 40 meters, and the ecological environment and physical space of the White Crane Ridge have been completely changed. In order to protect the cultural heritage of the White Crane Ridge and show the civilization of the White Crane Ridge to the world, it shows that the Three Gorges Project has not caused serious damage to the cultural heritage along the Three Gorges route. The Chinese government has promoted the completion of a new cultural space, that is, the protection of the original site, creating a new space on the old sites, and expanding the new space area and use functions.

The third period: May 2009 to now, after the completion of the Three Gorges Project. The perfection of modern physical space. In the past, all the culture related to the White Crane Ridge was identified as "heritage", but now all the things related to the White Crane Ridge are identified as "heritage utilization". As a cultural and social phenomenon, the White Crane Ridge heritage has played a role in the local social, economic and cultural aspects, as well as in the life of the local people. For heritage utilization, enriching and expanding its cultural influence and serving the present era is a long-term and sustainable vision of the local people.

### **1.5.3 Another**

Investigation and understanding of Fuling culture and local economy in history. Because, in the past, all people's behaviors are related to the local production and life, and the production and life affect the behavior mode, forming local traditions and creating local culture. These can help me to understand the unique lifestyle of Fuling local residents in the later research, such as agricultural production, traditional fishing and hunting, water shipping, wharf economy and so on. These factors facilitate the formation of local people to observe hydrology and record hydrology habits on the boulders in the river, and then produce all kinds of spatial practices related to it.

## **1.6 Research Methodology**

The method of qualitative research was used in this study<sup>21</sup>. Research data were collected through field trips and text studies, the study results were presented in the form of descriptive analysis, and explained with photographs and notes, and the elements of my research methodology are as follows.

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<sup>21</sup> The general definition of qualitative research is a situated activity that places the observer in the real world and consists of a series of interpretive, bodily practical activities that make the world perceptible. These practical activities transform the world into a series of statements, including field notes, interviews, conversations, photographs, records, and memos of the self. From Noman. K. Dunzin. (2007). qualitative investigation. Volume 1. Methodological basis. Chongqing University Press. PP:4

### 1.6.1 Population and Sample

#### (1) Administrator of the White Crane Ridge heritage

The cultural heritage managers here refer to the cultural heritage management conducted by the administrative departments and relevant organizations or individuals.

#### (2) Officials of the local and national governments

Officials here refer to both local government officials and national government officials. It plays an important role in policy formulation and operation, making White Crane Ridge a national key cultural relic protection unit. And was included in the Preparatory list of China's World Cultural Heritage. At present, they are still taking active actions for all aspects of the application for world cultural heritage, and are also planning for the use of the heritage and the development of local economy, so their role is "space politics".

#### (3) Fuling District native

This group of people are locals who live in Fuling city. They understand the production, life and social relations of locals from different backgrounds. In the past, they were the fishermen and, boat trackers of the wharf cities, but now they are the modern city citizens along the Yangtze River and the users of culture.

#### (4) research man ; researcher ; research personnel ; research worker

The White Crane Ridge has attracted many domestic and international researchers, such as conservationists, archaeologists, sociologists, calligraphers, artists, writers, writers and so on. Their research contributions have recognized the cultural heritage of the White Crane Ridge.

#### (5) visitor

The visitors here are visitors to visit the , , the world's first ancient hydro-logical station, the Underwater Museum. There, they are provided with various forms of cultural tourism, such as study Tours, cultural popularization education, cultural experience, etc.

#### (6) Businesses and other organizations

Such a group is an important force to witness, participate in and spread the White Crane Ridge culture. They are not only the users of the heritage and also the objects of cultural tourism and cultural gaze.

### 1.6.2 Instrumentation/Tools

#### (1) Data collection tool

##### 1) Survey form and interview questions form

The questionnaire is mainly for the online survey form, using the network survey method to make questionnaires or forms. The interview question form is a questionnaire or questionnaire made to submit some important questions in advance to the interviewer in writing. The questionnaire and the interview question table should be set with different goals, plans and schedules in different periods, and the content should include the list of interviewees, address, contact information, precautions, time arrangement and so on.

##### 2) Photography and recording tools

Cameras, mobile phones, video cameras, video recording equipment, etc. Mainly used to collect image data; voice recorder is used to record formal or informal interviews and communication conversations.

### 3) Record and analysis tools

Notebooks, pens, computers, etc., can be used as handwritten notes of the field population, site, environment, culture and information, but also used as the work record of researchers to record the research plan, time arrangement and other relevant information.

#### **1.6.3 Data Collection**

##### (1) Data collection of literature data

Literature is the carrier of recording and disseminating human cultural knowledge, is the general term of all printed matter and audio-visual materials in the recording, communication and dissemination, and is the basis of scientific and humanistic research. According to different carriers, it can be divided into printed version, audio and video version and electronic version. The collection of literature materials needs to be copied, downloaded, recorded, excerpted, notes and accumulated through libraries, archives, major network databases and other places.

Through literature data collection, we can understand the White Crane Ridge Fuling city geographical ecology, social life and historical development, understand the White Crane Ridge and which key figures in the history of associated, understand the White Crane Ridge in the process of the three gorges project construction crisis, understand the crane beam as "well preserved in the world's only ancient hydrological station" and the three gorges cultural relics in the only national key cultural relics protection units, the opportunities and challenges, understand the White Crane Ridge was included in the Chinese world cultural heritage preparation list and actively follow up to apply for world cultural heritage process, etc.

##### (2) Collection of field data

1) Interview; formal interview, informal interview, focus group interview

2) Observation; normal observation (or general observation), participatory observation

Interviewing is an effective means to obtain cultural experience and relevant useful information. In the research, formal interview, informal interview, group interview, in-depth interview and electronic interview are mainly used to collect relevant data. Observations are seen as the cornerstone of all methods in the social sciences or in the behavioral sciences (Noman. K. Dunzin. 2007. pp25).

Before the collection of field data, adequate field preparations should be made. For example, when setting goals, plans and schedules, the content should include the list of interviewees, address, contact information, precautions, time arrangement, etc. Preset research questions should be submitted to the respondents in writing during the field process. Respondents will give targeted responses according to the specific questions. During the field process, you can also ask the respondents for temporary information, or conduct more in-depth interviews. Interviews should maintain flexibility in communication and give respondents more time to consider. After the interview, consider whether to conduct other interviews according to the interview process and the results. In addition, it is also necessary to consult the work records in time in the field process to ensure the smooth completion of the research work. Finally, the work records were stored in the study data as auxiliary data.

#### 1.6.4 Data Analysis

Analysis of the data was collected in this study. First, I will use the conceptual framework as the main research tool to group the data and provide the information obtained in the data for each target according to the research objectives. Secondly, in the process of research, I will continue to check whether the data is perfect, whether the information of each target point is sufficient, and what more information will be added? These are to make the field work done more fully, more perfect. After that, I will use the research concepts to conduct a descriptive analysis of the data in each chapter. In addition, I will analyze the research results achieved by comparing them with others' research. One is the research results on text, and the other is the research results on concept. Therefore, I will use the two concepts of "production of space" and "heritage utilization" to analyze the White Crane Ridge.

"The production of the space" (Henry, 1992), who believes that the space we live in is physical, spiritual, and social space. He believed that space is an important part of social relations, which occurs in the development of social history, and also deconstructs and transforms it along with the evolution of history. The White Crane Ridge used to be a giant natural stone beam (before being submerged) in the center of the upper section of the Yangtze River, and was used as a hydrological station. The long-term development of water culture and local customs have produced 175 paragraphs of pictures and pictures, 18 stone fish, 2 Guanyin, 1 white crane in this space, a total of more than 30,000 words. Now it has been built into an underwater museum and public cultural space, which creates the scene of the past, tells the past, and shows the historical changes of the White Crane Ridge in the process of modernization. For now, it is a display space, educational space and cultural communication space.

Through the study of space, I will learn how the poetry inscriptions, calligraphy and painting on the White Crane Ridge were produced in the past, which people are associated with, and what is the significance of it? This is the core value of the art of carving, and also the key to the key to apply for the world material cultural heritage. It also makes clear the significance of the current space to the local and national areas in politics, economy, culture and diplomacy.

Heritage Utilization (Laura Jane Smith, 2006), Laura Jane Smith believes that heritage is dynamic, dynamic, rather than solidified in the material form, which includes a series of actions that occur in a particular place or space. Heritage activities will enable people to identify and a sense of belonging. In essence, heritage utilization is a cultural production process of makes meaning, and different social groups have various ways of using and understanding heritage. Identity is not just a static object that arises from the heritage site and is reproduced by the heritage site. When people, communities and institutions reinterpret or evaluate the past, remember or forget the past based on today's social, cultural and political needs, identity is constantly and actively reconstructed and negotiated.<sup>22</sup> All the behaviors in the past in this specific place and space are used to expand and rebuild memories, performances, etc., using cultural identity, cultural symbols and cultural policies, to make people through various forms of identity and sense of belonging, and constantly reconstruct and

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<sup>22</sup> Smith, L. 2011. All heritage is intangible: critical heritage studies and museums. Reinwardt Academy, Amsterdam School of the Arts.

negotiate identity. For example, various forms of heritage activities are launched by the government-led way, the cross-border cooperation of enterprises, the application of the world cultural heritage " process and the cooperation with universities, etc., to continuously reconstruct the identity of the world's first ancient hydro-logical station in White Crane Ridge, and negotiate the world status and significance of its status.

The different time periods of the heritage utilization are the heritage utilization during the construction of the Three Gorges Project, and the other is the heritage utilization after the completion of the Three Gorges Project. For the current heritage utilization is multi-dimensional, how can we expand our thinking? How to use the past culture, customs and values of the White Crane Ridge for economic development, cultural communication and educational display, so as to form cultural exchange and external communication influence.

#### **1.6.5 Research presentation,**

(1) doctoral dissertation

Descriptive analysis and pictures (full text)

(2) Journal Papers

Published in international journals at the "Scopus" level

### **1.7 Literature Review**

#### **1.7.1 Review of the literature on the research texts**

(1) Fuling

In the past, all people's behaviors were related to the local production and life, and the production and life influenced the behavior mode, forming local traditions and creating local culture. Therefore, the combing of Fuling and Fuling culture and economy and local related literature is helpful to understand the unique life style of local residents under the special geographical background of Fuling, such as agricultural production, traditional fishing and hunting, water shipping, wharf economy and so on in the later research. These factors facilitate the formation of local habits to observe hydrology and record hydrology on the boulder (White Crane Ridge) in the river, and then produce various cultures related to it.

The literature of local Chronicles mainly has."Fuling County continues the revision of Fuzhou Annals"(Wang Jianqing et al, 2017)."Fuling City Annals"(Local Chronicles Compilation Committee ,1995)."The Land Annals of Fuling City"(Land and Land Bureau of Zhicheng District, Fuling City ,1998)."Local Chronicles of Sichuan"(Editorial Department of Sichuan Local Chronicles ,1988).“The Fuling Dictionary”(Fuling Dictionary Editorial Committee of Fuling Dictionary,2003)."The Magic of Fuling"(Editorial Committee ,2014). “Fuling Yearbook”.Fuling County CPPCC (1982) The CPPCC Annals of Fuling County(Chongqing Fuling District Local Chronicles Office).“The Qianlong Annals of Fuzhou”(Duoze Houxiu and Chen Yuxuan ,2015).“Daoguang Fuzhou Annals”(De Enxiu, Shi Yanshi ,2015) .“The Annals of Daoguang Fuzhou”(De Enxiu, Shi Yanshi,2015). “Tongzhi rebuilt the annals of Fuzhou”(Lu Shaoyi ,2019).“Fuzhou Annals”, etc(De En ,25 years of Daoguang of the Qing Dynasty), .

Local cultural and economic literature mainly include .“In Search of Fuling, the Ancient Capital of Ba, Country”( Jiang Zhou, 2010).Introduction to Fuling Culture (Zhang Zhengwu, 2013), Dictionary of Fuling Dialect (Li Wenli, 2019).“An

Introduction to Fuling Culture”(Zhang Zhengwu, 2013).A Dictionary of Fuling Dialect (Li Wenli, 2019).“Fuling Ba Culture ”(Fuling District, Chongqing, 2005).“Fuling Folk Literature Integration ”(Fuling Folk Literature Integration Editorial Committee, 1992).“Fuling Folk Literature ”(Nie Yan, 2018).“Integration of Chinese Folk Literature: Fuling Data Collection” (Fuling Folk, Sichuan Province, 1987).“The North Mountain have stories ”(Fuling District Committee of the Chinese People's Political Consultative Conference, 2021).“Wujiang boatman haozi” (edited by Sinan County Tujia Research Association, 2014).“Fuzhou Point Yi ”(Kuang Jun, 2006). “Noble spirit, Fuzhou: Fuling people's Anti-Japanese War record book” (Chinese People's Political Consultative Conference, Chongqing, 2015).“Yi Jing Neo-Confucianism culture and Fuzhou education culture” (Ran Guanghai, 2014).“Selected Collection of Fuling Cultural and Historical Data” (Fuling City Committee of the CPPCC, Sichuan Province, 1987).“Research on Fuling History and Culture: The Origin, Characteristics and Historical Status of Fuzhou Culture” (Li Sheng 2006).“A History of Fuling Port ”(Xia Shuhua, 1991).“Fuling, folk house ” (Wu Chaodi, 2013).“Historical figures in Fuling” (Ran Guanghai, 2015).“Fuling Economic Geography ”(He Shichang, 2019).“In Fuling Memory” (Wang Pingfeng).“Research in Industrial Fuling”(He Shichang et al., 2022).“Fuling, Wujiang Portal ”(Editorial Department of Contemporary Sichuan Series, 1995).“Economic Overview of Fuling” (Xiang Shu, 1989).“Research on Fuling evolution” (Zeng Chao, 2021), etc.

## (2) The White Crane Ridge

### 1) Historical records and collection

In ancient times, the record and collection of the White Crane Ridge culture were first seen in the Taiping World Records written by Lezhi, a famous historical geographer in the Northern Song Dynasty<sup>23</sup>.When talking about the customs of Qianzhou, he said: " February of the first year of Guangde, the river retreat, Stone fish appear,It is said to be a sign of a bumper harvest year".Later, ancient books of geography, books and dictionaries included the culture of the White Crane Ridge.There are mainly "YUDI Ji Sheng "written by Wang Xiangzhi of the Southern Song Dynasty<sup>24</sup>.“Shu Zhong Guangji” compiled by Cao Xuequan in the Ming Dynasty<sup>25</sup>.“The Book of Heaven” compiled by Chen Yaowen<sup>26</sup>.“The Restoration of the Fuzhou Annals." compiled by Wang Yingyuan and other editors in the ninth year of Tongzhi in the Qing Dynasty.In the 17 years of the Republic of China, Fuling County continued to repair "Fuzhou Annals", etc. As Wang Xiangzhi said in "YUDI Ji Sheng": "In Fuling County, there are stone fish in the middle of the river, carved stone.....".Guang Ji of Shu by Cao Xuequan in Ming Dynasty:" Four years after Kaibao, Qiannan said, stone fish in the heart of the river.There is the Ancient, Records,cloud: February of the first year of Guangde, the river retreat, Stone fish appear,It is said to be a sign of a bumper harvest year.'According to its place, it's near the middle of the near Jian lake.There are double fish engraved on the stone, one fish mouth bites the plant grass, an other fish mouth bites the lotus, each thirty-six scales

<sup>23</sup> “The Taiping World Records” is the earliest and most influential geographical general chronicle compiled in the Northern Song Dynasty. It was first built in the Taiping Xingguo Period of the Northern Song Dynasty.

<sup>24</sup> “Yudi Jisheng” is a geographic records in the middle of the Southern Song Dynasty. Compiled by Wang Xiangzhi. The book was written between Jiading and Baoqing in the Southern Song Dynasty.

<sup>25</sup> "Shu Zhong Guang Ji" is a geographical work in Ming Dynasty. Written by Cao Xuequan.

<sup>26</sup> "Records of the Middle of Heaven" is a famous book in the Ming Dynasty. It's an ancient "encyclopedia."

per fish. There is a stone balance, a stone bucket nearby. Or ten years, or once every three or five years. Tang Dashun first year engraved poetry is very much. "Among them, take on more for the Qing Dynasty" The Restoration of the Fuzhou Annals."

In contemporary times, the records and collection of the White Crane Ridge mostly belong to the reference books of local Chronicles and dictionaries. There are mainly Fuling City Annals, Fuling Dictionary, Chinese Dictionary of The Three Gorges Project, Fuling Historical Figures, Magical Fuling and so on. Among them, the "China Yangtze River Three Gorges Dictionary" is a more comprehensive collection of the relevant entries of the White Crane Ridge. Such as the White Crane Ridge Huang Tingjian inscription, White Crane Ridge Wang Zeren inscription, White Crane Ridge Zhang Baxiu inscription, White Crane Ridge Xiao Xinggong inscription, White Crane Ridge Yang Mingshi inscription, White Crane Ridge Dong Weiqi inscription, White Crane Ridge Wang Zhengce inscription, White Crane Ridge Xie Bing inscription, White Crane Ridge Sun Hai inscription and other entries. The Fuling Dictionary also includes entries such as White Crane Ridge, Bazi Ridge, Listen, Crane Tower, Jian, Lake, Huang Tingjian, and Cheng Yi.

In addition, there are some other books involving the introduction of the White Crane Ridge culture, such as An Introduction to the Three Gorges Culture of China (Zheng Jingdong, 1996), Celebrities and Fuling (Ba Sheng etc, 2005), Cultural Celebrities in Fuling (Ma Peiwen, 2006), etc.

## 2) Transcription, sorting and compilation of data

Since the Song Dynasty recorded the inscription of the White Crane Ridge, some people have copied, sorted out and compiled the data since the Ming Dynasty. "Zhang Benren, etc., copy Stone Writing" wrote: "On the February hope day of Chenghua Xinbao, the governor of Fuzhou sent officials Zhang Benren and Wang Kou to copy ancient poems."

Subsequently, a large-scale data collation was carried out. Yao Jiyan, Qian Baotang and Lu Zengxiang of the Qing Dynasty respectively wrote The Written Records of Stone Words in Fuzhou, The Title of Fuzhou Stone Fish, and The Eight Qiong Room Gold and stone tonic.

In modern times, the copying, sorting and compilation of the data, began with the "Fuzhou Stone-fish, text see record" column of "opened in Yilin Monthly in the 1930s. Gong Tingwan, the first person to conduct a systematic and comprehensive investigation of the "White Crane Ridge inscription" in Fuling, he is the author of the Investigation of the Stone fish inscriptions in Fuling, Sichuan province (Gong Tingwan, 1963). Later, in the journal Cultural Relics compiled by the Cultural Relics Publishing House (1977), the full text of the White Crane Ridge reported in 1974 was reprinted. To promote the comprehensive compilation and compilation of the inscription materials is an important instruction made by Comrade Jiang Zemin (1994): "The inscription of the White Crane Ridge should be used as a first-class cultural relic, now we should try to make a set of pictures." Thus, to promote the high growth of the White Crane Ridge research atmosphere.

Specifically, the book "The Underwater Forest of Steles : White Crane Ridge", edited by Chen Xizhen (1995), gives a basic description of the basic situation of the White Crane Ridge, the hydro-logical value of dry water and the water records of stone fish out. By collecting the rubbings of the White Crane Ridge, taking photos and recording ancient books, we collected 174 paragraphs of graphic and text

materials with the timeline, and compiled and compiled the information of the White Crane Ridge from east to west. Written by the Fuling Regional Working Committee of the CPPCC (1995) of the world's first ancient hydro-logical station : White Crane Ridge, in the form of high definition picture album of crane beam inscription data made a comprehensive compilation, become the study of the Yangtze river economy, hydro-logical science and technology, history and culture and Chinese inscription art important basic image material, has also been historians at home and abroad, entrepreneurs, travelers, connoisseurs collection for valuable reference materials and appreciation atlas. In addition, there is The Yangtze River Three Gorges Project reservoir hydrology inscription engraved cultural relics atlas (1996) compiled by the Yangtze River Water Resources Commission of the Ministry of Water Resources. A Compilation of Ancient Stone Carvings in Southwest China (1998) edited by Chongqing Museum. White Crane Ridge inscription: China Yangtze River Underwater Museum (2003) edited by Chen Xizhen. Liu Xingliang's book The Arrangement and Research of The White Crane Ridge, (2019). Zeng Chao wrote "Three Gorges National treasure : White Crane Ridge Enlist and examination" (2005). In Fuling White Crane Ridge (2014) edited by Chongqing Cultural Heritage Bureau. Atlas of Chinese Cultural Relics-Chongqing Volume (Part II) (2020) edited by the State Administration of Cultural Heritage. Liu Xingliang's Collection of Historical Materials of The White Crane Ridge (2020) are all research works on the copying, collation and compilation of the inscribed materials.

### 3) Research, as a hydro-logical station

Studies on hydrology and hydro-logical value, Yi Zhewen (1914) Ancient Hydro-logical Station Fuling Stone Fish and (1974) An Ancient Hydro-logical Station in the Yangtze Rive Fuling Stone Fish. Wang Chengjing (1943), Water Conservancy Construction in the Middle reaches of Fujiang River,

Jiang Yongqing (1974), "The Hydro-logical Station of the Ancient Yangtze River : On White Crane Ridge, Fuling, Sichuan Province". Yangtze River Basin Planning Office (1975) , "The Historical Flood in the Upper Reaches of the Yangtze River from the Stone Carving Inscriptions". The Yangtze River Water Resources Commission of the Ministry of Water Resources (1993), "Compilation of Historical Materials of the Two Thousand Years of Flood in Sichuan". Yang Baoheng (1998), "The Formation, Development and Protection of The White Crane Ridge in Fuling". Zeng Chao (1998), "The Title Record of Fuling Stone Fish". Zhao Liang (2012), "White Crane Ridge: The World's First Ancient Hydro-logical Station". Zhao Liang et al. (2012), "Underwater Inscriptions on the White Crane Ridge: A Historical Narrative of the World's First Ancient Hydro-logical Station". Sun Hua, Chen Yuan Yan (2014), "The History and value of the White Crane Ridge inscription", etc. Among them, Zhao Liang et al. (2012) narrated the local customs and customs in the past from the perspective of history and ethnology. Sun Hua and Chen Yuan (2014) discussed the area of the stone carvings, the number of words, the ancient hydro-logical observation and recording methods of the stone fish logo, and made a brief research and evaluation of the calculation of the history and value of the White Crane Ridge.

In addition, "The Memories of the White Crane Ridge", "Farewell to the last close contact between : and the world's first ancient hydro-logical station,", "The submerged History", "Millennium Floating and downs" and so on.

#### 4) As an art and image symbol research

In terms of art and image symbols, it is first reflected in the research of calligraphy art and carving skills. Such as "Research on Stone Fish and inscriptions in Fuling White Crane Ridge" (Ding Zuchun, 1985). "Huai Tibetan millennium of art hidden in the ancient flow : White Crane Ridge stone carving calligraphy art"(Wang Xingguo et al., 2003). "Artistic Features and Significance of Calligraphy in Song Dynasty and White Crane Ridge" (Xu Haidong, 2013). " The Research of Stone Fish in, White Crane Ridge" (Wu Zhu 2012), etc. Among them, Wang Xingguo et al. (2003), through the White Crane Ridge artistic value of the stone carving calligraphy, found that in the stone carvings, in addition to the strict square and strict regular script and seal script, there are also some stone carving represented by the book style of Wei tablet and some crude and naive ones left by the anonymous family. And comprehensively summarized and discussed the White Crane Ridge stone carving calligraphy art to the "post" style, the overall style is inclined to beautiful, handsome, cool and healthy aesthetic characteristics. Xu Haidong (2013) by the White Crane Ridge song dynasty inscription calligraphy and the number of research, summarizes the social status of the song dynasty literati, and calligraphy in the song dynasty, it puts forward the White Crane Ridge song dynasty inscription calligraphy, is the tang method, style work stability, dignified, form attaches great importance to the method and traditional, by Yan Zhenqing, Su dongpo, Huang tingjian calligrapher wind influence. Wu Xianzhu (2012) through the White Crane Ridge carving information and types of textual research, think White Crane Ridge stone fish overall carving style is realistic as the fundamental, and discusses the White Crane Ridge stone fish carving techniques and characteristics, the earliest is line carving (tang), yuan, Ming period for light relief, early, middle is line carving, light relief, high relief, after the late qing dynasty are using line carving.

Secondly, it is reflected in the study of the image symbol of stone fish. For example, Ran Yi (2013), *The Accumulation of Religion and History : The Image of "Stone Fish"*, Yang Bin (2013), *On the Rock Painting of the White Crane Ridge Stone Carvings in the Three Gorges Region of the Yangtze River*. Yang Dongming (2008), *A Comparative Study of Stone Carving and Dazu Stone Carvings*, etc. Among them, Ran Yi (2013) used the image of "stone fish" on the White Crane Ridge, and combined with the local customs of "general arrow" and "worship", discussed that the local people worship "fish" as the totem in history, and deduced that the image of "stone fish logo" on the White Crane Ridge, is not only a functional creation, but also a spiritual symbol. From the perspective of Chinese traditional philosophy, this paper analyzes the cultural value of two fish (36 scale carp) and the significance of the number 36 in Chinese traditional culture. It is proposed that people carve symbols on the stone ridge and whether the reason for choosing Pisces is inspired by tai Chi diagram. Yang Bin (2013) uses the images of stone fish (including stone fish pictures or fish rock paintings) in the stone carvings of the White Crane Ridge, realizing the change of worship significance to scientific value, which is a high fit of worship significance and scientific value, and becomes the confirmation of the harmony and induction between man and nature. Yang Dongming (2008) discussed the commonness and individuality between the stone carvings and the Dazu stone carvings with the comparative study of the White Crane Ridge stone carvings and the Dazu stone carvings. Under the theme of "hydrology", the attributes of humanistic

history, literature and art. Under the theme of religion, Dazu stone carvings also expand the contents of art, science, history, folk customs and so on. Zhao Hanqing (2019) discussed the practical, cultural and artistic values of the White Crane Ridge as an ancient hydro-logical station with the phrase "Stone fish water logo". And from the natural phenomenon of "floating and sinking" of the White Crane Ridge, discuss the ancient literati feeling landscape, the philosophy of the mind.

In addition, Zeng Chao "Shallow discussion" Stone fish are above the water, indicating a bumper harvest." (2002). Huang Xiuling " Tang Dynasty Stone Fish and Zhouyi Culture in Fuling White Crane Ridge " (2004). Zeng Chao "An Investigation of the Easy Learning Culture of the White Crane Ridge " (2015). Shen Su " Texture Analysis of Stone Fish in Chongqing" (2020). Huang Jianghua " Exploring the Cause of the White Crane Ridge Landscape Culture " (2017), e"tc.

#### 1) The White Crane Ridge poetry and the inscription

Poetry and related figures, Wu Anxiang (2002), "Eternal Song: Crane dancing Fish Flying Xiang". Li Shiquan (2004), "Eternal Song: The White Crane Ridge". Wu Si (2017), "White Crane Ridge "Double carp" leads the songs and poems of poets of all dynasties". Chongqing Fuling District Culture and Tourism Commission (2022), "White Crane Ridge Poetry". Zeng Chao (2010), "The Investigation of the White Crane Ridge in the Three Gorges Reservoir Area". Zeng Chao (2014), Zeng Chao (2014), "Investigation of Lishui Pu Family". Wang Xiaohui (2012), "The Knowledge State of Fuzhou in the Northern Song Dynasty". Zeng Chao et al. (2013), "Yuan, Ming and Qing Dynasties, White Crane Ridge inscription in Fuzhou"., Wang Xiaohui (2014), "In the inscription of the White Crane Ridge, Fuzhou, Yizhou and Wu Ge in the Northern Song Dynasty"., Zeng Chao (2017), "An Examination of the Famous Person Xiao Xingong Historical Trace". Zhou Yan (2003), "Historical records of folk symbol language : Yangtze River White Crane Ridge inscription tube see". Liao Ruxue (2014), "Research on the Scientific Value of the White Crane Ridge Inscription". Huang Xiuling (2005), Song Dynasty scientist Qin Jiushao and Hydro-science of the White Crane Ridge. Zhou Yan (2003), from the perspective of folk stories and folklore symbols, discussed the inscription of the White Crane Ridge as the earliest record of folk scientific wisdom, which set a precedent in the history of Chinese stone carving.

The White Crane Ridge inscription, notes have. Li Sheng (2005), "The inscription of, White Crane Ridge that Underwater" To explain the school reading .Wang Xiaohui (2015), "Notes on the Collection of the White Crane Ridge". Wang Xiaohui (2017), "An Examination of the characters in the White Crane Ridge". Zeng Chao (2005) "Three Gorges national treasure : White Crane Ridge inscribed with the record and examination" and so on. Among them, Li Sheng (2005) made a detailed analysis and correction of the incomplete, misconception and annotation in the inscriptions of Chen Xizhen, and in (2006), he further examined the life and description of the inscriptions of the White Crane Ridge. Zeng Chao (2005), for the convenience of the researchers, Prepared the "Three Gorges national treasure : White Crane Ridge inscription record and the book". Wang Xiaohui (2015) compiled and annotated in accordance with the order of the inscription number, and produced the book "The Collection of school Notes".

#### 6) Heritage protection and utilization

One is about heritage protection. Xie Xiangrong et al. (2014), Underwater Cultural Heritage Protection: Underwater Protection Project of the Original Site of the White Crane Ridge. Zhao Bing (2004), The Overall Plan of The Protection Planning of The White Crane Ridge. Gao Yuan (2012), Construction of the White Crane Ridge Inscription Museum and Underwater Cultural Heritage Protection. Zeng Zhongmao (2009) ,Ontology Protection of Fuling White Crane Ridge. Shen Zhiliang (2002) ,"The Exploration of the Protection Scheme of the White Crane Ridge in the Three Gorges Reservoir Area". Xu Runsheng (2003) ,On the Protection of the "White Crane Ridge" of the Three Gorges of the Yangtze River. Hao Guosheng (2003), White Crane Ridge hydrological inscription and Protection of the White Crane Ridge. Gao Yuan (2012), Construction of the White Crane Ridge Inscription Museum and Underwater Cultural Heritage Protection. Hu Ren (2009), White Crane Ridge: The most unique Underwater Museum in the world. Huang Truth (2001), "The protection of the White Crane Ridge inscription and its relationship with the water environment", etc.Among them, Huang Truth (2001) discussed the relationship between the inscription and its relationship with the water environment, and proposed that the water environment of the inscription and the unique cultural landscape formed should be restored during the protection. Zhou Sheng (2014) for White Crane Ridge underwater museum running, protect the water quality transparency, algae breeding, inscription surface breeding biofilm, the lighting and stainless steel components rust, put forward to establish White Crane Ridge inscription to protect the water environment monitoring system, the method of artificial intervention strategy, let White Crane Ridge inscription preserved in healthy water quality environment. Hu Liming (2015) analyzed and discussed the unstable phenomenon of water environment in the White Crane Ridge Museum, proposed to break the barriers of the industry and departments, and attract experts and scholars from different fields to participate in the in-depth study of the current situation of water environment in the White Crane Ridge.

The second is about the protection of the engineering design. Wu Jianjun et al. (2001), "Underwater Protection Project Design of the Original Site of the White Crane Ridge in the Three Gorges Reservoir Area", Li Hongsong (2004), "White Crane Ridge Carving Protection Project", Zhou Jianjun (2003) Research and Suggestions on the Reliability of Fuling White Crane Ridge Protection Project, Liu Jialing et al. (2001), "White Crane Ridge of the Three Gorges, Construction of Underwater Protection Project", Hu Changhua (2006), Research on the Design of Safety Monitoring System for Underwater Protection Engineering of the White Crane Ridge, Lear et al. (2004), Design and operation of the "White Crane Ridge inscription" protection project, Chen Hualei (2014), Design and practice of Underwater Lighting System for the White Crane Ridge inscription Project, Zhao Bing et al. (2004), Design of Ontology Protection Engineering of the White Crane Ridge inscription, Zhao Bing (2004), "The Reconstruction Project of The White Crane Ridge inscription", Zhongming (2011), Overview of the Original Site Protection and Visiting Corridor Design of Fuling White Crane Ridge, Liu ZhangRongfa (2012), "Fuling White Crane Ridge inscription of the original site of the underwater engineering text, the construction of material protection", Zhou Sheng

(2014) "White Crane Ridge underwater Water Environment Monitoring Design", etc. Among them, Zhang Xujin, et al. (2003), based on the model test results, studied and analyzed the characteristics of sediment scouring and riverbed evolution rules of the section of the White Crane Ridge during the thirty years of operation of the Three Gorges Reservoir.

The third is about the use of heritage. Jiang Rui (2015) "Thoughts on Building Fuling Cultural Brand with the White Crane Ridge Effect", Deng Dexiang et al. (2022), Value of the White Crane Ridge Cultural Heritage and its Development and Utilization, Chen Rong et al. (2015), Design and Implementation of the Virtual Roaming System Based on 360 Panorama White Crane Ridge, Chen Chang (2010) ,Research and Development and Design of Special Tourist Memorabilia of Fuling White Crane Ridge, Chongqing, Liu Zibing (2004), On the Development and Utilization of Archaeological and Cultural Resources in the Three Gorges Project, Miao Yuan (2023) "The Application and Promotion of the White Crane Ridge Topic Carving Art in Manual Design", etc. Among them, Jiang Rui (2015) proposed to use the image symbol of "stone fish" to establish the cultural image of the White Crane Ridge, proposed to establish the characteristic cultural brand of the White Crane Ridge, and develop the cultural industry of Fuling. Deng Dexiang et al. (2022) discussed the artistic value of calligraphy, sculpture art value, hydro-logical historical value, literary value and cultural tourism value of the White Crane Ridge cultural heritage, explored the cultural brand of the White Crane Ridge, promoted the integrated development of cultural tourism, and spread the value utilization strategy of the White Crane Ridge culture. Chen Rong et al. (2015) studied the feasibility and practicability of 360 panoramic technology, and established the design of the White Crane Ridge panoramic virtual roaming system.

### (3) Summary and evaluation

Through the above sorting and summary of previous research results, it is found that previous studies mainly focus on the following categories.

The first category mainly studies the hydro-logical historical information, hydro-logical value and its contribution to the social development of the Yangtze River basin reflected in the inscription of the White Crane Ridge. Special is a unique technical invention of the "stone fish water logo" of the White Crane Ridge, showing the scientific value and historical contribution of ancient Chinese hydro-logical observation technology. This kind of research is an important research support to support the identity of "the world's first ancient hydro-logical station in White Crane Ridge".

The second category mainly focuses on the thematic research of the thematic art of inscriptions in the Song Dynasty and the Ming Dynasty. There is also a small amount of space on the study of the "stone fish" graphics and symbols, stone carving technology and local beliefs. However, the fragmented case study is not systematic and very weak.

The third category is mainly the poems in the stone carvings of poetry, calligraphy, painting, character names, characters, characters and characters in the stone carvings, as well as the research of folk stories, local legends and family research involved. This kind of research belongs to the basic literature collation.

The fourth category is mainly the research on the protection and management of the White Crane Ridge cultural heritage. Such research mainly focuses on the protection of the cultural heritage during the construction of the Three Gorges Project and the management of the cultural heritage after the completion of the Three Gorges Project.

The fifth category is mainly the research on the utilization of the White Crane Ridge cultural heritage. The research of this side is quite weak, referring to building the White Crane Ridge culture brand, promoting the integration of culture and tourism, and spreading the culture of the White Crane Ridge.

In summary. At present, domestic scholars have certain research accumulation in the research of the White Crane Ridge, but on the whole, the research started late and the results are not rich enough. Moreover, most of the research results are focused on the literature and history, and the overall research and heritage utilization of the cultural space are extremely insufficient. Therefore, based on the lack of above research, the call for the formation of, "The White Crane Ridge of the world" and "White Crane Ridge IP<sup>27</sup>, effect" proposed by the Chinese government in 2023, and the success of the application for world cultural heritage, I put forward the production of the space of the White Crane Ridge, and compare the space of the strategies and suggestions from the perspective of folk culture and art.

### **1.7.2 Literature review on the study concepts**

#### **(1) The Production of Space**

The discussion of "space" has long existed. The ancient Greek philosopher Plato believed that space is the place where all generative movements change. Aristotle believed that "space is something like a container", and he defined space as the encircler of a thing. In the view of Plato and Aristotle, space is the category of the existence of things, and it is the basis for people to classify and name objects. Descartes, the father of French philosophy, regards "space" as the external world presented in cognition, while Kant believes that time and space are the related tools of knowledge, the means of organizing phenomena, and completely separated from the field of experience. Western philosophy takes space as the subject of cognition and time as the subject of cognition. They introduce space into the absolute field, thus establishing the epistemological position that time is superior to space<sup>28</sup>.

Between 1970 and 1975, the spatial concept was changed. People began to explore different types of space, including images, sculpture and music, not just the distance between cosmic celestial bodies. In the traditional sense, space is usually associated with mathematics and geometry, and is regarded as abstract concepts with no practical content. The philosophy also has a certain degree of contempt for space,

<sup>27</sup> IP (Intellectual Property), originally refers to the exclusive rights of human intellectual labor results, is a kind of intellectual property rights. Now IP not only refers to the intellectual property rights itself, but also becomes a symbol and symbol in cultural and creative products. IP has a high recognition, but also has the infinite possibility of derivative other products to the periphery. Commercial realization is the core of IP. "property right" expresses a relationship of ownership, which implies the meaning of value and realization. The IP image of the White Crane Ridge is the personality and characteristics of the White Crane Ridge in the public mind. The IP image effect of the White Crane Ridge is an embodiment of economic realization and an effective way to use the heritage of the White Crane Ridge.

<sup>28</sup> Zhang Zikai. (2007). Review of Lefebvre's "The Production of Space". Journal of Jiangsu University (Social Sciences Edition),2007(05):10-14.

treating it as a way of organization of perceptual phenomena. Various disciplines have studied space, but often reduced space to concepts under specific methods and premises, such as geography, sociology and history. Among them, relativity theory introduces new ideas to the concept of space, challenging the traditional concept of space, such as 3 dimensions, the separation of space and time, and Euclidean geometry.

The French philosopher Lefebvre pointed out that the "space" studied by his predecessors is a hollow area of geometric concepts. The separation of such theoretical practice and social practice leads to the separation between theory and practice, and between spirit and material. In order to view the tradition of valuing time while ignoring space in the history of western philosophy, and in order to realize the unity of "space" in the material, spiritual and social field, Lefebvre put forward the research concept of "production of space"<sup>29</sup>. He believed that the meaning of "production" went beyond all philosophical binary opposites, and pointed out that "production" is to impose the elements, order, structure and relations in a specific time and space to a certain production object, and that "space" has existed since the beginning of production. Space becomes a kind of production object, and the production of things in space turns to the production of space itself. Just like the planning of a railway, it not only produces a specific capital space along the railway, but also produces some secret economic relationship between the space.

In this study, Henri Lefebvre emphasized the importance of space and proposed that the study of space must be investigated through history, society and other aspects. He believed that space is an important part of social relations, is the product of society, and the matrix of social space is social relations. Space arises in the development of social history, and also deconstructs and transforms along with the evolution of history. It also points out that the space we live in has physical space, spiritual space and social space, and the production of space should contain all the world view and practical activities.

Lefebvre's concept of "production of space" constructs the "ternary dialectics". He uses society and history are used to explain space, and also space is used to explain society and history. He stresses that the social relations of production are a social existence, or a spatial existence; they project itself into the space, while creating the space itself. That is, social relations promote the generation of social space, and social space will make social relations reproduce in the space. Lefebvre emphasizes social and historical "space", emphasizes the specific society in the established production mode architecture, and the special nature of society and shape their specific space, "space practice defined space, it in the dialectical interaction specifies the space, and space as its premise condition", human society is in the society and space in the history of the dialectical interaction.

The so-called spatial practice is actually the process of "spatial transformation" of social practice.<sup>30</sup> Space practice is a basic kind of production practice. In the production space, it also produces the social relationship on which the space products

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<sup>29</sup> By Henry, Lefebvre. Translation by Liu Huaiyu et al. (2022). *The Production Of, Space*. The Commercial Press.,

<sup>30</sup> Liu Tao. (2015). *Social Production of Social Media and Space*, Research on the critical and dialogue mechanism of "spatial thought" of Lefebvre and Foucault. *Journalism and Communication Research* (05), 73-92 ,127-128.

depend.<sup>31</sup> And the establishment of space further stabilizes and deepens this social relationship."Space itself is not only a 'product' formed by different ranges of social processes and human intervention, but also a 'force', which should in turn influence, guide and limit the various possibilities of human behavior and way in the world."<sup>32</sup> In space practice," body ", as the most important construction cornerstone of production, produces isomorphic relationship and interaction with social space. Space enters literary and artistic works through specific sensory experience and "flesh".<sup>33</sup> Both the spatial criticism of literary works and the conception of the ideal space rely on a deep understanding of the "body" itself.

In the research boom of the concept of "production of space", some Chinese scholars try to analyze and expand the application of their theory in new fields. For example, Christian Schmidt et al. (2021) derived a new cognition from the analysis and reconstruction of Lefebvre's space production theory: the three dimensions of space production must be understood as fundamentally equivalent. Space is also perceived, conceived, and living. None of the three dimensions can be imagined as an absolute origin, and as a "proposition", no one dimension has priority. Space is unfinished because it is continuously produced and always bound to time.<sup>34</sup>, Lu Shaoxun (2021) analyzed the new space production essence of space production in film and television tourism and its hidden value crisis of "abstract space", and discussed its value orientation based on "difference space".<sup>35</sup> Chen Bo (2021) transformed the three-way form of Lefebvre space production into virtual space practice, virtual space representation and representational virtual cultural space; proposed the production of virtual cultural space on the basis of Lefebvre space production, emphasizing that technology and development serve daily life.<sup>36</sup> Han Yong et al. (2016) made a systematic review of the application research of "space production" in the field of British and American human geography. It is found that British and American human geography scholars have found a new path between the new Marxist school represented by Harvey and the post-structuralism school represented by Soya, advocating jumping out of "production of space" and drawing nutrition from other works of Lefebvre to make in-depth interpretation of "production of space". Its outstanding feature is that it attaches importance to the application of theory, uses the connection of real hot issues with the tradition of human geography, and focuses on solving the problems of "localization" of theory and "internalization" of discipline.<sup>37</sup>

<sup>31</sup> Liu Tao. (2013). Social media and social production of space, The contemporary interpretation of Lefebvre's "space production theory". *Contemporary Communication* (03), 13-16.

<sup>32</sup> Yan Jia. (2006). *The Elite Book of Literary Theory*. China Renmin University Press, PP13.

<sup>33</sup> Lu Cheng. (2015). Physical problems in the theory of space production in Lefebvre. *Jiangxi Social Science* (04), 100-106.

<sup>34</sup> Christian Schmidt & Young. (2021). Towards 3 D dialectics, Lefebvre's theory of spatial production. *International Urban Planning* (03), 5-13

<sup>35</sup> Lu Shaoxun. (2021). Research on film and television tourism under the perspective of "space production". *Journal of Taiyuan University (Social Science Edition)* (06), 105-110.

<sup>36</sup>, Chen Bo & Song Shiyu. (2021). Research on virtual cultural space production and its dimension design Is based on the theory of "space production" in Lefebvre. *Journal of Shandong University (Philosophy and Social Sciences Edition)* (01), 35-43.

<sup>37</sup> Han Yong, Yu Bin, Zhu Yuanyuan, Lu Yan & Wang Mingjie. (2016). Recent research progress and enlightenment of the space production theory in British and American countries. *Economic Geography* (07), 19-26 ,37.

In the practice of the theory of "space production", most Chinese scholars can discuss urban and space production activities from the perspective of urban renewal. For example, Luo Kequan et al. (2023) used the theory of spatial production to descriptively analyze the formation and main characteristics of cities in the process of spatial evolution, and explore the relationship between cities, space and capital after the formation of urban space.<sup>38</sup> Lu Shaoxun (2023) believes that urban renewal on the surface is the transformation of physical space; but in essence, urban renewal is a complex space production activity.<sup>39</sup> In view of the urban renewal of Guangzhou, focusing on the transformation practice of Enning Road, focusing on the problem of spatial alienation, and finding that the main factor is the result of the joint interaction between the government, enterprises, the public, the media and experts and scholars (Ru Xiaolin et al., 2020).<sup>40</sup> Wu Zhicai (2019) analyzes the ancient city of Chaozhou tourism community space production and development, found in the development of tourism and driven, the government and planners master the space representation of the absolute voice, tourism community participation in the daily life practice beyond the original sense of tourism space production logic, research advocates from the perspective of space representation, daily life practice mining tourism field and field fusion mechanism of life area.<sup>41</sup>

In addition, some other scholars are emerging disciplines that expand their theoretical applications. For example, Song Shiyu (2021), "Research on the Production and Dimension Design of Virtual Cultural Space", Zeng Peng (2023), "Production and Reconstruction of Tourism Space in Ecological Leisure and Healthy Ethnic Villages", Guo Wen (2016), *The Production and Analysis of Space: A New Perspective of The Practice and Research of Tourism Space*, Wang Mingfeng (2022), *The Production and Evolution of Urban Cultural and Creative Tourism Space from the Perspective of Power-Space*, Ji Song (2010), *The Production and Consumption of Urban Space in the Consumption Era*, Bao Yaming (2006), *Consumption Culture and The Production of Urban Space*, Shi Yan (2010), *Modernity and the Production of School Space*, Han Ying (2022), *Production and Metaphor of Her Space in American Song*, Guo Wen et al. (2018), *Production of sacred Space in the Evolution of Ethnic Tourism Villages*, Yan Jing (2020), *The Production of Space and the globalization of Countries*, etc.

## (2) Heritage Utilization

The term "Heritage" was born in Europe in the 1970s (Richard Prentice, 1993), has a similar meaning to "inheritance (inheritance)" and is defined as "the inheritance we received from our ancestors". It can be either a relic or a tradition. The concept of cultural heritage was formally proposed in the UNESCO Convention for the Protection of the World's Natural and Cultural Heritage in 1972, including cultural

<sup>38</sup> Rocquan & Wangqu Lazhen. (2023). City, Space, and Capital: A study on the theory of space production in Lefebvre. *Journal of Tonghua Normal University* (09), 73-79.

<sup>39</sup> Lu Shaoxun. (2023). Research on urban renewal under the perspective of "space production" in Lefebvre. *Journal of Qingdao Vocational And Technical College* (03), 61-65.

<sup>40</sup> Ru Xiaolin, Xian Shi & Gu Zhonghua. (2020). Research on spatial dissimilation of Urban Renewal based on the space production theory of Lefebvre, Take Enning Road in Guangzhou as an example. *Modern Urban Studies* (11), 101-109.

<sup>41</sup> Wu Zhicai, Zhang Lingyuan, Zheng Zhongqiang, Zhang Buhong & Liao Ziwei. (2019). Study on the space production of the ancient city tourism community in the tourism field It is based on the perspective of the space production theory of Lefebvre. *Journal of Tourism* (12), 86-97.

relics, buildings and sites, and then introducing cultural landscape and oral and intangible heritage.<sup>42</sup>

Cultural heritage is a historical symbol, and it can also be a cultural product of any form. It includes the historical landscapes, natural history, the expression forms of cultural traditions, archaeological sites, cultural relics, artistic buildings, and all the things and things worthy of national and local protection. Heritage is history and activities from the past and is seen as part of the tradition. Cultural heritage is a unique resource of a country, whether it is natural remains, or social and historical remains. Its importance lies in habits, values, traditions, institutions, and even the organization of social relations. Every country has its own internal values, which are recognized as requiring a protective culture. And it can create an economy for national, regional and local development.

Heritage Utilization<sup>43</sup>(Laura Jane Smith, 2006), Laura Jane Smith believes that heritage is dynamic, dynamic, not something solidified in a physical form, and that it includes a series of actions that occur in a particular place or space."Heritage" can undoubtedly be identified as ancient, magnificent, monumental, beautiful sites, buildings, places, and artifacts."Heritage" is a cultural practice that involves a range of values.

Heritage research is a kind of interdisciplinary cultural study that studies the relationship between people and historic heritage. In the first two decades of the 21st century, this field of research has developed rapidly, from the traditional fields of historiography, archaeology and anthropology, to political science, international law and communication science. The Laura Jane Smith uses the concept of "authoritative heritage discourse" to create a new perspective on heritage and cultural heritage research. This sociological research perspective not only liberated the "heritage" from the "hegemony" of archaeology and historiography in the past, but also gradually became an important starting point for the research of many humanities and social science fields, such as heritage diplomacy, heritage politics research and cross-cultural communication research.

As a postmodern and critical scholar, Smith reconstructs the significance of heritage and proves that ordinary people can also participate in the construction of heritage. He proposed two basic points for the use of heritage: First, inheritance is a process. Second, the analysis and research heritage should be from the audience perspective rather than the authoritative perspective. Starting from the language nature of authoritative heritage discourse, we analyze several international conferences and documents that are very influential on the protection and practice of heritage today, as well as their problems and challenges.

The first to be challenged was the 1964 Venice Charter. One of the main reasons it was challenged by many circles (especially the non-Western world) was the "authenticity" (authenticity), or the authenticity requirement, which can be interpreted as "repairing the old as the old"<sup>44</sup>. Another well-known scholar in the heritage

<sup>42</sup> Bie Jinhua & Liang Baoer. (2008). Research review on the protection and utilization of intangible cultural heritage in China. *Travel Forum* (06), 446-450.

<sup>43</sup> By Laura Jane Smith. Su Xiaoyan, translated by Zhang Chaozhi. (2020). *Heritage utilization*. science press.

<sup>44</sup> This thought reflects the high degree of confidence in 19th century Europe in its own culture and construction achievements. They said they wanted to pass on the wisdom of the European sages to future generations. This practice is also known as "repair old as old", "intact". This Western-centered "arrogance" has caused non-Western discontent.

research field, Lucas Lixinski, also criticized the authenticity, believing that the control of authenticity controls the power of life and death (Lucas Lixinski, 2014). Of course, in addition to this philosophical criticism, it is true that "repairing the old" also has its problems and disputes, such as "how old is the old" and what is the old problem. Although there have been many levels of discussion about this issue in the traditional heritage research community, it is difficult to have a truth that most people agree with.

The second international document that has been greatly questioned is the Convention for the Protection of the World Natural and Cultural Heritage in 1972, which is based on this document. The reason for questioning it is because it contains a requirement called "highlight universal value" (outstanding universal value). This value is often considered by some groups as a very Western-centric vocabulary. In his book, Smith takes the World Heritage Site of Africa as an example, pointing out that many of the selected African cultural heritages with a long history are European-style castle churches in the 18th and 19th centuries.

In the face of increasing opposition, management of international institutions also made a compromise, in 1994 nara authenticity file has changed the definition of "authenticity" or "authenticity", no longer in western aesthetic, to emphasize the need to pay attention to cultural differences and different evaluation criteria under different cultural background.

In 2003, the Convention on the Protection of the Intangible Cultural Heritage began to list the intangible cultural heritage as one of the world heritage sites in the form of documents. Can be seen from the convention, the boundary of intangible cultural heritage than the material form of material heritage more liquidity and flexibility, it not only special emphasis on the indigenous minorities, and the certification of the heritage of even down to the individual level, it is also on the authority of western values of material cultural heritage of a challenge.

According to the standpoint of critical heritage research, a heritage is alive only when it remains in its own cultural context (Laura Jane Smith, 2006). According to the definition of Pierre Nora<sup>45</sup>, the museum should be history. Tourists' own experience is memory. History always wants to suppress memory, and memory will dissolve or filter history to some extent, which is a process of struggle and compromise. That is, those who controls the heritage discourse also controls an important resource of political power.

Controlling control has three functions. One is the ability to define the community identity. Second it can create or recreate new political identities, and maintain and negotiate the legitimacy of the government for many cultural rights and political rights. The third is to demonstrate the control of political resources (Laura Jane Smith, 2006). Thus, heritage utilization is a cultural reproduction accomplished in a controlled context.

The analysis of the conceptual structure of heritage utilization can help me understand the important role of the heritage as a cultural and social phenomenon in the local economy, culture and social life. Using the past culture, customs, values and

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<sup>45</sup> Memory and history, far from being synonymous, appear now to be in fundamental opposition. Memory is life, borne by living societies founded in its name .....History, one the other hand, is the reconstruction, always problematic and incomplete, of what is no longer ..... History is perpetually suspicious of memory, and its true mission is to suppress and destroy it.(1989, p.9)

modern space practice, use to expand and rebuild memory, performance, identity, through cultural identity (the world's first ancient hydrological station), cultural symbols (crane, Pisces, calligraphy inscription, poetry, goddess, fairy, etc.), cultural communication and cultural policy, as the basic point of heritage use. Through the process of government-led, enterprise cross-border cooperation, application for world Cultural Heritage "and cooperation with universities, jointly promote the grand scene of the White Crane Ridge cultural heritage utilization, expand the cultural influence of" the world of the White Crane Ridge ", and build the formation of the IP effect of the White Crane Ridge culture.

### **1.7.3 About the context Literature review on the context**

Modernity theory, which is a concept that contributes to the understanding of different social changes. It is a concept of economic, social, cultural, and technological transformation. The concept of "modernity" is used to describe the background of modernity in China today. China is modern in terms of economy, technology and social culture. In particular, economic reform has had an important impact on China's development, achieving modernization in all aspects and equality with civilized countries, especially some of China's technologies leading the world.

The Encyclopedia of Social and Cultural Anthropology, published by Alan Barnard and Jonathan Spencer (2002), describes modernity as. The term "modern" was used as a reference point to distinguish "primitive" features."Modernity" is a pattern of progress and change from society."Pre-modern" or "traditional" to the "modern" society.

The theory of modernity originated from the concept of Max. The German sociologist Weber (1864-1920) used this theory to explain the process of modernization within the society and in the national background. Therefore, this theory is based on the internal factors of the country. By considering everything from "traditional" roles to new, universal changes. By developing themselves in the same way as the more developed countries.

Modernity theory refers to the attempt to identify the variables that lead to social progress. It describes the various stages of social development that lead to the nature of modernity. This has something to do with the world system and the free market in the process of globalization. However, modernity theory does not focus solely on understanding the processes of change. But we also have to respond to this change. It also takes into account the social dynamics of different levels within the country. With regard to the social structure, the complex foreign social relations of national development are directly dependent on globalization.

Globalization and modernity; modernity is a phenomenon reflecting globalization, and globalization has the ability to create global social unity. Globalization is related to the cross-border transmission of modernity. Therefore, globalization often determines the integration of economy, politics and social culture. In particular, the economic objective of each country is the main structure affecting the other modernization. The presentation of cultural tourism is all about creating income for the people. In addition to the positive nature of globalization, globalization also has negative effects. In other words, a more modern and developed society will prevail. It often leads to differences between rich and poor in different societies, especially in the large cities of developing countries.

Technology and modernity; modern technology is an important mechanism for creating social change in the field of changing behavior patterns, values and cultural norms. Modern societies often transition from agricultural societies to commercial or industrial societies. Modern society will respond to technologies that have changed in an individual's daily life. And technologies that affect society, such as Internet systems that have become part of daily life and life at all levels of society.

The above conceptual structure of modernity can help me understand the background and purpose of the Chinese government's implementation of the Three Gorges Project under the background of Chinese modernity. The three Gorges Project brings a subversive change to the space of the White Crane Ridge. Using the influence of the Three Gorges Project, the White Crane Ridge has reconstructed the new space and space practice. And make use of the past culture, tradition and values to create a new space practice in the new space. These make me see the use of the White Crane Ridge heritage, and these spatial practice and practice process are presented in various forms of heritage activities. Thus, it serves as the concept and context of this paper is, an important tool.

## **1.8 Concept, Theory and Conceptual framework**

### **1.8.1 Research concept**

(1) "Space production", considering the difference between the past space and the present space, the inscription of the White Crane Ridge, as a complex of culture and art, was produced in the process of space practice in the past.

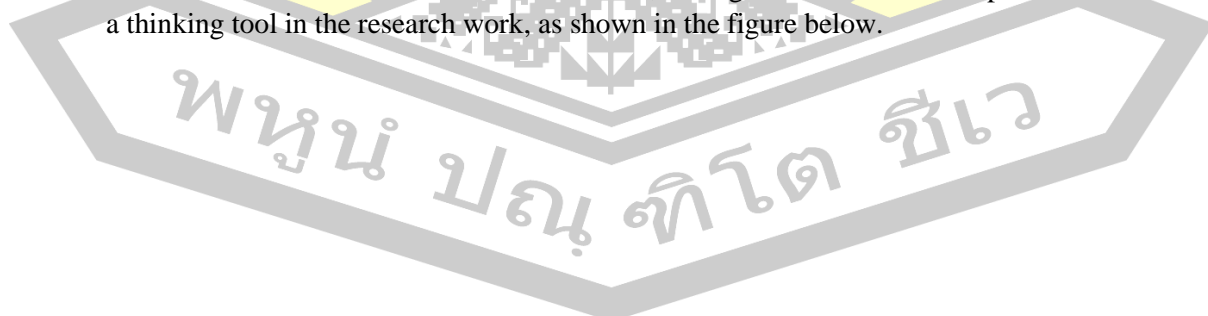
(2) "Heritage utilization", considering the various heritage practices of the White Crane Ridge, is to create various forms of cultural heritage activities and spatial practice process with the use of past culture, values and concepts.

(3) "Cultural identity", White Crane Ridge cultural identity, is the basic element of heritage utilization, but also the most core value embodiment.

### **1.8.2 Research Conceptual Framework**

The difference between the past space and the present space of the White Crane Ridge. The combination of academic problems and concepts is reflected in the production of space, cultural identity, heritage utilization and modernity.

Based on the above related structure, I designed a research conceptual framework as a thinking tool in the research work, as shown in the figure below.



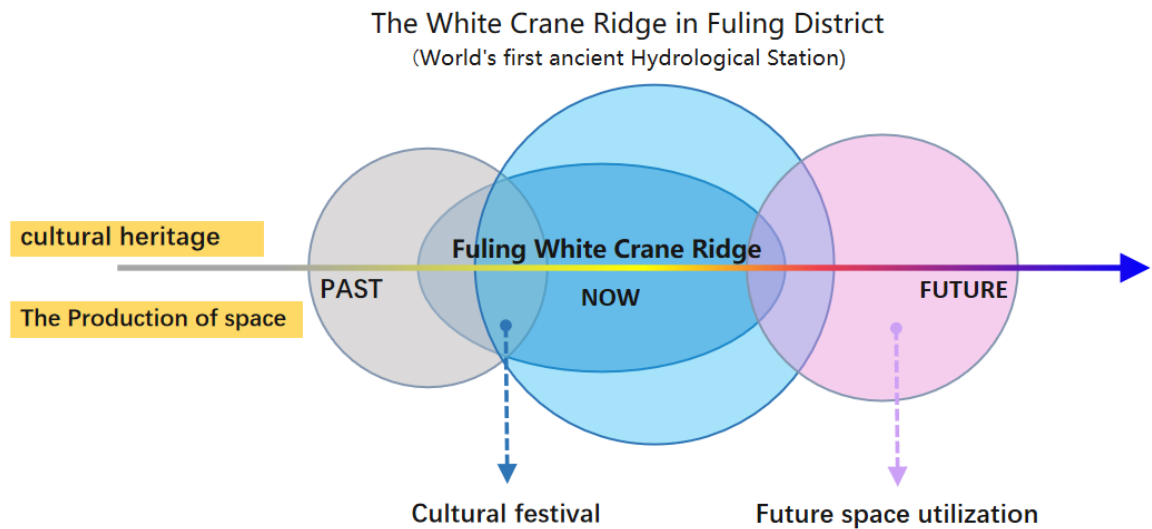


Figure 1 Study conceptual framework diagram

Source: Cao Wenyi, 22, October 2023

### 1.9 Research plan

(1) In 2022. Field investigation of the White Crane Ridge Underwater Museum, China Three Gorges Museum, White Crane Ridge Heritage administrators, government officials, Fuling locals, tourists, and other organizations or institutions, to determine the choice of theme.,

(2) From July-December 2023. Complete the writing and defense of TS1 and TS2.

(3) From January 2024-September 2024. Complete the first draft of the 100,000 words of text.

(4) From October 2024-December 2024. Proofreading and prepare defense, during which international papers are published.

(5) Early 2025. Complete the submission of the thesis and participate in the formal defense in January or February 2025.

### 1.10 Benefit of Research

(1) The benefits of academia

The results of this research will be provided to relevant researchers or other similar cases as research reference. To achieve more possibilities and opportunities for the sustainable management, protection and utilization of cultural heritage, and to provide intellectual support for the successful application for the World Cultural Heritage.

(2) Benefit to fuling local and White Crane Ridge cultural places

Promote the development of tourism in the form of diversified heritage utilization.

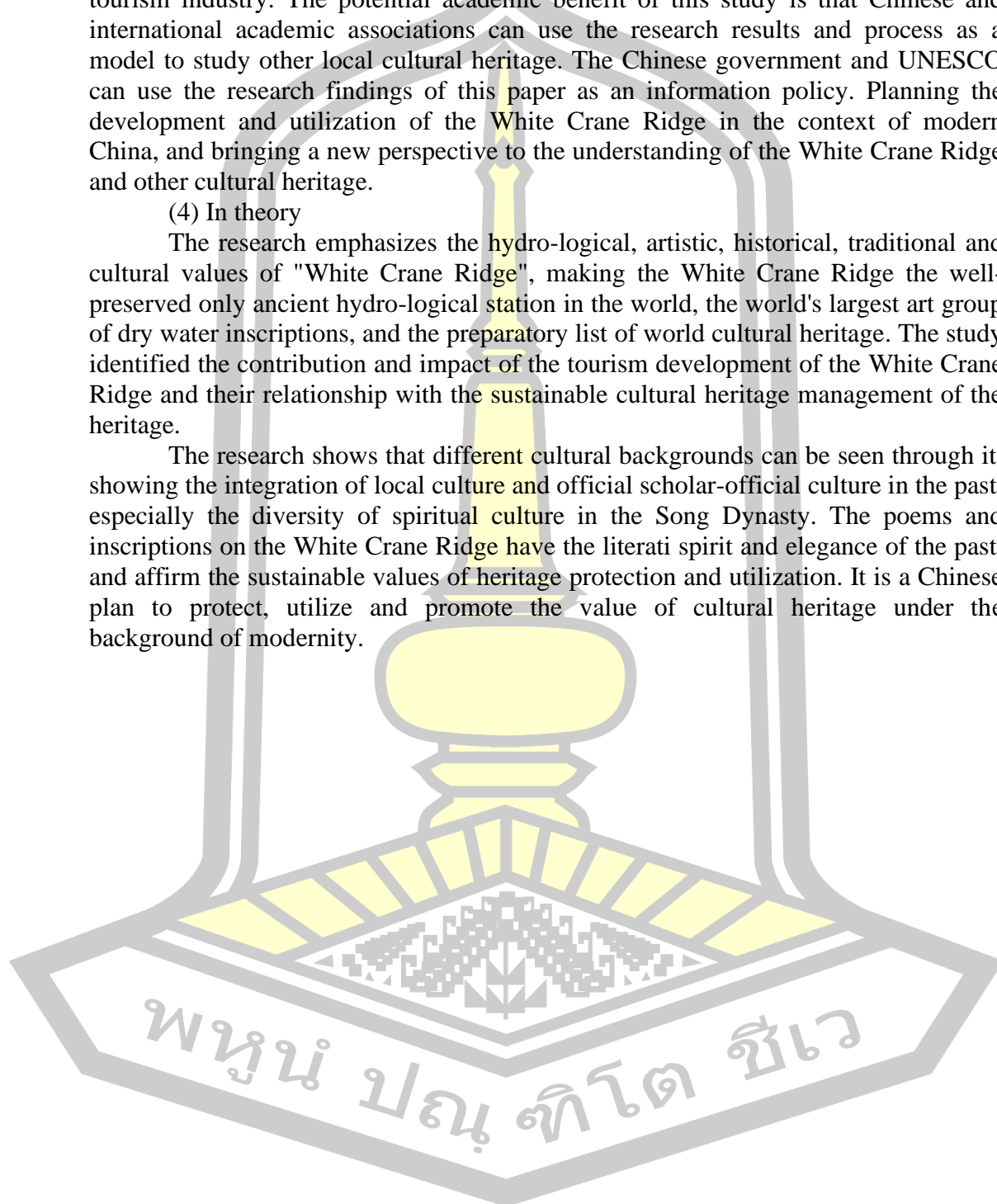
(3) Benefits of developing national or local government policies

Help to supplement and adjust the government guidelines and policies in the tourism industry. The potential academic benefit of this study is that Chinese and international academic associations can use the research results and process as a model to study other local cultural heritage. The Chinese government and UNESCO can use the research findings of this paper as an information policy. Planning the development and utilization of the White Crane Ridge in the context of modern China, and bringing a new perspective to the understanding of the White Crane Ridge and other cultural heritage.

(4) In theory

The research emphasizes the hydro-logical, artistic, historical, traditional and cultural values of "White Crane Ridge", making the White Crane Ridge the well-preserved only ancient hydro-logical station in the world, the world's largest art group of dry water inscriptions, and the preparatory list of world cultural heritage. The study identified the contribution and impact of the tourism development of the White Crane Ridge and their relationship with the sustainable cultural heritage management of the heritage.

The research shows that different cultural backgrounds can be seen through it, showing the integration of local culture and official scholar-official culture in the past, especially the diversity of spiritual culture in the Song Dynasty. The poems and inscriptions on the White Crane Ridge have the literati spirit and elegance of the past, and affirm the sustainable values of heritage protection and utilization. It is a Chinese plan to protect, utilize and promote the value of cultural heritage under the background of modernity.



## CHAPTER II

### **The History and Development of The White Crane Ridge From The Past to The Present**

In this chapter, the researchers will mainly discuss the historical process of the emergence and development of the White Crane Ridge culture. In order to study the emergence of the White Crane Ridge culture, it is necessary to do the research on the cultural soil, the geographical location, the ecological characteristics of the natural environment and the living conditions of the local people. After the emergence of these cultures, it is the cultural heritage, which has been continuously used and developed by people in the development of history, forming the current form. Therefore, the discussion of this chapter is divided into four parts: The first part is the analysis of the background factors of the formation of the White Crane Ridge culture, mainly from the origin of the name, natural environment and cultural soil, watershed characteristics and the strategic position of transportation. The second part studies the historical development of the White Crane Ridge in the way of historical stages, including the initial period, development period, prosperity period and protection period of the culture. The third part discusses the type and value significance of the White Crane Ridge cultural heritage from the perspective of cultural heritage, including the art of inscription, poetry and folk culture art. The writing of this chapter becomes the basis for the study of the past space production and significance of the White Crane Ridge, and also the data preparation for the study of the current space production and heritage utilization of the White Crane Ridge. It has become the role of the bridge between the past, the present and the future, and serving the value and significance of contemporary life.

#### **2.1 The Background of the Formation of the White Crane Ridge Culture**

##### **2.1.1 Overview of the White Crane Ridge**

###### **(1) The Origin of the Name**

The White Crane Ridge is located in the middle of the Yangtze River in the north of Fuling District, Chongqing, China, about 1 km from the confluence of the Yangtze and Wujiang rivers. The Yangtze River here has a natural giant stone Ridge parallel to the Yangtze River. The stone ridge is about 1600 meters long and 10 to 15 meters wide, divided into upper, middle and lower sections. The elevation of the back ridge is about 137.81 meters, 2 to 3 meters higher than the local annual lowest water level, about 400 meters away from the north bank of the Yangtze River, and about 100 meters away from the south bank. It is said that in ancient times, a Taoist priest (Erzhu in the Tang Dynasty) flew to heaven in a white crane to become an immortal. The crane is submerged all year round, every time when the river dries

up<sup>46</sup>, The underwater stone Ridge is out of the water, attracting countless white cranes to perch here, so it is called as "The White Crane Ridge".



Figure 2 A Schematic diagram of the White Crane Ridge location  
Source: Xie Xiangrong, Wu Jianjun, Zhang Rongfa , 2014, PP122

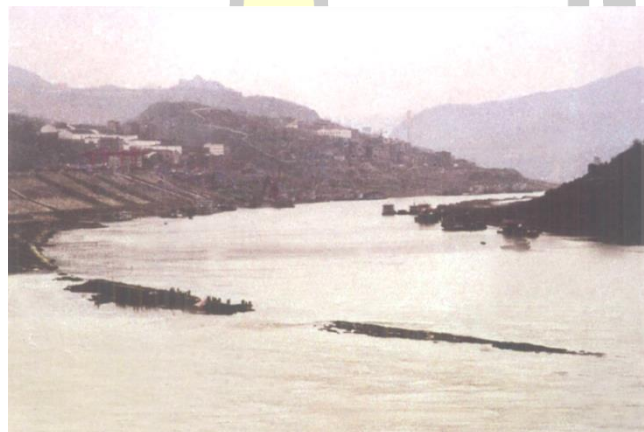


Figure 3 The White Crane Ridge upper, middle and lower three panorama  
Source: Chen Xizhen, Chen Zihan, 2003, PP19

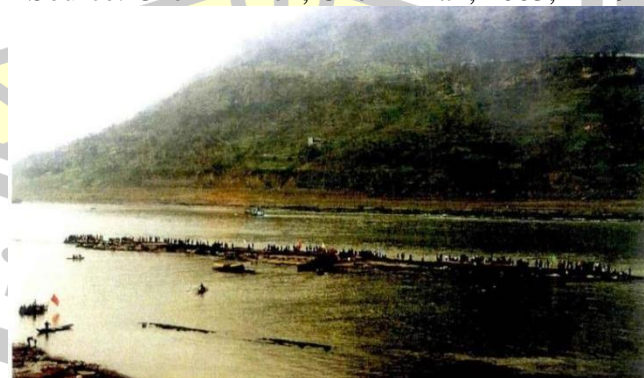


Figure 4 Look at the White Crane Ridge from a distance  
Source: Chen Xizhen, Chen Zihan, 2003, PP2

<sup>46</sup> The White Crane Ridge is submerged below the dry water level of the Yangtze River, and only appears in the winter when the water is dry. According to statistics, the White Crane Ridge only exposes the water once every three to five years.



Figure 5 The White Crane Ridge (A part)

Source:[http://www.fl.gov.cn/zjfl/fwfl/swwh/202211/t20221120\\_11318449.html](http://www.fl.gov.cn/zjfl/fwfl/swwh/202211/t20221120_11318449.html)

Accessed on: September 13, 2022

During the Spring and Autumn Period and the Warring States Period, Fuling was once the capital of Ba, and the stone ridge here was called "Bazi Ridge"<sup>47</sup> (Fuling Dictionary Compilation Committee, 2003). Later, it is said that Erzhu Tongwei in the Tang Dynasty practiced here. After gaining the road, he took the white crane to become an immortal. Therefore, "Bazi Ridge" was renamed "White Crane Ridge". According to the *Notes on the Classic of Water* written by Li Daoyuan, "White Crane Ridge, Erzhu Zhen once practiced here and then went to the Crane fairy." Zhu Mu's "Fang Yu Sheng LAN" also mentioned: "the state (Fuling) west one li White Crane Ridge, Er Zhu real people rushed up." "All go to " rushed to the place for the White Crane Ridge ". The *Annals of Fuzhou* (Tongzhi edition of the Qing Dynasty) is annotated under the entry of the White Crane Ridge: " Er Zhu went down the floating River, and the fisherman with a white stone lifted the net, struck the qing, then practiced in front of the Stone Ridge, and then took the journey to the White crane fairy." It can be seen that the early name of the White Crane Ridge " White Crane Ridge " is combined with folklore, and is considered to be the holy land of Erzhu Tongwei in the Tang Dynasty. It was not until the seventh year of Emperor Guangxu of the Qing Dynasty (1881), when Sun Hai, a native of Qinzhou, carved the character "the White Crane Ridge" on the stone Ridge, thus establishing the current name. In 1988, The State Council officially named it as "White Crane girder inscription", and announced it as a national key cultural relics protection unit "

<sup>47</sup> Fuling, where the White Crane Ridge is located, was the capital of the ancient Ba country, also known as the "Ba people". "Bazi Ridge" is hence its name. Stone ridge



Figure 6 The White Crane Ridge title (Qing, Sun Hai)  
Source: The author takes a selfie, February 7, 2023

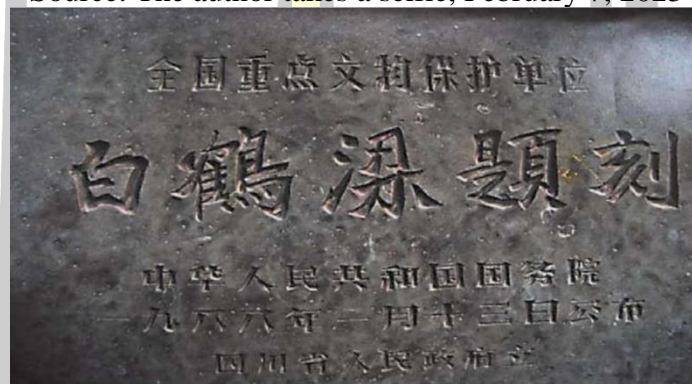


Figure 7 In 1998, the White Crane Ridge was listed as a national key cultural relics protection unit

Source: The author takes a selfie, February 7, 2023

## (2) The White Crane Ridge Historic Site

The historic sites on the White Crane Ridge not only have the hydrological information inscriptions, but also the precious inscriptions of hundreds of literati in all dynasties. It has become a typical representative of the dry stone carvings in the Three Gorges area of the Yangtze River. These inscriptions not only record the ancient history, but also reflect people's awe and love for nature, life and culture. These relics are not only people's observation and record of hydrological information, but also a kind of wisdom, reflecting how people use hydrological laws to better serve life.

There are 174 sections of the White Crane Ridge, including 114 sections of hydrological data, with a total of more than 30,000 words (Chongqing Municipal People's Government Network, 2023). 1 in the Tang Dynasty, 98 in the Song Dynasty, 5 in the Yuan Dynasty, 16 in the Ming Dynasty, 24 in the Qing Dynasty, 14 in the Republic of China, and 7 in the time unknown. There are 18 stone fish carvings, including 1 three-dimensional relief, 2 bas-relief, and 15 plane line carvings. In addition, there are still 1 line carved white crane and 2 guanyin (Xie Xiangrong et al., 2014: PP1). After more than 100 years of natural and man-made destruction, the original site of the White Crane Ridge has 161 inscriptions, 16 inscriptions in 12

groups of stone fish, and 1 other image of about 11,000 words.<sup>48</sup>In addition, in China Three Gorges Museum and Fuling Museum in Chongqing, there are also 13 sections of the White Crane Ridge inscriptions, 2 stone fish and 2 other images (Chongqing Cultural Heritage Bureau, Chongqing Immigration Bureau, 2014: PP9). In these inscriptions in the Song Dynasty is the most, Yuan, Ming, Qing second.

The inscription is the earliest, longest and largest dry water inscription in the world. In these questions, there are more than 100 sections of hydrology, most of which use "stone fish" as the buoy to judge the height of the river water. The content of the inscription is almost around the "stone fish". These hydrological inscriptions record the hydrological situation of 72 dry years of the Yangtze River in more than 1,200 years, systematically reflect the evolution of the water level in the dry years of the upper reaches of the Yangtze River, and provide important physical evidence for the study of the historical laws of hydrological, regional and global climate change of the Yangtze River. It provides an extremely important scientific basis for the hydropower industry, bridge construction, inland river shipping, farmland irrigation, resource development, coastal flood control and urban water supply in the Yangtze River basin. It has great value in science, history and art. In 2008, it was praised by UNESCO as "the world's only ancient hydrological station". In 2006 and 2012, it was included in the Preparatory List of China's World Cultural Heritage.



Figure 8 The White Crane Ridge and the White Crane Ridge inscribed logo  
Source: Chongqing Fuling District Culture and Tourism Commission



Figure 9 The White Crane Ridge stone fish  
Source: Chongqing Fuling District Culture and Tourism Commission

<sup>48</sup> The Yangtze River Water Resources Commission of the Ministry of Water Resources, PRC. (1996). The Yangtze River Three Gorges Project reservoir hydrology inscription engraved cultural relics atlas. science press. Page 127.

### **2.1.2 The Natural Environment and Cultural Soil of the Area Where the White Crane Ridge is Located**

#### **(1) Geographic location and Geological Characteristics of the Area**

The White Crane Ridge is located in Fuling area of Chongqing city in the upper reaches of the Yangtze River. Fuling is located in the valley at the intersection of the Yangtze River and the Wujiang River. The terrain is mainly mountainous and hilly, and the terrain is undulating. This geomorphic feature makes the Fuling area of the water system developed, rivers crisscross., the White Crane Ridge is located in a triangle of the Yangtze River and the Wujiang River, north latitude 29° 43', 107° 24' east longitude. The total length is 1,600 meters and 10-15 meters wide. The rock surface of, the White Crane Ridge is relatively flat, extending from west to east with an Angle of 15 degrees tilt, parallel to the river in a shape (Chen Xizhen, 2003: P.1). It is said that it is the largest complete stone Ridge in the heart of the Yangtze River. From a distance, its form is like a giant dragon lying across the heart of the Yangtze River. Every winter and spring dry season, the stone Ridges are above the water. Outside the Ridge big river to the east, the Ridge level is like a mirror. Stone Ridge around the picturesque clouds, the breeze slowly. These natural characteristics, make the White Crane Ridge is born with unique charm.

According to the research of geologists, the Fuling area where, the White Crane Ridge is located is of complex geological structure, which is formed through many tectonic movements, such as the Himalayan orogeny and Yanshan movement. These geological movements together shaped the mountains and rivers landforms seen today, and also constructed the basic pattern for the shaping of the White Crane Ridge landforms. In the geological history period, the Yangtze River as a large river, its strong erosion constantly shaped the landform along the banks of the river. The White Crane Ridge is located at the intersection of the Yangtze River and the Wujiang River, and has been washed and eroded by the two rivers for a long time. The sediment, gravel and other sediment carried in these waters gradually accumulate, forming a rich sedimentary layer on the landform surface of, the White Crane Ridge. These sedimentary rock layers have a smooth surface, hard texture and strong weathering resistance. This special geographical location and geological structure make the White Crane Ridge a beautiful scenery on the Yangtze River and a special activity space for the local people.

From the perspective of geomorphic features, the formation of, the White Crane Ridge is closely related to the geomorphic features of Fuling area. The Fuling area where the White Crane Ridge is located is a typical valley landform. The Yangtze River cuts into deep valleys, with steep mountains on both sides of the river, forming a unique canyon scenery. The valley landform where the White Crane Ridge is located not only brings magnificent natural scenery, but also provides rich water resources and unique ecological environment. Since ancient times, people like to play on the White Crane Ridge. With its unique geographical location and geological wonders, the White Crane Ridge has become a bright pearl on the Yangtze River. The water level of the White Crane Ridge is 137.81 meters, and the Ridge ridge is 2 meters above the lowest water level and 30 meters below the highest water level, which makes the White Crane Ridge only exposed in the dry season of the extremely

dry years, and is submerged in the river all the year round. This attribute feature increases the magic of the space of the White Crane Ridge, making it a scenic spot.

### (2) Climate Characteristics and Natural Scene of the Area Where the White Crane Ridge is Located

Fuling, where, the White Crane Ridge is located, is located at the intersection of the Yangtze River and Wujiang River. Its climate type belongs to the subtropical humid monsoon climate. This climate type is characterized by four distinct seasons, abundant rain, abundant light, and a mild climate. Due to its location at the confluence of the Yangtze and Wujiang rivers, sufficient water vapor and fog is more common. The temperature here is characterized by warm and humid winters and hot and rainy summers. The average annual air temperature is about 18°C, the average temperature of the coldest month (January) is about 7°C, and the average temperature of the hottest month (July or August) can reach about 28°C. Precipitation is mainly concentrated in the summer, accounting for about more than 60% of the annual precipitation. Annual precipitation is more than 1000 mm, and the humidity is high. These climatic features provided basic guarantee for local agricultural production and also created conditions for the formation of later cultural landscape.

The banks of the Yangtze River where the White Crane Ridge is located have beautiful scenery and pleasant scenery. With the help of the humid climate, fog weather is more common, often showing different landscape features. On sunny days, the river is sparkling with green mountains; on rainy days, the river is like a fairyland. These weather phenomena and the scenery of the two rivers reflect each other, like the immortal picture scroll. Because of the floating and sinking characteristics of the White Crane Ridge, it is similar to the spiritual realm pursued by the Chinese traditional Taoist school. Therefore, the local people call it as the "immortal blessed land". Every time the stone Ridge above the water, the stone Ridge outside the east, the stone Ridge level like a mirror. People standing on the stone Ridge, surrounded by picturesque clouds, breeze slowly, bright and beautiful, relaxed and happy."The rising water disappears, and the dry water reveals itself."This strange natural phenomenon, make the scenery of the White Crane Ridge more unique charm and magical color.

### (3) The Historical Background and Cultural Accumulation of the Area Where the White Crane Ridge is Located

Fuling has been an important place for human reproduction since ancient times. As early as in ancient times, Fuling area has traces of ancestors activities. They rely on the gifts of nature and live by fishing and hunting, gradually forming the form of tribes and villages. Since the Xia and Shang dynasties, the Fuling land has bred the Pu and Ba people, and collided with the later Tujia, Miao, Han and other cultures, forming a unique local culture. Under the influence of diverse cultures, Fuling people have created their own local beliefs and values. These values and beliefs are not only embodied in the daily life of the local people, but also integrated into their cultural creation and artistic expression. Such as the White Crane Ridge inscription art, poetry art and folk culture art.

In the period of historical development, Fuling used to be the capital of Ba, which was an important period for the formation of its characteristic culture. According to historical records, "The Ba people were an indigenous people in ancient southwest China. They established the Ba state with Fuling as the center."During the Spring and Autumn Period and the Warring States Period, Ba communicated with the

neighboring vassal states, absorbed the essence of the Central Plains culture, and made the Ba culture more rich and diversified. In the Qin and Han dynasties, with the establishment of the centralized system, Fuling area became an important administrative and military center, and the Ba culture was further spread and developed. In the Tang and Song Dynasties, the Ba culture reached its heyday. During this period, Fuling area had prosperous economic prosperity and prosperous culture, and many outstanding cultural talents emerged. They have not only made outstanding achievements in the fields of literature, art and other fields, but also made important contributions to the inheritance and development of the Pakistani culture. During the Ming and Qing Dynasties, with the prosperity of commercial trade and the introduction of foreign culture, Fuling Ba culture showed a characteristic of inclusiveness, openness and inclusiveness.

In terms of culture, Fuling area, with its unique geographical location and rich historical background, breeds a profound and diversified integration culture. These cultures gather many cultural elements such as Ba culture, Chu culture and Shu culture. They are constantly enriched and developed in the course of history, forming a unique local culture. Such as folk music, dance, drama, etc.; such as traditional festivals, folk beliefs, weddings and funerals and other folk activities. Among them, the most representative is the Fuling dragon boat culture and celebrate the harvest of the waving dance. In addition, Fuling was relegated to exile as a political official before the Southern Song Dynasty. Changsun Wuji and Wei Yuanzhong, the prime ministers of the Tang Dynasty, and Cheng Yi and Huang Tingjian of the Song Dynasty, were all once relegated to exile here. After the demoted, the literati gathered here and developed the local culture, which made the local culture reach its peak in the Southern Song Dynasty, showing an unprecedented prosperity situation.

### **2.1.3 Basin Characteristics and Transportation Strategic Position of the Area Where the White Crane Ridge is Located**

#### **(1) Waterbasin Characteristics of the Area Where the White Crane Ridge is Located**

The Yangtze River basin where the White Crane Ridge is located is not only the largest river in China, but also the third longest river in the world. Its watershed area is vast, covering many provinces and regions. Its importance is not only reflected in the watershed area and rich water resources, but also in its key role in the country's economic, cultural and social development. According to statistics, the Yangtze River basin accounts for about one-fifth of the country's territory, and the population is more than one-quarter of the country. The fertility of the land and the concentration of the population are enough to prove its core position in the development of the country. In addition, the Yangtze River basin is also an important agricultural, industrial and transportation base in China. Its rich water resources and fertile land provide conditions for agricultural production, and many industrial cities and transportation hubs built along the river constitute an important support for the country's economic development.

The White Crane Ridge is located in the upper reaches of the Three Gorges Reservoir area of the Yangtze River, which is not only an important flow area of the Yangtze River, but also an important water area in southwest China. It belongs to the subtropical humid climate area, with high temperature and less rain in summer and mild rain in winter. This climate characteristic makes the water level change of the

White Crane Ridge show obvious seasonal law, which affects the exposure and concealment of the White Crane Ridge. At the turn of winter and spring each year, the water level of the Yangtze River is low and parts of the Ridge surface. As a natural stone Ridge in the Yangtze River, the back ridge elevation is about 138 meters, only two or three meters higher than the local annual lowest water level, so it is almost not in the water all the year round. This special water level elevation makes the White Crane Ridge accurately reflect the changing trend of the water level of the Yangtze River, and become an ideal observation point to observe and record the water level of the Yangtze River. Ancient people often determined the dry water level of the Yangtze River according to the height of the surface above the water, which is also an important factor for the development of the White Crane Ridge into a hydrological station.

Historically, agricultural production and shipping trade in the Yangtze River basin were very developed, and these activities have an extremely urgent demand for hydrological observation. As a natural platform for ancient people to observe hydrological information, its observation data is of great significance for agricultural production, shipping and trade. Because the Yangtze River in Fuling section is a typical mountain river characteristics, the riverbed slope is large, the current is rapid. In the wet season, the water level of the Yangtze River rises and the water flow accelerates, flooding the White Crane Ridge, while in the dry season, the water level drops and the stone Ridge leaks from the water. In addition, the time of the White Crane Ridge leaking out of the water is periodic and regular. Therefore, through the White Crane Ridge, we can judge the future rainfall, so as to reasonably arrange the planting and harvesting of crops. It can also provide shippers with information on planning waterways, help them avoid dangerous areas such as dangerous shoals and shoals during the dry season, and ensure the safe navigation of ships.

#### (2) Transportation Strategic Position of Fuling Area

According to historical records, the White Crane Ridge was once an important beacon and observation point in ancient times. Fuling, where the White Crane Ridge is located, was an important military fortress in ancient times. Due to its geographical location and the importance of transportation, Fuling became the focus of military strategists in all dynasties.

The Fuling area where the White Crane Ridge is located is located in the upper reaches of the Yangtze River and the east of Chongqing municipality, located in the heart of the Three Gorges Reservoir area, at the intersection of the Yangtze River and the Wujiang River, and has been an important place of transportation since ancient times. Its geographical location is unique, north of Bayu, Nantong Guizhou, west of Sichuan and Shu, east of the Jingchu. It is the land transportation hub in Sichuan, Chongqing and Guizhou region, and also the largest material distribution center in the Wujiang River basin. Fuling area waterway traffic is particularly developed, the Yangtze River waterway runs through the whole territory. According to historical records, Fuling had opened waterways as early as the Qin and Han Dynasties, with frequent ships and prosperous business activities. In the Tang and Song Dynasties, Fuling water transport reached its peak and became an important material distribution center in the upper reaches of the Yangtze River.

In the ancient transportation network, the geographical location of Fuling not only made it an important node of water transportation, but also provided convenience for the development of land transportation. According to historical records, the ancient post road in Fuling was first built in the Qin and Han Dynasties. With the rise and fall of successive dynasties, the post road has been continuously repaired and expanded. In the Ming and Qing Dynasties, Fuling land transportation was further developed, forming a relatively perfect transportation network to support the local economic and social development. These post roads not only connect the traffic between Fuling and the surrounding areas, but also connect them farther away through the Yangtze River waterway, forming a comprehensive transportation network. Driven by the post road, the commercial trade in Fuling area is increasingly prosperous.

As an important water traffic artery in ancient times, Fuling section of the Yangtze River is a busy place for trade. Businessmen use the White Crane Ridge as a beacon to ensure the safe transportation of goods, while also trading and distributing here. According to Fuling Annals, there were many docks and markets around the White Crane Ridge Liang, and business activities were very prosperous. The utilization of the Yangtze River waterway in Fuling has greatly promoted the economic and cultural exchanges between Fuling and its surrounding areas. Through the post channel and road construction, Fuling has the better connection and cooperation with neighboring cities. These transportation advantages have brought rich resources and opportunities to Fuling, and promoted the prosperity and development of its social economy.

### (3) Historical Development and Social Structure of Fuling Area

the White Crane Ridge is located in Fuling area, with a profound history. As early as in ancient times, Fuling once lived for Pu people, and they left a unique cultural mark on this land. From the middle and late Spring and Autumn Period to the middle of the Warring States Period, it became the territory of Ba, known as the Land of Zhi Zhi. Pakistan, as an important country in southwest China at that time, had its cultural, economic and military forces all reached a certain level. During this period, the state established capitals in Zhi, Jiangzhou, Dianjiang and other places, and most of the tombs of King Ba were buried here. Fuling, as an important territory of Brazil, naturally became one of the important cradles of Pakistan culture. In the middle and late Warring States Period, with the rise and expansion of the state of Chu, Fuling was incorporated into the territory of Chu and became the city of the state of Chu. After the unification of the six states, the Qin Dynasty implemented the system of counties and counties, and Fuling area was established as Zhi County (277 BC), marking the formal integration of Fuling area under administrative jurisdiction. Since then, Fuling has experienced the changes of the Eastern Han, Three Kingdoms, Jin, Northern and Southern, Sui, Tang, Song, Yuan, Ming and Qing dynasties, and the administrative establishment and ownership relationship have changed many times, but it has always been an important political, economic and cultural center of Sichuan and Chongqing.

As a city with a long history, Fuling formed a relatively stable social class division in ancient times. The nobles, scholars, merchants, craftsmen and peasants perform their own duties, which together constitute the social skeleton of Fuling City. The nobles and the scholars hold the discourse power of politics and culture, and their

life style, aesthetic concepts and values influence the cultural characteristics of Fuling city. With its keen business sense and flexible mind, the merchant class promotes the economic development of Fuling city, making Fuling become an important commercial hub center. The craftsman class is another important force in the social skeleton of Fuling city. They have made important contributions to the cultural prosperity of Fuling city with their exquisite skills and unremitting innovative spirit. Such as beautifully carved wood, stone, murals, or make exquisite porcelain. The peasant class is the most basic link in the social skeleton of Fuling City. They work hard, cultivating this fertile land, for fuling city to provide a steady stream of food and agricultural products. In the social skeleton of Fuling city, although there are certain differences and estrangement between various classes, they jointly maintain the harmony and stability of the city.

## 2.2 The Historical Development of the White Crane Ridge

### 2.2.1 The White Crane Ridge Before Being Flooded: The Cultural Formation and Development of A Huge Atone Ridge in the Yangtze River

(1) Sui, Tang, Five Dynasties and Ten Kingdoms: The Germination and Early Development of the White Crane Ridge

Before the Tang or Tang Dynasty, the stone fish logo was engraved on the White Crane Ridge. According to the relevant records of existing materials such as Taiping World, Di Jisheng, And Guangji of Shu, the relevant information can be traced back to the first year of Guangde in the Tang Dynasty (763 AD). "In February of the first year of Guangde, the river retreated, the stone fish see, the people of abundance."<sup>49</sup> In the Northern Song Dynasty, "Liu Shuzi's Poems" has a text cloud: "The stone fish of the Lake was carved by the Tang Dynasty. The Book of the Tu<sup>50</sup> That three five years or ten years out, out of the year, big rate and Yujiang "Jin Yixi tablet" similar."<sup>51</sup> It shows that people had already mastered the prediction experience that the water level of the Yangtze River would drop to 4 feet below the stone fish and there would be a good harvest in the coming year.<sup>52</sup> The stone fish seen by the Tang people on the White Crane Ridge is a unique ruler used by the ancient Fuling people to observe the water level of the dry water of the Yangtze River. Every time the river runs up and the stone fish comes out, people will judge the extent of the river water by observing the water phenomenon, predict the rainfall and plan agricultural production, and engrave the extremely dry water level on the stone surface of the rock wall of the White Crane Ridge. Later literati followed this method and the time the stone fish out of the water<sup>53</sup>, the scale of the stone fish from the water level, the name of the

<sup>49</sup> Xie Xiangrong, Wu Jianjun, Zhang Rongfa, (2014). Underwater cultural heritage protection: the underwater protection project at the original site. The Southeast University Press. Page # 133.

<sup>50</sup> The so-called "Tu Jing", or the Fuzhou Old Tu Jing built in the Tang and Song Dynasties, is also the local Chronicles.

<sup>51</sup> Liu Xingliang. (2019). White Crane Ridge inscription sorting and research. Chongqing University Press. Page # 311.

<sup>52</sup> Xie Xiangrong, Wu Jianjun, Zhang Rongfa, (2014). Underwater cultural heritage protection: the underwater protection project at the original site. The Southeast University Press. Page # 161.

<sup>53</sup> Through long-term observation of the dry cycle of the Yangtze River, ancient ancestors found that the water logo was exposed once every three or five years, once every ten years, and was a very dry water level for six hundred years.

observer and the scene of the stone fish appeared on the stone Ridge, forming an extremely precious hydrological record.

In the late Tang Dynasty, inscriptions and poems began to be engraved near the fish logo, and a picture of "weighing dou" recording the water level at that time was engraved in the first year of Dashun (890 AD). These questions are not only the talent and aesthetic taste of the ancients, but also reflect the historical background and cultural atmosphere of the society at that time. There are two stone fish water specimens, now only one tail and "stone fish" two words can distinguish the clear."Because the age long peeling, shape is blurred, how can not ask."In the 24th year of Kangxi of the Qing Dynasty (1865), Xiao Xingong, the shepherd of Fuzhou, recarved double carp on it and inscribed "Double Fish" (Figure 9 and Figure 10).



Figure 10 Qing Dynasty Xiao Xingong recarved stone fish (rubbings)  
Source: Xie Xiangrong, Wu Jianjun, Zhang Rongfa, 2014.PP128



Figure 11 Qing Dynasty Xiao Xingong re-carved line carved stone fish  
Source: Provided by the White Crane Ridge Underwater Museum

From the existing inscriptions, there are almost no remains in the Tang Dynasty, and there is no trace of the stone Ridges, only recorded in some ancient books. Volume 174 wrote by Wang Xiangzhi in the Song Dynasty, " In the middle of the river in Fuling County, there are double fish carved stone, each fish 36 scales, one rank grass, a lotus, stone scales, stone bucket beside, three or five or ten years, out of the rich year, the first year of the Tang Dashun engraved many ancient poems. Ming Dynasty Cao Xuequan's Shu Guangji also wrote that " four years of Kaibao, Qiannan said, stone fish in the heart of the river. There is "ancient records", cloud: the first year of February, the river retreat, stone fish now. The people pass the omen of

abundance. From there, it is in the middle of the lake. Pisces engraved on the stone, a title of grass, a bit of lotus, each thirty-six petals. There are stone scales, stone buckets beside it. Or ten years, or three or five years out. Tang Dashun first year engraved poetry is very much." In addition, Le Shi, a famous historical geographer in the Northern Song Dynasty, said about the customs of Guizhou in the book: "In the fourth year of Kaibao, there are stone fish in the middle of the river. There is "ancient records", cloud: Guangde first year of February, the river retreat, stone fish see, the people of the omen." There are seven paragraphs like this with only written records but no inscriptions or inscriptions, found in Lu Zengxiang's Stone and Stone in the Qing Dynasty and the Records of Stone fish in Fuzhou written by Yao Jiyuan in the Qing Dynasty. In March 1993, the State Administration of Cultural Heritage organized professional scientific and technological personnel to explore the bottom of the bridge, and found some inscribed fragments scattered at the bottom of the river. This shows that the White Crane Ridge inscription has been famous as early as the first year of Guangde in the Tang Dynasty, and has become a resort for literati to chant.

#### (2) Song and Yuan Dynasties: The Prosperity of the Inscription and the Formation of Cultural Landscape

In the Song Dynasty (960-1279), the crane inscription ushered in the peak period of its prosperity. As the heyday of ancient Chinese culture, the Song Dynasty, its literature, art, philosophy and social style all reached an unprecedented height, providing a deep soil for the enrichment and development of the White Crane Ridge inscription. In the Song Dynasty, the revival of Confucianism, the rise of Neo-Confucianism, a large number of literati, and the art forms such as poetry, poetry, calligraphy and painting reached an unprecedented height. There were many literati in the Song Dynasty. They were not only famous for their poems and songs, but also good at calligraphy and painting. As a unique natural and geographical landscape, with beautiful scenery, the White Crane Ridge has become an excellent place for the literati to show their talents since ancient times. According to incomplete statistics, there were 98 cases of inscriptions on the White Crane Ridge in the Song Dynasty<sup>54</sup>. The content covers poetry, fu texts, stele inscriptions and other forms. Its large number, rich content, high artistic value, all can be called a unique. In these questions, there are not only hydrological information description of the outflow of stone fish, but also records of the social life at that time, reflecting the cultural prosperity of Fuling area at that time.

During the Northern Song Dynasty, there were stone fish on the stone Ridges of the Yangtze River outside Fuling. The stone fish was a sign of a harvest year, and this phenomenon was reported to the imperial court by local officials. In *Taiping World*, the geographical Annals of the Northern Song Dynasty, it also contains relevant accounts: "In the fourth year of Kaibao, Qiannan said, there are stone fish in the heart of the river. There is "ancient Records", cloud: "In the first year of Guangde, the river retreated, the stone fish see, the people of the omen of abundance." In addition, the story of Xie Changyu (979) in the fourth year of Kaibao (979) is the earliest example of the definite inscription in the existing White Crane Ridge. Shortly afterwards, in the first year of Duangong in the Northern Song Dynasty (989), Zhu

<sup>54</sup> Xie Xiangrong, Wu Jianjun, Zhang Rongfa, (2014). Underwater cultural heritage protection: The White Crane Ridge inscribed original site underwater protection project. The Southeast University Press. PP161

Ang, a famous official of the Northern Song Dynasty, also left the inscription of Zhu Ang's Poems and Poems on the White Crane Ridge. Later, watching the phenomenon of the stone fish, recording the water level and the distance between the stone fish and the relationship between the stone fish and the year in an endless stream, the number of inscriptions accounted for more than half of all the White Crane Ridge inscriptions. With the upsurge of the White Crane Ridge, more and more people come here, and a large number of inscriptions are carved on the stone Ridge. These inscriptions are not only the scientific records of the Song Dynasty people to verify the hydrological laws of the Yangtze River, but also reflect the ideological and political vision of "emphasizing the people" and "emphasizing the agriculture". At this time, the White Crane Ridge "stone fish water indicates the harvest" influence is also more and more big.

In the Song Dynasty, Fuling was relegated to exile by political officials at that time. The great masters who were banished from the central government gathered here and developed the local culture, so that the local culture reached its peak in the Southern Song Dynasty. For example, Cheng Yi and Huang Tingjian in the Song Dynasty were once banished to exile here, and left precious calligraphy treasures on the scenic spot of the White Crane Ridge. Among them, the most famous "Yuan Fugeng Chen Fu Weng lai" (1100 in the Northern Song Dynasty) was Huang Tingjian's masterpiece at his peak. Song dynasty, came to crane Ridge and left inscribed famous historical figures have more than 300, involving all previous dynasties literati Yan Zhen Qing, Liu, Zhu Xi, Wang Shizhen poetry inscription, calligraphy and paintings, various calligraphy, seal, li, script, line, cursive, they left in crane Ridge inscription, poetry, become a crane Ridge eternal classic.

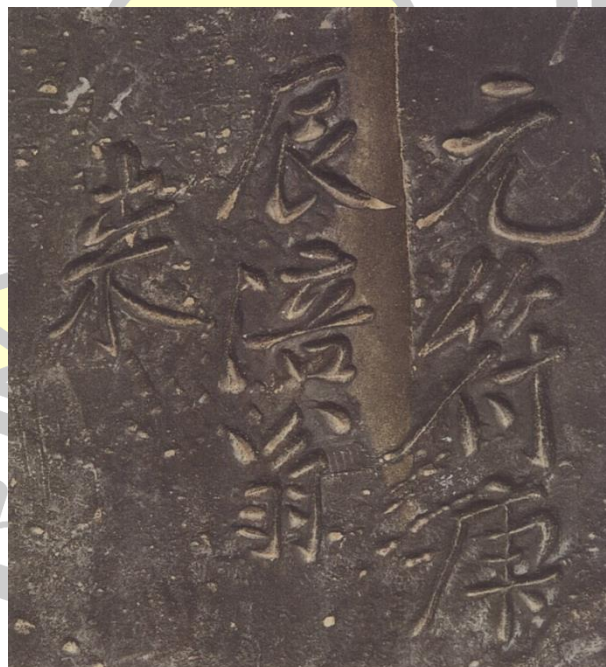


Figure 12 Huang Tingjian, "Yuan Fugeng Chen Fu Weng lai"  
Source: Li Shumin, Chen Xizhen, 2003. PP42



Figure 13 Huang Tingjian "Yuan Fugeng chen Fu Weng Lai" (rubbings)  
Source: Li Shumin, Chen Xizhen., 2003. PP43

In Fuling, where Bai the White Crane Ridge was located in the Song Dynasty, merchants and scholars gathered together. This unprecedented social and cultural atmosphere, so that the development of the White Crane Ridge culture to achieve unprecedented prosperity, at this time of the White Crane Ridge has been very famous. Therefore, whenever the dry season "the stone fish comes out", local officials will lead their entourage to board the stone Ridge in the river, watch the water, and show their concern for agricultural production. Literati, ordinary people, also go to watch and play in the water, and here to write, write and write poems, pray and remember the dead. And even the past officials, merchants and boatmen, also often in this season to lean against the boat to the stone Ridge side, off the boat tour and title nostalgia. In particular, during the Song Dynasty, 57 Jinshi<sup>55</sup>; and 11 royal relatives successively visited and nominated the White Crane Ridge to develop into a cultural landscape.



Figure 14 Local officials led their entourage to board the stone Ridge in the river  
Source: the White Crane Ridge Underwater Museum

<sup>55</sup> The "Jinshi" is the highest level of ancient Chinese officials, equivalent to the modern senior officials. The Jinshi system began in the Tang Dynasty, and through the continuous development and improvement of the Song, Yuan, Ming and Qing dynasties, it became the most important and highest-level examination subject in the ancient Chinese imperial examination system.

After the fall of the Southern Song Dynasty, the economy and culture of Fuling were much more depressed than before, but the local officials of the Yuan Dynasty followed the habit of climbing the White Crane Ridge to watch the water outflow of stone fish, recording the water level information and seal cutting inscriptions. There are five cases of the Yuan Dynasty inscription in the inscription, one of which is Bath (new Mongolian character). It is the only minority inscription in the inscription, which is the witness of the integration of regional culture and Mongolian culture.

In the Song and Yuan dynasties, with the improvement and innovation of hydrologic observation technology, the functions of the White Crane Ridge Hydrological station were further expanded. It not only serves agricultural production, but also becomes an important basis for political decision-making. It is an important place for local officials to show their achievements and status. It is also an important window for court officials to inspect local areas and understand the people's conditions. Therefore, the inscriptions on the White Crane Ridge are often of an official nature, recording the major events and human activities of the society at that time.

### (3)The Ming and Qing Dynasties: The White Crane Ridge Inscription Continued to Develop

In the Ming and Qing Dynasties, the influence of, the White Crane Ridge Hydrological Station was further expanded, and its cultural value was gradually recognized and valued by more people. In the Ming Dynasty, there were stone fish and inscriptions on the White Crane Ridge, which was recorded as an important scenic spot in Fuling. On the south side of the White Crane Ridge, the water is as quiet as a mirror, with the reputation of the lake. In Jianhu Lake and its vicinity, white cranes often live here. At that time, each district and county was popular to choose eight obvious landscapes in Fuling, and three of the selected "Eight Scenes of Fuling" were related to the White Crane Ridge, namely, "stone fish out of the water", "Jianhu fish flute" and "white crane singing". Therefore, every winter and spring, not only local officials, literati and ordinary people will visit the stone Ridge to see whether the stone fish out of the water, even past officials, merchants, boatmen and so on will often dock at the stone Ridge at this season, get off the Ridge to visit and name as a souvenir. The Ming people "Shang Tu Zhouzi invited to view the ancient, the guests travel to write biographies" (no. 18 "Yan Ying poem") and "the merchants return to Ma" (no. 84 "Dai Liangjun inscribed poem"), are the reflection of this phenomenon.

Ming and Qing inscriptions were 41<sup>56</sup>, The number increased than the Yuan Dynasty, but far less than the Song Dynasty. With the increase of the number of inscriptions, there is no space in the middle section of the BaihelRidge where the fish logo is located for new inscriptions. After the Qing Dynasty, the inscriptions gradually developed to the upper part of the middle Ridge. In the 23rd year of Kangxi (1684), the stone fish of the Tang Dynasty had been blurred after more than thousands of years of river erosion. Xiao Xinggong, then the highest local executive of Fuling, ordered the stone workers to engrave two stone fish on the original site to replace the stone fish of the Tang Dynasty, and inscribed "Heavy engraved Pisces" under it. The position of this stone fish logo is basically the same as that of the Tang Dynasty, and the direction and shape are basically consistent with the previous stone fish logo.

<sup>56</sup> Information released from the Fuling District People's Government of Chongqing Municipality.

Since then, people have observed the information of the dry water level of the Yangtze River based on the two re-carved stone fish landmarks of the Qing Dynasty. In the seventh year of Guangxu (1881), Mr. Sun Hai, a native of Luzhou, Sichuan province, carved three characters on the stone Ridge, "the White Crane Ridge", "Sun Hai inscribed the White Crane Ridge". In the same year, Xie Bin inscribed "The mainstay of strength" on this stone Ridge, which is vigorous and smooth, and is the representative work of the "sacred hand" in Fuling calligraphy circle.

(4) Since Modern Times: The White Crane Ridge Inscription into the Cultural Heritage Protection Period

Since modern times, a total of 14 cases have been engraved on the White Crane Ridge. In the 26th year of the Republic of China (1937), an investigation group organized by Minsheng Company conducted a detailed investigation of, the White Crane Ridge and recorded the degree of dry in Chongqing and Yichang in that year, which effectively filled the gap of the dry level mark of the Yangtze River for decades and provided important hydrological data for later generations. In the same year, the famous artist Liu Mianjie created the picture of the White Crane, and the first engraving of the image of the white crane on the stone Ridge in the form of drawings. After the founding of the People's Republic of China, due to the consideration of the protection and research of the White Crane Ridge, the phenomenon of inscriptions on the stone Ridge basically stopped, but the phenomenon of stone fish still came out of the water when people came to the White Crane Ridge in the dry season.

At present, the art and value of the White Crane Ridge carving have been widely recognized. In 1988, it was listed as a national key cultural relics protection unit. The protection and research of the White Crane Ridge has also received strong support from the Chinese government and people from all walks of life. The relic of the White Crane Ridge space has become an important scientific historical data for the study of dry water law, agricultural production and shipping in the upper reaches of the Yangtze River.

In this historical period of development, the data of the preliminary design documents of the Three Gorges Project (1972). It first entered the international perspective (1974) and adopted the UNESCO and the International Hydrology Conference in Paris, France, which aroused the great interest of experts in related fields. During the construction period of the Three Gorges Project (1994-2009), many experts and scholars put forward protection plans to provide intellectual assistance for the protection of the cultural heritage. These are the intelligent creation of the protection of the White Crane Ridge cultural heritage.

### **2.2.2 The White Crane Ridge During the Construction Period of the Three Gorges Project: The Protection of A Strange Hydrological Stone in the Yangtze River**

(1) The Construction of Three Gorges Project and The Protection of the White Crane Ridge

The Three Gorges Project, known as the Three Gorges Project, is the largest hydropower station in the world and the largest project in China's history. Located in the Xiling Gorge section of the Yangtze River in Yichang city, Hubei Province, China, and the Gezhouba hydropower station downstream. Controlling the basin area of about 1 million square kilometers, it is a key backbone project for the governance and development of the Yangtze River. Its main functions are flood control, power

generation and shipping, and realize the rational utilization of water resources and the protection of ecological environment. The Three Gorges Project was approved by the National People's Congress of China in 1992, and officially started construction in 1994. The water storage and power generation began on the afternoon of June 1, 2003, and was completed in 2009.<sup>57</sup>

The three Gorges Project project of the Yangtze River is based on the background requirements of China's economic construction and population development. He first proposed Dr. Sun Yat-sen in 1919, and he put forward this idea in the founding Strategy of the Second, Industrial Plan. In 1932, the Construction Committee of the National Government carried out a two-month survey and design work for the development of hydropower resources of the Three Gorges, and compiled a Survey report of hydropower Power Generation in the upper reaches of the Yangtze River. In May 1947, the National government suspended the implementation of the Three Gorges hydropower plan. In 1956, MAO Zedong wrote the famous poem "Cut off the clouds and rain in Wushan, and the high gorge", and proposed that the construction of the Three Gorges Dam would "be a hundred and a thousand years". In November 1982, When listening to the report on the construction of the Three Gorges Project, Deng Xiaoping said decisively: "If you see it, make up your mind and don't waver!" In 1989, the Yangtze River Basin Planning Office re-compiled the Feasibility Study Report of the Three Gorges Project of the Yangtze River, recommending the construction plan: "First-level development, completion at one time, water storage by stages, and continuous migration ". On April 3, 1992, the fifth Session of the seventh National People's Congress adopted the resolution on the construction of the Three Gorges Project on the Yangtze River with 1,767 votes to 177 votes against and 664 abstentions.<sup>58</sup>

The construction of the Three Gorges Project has great economic benefits. The three Gorges hydropower Station has more than ten kinds of functions, such as flood storage, flood control, power generation, shipping, planting, tourism and so on. The construction of the Three Gorges Project can not only improve the shipping conditions of the upper reaches of the Yangtze River, improve the navigation capacity of the Yangtze River waterway, and promote the economic development of the region along the Yangtze River. In addition, it can improve the ecological environment of the upper reaches of the Yangtze River, reduce the occurrence of flood disasters in the lower reaches, and protect the ecological environment of the lower reaches and the safety of people's life and property by regulating the water level and flow. However, there are also many problems in the construction of the Three Gorges Project, among which the most important ones are immigration, cultural heritage protection and ecological environment. The three Gorges Reservoir will flood 129 towns, including two medium-sized cities, including Wanzhou and Fuling, and 11 small cities. This means that once the three Gorges project is completed, the water level of the project will be raised from 137.81 meters to 175 meters, and the Ridge will be submerged at the bottom of the river nearly 40 meters deep. How to ensure the smooth construction of the Three Gorges project and protect the site of the thousand-year hydrological

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<sup>57</sup> Introduction to the Three Gorges Project[EB/OL]. [https://www.gov.cn/test/2006-05/12/content\\_278989.htm](https://www.gov.cn/test/2006-05/12/content_278989.htm), 2024-06-20.

<sup>58</sup> Events of the Three Gorges Project, People's Daily Online[EB/OL]. [www.gov.cn](http://www.gov.cn), 2006-05-16.

station has become a big problem in that year. Therefore, from the three Gorges project from the moment, it was accompanied by various controversies.

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In the construction process of the Three Gorges Project, the Chinese government attaches great importance to the protection and rescue of the cultural heritage along the Three Gorges Project. The protection and rescue of cultural heritage along the Three Gorges route will be directly related to the key of the Chinese government to the world whether the Three Gorges Project is a civilized project (Wufei, 2019). To this end, on October 14, 1994, President Jiang Zemin came to Fuling inspection work made an important instruction: " White Crane Ridge should be used as a cultural relic rescue protection."(Fuling Regional Working Committee of the CPPCC, 1995: P.15).



Figure 15 On October 14, 1994, Chinese President Jiang Zemin came to Fuling for inspection work

Source: Fuling Regional Working Committee editor, 1995. PP20



Figure 16 On October 14,1994, Chinese President Jiang Zemin pointed out that the White Crane Ridge inscription should be protected as a first-class cultural relic  
Source: Fuling Regional Working Committee editor, 1995. PP14

#### (2) Scientific Exploration of the Protection Scheme of the White Crane Ridge Inscription

Underwater cultural heritage is an integral part of the cultural heritage, with the particularity of the environment.<sup>59</sup> the White Crane Ridge as a hydrological stone in the Yangtze River. The significance of its stone carvings is far different from the value of the general stone carvings, and its popularity has been widely recognized by all walks of life. It is an ancient cultural relic integrating science, archaeology, history, literature and art. Therefore, from the moment the construction of the Three Gorges Project was passed, the Chinese government attaches great importance to the protection and rescue of the cultural heritage. All sectors of society have also put forward different requirements and proposals. Among them, the most important thing is that we hope that these hydrological inscriptions can be permanently protected in the original underwater site, but also hope that future generations will continue to see these stone carvings in the future. These proposals put forward new heights and ideas for the protection and display of the cultural heritage, and undoubtedly pose a great challenge to the construction of the Three Gorges Project.

<sup>59</sup> The Convention on the Protection of the World Cultural and Natural Heritage, adopted by UNESCO in Paris in 1972, sets out the definition of cultural and natural heritage.



Figure 17 In December 1998, a demonstration meeting on the protection scheme of the White Crane Ridge inscription was held in Chongqing Wudu Hotel  
Source: the White Crane Ridge Underwater Museum

Since 1993, experts and scholars from relevant national departments, scientific research institutions and institutions of higher learning have conducted many in-depth and rigorous research and demonstration work on the design of the protection scheme. They are committed to exploring a most scientific and reasonable method of protection and display, during which they put forward a variety of schemes, and the main schemes are as follows.

The first one, the Crystal Palace scheme. The idea of this scheme is to build a 20 meters 120 meters underwater exhibition hall in the central area of the White Crane Ridge, and then connect to the ground exhibition hall through the underwater passage or ferry, pontoon bridge, so that visitors can go in to see the inscription of the White Crane Ridge. So as to achieve the purpose of the underwater original site protection, visit and research. But in fact, "Crystal Palace" is a "pressure vessel" scheme, there is no water inside, but there is water outside, the internal and external pressure is very large, very dangerous, once the structure is damaged, it is very difficult to escape.

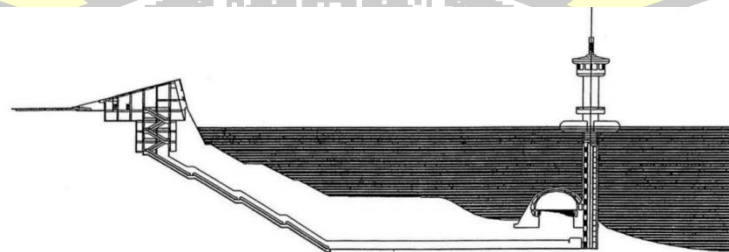


Figure 18 Crystal Palace scheme  
Source: Xie Xiangrong, Wu Jianjun, Zhang Rongfa, 2014. PP182

The second type, the high cofferdam scheme. The plan is a rights protection measure. Specifically, a tall cofferdam structure is built around the White Crane Ridge to ensure that the White Crane Ridge inscription body is properly maintained inside to avoid erosion and wear by sand and stones. This not only protects the integrity of cultural heritage, but also provides sufficient time and space for other underwater protection measures and means that may be taken in the future. In addition, the plan also plans to build an ancient hydrology exhibition hall on the shore to show the unique charm and historical value of the White Crane Ridge inscription.

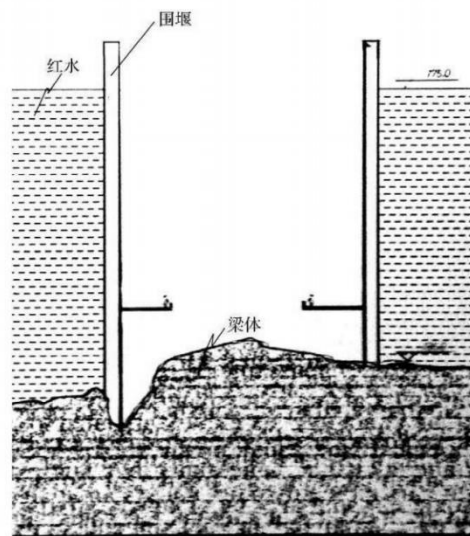


Figure 19 High cofferdam scheme

Source: Xie Xiangrong, Wu Jianjun, Zhang Rongfa, 2014. PP184

The third is the flow tunnel scheme. The protocol was proposed in 1998. The core strategy of this scheme is to implement the original site protection and restoration display. The specific project construction will build a reinforced concrete wall and cover plate that can effectively resist sediment erosion along the two sides and the top of the White Crane Ridge, and put the White Crane Ridge in it. It is like placing the White Crane Ridge in a reinforced concrete tunnel filled with river water, the key is to cut off the inevitable connection between the sediment in the tunnel and the flow of the Yangtze River outside the tunnel, so as to realize the effective protection of the White Crane Ridge.

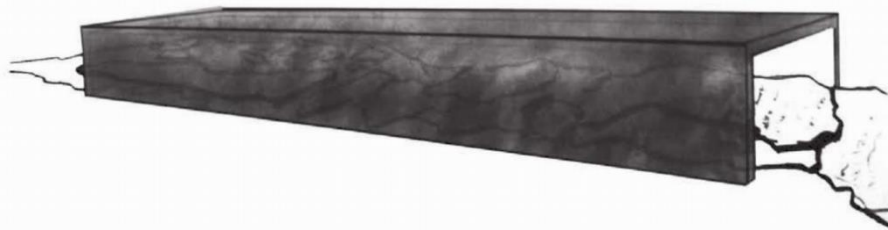


Figure 20 Distortion tunnel scheme

Source: Xie Xiangrong, Wu Jianjun, Zhang Rongfa, 2014. PP185

The fourth kind, in situ buried, different exhibition scheme. After the plan of the Crystal Palace was rejected, some research teams proposed to protect the White Crane Ridge in situ and copy the exhibits in different places. This scheme believes that under the current construction technical conditions and economic conditions, the White Crane Ridge should adopt the method of underwater sediment burial and natural protection. In this way, when the future economy and construction technology are mature and have development value, let it show in front of everyone in the original appearance. The basic idea is to rebuild the White Crane Ridge inscription on the Yangtze River embankment in Fuling city, and to build a small museum to display the materials and objects related to the White Crane Ridge inscription.

Fifth, the white Crane Tower plan. The plan draws on the precedent of the relocation of the Sun Temple in Absimba, Egypt, due to the construction of the Aswan Reservoir, and combines with the characteristics of the changing water level of the Three Gorges Reservoir. In this scheme, the variable catchment area with an elevation of 166.2 meters to 175.6 meters is selected as the construction site. It is planned to build a White Crane Ridge in this area according to the original appearance, and put the original site cut questions on it. When the water level in the reservoir area exceeds 165 meters, the inscription will remain underwater; When the water level drops below 165 meters, the new White Crane Ridge will reveal the surface of the lake between the embankment of the south bank. The purpose of this move is to reproduce the magnificent scene of Fuling's history: "stone fish out", "Jianhu fishing flute" and "the sound of white cranes". In addition, a small museum will be built on the platform or on land to display materials and objects related to the White Crane Ridge for the public to visit and learn.

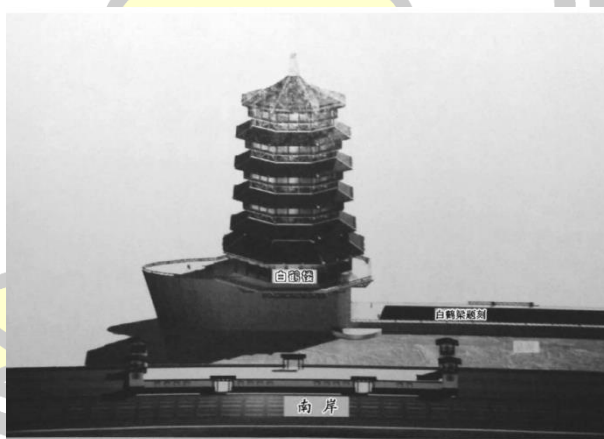


Figure 21 White Crane Tower scheme

Source: Xie Xiangrong, Wu Jianjun, Zhang Rongfa, 2014. PP186

### (3) Determination of the Protection Scheme of the "No-Pressure Container" White Crane Ridge

During the construction process of the Three Gorges Project, the state has organized many scientists, experts and scholars to carry out a lot of research and discussion, and various protection schemes have been discussed for nearly ten years. On February 24, 2001, the White Crane Tower scheme entered the final round of review, and the scheme of "building reproductions on shore for exhibition" was approved by most people. Ge Xiurun, an academician of the Chinese Academy of

Engineering, has objected. He insisted that the cultural relics should be protected in situ and preserved in situ, and proposed the concept of building an underwater museum to keep the White Crane Ridge in an original "unpressurized container". The so-called "unpressurized vessel" scheme is to build an unpressurized vessel on the dense section of the White Crane Ridge. The design idea was to build a huge, hard protective shell to cover the middle section of the White Crane Ridge. The protective shell is filled with water, and connected with the Yangtze River water through the pipeline, so that the internal and external water pressure is basically consistent. At the same time, water can also become a natural protection medium for the White Crane Ridge inscription. In the container, there is a pressure-resistant passage along the White Crane Ridge inscription. Visitors can walk freely in the passage and watch the original appearance of the White Crane Ridge inscription through the observation window on the corridor.



Figure 22 Expected drawing of unless container  
 Source: <http://news.sohu.com/20090330/n263079058.shtml>  
 Accessed on: 2023.10.13

พหุ ประถมศึกษา ชีวะ

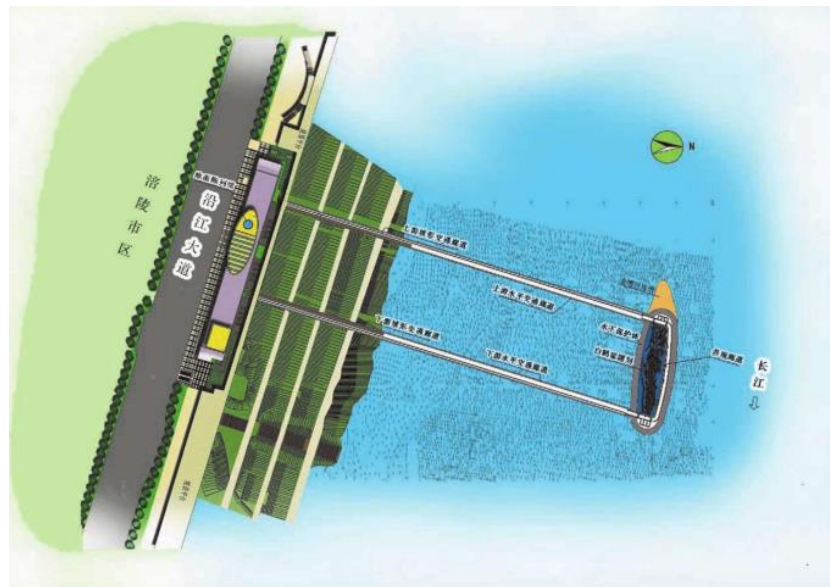


Figure 23 Aerial view of the noncompression vessel plan  
Source: Xie Xiangrong, Wu Jianjun, Zhang Rongfa, 2014. PP190

"Pressure container" concept solution can solve "crane Ridge inscription specimens can't leave the matrix", "crane Ridge inscription leave the matrix is no value", "eliminate cutting moving idea", "make a city type building, both protect the cultural relics, and can become another tourist attractions", is the scientific nature of advice and idea of underwater museum. In August 2001, the Three Gorges Construction Committee of The State Council decided to consider the use of the "no-pressure container" plan proposed by Ge Xuelun, and proposed to go through the feasibility demonstration. So in this period appeared many works of crane Ridge protection engineering design, such as wu the three gorges reservoir crane Ridge inscription site underwater protection engineering design (wu, 2001), Ji 'an-jun zhou "about fuling crane Ridge inscription protection engineering reliability research and Suggestions" (Ji' an-jun zhou, 2003), liu jialing "three gorges crane Ridge inscription underwater protection engineering construction" (liu jialing, etc., 2001), etc.

After a feasibility study, the White Crane Ridge Underwater Museum was officially started on February 13, 2003. The construction lasted several years, during which various technical difficulties were overcome. It was finally officially completed on May 18, 2009, becoming a bright "underwater pearl" in the Three Gorges Reservoir area. The "unpressurized container" scheme realizes the original site, original state and original environmental protection and appreciation of the immovable cultural relics of the White Crane Ridge. As a typical example of underwater cultural heritage protection, it provides great inspiration for the protection of similar cultural heritage. This move not only adds a beautiful scenery to the Three Gorges Project, but also sets up a new milestone for the protection of China's cultural heritage. It shows the world China's determination and ability to protect its cultural heritage, and also provides new ideas and methods for the protection of underwater cultural heritage in China and even the world. Today, the White Crane Crane Underwater Museum has become a popular attraction for many tourists to visit. It is not only a part of the Three Gorges Project, but also a treasure of China's cultural heritage.

### 2.2.3 The White Crane Ridge After Flooding: The Birth of the Modern Underwater Museum

#### (1) Description of the Underwater Museum

In the world-renowned three Gorges cultural relics protection, the White Crane Ridge inscription protection project is listed as the top priority. Since the National People's Congress passed the resolution on the Construction of the Three Gorges Project in 1992, a number of the White Crane Ridge protection schemes have been discussed, affirmed and denied again and again, and the "non-free container" scheme was finally selected and implemented. This is a pioneering work combining the field of engineering and the field of cultural relics protection. It is the most complex cultural relic protection project of the Three Gorges Reservoir area, with the highest scientific and technological content, the largest number of disciplines and the largest number of academicians. People involved in the construction, mutual cooperation, hard work and continuous innovation, and finally built the world's first underwater museum in the site.

The White Crane Underwater Museum is the world's first underwater museum and the world's first non-diving accessible underwater site museum, which is highly recognized by UNESCO. The construction of the museum was started in 2003 and completed in 2009. It covers an area of 11,300 square meters, with a construction area of 8,433 square meters. It includes two parts: the ground exhibition hall and the underwater visit area. The ground exhibition hall is divided into three floors, with several functional areas, such as the consultation reception area, exhibition hall, popular science interaction area, etc. The underwater visit area includes the slope corridor, horizontal corridor, visiting corridor, and the original site of the underwater inscription. Visitors can see the charm of the millennium inscription through the observation window in the underwater passage, and understand the value and significance of the White Crane Ridge as a "water ruler". On May 18, 2016, it was officially approved as the national Water Resources Education Base by the Ministry of Water Resources. On July 20, 2018, it was officially approved by Chongqing Tourism Development Commission as Chongqing Research travel Demonstration Base.

The content and value of the White Crane Ridge Underwater Museum are mainly manifested as displaying the White Crane Ridge site submerged during the construction of the Three Gorges Project. There are 165 inscriptions with a total of more than 30,000 words and 108 inscriptions involving hydrological value. Show the scientific basis of the White Crane Ridge known as "the world's first ancient hydrological station" and "Underwater forest of Steles". These data are of great scientific research value for the comprehensive development of the Yangtze River, inland river shipping, bridge construction, farmland irrigation and urban water supply.

At present, the White Crane Ridge Underwater Museum has developed into a cultural activity center integrating cultural relic protection, research, publicity and education. Through the joint construction of the second classroom, the "Four Progress" tour exhibition, the "Internet Museum" and other forms of popular science popularization activities are carried out. Using the multimedia demonstration system, official website, virtual scenic spot, tour exhibition board, underwater engineering science and technology model and other means to carry out popular science education.

## (2) The Development of the Underwater Museum

Since its establishment, the White Crane Ridge Underwater Museum has gone through a series of development processes. In 2003, in order to protect and preserve the site of the construction of the Three Gorges Project, the state decided to build an underwater museum on the original site of the principle of "pressurized container". The project lasted for 7 years and was officially completed and opened on May 18, 2009. The completion of the White Crane Ridge Underwater Museum has realized the protection and appreciation of the original site of the carving, becoming the first successful protection of similar cultural heritage at home and abroad. The museum is the first underwater museum built in the world. By diving or through direct access, visitors can enjoy the submerged White Crane Ridges and many historical objects. Since its official opening in 2009, the White Crane Ridge Underwater Museum has won many honors and certifications. In 2010, UNESCO hailed it as "the world's first non-diving accessible museum of underwater sites". In 2012, it was certified by the national Science Popularization Education Base. In 2013, it was rated as a national 4A level tourist attraction. In 2022, it was identified as one of the national science popularization and education bases.

In terms of the protection of underwater sites, the staff of Baiheiliang Underwater Museum has carried out a lot of scientific research work. For example, the cooperation with the Ocean University of China has adopted the national 863 research results in the field of underwater vision to improve the underwater lighting conditions, so that visitors can more clearly observe the handwriting carved on the rocks. In 2014, the light renovation project of the protection body was implemented, rectifying the observation Windows and glass of the visiting corridor, and further improving the protection conditions of cultural relics. In 2015, the preservation and environmental monitoring project was approved by the State Administration of Cultural Heritage, ensuring the sustainable development of the White Crane Ridge Underwater Museum.

## 2.3 The Type and Value Significance of the White Crane Ridge Cultural Heritage

### 2.3.1 The Type of the White Crane Ridge Cultural Heritage

#### (1) Material and Cultural Heritage

The material cultural heritage of the White Crane Ridge is mainly image carving and text carving. Image carving is divided into stone fish, ganoderma lucidum, white crane, Guanyin and so on. And the text inscription is divided into hydrology inscription, text inscription and title. These text inscriptions occupy the vast majority of the inscription area, recording the hydrological data of the White Crane Ridge and the names of a specific historical period. These heritages are of high historical, artistic and scientific value and are the core of the White Crane Ridge's cultural heritage. It has become an important window of ancient Chinese hydrological science, water conservancy projects and the Yangtze River culture. The stone fish map is an important hydrological observation point and beacon in ancient times, which is of great value to the study of ancient hydrological observation technology and the cultural history of the Yangtze River. The title of the White Crane Ridge is

the inscription left by the literati of all dynasties on the White Crane Ridge, which is of high literary and artistic value.

The total number of carved stones varies slightly across statistics. According to the book *Fuling City*, there are 174 text inscriptions, and the *China Yangtze River Underwater Museum*-the White Crane Ridge inscriptions also gives the same number. Professor Sun Hua's statistics mention 183 text inscriptions.<sup>60</sup>Therefore, the number of text inscriptions is roughly between 174 and 183 paragraphs.1 in the Tang Dynasty, 98 in the Song Dynasty, 5 in the Yuan Dynasty, 16 in the Ming Dynasty, 24 in the Qing Dynasty, 14 in the Republic of China, and 7 in the time unknown. These questions are the most inscribed in the Song Dynasty, followed by the Yuan Dynasty, Ming Dynasty and Qing Dynasty. These inscriptions are either poems or texts, or in the way of chronicle or lyrical form, involving various historical periods. The image carving is exquisite and smooth, and it is quite effective.

In the image carvings of the White Crane Ridge, there are 18 stone fish image carvings, including 1 three-dimensional relief, 2 bas-relief and 15 plane line carvings. In addition, there are line carved white crane, Guanyin 2 and other image carvings. In the White Crane Ridge text inscription mainly involves three aspects: one is to record and describe the phenomenon of stone fish water and the degree of dry water. The second is to comment on the relationship between the stone fish water phenomenon and this year or next year's agricultural harvest. The third is to watch the stone fish out of the water of the people's poems and titles. In addition, there are a few other inscriptions (Chongqing Bureau of Cultural Heritage, Chongqing Immigration Bureau, 2014: PP10). These questions record the water level data of 72 dry years in the Fuling section of the Yangtze River for more than 1200 years from the first year of the Tang Guangde (763 AD to 1963) to 1963. These data are the most important source of dry hydrological information before the establishment of modern hydrological observation stations in the upper reaches of the Yangtze River, and they are of high value in history, science and art. It can be called the immovable physical hydrological archive in ancient China, known as the "Yangtze River Underwater Library".

#### (2) Intangible Cultural Heritage

The intangible cultural heritage of the White Crane Ridge includes traditional hydrological observation technology, social practice, festival activities, carving skills and so on. At the same time, the White Crane Ridge is also closely linked with local folklore and local customs, which is a unique cultural symbol. In the development of history, precious intangible cultural types were created, such as legends, poetry art and folk culture art. In terms of legends and stories, there are still many legends and beliefs related to the immortals and Taoism. Legend has it that the Tang Dynasty er Zhu Tongwei real practice here, after the white crane flying to the sky to become a fairy. The origin of the name of the White Crane Ridge is also related to these legends. According to the *Notes on the Book of Water* written by Li Daoyuan, "White Crane Ridge, Erzhu once practiced here and then took the crane fairy, hence the name."

In terms of poetry, the White Crane Ridge's poetry includes not only hydrological omen and agricultural harvest years, travel notes, and landscape

<sup>60</sup> Liu Xingliang. Arrangement and research of the White Crane Ridge inscription [M]. Chongqing University Press, 2019. p. 48.

phenomena. Most of these poems were written by famous masters of all dynasties, such as Huang Tingjian, Zhu Xi and Wang Shizhen, involving more than 300 historical celebrities.

In terms of folk culture and art, there is the custom of "human day", the custom of watching stone fish, celebrating the feng year and other activities. The custom of "human day" originated from traditional Chinese culture, and the seventh day of the first lunar month is an ancient tradition of human birthday. On the custom of "Human Day" in Fuling, local officials, subordinates, and relatives and friends will go to stone ridge (the White Crane Ridge) to enjoy the beautiful scenery of the river and write poems to express their yearning and blessing for a better life. The customs of watching stone fish and singing fengnian mainly revolve around the folk proverb of "stone fish water". This custom has been passed on for a long time, gradually evolved into when the Yangtze River runs dry to the stone fish appear, local officials and people will spontaneously go to the White Crane Ridge to see if the stone fish are above the water, and carve stones here to record and carry out folk worship activities, pray for good weather and agricultural harvest.

### (3) The Formation of the Cultural Heritage

The formation of the cultural heritage is the result of the interweaving and interaction of various factors such as nature, humanity and history. Its unique natural qualifications, cultural heritage and the participation of knowledgeable people in the research have jointly shaped the brilliance of this world cultural heritage.

First, in terms of the natural conditions., the White Crane Ridge is located in the upper reaches of the Three Gorges Reservoir area of the Yangtze River. Because its ridge is 2~3 meters higher than the lowest water level in the year, it becomes a reference to observe the level of the river in the agricultural social period. According to the Taiping World, people have observed the water level of the Yangtze River and engraved the symbols since the Tang Dynasty. The earliest carving found on the White Crane Ridge is a pair of Pisces stone carvings carved before the first year of Guangde in the Tang Dynasty (763 AD). Since then, the carving content and inscriptions have been constantly enriched, forming a famous material cultural heritage. Because of the unique natural landscape of the White Crane Ridge, it has become a holy land for the literati to praise, which brings more abundant cultural heritage types to the White Crane Ridge.

Secondly, agricultural production and the local lifestyle of the people are also important factors contributing to the continuous enrichment and development of the White Crane Ridge culture. In the traditional agricultural society, water plays a decisive role in agricultural production, and its adequacy and deficiency directly affect the growth of crops, and then affect the local politics, economy and other aspects. Especially in the Yangtze River basin, the frequent occurrence of drought and floods make water use particularly important. These demands have led local individuals and officials to visit the Ridge to see the evolution of the water level. They held blessing ceremonies, participated in activities and made remarks and feelings, which contributed to the formation of the intangible cultural heritage of, the White Crane Ridge.

In addition, the participation of many knowledgeable people in history also accelerated the process of the cultural heritage. Literators, scholars and officials of all dynasties left a large number of poems, rhymes, travel notes and titles on the White

Crane Ridge. These stone carvings not only recorded the changing laws of the hydrology of the Yangtze River, but also reflect the cultural features of the society and the living conditions of the people at that time. For example, Huang Tingjian, a great calligrapher in the Northern Song Dynasty, inscribed "On the White Crane Ridge", which not only showed his calligraphy talent, but also reflected the literati's value and praise of the cultural landscape at that time.

### **2.3.2 The Value and Significance of the White Crane Ridge Cultural Heritage**

#### **(2) Scientific Value and Significance**

In the field of science, the White Crane Ridge is called "Chongqing Ancient Hydrology Station" by local people. It reflects the past hydrological technology, technological invention and recording means. In this hydrological station, in the past, people used the carved stone fish as the "landmark" to measure the dry water level of the Yangtze River, and recorded the information of the dry water level in the past dynasties with depicting symbols and written records. The recorded hydrological data, which systematically reflects the evolution of the water level in the upper reaches of the Yangtze River during the 1200 years, and provides valuable data for the study of the hydrological changes of the Yangtze River. It can be called the immovable physical hydrological archive in ancient China and the "hydrological station" in China, and is known as the "first ancient hydrological station". It also provides important physical evidence for the study of the Yangtze River regional climate and the historical laws of global climate change. The integrity and reliability of its data attracted attention at the International Hydrology Conference in 1974, and in 2008, it was praised by UNESCO as "the world's only well-preserved ancient hydrological station".

The White Crane Ridge inscription is an ancient dry hydrological stone carving with an early beginning, a long continuation time, scientific recording means and the most abundant relevant information. It is a stone carving archive of dry hydrological record data in the upper reaches of the Yangtze River in China. (Although there are similar hydrological stone inscriptions in the Nile River in Egypt, but the number is far less than the White Crane Ridge.) The hydrological information recorded in the stone carvings provides excellent physical evidence for the study of the historical laws of the Yangtze River hydrology, regional and global climate change, and is also an important historical hydrological data for the design of the Gezhouba Dam and the Three Gorges Project. According to the water conservancy department, in the formulation of the Yangtze River water conservancy project planning, generally need to use the probability of 1‰ as the insurance factor, that is, when the once in a thousand years or heavy flood, can ensure that the project has sufficient power generation navigation capacity, or safety factor and counterability. This requires a long time of flood, dry water data as the design basis. However, China only has the scientific hydrological observation data of the Yangtze River for more than 100 years, and the white crane, fish and text inscriptions just make up for the vacancy of the hydrological data of the Yangtze River for more than 1,000 years in history.

In the relevant literature, the White Crane Ridge is praised as the "water ruler". The elevation of its fish eye is equivalent to the zero point of the local water gauge of the Sichuan River waterway, and the high direction of the abdomen is equivalent to

the average value of the dry water level of Fuling Modern Hydrological station over the years.<sup>61</sup> This is the same principle as the modern hydrological station to set up the "water ruler zero point". By observing the outflow of stone fish, the ancients could judge the dry degree of the river water, so as to predict the rainfall and agricultural production. It provides an important basis for ancient agricultural production, and also provides a safety guarantee for ancient shipping trade, so as to help avoid the navigation risk of low water level period. The "water ruler" of the White Crane Ridge is a recording way that takes the stone fish water mark logo as the reference point and records the water level distance from the reference point with stone inscriptions. It is an ancient way that is different from the world's known recorded water level mode, and it is a technological invention based on the unique local cultural tradition. The wise man who created this unique technological invention turned the dull digital scale into vivid situational images. And combine the phenomenon of watching stone fish with folk activities such as predicting prediction, so that these activities become the conscious behavior of local people, so as to have long-term vitality.



Figure 24 Animation simulation production of the stone fish water propaganda video (clip)

Source: the White Crane Ridge Underwater Museum

As an important relic of the ancient hydrological station, the White Crane Ridge inscription not only enriches our understanding of the ancient hydrological observation technology, but also reveals the important position of the White Crane Ridge in the ancient society. The hydrological mark of stone fish carved in the White Crane Ridge is not only the physical evidence of ancient hydrological observation, but also the precious heritage of ancient culture. These stone carving records are the wisdom crystallization of the ancients' understanding of hydrometeorological relations, reflecting the ancient people's observation and utilization of natural phenomena, and also reflect their pursuit and yearning for a better life. Its scientific nature still has important reference value for modern hydrology and climatology research. As an important symbol of the ancient hydrological station, the White Crane Ridge has become an important carrier of regional identity and cultural inheritance in today's society.

<sup>61</sup> Xie Xiangrong, Wu Jianjun, Zhang Rongfa, (2014). Underwater cultural heritage protection: the White Crane Ridge, inscribed original site underwater protection project. The Southeast University Press. PP 128

## (2) Archaeological and Historical Value

The White Crane Ridge, known as "Bazi Ridge"<sup>62</sup> in ancient times, is an observation station for ancient Ba people to observe the water level of the Yangtze River, and also the site for ancient Ba people to visit spring and carry out folk life. On this ancient site, there are 174 graphic inscriptions<sup>63</sup>, 18 stone fish, 2 Guanyin statues and 1 white crane, with a total of more than 30,000 words (Chongqing Municipal People's Government website, 2023). According to the existing data<sup>64</sup>, the earliest one of these inscriptions was carved in 763 AD, and the last one ended in 1963 and lasted for 1200 years, which is the earliest, longest and largest number of hydrological inscriptions in the world. These questions covered the whole Stone Ridge, and in 1988, the Chinese State Council officially named it as "The White Crane Ridge inscription".

As an ancient site, the White Crane Ridge has witnessed the living customs and observation activities of the ancient Ba people, which is of great significance for the understanding of history and archaeology. From the perspective of historical development, the White Crane Ridge inscription records a thousand-year history from the Tang Dynasty to the modern era, involving 727 people, including more than 300 famous figures. It involves local officials, local people, and past officials and literati. These inscriptions reflect the historical changes of this region, especially for the study of Song Dynasty history, immigration history, disaster history and folk custom history, which provides an important reference value. For example, "Application Notes", recorded specific events in detail, providing direct evidence for the research history.

The activities of local officials and literati in the past dynasties, such as the source of the characters, activity track, and cultural exchange, help scholars to deeply explore the ancient population flow, social style, cultural exchange and changes in social structure. The names and inscriptions in the inscriptions are also evidence to reveal the convergence and integration of different regional cultures in Fuling area, which are of great value for understanding the path, cause and influence of ancient immigrants. For example, the Qing Dynasty. Although there are mistakes and omissions, it also reflects its historical and cultural evidence.

It not only provides basic materials for economic work, scientific and technological work and cultural work, but also has reference and appreciation value for historians, entrepreneurs, travelers and connoisseurs at home and abroad, and has practical and collection value. In addition, the White Crane Ridge inscription is also the carrier of cultural exchange, attracting many domestic scholars and foreign experts to conduct research, reflecting its important position in the academic circle.

## (3) Literary and Artistic Values

In terms of artistic value, the inscription contains rich calligraphy art and carving art. Many of the works are written by famous masters in various forms, which is known as the "underwater forest of steles". It involves the poetry inscriptions,

<sup>62</sup> Fuling, where the White Crane Ridge is located, was the capital of the ancient Bazi State. The people here are also known as the "Ba people". "Bazi Ridge" is hence its name.

<sup>63</sup> The Publicity Department of the CPC Fuling Municipal Party Committee: Fuling City, Chongqing Press, 1996, p. 156

<sup>64</sup> The Taiping World, written by Le Shi, a historical geographer in the Northern Song Dynasty, Shu Zhong Guangji compiled by Cao Xuequan in Ming Dynasty.

calligraphy and paintings of Huang Tingjian, Zhu Xi, Wang Shizhen and other celebrities of the past dynasties, as well as the fine calligraphy works of more than 300 calligraphers in the 1200 years after the Tang Dynasty. Its engraving form integrates literature, calligraphy, painting and stone carving art, reflecting the social life, religious belief and cultural art at that time. The inscription content has poetry, have articles, using a record or lyrical way. The inscription is meaningful, excellent calligraphy, exquisite carving, preserved. Stone fish carving is exquisite and smooth, quite skilled. Therefore, the White Crane Ridge inscription is also known as the "underwater stone carving art group" or the "underwater stele forest". In 1988, it was awarded the national key cultural relic protection unit, and in 2006 and 2012, it was included in the Preparatory List of China World Cultural Heritage (Xie Xianglin, 2020: P.24).

In terms of style schools, a variety of calligraphy schools, such as official script, seal script, regular script, running script, cursive script, and ba script (the predecessor of the tattoo)<sup>65</sup>. It remains the ink of various calligraphers since the Song Dynasty, bringing together the creation of scholar-officials of all dynasties. Including Huang Tingjian, Zhu Ang, Pang Gongsun, covering the calligraphy style of Yan, Liu, Su, Huang, Zhao and other famous artists. These calligraphy works are not only artistic treasures, but also reflect the artistic level and aesthetic trend of calligraphy in the Song Dynasty and later periods. For example, "Huang Tingjian", "Chen Xiang" and so on, these are the fine works of ancient Chinese calligraphy, which provided valuable materials for the later study of song Dynasty calligraphy. In terms of images, the White Crane Ridge inscription covers various forms such as stone fish map, white crane sound map, Buddha statues map, scale bucket map and so on. These inscriptions are exquisite carving, superb skills, fine carving, relief, seal engraving, simulation engraving, Han Dynasty portrait stone carving, imitation image recording and other techniques. It fully shows the unique charm of Chinese calligraphy and seal cutting art, and is a precious material in the art of Chinese calligraphy and seal cutting art, and is of great significance for the study and inheritance of the Chinese traditional calligraphy art.

In addition, the White Crane Ridge inscription is also reflected in the combination of calligraphy art and carving skills, showing a rich artistic accomplishment and exquisite craft level. For example, the Pisces re-carved by Xiao Xinggong uses the seal carving techniques, with smooth lines, strong movement and strong form, vividly showing the superb artistic processing techniques. Liu Mijie's "White Crane Ming"<sup>66</sup> is exquisite in conception and has simple lines, which conveys the charm and dynamics of the white crane through artistic exaggeration. These works not only reflect the artist's personal style, but also reflect the artistic aesthetic and cultural characteristics of different periods. They are the high integration of calligraphy and sculpture art, but also the witness of history and science, with a very high artistic appreciation and research value. Therefore, the White Crane Ridge inscription is not only the object of scientific research, but also an important resource of art appreciation and historical research.

<sup>65</sup> The Chongqing Municipal Bureau of Cultural Heritage. Fuling the White Crane Ridge [M]. Cultural Relics Press, 2014. p. 24.

<sup>66</sup> The White Crane Ridge Underwater Museum (2014). The world's first ancient hydrological station of the White Crane Ridge . China Water Resources and Hydropower Press. pp. 58,70.

## 2.4 Summary

This chapter mainly introduces the history, development, geographical location, climate characteristics, cultural landscape, inscription art form, protection scheme and the construction of the underwater museum of the White Crane Ridge.

In the past, all people's behaviors were related to the local production and life, and the production and life influenced the behavior mode, forming local traditions and creating local culture. Therefore, to discuss the historical development of the White Crane Ridge from the past to the present, it is necessary to understand the background factors of the formation of the White Crane Ridge culture first. The formation of the White Crane Ridge culture cannot be separated from the natural environment, climate characteristics, geological characteristics, regional basin characteristics, traffic strategic location, social environment and cultural soil of its region. Based on this, the first knowledge point of this chapter is to describe the perspective of the geographical location and the geological characteristics of the region, the climate characteristics and natural landscape, the social and cultural background and the cultural evolution process, and the transportation strategic position in the ancient society. Through the analysis and analysis of these factors, the subsequent summary of why the White Crane Ridge developed into a hydrological station, a local folk custom, a place of local cultural belief, and an ancient Internet celebrities, etc., will be the preparatory work for the follow-up research.

The second knowledge point in this chapter is to describe and analyze the cultural formation, cultural protection and the birth of modern space of the giant stone Ridge in the river by means of historical stages. Before the crane Ridge submerged (before the three gorges project), is the crane Ridge cultural heritage, the cultural bud and early development is in the sui and tang dynasties five dynasties and ten states, when the locals carved a fish pattern on the crane Ridge, used as the observation of the Yangtze river water level, to predict the next year's rainfall and planning of agricultural production. Later literati used this method, and inscribed the time of the stone fish out of the water, the scale of the stone fish from the water level, the name of the observer, and the scene when the stone fish appeared on the stone Ridges. During the Song and Yuan dynasties, people went to the White Crane Ridge to make a spring outing, watch the stone fish out of the water, and carve the inscriptions, forming a high prosperity and prosperity of culture. Especially in the Northern Song Dynasty, there were stone fish on the stone Ridges of the Yangtze River outside Fuling. The stone fish appeared above the water as a sign of a bumper harvest year. This phenomenon was reported to the imperial court by local officials. During the construction period of the Three Gorges Project, the White Crane Ridge, a hydrological stone in the Yangtze River, entered the crisis period of cultural heritage protection. It is the project development and planning under the national consciousness, and the state gathers experts from all aspects to brainstorm for the White Crane Ridge protection plan. After the Three Gorges project, the new space. The research writing of this part will pave the way for the production research of the later space.

The third knowledge point in this chapter is to organize and analyze the type and value significance of the White Crane Ridge cultural heritage. This part explains what there are on the Ridge, what culture is associated with the Ridge, and the public knowledge contained in these cultures in the past. For this part of the research, the author elaborated the art of inscription, poetry art and folk culture art on the White Crane Ridge. The art involves the spatial distribution, artistic form and public knowledge of the art. The art of poetry includes poetry in the inscription, public knowledge in poetry and cultural memory in poetry. Folk culture and art include the types of folk culture and art (The White Crane Ridge's story, "people day" custom, watching stone fish, celebrating the custom and walking activities) and the common feelings in folk culture. The collation and research of this part becomes the basis of the research of space production in the following chapters, which is the specific content of space production in the past, and also the basic cultural resources of space production and heritage utilization now.

The fourth knowledge point in this chapter discusses the value and significance of the cultural heritage. From the perspective of the value and significance of the heritage, the White Crane Ridge has scientific value, historical archaeological value and literary and artistic value. First, the White Crane Ridge is an underwater cultural heritage, recording the hydrological situation of 72 dry years of the Yangtze River in more than 1,200 years., the White Crane Ridge was once an important hydrological observation point and beacon in ancient times, which was of great value to the study of ancient hydrological observation technology and the cultural history of the Yangtze River. Secondly, as a unique ancient hydrological station in China and even in the world, White Crane Ridge is not only an important place for ancient people to observe the water level and record hydrological information, but also an important symbol of the Yangtze River civilization. Its unique cultural value and historical significance make it an important window for the study of ancient Chinese hydrological science, water conservancy projects and the Yangtze River culture. Thirdly, the White Crane Ridge is also a dry water inscription carving art group, set literature, calligraphy, painting, stone carving art as one, has a high artistic value. More importantly, it is also a cultural landscape. In 1998, it was awarded as the only national key cultural relic protection unit in the three Gorges cultural relic landscape of the Yangtze River.



## CHAPTER III

### The Production of the Past Space and the Formation of Cultural Heritage

In this chapter, the researchers will mainly discuss the past production of the White Crane Ridge space, the meaning of the production and the creation of the space, that is, the formation process of cultural heritage. In order to study the production of the White Crane Ridge space, it is necessary to understand the origin and development, connotation and viewpoint of space production theory. Taking the space production theory of Henry Lefebvre (Henri Lefebvre) as the core concept, to discuss the spatial form of the White Crane Ridge. The past space situation of the White Crane Ridge is divided into physical space, spiritual space and social space, and the past space production, the types of space production and the past space heritage are discussed. The paper uses the theory of space production to explain the significance of space shaping and production in the past. The present cultural heritage is the result of all practical activities of people in the physical space of the White Crane Ridge.

Therefore, the discussion in this chapter is divided into four parts: the first part is an overview of the theory of spatial production. To understand the space production theory and its application method of Lefebvre from three dimensions: the origin and development of space production theory, the connotation and viewpoint of space production theory, and the space "ternary integrated framework theory". The second part is the space production study of the White Crane Ridge in the past. It mainly discusses the interaction between economy, history, society, folk custom and politics in the creation and evolution of the space of the White Crane Ridge. The third part is the past space heritage of the White Crane Ridge. Mainly from the White Crane Ridge inscription art, the White Crane Ridge poetry art and the White Crane Ridge folk culture art three aspects. To analyze the White Crane Ridge cultural heritage and its contained public cultural knowledge. The fourth part is divided into the conclusions of this chapter, discusses and analyzes the research results of this chapter, and puts forward personal research suggestions. The writing of this chapter becomes the research basis of the production of space in the fourth chapter. It also becomes the preliminary research preparation for the fifth chapter of the bridge connecting the past, present and future.

### 3.1 Related Overview

#### 3.1.1 Spatial Production Theory

##### (1) The Origin and Development of Spatial Production Theory

The formation of the early space production theory can be traced back to the wave of industrialization and urbanization from the late 19th century to the early 20th century. During this period, with the further development of the industrial revolution, the urban spatial structure has changed significantly, and a large number of factories, warehouses, transportation facilities and other facilities have emerged, forming a unique urban landscape. These changes have attracted the wide attention of scholars, who began to explore the relationship between production activities and urban development from the perspective of space. Marx Weber (Max Weber), a German sociologist, put forward the view that "urban space is the product of capitalist production" in his works. In this view, the capitalist mode of production promotes the expansion and reconstruction of urban space, and urban space becomes an important place for capital accumulation. He further pointed out that the production of urban space is not only influenced by economic factors, but also restricted by political, cultural and other factors.

On the basis of Weber's theory, the French sociologist Henry Lefevre (Henri Lefebvre) further developed the theory of space production. Lefebvre believes that space is not only a place for people to conduct productive activities, but also a reflection of social relations and ideology. He proposed the concept of "space production" and elaborated it systematically in his 1974 book "The Production of Space" (The Production of Space). He believes that space is not only the product of the natural environment, but also the product of social relations, and is the projection of the production mode on the space. Space is dynamic and is involved in the process of production and reproduction. It is the product of human social activities, power relations and cultural practice. He pointed out that space is both a product and a producer. This theory breaks the traditional geography of space as a static and passive material environment, and regards space as the result of the combination of human social activities, political power and economic structure.

Subsequently, geographers and scholars in other fields began to further develop and supplement the theory of spatial production. They discussed the relationship between space and society, politics, economy and culture from different perspectives, and formed a rich theoretical system. For example, David Harvey (David Harvey) combined the theory of space production with Marxist political economy, put forward the concept of "space-time compression", and revealed the new characteristics of space production under the background of globalization. Manuel Castel (Manuel Castells) deeply discusses the theory of space production from the perspective of urban sociology. He proposed the concepts of "mobile space" and "network society". Edward Sawyer (Edward Soja) further introduced the theory of space production into the field of geography, and put forward the "third space" theory. He believes that the first space is the material space, the second space is the spiritual space, and the third space is the combination and transcendence of the two. With the deepening of the research, the theory of spatial production has gradually formed a theoretical system including many branches of spatial political economy, urban

sociology, cultural geography and so on. This provides us with more perspectives and methods to understand the formation and evolution of the White Crane Ridge space. At present, the theory of space production is widely used in the disciplines such as geography, sociology and urban planning. In geography, the theory of spatial production is used to explain urban spatial structure and regional development; in sociology, it is used to analyze social change and social class differentiation; in urban planning, the theory of spatial production provides new ideas and methods for urban planning.

#### (2) Connotation and Viewpoint of Space Production Theory

As an important theory in the fields of geography, sociology and urban planning, the definition and connotation of space production cover the material form, social relations and cultural significance of space. Spatial production not only refers to the creation and transformation of physical space, but also emphasizes space as a carrier of social relations and cultural activities.

Lefebvre's theory of space production is a profound analysis of the relations between space, social structure, production mode and social relations. Its core is to regard space as a complex social phenomenon shaped and represented by multi-dimensional forces such as society, politics, economy and culture. It emphasizes that space is not only the carrier of the natural environment, but also the product of human social activities, power relations and cultural practice. He pointed out that the space we live in has physical space, spiritual space and social space, and the production of space should contain all the world outlook and practical activities. Its theoretical viewpoint emphasizes the sociality, history and productivity of space, and holds that space is constantly changing and developing. Lefebvre proposed three kinds of space, and constructed the "ternary dialectics" used to explain the evolution of space, society and history.

According to Lefebvre, space is not a natural and static physical environment, but is shaped by multi-dimensional forces such as social activities, politics, economy and culture. The production of space is not only the change of physical environment, but also the production and reproduction process of society, economy and culture, which reflects the evolution and development of social relations and is the materialized embodiment of social structure. The production process of space reflects the overall operation state and development trend of the society, and is the result of the interaction between human social activities and the natural environment. Space is the product of social practice, and the practicality of space emphasizes people's subjective initiative in space production. Space is not only the place of social activities, but also the result and product of social activities. Therefore, space is productive.

In the theory of space production, Lefebvre distinguishes between three types of space, material space (natural universe), spiritual space (logical abstraction and formal abstraction), and social space, each of which carry different characteristics and functions. Material space (natural universe) is the space existing in the practice of space, which is a direct and sensible space, with practical physical characteristics and geographical significance. Spiritual space (logical abstraction and formal abstraction) is the space conceptualized, the space conceived on the basis of material space, and the product of cultural practice. Social space integrates the elements of material space and spiritual space, and it also reflects the social phenomena such as social relations,

class structure and power distribution. Community space, public space, network space and so on can be regarded as the concrete manifestations of social space. In these Spaces, people conduct social interactions, cultural exchanges and political participation.

These three types of space interweave and influence each other, and together constitute a complex and changeable space system. According to Lefevre, the real spatial knowledge should be to connect the material space, spiritual space and social space, so that any social individual can keep awake and comfortable between various Spaces. Such a view of space helps us to more fully understand and analyze spatial phenomena and how space interacts with human social activities. Therefore, when analyzing the concept of space production, we must make it clear that space is not just a geographical existence, but a complex entity carrying human activities, social relations and cultural values. As Lefebvre said, "Space is the product of society." Space is social and cultural, and different Spaces carry different social relations and cultural values.

Lefebvre's theory of spatial production constructs the "ternary dialectics". He uses society and history to explain space, and he also uses space to explain society and history. He emphasized that the social relations of production are a social existence, or a spatial existence; they project themselves into space, and at the same time they produce space itself. That is, social relations promote the generation of social space, and social space will make social relations reproduce in the space. Lefebvre emphasizes the "space" of society and history, emphasizing that a specific society is in the established structure of production mode, and the special nature of this society shapes its own specific space. "The practice of space defines space, which specifies space in the dialectical interaction, and takes space as its prerequisite condition." It is in this dialectical interaction of development and progress between the society and space in history.

### (3) The Main Theoretical Framework of Spatial Production

Lefebvre's "ternary dialectics" includes three core elements: the practice of space, the representation of space and the space of the representation. These three elements interweave and influence each other, and together constitute Lefebvre's spatial "three-way integrated framework" theory. In this framework theory, the space is not fixed, but changes with the change of social, political, economic, cultural and other factors. The practice of space refers to the space of people's actual activities, experience and perception, which is the concrete embodiment of material space and social space. The representation of space refers to people's concept, knowledge and conception of space, which is the display of spiritual space. It includes the understanding and expression of space in the fields of urban planning, architectural design, and space art. The space of representation refers to the space expressed through language, symbols, images and other ways. It is the process of space being socialized and cultural. The framework of Lefebvre's includes a combination of the material, spiritual and social aspects of space. Highlighting the multidimensional, complexity and dynamics of space, providing a comprehensive perspective for understanding spatial production.

In Lefebvre's theory of spatial "ternary integrated framework", the practice of space focuses on the material level and practical action, involving the use, transformation and creation of space, and reflecting the dynamic relationship between

man and space. The representation of space is to abstract, conceptualize and symbolize space by means of culture, thought, art and planning, and describe and explain space by means of language, symbol, drawing and drawing, so as to give it specific meaning and value. The representation of space is the space constructed by the discourse, which affects people's cognition of space and determines how people interact with space. It also affects the planning and design of space, and determines the layout and function of space. It also involves the political nature and ideology of the space, reflecting the power and interest relations of different social groups. The space of representation is the space created through imagination and programming (or decoding), such as the space in art, literature, film and other works. It focuses on the creation and imagination of space, emphasizing the creativity and symbolism of space. The space of the representation is formed based on the subjective experiences and feelings of the individuals, and different people may have different representations of the same space.

### **3.1.2 Space Form of the White Crane Ridge**

the White Crane Ridge is a huge stone ridge located in the Yangtze River. Because of its unique geographical location and form, it has become the intersection point of culture and nature. The spatial form of the White Crane Ridge includes its geological structure, geomorphic features, natural environment and traces left by human activities.

#### **(1) Natural Spatial Form**

From the perspective of geographical location and geological structure, the White Crane Ridge is located in Fuling area of Chongqing city in the upper reaches of the Yangtze River, while Fuling is located in the valley area where the Yangtze River and Wujiang River meet. The terrain is mainly mountainous and hilly, and the terrain has large fluctuations. This geomorphic feature makes the water system developed and the rivers crisscross in Fuling area. The White Crane Ridge is located in a riverbed in the triangle where the Yangtze River and the Wujiang River meet, north latitude  $29^{\circ}43'$  and east longitude  $107^{\circ}24'$ . With a total length of 1600 meters and a width of 10-15 meters, it is running east-west, lying across the Yangtze River, shaped like a dragon. Its geological structure is complex, composed of limestone, after hundreds of millions of years of river water erosion and erosion, formed a unique karst landform.

From the perspective of geomorphic features, the Fuling area where the White Crane Ridge is located is a typical valley landform. The Yangtze River cuts into deep valleys here, with steep mountains on both sides and the water flowing fast, forming a unique canyon scenery. The valley landform where the White Crane Ridge is located not only brings it magnificent natural scenery, but also provides abundant water resources and a unique ecological environment. Since ancient times, people like to play on the White Crane Ridge. It is with its unique geographical phenomenon that the White Crane Ridge has become a bright pearl on the Yangtze River. The water level of the White Crane Ridge is 137.81 meters, and the White Crane Ridge ridge is 2 meters above the lowest water level and 30 meters below the highest water level. This water level makes it only above the water in the dry season and submerged in the wet season.

From the characteristics of the natural landscape, the stone on the White Crane Ridge is hard, the surface is smooth, and the flow rate of the river water slows down here, forming a wide river surface. The Yangtze River and the Wujiang River meet here, and the confluence is clear, forming a unique ecological landscape. The two mountains of the Yangtze River are opposite, pleasant scenery. Every winter and spring dry season, the stone ridges rise above the water. Stone ridge outside the big river east, the stone ridge level such as a mirror. People stand on the stone ridge, surrounded by picturesque clouds, breeze slowly, bright and beautiful, relaxed and happy. When the river recedes, the stone ridge is rises out again. This dynamic floating and sinking phenomenon makes this special space born with unique charm and mystery.

From the perspective of space production, the spatial form of the White Crane Ridge is not only a kind of material existence, but also a kind of cultural capital. In the historical development period, it is not only the origin of culture, but also an important place for cultural exchange. As a spatial form of material existence, the White Crane Ridge is a geological wonder formed naturally. Lying in the Yangtze River, floating and sinking in the heart of the Yangtze River as the river rises and sinks, it is a special space. As a spatial production of cultural capital, the inscriptions on the White Crane Ridge record thousands of years of historical changes and the changes of the water level of the Yangtze River. These inscriptions are not only of scientific value, but also an important carrier of local history and culture. They tell the story of the ancient people in observing the water level of the Yangtze River and guiding their daily practice. As a unique geographical feature and cultural name card of Fuling, the White Crane Ridge has become an important symbol of the cultural pride and identity of the local people.

#### (2) Humanistic Space Form

The cultural space form of the White Crane Ridge is a comprehensive space integrating nature, science and technology, culture and legends. Lefebvre's theory of space production holds that space is the product of social practice and the result of the interaction of various social forces. The White Crane Ridge is originally a huge natural stone ridge about 1,600 meters long and 15 meters wide in the Yangtze River. Due to its unique geographical location and natural attributes, it has become an excellent place for ancient people to observe the water level and record the hydrological information. In modern society, he has also become an important window for us to understand history and feel culture. Both the government and the local residents have played an important role in the formation of the human space form of the White Crane Ridge. Through social life, wisdom and participation in management, they jointly shape the spatial form and function of the White Crane Ridge.

Lefebvre stressed that society and history have a role in shaping space. Space production is not only focused on the production of physical space, but also focused on the production of space itself, that is, the sociality of space and its production significance. The hydrological sign of stone fish engraved on the White Crane Ridge is a unique tool for the ancient people to observe the dry water level of the Yangtze River. The ancients used the carved stone fish as a "water beacon" on this stone ridge, and recorded the water level information of the dry water in the past dynasties by

means of carving symbols and inscriptions. The hydrological data system reflects the evolution of water levels in 72 dry ages in the upper reaches of the Yangtze River in 1,200 years, showing the wisdom of life and reverence for nature. From the perspective of the social and production significance of space, these inscribed information reflects the past hydrological technology, technological invention and means of recording. They are not only the production of the physical space, but also the production of the space itself. These data provide important physical evidence for the study of the Yangtze River hydrology, regional climate and the historical law of global climate change. In 2008, the special space of the White Crane Ridge was praised by UNESCO as "the only ancient hydrological station".

Lefebvre pointed out that the influence of historical process on space is reflected in the use, transformation and creation of space in different historical periods. In local folklore, there are still many legends and beliefs related to immortals and Taoism on the White Crane Ridge. The name of the White Crane Ridge is also related to a man named ErZhu Tongwei. According to legend, there was a Taoist named Erzhu Tongwei, who offended the prefect of Hezhou (now Hechuan, Chongqing) for selling alchemy and asking for it too much. The governor will erzhu tong micro prisoner into a bamboo cage, thrown into the river. Erzhu went down the river to stone ridge, where White cranes gather in Fuzhou (now Fuling), was rescued by fishermen. Two people become good friends, ErZhu Tongwei is here to practice. After drinking drunk, ErZhu Tongwei took a white crane flying to the sky to become a fairy. These legends are people's use, creation and mystification of the special space of the White Crane Ridge in the course of history, and become the basis for the subsequent production of spiritual belief space such as "landscape marriage, immortal blessed land" and "stone fish in water".

The cultural space form of the White Crane Ridge not only reflects its profound historical and cultural deposits, but also shows the wisdom of harmonious coexistence between man and nature. As a cultural heritage with a long history, the White Crane Ridge carries rich historical information and humanistic values. The formation of its human space form is not only influenced by the natural environment, but also reflects the shaping and transformation of space by human activities. For example, on the ancient site of the White Crane Ridge, the ancient people left 174 sections of pictures and inscriptions (165 inscriptions), 18 stone fish, 2 guanyin and 1 white crane, a total of more than 30,000 words (Chongqing Municipal People's Government website, 2023). These inscriptions integrate literature, calligraphy, painting and stone carving art. The White Crane Ridge has been a scenic spot since ancient times, attracting many people to come here. They describe the beautiful scenery and humanistic feelings of the White Crane Ridge through poems, songs, inscriptions and carvings. The natural landscape and human activities of the White Crane Ridge together shape the human space form of the White Crane Ridge.

### (3) Social Space Form

Social space form is a complex and multi-dimensional concept that covers the human social activities and organizational structure space. It reflects the values, preferences, and pursuits of the social groups. Social space has the main characteristics such as practicality, diversity and duality. Practice is the basis of social space production. The diversity is reflected in the different forms of social space in

different regions and historical stages. Duality means that social space contains both subjective social relations and objective local significance.

The form of social space continuously evolves along with the development of history. From the initial local space to the formation of national space, and then to the complex differentiation of modern urban social space, each step reflects the change and development of human society. The social space of the White Crane Ridge reflects the result of the interaction between human and natural environment, social system, cultural customs and other factors. The contents of its space production include the production of the objects in the space and the production of the space itself. The production of objects in the space of the White Crane Ridge includes the use, innovation, creation and redesign of space, which reflects the mutual shaping of human social practice and spatial form. The production of space itself emphasizes the sociality and historicity of space, that is, space is constantly changing with the evolution of society and human activities.

Social space carries the relationships, activities and values of social groups, and is an important perspective to understand the development of human society. In the change of the White Crane Ridge space, due to the particularity of geographical position and spatial form. Fuling, where the White Crane Ridge is located, has become an important traffic artery and cultural exchange center in history. This change of spatial layout and function is exactly the reflection of social production relations in space. This change of spatial layout and function is exactly the reflection of social production relations in space. It is also the result of the interaction between local people's social life, cultural customs and natural environment in the social space. According to the theory of space production, we can divide the spatial changes of the White Crane Ridge into three important historical periods. That is, before the Three Gorges project (before being flooded), during the construction process and after the completion of the Three Gorges project (after being flooded). The spatial changes of each historical period are shaped and characterized by the social, political, economic, cultural and other forces at that time.

## **3.2 The Past Space Production of the White Crane Ridge**

### **3.2.1 Past Spatial Overview of the White Crane Ridge**

According to Lefebvre's theory of space production, we can regard the space of the White Crane Ridge as a unity of interwoven and mutual influence of physical space, spiritual space and social space. In this unity, physical space provides the basic natural environment and material conditions, and spiritual space gives the space deeper cultural and historical significance, while social space reflects the interaction between man and nature and the development of social history. Below, I will analyze the past space overview of the White Crane Ridge from several core dimensions of physical space, spiritual space and social space.

(1) The Natural Attributes and Particularity of a Giant Stone Ridge in the Yangtze River

Lefebvre divides space into two levels: concrete space and abstract space. The physical space of the past belongs to the specific space, that is, the actual physical space that people can directly perceive and contact with. This physical space is about 1,600 meters long and 10-15 meters wide. It is a natural stone ridge. It tilts to the middle of the north of the Yangtze River at about 14.5 degrees, extending from west

to east, parallel to the river in a shape, like a dragon lying across the river. Its existence is influenced by the natural environment and geological activities, and is the result of long-term action of natural geological action. This is the basic feature of the physical space of the White Crane Ridge, namely the objectivity and nature of the space.

The physical space of the White Crane Ridge has existed since the mountain creation. It is located in the Yangtze River in the north of Fuling City at the intersection of the Yangtze River and the Wujiang River. Here the river is wide, the water is gentle, and the green mountains on both sides are opposite, and the scenery is pleasant. The Yangtze River and the Wujiang River meet here, forming rich water resources and unique scenery. According to geologists, the Yangtze River basin, where the White Crane Ridge is located, is the result of billions of years of crustal movement. This geomorphic feature is the basis of the spatial production of the White Crane Ridge. Due to its location at the confluence of the Yangtze and Wujiang rivers, sufficient water vapor and fog is more common. The White Crane Ridge often causes a strange natural scene, attracting a large number of tourists to watch. Especially in the dry season of dry years, when the underwater stone ridge is exposed to the surface. At this time of the year, the local people will hold a grand ceremony to pray for a good year here, praying for good weather and good harvest in the coming year. Folk activities are displayed here, making the physical space of the White Crane Ridge more meaningful.

The Fuling area where the White Crane Ridge is located, connecting Bayu in the north, Guizhou in Nantong, Sichuan and Shu in the west, and Jingchu in the east, has been an important part of transportation since ancient times. The unique geographical location and transportation network have created conditions for the formation and dissemination of culture. In the geological history period, the Yangtze River as a large river, its strong erosion constantly shaped the landform along the banks of the river. The White Crane Ridge is located at the intersection of the Yangtze River and the Wujiang River. It has been washed and eroded by the two rivers for a long time, and is divided into the upper, middle and lower three sections. The White Crane Ridge is mainly carved on the middle stone ridge about 220 meters long, especially on the stone surface in the east part of the middle section. Focusing on stone fish in the Tang Dynasty and Xiao fish in Fuzhou<sup>67</sup> Prefecture in the Qing Dynasty, they extend to the east and west sides respectively. The closer they are to the two groups of stone fish landmarks, the more dense the inscriptions will become. In this physical space, people can clearly see the relics left by the ancients, from the first year of the Tang Guangde (763), to 1963 AD. After more than 1200 years of water level records and its historical and cultural records.

From the perspective of the objectivity and nature of space, the White Crane Ridge is a natural giant stone ridge, and its physical space is formed by the physical materials of the mountains, rivers, stone ridge, white crane, fish and reeds on both sides. From the point of view of space, its physical space also includes man-made carved stone fish carving, graphic symbols and other material forms. These artificial physical form reaction in the physical space, is the result of space practice. In this physical space, the ancients left 174 pictures and inscriptions (165 existing paragraphs), 18 stone fish, 2 Guanyin statues and 1 white crane, a total of more than

<sup>67</sup> Fuzhou, an ancient Chinese place name, including the whole territory of modern Fuling District.

30,000 words (Chongqing Municipal People's Government website, 2023). Now the physical space has been built into an underwater museum, which is a modern building and also a site. The space creation of this site (the White Crane Ridge Underwater Museum) shows all the history, folklore, inscriptions, poems and cultural arts that were produced in this space in the past, to show the difference between the past and the present of a place.

From the perspective of the particularity of the White Crane Ridge space, it is a floating space, which will float and sink in the middle of the Yangtze River with the change of the water level of the Yangtze River. From December to March of each year, when the Yangtze River runs dry, the White Crane Ridge rises to the water. In ordinary times, it is deep under the water and integrated with the Yangtze River. This kind of dry water exposed, rising water hidden phenomenon is very regular. This is directly related to the climate characteristics of Fuling area where the White Crane Ridge is located. Fuling area has a subtropical humid monsoon climate, with high temperature and less rain in summer and mild rain in winter. This climatic feature makes the local rainfall show an obvious seasonal regularity, affecting the abundance of the rivers. At the turn of winter and spring, the water level of the Yangtze River is at its lowest level. As a natural stone ridge, the White Crane Ridge has a back ridge elevation of about 138 meters, only two or three meters higher than the local annual lowest water level. As a result, the White Crane Ridge is submerged all year round and only leaks from the water in the dry season. This special law of floating and sinking makes the White Crane Ridge accurately reflect the changes of the water level of the Yangtze River, and has become an ideal observation point for the ancient people to observe and record the dry water level of the Yangtze River.

#### (2) "Landscape Marriage, Immortal Blessed Land" Spiritual Belief

In Lefebvre's theory, spiritual space is a combination of logical abstraction and formal abstraction, that is, abstract space. The past spiritual space of the White Crane Ridge also embodies the symbolic significance of folk culture, history, humanity and legends through the form of inscriptions, so that people can intuitively feel the spiritual connotation contained in it. At the same time, these questions also reflect the aesthetic concept, value orientation and ideology of the society at that time. Information such as "Landscape marriage, immortals", "White Crane singing" and "Guanyin statue" reflect the beliefs and values of the gods at that time. In the local folklore of Fuling, there are still many immortal and Taoist legends related to the White Crane Ridge. Legend has it that in ancient times, there were Taoist monks who rode a white crane here to become immortals. Notes on the Book of Water (Northern Wei Dynasty, Li Daoyuan) states: "the White Crane Ridge, Er Zhu practiced here, and then took the crane fairy, hence the name." And the rise and fall of the natural space of the White Crane Ridge is also similar to the immortal and blessed land pursued by the traditional Chinese Taoism. The similar characteristics of these phases make the White Crane Ridge itself more a symbol of "The place where the gods live", which became the basis of people's spiritual belief later.

Spiritual space is an extension of physical space and also an important part of social space. It is not only a witness of history, but also a inheritor of culture, or the carrier of people's emotional sustenance. The "stone fish figure" on the White Crane Ridge is not only a material creation, but also a spiritual symbol. The ancestors of ancient Fuling carved stone fish on the White Crane Ridge as a standard to measure

the water level of the Yangtze River and to observe the water level of the Yangtze River. Stone fish carving, the surface of the water indicates the rainfall of the coming year, but also symbolizes the crop harvest in the next year. Therefore, the carving pattern of stone fish on the White Crane Ridge was endowed with the mysterious cultural belief, and people created the inscription of "the stone fish harvest" on the White Crane Ridge. This kind of behavior is the production of objects in the space of the White Crane Ridge, and this process reflects the mutual shaping of human social practice and spatial form.

As a special space, the White Crane Ridge is the spiritual sustenance and cultural symbol of the local people. It is all the local beliefs, immortal beliefs and spiritual sustenance produced by people on this natural stone ridge, "stone fish" in the year "landscape marriage immortal land" and other relics, so that everyone who comes here has psychological identity. These elements outline the macro scene of the White Crane Ridge culture, and also outline the representation of the spiritual space of the White Crane Ridge. In the field investigation, Zhao Ridge et al. told about the local customs and customs in the past from the perspective of narrative, reflecting the local people's vision of life. In combination with the local customs of "general arrow" and "worship", Ran Yi tells the story of the local people in history with "fish" as the totem worship, and the fish pattern itself is a spiritual symbol in the local area. The stone fish carving figures on the White Crane Ridge also change from the original totem worship to the significance of hydrology. The special space of the White Crane Ridge has also developed into a spiritual space for people's psychological sustenance.

### (3) Social Relations in the Past of the Space

Lefebvre stressed that society and history have a role in shaping space. Social relations, class structure, power distribution and other factors play a decisive role in the shaping of space. The influence of historical process on space is reflected in the utilization, transformation and creation of space in different historical periods. At the same time, the changes of space also record the traces of history and cultural inheritance. The White Crane Ridge is not only a natural object. The production of objects in its space, including legends, inscriptions, stone images, poems, festival customs, sacrificial ceremonies, etc., reflects the shaping of space by social history. The ancestors of Fuling carved stone fish as landmarks on the White Crane Ridge to observe the changes of the water level of the Yangtze River and record the information of the dry water level of the Yangtze River. These historical traces left in the space reflect the spatial evolution and social relations of the White Crane Ridge in the historical period.

Space is the carrier of social relations and the accumulation of history. Space is the place where people interact and influence each other, bearing the social structure, cultural customs and power relations. The White Crane Ridge is originally a strange hydrological stone. In the past, people carved stone fish figures, wrote poems and inscriptions here, which were originally used to observe hydrology and record hydrological information. This way of carving stone planning was originally a means of recording and symbol sign, which was a unique technical invention in ancient times. Later, local customs and traditions were formed. At the turn of each old Year and New Year (winter and spring), special people will come here to observe hydrology and record hydrological information. Moreover, this kind of behavior has developed into the official behavior, which constrains the behavior of individuals in

the space of the White Crane Ridge through the power distribution and organization structure. The remains of the objects in these space are the marks of the social history and cultural customs of that time.

In ancient society, the results of the stone fish on the White Crane Ridge would be reported to the government. "Taiping World" contains "Kaibao four years in Qiannan said, there are stone fish in the heart of the river. There is an ancient record, cloud: the first year of Guangde in February, the big river water retreat, stone fish see, the people of the rich omen." From this message, we can peep into the shaping and influence of ancient social relations and power distribution on space. In fact, the inscriptions and stone fish sculptures on the stone ridges are basically completed under the leadership of local officials or social elites. In modern society, the authorities no longer allow people to carve on the rock surface in order to protect the inscription.

From a historical point of view, space is the accumulation of time and the continuation of history. Each space carries the historical memory of the past and the future development trend. In the past, every time the dry season, local officials would lead people to board the stone ridge in the river to observe hydrology, leave inscriptions and divination. Literati, ordinary people, also go to watch, step in the water to play and enjoy the scenery, and here write, write, write poems, pray for good fortune and remember the dead. The White Crane Ridge hydrological data, local traditions, carving art, folk activities, etc., are constantly enriched, developed and created by people in these countless local activities in the dry season, forming a unique material culture and non-material culture. The creation of these cultures reflects the social system, folk culture and power distribution in a specific historical period. These spatial practices promote the continuous expansion of the spatial meaning of the Ridge, and then constantly reshape the space and create new space.

### **3.2.2 Dynamic Factors of the Past Space Production of the White Crane Ridge**

The theory of space production reveals the space form, functional evolution and dynamic mechanism of the White Crane Ridge. As a geographical entity bearing a rich historical and cultural heritage, its past spatial overview not only reflects the unique charm of the natural environment, but also witnesses the profound influence of human activities. In history, the White Crane Ridge has become a famous ancient hydrological station due to its unique geographical location and natural attributes, and its physical spatial attributes add a mysterious color to the shaping of later culture. The watershed characteristics and climatic conditions of Fuling area also boost the formation of this cultural characteristics, and also have an important influence on the shaping of the White Crane Ridge space. The dynamic factors of the space production are naturally inseparable from the mastery of hydrological information by agricultural production, the combination of ancient wisdom and technology, and the prosperity and dissemination of ancient culture.

#### **(1) The Economic Production of Fuling Area Urgently Needs to Grasp the Hydrological Information**

In the ancient agricultural production, agricultural production was closely related to the hydrological conditions, especially the hydrological elements such as rainfall, runoff and flood had a direct impact on the growth and yield of crops. The ancient farmers judged the amount and distribution of rainfall by observing the

change of the river, the speed and the clarity of the water, so as to determine the time and way of sowing. The Yangtze River basin, where the White Crane Ridge is located, has been an important area of agriculture and shipping in China since ancient times, and the grasp of hydrological information is more urgent. The dynamic factor of its spatial production naturally cannot be separated from the guiding effect of hydrological law on production and life. Agricultural production requires rainfall and runoff to arrange agricultural activities; shipping trade relies on water level observation to ensure safe navigation. With its unique geographical location and natural attributes, it has become an important reference for people to observe the change of the water level of the Yangtze River, and has been developed into an ancient hydrological station and an important place for people's cultural exchange.

The natural space of the White Crane Ridge produces functional changes, and the dynamic factor of this spatial change is the demand of social production. Ancient ancestors needed to find a suitable place to observe the water level of the Yangtze River, and the natural nature of the White Crane Ridge exactly met people's demand. By observing the water level on the White Crane Ridge, people have formed an understanding and grasp of the hydrological laws of the Yangtze River basin. This observation behavior of people on the White Crane Ridge has gradually evolved into a local culture and spiritual belief. In many documents and poems, they depict the actions of Fuling local people in the space of the White Crane Ridge. The ancient local rulers also attached great importance to the role of hydrological observation in agricultural production. By setting up a special hydrological observation agency, they sent special personnel to observe hydrological changes and record hydrological information to provide decision support for local agricultural production. For example, during the Tang Dynasty, the government agencies set up a special water conservancy department, responsible for observing and recording the flow information of rivers, and providing a scientific basis for agricultural irrigation and flood control.

In the traditional agricultural society, water plays a decisive role in agricultural production. Especially in the Yangtze River basin in China, whether drought or flood, will have a direct impact on agricultural production, which will even further spread to the local political, economic and other aspects. This is an important factor for the development of the White Crane Ridge into a hydrological station, and also an important dynamic factor for the space production of the White Crane Ridge. In Fuling area, where the White Crane Ridge is located, agricultural production activities have long relied on the accurate grasp of hydrological conditions. The ancient Fuling people created a carving figure of stone fish on the White Crane Ridge, which was used by them as a measure of the level of the dry water level in the Yangtze River. By observing the stone fish logo on the White Crane Ridge, people understand the changes of water level, predict natural disasters such as flood and drought, and make reasonable arrangements for daily life and production activities. The use of such observations can not only effectively improve agricultural production, but also bring great convenience to daily life. The space relics created by this practice still exist today and have become a great contribution of the people of Fuling to the world hydrological science.

## (2) The Combination of Wisdom and Skills in the Production and Life of Ancient Society

The dynamic factor of the space production of the White Crane Ridge not only depends on the natural hydrological conditions, but also is the crystallization of the wisdom and skills of the ancient local people. Through long-term observation and practice, the ancestors of Fuling found that a specific location of the White Crane Ridge above the water is closely related to the extremely dry water level of the Yangtze River. So they cleverly made use of this natural phenomenon, and carved a two-tail stone fish pattern on the rock surface that they considered the extremely dry water level, as a measure of the standard of the dry water level of the Yangtze River. This combination of wisdom and carving skills generated through long-term observation reflects the ancient people's deep understanding and grasp of the laws of nature, and also shows their creativity and imagination in the use of space in life and production. As a typical representative of the world hydrological heritage, "The inscription of the White Crane Ridge" is a key object of the Three Gorges relics protection in China. It reflects the spatial practice and spiritual pursuit of the Chinese nation in conforming to nature and using the harmonious coexistence between nature and nature.

The development of the ancient society is also the factor that promotes the spatial change of the White Crane Ridge. In the historical period, people went to the White Crane Ridge to watch the "stone fish out of the water", to record the stone fish carved out of the water. They recorded the information of the dry water level in the past dynasties with carved symbols and inscriptions, and successfully developed it into an ancient hydrological station, leaving many ancient relics. These relics as ancient wisdom guided agricultural production and water shipping at the time. In ancient times, local people constantly came to the White Crane Ridge to observe hydrological information, engrave symbols and characters, forming unique local customs and social traditions. And this behavior develops into government behavior, and at the turn of each old year and New Year (winter and spring), the government sends special officials here to observe and record hydrological information. These social factors have become an important power source to promote the continuous production of the White Crane Ridge space.

As a unique natural landscape, the particularity of the White Crane Ridge space has attracted a large number of literati, tourists and past business travelers since ancient times. In particular, as the local cultural window, the White Crane Ridge has become the name card of the local government to attract investment and cultural publicity. In fact, the inscriptions and stone fish sculptures on the stone ridges are basically completed under the leadership of local officials or social elites. They wrote inscriptions, poems, travel notes and titles on the White Crane Ridge, leaving behind the precious calligraphy. These relics reflect the historical features of the society and the lives of the people. From the carving skills and aesthetic view of these relics, these inscriptions gather the ink of calligraphers of various schools since the Tang and Song Dynasties, and are of high artistic value. From the analysis of the dynamic factors of space production, as a tourist resort and an important window for cultural exchange, the space practice of government officials and social elites here is an important driving force for the creation and significance expansion of the space in the past.

### (3) The Southward Migration Formed by Historical Factors and Ethnic Integration

Since the Northern Song Dynasty, there have been a lot of inscriptions in the Yangtze River Basin, which is related to the literati and social atmosphere in the Song Dynasty. The White Crane Ridge is located in the ancient Fuzhou (now Fuling, Chongqing). It was established in the Tang Dynasty and falls under the Shannan East Road, and falls under the jurisdiction of Kuizhou Road in the Song Dynasty. Because this area is a typical mountainous landform in eastern Sichuan, the traffic is not smooth and the land is poor, leading to people's poor life and relatively backward culture. Since the Tang and Song Dynasties, he was often regarded as a place of exile for relegated officials and was called as a fear by the literati of the Central Plains. For this reason, the demoted literati masters gathered here and developed the local culture together with the local literati and elite class. Either out of affection, out of travel, or out of admiration for the sages, they wrote a lot of inscriptions in Fuzhou, among which the most numerous, the most extensive, and the best preserved ones. The gathering of literati and social elites has become an important factor to accelerate the spatial evolution of the White Crane Ridge.

On the other hand, climate change and population migration are also another driving factor affecting the spatial production of the White Crane Ridge. In the Song Dynasty of China, the agricultural production of the Han nationality was affected by climate change, while the animal husbandry production of ethnic minorities in the north was more seriously affected by climate change. Nomads represented by the Mongols plundered to the south, driving the local Han people to migrate further to the southeast of China. In the historical period, the Han and nomadic peoples moved south spontaneously for the purpose of stable production and living. Therefore, since the end of the Tang Dynasty, the Five Dynasties and Ten Kingdoms, Northern Song, Southern Song, Liao, Jin and Xia regimes were established in the Yellow River basin in the north for a long campaign. Regime change and ordinary war led to a large-scale southward migration and the integration of nations. The Bastext (the predecessor of grain) in the White Crane Ridge is the space product of this period. The general effect is that "the meaning of life is in honor".

The cultural relics such as inscriptions and carved images on the White Crane Ridge not only record the social history and cultural customs of the historical period, but also reflect people's perception and cognition of space at that time. Through these cultural relics, we can have a glimpse of the activities and cultural creation of ancient people in the space of the White Crane Ridge, and deeply feel their wisdom and skills in the use of space.

### (4) Ancient Cultural Belief and Dissemination

the White Crane Ridge is not only a hydrological station and a window for cultural exchange, but also a place that carries the profound significance of religion and belief. Since ancient times, the White Crane Ridge has been regarded as a sacred space, closely linked with local religious beliefs. White crane, as an auspicious bird in Chinese traditional culture, symbolizes longevity, peace and purity. In ancient Chinese, the character "Ridge" has the meaning of bridge and connection, implying the intersection of heaven and earth and the communication between man and god. Therefore, the White Crane Ridge has been endowed with a special cultural meaning, and has become an important place for local residents to pray for blessings and offer

sacrifices. The two stone fish on the rock surface of the White Crane Ridge are the tools for the ancient people to observe the water level. Through continuous observation, the ancients found that the next year after the stone fish were exposed to the water was often a year of abundant rain, and this phenomenon increased people's belief in this space. Although this observation is based on experience, it contains profound wisdom, and has become an important driving force for the belief and dissemination of the ancient the White Crane Ridge culture.

The specific age of the folklore of "stone fish in the water" has not been verified, but this belief has been deeply rooted in people's hearts. In the first year of Guangde (763) of the Tang Dynasty, Zheng Linggui, the governor of Fuzhou (Fuling) and Tuanlian of Fuzhou, left a topic on the White Crane Ridge, taking "the phenomenon of stone fish coming out of the water" as a sign of a good harvest and a good harvest. In all the questions, the "stone fish water" and the old harvest closely linked accounted for nearly 4% of the questions. "Stone fish out of the water" indicates that the harvest is expected next year, so there are many "rich", "rich", "prosperous", "rich can occupy" and other words. The source of the White Crane Ridge stone fish carving comes from the ancient Fuling people's psychology for harvest and the exploration of practice. "Stone fish water" is the valuable experience and wisdom summary of ancient Fuling people to observe hydrological phenomenon for a long time. Therefore, in ancient society, people firmly believe that the functions of the White Crane Ridge stone fish, prediction, omen and warning are very important. This has injected cultural and spiritual power into the production of the White Crane Ridge space.

In ancient times, the Fuling area where the White Crane Ridge is located was an important channel connecting Bashu and the Central Plains, the south of the Yangtze River and the southwest, and also one of the important ports in the upper reaches of the Yangtze River. The convenience of water transportation and the uniqueness of the scenery make it develop into a window for cultural exchange. Countless literati and social elites came here, leaving behind precious calligraphy treasures, including poetry inscriptions, calligraphy and painting. Huang Tingjian, Zhu Xi, Wang Shizhen, and more than 300 historical celebrities in the 1200 years after the Tang Dynasty. Here they carve stone records, writing or poems, or titles, or using notes or lyrical ways. The inscription is meaningful, excellent calligraphy, exquisite carving, preserved. Stone fish carving is exquisite and smooth, quite skilled. Their activity track and cultural creation here are an important driving force for the creation and dissemination of the ancient the White Crane Ridge culture.

### **3.2.3 Space Shaping of the White Crane Ridge in the Past**

#### **(1) Start With the Formation of A Functional Space of A Hydrological Station**

In the relevant literature, the White Crane Ridge is praised as the "water ruler". The "water ruler" of the White Crane Ridge is a way that takes the stone fish carving of Pisces graphics as the reference point, and records the water level from the reference point with the stone inscription. It is an ancient way that is different from the world's known recorded water level mode, and it is a technological invention based on the unique local cultural tradition. The wise man who created this unique technological invention turned the dull digital scale into vivid situational images. And combine the phenomenon of watching stone fish out with folk activities such as

predicting bumper harvest years, so that these activities become a conscious behavior of local people, so as to have a long-term vitality.

The pioneer of transforming it from a natural space to the function of a hydrological station was a wise man in ancient Fuling. He carved a stone carving with Pisces figures on the rock surface of the White Crane Ridge stone wall, and used it as a standard to measure the dry water level of the Yangtze River. Using this standard, he measured the water level of the dry water at that time, and engraved the very low water level of the time on the rock surface of the stone wall of the White Crane Ridge. Later generations of people used this method, carving the time and scene of the stone carving (stone fish carving) out of the water, the scale of the water level of the distance and the name of the observer on the stone ridge.<sup>68</sup> With the accumulation of years, the rock surface of the stone wall of the White Crane Ridge is covered with dense characters and graphic symbols, forming an extremely precious hydrological record. This is the original intention of people on the space utilization and space dissemination of the White Crane Ridge. Its precious hydrological record is the space output of the White Crane Ridge as a hydrological station.



Figure 25 "Water ruler" of the White Crane Ridge (Qing Dynasty)  
Source: Provided by the White Crane Ridge Underwater Museum

The stone fish on the White Crane Ridge carved hydrological signs, which is a unique tool for ancient people to observe the dry water level of the Yangtze River. The ancients used the carved stone fish as a "water beacon" on this stone ridge, and recorded the water level information of the dry water in the past dynasties by carving symbols and inscriptions. The hydrological data system reflects the evolution of water levels in 72 dry ages in the upper reaches of the Yangtze River in 1,200 years, showing the wisdom of life and reverence for nature. These information reflects the past hydrological technology, technological invention and chronicle. They are not only the production of objects in space, but also the production of space itself. These data provide important physical evidence for the study of the Yangtze River hydrology, regional climate and the historical law of global climate change. In 2008, the special space was praised by UNESCO as "the only ancient hydrological station".

(2) An Art Space Formed By a Pisces Graphic Stone Fish Carving as the Core

Before the Tang or Tang Dynasty, stone fish carvings had been carved on the White Crane Ridge. According to the relevant records of existing materials such as

<sup>68</sup> After the ancestors used the standard, they found the law of the dry cycle of the Yangtze River. The White Crane Ridge stone fish carving is exposed every three to five years, is a small cycle, exposed every ten years, for a large cycle, six hundred years extremely exposed once, for a very dry water level cycle.

Taiping World, Di Jisheng, And Guangji of Shu, the relevant information can be traced back to the first year of Guangde in the Tang Dynasty (763 AD). A clever Fuling man carved a stone fish carving (stone fish logo) on the rock surface of the stone wall, as a measure of the standard of the dry water level of the Yangtze River. In the late Tang Dynasty, inscriptions and poems began to be inscribed near the fish logo, and a picture of "weighing dou" recording the water level at that time, engraved in the first year of Tang Zhaozong Dashun (890 AD). These questions are not only the talent and aesthetic taste of the ancients, but also reflect the historical background and cultural atmosphere of the society at that time. There are two stone fish water specimens, now only one tail and "stone fish" two words can distinguish the clear."Because the age is long peeling, the shape is blurred, I can not ask."In the 24th year of Kangxi of the Qing Dynasty (1865), Fuzhou Mu Xiao Xingong recarved double carp on it and inscribed "Heavy engraved Double Fish".



Figure 26 Xiao Xingong recarved stone fish in Qing Dynasty (rubblings)  
Source: Li Shumin, Chen Xizhen, 2003. PP142

It was the Song Dynasty in China that developed the White Crane Ridge into an art space. As the heyday of ancient Chinese culture, the Song Dynasty's literature, art, philosophy and social style all reached an unprecedented height. There were many literati in the Song Dynasty. They were not only famous for their poems and songs, but also good at calligraphy and painting. As a unique geographical entity, the White Crane Ridge has been famous as early as the first year of Guangde in the Tang Dynasty, and has become an excellent resort for the literati to show their talents. Volume 174 wrote by Wang Xiangzhi in the Song Dynasty, " In the middle of the river in Fuling County, there are double fish carved stone, each fish 36 scales, one rank grass, a lotus, stone scales, stone bucket beside, three or ten years, out of the rich year, the first year of the Tang Dashun engraved many ancient poems.

The Song Dynasty was the peak period of the creation of the White Crane Ridge art space.<sup>69</sup> During the Song Dynasty, 11 imperial relatives and 57 Jinshi successively visited the White Crane Ridge, and splashed ink on the White Crane

<sup>69</sup> Jinshi was the highest level among ancient Chinese officials, equivalent to a modern senior official. The Jinshi system began in the Tang Dynasty, and through the continuous development and improvement of the Song, Yuan, Ming and Qing dynasties, it became the most important and highest-level examination subject in the ancient Chinese imperial examination system.

Ridge, recited poems, carved images and words, and left titles, completing the upgrading of the White Crane Ridge, a natural entity, to the art space.

As an art space, it has been developed into a window for cultural exchange due to the convenience of water transportation and the uniqueness of the scenery. Countless literati and social elites came here, leaving behind the precious calligraphy. Huang Tingjian, Zhu Xi, Wang Shizhen, and more than 300 historical celebrities in the 1200 years after the Tang Dynasty. Here they carve stone records, writing or poems, or titles, or using notes or lyrical ways. The inscription is meaningful, excellent calligraphy, exquisite carving, preserved. Stone fish carving is exquisite and smooth, quite skilled. These inscriptions integrate literature, calligraphy, painting and stone carving art, and have high artistic value, and are known as "underwater stele forest" or "underwater stone carving art group".

### (3)The Spiritual Space Shaped by the Immortal Belief of "Landscape Marriage and Immortal Blessed Land"

The early name of the White Crane Ridge was "Bazil Ridge" and "White Crane Beach", because white cranes often live on the water surface during the dry season. At the same time, folklore gives it a sacred color, which is considered the holy land for Erzhu Tongwei to ride the crane and ascend the immortal, so it is called "the White Crane Ridge". It was not until the seventh year of Emperor Guangxu of the Qing Dynasty (1881), when Sun Hai, a native of Qinzhou, carved the character "the White Crane Ridge" on the stone ridge, thus establishing the current name.

Since ancient times, the White Crane Ridge has been regarded as a sacred space, closely linked with local religious beliefs. In the local folklore, there are still many legends and beliefs related to the immortals and Taoism. According to legend, there was a Taoist named Erzhu Tongwei, who offended the prefect of Hezhou (now Hechuan, Chongqing) for selling alchemy and asking for it too much. The governor will erzhu tong micro prisoner into a bamboo cage, thrown into the river. Erzhu went down the river to stone ridge ,where white cranes gather in Fuzhou (now Fuling), was rescued by fishermen. Two people become good friends, ErZhu Tongwei will be here to practice, a day after drinking drunk, ErZhu Tongwei by white crane immortal and go. This comes the connotation of "landscape marriage, gods and blessed land". These legends are the result of people's use, creation and sanctification of the special space of the White Crane Ridge in the course of history, and become the foundation of the subsequent people's spiritual beliefs.





Figure 27 Erzhu Tong Wei rises by white crane  
 Source: Filtaken in the White Crane Ridge Underwater Museum, Cao Wenyi,  
 September 7, 2023

The White Crane Ridge, as an auspicious bird in traditional Chinese culture, symbolizes longevity, peace and purity. In ancient Chinese, the character "Ridge" has the meaning of bridge and connection, implying the intersection of heaven and earth and the communication between man and god. Therefore, the White Crane Ridge is endowed with a special cultural meaning, and this space naturally becomes a special place for local people to pray. The two stone fish on the rock of the White Crane Ridge are not only a material creation, but also a spiritual symbol. It has it that the local people worshipped "fish" as a totem in history (Ran Yi, 2013). The stone fish on the White Crane Ridge indicates the arrival of a rich and rainy year, and also symbolizes the good harvest of crops in the coming year. Therefore, people created the related inscriptions and folklore of "Guanyin statue" and "Stone fish coming in the water" on the White Crane Ridge.

As a belief space, the White Crane Ridge is the spiritual sustenance and cultural symbol of the local people. It is all the local beliefs, immortal beliefs and spiritual sustenance produced by people on this natural stone ridge, "stone fish" in the year "landscape marriage immortal land" and other relics, so that everyone who comes here has psychological identity. "Stone fish water omen harvest" comes from the psychology of ancient Fuling people's praying for harvest and the exploration of agricultural production practice, which is the valuable experience and wisdom summary of ancient Fuling people's observation of hydrological phenomenon for a long time. Although the specific age of its birth is not textual research, but this belief has been deeply rooted in people's hearts. Therefore, in ancient society, people firmly believe that the functions of the White Crane Ridge stone fish, prediction, omen and warning are very important.

(4) Political Management and Decision-Making Extended by the "Stone Fish Out"

In the traditional agricultural society, water conservancy plays a decisive role in agricultural production. Especially in the Yangtze River basin in China, whether drought or flood, will have a direct impact on agricultural production, which will even further spread to the local political, economic and other aspects.

In Fuling area, where the White Crane Ridge is located, agricultural production activities have long relied on the accurate grasp of hydrological conditions. The ancient local rulers also attached great importance to the application of hydrological observation in agricultural production. By setting up a special hydrological observation agency, they sent special personnel to the White Crane Ridge to observe hydrological changes and record hydrological information to provide decision-making guidance for local agricultural production. In many literature and poems, they describe the actions of people in the space at that time. They understood the water level of the Yangtze River by observing the outflow of the stone fish on the White Crane Ridge. Make reasonable arrangements to avoid the agricultural production crisis caused by natural disasters such as flood and drought.

In ancient times, the government attached great importance to the results of the fish. The detailed data should also be reported to the government. "Taiping World" contains "Kaibao four years in Qiannan said, there are stone fish in the heart of the river. There is an ancient record, cloud: the first year of Guangde in February, the big river water retreat, stone fish see, the people of the rich omen." This message reflects the White Crane Ridge stone fish as a sign of dry water level, the hint of agricultural production. The government also actively took advantage of this exciting news to encourage farming internally and guide people to actively produce. Take it as a cultural name card to attract more businessmen and historical celebrities to come here to develop economic and cultural exchanges.

From a dynamic mural in the White Crane Ridge Underwater Museum, we can see that local officials led their entourage to board the stone ridge in the river to observe hydrology, leave inscriptions and divination. Literati, ordinary people, also here to play in the water. The White Crane Ridge hydrological data, local traditions, carving art, folk activities, etc., are constantly enriched, developed and created by people in these countless local activities in the dry season, forming a unique material culture and non-material culture. The creation of these cultures is the spatial practice of a specific historical period, reflecting the social system, folk culture and power distribution in a specific historical period.



Figure 28 Local officials led their entourage to board the stone ridge in the river  
Source: Provided by the White Crane Ridge Underwater Museum

### 3.3 The Legacy of the Past Space

#### 3.3.1 The Inscription Art of the White Crane Ridge

##### (1) Spatial Distribution of the White Crane Ridge Inscription

Located in Fuling, Chongqing, the White Crane Ridge is the only national key cultural relic protection unit in the three Gorges landscape of the Yangtze River. Due to the erosion of the river, the White Crane Ridge is divided into upper, middle and lower sections. The White Crane Ridge is mainly concentrated on the middle stone ridge about 220 meters long, especially in the east area of the middle section. The rock surface is an extremely flat light color thin sandstone, inclined to the middle of the river at a slope of  $14.5^\circ$ . The inscriptions are carved on the sloping stone surface facing the main channel of the Yangtze River. With the stone fish in the Tang Dynasty and the Qing Dynasty, they extend to the east and west sides respectively. The closer they are to the two groups of stone fish landmarks, the more dense the inscriptions will become.<sup>70</sup> Because the previous questions have occupied the central position, the later generations often take the way of sewing, using the narrow position between the previous questions or the blank place in the previous inscription area to write their own name or inscription. After the Qing Dynasty, because there was no space near the stone fish water logo, the new inscription was transferred to the stone surface in the west part of the middle section.



Figure 29 Distribution of the middle section of the White Crane Ridge inscription  
Source: Xie Xiangrong, Wu Jianjun, Zhang Rongfa, 2014. PP122

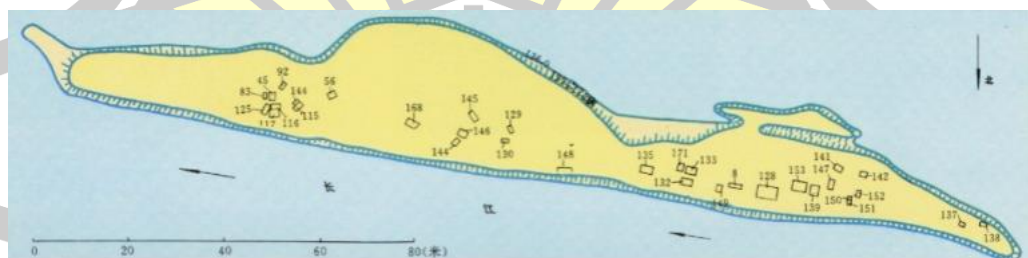


Figure 30 Plan of the White Crane Ridge Cultural Relics Protection Area  
Source: Yangtze River Water Resources Commission, Ministry of Water Resources, PRC.1996.PP64

<sup>70</sup> Fuzhou, an ancient Chinese place name, including the whole territory of modern Fuling District.

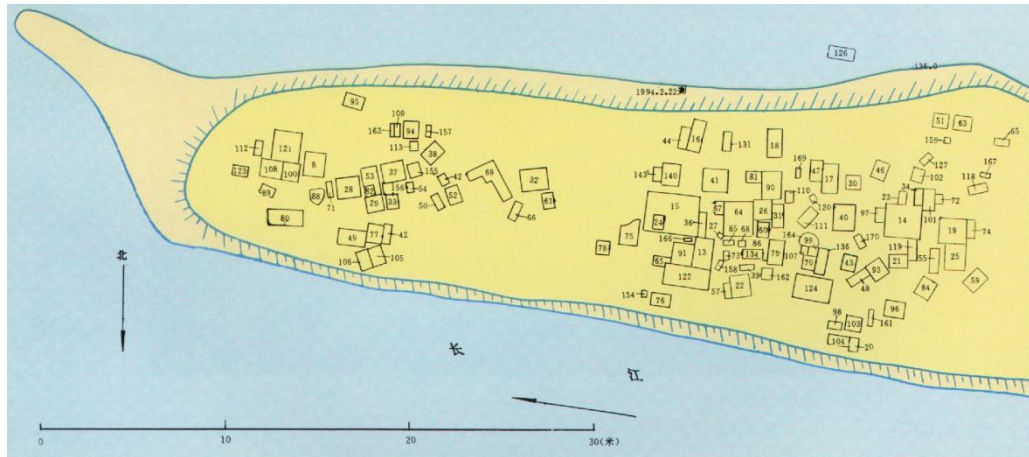


Figure 31 Plan of the dense area of the White Crane Ridge

Source: Yangtze River Water Resources Commission, Ministry of Water Resources, PRC.1996.PP64

These questions are usually carved from the upper direction of the stone surface, but in order to arrange the questions as far as possible near the water, there are some questions carved upside down, even along the river. The size and amplitude of each question vary greatly. The length and width of the large surface are about two meters, and the small surface is not more than one foot. Most of the main inscriptions are local officials in Fuling, officials and literati who passed through or lived in Fuling. More than 300 people, many of whom are famous figures in history. Such as Yan Zhenqing, Liu Gongquan, Cheng Yi, Huang Tingjian, Zhu Xi, Wang Shizhen and so on. The description mainly includes three aspects: the record and description of the dry water of the stone fish; the comment on the relationship between the agricultural harvest of this year and the names of the stone fish; and the description of some other contents (Chongqing Cultural Heritage Bureau, Chongqing Immigration Bureau, 2014: PP10).

#### (2) The Type of the Art of the White Crane Ridge Inscription

The art form of the inscription carving is divided into two categories. The first category is the image carving, and the second category is the text carving. Image carving is divided into stone fish water logo carving, stone fish image carving and other image carving. Text inscriptions are divided into hydrological inscription, text inscription and title. The following is a separate classification and description of these topic engraving art.

##### A) Stone Fish Water Logo Carving

There are 18 existing stone fish carvings on the White Crane Ridge. Most of them were carved by later generations to follow the appearance of the stone fish logo in the Tang Dynasty, but there were only two groups of stone fish patterns that really measure the water level of dry water. They were one group of stone fish logo in the Tang Dynasty, and two groups of the 24th year of Kangxi of the Qing Dynasty.

The stone fish water logo of the Tang Dynasty is located in the middle of the concentration area, which was already there before the first year of Tang Guangde (763). The stone fish, originally 1 to 2, has been destroyed by the recarved stone fish in the Qing Dynasty, and now the front middle of a stone fish is faintly visible. The carving technique is a fine line, the fish head to the west, for the direction of the upper

water, the dorsal fin and scales of the fish can be identified. On the top of the fish head, the middle of the original two stone fish is engraved with the official script version of the word "stone fish". The stone fish is 58 cm in length and 20 cm in height.

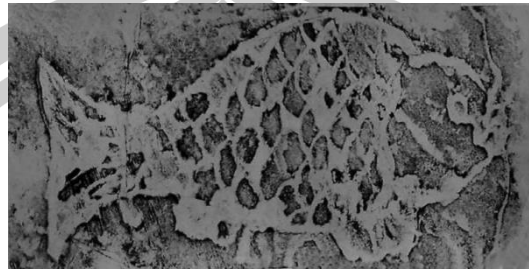


Figure 32 Tang Dynasty stone logo (rubbings)

Source: Xie Xiangrong, Wu Jianjun, Zhang Rongfa, 2014, PP127

The qing Dynasty stone fish logo is located above the stone fish logo of the Tang Dynasty, which belongs to the Yin line carving, which is slightly higher than the stone fish of the Tang Dynasty. The stone fish pattern is two, fish head facing west, tail facing east, toward the upstream direction. The former stone fish, the body length of 100 cm, the body height of 28 cm, the mouth containing lotus, thirty-six side scales (right fish). The other stone fish, the body length of 105 cm, the body height of 27 cm, the mouth containing plant grass, thirty-seven side scales (left fish). In the outer edge of the dorsal fin is concave, the outer edge of the concave, the starting point of the anal fin and the end of the dorsal fin, the mouth is at the end, the tail is a fork, and the fish scales are large. These characteristics all highlight the delicacy and uniqueness of these two stone carving fish in the carving process.



Figure 33 Qing Dynasty stone fish logo, Xiao Xingong re-carved double stone fish (rubbings)

Source: Xie Xiangrong, Wu Jianjun, Zhang Rongfa, 2014, PP128

### B) Stone fish image carving

The ancients will climb the White Crane Ridge to watch the stone fish out of the water as the year or next year harvest omen. As early as 3000 AD before the Zhou Dynasty, there have been records of fish as a auspicious omen. In the local tradition of Fuling, fish is seen as a symbol of grain harvest. Fish are aquatic animals that can be associated with legendary dragons. Fish lay more eggs and eggs shape like millet, more easily associated with grain harvest and more children. Therefore, the ancient people boarded the White Crane Ridge, not only to watch the water of stone fish, but also some will carve one or two stone fish patterns, indicating the expectation of harvest and many children, or the stone fish pattern as their own inscription decoration. There are 12 groups of 15 symbolic or decorative stone fish on the White Crane Ridge.

Zhang Badai stone fish (Yuan Dynasty to shun guiyou year, 1333), is a shallow relief stone fish, located in the east of the east area. The head of the east is the lower reaches of the Yangtze River, the belly is engraved with a wicker. The stone fish is 45 cm in length and 18 cm in body height. The main morphological features are slender and lateral flat, double dorsal fin, and moderate head; the mouth is at the front, the mouth is relatively large, with oblique fissure, the upper jaw extends below the back and abdomen of the fish body are blunt round. Its pelvic fin is located in the thoracic position, and the anal fin is relatively short.



Figure 34 Zhang Badai stone fish

Source:[http://www.360doc.com/content/21/0214/15/6657566\\_962004515.shtml](http://www.360doc.com/content/21/0214/15/6657566_962004515.shtml)

Accessed on: 2023.9.13

Li Kuan stone fish (the first year of Ming Zhengde, 1506), Yin line carving, located in the east of the east area. The two heads and show high similarity in size and morphology. Among them, one stone fish accurately measured the body length of 29.2 cm and the height of 12.6 cm, and the other stone fish was 29.1 cm and the height of 12.8 cm. Both stone fish have the characteristics of double dorsal fin, and the mouth cleft is wide and short; the caudal fin is a fork, and the upper lobe is compared with the lower lobe. The whole body is cylindrical, the whole body is covered with round scales, the eyes are large and the eyelids are developed.



Figure 35 Li Kuan stone fish

Source: The Yangtze River Water Resources Commission of the Ministry of Water Resources, PRC. (1996). Yangtze River Three Gorges Reservoir hydrology inscription cultural relics atlas. science press. PP67

Xu Sheng and other double stone fish (Kangxi of the Qing Dynasty, 1695), a line carved double fish, located in the middle of the middle east of the White Crane Ridge. The two stone fish are similar in size and shape, and neither has a carved dorsal fin. Pisces before and back, fish head to the west, simple carving. The dimensions of the two stone fish are 62 cm long and body height 14.6 cm; length 61.8 and body height 14.7 cm respectively. The main morphological characteristics of stone fish are the relatively small head with the terminal mouth and the blunt shape. The mouth is in the lower position, horseshoe shape, lip developed, with a longer snout. The eyes are moderate in size and are located on the upper central axis of the fish body length. Its body shape is slightly cylindrical, the back is slightly raised, the tail is fork. The dorsal fin is low and long, with a slightly concave outer margin. The scales are semicircular in shape and are relatively large.



Figure 36 Xu Sheng and other main carved double stone fish

Source: Provided by the White Crane Ridge Underwater Museum

Dong Weiqi stone fish (45th year of Kangxi of the Qing Dynasty, 1706), is a bas relief, more realistic, located in the west of the middle east of the White Crane Ridge. Fish head to the west, namely in the upstream direction. Stone fish body is 47 long and 14 cm high. The overall morphology is significant, showing a flat and high trunk, thick back and rounded abdomen. The head is relatively short, the mouth is at the front end of the head, and the rostral is slightly blunt. The mouth fissure showed a distinct arc and tilted significantly upward with the lower jaw. The eyes are medium-sized and above-positioned. No kissing whiskers, long dorsal fin and

relatively flat outer margin. The caudal fin presents a deep fork, and the ends of the upper and lower leaves are relatively sharp and larger scales.



Figure 37 Dong Weiqi, a stone fish

Source: Provided by the White Crane Ridge Underwater Museum

Zhang Shifan relief stone fish (Qing Jiaqing yihai year, 1815), is the only high relief stone fish in the White Crane Ridge stone carving group, and also the largest stone fish in the stone carving group. It was originally located in the east of the west section of the White Crane Ridge, and exists in the exhibition hall of Chongqing the White Crane Ridge Underwater Museum. The fish system is carved with a separate rock, with a fish body of 280 centimeters long and 92 centimeters wide. Fish head is facing southwest. The shape is mainly body extension, slightly cylindrical. The tail is flat and the abdomen is rounded and free. The head was slightly flat, and the rostral region was blunted. The mouth is curved at the front end of the head. The maxilla is more prominent relative to the mandible, and it has no tentacles. The eyes are larger and are located in the middle of the head. The scales are larger and have a semicircle. The dorsal fin is relatively low. The pectoral fins are relatively small and lie closely just below the gill cover bone. The anal fin extends backwards but does not reach the base of the caudal fin. The caudal fin presents a fork shape, and the ends of the upper and lower lobes are round and blunt.



Figure 38 Zhang Shifan high relief stone fish

Source: Provided by the White Crane Ridge Underwater Museum

Anonymous bas-relief stone fish (late Qing Dynasty), located in the middle of the west of the middle part of the White Crane Ridge. Fish head to the west, as a fish spit blister form, fine carving. The total length is 128.5 cm and the body height is 39.3 cm. The body is flat and long, with its back significantly raised at the origin of the dorsal fin. The mouth is relatively small and subinferior; the kiss is dull and round, similar to the horseshoe shape. The lip is thick with a distinct deep groove between the upper lip and the kiss; the lower lip turns outward to create a striking fleshy fold. Without a beard, the dorsal fin extends long, the front is like a sail, and the back is relatively low until beyond the base of the anal fin. The dorsal fin position remains basically corresponding to the relatively short anal fin. The caudal stem is partially elongated and the caudal fin has a forked structure. The pectoral fins are located close to the gill cover bone. Fish scales are larger.



Figure 39 Anonymous bas-relief stone fish (late Qing Dynasty)  
Source: Provided by the White Crane Ridge Underwater Museum

Anonymous Line Carving Fish (late Qing Dynasty), the inscription was originally located in the east stone surface of the middle part of the White Crane Ridge, because of the White Crane Ridge, has been moved to Fuling District Museum for preservation. The surface of the line carved stone fish has traces of darker color rubbing. The stone fish body is 55 cm in length and 20 cm in height. Only a simple shade line to outline the outline of the fish, the head is very small, the west is the upstream direction.



Figure 1 Anonymous Line Carving Fish (Late Qing Dynasty)  
Source: Provided by the White Crane Ridge Underwater Museum

The Republic of China line carved stone fish (the Republic of China period, the time is unknown). The stone fish body is 40 cm long and 15 cm tall. Fish body shape is a typical spindle shape, high body shape and short body. The head characteristic is short and wide, the rostral part is round and blunt, and the transverse fissure of the mouth is relatively broad. Significant curved gullies exist in the anterior orbital bone area, with relatively large eyes. The abdomen is round and full. The dorsal fin is located at the highest point of the dorsal margin of the fish body, with the starting point close to the rostral end. The dorsal fin has a unique and remarkable biological property, in which its spines tilt forward while swimming. The dorsal fin is roughly comparable in length to the pectoral fin. The caudal stem is partly slender, while the caudal fin is a deep fork. The fish is also known as its spindle shape and dorsal fin tilted forward, commonly known as the "inverted fish".



Figure 40 Stone-carved line fish (Republic of China)

Source: Provided by the White Crane Ridge Underwater Museum

### C) Other image sculpture

crane beam on the image sculpture in addition to the aquatic animals, there are other animals and characters, due to the crane beam inside the lake shallow water fish is more, former often crane foraging here and rest on the White Crane Ridge, " crane became fuling local famous landscape, so someone on the stone ridge carved crane image, to show this kind of landscape. In addition, fish in the traditional Chinese concept of many children since ancient times, so some people have carved images of Guanyin on the stone ridge for people who boarded the stone ridge to watch the stone fish out of the water. There are two pictures of Guanyin, one of which is already worn out.

The White Crane Singing picture (the 26th year, 1937, Liu Mian Jie). Located in the east of the west part of the middle section of the White Crane Ridge, the middle of the picture is a white crane drawn by the traditional Chinese small freehand brushwork techniques. The white crane stands on the reef and spreads its wings to fly. On the upper-left of the picture is the name of the white crane when written in official script, and on the bottom is the signature of the running script. It has now been moved to the Chongqing China Three Gorges Museum for preservation.

Guanyin Send His Son picture (qing Guangxu two years, 1876, Xu Lisheng copy), is for the Yin line carving. Located in the middle of the west of the east of a Guanyin statue, Guanyin embrace children, children holding lotus. On the left side of the statue, there are 1 line and 13 characters: " In the second year of Emperor Guangxu of the Qing Dynasty, Xu Lisheng in Hangzhou copied it."It has now been moved to the China Three Gorges Museum in Chongqing.



*Figure 41 The White Crane Singing Picture*

Source: Yangtze River Water Resources Commission, Ministry of Water Resources, PRC. 1996), PP63



*Figure 42 Send Zi Guanyin to Xu Lisheng*

Source: Yangtze River Water Resources Commission, Ministry of Water Resources, PRC. 1996, PP63

#### D) Hydrological inscriptions

There are more than 100 inscriptions that can form hydrological information in the White Crane Ridge script, and 85 hydrological inscriptions that accurately record the local dry water level of the Yangtze River. There are three types of planning methods.<sup>71</sup>

The first type is to record the lowest water level at the time or the place of the current year: such as the river water on a certain day in a certain year. This way is the most common way to record the flood water level along rivers and rivers, and a large number of ancient flood inscriptions along the Yangtze River use this way. With the stone fish as the benchmark water level mark, there are few records of this kind, only 4. The record information of the water level is relatively accurate and of high scientific value.

The second category is stone fish as the local average water level identification, record the river water under the fish scale information, such as a year on a day fish water how many feet (there are individual records said the river above how many feet, but underwater fish depth is difficult to observe, and fish submerged underwater is the local common phenomenon, so record dry water level inscription rarely). There are 16 such records, which have a large amount of information about the historical dry water level of the upper reaches of the Yangtze River. They are the most important records of the dry water level with high scientific value.

The third type is whether the stone fish is exposed as a standard to record the height of the water level at that time, such as a certain month of the stone fish water and so on. This kind of recording method, like the second type of recording method, is unique to the ancient water level stone carvings of the White Crane Ridge. It also has the largest number of inscriptions, with 65 pieces, accounting for 76% of all hydrological stone carvings. This kind of recording gives the information that the dry water level was lower than the local zero point water level of stone fish.

#### E) Inscriptions and inscriptions

The contents of other inscriptions are mainly the inscriptions, poems and inscriptions sent by the White Crane Ridge, which are all from the hands of eunuchs and local people. The inscriptions and characters are more than 700 people, and more than 300 people in the literature. They are a long compilation of thousand-year historical materials from the Song Dynasty to the modern era, which can confirm and supplement the records of traditional documents, especially play an important role in the study of the history of the Song Dynasty, immigration history, disaster history and folk history.

the White Crane Ridge collects the inscriptions of calligraphers of various schools since the Song Dynasty, and the inscriptions of various schools of more than thousands of years since the Tang and Song Dynasties. Calligraphy art is wonderful, exquisite carving skills. Many of them are the works of calligraphy masters, but also the works of folk calligraphers and calligraphers who do not leave their surnames. Among them, the first influential Huang Tingjian "Yuan Fu Geng Chen Fu weng lai" inscription. Although a few seven words, it is the best art of calligraphy. There are li script, seal script, kai script, line, grass, and a bas script (the predecessor of the

<sup>71</sup> Xie Xiangrong, Wu Jianjun, Zhang Rongfa.(2014). Underwater cultural heritage protection: the underwater protection project at the original site. The Southeast University Press. Page 128

covered tattoo), the general idea is that "the meaning of life lies in honor". In addition, there are Xie Bin, Yao Jiyuan, Shi Jiyun, Zhang Normal and other famous masters, which are the best works of ancient Chinese calligraphy. Therefore, the White Crane Ridge is also known as the "underwater forest of steles".

### (3) Public Knowledge in the Inscription

It is not only a precious hydrological and cultural heritage, but also a treasure house full of public knowledge. These inscriptions not only record the changes of hydrology in the past dynasties, but also reflect the style of the society at that time, the people's life and their wisdom of living in harmony with nature.

In ancient times, locals looked at whether the stone fish were out of the water to judge the water level of the Yangtze River, predict how much rainfall they would receive in the coming year, and guide people to plant suitable crops. This ancient hydrological observation method laid a foundation for the development of hydrological science in later generations, and also provided valuable historical data for modern hydrology and climatology. In addition, the ancient local people also speculated on the law of climate change, the geological structure and the hydrological cycle in the Yangtze River basin. For example, the hydrologic markers of stone fish and the Pisces re-carved by Xiao Xingyuan in the Qing Dynasty not only show the ancient people's understanding of the hydrometeorological relations, but also reflect their ability to observe and record natural phenomena.

The inscription is not only numerous, but also rich in content, involving ancient hydrological observation, agricultural production, shipping trade and other aspects. It reveals the climate change pattern in the Yangtze River basin, which is crucial for the study of historical flood frequency, drought cycle, and agricultural abundance. These questions have great practical significance for the development and utilization of water resources in the Yangtze River, especially for the reliable basis for the completion of the Gezhouba project and the construction of the three Gorges water conservancy project.

### 3.3.2 The White Crane Ridge poetry art

#### (1) Poems Inscribed in the Inscription

the White Crane Ridge's poetry is rich and diverse, including hydrology and bumper harvest, travel notes, and landscape phenomena. These poems are the description and unique feelings of the feelings of scholars of all dynasties. They engraved what they see and feel here on this stone ridge through poems and inscriptions of steles, which has become a unique form of artistic expression.

the White Crane Ridge poetry in hydrology and omen of harvest years, the Northern Song Dynasty Zhu Ang (AD 988): to know the harvest year, Yang trend gradually floating. Should only be in the algae, no fear swallow hook. To the water is wrong, for xiangsheng jump boat. Notice in the Ming sune, Han swimming difficult Chou. Wang Fan of the Northern Song Dynasty (AD 1112): Winter dry River Chengzhu, Uyghur fish record stone edge. In the spring, the Wolf will be □. Zhao Ruulin of the Southern Song Dynasty (1250 AD): Check the stone scales, not free from the vulgar and happy god. Xiao Xing whale back before the dream, Ruiqi Guiling know a few spring. Brush stone has no inscription, the view of fish are willing to abundant people. The cloud is not to urge poetry black, to the rain to know to the people. Ming Dynasty Liu Chongxiao (AD 1384): stone fish see place rich harvest, self official also predestined. Wish to always present present rui, four folk

music industry Yong'ran. Ming Dynasty Huang Shou (AD 1510): fish out of the use, abundance is difficult to abundant. Fish do not know the use, the year may not be fierce. Nature save people, abundance fierce no trace. God official and thrifty, the boy heart should be the same.wait a minute.

the White Crane Ridge travel notes poems, the Northern Song Dynasty governor Yang Gong (AD 1102): invited guests to the West Jin, watch fish out of the beginning. The Yangtze River has many boulders, here close to xianju. Records are all famous pen, for the detailed old play book. Good years know a test, bing bing interests will shu. Play grass spring wave static, double scales happy Xu. Not to send to the county, Yan xi kui Xiao Shu. Qing Dynasty Kangxi years Wang Shizhen inscription (1672 AD): Fuling water see Pisces, north of the township garden more than ten thousand miles. Thirty-six scales empty from good, ride the tide do not send a letter. Ming Dynasty Jiang Yingxiao inscription (AD 1589): on the flat boat river to find god engraved, why must visit the white lotus. Underwater shadow floating just a foot, mu in the trillion association has been thousands of years. I know Du Yuankai, who with Zhang Maoxian. Don't come again to Geng transfer, romantic prefect is the former sage. Qing Dynasty Gao Yingqian inscription (AD 1685) visit sheng and spring outing, double fish ancient stone left. Can view when obscure, not by the ups and downs. Guard medium is difficult to cast bait, Chengxiang class jump boat. Xu Yulin rain hope, thousands of years of mainstay. During the reign of Emperor Kangxi in the Qing Dynasty, Xu Sheng and Yang Ming inscribed the inscription "Harvest" (AD 1695): on the stone fish river, the best sentence is better than Qinglian. Stay shape far vertical inflammation generation, more zhi by the examination chun you year. See see what heart pass luck, talent intentionally praise this first. According to the people can read sorrow only tail, the stone so wish to assassinate Shi Xian. Fish on the river xi stone engraved, wave scales armour for lotus. Jianhu does not swim startled fish flute, white cranes will sing and years. In the algae song has been far, deep difficult to envy the first. Romantic thorn history hanging fish festival, into the scales to sing today Xi'an. Qing Dynasty anonymous inscription: someone come here to listen to the sound of spring, wash stone and stone not surprised. Landscape accidentally do not stay, why must be the first name.wait a minute.

The White Crane Ridge landscape phenomenon type of poetry, the Qing Dynasty Zhang Fan inscribed: stone whale has its own shape, jumped into the dragon house. Lin rain in time, always show hao Ridge trace. Qing Dynasty Jiang Heng inscription (AD 1882): stone ridge is still, the white crane does not return. The surging river makes me feel sad. Liu Jingyuan of the Republic of China (1937) in the White Crane Ridge, yao Ran flew to several centuries. Only today, the bright moon is still shining, and the ancient Yangtze River flows freely. Iron cabinet jun firewood road, Jianhu is a fisherman's boat. The world why do not ask, the wine in the wind a drunk rest. The inscription of the Republic of China (AD 1937): the river west from the east, wave tao tao all a few heroes. Two or three cranes, 36 scales fish trillion old. Emperor you preface poem Liu Transfer, Yuan Fu Chronicle Huang Fuweng. The boat carried Luzhou wine, drunk to listen to the fisherman sing the evening wind. Fuling County Cultural Center (AD 1963): the red sun and the blue sky, white cranes dancing east wind. Jianhu boating song flourishing, stone fish bit flower qing Nian feng.wait a minute.

## (2) Public Knowledge in Poetry

The public cultural knowledge contained in the poems is rich and profound, including the historical background, literary value, cultural connotation, communication and influence. These poems are not only the treasures of literature and art, but also an important carrier for the study of Chinese history and culture and the inheritance of excellent traditional Chinese culture. The poem covers themes such as visiting sheng, spring outing, watching stone fish and singing the harvest year, integrating literature, calligraphy, painting and stone carving art.

Most of these poems are from the hands of famous artists in the past dynasties. They were created by these literati who were attracted by their unique natural landscape and cultural deposits when they visited and visited the White Crane Ridge. In the form of poems and steles, they engraved their thoughts and emotions on this stone ridge, becoming a unique cultural landscape. These poems not only depict the natural scenery and cultural landscape of the White Crane Ridge, but also express the author's personal thoughts and emotions. It expresses the author's thinking and concern on the social issues such as the current situation, people's livelihood and politics at that time, such as "the vicissitudes of time in the stone ridge, the white crane flies leaving traces", "the river rises, the crane rises, the stone ridge is deep", "the stone ridge is still right, the white crane does not return", expressing the author's feelings and thinking on the passage of time and the change of the world.

In terms of the theme of spring outing, there are many poems are the praise of the beauty of the White Crane Ridge, such as "the White Crane Ridge head thick spring, the stone fish playing in the water reflecting the moon", "invite guests on the Xijin, watch the fish at the beginning of the water". In the view of stone fish, sing the rich year, such as "to know the good omen, Yang bun potential gradually floating", "fish is not use, abundance is difficult to abundance", "stone fish see the harvest, self official also fate", these also reflect the ancient people's use of stone fish water mark. In addition, there are a lot of ancient society to the people's livelihood and other aspects of attention and thinking, such as "Fuling water see Pisces, north village garden more than ten thousand miles", "brush stone has no inscription, fish are willing to rich people" and so on.

## (3) Cultural Memory in Poetry

The poems contain rich cultural memories, which are mainly manifested as visiting sheng, spring outing, watching stone fish and celebrating the harvest. Visiting sheng is to visit the scenic spots here. For example, Gao Yingqian in the Song Dynasty's "White Crane and Ridge View of Stone Fish", "visiting sheng and spring outing", directly expresses the poet's visit and appreciation of the resort. Spring outing is a traditional cultural custom, and watching stone fish is an important activity to visit the victory and spring outing. Stone fish is one of the iconic elements on the White Crane Ridge. By observing the changes of stone fish, people judge the water level of the Yangtze River and predict the arrival of the harvest. For example, "the white crane around the White Crane Ridge, stone fish water omen harvest", is a vivid description of the activity of watching stone fish. Singing the harvest year is to sing the harvest year, is another important theme in the White Crane Ridge poetry. This activity reflects the attention and prayer to agricultural production. By observing the natural phenomena (such as the stone fish coming out of the water), they predict the

arrival of the harvest year, and express their expectation and joy for the harvest in their poems. It is people's wishes and expectations for a better life.

"White Crane", "Stone Fish" and "River View" are the important elements in the poetry of the White Crane Ridge, because stone fish is an important symbol for ancient people to observe the change of water level. When the stone fish comes above the water, it means that the water level of the Yangtze River has reached the lowest point, indicating a coming wet season. It also means that the temperature in the upper reaches of the Yangtze River is low, and the rain will be abundant after the spring, thus indicating the arrival of a bumper harvest. "Stone fish water omen harvest" is a vivid portrayal of this phenomenon, reflecting the ancient people's deep observation and understanding of natural phenomena, is the wisdom of ancient people to judge harvest by observing natural phenomena. Another example is "landscape marriage, immortal land" and "the white crane" are used as cultural and spiritual symbols, reflecting the local ancient people's yearning and hope for a better life.

These memory symbols are widely used in poetry, covering four aspects: natural landscape and human history, hydrological records and cultural heritage, cultural symbols and artistic expression, philosophical thinking and the significance of The Times. A large number of metaphors and personification are used to enhance poetry and artistic expression and express the poet's reverence for history, respect for legends or treasure of cultural heritage. Poetry also contains philosophical thinking on the passage of time and cultural changes, expressing the poet's profound understanding of the relationship between man and nature, history and reality. In modern society, the cultural memory carried by the White Crane Ridge's poems has become the supporting data for the study of ancient culture, history and ethnic changes, and also an important material data for the evolution of the hydrological law of the Yangtze River.

### **3.3.3 The White Crane Ridge Folk Culture and Art**

#### **(1) The Type of the White Crane Ridge Folk Culture and Art**

Legend: According to legend, in the Northern Wei Dynasty, Erzhu Tongwei did not want to join in with his brother Erzhu Rong, who usurped the throne, and abandoned his family to learn Taoism, Taoism, called Erzhu reality. Erzhu lian Dan market, to the state, the price proud guard. Tai anger, erzhu prison thrown into the river. The bamboo cage was not sink, but it went down the river to the stone ridge where white cranes gathered in Fuzhou, and met a white stone fisherman lifting the net. ErZhu was fast asleep, the fisherman shouted for a long time, hit qing Fang Su, then the perfect friendship. The fisherman still spread the net lightly, and Erzhu continued to cultivate the true alchemy; then then in the evening. Bamboo flute fishing song, bronze qing scriptures, each get its interest, two very sincere. One day, ErZhu take Dan and white stone fisherman drink, drunk, by the white crane immortal and go. This is the name of the White Crane Ridge.

The Notes to the Book of Water written by Li Daoyuan in the Northern Wei Dynasty states: " White Crane Beach, Erzhu Zhen practiced here and went to the crane fairy."Folklore of a Taoist named zhu, alchemy sale, because the price is too high, offended the state (now Chongqing ocean) prefect, governor will be zhu prisoner into the bamboo cage, thrown into the river, down the river, to the state (now fuling) crane gathered stone ridge, rescued by the fisherman, two people become

friends, a day after drinking drunk, er zhu by crane fairy. This is the origin of the White Crane Ridge.

"People day" custom: "people day" also known as people's day, people celebration festival, population day, people seven days, etc. Originating from Chinese traditional culture, the seventh day of the first lunar month is the ancient tradition of human birthday, which is related to the ancient Chinese creation myth. According to legend, Nu Wa created a man on the seventh day in the process of creation. In the Song Dynasty, in the thirty volumes of the book, he mentioned that "the heaven and earth are first to open, and a man is a chicken for one day and a man for seven days." Therefore, this day is regarded as a human birthday.

The "people-day" custom is a colorful tradition. On this day, people will hold activities, such as wearing "people win", eating Qibao soup, climbing mountains and writing poems, through these activities to pray for peace, auspiciousness and longevity in the New Year. These activities are often associated with divination. Therefore, in traditional societies, the "man-day" custom is also regarded as an ancient custom related to divination.

Wearing "man wins" is one of the "human day" customs. "Man wins" is a kind of headdress, also called color Sheng, Hua Sheng. From the Jin Dynasty, people cut colors for flowers on the "human day", or used gold foil to stick screens, or wear them on the hair, in order to please the color head and pray for good luck. Qibao soup is a vegetable soup made of seven kinds of vegetables. Eating Qibao soup means the beginning of the New Year, representing the renewal of human life. At the same time, eating Qibao soup is also to pray for Nagi. The custom of outing originated from the Wei and Jin Dynasties. On this day, people like to go out of the house, climb high, look far, outing, or climb the pavilions, mountain temples, compose poems, express feelings, and celebrate the New Year. The meaning of eating noodles is to use noodles around the legs of the years, with the meaning of longevity. So on human Day, people also eat noodles. In addition, there are some taboos on the "human day" day. For example, avoid eating chicken, the government does not execute prisoners, to show respect for life.

In Fuling area, especially in the Sichuan River basin, there are still many inscriptions related to the flood and dry water since the Tang and Song Dynasties, among which, the "human day" has been mentioned many times in the Fuling the White Crane Ridge and Yunyang Longji stone. The custom of "human day" in Fuling is a unique lifestyle and spiritual pursuit of the local people. On the "Human Day", local officials, subordinates, and relatives and friends will visit the stone ridge (the White Crane Ridge) to enjoy the beautiful scenery of the river and write or write poems to express their concern about the relationship between life and nature. The custom of "human day" in Fuling is not only an important part of the local culture, but also a profound understanding and expression of the natural phenomena and social life of the ancient people. Through this custom, we can have a glimpse of the local customs of ancient society, religious beliefs and people's reverence and respect for nature and life. In modern society, although the lifestyle and values have changed, the custom of "human day" in Fuling is still inherited and preserved to a certain extent.



Figure 43 People watch the water on the White Crane Ridge and leave questions to pray for a good year

Source: Provided by the White Crane Ridge Underwater Museum

The custom of watching stone fish and singing the harvest year: There is a special stone carving on the White Crane Ridge of the Yangtze River, with a stone fish pattern engraved on it. This stone carving is given a special local significance, and is closely linked to the crop harvest and the coming year. There is a special proverb spread in the local people: "Stone fish water omen harvest." The proverb reflects people's belief in the relationship between stone fish carvings and crop harvest. The custom of watching stone fish and singing the harvest year mainly revolves around the folk proverb "stone fish comes out in the water", which contains the valuable experience of observing the water level of the Yangtze River and the prayer for agricultural harvest. The folklore of "stone fish in the water" originated when the ancestors carved stone fish on the White Crane Ridge and used it as a beacon to observe the changes in the water level of the Yangtze River. When the stone fish comes out, it means the end of a dry cycle, indicating the arrival of a good harvest year. This custom has been passed down for a long time, and no one knows its exact origin, but the elders have already known the truth, and passed it down from generation to generation. When the Yangtze River runs dry to the stone fish appears, local officials and people will spontaneously go to the White Crane Ridge to see if the stone fish are above the water, and record and carry out folk celebration and worship activities to pray for good weather and agricultural harvest.

In history, the custom of watching stone fish and celebrating the prosperous year was combined with an outing. It was a folk activity in ancient China. It originated in ancient times and prevailed in the Wei, Jin and Southern and Northern Dynasties. It was one of the twelve gods in the Eight Digrams of Yin and Yang. The purpose of the outing was to pray and remove disaster, to pray for health and peace, and to remove evil. After the Wei Dynasty of The Three Kingdoms, the outing was held on the third day of the third month of March, mostly held near the water, washing away the dirt and ominous things from the body through running water. The most famous outing in history was Wang Xizhi's outing at the Orchid Pavilion. On the third day of March in 353, more than 40 dignitaries and literary masters at the Orchid Pavilion, Kuaiji County, producing the famous Preface to the Orchid Pavilion. The custom of watching stone fish and singing the harvest in Fuling is a unique local culture. Although great change has taken place in modern society, this traditional

custom still maintains a certain influence among the local people. People will still go to the White Crane Ridge to pray for peace and good luck.

### (2) Universal Feelings in the White Crane Ridge Folk Culture

The common feelings in the folk culture cover many aspects, such as hope for harvest, patriotism and love for the people, incorruptibility and extravagance, cultural inheritance and innovation, and harmonious coexistence between man and nature. These feelings not only reflect the wisdom and creativity of the ancient people, but also provide us with precious spiritual wealth and cultural resources.

The name is related to a legendary figure named Erzhu Tongwei (Erzhu Zhen). It has it that he was rescued by a fisherman on a stone ridge in Fuzhou. The two became friends and took the white crane to become the immortal. The stone carvings on the White Crane Ridge are engraved with the pattern of double carp. Once the stone fish carvings appear above the water, it means that the dry cycle has passed and the harvest year is coming, which has become a public belief and interpretation of the harvest culture of the White Crane Ridge. The folk culture activities on the White Crane Ridge, such as visiting sheng, spring outing, watching stone fish, songyear, etc., are all around the beautiful vision of "stone fish out of the water and abundant year". Carrying the local people's expectations and good wishes for the harvest year. In the folk culture of the White Crane Ridge, we also understand the ideological ambition and diligent performance of the patriotism and officials. For example, in the fourth year of Xuanhe in the Northern Song Dynasty (1122 AD), Wu Ge, the governor of Fuzhou, and expressed his feelings of loving the people, for the people and for the people. It also reflects the principle of honesty and extravagance and the code of self-discipline. In terms of cultural inheritance and innovation, the folk culture of the White Crane Ridge involves legends, traditional festivals and customs, folk beliefs and witchcraft divination, etc., with rich in content and various forms, providing valuable historical information and cultural heritage for future generations.

### (3) Folk Customs in the Cultural Heritage

In the cultural heritage of Fuling the White Crane Ridge, folk customs is an indispensable part of it, which carries the living customs and cultural traditions passed down by the local people from generation to generation. The White Crane Ridge area has rich and colorful folk customs, including unique festival celebrations and unique folk art performances. For example, the "the White Crane Ridge Temple Fair" on the third day of the lunar calendar attracts many tourists and local residents to participate. During the temple fair, people will hold a grand sacrificial ceremony to pray for good weather and good harvest. At the same time, there are various folk art performances, such as dragon and lion dance, Sichuan opera face changing, so that tourists can appreciate the traditional culture, but also feel the strong folk atmosphere.

In the folk customs of the White Crane Ridge area, there is also a unique folk art, the White Crane Ridge stone carvings. These stone carvings take the white crane as the main theme, and show the elegant posture and the charm of the white crane through the exquisite carving skills. These stone carvings not only have high artistic value, but also reflect the local people's worship and love for the white crane. According to statistics, there are hundreds of stone carvings in the area, some of which are fine works, such as "Flying White Crane" and "White Crane playing in the Water", all of which are the crystallization of the wisdom and art of the local people.

In addition, the folk customs of the White Crane Ridge area are also reflected in the local food culture. Local people take rice as the staple food, good at cooking all kinds of food. Among them, the dishes with white cranes are particularly unique, such as "white crane stew soup", "white crane steamed dumplings", not only delicious, but also profound meaning. These delicacies not only satisfy people's appetite, but also inherit the local food culture.

As the famous folklorist Zhong Jingwen said, "Folk customs are the soul of a regional culture, which carries the historical memories and cultural traditions of the local people." Fuling the White Crane Ridge in the cultural heritage of the folk customs, it is the embodiment of its unique charm. By protecting and inheriting these folk customs, we can not only better understand the local history and culture, but also promote the development of local tourism and inject new vitality into the local economy.

### 3.4 Summary

In the past, the space of the White Crane Ridge was shaped by the natural environment and human activities. In the long river of history, the White Crane Ridge is not only a geographical entity formed by nature, but also a stage for human production activities. From the Stone fish water standard in the Sui and Tang Dynasties, to the spring fish watching and poetry inscriptions in the Song and Yuan Dynasties, to the modern underwater museums and cultural festivals, the space of the White Crane Ridge has undergone an evolution from practical functions to cultural symbols. This evolution not only reflects the change of social and economic structure, but also reflects the evolution of human space utilization mode. With the help of Lefers theoretical concept of "production of space", the research in this section helps us to understand the physical space, social space and spiritual space in the past, and how these spatial practices interact with social culture, economic activities and political forces to jointly shape the formation of the cultural heritage of the White Crane Ridge.

Lefers theory of space production holds that space is not only the product of material forms, but also the carrier of social relations and historical memory. Based on this theoretical perspective, the author studies the past space production and the legacy of the past space. In the past, people developed the crane space into a carrier full of historical memory and cultural significance through different spatial practice activities. For example, the special hydrological recording methods such as stone carving, text carving, graphic carving, and the artistic creation and other space practice activities such as literary creation, make the White Crane Ridge not only complete the space function to upgrade the art space, but also form a rich cultural heritage. It solidifies the historical memory and cultural inheritance on the stone beam. The past space production of the White Crane Ridge proves that space practice created history and culture. For example, the literati of the past wrote poems and paintings, making it a cultural space, the local residents believed that the stone fish were the arrival of a harvest year, and the crane was a blessed place. Therefore, from the perspective of historical space, the production of the past space of the White Crane Ridge can be regarded as a cultural production process.

In this chapter of the research, the author also discussed the multi-dimension of the past space of the White Crane Ridge. In the past, the White Crane Ridge was developed into a functional space, art space, belief space and political space, which reflected the social and economic characteristics, cultural atmosphere and peoples common psychological aspirations at that time. For example, the hydrological stone carvings reflect the economic characteristics and production mode of the agricultural social period, and the hydrological scale of the fish-shaped pattern reflects the totem worship of the local residents for the fish. The legends of the gods on the White Crane Ridge, the local beliefs and the common local aspiration for a good agricultural harvest reflect the social and cultural atmosphere, values and beliefs at that time. These factors constitute peoples special feelings for the space of the White Crane Ridge. Ancient rulers valued agricultural production and set up hydrological observation institutions on the White Crane Ridge. They took advantage of the firm belief in the White Crane Ridge to encourage farming and guide people to agricultural production; externally, they actively spread relevant culture and attract businessmen and cultural celebrities to visit the place or develop the economy. The implementation of these decisions promotes the enrichment and perfection of the content of the space. From the perspective of the researchers, the White Crane Ridge was used as a hydrological station, an art space, a place of faith, cultural communication and political expression, which was the innovation and application of the space by the ancient people. For example, in terms of art space, due to the need for records, people continue to carve stone records here. In terms of faith space, due to the fairy legend and the mysterious prediction of stone fish, it is developed into the holy land of the local people; the hydrological scale and the fairy legend on the stone beam become the spiritual sustenance for people to pray for harvest and good luck. In terms of political space, the ancient rulers set up hydrological observation service points on the White Crane Ridge, which would not only serve agricultural production, but also become a tool for the ancient rulers to implement political strategies. Through hydrological observations and predictions of stone fish in the water, rulers can not only effectively manage agricultural production, but also strengthen their political influence. This combination of politics and culture shows the wisdom and strategy of the ancient political operation.

Through the study of this part, it is found that the past space production of the White Crane Ridge is actually the formation process of cultural heritage. The production and reproduction of the past space created the rich cultural content of the White Crane Ridge, reflecting the social culture, economic activity characteristics and political governance means of Fuling area in the agricultural social period, where the White Crane Ridge is located. The research and analysis of this part of the content can help us to better understand how the cultural heritage was created in human production practice. Its formation process confirms Lifebvres theory of space production, "space is the product of social practice and the result of the interaction of various social forces".

## CHAPTER IV

### **The Production and Utilization of the Present Space of the White Crane Ridge**

In this chapter, the researchers will mainly discuss the current space production and heritage utilization of the White Crane Ridge, as well as the characteristics and methods of space production in the background of modernity, such as cross-border and cross-cultural characteristics, scientific and technological characteristics, sustainable development, and the characteristics of commercialization. In order to study the current space production of the White Crane Ridge, it is first necessary to understand the background of modernity in China, and then to understand the related theories of heritage utilization. Therefore, this chapter uses the space production theory of Henry Lefevre (Henri Lefebvre) to explore the relationship between the present space form of the White Crane Ridge and the heritage, and to explain the significance of the current space production and production of the White Crane Ridge. With the theoretical framework of Laura Jane Smiths heritage utilization, we examine how the cultural heritage is reinterpreted and utilized in the contemporary society, as well as the cultural power game and the construction of cultural identity involved in this process.

The modern space of the White Crane Ridge is the integration of physical space, spiritual space and social space. It mainly discusses the dynamic factors of the current space production of the White Crane Ridge, the significance of the current space production and the process and method of the heritage utilization of the present space of the White Crane Ridge. Therefore, the discourse of this chapter is divided into four parts: the first part is a relevant overview. From the two aspects of modernity and space production, heritage and heritage utilization, to understand the theory and modernity of space production of Lefebvre, as well as the theoretical framework of heritage utilization and its related significance. The second part is the study on the current space production factors of the White Crane Ridge. It discusses the role of society, economy, culture and politics in the process of space production and innovation from the current space situation, the dynamic factors of space production and the significance of the space production. The third part is the current space production and heritage utilization of the White Crane Ridge. It mainly discusses the relationship between the space production and heritage utilization from the five aspects of exhibition space, education space, political space, tourism space and memory space. The fourth part is divided into the conclusions of this chapter, discusses and analyzes the research results of this chapter, and puts forward personal research suggestions.

The research in this chapter helps to enrich and expand the application of modernity theory in the field of space production, and to understand the value and significance of heritage and heritage utilization in the innovation of modern space production. The research can provide theoretical support and guidance for the sustainable development of the White Crane Ridge space, and can also provide reference for the space production of other similar cultural heritages. The writing of this chapter becomes the early basis for the analysis of the space production case of

the fifth chapter of the White Crane Ridge Cultural Festival, and also summarizes the content of the summary, discussion and suggestions of chapter 6.

## 4.1 Related Overview

### 4.1.1 Modernity and Space Production

#### (1) Overview of the Theory of Modernity in Space Production

Since the Industrial Revolution, the human society has undergone unprecedented changes, and earth-shaking changes have taken place in various fields such as science and technology, economy and culture. In this process, the concept of modernity has gradually developed into an important theoretical tool to describe and explain the characteristics of modern society. Modernity is not only a concept of time, but also a process of change involving values, ways of thinking, behavior patterns and social relations. The Encyclopedia of Social and Cultural Anthropology, published by Allbannard and Jonathan Spencer (2002), describes modernity as the word "modern". Once used as a reference point to distinguish "primitive" characteristics, "modernity" refers to a pattern of progress and change from society. "Pre-modern" or "traditional" to a "modern" society.

The theory of modern space production discusses the process of how space is produced, reshaped and reused under the background of modern society. This theory was deeply influenced by Marxism, sociology, geography and cultural studies, especially the theory of space production, which had a profound influence on it. From the perspective of modernity, space production is no longer just the construction and expansion of physical space, but also integrates more social, economic, cultural, political and ecological considerations, and becomes an important force to promote social change. It emphasizes that the production process of space is a dynamic, continuous and full of contradictions, involving multiple levels such as capital, power, class, culture and social relations. It requires the space production not only to meet the material needs, but also to carry the diverse values of culture, society and ecology. This provides ideas for us to understand the spatial production of modernity.

The theory of modern space production also focuses on the influence of external factors such as globalization and informatization on space production. The theory of modern space production holds that the space production in the process of globalization has diversity and complexity. On the one hand, globalization promotes the optimal allocation and efficient utilization of resources, making space production more intensive and efficient. On the other hand, globalization also intensifies the imbalance and differentiation of spatial production, leading to the spatial differences and conflicts between different regions and groups. Informatization has changed the way peoples way of information acquisition and communication, making space production more intelligent, accurate and efficient. The theory also emphasizes that space production in the context of globalization is not only the production of material space, but also the reproduction of social space, cultural space and political space. These different dimensions of spatial interaction and mutual influence, together constitute the spatial production picture in the globalization and information age. The production of modernity space reflects the accumulation and expansion of capital, which is highly social and political. In the economic field, modernity is manifested in the rise and expansion of industrial capitalism. In the political field, modernity

promotes the formation of a nation-state and the establishment of democratic systems. In this process, the government, developers, residents and other interest subjects play an important role, and their interest demands and power struggle affect the process and results of space production. In his book, *Social Justice and Cities*, David Harvey profoundly points out that, "Space does not exist in isolation, but is the product of social processes, and it also deeply reflects and expresses complex social relations." This sentence profoundly reveals the close connection between space and society, and emphasizes that space is not only a physical existence, but also the embodiment of social structure, power relations and cultural values. This wonderful judgment reveals the essence of modern space production for us, and becomes an analytical tool for us to understand the space production of modernity.

Specifically, space production theory focuses on how space is created, transformed, and utilized, and how these processes reflect and shape social relations, economic structures, and cultural identity. In this process, spatial production theory emphasizes the dynamics and process of spatial production, as well as the mobility and sustainability of spatial production. Taking urban renewal as an example, this process is not only the reconstruction of physical space, but also the reconstruction of social relations and the adjustment of interest pattern. In the reconstruction projects of many old urban cities in China, the government, developers, residents, cultural protectors and other forces jointly participate in the renewal and upgrading of spatial forms by means of demolition, reconstruction, functional replacement and other means. This process not only improves the living conditions of residents, but also promotes the diversified development of urban economy.

#### (2) The Characteristics of Modern Space Production

Under the tide of globalization and information technology, capital, technology, information and personnel factors flow and allocate in a global scope, which has a profound influence on the mode and logic of space production, and makes space production show the characteristics of cross-border and cross-culture. From the global perspective, with the transnational capital flow, information technology innovation and the reconstruction of the global governance system, space production presents unprecedented complexity and dynamics, showing the new characteristics of modern space production under the background of globalization. From a domestic perspective, Chinas economy has experienced an important period of development since the reform and opening up. Chinas economy, technology, society and culture have all achieved modernization and are equal to civilized countries. In particular, some Chinese technologies lead the world. Chinas space production has shown unprecedented vitality and modernity.

**Characteristics of science and technology:** With the rapid development of science and technology, the way and means of space production have undergone profound changes. Taking the field of construction as an example, the wide application of BIM (building information model) technology makes the architectural design, construction and management process realize digital, intelligent and visualization, and greatly improves the efficiency and quality of space production. In addition, the rise of technologies such as virtual reality (VR) and augmented reality (AR) also provides new possibilities for the production of modern space. These technologies can create an immersive spatial experience, allowing people to feel the real world in the virtual world. With the continuous progress of science and

technology and the improvement of peoples cognition, more and more new technologies are applied to the production field of space production, promoting the continuous improvement of the scientific and technological level of space production.

**Sustainability characteristics:** The application of green technologies also promotes the sustainability of spatial production. For example, in the physical dimension, through the use of energy-saving materials, optimize energy utilization and other ways, to reduce the negative impact on the environment, and achieve the green and sustainable development of space. In the social dimension, the sustainability of space production requires us to pay attention to social equity and justice, and to ensure that different social groups can enjoy space resources equally. In the dimension of science and technology, the sustainability of space production requires us to make full use of modern scientific and technological means to improve the efficiency and quality of space production. Moreover, the sustainability of spatial production requires us to focus on ethical and ethical issues. In pursuing economic benefits, we should consider the rational allocation and use of resources, as well as the responsibility to the environment and society. As the famous environmental scientist, Rachel Carson, said, " We must share our earth with other creatures."

**Characteristics of commercialization:** In modern society, space is regarded as a commodity that can be developed, bought, sold and consumed. The commercialization of space often reflects the dominant position of market forces and the rule of consumer culture. With the rise of consumerism, the rise of a series of consumption Spaces in tourist attractions, shopping centers, theme parks, cultural blocks, etc., not only meets peoples material needs, but also builds new social relations and identity. The production of modern space has reshaped the identity and function of the space, making the space no longer just a physical existence, but endowed with deeper cultural significance and economic value. Space has become a resource that can be designed, transformed, and utilized.

### (3) The Change of Modern Space Production

In the context of modernity, space production is no longer just a change in material form, but also a profound reshaping of social relations, economic structure and cultural values. The process of industrialization, urbanization and globalization brought about by modernity has greatly promoted the transformation of space production. This change is not only reflected in the expansion and reconstruction of the physical space, but also reflected in the enrichment and deepening of the social attribute, economic function and cultural connotation of the space.

In the aspect of physical space, modernity promotes the social production of space. As capitalism grew, space became a commodity that could be produced, exchanged, and consumed. The planning, construction and management of urban space is no longer just a unilateral behavior of the government or developers, but involves the participation and game of multiple social subjects. This trend of socialized production makes spatial production more complex and diversified, and also promotes the reconstruction and change of social relations.

In the economic aspect, modernity promotes the economic development of space. With the acceleration of globalization, capital flows and allocates on a global scale, and space has become an important battlefield of economic competition. The development and utilization of urban space is not only related to the economic development and competitiveness of cities, but also related to the pattern and trend of

the global economy. Therefore, space production pays more and more attention to the improvement of economic benefits and market competitiveness, which also promotes the continuous optimization and innovation of space.

In terms of cultural connotation, modernity also promotes the cultural reproduction of space. In the modern society, culture has become an important soft power and competitiveness. As an important carrier and expression form of culture, the cultural connotation and characteristics of space have also become an important factor in regional competition. Therefore, space production pays more and more attention to the excavation and inheritance of cultural value, and promotes the prosperity and diversity of regional culture through cultural innovation and the development of cultural industry.

At present, technological innovation has become an important force to promote the reform of space production. Taking digital technology as an example, its wide application not only reshapes the form of space production, but also greatly improves the efficiency and flexibility of space utilization. According to the International Data Corporation (IDC), by 2025, the scale of the global digital economy will reach about \$32 trillion, accounting for more than 40% of the global economy. Behind this data is a vivid portrayal of the deep integration of digital technology into all aspects of space production. As the renowned futurist Kevin Kelly said, "Technology is changing our world at an unprecedented rate."

#### **4.1.2 Heritage and Heritage Utilization**

##### (1) Overview of Heritage Utilization and Heritage Utilization

The term "inheritance (heritage)" was born in Europe in the 1970s (Richard Prentice, 1993), which has a similar meaning to "inheritance (inheritance)" and is defined as "the inheritance we received from our ancestors". It can be either a relic or a tradition. The concept of cultural heritage was formally introduced in the 1972 UNESCO Convention on the Protection of the Worlds Natural and Cultural Heritage. Including cultural relics, buildings and sites, and then continuously develop, and introduce cultural landscape, oral and intangible heritage. Heritage is history and activities from the past and is seen as part of the tradition.<sup>72</sup>

In his book *Heritage Utilization*, Laura Jane Smith (2006) pointed out that heritage is dynamic and dynamic, rather than limited to something solidified in the material form. It is a dynamic process of continuous construction and empowerment of meaning by different social groups through cultural practice. It includes a range of actions that occur in a particular place or space, covering a wide range of cultural, artistic and historical values. Smith's theoretical view challenged the traditional western concept of emphasizing material form, aesthetic charm and tangible heritage, and instead constructed a heritage concept with the theoretical framework of memory, performance, identity, intangible, imbalance and place. This framework not only expands the connotation of heritage, but also profoundly affects our understanding of the value of heritage. In the book, Smith presents the traditional and conservative ways of heritage utilization through several utilization cases, and critically explores the logic and limitations behind these methods.

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<sup>72</sup> Bie Jinhua, Paul Liang. (2008). Research review on the protection and utilization of intangible cultural heritage in China. *Travel Forum* (06), 446-450.

Smith also deeply analyzes the relationship between material culture and identity, revealing the key role of heritage in shaping and strengthening identity. She pointed out that heritage is not only the material inheritance, but also the sustenance of cultural memory, identity identity and social emotion. She stressed that heritage utilization should be a dynamic process that requires constant consultation, reflection and restructuring to meet the needs of different social groups and cultural backgrounds. Therefore, the utilization of heritage should pay more attention to the cultural significance and social value behind it, rather than being limited to the protection and management of material forms.

The core of Smiths legacy utilization lies in balancing the relationship between conservation and development. It emphasizes the transformation of heritage into an innovative cultural resource for the public to appreciate, learn and experience while maintaining the authenticity, history and integrity of the heritage. This transformation will not only help to raise public awareness of the value of heritage, but also promote the sustainable development of the local economy and provide continuous financial support for heritage protection. In the theoretical framework, the theory of heritage use integrates memory, performance, identity, intangible, imbalance and place. It believes that heritage is not only a static material existence, but also a dynamic cultural and social phenomenon, carrying rich historical memory and identity. Therefore, when using the heritage, it is necessary to fully consider the cultural significance and social value behind it, and avoid simple commercial development.

In concrete practice, heritage utilization theory encourages the adoption of diverse approaches and strategies. For example, through cultural tourism, cultural and creative industries, and education popularization, heritage resources will be transformed into attractive products and services. At the same time, modern technological means such as digital and virtual reality can also be used to improve the display effect and dissemination range of heritage. In addition, the cooperation of the government, enterprises and social organizations is also the key to realizing the effective use of the heritage.

#### (2) Smiths Theoretical Framework of Heritage Utilization

According to the standpoint of critical heritage research, a heritage is alive only when it remains in its own cultural context (Laura Jane Smith, 2006). According to the definition of Pierre Nora<sup>73</sup>, the museum should be history. Tourists own experience is memory. History always wants to suppress memory, and memory will dissolve or filter history to some extent, which is a process of struggle and compromise. That is, those who controls the heritage discourse also controls an important resource of political power. Control of heritage has three functions to define community identity, to create or recreate a new political identity, to maintain and negotiate the legitimacy of many cultural and political rights, and to demonstrate control of political resources (Laura Jane Smith, 2006). Thus, heritage utilization is a cultural reproduction accomplished in a controlled context.

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<sup>73</sup> Memory and history, far from being synonymous, appear now to be in fundamental opposition. Memory is life, borne by living societies founded in its name .....History, one the other hand, is the reconstruction, always problematic and incomplete, of what is no longer ..... History is perpetually suspicious of memory, and its true mission is to suppress and destroy it.(1989, PP9)

As a leading figure in the critical research of heritage, Laura Smith's theoretical contribution is not only to reconstruct the significance of heritage, but also to prove that ordinary people can also participate in the construction of heritage. It is also a profound insight into the diversified utilization and inheritance of heritage. She puts forward two basic points for the utilization of heritage. First, heritage is a process; second, it should be analyzed from the audience rather than authority. Therefore, she puts forward the theoretical framework of "authoritative discourse" and "folk discourse", which provides analytical tools for understanding the complexity and diversity of heritage, and also provides new ideas and methods for heritage protection and management. In addition, Professor Smith also emphasized the consultation and consensus mechanism in the utilization of heritage. She believes that the use of heritage should not only be led by experts or the government, but should widely attract the voices of stakeholders such as communities and non-governmental organizations. This diversified participation model helps to form a more comprehensive and inclusive heritage utilization program.

In Smith's view, "authoritative discourse" is a dominant discourse system in the field of heritage protection. It is mainly controlled by the state, experts and other authoritative institutions or individuals, based on scientific, objective and rational subject knowledge, emphasizing the preservation and restoration of the carrier of heritage material. In this discourse system, the state and the experts are the most prominent representatives, who promote their heritage protection concepts and policies through institutionalized means, such as the national cultural institutions and the ceremonial society. The "folk discourse" represents the understanding and expression of the heritage by a broader and more diverse social group. It is not strictly controlled by the authoritative discourse, and more reflects the people's emotional identity, cultural memory and daily practice of the heritage. Folk discourse emphasizes the close connection between heritage and people's life, and believes that heritage is the cultural wealth created and inherited by the people together. In this discourse system, various social groups can use heritage to promote social progress, express cultural identity and construct community identity.

Smith's theoretical framework reveals the interactive relationship between authoritative discourse and folk discourse in heritage protection and utilization. On the one hand, authoritative discourse standardizes and guides the protection and utilization of heritage through its powerful intellectual power claim and institutionalized means; on the other hand, folk discourse challenges and complements authoritative discourse with its unique cultural memory and daily practice. These two discourse systems interweave and influence each other in the protection and utilization of heritage, and jointly constitute the complex discourse ecology in the field of heritage. Therefore, the theoretical framework of "authoritative discourse" and "folk discourse" constructed by Smith not only reveals the operation mechanism of different discourse systems in the protection and utilization of heritage, but also provides inspiration for us to think about how to balance the relationship between different discourse and promote the sustainable protection and utilization of heritage, and becomes a favorable analytical tool for us to understand the protection and utilization of heritage.

### (3) The Theoretical Significance of Smiths Heritage Utilization

Smiths legacy utilization research has profound value and significance in both academic and practical fields. First of all, she challenged the excessive reliance on the material carrier in the traditional concept of heritage, proposing that heritage is not only a material thing, but also a dynamic social and cultural process. This view breaks through the materialized limitations of heritage research and regards heritage as a phenomenon constantly shaped and reconstructed by cultural and social processes. Second, Smith emphasized the diversity and diversity of the heritage. She believes that different social groups have different understanding and utilization of heritage; the protection and utilization of heritage should form a consensus, respect diversity and diversity, and avoid simplification and authority. In addition, Smiths heritage utilization theory also focuses on the modernity and sustainability of the heritage. She believes that heritage is not only a legacy of the past, but also closely linked to contemporary society and culture. Therefore, the protection and utilization of the heritage should pay attention to its contemporary value, but also consider its sustainability, to ensure that the heritage can continue to be enjoyed by future generations.

At the practical level, Smiths heritage utilization theory provides new ideas and methods for heritage protection and management. She advocates the diversification and sustainable development of heritage through interdisciplinary research and practice, incorporating heritage conservation and management into a broader social, cultural and economic framework. At the same time, she also emphasized the relationship between heritage and the public, and advocated raising the publics awareness and participation in heritage through education and publicity, so as to promote the inheritance and development of heritage. In concrete practice, Smiths legacy utilization theory encourages the adoption of diverse approaches and strategies. For example, through cultural tourism, cultural and creative industries, and education popularization, heritage resources will be transformed into attractive products and services. Through the use of modern scientific and technological means, meta-universe, digital, virtual reality, etc., to improve the display effect and dissemination scope of the heritage. In addition, the cooperation between the government, enterprises and social organizations is also the way to realize the effective use of the heritage.

### (4) The necessity of the Utilization of the White Crane Ridge Heritage

In todays economic globalization and cultural diversification, how to effectively protect and rationally utilize cultural heritage has become the focus of general attention of the international community. According to UNESCO statistics, the number of cultural heritage damaged each year due to the lack of effective management and maintenance is staggering. This is not only a huge loss to human history, but also highlights the urgency of heritage utilization. As a precious heritage integrating natural wonders and human history, the White Crane Ridge not only carries the wisdom of ancient hydrological observation, but also reflects the life interest and values of the local people. It is the precious wisdom of the Chinese nation to adapt to nature and utilize nature. Its scientific value, historical value, archaeological value and artistic value urgently need to inherit and spread its culture through scientific and reasonable utilization methods.

From an economic point of view, the rational use of heritage can drive the development of local tourism, create job opportunities, and promote economic growth. Take the Roman Colosseum in Italy as an example. As a world-famous cultural heritage, it attracts more than millions of tourists every year, bringing considerable economic benefits to the local area. The White Crane Ridge cultural heritage also has such potential. Through the development of related tourism projects and cultural products, it can not only enhance the visibility of the heritage, but also bring real economic benefits to the local society. In addition, the completion of the White Crane Ridge Underwater Museum also provides a new experience for visitors to close up. This will not only help improve the image of local cultural tourism, but also drive the development of related industries.

From the perspective of cultural exchange and communication, the utilization of the cultural heritage can promote the exchange and mutual learning between Chinese and foreign cultures, and also promote the understanding and respect between different cultures. As a bright pearl in Chinas hydrological heritage, the inscription on the White Crane Ridge not only carries profound cultural deposits, but also shows the keen observation and wisdom of the ancient Chinese people on natural phenomena. Its scientific value, artistic value, historical information and social significance are the bridge connecting the past and the future. The local government has held exhibitions, seminars and other activities to let more people know about the ancient Chinese hydrological observation technology, calliFigurey art and folk culture and art. The exchange and mutual learning of the cultural heritage has also become an important bridge between China and the world.

From the perspective of international influence, as a unique cultural heritage in China, it is of great significance to enhance the countrys cultural soft power and enhance the national confidence. They are not only valuable materials for the study of ancient hydrology, meteorology, geology and other natural sciences, but also important Windows to show the long history and splendid culture of Chinese civilization. At present, the White Crane Ridge is jointly applying for the World Cultural Heritage with Egypt, which will further enhance the international visibility and influence of the White Crane Ridge Heritage. At the same time, the White Crane Ridge Underwater Museum has also cooperated with universities and science and technology enterprises to build the body and the preservation of environmental monitoring system, so as to realize the preventive protection of cultural relics, and provide Chinese solutions, Chinese technology and Chinese experience for the protection of similar cultural heritage.

## **4.2 The Current Space Production Factor of the White Crane Ridge**

### **4.2.1 The Current Space Overview of the White Crane Ridge**

#### **(1) An Underwater Museum of Modernity**

Lifebvres theory of spatial production divides space into two levels: concrete space and abstract space. Physical space belongs to the specific space, which is the actual physical space that people can directly perceive and contact with. In the context of modernity, the physical space has been developed into a modern underwater museum, which covers an area of 11,300 square meters, with a construction area of 8,433 square meters. It includes two parts: the ground exhibition hall and the underwater visit area. The ground exhibition hall is divided into three floors, with

several functional areas, such as the consultation reception area, exhibition hall, popular science interaction area, etc. The underwater visit area includes the slope corridor, horizontal corridor, visit corridor, the original site of underwater inscription and so on parts. Its existence is influenced by the economy, politics, culture and technology. Its development is a dynamic, continuous and game-laden process, involving many political, economic, cultural and international influence levels. Its physical space has the characteristics of science and technology, sustainable development and commercialization.

The physical space of the White Crane Ridge Underwater Museum was completed in the background of modernity, and it was built on the original site of the stone carvings. Through the comprehensive construction of three parts, namely, underwater protection body, transportation and visiting corridor, and ground exhibition hall, the museum realizes the protection and display of the original environment of the original site 40 meters under the Yangtze River. After ten years of demonstration and selection, this scheme was finally constructed with the idea of "compressed container" proposed by Academician Ge Xiun. In the context of modernity, the physical space of the White Crane Ridge is not only reflected in the architecture, but also lies in the diversity and perfection of its functions. In this physical space, all the history, folklore, inscriptions, poetry and cultural art produced in the past are displayed to show the difference between the past and the present of a place. The most exciting thing is that the audience can take a close view of the White Crane Ridge at the bottom of the Yangtze River, thus getting a new experience through the underwater time and space.



Figure 44 Panorama of the White Crane Ridge Underwater Museum  
Source: Chongqing Fuling District Culture and Tourism Commission



Figure 45 Underwater visit area to visit the corridor  
Source: Cao Wenyi, March 14,2023



Figure 46 Visit the White Crane Ridge outside the corridor  
Source: the White Crane Ridge Underwater Museum

From the dynamics of space production, the physical space composition of the White Crane Ridge Underwater Museum was completed during the construction of the Three Gorges Project in China. During the construction period of the Three Gorges Project, the state organized many experts and scholars to carry out a lot of research and discussion. The design idea was to build a huge, hard protective shell to cover the stone beam in the middle section of the White Crane Ridge. Fill the protective shell with water, and connect with the Yangtze River water through the pipeline, so that the internal and external water pressure is basically consistent. There is a pressure-resistant passage along the White Crane Ridge inscription. Visitors can walk freely in the passage and watch the original appearance of the White Crane Ridge inscription through the observation window on the corridor. The solution of "unpressurized container" is not only to solve the problem of material cultural heritage protection and management, but also a new idea of space planning and space utilization. On February 13,2003, the construction of the White Crane Ridge Underwater Museum was officially started. In 2009, "the worlds first non-diving accessible underwater museum" was officially completed.

## (2) Eternal Memory and Spiritual Sustenance

In Lifebvres theory of spatial production, spiritual space is a combination of logical abstraction and formal abstraction, namely abstract space. The present spiritual space of the White Crane Ridge is centered on the cultural heritage and development process of the past. The museum displays and spreads the wisdom, culture and beliefs of people in the past, and constructs the memory space, cultural identity and symbolic significance of contemporary people. Every space of the layout and every inscription on display here carry the traces of the past years, and people can intuitively feel the spiritual connotation and meaning contained in it. The ground exhibition hall and underwater visit area of the museum reflect the development of modern architectural technology and technology, as well as the aesthetic concept, value orientation and ideology of contemporary people. There is a special exhibition area, called "No Memory", which is to help people recall the experience and process of how the White Crane Ridge was built from a natural stone beam into a museum of modernity.



Figure 47 No, no, no, no, no, no, memory exhibition area  
Source: In the White Crane Ridge Underwater Museum, July 14,2023

Spiritual space is an extension of physical space and also an important part of social space. The composition of the modern space of the White Crane Ridge also mainly relies on the precious historical and cultural heritage of the White Crane Ridge inscription. The construction of the underwater museum is both a material creation and a spiritual symbol. The museum contains history, and the visitors own experiences are memories. History is the witness of the past, is also the inheritor of culture, but also the carrier of peoples emotional sustenance. Memory will be negative or filter the history to some extent, and history and memory together complete peoples memory and value identification of the past history. Contemporary people visit the White Crane Ridge Underwater Museum, not only recall the past, but also marvel at the technology and creativity of modern China. The past history of the White Crane Ridge is protected and spread in a modern way, which is a high fit between modern

technology and culture, as well as the local cultural symbol and status symbol of Fuling.

The spiritual connotation and significance of the White Crane Ridge Underwater Museum are various. It is not only an underwater museum, but also a bridge connecting the past and the future, nature and humanity, science and technology and education. It shows the concept of harmonious coexistence between human and nature, embodies the consciousness of respecting and protecting the natural environment; inherits the wisdom and creativity of the Chinese nation, and highlights the outstanding achievements of the Chinese nation in the field of water conservancy science. It is a model of the integration of modern technology and culture, and also conveys the meaning of education and enlightenment. The White Crane Ridge Underwater Museum is not only a witness of history, but also a base of education. Through various forms of exhibitions and educational activities, it stimulates the public's interest in history and culture, and enhances national pride and cultural confidence.

### (3) A Window for Cultural Communication and Communication

Lefebvre stressed that society and history have a role in shaping space, and space is the carrier of social relations and the accumulation of history. The French sociologist Pierre Bourdieu once said: "Social space is a field composed of different social positions, and the relationship between these positions determines the distribution of social resources and the operation of power." Modern space is completed under the background of modern economy, reflecting the economic structure, social system and power distribution of modern China. It is the result of the interests and continuous consultation among various groups, and is highly social and political. At present, it has been developed into a window of cultural communication and the object of transnational cooperation and cultural exchange.

When the Three Gorges Project was launched in 1993, the Chinese government took advantage of the opportunity brought by the Three Gorges Project to creatively build a museum on the original site of the White Crane Ridge. The museum is the world's first heritage underwater museum, and it claims to be the only underwater museum in the world where you can visit the original underwater site without diving. This trend announces the comprehensive strength of modern China and the superiority of a social system. Here is not only the past history, culture, folk customs, science and technology, art, but also the comprehensive national strength of modern China.

In the spatial dimension of modernity, the sociality of the White Crane Ridge space is reflected in the protection and inheritance of cultural heritage, scientific research base, and tourism development. In terms of the protection and inheritance of cultural heritage, the protection and management of the ancient hydrological data of the White Crane Ridge are realized through museum exhibition, academic research and exchange and public education activities. As a base of scientific research, relevant researchers have obtained an understanding of the hydrological evolution law of the ancient Yangtze River basin through the underwater inscriptions of the White Crane Ridge, which also proved the ecological environment of the ancient society from the side, and provided a historical reference basis for modern water conservancy construction and environmental protection. As a hot spot of tourism development, the popularity of the White Crane Ridge Underwater Museum has attracted tourists from

home and abroad, driving the development of local tourism and related industries. It has become an important cultural resource to promote local economic development and shape local identity.

In the historical period, the White Crane Ridge culture has always been the focus of peoples attention. Whether in the ancient society or in the contemporary society, its importance and value has been praised and spread by people. In contemporary times, especially since the development of Chinas economy<sup>74</sup>, the implementation of the Three Gorges Project has raised the production of cultural heritage and space of White Crane to the national consciousness, which has been endowed with more important significance. At present, it has been developed into a window of cultural communication and the object of transnational cooperation and cultural exchange.

#### **4.2.2 Dynamic Factors for the Current Space Production of the White Crane Ridge**

There are many dynamic factors of modern space production. They interact and promote each other and jointly promote the upgrading and transformation of modern space of the White Crane Ridge. Mainly discussed from the following 4 aspects.

##### **(1) The Construction of the Three Gorges Project in China**

In order to develop the Yangtze River economy and avoid floods in the middle and lower reaches of the Yangtze River, the Chinese government has implemented the Three Gorges Project. The Three Gorges Project, namely the Yangtze River Three Gorges Project project, also known as the Three Gorges Hydropower Station project. The three Gorges Project has more than ten functions, such as flood storage, flood control, power generation, shipping, planting, tourism and so on, but there are also many problems. The first is about migration and the ecological environment.<sup>75</sup> The second is soil erosion, hydrological, meteorological changes and other issues. More importantly, it will also drown some cultural relics and natural landscapes, resulting in irreparable losses. After the construction of the Three Gorges Project was put on the agenda, western countries constantly voiced opposition, believing that Chinas Three Gorges project forced population migration, disrespect for the environment and cultural heritage protection, and regarded Chinas Three Gorges project as a "brutal project". Therefore, it started from the moment, has always faced great pressure and controversy.

In the face of the three Gorges project construction and the three Gorges dam impoundment caused by a large area of flooded and other issues. The Chinese government is actively considering the protection and management of the material cultural heritage along the Three Gorges route. As the only national key cultural relic protection unit in the Three Gorges Reservoir area, the multiple nature and importance of its own value make it the key object in the heritage protection work. It represents not only the three Gorges of the Yangtze River<sup>76</sup> the protection and

<sup>74</sup>Chinese modernity appeared in the economic reform in 1978. During the Deng Xiaoping government, China experienced a major national policy transformation and formulated policies to develop and reform the national economy. These policies make China as a whole a modern society different from the general society of the world.

<sup>75</sup>The Three Gorges Reservoir will flood two cities, 11 counties and 1,711 villages, including more than 150 state-level cultural relics and historic sites.

<sup>76</sup>The Yangtze River three Gorges is Qutang Gorge, Wuxia and Xiling Gorge Three isthmus Valleys general name. Located in Chongqing, EnshState, Yichang city area on the main stream of the Yangtze River. Starting from Baidi

management of the material cultural heritage along the route in the construction process of the Three Gorges Project is also the voice of the Chinese government to the world. China's Three Gorges Project is not a brutal project, but a beneficial measure for human development. In this process, China's material cultural heritage will be protected and managed in a more modern and comprehensive way. To this end, the Chinese government has taken active measures to organize many domestic experts and scholars to discuss the protection and management of the cultural heritage. Finally, the principle of "no compressive container" was adopted to build the only underwater site museum in the world.

The planning of modern space (the idea of protection scheme) is a new measure for the protection of Chinese heritage, which is also the Chinese government's response to the international conclusion that the construction of the Three Gorges Project is a barbaric project. The construction of the White Crane Ridge Underwater Museum ensures the proper preservation and display of these ancient hydrological stone carvings to the greatest extent. Visitors can observe these precious hydrological stone carvings closely through the underwater sightseeing corridor without destroying the original stone carvings, and experience the unique underwater visiting environment. The construction of the White Crane Ridge Underwater Museum is the result of China's reform and opening up, which reflects the great importance China attaches to the protection of cultural heritage and China's comprehensive strength declared to the outside world. This underwater museum is not only a bold attempt by China in the field of heritage protection, but also an important contribution by China to the field of world cultural heritage protection. It shows China's innovative spirit and scientific and technological strength in heritage protection.

As an important underwater cultural heritage in China, the protection and utilization of the White Crane Ridge heritage has been supported and promoted by the national level. In terms of policy support, the state has issued a series of cultural heritage protection policies, which provide legal and policy basis for the construction of the White Crane Ridge Underwater Museum. Economically, the state finance has given necessary financial support to the construction of the White Crane Ridge Underwater Museum to ensure the smooth progress of the project. In terms of science and technology, the state encourages and supports the use of modern scientific and technological means for the protection and display of heritage. In terms of cultural communication, the state supports the Underwater Museum in conducting exchanges and cooperation with international organizations, and encourages the Underwater Museum to conduct heritage education and promotion. The implementation of these policies and the investment of funds not only solve the capital bottleneck in the process of protection and development of the White Crane Ridge, but also provide more possibilities and development space for the modern space production of the White Crane Ridge.

## (2) Economic Development and Cultural Heritage Protection

GeoFigureical environment is the basic factor affecting the expansion of the White Crane Ridge space. The White Crane Ridge is located in the middle reaches of the Yangtze River, and its unique geoFigureical location determines the direction and

scale of its spatial expansion. With the rapid growth of local economy, as a national cultural relic protection unit, the uniqueness and value significance of the White Crane Ridge Underwater museum has become a highlight to promote the development of local economy. This has prompted local governments and enterprises to increase the protection, management and utilization of the heritage. By deeply excavating the cultural connotation of the White Crane Ridge and relying on the brand effect of the White Crane Ridge, we will create cultural tourism products with local characteristics, so as to attract more tourists to visit here. By virtue of its own cultural identity, the White Crane Ridge realizes the dual promotion of the economic value and social value of cultural heritage through the utilization of heritage and the construction of new space. According to statistics, in recent years, the White Crane Ridge Underwater Museum has received more than one million tourists annually, which directly drives the development of related industries and injects vitality into the regional economy.

As an important cultural site along the Yangtze River, the space production of the White Crane Ridge is closely connected with the economic development of the whole region, cultural heritage protection and management and other aspects. The local government actively responded to the call of the state, incorporated the protection and management of the cultural heritage into the regional coordinated development plan, and promoted the expansion and upgrading of the space production of the White Crane Ridge through scientific planning and reasonable layout. In terms of concrete implementation, the government has increased the investment in the infrastructure construction of the White Crane Ridge Underwater Museum and its surrounding areas, including transportation, water conservancy, environmental protection and other aspects, thus improving the accessibility and convenience of the White Crane Ridge Underwater Museum. In addition, the government also relies on the rich historical and cultural resources of the White Crane Ridge, attracting a large number of tourists by holding the White Crane Ridge Cultural Festival and developing characteristic tourism products. It has driven the local economic development, and also promoted the diversification and sustainable development of the space production.

Under the promotion of the tourism industry, the protection and management of the White Crane Ridge cultural heritage has gradually shifted from the previous single mode to cultural experience, popular science education and other multi-functional social service projects. This change not only reflects peoples expansion of the space production and the utilization of its heritage, but also the optimization of its space internal structure and the subdivision of its functions. Driven by the two wheels of local economic development and cultural heritage protection, the White Crane Ridge space has realized the leap from tradition to modern. In the traditional society, the function of the White Crane Ridge space is mainly limited to hydrological observation, blessing and sightseeing. In the modern society, the function of the White Crane Ridge space is more clear and diversified. At present, the White Crane Ridge Underwater Museum and service facilities have been built into a comprehensive service area integrating sightseeing, leisure, education, scientific research and other functions.

In the process of tourism development, the space production of the White Crane Ridge has realized the deep integration of tourism and heritage protection. Through the application of digital technology, it provides a new method and means for heritage protection, and also provides tourists with a more vivid and intuitive viewing experience. Driven by the tourism and the protection and dissemination of cultural heritage, the White Crane Ridge Cultural Festival, organized by the local government, has become a bridge for people to recall the past and imagine the future. As former UNESCO Director-General Irina Bokova said, "Cultural heritage is a bridge between the past and the future, and an important force in promoting cultural diversity and social inclusiveness." The innovation and expansion of the White Crane Ridge space is also the dual role of local economic development and cultural heritage protection.

### (3) Spiritual Sustenance and Cultural Communication

The human factor is also an important factor affecting the space expansion of the White Crane Ridge. As a site with rich historical and cultural value, the spatial production of the White Crane Ridge is not only influenced by the natural environment, but also deeply influenced by human activities. Human protection consciousness, management decision, use mode, and the cognition and inheritance of the site will have a profound impact on the spatial form, function and significance of the White Crane Ridge.

As a hydrological stone carving site in the Yangtze River basin in Fuling District, Chongqing city, the White Crane Ridge is deeply rooted in the hearts of the local people because of its unique social function and value significance, and has become a local landmark culture. The White Crane Ridge is not only an important hydrological observation point in the Yangtze River basin, the stone carvings on it record the hydrological data since the Tang Dynasty, which has immeasurable value to scientific research; It also carries rich folklore and myths, which are passed down from generation to generation and become a part of peoples spiritual life. Today, it has become an important cultural site, built into an underwater museum, attracting visitors from all over the world. The local government has also protected and managed the White Crane Ridge to ensure that this precious cultural heritage can be passed on to future generations.

As a landmark culture, driven by economic development and tourism, the heritage managers have built the White Crane Ridge into a local cultural IP and made cross-border cooperation with various enterprises to expand the utilization of cultural heritage to multiple dimensions. For example, the cross-border cooperation with King of Glory. Inspired by the inscription of the White Crane Ridge, the design elements such as stone fish, inscription and water grain are combined to create the image of "the goddess of the White Crane Ridge"<sup>77</sup>. And regards the goddess as a symbol to protect the safety of the three Gorges waters of the Yangtze River, and the stone fish relief on the White Crane Ridge is a symbol of the mysterious power. In the past, during special periods, local residents would hold grand sacrificial activities here to pray for good weather and good harvest to express their respect and gratitude to the

<sup>77</sup> Chongqing literature and art network. The Digital Exhibition of Traditional Culture "Three Gorges Cultural Relics activation Cases" was held in the Three Gorges Museum [EB / OL]. (2021-07-15)[2023-06-18][http://www.cqwenyi.net/html/2021-07/15/content\\_51551196.html](http://www.cqwenyi.net/html/2021-07/15/content_51551196.html)

gods. In the modern society, although this grand ceremony did not last, but it has long since become an indispensable part of the local culture. In my investigation of the White Crane Ridge culture, I found that although the government banned people from burning incense and praying for good fortune, many local people still took risks to worship here.



Figure 48 Big Joe, The White Crane Ridge goddess image

Source: <http://gr.cri.cn/20210611/45a12f51-b1d3-c74d-6fbb-16d4363d61b6.html>

Accessed on: 2023.10.19

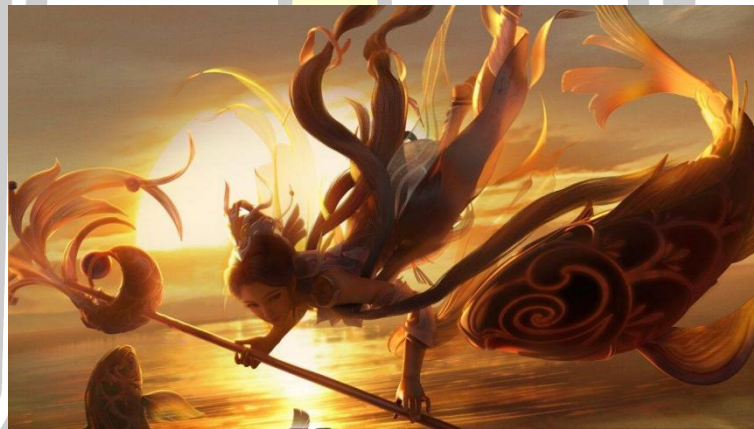


Figure 49 Big Joe · The White Crane Ridge goddess silhouette

Source: <http://gr.cri.cn/20210611/45a12f51-b1d3-c74d-6fbb-16d4363d61b6.html>

Accessed on: 2023.10.19

In terms of cultural communication, the cultural value and historical significance of the White Crane Ridge have been widely spread through various channels such as education, tourism and media, attracting many scholars and students to study and study. At the same time, the development of tourism has brought more and more tourists. Through the personal experience and reputation of tourists, the popularity and influence of the White Crane Ridge are further expanded. In addition, TV, Internet, books and other forms of media are widely reported and introduced. The cultural value and social significance of the White Crane Ridge can be recognized and inherited in a wider range. These fully reflect the importance of human factors to space production.

#### (4) Changes Brought about by Technological Innovation

In the exploration of multiple driving forces of modern space production, scientific and technological innovation leads the new mode of space development. With the continuous breakthrough of big data, cloud computing, artificial intelligence and other cutting-edge technologies, the space production of the White Crane Ridge is experiencing unprecedented changes. The application of virtual reality (VR) and augmented reality (AR) technology not only provides tourists with an immersive cultural experience, but also greatly enriches the connotation and expression form of the cultural heritage. According to statistics, since the introduction of VR experience project, the satisfaction of tourists has increased by 30%. In addition, the digital display platform has also greatly enhanced the popularity and influence of the White Crane Ridge.



Figure 50 Digital display platform (a long scroll of life on the ancient of the White Crane Ridge)  
Source: Cao Wenyi, July 14, 2023

Scientific and technological innovation also promotes the innovation of production mode of the White Crane Ridge space. The protection and utilization of traditional cultural heritage often focus on static display and physical restoration, while modern technology gives the cultural heritage new vitality and vitality. For example, the high-precision scanning and three-dimensional reconstruction of the historical relics of the White Crane Ridge through digital technology can not only be permanently preserved and displayed in the virtual space, but also provide rich materials and inspiration for subsequent academic research and cultural and creative product development. This new mode of space production based on scientific and technological innovation not only promotes the activation and utilization of cultural heritage, but also promotes the rapid development and transformation and upgrading of the cultural industry.

Intelligent management greatly improves the efficiency and flexibility of space utilization. Through the introduction of advanced Internet of Things, big data and artificial intelligence technology, the precise management of resource allocation and security monitoring is realized. Intelligent management also promotes the integrated development of the White Crane Ridges cultural and creative industries. Through the construction of a digital platform, cultural products in the scenic spot can be displayed and sold online and offline, which not only expands the sales channels,

but also enhances the interactive experience with consumers. Driven by technological innovation, space production is gradually developing to the direction of intelligent, green and personalized. In the future, with the emergence and application of more new technologies, the space production will show a more colorful appearance and make greater contribution to the protection and utilization of heritage.

#### **4.2.3 Significance of Space Production**

##### **(1) Social Significance**

In terms of social development, modernity promotes the reproduction of space, and space becomes a commodity that can be produced, exchanged and consumed. The planning, construction and management of modern space is not only the construction of material form, but also contains the reproduction of culture, historical and social values, and reflects the economic structure and cultural values of China's modern society. The construction and operation of the modern space of the White Crane Ridge reflects how people in modern society can effectively transfer their cultural value and reshape their spatial significance through careful design, rational layout and function optimization. This process not only involves the physical form and visual effect of modern space, but also includes how to shape the formation of social influence and cultural identity through these means.

The construction of modern space of the White Crane Ridge profoundly reflects the track of social change and cultural development. In history, as a holy land with natural and cultural interweaving, its spatial layout takes natural landscape as the core. Since entering the modern society, the spatial layout of the White Crane Ridge has gradually changed from the traditional "natural center" to the "comprehensive service area". This transformation is not only reflected in the expansion of space area, but also in the optimization of space internal structure and the subdivision of functions. The construction of underwater museums and service facilities has realized the leap from tradition to modern. In the traditional society, the function of the White Crane Ridge is mainly limited to hydrological observation, blessing and sightseeing. In the modern society, the functional partition of the White Crane Ridge is more clear and diversified.

At present, the White Crane Ridge has built a multi-functional comprehensive service area integrating tourism, interactive experience, leisure and entertainment, education and scientific research. This service design jointly reveals the deep demand of heritage managers and the public for the protection and utilization of cultural heritage. These needs are not only reflected in the protection and inheritance of historical sites, but also reflected in the hope to enhance social cohesion and cultural confidence through the effective use of cultural heritage, so as to find the connection point between history and reality in modern society, and promote the protection, inheritance, popularization and dissemination of cultural heritage.

##### **(2) Economic Significance**

In the economic aspect, modernity promotes the economic development of space. With the acceleration of globalization, capital flows and allocates on a global scale, and space has become an important battlefield of economic competition. The development and utilization of space is not only related to the development and the improvement of competitiveness, but also related to the pattern and trend of economy. For the local government, the development and utilization of modern space not only brings significant economic benefits to the local government, but also promotes the

coordinated development of regional economy. By creating a comprehensive space integrating cultural display, educational exchange and tourism, the White Crane Ridge has successfully attracted a large number of tourists and investment, driven the development of commercial, catering, accommodation and other related industries in the surrounding areas, provided more employment opportunities for local residents, and improved their living standards.

As an important tourist destination, the White Crane Ridge Modern space has achieved significant economic benefits. According to the data, more than thousands of people visit the White Crane Ridge every year, which drives the development of local tourism, catering industry and business. At the same time, as a unique underwater space, has also become an important resource for cultural and creative industries. By excavating the cultural connotation of the White Crane Ridge, promoting its uniqueness, and developing relevant cultural products and tourism projects, it has brought considerable economic benefits to the local area, and has become a new idea for the development of the cultural and creative industry. In addition, the production of modern space in the White Crane Ridge also promotes the development of local employment and entrepreneurship, and provides more employment opportunities and entrepreneurship platforms for local residents.

The modern space of the White Crane Ridge has achieved a win-win situation between cultural heritage protection and economic development, and provides a useful reference for the sustainable utilization of global cultural heritage. Through forward-looking planning, fine management and innovative operation mode, the managers of the White Crane Ridge heritage have realized the protection and utilization of historical and cultural heritage, and driven the development of local economy. Its successful experience shows that cultural heritage is an important resource to promote local economic growth. The practice of modern space has set a new benchmark for the sustainable utilization of global cultural heritage and provided valuable experience and inspiration for other similar projects.

### (3) Cultural Significance

The significance of the White Crane Ridge modern space lies not only in that it serves as a model of the protection and inheritance of cultural heritage, but also in that it becomes a typical case of the protection and innovative development of contemporary water cultural heritage. This space not only preserves rich historical information, but also plays a positive role in promoting cultural inheritance, promoting cultural innovation, and strengthening international cooperation. Through the introduction of modern science and technology to show the historical, cultural and value significance of the White Crane Ridge, people can deeply feel the richness of Chinese culture and the comprehensive strength of contemporary China during the visit. This measure is of great significance for enhancing national cohesion and enhancing the soft power of national culture.

The modern space of the White Crane Ridge is taken as the carrier to display the historical and cultural information such as ancient hydrological observation technology and stone carving art. It has realized the effective connection between cultural heritage and modern society. The exhibition space allows visitors to experience the charm of ancient science and technology, culture and art through the time and space. The educational space conveys the historical and cultural connotation to the wider social group and cultivates the cultural accomplishment and historical

awareness. The tourism space is based on the unique natural landscape and cultural landscape and develops a series of attractive tourism products, attracting a large number of tourists to visit, and further promotes the development of local tourism economy.

In terms of cultural connotation, modernity also promotes the cultural reproduction of space. In the modern society, culture has become an important soft power and competitiveness. As an important carrier and expression form of culture, its cultural connotation and characteristics of space have also become an important factor in regional competition. The production of the modern space of the White Crane Ridge is not only the protection and inheritance of the traditional cultural heritage, but also a process of cultural innovation and cultural reproduction. By deeply excavating the historical and cultural connotation of the White Crane Ridge, extracting its cultural elements and symbols, and integrating them into the design of the theme cultural project of the White Crane Ridge, the culture of the White Crane Ridge can generate new life in the modern space. On the other hand, the application of modern science and technology also promotes the innovative application of the White Crane Ridge culture, which makes it more in line with the aesthetic needs and cultural consumption habits of contemporary society.

#### (4) Educational Significance

As a comprehensive cultural center and education base, the White Crane Ridge Underwater Museum provides rich educational resources and learning opportunities for tourists and students. By visiting the White Crane Ridge Museum and participating in the thematic research and study tour projects, people can have a deep understanding of the historical and cultural background and scientific value of the White Crane Ridge, and enhance their awareness and responsibility for the protection of cultural heritage.

As a witness of ancient hydrological observation technology, the stone carvings show the outstanding wisdom of ancient Chinese people in water conservancy science and nature cognition. The water level, inscriptions and inscriptions recorded on these stone carvings not only reflect the hydrological changes of the Yangtze River basin in history, but also reveal how ancient people used these observation data to guide agricultural production, flood control and drought relief, and shipping safety, which is a vivid embodiment of the concept of harmonious coexistence between man and nature. Through the display of the present space of the White Crane Ridge, the public can intuitively feel the power of this ancient wisdom, so as to enhance the recognition and pride of the traditional cultural value.

As a comprehensive platform integrating education, scientific research, exhibition and communication, the White Crane Ridge Underwater Museum plays an important role in the field of academic research and educational inheritance. With the stone carvings as the carrier, he built a bridge between the past and the future, theory and practice. It is not only a display place, but also an educational platform. By organizing various cultural activities, academic lectures and interactive experience projects, it guides the public, especially the young people, to deeply understand and inherit the excellent traditional culture of the Chinese nation. This kind of inheritance mode with real objects as the medium and education as the means not only helps to enhance the vitality and influence of national culture, but also can cultivate the cultural consciousness and cultural confidence of the young generation.

As an important part of the world cultural heritage, the cultural heritage is of great significance for enhancing China's international cultural influence and promoting international cultural exchanges. As a platform for international academic exchange and cooperation, the White Crane Ridge Underwater Museum helps to promote dialogue and mutual learning between Eastern and Western civilizations. The White Crane Ridge Underwater Museum understands the relationship between water and the formation and development of human civilization from a historical perspective. Its educational significance helps people to learn from the wisdom, experience and lessons of the harmonious coexistence between human beings and water. As the world's first non-diving accessible underwater site museum, the White Crane Ridge Underwater Museum has become a symbol of China's important contribution to the protection of the world water cultural heritage and a sample for the international community to study the protection of water culture. The International Academic Symposium on the White Crane Ridge Water Cultural Heritage also provides opportunities for domestic and foreign experts, scholars and cultural lovers to communicate face to face, and promotes mutual learning and reference between different cultural backgrounds.

### **4.3 The Current Space Production and Heritage Utilization of the White Crane Ridge**

#### **4.3.1 Exhibition Space**

##### **(1) Theory and Viewpoint of the Exhibition Space**

In my opinion, the current space of the White Crane Ridge is a display space, because it transmits the history, culture, art and technology of the past to the audience through modern exhibition methods.

French sociologist Henry Lefebvre's theory of space production holds that space is not only a geographical entity, but also a complex social phenomenon shaped and represented by social, political, economic, cultural and other forces. He put forward the theoretical framework of space production process of "spatial representation", "spatial representation" and "spatial practice", which corresponds to perceptual space, conception space and living space respectively, emphasizing the multi-dimensional and dynamic nature of space. The construction and operation of the modern space of the White Crane Ridge is the vivid practice of the space production theory in the field of cultural heritage protection and display.

The representation of space is to describe and explain the space by means of culture, thought, art and planning, and give it specific meaning and value. The representation of space is the space constructed by the discourse, which affects people's cognition of space and determines how people interact with space. It also affects the planning and design of space, and determines the layout and function of space. As a way of displaying cultural heritage, the design concept and the purpose of displaying and dissemination reflect the deep understanding and respect for the historical and cultural value of the White Crane Ridge. The core view of its discourse construction is "the thousand-year ancient hydrological station", "the only ancient hydrological station in the world", "the wisdom and scientific thought of the ancients", "the contribution to the world hydrological science" and so on.

The space of representation is created by imagination and programming (or decoding), and is formed based on the subjective experience and feelings of individuals. Different people may have different representations of the same space. For visitors, the exhibition space of the White Crane Ridge has become a place for them to directly perceive and experience the culture. In this space, visitors can not only witness the exquisite art of the White Crane Ridge, but also explore the cultural heritage and scientific significance behind it through interactive experience and explanation, so as to stimulate personal imagination and build their own "representational space".

The practice of space focuses on the material level and practical actions, involving the planning, use, redesign and re-creation of space, reflecting the dynamic relationship between people and space. With the methods and means of modern technology and other tools, we present the historical story, scientific value and cultural and artistic production process to the audience in a vivid and intuitive way, forming a unique spatial practice. In addition, the construction and expansion of the White Crane Ridge exhibition space, in itself is a kind of space practice. From the preliminary research, planning and design, engineering demonstration, construction and operation management, every link is full of the consideration and weighing of social relations, political and economic factors.

#### (2) The Construction Process of the White Crane Ridge Exhibition Space

Since the National Peoples Congress passed the resolution on the Construction of the Three Gorges Project in 1992, the protection and display of the White Crane Ridge has become the top priority in the protection of the Three Gorges. With the implementation of the Three Gorges Project and the increase of the water level in the reservoir area, the original site of the inscription will face the fate of being permanently flooded. In order to protect this precious hydrological historical site, the protection needs was formally proposed, and has been highly valued by the country. The local government and relevant cultural relics protection agencies jointly launched the project. After many arguments, we finally decided to build an underwater museum of the White Crane Ridge inscriptions to protect and display this historical relic in the way of underwater closed display.

The underwater museum construction project is a complex challenge, considering not only the special underwater environment, but also the safety of the inscription and the experience of visitors. To this end, the expert team has carried out in-depth research and simulation experiments to ensure that the structure of the museum can be stable for a long time under the high water pressure environment, without affecting the preservation state of the inscription. The space planning of the White Crane Ridge Underwater Museum is composed of the China Architectural Design and Research Institute and the School of Architecture of Chongqing University. The design scheme includes two parts: ground display area and underwater display area. The ground exhibition area is mainly used for displaying the historical background, inscriptions and related cultural relics of the White Crane Ridge; while the underwater exhibition area brings visitors directly into the underwater inscription area through a transparent viewing channel, enabling people to view the underwater forest of steles closely.

In the early stage of the design, the design team clarified the concept of "protection first, display and integration". The whole space design should not only ensure that the original state of the inscription is not destroyed, but also meet the viewing needs of visitors. In the construction process, all parties involved in the construction worked with one heart and one mind, cooperated together, worked hard, overcame many technical difficulties, and finally built the White Crane Ridge Underwater Museum integrating protection, exhibition and education. During the study, the author visited Yang Bond, the curator of the White Crane Ridge Underwater Museum, to understand their professional opinions on the preservation and display of cultural relics in the project. After the completion of the museum, in order to improve the ornamental effect and clarity of the underwater protection body, the museum staff continuously introduced the advanced technology and equipment to improve the display effect of the underwater museum, which also laid the foundation for "applying for the World Water Cultural Heritage".

Construction of the White Crane Ridge Underwater Museum began in 2002, took five years to complete and opened on May 18, 2009. In this process of construction, the state provides guarantee for the construction of the museum by means of policy support and capital investment. After its completion, the government and relevant departments, based on the cultural resources of the White Crane Ridge, have held cultural activities and academic exchanges to attract experts, scholars, cultural lovers and ordinary visitors to visit and study. Various activities have driven the extensive participation and interaction of people from all walks of life, and promoted the operation of the modern space of the White Crane Ridge. The construction and operation of the White Crane Ridge exhibition space is a process full of challenges and innovation. It not only reflects the country's great attention to and firm determination to the protection of cultural heritage, but also shows the outstanding achievements and cooperation spirit of Chinese scientists and engineers in different fields.



Figure 51 the White Crane Ridge Underwater Museum opened to the public, May 18, 2009  
Source: Cao Wenyi, filmed at the White Crane Ridge Underwater Museum, July 14, 2023

### (3) Production and Utilization of the White Crane Ridge Exhibition Space

The production of the White Crane Ridge exhibition space is formed from the joint construction of physical space, spiritual space and social space. As a comprehensive place integrating history, culture, art and educational functions, the spatial planning of the White Crane Ridge involves how to tell the historical story of the White Crane Ridge through the spatial layout, show its cultural value, spread its social significance, and meet the needs of different stakeholders.

From the perspective of the physical level of the exhibition space, the White Crane Ridge Underwater Museum is a museum built on the original site, which is a way to protect the material cultural heritage to the greatest extent, and also to display the original appearance of the cultural heritage in the most authentic way of display. The planning of its exhibition space is divided into two parts: ground exhibition hall and underwater visit area. The ground exhibition hall has two floors, the first floor is used as a reception and function conversion space, etc. There are consultation reception area, preface hall, tail hall, underwater visit waiting area, souvenir sales area, etc. As a display space, the second floor is divided into four units, namely "Water of Life, Hydrological observation in the World River Civilization", "The foot of the Yangtze River, the Scientific Value of the White Crane Ridge", "Underwater Forest of steles, Humanistic value of the White Crane Ridge", "The Pearl of the Three Gorges, the worlds first site underwater museum". These four units comprehensively present and introduce the historical background, scientific value and cultural significance of the White Crane Ridge through different perspectives and ways. The underwater visit area includes four parts: slope corridor, horizontal corridor, visit corridor, and underwater inscription of the original site.

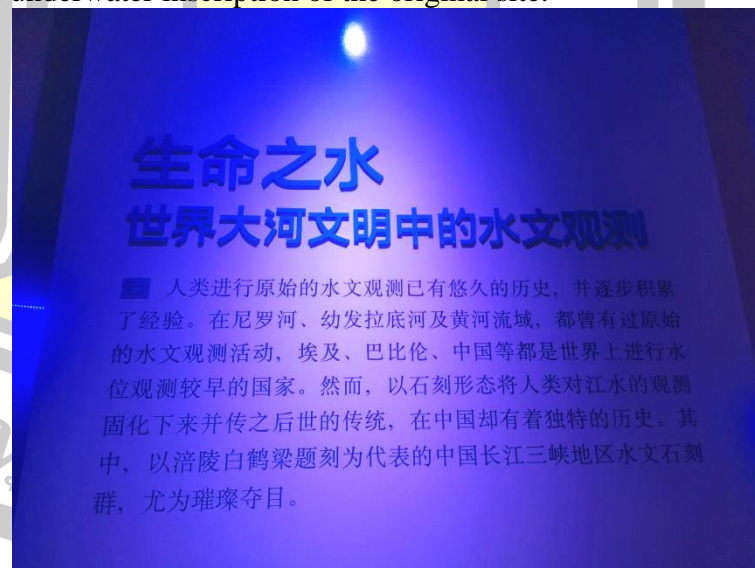


Figure 52 Water of life, Hydrological observation of the world river civilization  
Source: Cao Wenyi, Photo taken by the White Crane Ridge Underwater Museum,  
July 14,2023



Figure 53 Hydrological observation of large river basins in China  
Source: Cao Wenyi, Photo taken by the White Crane Ridge Underwater Museum, July 14,2023



Figure 54 The ruler of the Yangtze River, the scientific value of the White Crane Ridge inscription  
Source: Cao Wenyi, Photo taken by the White Crane Ridge Underwater Museum, July 14,2023

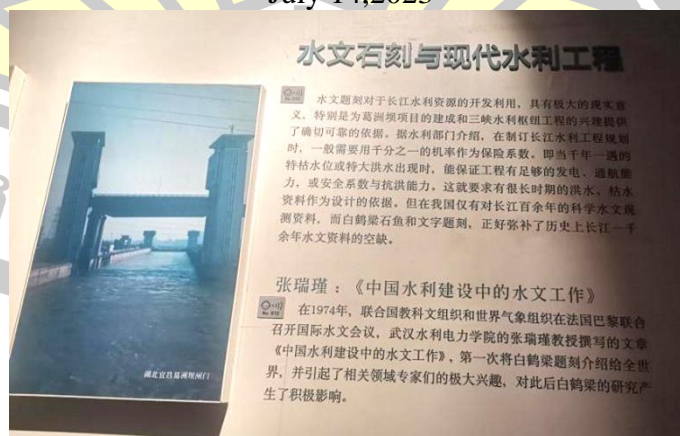


Figure 55 Hydrological stone carvings and modern water conservancy projects  
Source: Cao Wenyi, Photo taken by the White Crane Ridge Underwater Museum, July 14,2023

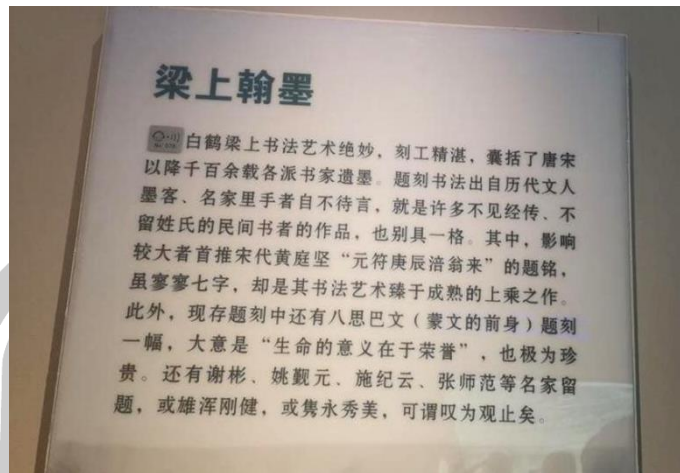


Figure 56 Calligraphy on the beam, The humanistic value of the White Crane Ridge inscription  
Source: Cao Wenyi, Photo taken by the White Crane Ridge Underwater Museum,  
July 14, 2023



Figure 57 Stone beam custom, The White Crane Ridge inscribed with the humanistic value  
Source: Cao Wenyi, Photo taken by the White Crane Ridge Underwater Museum,  
July 14, 2023

In the design of the line of the visiting road, the exhibition space of the White Crane Ridge sets reasonable moving lines to guide visitors to visit in the historical time order or the order of theme content. The route of this space is not only designed in order to solve the problem of dividing a physical space, but also to show a problem of spatial history. The designer skillfully combined the spatial layout with the historical display, so that visitors can not only feel the beauty of the space during the tour, but also deeply understand the historical context, making the narrative structure of the whole exhibition space more clear. The design of the ground exhibition hall is simple and generous. Through modern display means, the historical background, cultural connotation, material cultural heritage and intangible cultural heritage of the White Crane Ridge are vividly presented to the audience. In the underwater display area, the transparent glass curtain wall allows visitors to observe the underwater cultural relics and landscapes closely, as if traveling through time and space to experience the moment of history.

In terms of display logic, the modern display space adopts a combination of storytelling and interactive experience. For example, the scene of ancient literati painting, so that visitors can feel the charm of history and culture in the interaction. In terms of functional use, the spatial layout of the underwater museum not only has the functions of protection, display and dissemination, but also undertakes the functions of education and research. The museum has a special academic exchange area and research laboratory, providing a platform for scholars and researchers to study the history and culture of the White Crane Ridge. In addition, the museum also enriches the connotation of space through social activities and cultural practices to enrich the connotation of space, enhance the attractiveness of space and enhance the social influence of space. For example, regular cultural activities and lectures are held to attract more people to participate in and experience. The space of the museum is not only a place to show the history, but also a bridge between the past and the future, the tradition and the modern.

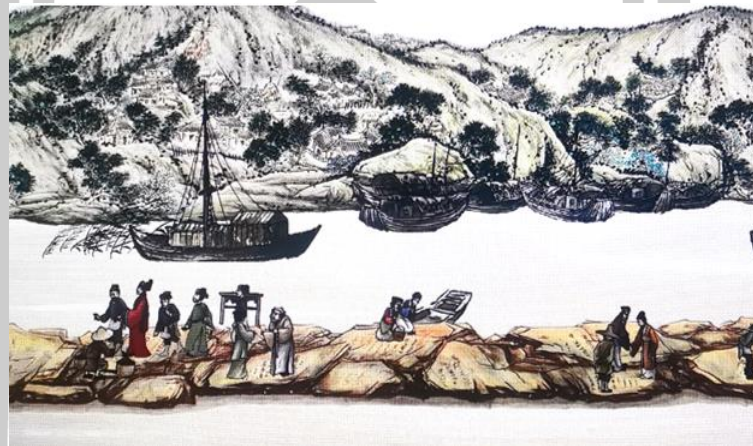


Figure 58 The way of storytelling (the scene of ancient literati on the White Crane Ridge)

Source: Cao Wenyi, Photo taken by the White Crane Ridge Underwater Museum,, July 14,2023

From the social perspective of the exhibition space, after the completion of the White Crane Ridge Underwater Museum, it will take advantage of various opportunities to cooperate with social and cultural institutions and enterprises to jointly develop and spread cultural undertakings. For example, taking advantage of the uniqueness of the White Crane Ridge cultural heritage, we cooperated with Tencent to jointly hold a digital exhibition of the Three Gorges cultural relics activation cases with the theme of "Stone beam long, meaningless rise and fall" (July 15,2021). Its main content is the creative inspiration of the inscription in Fuling District, Chongqing, the profound cultural connotation behind the cultural relics with the context of young people, through Tencent's "King of Glory" platform, the cultural relics "alive" by digital and high-tech means, so that it meets the cultural spirit and aesthetic needs of contemporary people. The design team integrates design elements such as stone fish, inscriptions and water grain to create the image of "the White Crane Ridge Goddess".



Figure 59 Traditional culture cross-border interpretation of "Three Gorges cultural relics activation case digital exhibition", "Stone beam long in, meaningless rise and fall" theme

Source: [http://www.cqwenyi.net/html/2021-07/15/content\\_51551196.html](http://www.cqwenyi.net/html/2021-07/15/content_51551196.html)  
 Accessed on: June 18, 2024



Figure 60 Big Joe, The White Crane Ridge goddess image

Source: <http://gr.cri.cn/20210611/45a12f51-b1d3-c74d-6fbb-16d4363d61b6.html>  
 Accessed on: 2023.10.19

From the spiritual perspective of the exhibition space, the exhibition space of the White Crane Ridge Underwater Museum is not only a material creation, but also a spiritual symbol. The content of the museum on display is both a kind of memory and a kind of emotion. The past history, culture, symbol, semantics, humanistic customs and intelligent spirit of the White Crane Ridge are displayed and spread in a modern way, which is highly compatible with modern technology and culture. For example, the theme digital exhibition of "Stone beam is long, meaningless floating and sinking" is the spatial description and explanation of the culture, thought, art and other elements of the White Crane Ridge, giving the specific value and significance of the White Crane Ridge culture. These meanings affect peoples cognition of space, and also determine how people interact with space, becoming the basis for the construction of the spiritual level. These spiritual constructions continue the special





Figure 62 "Stone beam long in, meaningless floating and sinking" theme cultural relics activation case number display field

Source: [http://www.cqwenyi.net/html/2021-07/15/content\\_51551196.html](http://www.cqwenyi.net/html/2021-07/15/content_51551196.html)

Accessed on: June 18, 2024

The production and utilization of the exhibition space of the White Crane Ridge confirms the space production theory of Lefebvre, "space is the space constructed by discourse". Space is to describe and explain the space by means of culture, thought, art and planning, and endow it with specific meaning and value. Through the contents of the exhibition in the space, the audience virtually accepts the ideas and meanings to be spread by the communicators. The production and expansion of modern display space is constantly created by authoritative institutions and civil institutions through imagination and programming (or decoding). The practice of the White Crane Ridge exhibition space reflects the dynamic relationship between man and space.

#### 4.3.2 Education Space

##### (1) Theory and Viewpoint of Educational Space

I think the current space is also an educational space, because it not only displays history and culture, but also pays more attention to scientific research, and transmits cultural knowledge to the audience. In the process of production and utilization of space, the management organization of the White Crane Ridge cultural heritage has cooperated with other institutions to create a variety of education and research projects, scientific seminars, social science popularization and other content projects.

The theory and viewpoint of educational space emphasize the interactive relationship between education and space, and believe that educational space is not only a simple combination of physical environment, but also a carrier of knowledge, thought and cultural inheritance. The production of the educational space is determined by the contemporary social structure, value pursuit, economic development and other factors. The way of its spatial production is reflected in many aspects. For example, through well-planned exhibitions and interactive experiences, visitors can have an intuitive understanding of history, science and art. Another

example is to provide learning opportunities for visitors with different backgrounds and learning needs. In addition, the study of hydrological science projects can be conducted around the hydrological history of the White Crane Ridge, so that participants can have a deep understanding of the unique hydrological science principles and application methods of the White Crane Ridge Ancient Hydrological Station through observation, experiments and data analysis.

The representation of the educational space is to describe and give significance to the space by means of knowledge, thought and cultural inheritance. It is a space constructed by authoritative institutions. Through the transmission of knowledge, it affects peoples cognition of space culture, knowledge and thought, and the purpose to be achieved by education. The purpose of the construction of educational space reflects a deep understanding of the historical and cultural value and significance of the White Crane Ridge. The core idea of its construction is to inherit the traditional philosophical thoughts of China, such as "the wisdom of the ancient working people", "the law of nature and the thought of the unity of nature and man", "the wisdom and scientific thought of the ancients", "the life philosophy of the ancient ancestors", "the wisdom of local".

The practice of educational space focuses on practical actions, which involves the planning of educational content and the effective use of cultural heritage. It reflects the dynamic relationship between the purpose, means and space of contemporary education. The White Crane Ridge educational space carries out a series of educational activities by planning educational content, designing educational concepts and goals, and combining the spiritual, cultural and aesthetic needs of modern people. The unique knowledge, thought, culture, art and technology of the White Crane Ridge ancient Hydrological Station are the core elements of education. Visitors can not only directly perceive and experience the culture, but also get spiritual water. In the process of spatial learning, participants can not only witness the history and vicissitudes of life of the White Crane Ridge, but also deeply understand the cultural heritage and scientific significance behind it through interactive experience and explanation, so as to stimulate personal imagination and build their own imagination space.

## (2) Overview of the Resources of the White Crane Ridge Educational Space

As an important cultural heritage in Fuling, Chongqing, the White Crane Ridge carries profound historical and educational significance. According to historical records, the history of the White Crane Ridge can be traced back to the Tang Dynasty, and it is inscribed with poems and inscriptions of literati of all dynasties, which becomes an important physical evidence for the development of culture and education in the ancient Yangtze River Basin. In the sense of education, the White Crane Ridge is not only a window of ancient cultural exchange, but also a place for scholars of later generations to conduct academic exchange, and has become an important educational resource in contemporary times. These resources have high academic value. Through sorting out and analyzing the educational resources of the White Crane Ridge, we can better understand the cultural connotation and educational significance behind it, so as to better serve the contemporary society.

The remarkable educational resources of the White Crane Ridge are text inscriptions, stone fish carvings and legendary stories. Its content covers a wide range of history and culture, folk culture, hydrological records, literature and poetry, stone

carving art, calligraphy art and so on. Through the systematic and diversified thematic cultural display and universal education, these resources can effectively enhance the public's understanding of the ancient hydrological technology, and also enhance their literary literacy and artistic appreciation ability. These resources can form a cultural brand through field visits, academic exchanges, volunteer services and other projects. Such as "White Crane Shiming" research brand, youth creative works competition, special lectures, academic seminars, etc. To guide the public, especially the young people, to understand the history and culture, hydrological science knowledge and artistic appreciation of the White Crane Ridge, so as to stimulate their interest in the unique local culture.

In terms of the value of educational resources. The popularization and utilization of the White Crane Ridge cultural resources is helpful to enhance the public's knowledge reserve and cultural confidence. Through systematic design and diversified expression, it can cultivate the public's sense of social responsibility and cultural confidence in the world, and also promote the successful process of the White Crane Ridge's application for world cultural heritage. The effective use of the educational space has become a window for the public to understand the ancient hydrological technology and modern civilization. At present, the modern space of the White Crane Ridge has developed into a cultural activity center integrating cultural relics protection, research, publicity and education, carrying the social and cultural functions of universal education, research activities, academic exchanges and so on.

### (3) Production and Utilization of the White Crane Ridge Educational Space

The educational space of the White Crane Ridge is formed by the joint construction of physical space, spiritual space and social space. As a modern public space, the current space production of the White Crane Ridge involves how to effectively use spatial resources, spatial planning and education, so that the educational function of space can serve the contemporary society and meet the growing material culture and spiritual life needs of the public.

From the physical level of the educational space. First of all, the managers of the White Crane Ridge cultural resources activate and utilize the cultural heritage through careful planning. For example, through the display of virtual museums and digital platforms, they present the history and culture and stone carving art in a digital form, providing an immersive educational experience for the audience. Secondly, it is the planning and innovation of educational projects. Using their unique educational resources, they have carefully planned lectures, workshops and exhibitions. In addition, the heritage manager also combined the culture with the local mustard culture to show the public the culture of celebrating the harvest and the production process of Fuling mustard. In terms of innovation, the managers of the White Crane Ridge heritage have carefully designed around its hydrological technology, and launched a variety of interactive experience projects, such as simulating ancient hydrological measurement technology, so as to deepen the audience's understanding of the historical significance of the White Crane Ridge.

From the social perspective of educational space, the managers of the White Crane Ridge heritage cooperate with various organizations to work themselves to the protection and research of cultural heritage. Such as joint Chongqing China three gorges museum, Chongqing water, Chongqing institute of archaeology (Chongqing cultural heritage protection center), Yangzhou China grand canal museum, dujiangyan

water conservancy development center, Chongqing jiaotong university, deep sea technology innovation center of Hainan province, jointly signed the preparation of China historic sites protection association of water and professional committee of heritage memorandum (see figure). The move aims to promote the protection, research and utilization of water and heritage, strengthen international exchanges and cooperation, build a database and information service platform, and commit to cooperation in science popularization, talent exchange, education and training.



Figure 63 Signed the memorandum of Understanding on the Establishment of the Water and Heritage Committee of the China Association for the Protection of Historic Sites  
Source: <https://cj.sina.com.cn/articles/view/6824573189/196c6b90502001qifk>  
Accessed on: December 22,2023

In addition, Fuling District Government and Peking University signed the Memorandum of Cooperation on the Protection and Utilization of the White Crane Ridge. The two sides will carry out in-depth cooperation in the fields of cultural heritage research, exhibition and utilization and academic exchange, and jointly promote the protection and utilization of the White Crane Ridge and the application process of world heritage. At the same time, the resource managers have also established partnerships with local universities and research institutions (as shown in the picture) to jointly develop related courses and research projects to promote the popularization of knowledge and academic exchanges.



Figure 64 Award ceremony of Chongqing Branch of China Yangtze River Culture Research Institute  
Source: <http://lsw.hubu.edu.cn/info/1073/7118.htm>  
Accessed on: December 22,2023

From the perspective of the spiritual level of educational space, the educational space is not only a social thought, but also a spiritual level of identity and enjoyment. Through integration, innovation, operation and management, the material and cultural resources of the White Crane Ridge are to meet the needs of modern education. For example, by using the festival to popularize the knowledge of traditional culture, the theme of "tracing the history of the Yangtze River and promoting the first outing" was held. These contents are based on the history and culture, spiritual connotation and artistic thought of the White Crane Ridge, to describe and empower the spiritual level, so as to achieve the purpose of cultural dissemination, spiritual inertia and knowledge popularization. These meanings affect peoples cognition of the spiritual level, and also determine the knowledge energy involved in the festival education, so as to achieve the purpose of education and spirit conservation. These spiritual constructions continue the special emotion and memory of the local people for the White Crane Ridge culture, and also affect the expansion of the space and the design of the content.



Figure 65 The White Crane Singing" research activity (calligraphy research activity)  
Source: <https://weibo.com/ttarticle/p/show?id=230940433711129029438>

Accessed on: 2023

#### (4) The Specific Content of the Production of the White Crane Ridge Educational Space

##### A) The Festival Enables Knowledge Popularization, and Holds the Theme of "Tracing the History of the Yangtze River".

According to the BioFigurey of Wei Mu in the Book of the Northern Qi Dynasty, "human day" refers to the birthday of human beings, including the simple evolution theory of the ancients.<sup>78</sup> Originated from traditional Chinese culture, the seventh day of the first lunar month is an ancient tradition of mankind's birthday. On every human day, the ancient ancestors of Fuling cut the colorful silk fabrics or metal foil into a human shape and hung them on the screen or tent. Women will wear this small human shape on the temples, called wearing "people win", also known as "spring win". On this day, people came to the river for an outing and spring outing, looking forward to the harvest, came to the White Crane Ridge, watching the stone

<sup>78</sup> Chongqing Municipal Culture and Tourism Commission. The seventh day of held in Fuling [EB / OL]. (2019-02-07)[2024-08-26]. <https://weibo.com/ttarticle/p/show?id=230940433711129029438>

fish, poetry, inscriptions, formed a big Fuling traditional fixed festival. Today, local heritage administrators are popularizing education through festivals, and holding themed projects such as calligraphy studies, riddles and the New Year wish wall. Let people celebrate the festival, experience the related history and culture, water culture and science, literature and poetry, stone carving art, myths and legends, so that people unknowingly learn knowledge, to achieve the purpose of knowledge popularization.

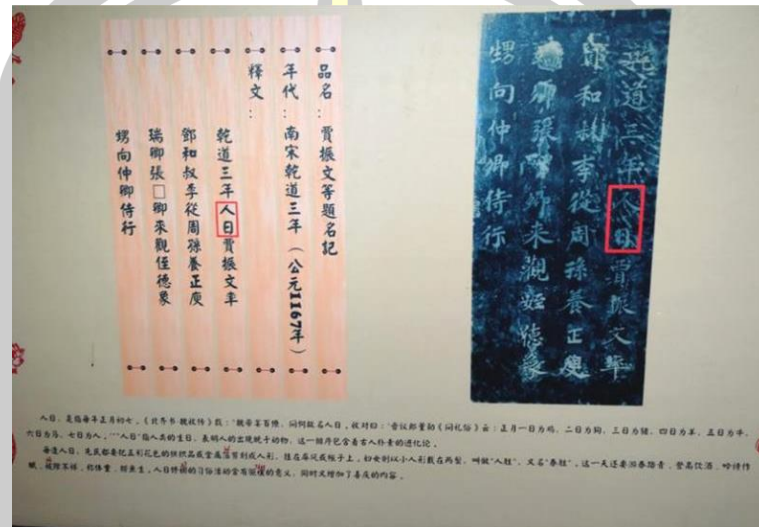


Figure 66 The "human day" recorded in the ancient books  
Source: <https://weibo.com/ttarticle/p/show?id=2309404337111129029438>  
Accessed on: 2023



Figure 67 Volunteers take a group photo under the "People Day"  
Source: <https://weibo.com/ttarticle/p/show?id=2309404337111129029438>  
Accessed on: 2023

B) Academic Exchange to Promote the Research of Water Cultural Heritage, and Held the "Academic Seminar on the Protection and Utilization of Yangtze River Water Culture and Water Heritage" and Related Conferences.

In terms of domestic academic discussion and exchange, the academic seminar and related conferences. For example, in 2021, 2023 and 2024, the "Academic Seminar on Yangtze River Water Culture and Utilization" was held in Fuling District of Chongqing. At the conference, experts and scholars from Beijing, Tianjin, Hubei,

Chongqing, Guizhou and other places had in-depth discussions and exchanges on topics such as "the connotation of Yangtze River water culture", "excavation, protection and utilization of Yangtze River water culture" and "Protection and utilization of Yangtze River water heritage". It has given full play to the advantages of China Yangtze River Culture Research Institute and set up an academic exchange platform for water culture and Yangtze River culture research.



Figure 68 2021 the White Crane Ridge Yangtze River Water Culture and Water Heritage Protection and Utilization seminar experts group photo

Source: <https://zsxy.yznu.edu.cn/2021/0926/c7368a193963/page.htm>

Accessed on: September 23,2024

In terms of international academic research exchanges. On May 12,2019, the first the White Crane Ridge International Academic Symposium was held in Fuling, Chongqing. With the theme of "Understanding Human Civilization through Water Cultural Heritage", the conference will promote the protection and display of water cultural heritage and explore the closer sustainable development of water and human civilization. Meeting invited from China, the United States, France, Greece, Italy and other countries of experts and scholars and scientific research institutions representative, including the international water association of ancient civilization water technology committee chairman Andry, Angela, UNESCO global environmental history project director, David, state administration of cultural heritage protection center of underwater archaeology Jiang Bo and other famous experts.

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Figure 69 Group photo of participants at 2019 the White Crane Ridge International Symposium

Source:[https://www.sohu.com/a/313984144\\_99965024](https://www.sohu.com/a/313984144_99965024)

Accessed on: September 22,2024

At the meeting, (Eriberto Eulisse), executive director of UNESCO Global Water Museum Network, said that the inscription is a sample of the international community studying water culture protection, which not only reflects the ecological civilization challenges experienced by human beings in different historical periods, but also reflects the close relationship between water and human life. The protection and development of the world natural and cultural heritage urgently needs the attention of the young generation to the environment.<sup>79</sup> David Peeds<sup>80</sup> said that some natural legacies are currently being destroyed, and we should teach them how to pass on and protect them, and let them have the right view on this issue.<sup>81</sup> The contents of these meetings are the reflection of the educational space at the social level. Jiang Bo, a Chinese scholar, said that China needs more young forces to join and care about the water cultural heritage, so that young people can participate in the experience, and will find a balance between the protection and utilization of cultural heritage.”<sup>82</sup>

<sup>79</sup> The China News Network. "Domestic and foreign experts and scholars in Chongqing: Water Cultural Heritage Protection needs the Attention of Young People" [EB/OL]. (2019-05-16)[2023-09-26]. [https://www.cqcb.com/county/fuling/fulingnews/2019-05-16/1623203\\_pc.html](https://www.cqcb.com/county/fuling/fulingnews/2019-05-16/1623203_pc.html)

<sup>80</sup> David Pitz is currently a professor at the University of Arizona, head of global environmental history at UNESCO, and head of the International Yellow River Research Network. He is a famous expert in environmental history and river history, as well as experts in the history of water conservancy in China.

<sup>81</sup> China industrial network. Chongqing the White Crane Ridge International Academic Symposium on Application for World Heritage is progressing in an orderly manner [EB/OL]. (2019-05-17)[2023-09-26]. [https://www.cqcb.com/county/fuling/fulingnews/2019-05-17/1625989\\_pc.html](https://www.cqcb.com/county/fuling/fulingnews/2019-05-17/1625989_pc.html)

<sup>82</sup> The China News Network. "Domestic and foreign experts and scholars in Chongqing: The Protection of Water Cultural Heritage needs the Attention of young People" [EB/OL]. (2019-05-17)[2023-09-26]. [https://www.cqcb.com/county/fuling/fulingnews/2019-05-16/1623203\\_pc.html](https://www.cqcb.com/county/fuling/fulingnews/2019-05-16/1623203_pc.html)



Figure 70 Ereberto Ulis (Eriberto Eulisse), executive Director of the UNESCO Global Water Museum Network, spoke  
Source:<https://www.fulingwx.com/show-73-51461.html?ophlnglnophdjekf?phlnophdbiekfkfk?lfcbaaaaiecbaiak?phlnophdbiekfkfk>  
Accessed on: September 22,2024



Figure 71 Pez David, Director of UNESCOs Global Environmental History Program, spoke  
Source:[https://www.cqcb.com/county/fuling/fulingnews/2019-05-15/1620357\\_pc.html](https://www.cqcb.com/county/fuling/fulingnews/2019-05-15/1620357_pc.html)  
Accessed on: September 22,2024

It is understood that the White Crane Ridge Underwater Museum has held three international academic seminars in cooperation with UNESCO and the China Underwater Cultural Heritage Protection Center. Its purpose is to enhance and enhance the publics cognitive level and protection awareness of water cultural heritage, and reflect on and reshape the harmonious relationship between people and water resources by sharing the research of experts and scholars in different parts of the world.<sup>83</sup> The activity by the United Nations educational, scientific and cultural organization, the international hydrological organization, UNESCO global water

<sup>83</sup>The China Media Group International Online. "2019 the White Crane Ridge International Symposium on Promoting the Protection of Water Cultural Heritage was held in Fuling, Chongqing" [EB /OL]. (2019-05-14)[2023-09-26].<https://cq.cri.cn/chinanews/20190514/3b0f44cd-67bf-867c-1b9e-c8629af9c764.html?chinaNewsType=app>

museum network, Chongqing culture and tourism development committee (Chongqing), Chongqing water guidance, China three gorges museum, fuling by Chongqing government, Hubei university, the Yangtze river normal university, the fuling text brigade committee, district water, crane beam underwater museum, history culture institute of Hubei university, the Yangtze river normal university crane beam stone carving culture research center.<sup>84</sup>

### C) Implementation of Thematic Research and Tour Projects

Driven by the White Crane Ridge Underwater Museum, a series of thematic research tour projects came into being, aiming to closely integrate academic research with public education through field visits and interactive experience. For example, on May 30, 2024, the 8th "National Science and Technology Workers Day" the White Crane Ridge Underwater Museum organized the "Dream of the Power, National hundred Science and Technology Museums singing" Chinese Young Pioneers team song " and other theme education activities. Under the leadership of the school, more than 100 teachers and students from Fuling walked into the White Crane Ridge Underwater Museum to observe the ancient inscriptions and listen to experts explain the historical stories and scientific values behind them. Through virtual reality (VR) and augmented reality (AR) technology, we also experienced the wonderful scenes of ancient hydrological observation, strengthened the publicity of hydrological science knowledge, and enhanced the intuitive understanding and interest of teenagers in cultural heritage.



Figure 72 The eighth "National Science and Technology Workers Day" theme research and study education activities

Source: <https://weibo.com/ttarticle/p/show?id=2309405040457255354789>

Accessed on: September 22, 2024

Under the in-depth implementation of the thematic research tour project, the White Crane Ridge Underwater Museum has further broadened the boundary of cultural heritage education. The project is not only limited to a simple visit and explanation, but also integrates interactive experience, workshops, simulated

<sup>84</sup>Bayu Metropolis Daily. Promoting the Development of Water History in China and the Application of the White Crane Ridge for World Heritage [EB / OL]. (2019-05-14)[2023-09-26]. [https://www.cqcb.com/county/fuling/fulingnews/2019-05-15/1620357\\_pc.html](https://www.cqcb.com/county/fuling/fulingnews/2019-05-15/1620357_pc.html)

archaeology and other forms of practical activities. Under the guidance of professionals, students can personally operate the ancient hydrological observation instruments, simulate the process of ancient hydrological records, and feel the charm of ancient wisdom. At the same time, the museum has also set up a "little narrator" program for children to deepen their understanding and love for cultural heritage while participating in the explanation.

In addition, the White Crane Ridge Underwater Museum also works with universities and research institutions to jointly develop the theme of "Water Cultural Heritage Protection and Research". The course not only covers the basic concepts, classification and value evaluation of water cultural heritage, but also focuses on cultivating students practical ability and innovative thinking. Under the guidance of their tutors, the students participated in the monitoring, protection and restoration of the White Crane Ridge, and experienced the hardships and achievements of the cultural heritage protection work. At the same time, in order to further expand the influence of the research tourism project, the White Crane Ridge Underwater Museum has also actively established cooperative relations with domestic and foreign educational institutions, jointly holding academic lectures, seminars, exhibitions and other activities. These activities not only provide a platform for experts and scholars to communicate, but also provide an opportunity for the general public to understand the water cultural heritage and enhance their awareness of protection.

Through the implementation of the thematic research tour project, the White Crane Ridge Underwater Museum has not only successfully transformed the academic research results into public education resources, but also promoted the diversified development of cultural heritage protection and inheritance. In the future, the museum will continue to uphold the purpose of "inheriting civilization, enlightening wisdom and serving the society", and further enrich the content of the research and study tour projects. Constantly explore and practice the new models and new methods of cultural heritage education, and contribute to the cultivation of more young generation with cultural heritage protection awareness and social responsibility. At the same time, the museum will also strengthen the cooperation and exchanges with all sectors of society, and jointly promote the continuous progress of the cultural heritage protection cause.

### **4.3.3 Political Space**

#### **(1) Theory and Viewpoint of Political Space**

The author thinks that the current space of the White Crane Ridge is a political space. First, he sent a clear signal to the world on behalf of the Chinese government: China will unswervingly promote the protection of cultural heritage. Second, to prove to the world that Chinas Three Gorges Project is not a brutal project, but a beneficial measure for human development. In this process, Chinas material cultural heritage will be protected and managed in a more modern and comprehensive way. Then, it also reflects the countrys cultural development strategy. As "the worlds first ancient hydrological station", the White Crane Ridge occupies an important position in the world water cultural heritage. In the construction of the current space, the Chinese government not only demonstrated its firm determination to protect the cultural heritage, but also further enhanced the popularity and influence of the crane in the international cooperation and exchanges, and made positive contributions to the protection of the world water cultural heritage.

Lefebvres theory of spatial production holds that political space is a multi-dimensional concept, which involves many aspects such as political activities, political power, political participation and political culture. At the theoretical level, the political space can be understood as the field of the occurrence of political behavior, which includes both the physical space and the abstract space composed of the political system, legal framework, social structure and cultural tradition.

The representation of the political space of the White Crane Ridge is to describe and give significance to the space through political, economic, cultural and other consultations, and is a space constructed by authoritative institutions. Through the transmission of value, the political space affects peoples cognition of politics, economy, culture and thought, and achieves the purpose of political communication. The purpose of the construction of the political space of the White Crane Ridge reflects the firm determination and attitude of the Chinese government to the protection of cultural heritage. The core idea of its construction is to "consolidate the achievements of the construction of the Three Gorges Project", "maintain the international status of the worlds first ancient hydrological station", "strengthen the determination to protect cultural heritage", "boost the local economic development" and so on.

The production practice of political space focuses on practical action, and the key is the effective protection and utilization of cultural heritage. The production of the political space is a multi-dimensional and continuous process. First of all, as a modern building, the White Crane Ridge Underwater Museum and its facilities are important achievements with the construction of the Three Gorges Project. The construction of its space is finally formed through political, economic, cultural and other consultations. On behalf of the Chinese government, he not only demonstrated his firm determination and outstanding contribution to the protection of cultural heritage, but also showed the world Chinas technological and economic strength and the important contribution of the Chinese people to the world hydrological science. Secondly, the construction of its modern space also reflects the active participation and cooperation of the Chinese government in international affairs. Through the cooperation and exchange with international organizations, the White Crane Ridge has become an important window of world water cultural heritage.

## (2) The Background and Motivation of the Political Space Production of the White Crane Ridge

The primary factor for the formation of the political space is the challenges and opportunities brought by the Three Gorges project. As an underwater cultural heritage of the Yangtze River, it is also the only national key cultural relic protection unit in the Three Gorges Reservoir area. The diversity and importance of its value make it the core of the cultural heritage protection work of the Three Gorges Project. The national level attaches great importance to the policy guarantee and financial support for the protection and utilization of the White Crane Ridge. It not only represents the protection and management of the material cultural heritage along the Three Gorges Project of the Yangtze River in the construction process of the Three Gorges Project, but also is the voice of the Chinese government to the world. Chinas Three Gorges Project is not a brutal project, but a beneficial measure for human development. In this process, Chinas material cultural heritage will be protected and managed in a more modern and comprehensive way

Secondly, the promotion of the national cultural strategy has played a key role. With the increasing confidence of Chinese culture, the cultural heritage protection has been included in the core part of the national cultural development strategy. As the "well-preserved worlds first ancient hydrological station", the cultural protection and display of the White Crane Ridge has not only become a window to show Chinas long history and splendid culture to the world, but also highlights its significant position in the national cultural strategy. By holding international academic seminars and cultural exchange activities, the government has promoted the international dissemination of the White Crane Ridge culture, and cooperated with the Egyptian government to jointly apply for the World Water Cultural Heritage.

In addition, the economic development and the domestic peoples awareness of cultural heritage protection are constantly improving. In the context of economic globalization, cultural heritage is not only the witness of the national history, but also the key carrier of national identity and cultural identity. As a treasure of the Yangtze River culture, the protection and inheritance of the White Crane Ridge is not only related to the continuity of the historical memory, but also related to the spread of the national spirit. Therefore, the publics concern and love for the culture has become a key driving force to promote the production of its political space. By participating in volunteer activities, donating funds, and making protection suggestions, they actively participate in the protection and utilization of the White Crane Ridge, and jointly contribute to the inheritance and development of this cultural heritage.

### (3) The Specific Content of Political Space reduction

#### A) To Show the World Chinas Firm Determination to Protect its Cultural Heritage

As a bright pearl in the Three Gorges region of the Yangtze River, the production and heritage utilization of its space is not only an important part of the protection of Chinas cultural heritage, but also a window to show the Chinese wisdom, Chinese solutions and Chinese strength to the world. As one of the largest water conservancy projects in the world, the Three Gorges Project has always put cultural heritage protection in the first place in its construction process. The completion and opening of the White Crane Ridge Underwater Museum is an outstanding representative of the cultural heritage protection work of the Three Gorges Project. It not only effectively protects the precious historical and cultural heritage of the White Crane Ridge, but also presents it to the world through modern scientific and technological means. Effectively proved to the world that " Chinas Three Gorges Project is not a brutal project, but a beneficial measure for human development. In this process, Chinas material cultural heritage will be protected and managed in a more modern and comprehensive way."

The Chinese governments production and heritage utilization of the space is not only to preserve this historical heritage, but also to show the world Chinas respect and value for traditional culture and historical heritage in the process of modernization. The successful construction of the White Crane Ridge Underwater Museum is a clear signal from the Chinese government to the world: China will unswervingly promote the protection of cultural heritage and make positive contributions to the inheritance and development of the civilization of all mankind. The remarkable achievement of the White Crane Ridge Underwater Museum lies not only in its innovation of scientific and technological means, but also in that it, as a

window of international exchange, shows to the world Chinas firm determination and outstanding contribution in the field of cultural heritage protection. After its completion, the museum has also actively shared the experience of cultural heritage protection with the international community through international academic conferences and cultural exchange activities, promoting the innovation and integration of the concept of global water cultural heritage protection.

The construction and operation of the White Crane Ridge Underwater Museum space fully demonstrates Chinas civilization and wisdom in the construction of the Three Gorges Project. This initiative not only marks Chinas technical strength to protect its historical and cultural heritage in a complex water environment, but also demonstrates the countrys deep concern and firm commitment to traditional culture and natural heritage. Through the construction of the White Crane Ridge Underwater Museum, China has declared to the world its importance and unremitting efforts to the protection of cultural heritage in the process of modernization. This is not only a respect for history, but also an expectation for the future, showing Chinas international image as a responsible major country.

B) The Identity of "The Well-Preserved Worlds First Ancient Hydrological Station"

Space is not only a physical existence, but also a place where cultural, political and economic activities are intertwined, and an important stage for the construction of social structure and identity. As an ancient hydrological station bearing profound history and cultural deposits, the White Crane Ridge records the historical changes of the water level of the Yangtze River with its unique stone logo and inscribed inscriptions, and provides valuable scientific research materials for future generations. As the "well-preserved worlds first ancient hydrological station", this identity is UNESCOs affirmation of its value and a manifestation of its unique position in modern society. This identity logo makes the White Crane Ridge unique in the global water cultural heritage, and become an important window for the study of ancient hydrology, climate, environment and other fields.

As a modern underwater museum, the White Crane Ridge modern space has shaped the identity of "the worlds first ancient hydrological station". Through this identity, people can more deeply realize the important position of the White Crane Ridge in the long history, and its far-reaching impact on the development of modern society. In the process of deepening the identity, the cultural value and social significance of the White Crane Ridge have been unprecedented demonstrated, which has stimulated the publics strong interest in the ancient hydrology, climate and environmental changes. It has not only become a holy land for scientific research, but also become an important platform for public education and cultural exchange. In particular, the initiative to apply for the World Water cultural heritage in cooperation with the Egyptian government has pushed the White Crane Ridge to the international stage, showing Chinas international cooperation spirit and open attitude in the protection of cultural heritage.



Figure 73 The White Crane Ridge hand in hand with the joint application for World Heritage

Source:[https://www.baidu.com/link?url=5kf8qXNHafLbIRyiNepSBgaJURDA4dJWMD\\_Q5Lr-](https://www.baidu.com/link?url=5kf8qXNHafLbIRyiNepSBgaJURDA4dJWMD_Q5Lr-VU3ENiLqkosLtWnSn_8zOlvtN7ScSZ9aArXc4ywVKJ6EWAP_VepxVS6yChIF82J5y5C&wd=&eqid=aebac6c402545d570000000666fc0579)

[VU3ENiLqkosLtWnSn\\_8zOlvtN7ScSZ9aArXc4ywVKJ6EWAP\\_VepxVS6yChIF82J5y5C&wd=&eqid=aebac6c402545d570000000666fc0579](https://www.baidu.com/link?url=5kf8qXNHafLbIRyiNepSBgaJURDA4dJWMD_Q5Lr-VU3ENiLqkosLtWnSn_8zOlvtN7ScSZ9aArXc4ywVKJ6EWAP_VepxVS6yChIF82J5y5C&wd=&eqid=aebac6c402545d570000000666fc0579)

Accessed on: 2024.09.26

As the "well-preserved worlds first ancient hydrological station", the White Crane Ridge is not only a treasure of Chinas cultural heritage, but also a common cultural wealth of all mankind. Its unique cultural value and historical significance make it enjoy a high reputation and influence on the international stage. It has become a bright name card of Chinas cultural heritage and set up a good image for China in the protection and utilization of international cultural heritage. The White Crane Ridge was selected as CCTVs "National Treasure" annual Chinese Civilization logo " in August 2024. By actively applying for world cultural heritage and strengthening international cooperation and exchanges, the Chinese government has continuously enhanced the international visibility and influence of the White Crane Ridge, and further consolidated its position as a representative of Chinas cultural heritage. In 2024, China White Crane Ridge and Egypt jointly applied for the World Heritage List, and were awarded as the typical case of international exchange and mutual learning of Internet civilization in 2024.<sup>85</sup>

The political nature of the space reflects the firm determination and outstanding contribution of the Chinese government to the protection of cultural heritage, and also shows Chinas voice and influence on the international cultural stage. With the international exchange and cooperation of cultural heritage, the continuous improvement of Chinas cultural confidence and the continuous development of cultural heritage protection, the production and utilization of modern space will continue to expand and deepen, and make more positive contributions to the promotion of global cultural heritage protection.

<sup>85</sup>Upstream news news. "Protecting the World Hydrological Heritage, Chinese and foreign Experts to Chongqing" [EB / OL]. (2024-10-12)[2024-10-22]. <https://baijiahao.baidu.com/s?id=1812702245767271603&wfr=baike>

### C) International Cooperation and Exchanges in the Process of Applying for World Cultural Heritage

In the process of applying for world cultural heritage, the White Crane Ridge cultural space, as a cultural bridge across time and space, not only deepened the understanding of its profound cultural heritage at home and abroad, but also promoted more extensive international cooperation and exchanges. In order to further enhance the international visibility and influence of the cultural heritage, the Chinese government has maintained close communication and cooperation with UNESCO, the World Heritage Commission and other international institutions to jointly promote the process of applying as a World Cultural Heritage. By jointly holding cultural forums, academic seminars and other activities, we will share the successful experience in the protection and utilization of the cultural heritage, and draw lessons from advanced international concepts and technologies to inject new vitality into the protection, transmission and utilization of the White Crane Ridge.

In terms of international cooperation, China has established friendly and cooperative relations with Egypt and other countries also with rich water cultural heritage. The two sides will jointly explore new paths and new methods of water cultural heritage protection by sharing protection experience and technical exchange. The cooperation between the White Crane Ridge and the ancient hydrological stations along the Nile River in Egypt has not only deepened the understanding and friendship, but also provided valuable experience for the protection of global water cultural heritage. On this basis, international cooperation and exchanges also extend to the field of education and research. China has established a joint laboratory for cultural heritage research to jointly cultivate professionals in the field of cultural heritage protection, and conducted in-depth research on the unique stone carving art, hydrological value and ecological impact of the White Crane Ridge. These cooperation projects not only promote the exchange and cooperation of the academic community, but also inject new impetus into the cultural inheritance and scientific protection of the White Crane Ridge.

In terms of international cultural exchange, the managers of the White Crane Ridge heritage actively participate in international cultural exchange activities. For example, international International Culture Week and cultural forums will be held to invite people from cultural circles of all countries to gather together to discuss new ideas and strategies for the protection and utilization of cultural heritage. According to relevant sources, at present, the White Crane Ridge has completed the compilation and implementation of the application text, protection management methods and protection plan, and in the next step, it will continue to focus on the literature compilation and research, tourism resources development, cultural heritage protection and other fields. In the future, the White Crane Ridge will continue to uphold the principle of openness, inclusiveness and mutual benefit, and strengthen exchanges and cooperation with other countries in the field of cultural heritage protection. Make the protection and utilization of the White Crane Ridge cultural heritage to be better integrated into the global cultural heritage protection system, and contribute to the inheritance and development of all human civilization. This also provides strong support for Chinese culture to go to the world and enhance China's influence and discourse power on the international cultural stage.

#### 4.3.4 Tourism Space

##### (1) Theory and Viewpoint of the White Crane Ridge Tourism Space

The author thinks that the current space of the White Crane Ridge is also a tourist space. First of all, the White Crane Ridge has rich tourism resources. As a unique tourist space, White Crane Ridge not only has rich historical and cultural heritage, but also has unique natural landscape and geoFigureical advantages. Its unique underwater museum design allows visitors to feel the mystery and charm of the ancient hydrological station close up during the visit. Secondly, the White Crane Ridge Underwater Museum also uses modern technology to create digital tourism resources, which broadens the dimension of tourism resources, enriches the content of tourism resources, and improves the experience and satisfaction of tourists. In addition, a series of tourism service facilities around the White Crane Ridge, providing tourists with a more convenient and comfortable tourism environment.

Tourism space refers to the geoFigureical area where tourism activities take place. It not only includes natural landscape and man-made landscape, but also covers various service facilities and infrastructure related to tourism activities. The theoretical research of tourism space mainly focuses on the spatial distribution of tourism activities, the formation and development of tourism destinations, the spatial flow law of tourism flow and the interaction of tourism space. The connotation of tourism space involves the influence of tourism activities on the society, economy, culture and environment of the destination, as well as the behavior mode and experience of tourists in the space. The tourism space of the White Crane Ridge refers to the tourism activity area formed with the White Crane Ridge as the core and combining the surrounding natural landscape and cultural and historical resources. The tourism space is characterized by the unique construction method of its museum, the ancient stone carving art, and its unique status and value in the world of water cultural heritage.

The characterization of the White Crane Ridge tourism space is to describe and create the space through the unique culture, art and planning, etc. of the White Crane Ridge, and endow it with specific value and significance, so as to make its complex tourism ornamental and experiential. The tourism space of the White Crane Ridge is a space jointly built by authoritative and non-governmental organizations. This kind of space design plans how people interact with space in space. The travel experience of the tourists is planned and controls the specific content that the tourists see. The design of the space to show visitors the core content is "here how to become an ancient hydrological station", "the ancient hydrological station is how to measure the water level", "the scientific value of the ancient hydrological station", "the influence of the influence and contribution to contemporary society", and to show visitors all related folk customs, culture, art and legends, etc.

The practice of the White Crane Ridge tourism space focuses on practical action, and the key is the effective use of tourism resources. The production of the White Crane Ridge tourism space is also a multi-dimensional and sustainable development process. As a tourist space of modern buildings, the construction of the White Crane Ridge Underwater Museum and its surrounding tourism service facilities has been constantly improved in the process of social development. The development of these tourism resources initially appeared in front of tourists in a traditional way,

and then gradually developed into a recreation of traditional resources, which enabled the continuous integration and sublimation of traditional cultural tourism projects, forming a model of the current tourism space of the White Crane Ridge. This space not only shows tourists the traditional appearance of the White Crane Ridge culture, but also shows tourists the contemporary innovation of, White Crane Ridge culture. The production and innovation of this kind of tourism space has also become an important platform for local governments to display and spread culture.

## (2) Tourism Resources and Characteristics of the White Crane Ridge

As a unique tourist destination integrating natural beauty, history and culture and modern technology, the White Crane Ridge has rich and diverse tourism resources, which can provide tourists with all-round and multi-level tourism experience. In terms of natural landscape, the White Crane Ridge is located in the heart of the Three Gorges Reservoir area, where the Yangtze River winds and the green mountains on both sides are opposite, shrouded by clouds and mist, just like a moving landscape scroll. Tourists can take a cruise boat down the river to experience the magnificent and soft beauty of the Yangtze River, enjoy the natural scenery on both sides, and experience the extraordinary work of nature. In terms of humanistic characteristics, the White Crane Ridge inscription is undoubtedly the biggest highlight. These questions record the hydrological data of 72 dry years in more than 1200 years since the Tang Dynasty. They are not only important data for the study of the hydrology, climate, and geology of the ancient Yangtze River, but also the crystallization of the wisdom of the ancient Chinese working people. When visiting, tourists can not only appreciate the artistic charm of these inscriptions, but also deeply feel the historical weight that they carry.

In terms of modern tourism space, the tourism resources of the White Crane Ridge Underwater Museum can be divided into two parts: ground exhibition hall and underwater visit area. With the theme of "Water, Stone, Poetry and Museum", the ground exhibition hall introduces the historical, cultural and hydrological scientific value of the White Crane Ridge respectively. The underwater visit area adopts advanced technology to ensure that visitors can clearly see the stone inscriptions on the White Crane Ridge without affecting the protection of cultural relics. Visitors can take the special sightseeing elevator, slowly descend to the underwater exhibition hall, watch the thousand-year-old stone carvings on the White Crane Ridge closely, and feel the vicissitudes of history and human wisdom. In addition, the White Crane Ridge Underwater Museum has also developed a number of thematic cultural tourism activities, and visitors can have a deeper understanding of the history and cultural connotation of the Crane by participating in various cultural activities and experience projects.



Figure 74 Thematic cultural tourism activities (the White Crane Ridge Tourism and Culture Festival)

Source:<https://new.qq.com/rain/a/20231014A039SR00>  
 Accessed on: September 22,2023

In addition, there are also a series of tourism service facilities around the White Crane Ridge, such as tourist center, parking lot, catering service area, etc., to provide a convenient and comfortable tourism environment for tourists. At the same time, the scenic spot has also launched a series of souvenirs and cultural creative products with the characteristics of the White Crane Ridge, such as stone carvings, t-shirts, postcards, so that tourists can bring this unique memory back home. The production and sales of these tourism products not only enrich the income source of the scenic spot, but also further enhance the cultural influence and brand awareness of the White Crane Ridge.

### (3) Production Mode of the White Crane Ridge Tourism Space

The promotion of tourism industry is the key factor for the upgrading of the White Crane Ridge space. With the continuous segmentation of the tourism market and the diversification of consumer demand, the production of the White Crane Ridge tourism space not only integrates tradition and modernity, but also skillfully combines natural and cultural elements. Through careful planning and design, the White Crane Ridge Underwater Museum makes use of its unique underwater cultural heritage resources to hold theme exhibitions, cultural lectures, study trips and other activities, creating a comprehensive tourism space integrating tourism, cultural education, leisure and entertainment. The production of this space not only considers the viewing needs of tourists, but also pays attention to the experience and participation of tourists, so that tourists can have a deep understanding of the historical and cultural connotation of the White Crane Ridge during the tour.

In terms of concrete implementation, on the one hand, the White Crane Ridge Underwater Museum has also introduced the modern tourism concept. Through the application of high-tech means, it has created immersive experience projects and developed a digital display platform, which greatly improves the participation and satisfaction of tourists. On the other hand, the museum also enriches the connotation of tourism products by holding various tourism activities and cultural exchange activities, such as the White the White Crane Ridge Cultural Festival, the underwater

Museum Open Day, and the academic exchange of Fuling Water culture. In addition, the museum makes full use of the power of the Internet and new media. Through the establishment of official websites, social media platforms and other channels, timely release of tourism information, activity announcements and other content, to maintain close interaction with tourists. At the same time, the museum has also developed digital services such as online tour system and virtual exhibition, so that visitors can feel the unique charm of the White Crane Ridge even if they are not on site. These innovative measures not only broaden the boundaries of the tourism market, but also enhance the visibility and reputation of the White Crane Ridge tourism brand.

The production of the White Crane Ridge tourism space is a process that integrates cultural inheritance, ecological protection and tourism development. Its production mode is a comprehensive model integrating science and technology, culture, green, community participation and Internet thinking. This mode not only meets the diversified needs of tourists, but also promotes the activation, utilization, inheritance and development of the cultural heritage. By exploring the historical story, cultural connotation and artistic value of the Crane, the White Crane Ridge Underwater Museum has created a unique cultural tourism product. In addition, the White Crane Ridge also pays attention to the linkage development with the surrounding tourism resources. By integrating the natural landscape, cultural landscape and characteristic folk resources in the region, the White Crane Ridge has built a complete tourism industry chain. While visiting the White Crane Ridge, tourists can also visit the surrounding ancient towns, landscape areas and other scenic spots to experience the rich and colorful tourism activities. This way of regional tourism cooperation not only promotes the expansion and upgrading of the tourism space, but also promotes the economic development and cultural exchanges of the surrounding areas.

#### (4) Production Content of the White Crane Ridge Tourism Space

The production content of the White Crane Ridge tourism space is rich and colorful, aiming to create a comprehensive tourism destination integrating cultural experience, leisure and entertainment and popular science education. In content design, the White Crane Ridge not only makes full use of its unique underwater museum resources, launched a series of in-depth tour projects; but also makes full use of local folk customs to enrich the tourism content and expand the width of tourism. Such as watching Sichuan opera performances, experience the intangible cultural heritage skills and taste the local special snacks. Through the design of a series of tourism projects, tourists can not only witness the thousand-year ancient hydrological miracle, but also deeply understand the historical stories, cultural connotation and local cultural customs behind it through interactive experience.

As an important part of the production of tourism space, the White Crane Ridge Tourism and Culture Festival is not only a grand performance of local culture, but also a powerful means to attract tourists and promote the development of tourism economy. Since 2020, the managers of the White Crane Ridge heritage have carefully planned and held a grand tourism and cultural festival every year. Through colorful cultural activities, the historical stories and cultural heritage of the White Crane Ridge are perfectly integrated with modern tourism, bringing a grand audio-visual feast to tourists.

During the White Crane Tourism and Culture Festival, the organizers set up various interactive links, such as cultural lectures, handicrafts, traditional performances, etc., so that visitors can feel the unique charm of the culture in the participation. These activities not only deepened tourists understanding and recognition of the culture, but also stimulated their interest and enthusiasm for the protection of cultural heritage. At the same time, the cultural festival also actively invited experts and scholars at home and abroad to conduct academic discussions, and share research results on the protection of, White Crane Ridge and the utilization of cultural heritage, so as to further enhance the cultural influence of, White Crane Ridge. These measures provide a strong support for the White Crane Ridge to reach the world and enhance its influence and popularity in the field of international cultural heritage protection.



Figure 75 The first the White Crane Ridge Tourism and Culture Festival in September 2020  
Source: <http://web.chinamshare.com/flt/sy/jrtt/28991677.shtml>  
Accessed on: April 13,2023



Figure 76 the White Crane Ridge Tourism and Culture Festival in October 2023  
Source: <http://web.chinamshare.com/flt/sy/jrtt/28991677.shtml>  
Accessed on: April 13,2023

In addition to the White Crane Ridge Tourism and Culture Festival, the Fuling District government has also actively planned a series of distinctive theme activities to enrich the tourism experience of tourists and deepen their understanding of cultural heritage. For example, the "the White Crane Ridge Summer Night Culture Festival" will be held, through the form of light show, water performance, the historical story of the White Crane Ridge and modern technology perfect integration, bringing a dreamlike visual feast to tourists. In addition, the White Crane Ridge also jointly launched the "the White Crane Ridge Cultural Tourism Route", connecting the White Crane Ridge with the surrounding natural landscape and cultural sites, forming a comprehensive tourism route integrating sightseeing, leisure and science popularization, attracting many tourists to come and experience.

In terms of the activation and utilization of cultural heritage, the managers of the heritage of the White Crane Ridge have made active explorations. By integrating the historical stories and cultural elements of the White Crane Ridge into modern products, such as the development of cultural souvenirs and cultural products, the cultural brand of the White Crane Ridge is further promoted. At the same time, it also pays attention to the combination of new media and new technology, and uses the Internet, virtual reality and other technological means to provide tourists with more convenient, vivid and rich cultural experience.

These measures not only enrich the production content of the tourism space, but also enhance the value and influence of the White Crane Ridge as a cultural heritage. In the future, the White Crane Ridge will continue to adhere to the principle of "protection first and rational utilization", deeply explore the connotation and value of cultural heritage, and bring more colorful tourism experience and cultural enjoyment to tourists.

#### **4.3.5 Memory Space**

##### **(1) The Theory and Viewpoint of the Recall Space**

Recall space refers to the internal mental space constructed by individuals in memory and related to personal experiences, emotion and cognition. It includes not only the storage and reproduction of past events, but also the processing and reconstruction of these memories. The theoretical connotation of recall space emphasizes that memory is not a simple information storage system, but a complex process of dynamic, selective, and closely linked to personal identity and experience. In this space, individuals maintain self-continuity through recall, construct personal history, and make psychological connections with the past. Moreover, recall space also interacts with factors such as socio-cultural background, language and cognitive ability, influencing the way memory is formed and recalled.

The author thinks that the space of the White Crane Ridge now is also a memory space. First of all, as a site with profound historical and cultural deposits, the construction of its space emphasizes the dialogue between history and modernity, and how to let people talk with the memory of the past through scientific and technological means and creative design. Secondly, as a unique cultural landmark in Fuling, the White Crane Ridge has long gone beyond the limitations of its physical form, deeply rooted in the hearts of Fuling people, and has become a unique cultural symbol, shaping the collective memory and unique cultural emotions of Fuling people. According to a cultural identity survey of Fuling residents, more than 90

percent of respondents said the White Crane Ridge was an important part of their childhood memories and an indispensable topic when they introduce their hometown to outsiders. This strong cultural emotion makes the White Crane Ridge have an irreplaceable position in the hearts of Fuling people.

The representation of the memory space is to describe and endow the space through culture, symbols, scenes and audio-visual elements, which is the space constructed by individual subjective and collective impression. Through the emotional link with the past, the memory space reshaped peoples emotion, memory and experience of the past, and recognizes the identity of the cultural and psychological levels. In history, the White Crane Ridge is famous for its unique hydrological stone carvings, which not only record the ancient hydrological changes, but also carry the wisdom and courage of the harmonious coexistence between Fuling people and nature."When the stone fish rises on the White Crane Ridge, the water rises and the water falls down."Zhang Zhidong, a scholar of the Qing Dynasty, vividly describes the natural wonders of the White Crane Ridge, and also deeply reflects the Fuling peoples awe and adaptation to nature. The core of the memory space is to convey this common cultural memory, awaken peoples respect for cultural heritage, and stimulate their pride and protection consciousness of traditional culture.

The recall space focuses on the individuals memory of the past, and emphasizes the interaction between the individual and the space. As a modern building, the space construction of the White Crane Ridge Underwater Museum, on the one hand, restores the historical picture of the past through material form, on the other hand, simulates the life scene of the past by means of digital technology to jointly construct the macro scene of the past culture. In modern society, the significance of the cultural symbol is more prominent. Whenever people mention Fuling, they will think of the White Crane Ridge related to it, which has become a bright name card of Fulings external publicity. For example, in the tourism promotion activities in recent years, the White Crane Ridge has become one of the core attractions, attracting a large number of tourists to visit and experience.

The memory space constructs the interaction between the individual behavior and the past spatial memory. During the tour, the tourists relive the individual description of the past memory through personal experience and feeling. In addition, through a series of cultural activities, it also helps people to reconstruct the memory of the past and construct the spiritual pursuit of the present. For example, the popular the White Crane Ridge Tourism and Culture Festival prevailing in recent years not only strengthens the symbolic significance of the White Crane Ridge culture for the cultural identity of local cities, but also enriches the spiritual life of local people and promotes the development of local economy through the cultural festival. These cases make the White Crane Ridge not only a cultural symbol of the city, but also a bridge between the past and the future, the tradition and the modern.

## (2) Fuling Peoples Unique Memory and Feelings of the White Crane Ridge

In Fuling, a land with a long history, the White Crane Ridge is not only a wonder of nature and humanity, but also an emotional place for Fuling people to give up. According to an emotional survey of Fuling residents, more than 90 percent of respondents said the White Crane Ridge is an integral part of their growing memory. This deep emotion comes from the common memory, and it is like an invisible link, followed by the past, present and future of Fuling people. According to the survey,

more than 90 percent of local residents said that the White Crane Ridge is an indispensable part of their childhood memories, and those fragments about playing and growing up have become eternal marks in their hearts. Whenever they mention the White Crane Ridge, their eyes always twinkle with the light of nostalgia and pride.



Figure 77 Children play on the beams (the past)  
Source: [https://www.sohu.com/a/42736448\\_103551](https://www.sohu.com/a/42736448_103551)  
Accessed on: 2023.10.13



Figure 78 Stone fish carving on the White Crane Ridge (the past)  
Source: <https://m.sohu.com/n/427123890/?partner=liantong>  
Accessed on: 2023.10.13



Figure 79 Giant stone fish carving on the White Crane Ridge (a view of the past)  
Source: the White Crane Ridge Underwater Museum

During the Spring Festival every year, Fuling people spontaneously organize activities to pray for blessings, a traditional custom that has lasted for thousands of years. According to incomplete statistics, during the Spring Festival, the average daily number of tourists can reach tens of thousands of people, including some overseas Chinese coming from afar to participate in this grand folk activities. This kind of emotional resonance across time and space is the vivid embodiment of the White Crane Ridge as the soul and emotional link of Fuling culture.

In addition, Fuling people also express their emotional sustenance of the White Crane Ridge, through various forms such as literary creation and artistic creation. The famous poet Li Bai once left the ancient saying that "the apes on both sides can not cry, and the boat has passed the mountains". Although it does not directly describe the White Crane Ridge, its artistic conception complements the beauty of Fuling landscape, which has inspired countless Fuling peoples love and pride for their hometown. The contemporary artists take the White Crane Ridge as the source of inspiration to create many artistic works reflecting the regional cultural characteristics of Fuling, which further enrich the cultural connotation and emotional value of the White Crane Ridge.

In the era of social media, Fuling peoples emotional sustenance for the White Crane Ridge has been unprecedented spread and amplification. Whether on Weibo, wechat, TikTok and other platforms, pictures, videos and text sharing about the White Crane Ridge emerge in an endless stream, which has aroused wide attention and discussion. These emotional spread not only deepen the Fuling peoples cultural identity, but also let more outsiders understand the unique charm of the culture. As one netizen put it: " The White Crane Ridge is not only the pride of Fuling, but also our common spiritual home."

### (3) Case Analysis of the White Crane Ridge Memory Space

As a bridge connecting the past and the present, the White Crane Ridge Underwater Museum not only carries rich history and culture, but also builds an emotional link between people and people. Under the waters of the White Crane Ridge Underwater Museum, there is the nostalgia of countless local people in the flow of time. According to statistics, since the opening of the museum, it has received more than one million tourists from home and abroad, including some family members coming from afar. They are looking for common memories and revisiting the footprints of their ancestors. This emotional resonance across time and space makes the museum a special social place, where people share their stories and deepen their understanding and connection.



Figure 80 The search for the memory has attracted many tourists from home and abroad

Source: the White Crane Ridge Underwater Museum

In a typical case, a 70-year-old man and his grandson lived overseas together for the first time during a "Looking for the White Crane Ridge in memory" event held by a museum. The old man through the vivid narration, let the grandson as if through time and space, witnessed the former scene of the White Crane Ridge. This experience not only deepened the emotion between the grandparents and grandchildren, but also gave him a deeper understanding and identification of the culture of his hometown.

In the White Crane Ridge Underwater Museum, people can not only feel the depth and depth of history, but also feel the deep attachment and pride of local people for this land. For them, this water area is not only the display of natural scenery, but also the sustenance of memory and emotion passed down from generation to generation. The cultural memory of the White Crane Ridge has been deeply imprinted in the hearts of the local people. They constantly inherit and carry forward the cultural spirit of the White Crane Ridge through word of mouth, festival celebrations and folk activities. Whenever they mention the White Crane Ridge, their eyes will always shine with pride and respect, which is the reverence for the wisdom of their ancestors, but also the identity of their own cultural identity.

When the older generation of tourists travel to the White Crane Ridge, they are often lost in meditation, with their eyes reflecting both nostalgia for the past and pride in cultural heritage. This kind of nostalgia is not only a review of personal experience, but also the identification and inheritance of collective memory. Today, the White Crane Ridge has become a space for local peoples cultural identity and emotional memories. With todays deepening globalization, the White Crane Ridge Underwater Museum has become an important window for local people to show the cultural treasures of their hometown to the world. By strengthening cooperation and exchanges with surrounding areas, promoting the development of cultural and creative industries, and using new media technology to create online memory space, it has successfully attracted the attention of many domestic and foreign tourists, and stimulated local peoples interest and love for local culture.

#### 4.4 Summary

Modernity reflects the diversity and complexity of social culture, and provides us with new perspectives and new ideas to understand and cope with the challenges of modernity. As a cultural heritage of extremely high value, the White Crane Ridge is not only an important site of ancient Chinese hydrological observation, but also a witness of social memory. The production of the current space is an effective use of cultural heritage and a positive response to the cultural needs of modern society. The construction of the underwater museum enables the production of space to realize the transformation from traditional to modern. It has not only become a platform to display ancient science and technology and culture, but also become a bridge to promote local economic development, enhance cultural confidence and promote international cultural exchanges. The production and heritage utilization of the present space of the White Crane Ridge not only reflects the respect for the history, but also shows the responsibility and responsibility for the future.

Through the content research of this chapter, the author found that the current spatial production of the White Crane Ridge is mainly completed by means of two discourse systems. These two major discourse systems are respectively the "authoritative discourse" system and the "folk discourse" system. The "authoritative discourse" system and supervises the utilization of heritage with a scientific, objective and rational attitude. For example, in the process of establishing the cultural brand of the White Crane Ridge, the government effectively controls the utilization of the cultural heritage through the "authoritative discourse" system to ensure that its value utilization conforms to the core goal and does not deviate from the objective facts. The system of "folk discourse" is to make innovative use of the heritage through the diversified means of resources outside the heritage. For example, innovative cultural activities or workshops, using traditional festivals and themed cultural festivals, will actively organize, participate in and innovate various activities. These two discourse systems jointly enable the activation and utilization of cultural heritage, and shape the rich content of the current space of the White Crane Ridge.

This study shows that in the process of space production and heritage utilization of the White Crane Ridge, authoritative discourse ensures the authenticity and integrity of cultural heritage, and avoids excessive commercialization and cultural distortion. However, the folk discourse breaks out of the restrictions of various rules and regulations, innovates the expression mode of the cultural heritage in the contemporary life, and makes the cultural heritage activate and be closely connected with the modern life. The dual track of authoritative discourse and folk discourse enriches the current space production and significance of the White Crane Ridge. For example, as a public cultural space, the White Crane Ridge Underwater Museum conveys historical and cultural knowledge to the public through an authoritative discourse system. As a unique tourist attraction, the tourism space of the White Crane Ridge has constructed the spiritual and cultural life space of contemporary people and promoted the local economic development through the interaction between the authoritative discourse system and the folk discourse system. As a political space, the modern space of the White Crane Ridge shows to the public the firm determination and outstanding contribution of the Chinese government to the protection of cultural

heritage through the authoritative discourse system, and responds to the international controversy that the Three Gorges Project is a "<sup>86</sup> barbaric project".

In the study of this chapter, the author also found that the current space production of the White Crane Ridge is the dynamic process of cultural heritage protection and sustainable utilization of heritage. As can be observed from the data presentation in the field, the current space of the White Crane Ridge is used as exhibition, academic exchange, educational popularization, political expression, cultural innovation, social life, tourist destination, as well as the emotional memory and memory space of local residents. These innovations in spatial functions reflect the diversity of peoples social and cultural life under the background of modern society. The production and reproduction of its space is a dynamic process of the continuous utilization of the heritage, and it is always closely connected with the modern social life. The study of this part can help us to understand the dynamic construction process of the cultural heritage and space production in the background of modernity.

Moreover, due to the the complexity of the current space production and the diversity of heritage utilization,, this study failed to cover all relevant data. For example, the data collection of economic indicators, social impact, decision support and other aspects of the space production is not comprehensive enough, which affects the depth and breadth of this study to some extent. In terms of further research, the important position and influence of the heritage in the international community can be discussed, and the dynamic factors of modern space production can be further refined, especially national policies, local development strategies and application of science and technology. Attention can also be paid to the specific implementation strategies and effect evaluation of the White Crane Ridge in education, politics, tourism and recall space. With a comprehensive understanding of the complexity of space production, we will provide scientific decision support for the future development of the White Crane Ridge space.

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<sup>86</sup> Some people in the world believe that the Three Gorges Project is a "brutal project". This criticism usually emphasizes that the project may be too rough and does not properly handle the relationship with the environment and humanistic care. It emphasizes the impact on the environment, the protection of cultural heritage and the lives of local residents, as well as the possible long-term risks.

## CHAPTER V

### **The White Crane Ridge Cultural Festival is Between the Past and the Present**

In this chapter, researchers mainly discuss the production process of the development into a modern comprehensive cultural space through a series of cases combining traditional and modern times during the Cultural Festival. Through the origin, background and significance of the cultural festival and its multiple utilization mode in the modern society, the spatial dynamic production process of the White Crane Ridge Cultural Festival is discussed. It includes academic space, exhibition space, sports space, tourism space and consumption space, etc., and how these Spaces jointly shape the rich content of the White Crane Ridge Cultural Festival.

Through field visits, literature review and in-depth interviews, the researchers collected a relatively rich first-hand information and data to ensure the accuracy and depth of the analysis. This chapter is not only about the cultural festival itself, but also about community cohesion and cultural identity. Therefore, the discussion in this chapter is divided into four parts: The first part is the origin and background of the cultural festival, whose purpose is to understand the motivation of the cultural phenomenon. The second part is the White Crane Ridge Cultural Festival: the use of the past heritage. Its content mainly discusses the different role-playing and functional innovation of the past heritage in the modern space from three aspects of cultural relevance, the integration of modern elements and the utilization of multiple modes. The third part is the White Crane Ridge Cultural Festival: the production of modern complex space. It mainly discusses the academic space, exhibition and performance space, sports competition space, tourism space and consumption space constructed during the cultural festival. The fourth part is divided into the conclusions of this chapter, discusses and analyzes the research results of this chapter, and puts forward personal research suggestions.

#### **5.1 Origin and Background of the White Crane Ridge Cultural Festival**

##### **(1) The Origin of Cultural Festivals**

The White Crane Ridge Cultural Festival is a regional cultural tourism event with the theme of the White Crane Ridge cultural heritage, and is also an important platform for promoting cultural heritage protection and international cultural exchanges. Since it was listed in the World Heritage Preparatory List in 2008, the festival has been held around the theme of "the exhibition and promotion of the application for the World Cultural Heritage". Since the first Cultural Festival was held in 2020, it has been held for four consecutive times today, and it has become one of the important characteristic cultural and tourism brand festivals in Chongqing.

The White Crane Ridge Cultural Festival is a new festival that innovates through past traditions. The festival originated from a series of cultural activities planned by the local government in order to better protect and utilize the White Crane Ridge, a precious cultural heritage. The purpose is to let more people understand the historical value of the White Crane Ridge, and promote the process of the application

for the world cultural heritage. At the same time, it will display the beautiful landscape and cultural charm of Fuling and promote the development of local tourism economy. At first, the Festival focused on academic research and cultural exchanges, and attracted many historians, archaeologists and cultural researchers. With the needs of local economic development, the cultural festival gradually integrates more entertainment elements and tourism elements, and becomes a comprehensive cultural activity integrating academic research, cultural display and tourism.

### (2) The Background of the Cultural Festival

At the beginning of the 21st century, with the acceleration of the construction of Chengdu-Chongqing Shuangcheng economic circle, the government and institutions from all walks of life pay more and more attention to the deep integration of culture and regional economic development. Through carefully planned cultural activities, it can effectively promote the development of local cultural and creative industry and tourism. In this context, the White Crane Ridge Cultural Festival has come out to gradually build an important stage to show the unique charm of the local area and promote regional cooperation and exchanges. Today, The White Crane Ridge Cultural Festival has developed into a regional cultural brand with wide social influence. It not only provides a rich cultural experience for local residents and tourists, but also provides a new idea and model for the protection and utilization of cultural heritage. Through the holding of the cultural festival, white Crane beam, a precious cultural heritage, can create new vitality and significance in the modern society, which not only deepens the public's understanding and love of local traditions, but also contributes to the continuous growth of local economy and the prosperity of culture.

The core background of the White Crane Ridge Cultural Festival is "the display and promotion of the application for world Cultural Heritage". As the core element of the crane culture, the inscription is an ancient stone carving located in the middle of the Yangtze River, recording the climate change and local customs for thousands of years. The inscription vividly reflects the dry hydrology of the upper reaches of the Yangtze River and the local cultural and social life from the 8th to the 20th century. It is an outstanding contribution to China's hydrology science and the common cultural heritage of all mankind. In 2008, the inscription was listed in the Preparatory List by UNESCO. In recent years, Fuling District of Chongqing has carried out a lot of research work around the White Crane Ridge stone carvings and the Nile water scale, and formed rich research results.

### (3) The Significance of Cultural Festivals

Driven by the culture of the festival, the spread of the value and significance of the inscription has reached an unprecedented breadth. The Festival has built a bridge across time and space, becoming a bridge connecting the past and the future, tradition and modernity, and the place and the world. It not only provides intellectual assistance for the protection and utilization of the White Crane Ridge, but also plays a positive role in promoting the development of local cultural industry and promoting the prosperity of regional economy. Through holding the White Crane Ridge Cultural Festival, fuling cultural tourism industry has achieved remarkable results. According to statistics, from 2020 to 2023, the number of tourists increased from 23.01 million

to 38.93 million, and the total tourism revenue increased from 19.4 billion yuan to 33.3 billion yuan, up by 69% and 71% respectively.<sup>87</sup>

The significance of the cultural festival is not only reflected in the protection, inheritance and utilization of the precious cultural heritage of the bridge, but also in it provides a platform for local residents and tourists to explore and experience the local history and culture. With the help of various forms and rich contents of cultural activities, including but not limited to exhibitions, academic lectures and interactive experience projects, the cultural festival has become an important platform to promote public awareness, enhance cultural confidence and enhance national pride. In addition, the White Crane Ridge Cultural Festival has also become an important starting point for driving the development of the local economy and related industries, such as tourism, catering industry, cultural and creative industry, etc. The development of these positive benefits has also created more employment opportunities and economic income for the local residents.

Through the dissemination of cultural festivals, the value of the White Crane Ridge cultural heritage has been paid more attention by more people. In addition, the cultural festival also further strengthens the cooperation between the local area and the surrounding areas. It has become a leading cultural brand to promote the integrated development of regional culture, jointly build local characteristics, and contribute to the construction of cultural and creative space in the Chengdu-Chongqing Shuangcheng economic circle.

## **5.2 The White Crane Ridge Cultural Festival is the Use of the Past Heritage**

### **(1) The Connection Between the Past Folk Culture and Art and the Present Cultural Festival**

The third part of the third chapter of this paper, "the heritage of the past space of the White Crane Ridge", explores the carving art, poetry art and folk culture art of the White Crane Ridge, including visiting sheng, spring outing, watching stone fish, the custom of singing the harvest, legends and the custom of "human day". Visit victory is to visit the scenic spots here, spring outing is a traditional cultural custom, and watching stone fish, song year is an important activity to visit victory and spring outing. Legends and fairy stories are the basis for building spiritual beliefs. The custom of "human day" originated from traditional Chinese culture, and the seventh day of the first lunar month is an ancient tradition of human birthday. On the "People Day", people hold activities to pray for peace, auspiciousness and longevity in the New Year. In traditional societies, the "human day" custom is also regarded as an ancient custom related to divination. Therefore, the "human day" custom was a very important custom in the ancient society. The "human day" custom in Fuling is the unique lifestyle and spiritual pursuit of local people, and is an important part of local culture.

In the modern society, although the lifestyle and values have changed, the local cultural customs in Fuling have still been inherited and preserved to a certain extent. Through these customs, we can have a glimpse of the local customs of ancient society, religious beliefs and peoples reverence and respect for nature and life. You

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<sup>87</sup> China News Network.The 2024 The White Crane Ridge Tourism and Culture Festival will open on October 11 [EB/OL].(2024-10-10)[2024-10-22].  
<https://baijiahao.baidu.com/s?id=1812496685771639987&wfr=spider&for=pc>

can also see how the ancient working people created and used culture. The White Crane Ridge Cultural Festival was invented on the basis of these local customs. It is a tradition invented by contemporary people. These traditions are artificial, formalized and ritualized processes associated with the past. These traditions are to strengthen the identity of "the only well-preserved ancient hydrological station in the world", play the role of gathering community, establishing power relations, instill faith and value system, as well as its important role in social structure and cultural identity.

The folk customs of The White Crane Ridges carry the living customs and cultural traditions passed down from generation to generation, and have become an indispensable part of peoples life. From the ancient sacrificial ceremony to the traditional folk culture and art, from the folk stories passed down from generation to generation to the unique underwater forest of steles, each contains profound cultural deposits and historical significance. These are the understanding and utilization of the ancient Fuling people. The White Crane Ridge Cultural Festival is a cultural activity created by using peoples unique memory and emotion of it, which is a part of the modern space production of the White Crane Ridge. Through these activities, people express their memories and awe for this unique culture. In addition, the cultural festival has also expanded the scope of art performance. Through the application of the cultural elements of the White Crane Ridge, a variety of art forms have been innovated, so that the utilization of the cultural heritage develops diversified in modern society. The specific content of the White Crane Ridge Cultural Festival is a series of innovative cultural projects through the utilization of the past cultural heritage.

#### (2) The Use of Modern Elements is Integrated

As an important cultural heritage, the use of the White Crane Ridge has undergone many changes in the long history. From the original wisdom of learning from nature to the later local customs and modern cultural festival activities, the White Crane Crane is not only a witness of history, but also a bridge connecting the past and modernity. In modern society, the utilization of cultural heritage is no longer limited to the protection and display of tradition, but more integrated into the modern elements such as cultural construction, resource integration and the theme of eternal enlightenment. In this process, the protection and utilization of the White Crane Ridge inscription has gradually formed a diversified mode, thus breaking the limitation of time and space.

In terms of cultural construction, with a series of carefully planned activities and ceremonies, the Festival has greatly enhanced the sense of identity and belonging of the public to this precious cultural heritage, thus establishing its cultural identity. Specifically, culture festival elaborate fusion of traditional festival celebration elements, with colorful exhibition, authentic folk performances and art exhibition, for the public with a deep understanding of the White Crane Ridge historical origin, feel its unique cultural value platform, and enable them to experience the unique charm of traditional culture, to effectively promote the inheritance and development of local culture. In addition, the White Crane Ridge Cultural Exhibition Hall has been set up to help visitors fully understand the cultural characteristics and historical changes through multimedia display, physical display and virtual reality technology.

In terms of resource integration, the White Crane Ridge Cultural Festival adheres to the principle of cooperation, and actively works with local governments, businesses and academic institutions and other multiple subjects to comprehensively integrate all kinds of resources, aiming to jointly promote the proper protection and efficient utilization of cultural heritage. To be specific, the cultural festival cooperated closely with the modern tourism department, carefully planned and launched unique tourism routes, effectively realizing the double maximization of the economic value and social value of the cultural festival. At the same time, it has established in-depth cooperation with educational institutions and carried out a series of educational projects closely related to the cultural festival, aiming to cultivate the youths deep interest in and deep understanding of traditional culture. In addition, the cultural festival also actively seeks cooperation opportunities with enterprises, jointly research and develop cultural and creative products closely related to the White Crane Ridge, which has strongly promoted the vigorous development of the local cultural industry. This series of resource integration measures not only significantly enhance the cultural influence and popularity of the White Crane Ridge, but also injected new vitality and growth points into the local economy

In terms of the White Crane Ridge Cultural Festival emphasizes respect for history and thinking about the future. Through educational and research activities, people are encouraged to deeply understand the historical significance and cultural value of the White Crane Crane, while the concept of sustainable development is advocated to ensure that cultural heritage can be long-term protected and rationally utilized. The theme of Yongwu is one of the core concepts of the White Crane Ridge Cultural Festival, through which the public is guided to think about how to better protect and utilize these precious hydrological heritage while appreciating the ancient hydrological stone carvings. Driven by the theme of Yongwu, the White Crane Ridge Cultural Festival is also committed to promoting the innovative utilization of cultural heritage. At the same time, the festival also encourages artists and designers to create art works with the characteristics of The Times, so that the tradition will radiate new vitality in modern life.

### (3) Multiple Utilization Mode that Breaks Through the Time and Space Restrictions

The White Crane Ridge Cultural Festival, culture, tourism, sports and other diversified formats break through the time and space restrictions on the utilization of cultural heritage. For example, through the opening ceremony, academic seminars, sports events, cultural and tourism promotion and other activities, the cultural heritage of the White Crane Ridge will be fully displayed, inherited and utilized, and the latest progress of the deep integration of the Cross-Egypt "joint application for World Heritage" will be displayed. At first, the Festival mainly focused on academic research and cultural exchanges, and attracted many historians, archaeologists and cultural researchers to participate. By 2023, the White Crane Ridge Cultural Festival will incorporate entertainment and tourism elements, and "the White Crane Ridge Cultural Festival" was renamed "the White Crane Ridge Tourism and Cultural Festival", becoming a comprehensive cultural activity integrating academic research, cultural exhibition, sports events, tourism and consumption.

At the opening ceremony of the cultural festival every year, a series of colorful cultural performances will be carefully planned, which are inspired by the cultural elements of the White Crane Ridge. For example, in 2020, the dance poem "the White Crane Ridge", as the climax of the opening ceremony, won the warm applause of the audience; and in 2023, the song and dance performance "Thousand Crane Around the beam" added infinite charm to the cultural festival. In 2024, the content of the performance will be even more wonderful, divided into three chapters: "Meet the White Crane", "Knowledge" and the next "Love and Beauty of Beauty". Artists from China and Egypt hand in hand, emotional deduce including singing and dancing to "the White Crane Ridge", sound poem "fu weng new language", women dance "hills and green", singing and dancing "charm Egypt", dance "Yangtze river", multiple programs, vividly shows the cultural charm of the two countries, and in the cultural heritage protection and civilization exchange mutual learning achievements and common vision.



Figure 81 The opening ceremony of the 2020 The White Crane Ridge Cultural Festival performed the dance poem "The White Crane Ridge"

Source: Cao Wenyi, November 12, 2020



Figure 82 2023 Opening ceremony of the 2023 the White Crane Ridge Cultural Festival "Thousand Crane Around the White Crane Ridge"

Source: Xu Shipeng, October 13, 2023



Figure 83 The opening ceremony of the 2024 The White Crane Ridge Cultural Festival is performed by "Come to the White Crane Ridge"

Source: Cao Wenyi, October 11, 2024

In the field of cultural and tourism exchanges, it mainly focuses on three core aspects. First of all, the academic exchange of water cultural heritage, especially the international academic seminar where China and Egypt jointly applying for the World water cultural Heritage, which is the highlight of the White Crane Ridge Cultural Festival. The event aims to deeply explore and study the value and protection measures of water cultural heritage, and promote the cooperation and exchanges among various countries in the protection of water cultural heritage through academic exchanges. Secondly, the promotion meeting of cultural tourism projects and tourism products in Chengdu-Chongqing region, which focuses on the Chengdu-Chongqing twin cities economic circle, and promotes high-quality cultural tourism projects and tourism routes. This activity aims to display the unique cultural and tourism resources of Chengdu-Chongqing region, attract more tourists to experience it, and promote the development of cultural tourism industry in the region. Finally, the White Crane Ridge art performance exhibition and exhibition, mainly through the water culture theme art performance, picture exhibition, and "The White Crane Ridge Cup" calligraphy works exhibition. Through these activities, promote Chinese water culture and show the unique charm of the White Crane Ridge inscription art.

In terms of sports events, sports events will be deeply integrated with cultural tourism and sports competitions. The main performance is in both the traditional sports activities, and the modern sports activities. For example, the Traditional Dragon Boat Invitational, the National Rugby Sevens Championship in Chongqing, and the Fuling the White Crane Ridge Half Marathon. At the same time, the festival also invited the Chinese Motorboat Association and the national champion of synchronized water skiing to perform water stunts.



Figure 84 2024 The White Crane Ridge Tourism and Culture Festival · Traditional Dragon Boat Race

Source: [https://www.sohu.com/a/818048259\\_121106884](https://www.sohu.com/a/818048259_121106884)

Accessed on: 2024.10.29



Figure 85 2024 The White Crane Ridge Tourism Cultural Tour Festival · Water stunt performance

Source: [https://www.sohu.com/a/818048259\\_121106884](https://www.sohu.com/a/818048259_121106884)

Accessed on: 2024.10.29



Figure 86 2021 The White Crane Ridge Cultural Festival · National Rugby Sevens Championship scene

Source: [https://www.sohu.com/a/568893978\\_121106884](https://www.sohu.com/a/568893978_121106884)

Accessed on: 2024.10.29



Figure 87 2024 the White Crane Ridge Tourism and Culture Festival · Chongqing Fuling the White Crane Ridge Half Marathon site  
Source: <https://news.qq.com/rain/a/20241027A07J0R00>  
Accessed on: 2024.10.29

In terms of cultural and tourism promotion, the cultural Festival has launched a series of consumption activities of "traveling, traveling, appreciating and purchasing" benefiting the people, including museum night and water talk show, etc., so that tourists can enjoy the new development and vitality of "Happy New Fuling" while experiencing the "White Crane Ridge of the World". For example, in 2024, the White Crane Ridge Tourism and Culture Festival will launch a new group tour of "punching in New Fuling", and carry out the activities of "music appreciation" and "watching quality performances". More than 10 wonderful Chinese and foreign dramas, including "Red Sorghum Family" and "Carmen", were staged in Fuling Grand Theater. Hold "Tesco" and "Fuling Zhenpin" brand press conference, to create "Fuling Zhenpin" image store.



Figure 88 2024 the White Crane Ridge Cultural Festival "Fuling Zhen" brand press conference  
Source: Cao Wenyi, October 29, 2024



Figure 89 2024 the White Crane Ridge Cultural Festival "Fuling Zhenpin" live broadcast

Source: Cao Wenyi, October 29, 2024

### 5.3 The White Crane Ridge Cultural Festival Contributes to the Production of Modern Complex Space

#### (1) Academic Space

As an important part of the cultural festival, the academic space not only provides a platform for scholars to exchange and study, but also promotes the in-depth discussion on the protection and inheritance of cultural heritage. In this space, a number of academic seminars and lectures have been held, and well-known historians, cultural scholars and experts in related fields at home and abroad have been invited to jointly discuss the historical value, artistic characteristics and its application in modern society. Through these academic activities, the cultural festival not only enhances the public's awareness of the importance of the culture, but also provides theoretical support and practical guidance for the protection and utilization of cultural heritage.

From the material level, the academic space of the White Crane Ridge Cultural Festival is developed around the White Crane Ridge Hydrological Site in Fuling District, Chongqing. The composition of the academic space is composed of its geoFigureical location, hydrological value, important position in the field of water heritage, outstanding contribution to cultural heritage protection and application for world cultural heritage. For example, the 2020 Symposium on Sustainable Development of the White Crane Ridge World Cultural Heritage focused on topics such as "Protection and utilization of World Cultural Heritage", "Sustainable Development of World Cultural Heritage" and "Value of the White Crane Ridge Heritage". The 2023 the White Crane Ridge International Symposium will hold academic discussions on the theme of "Hydrological Heritage in the Background of Global Climate Change", and have dialogue and exchange on the feasibility and strategy of "The White Crane Ridge-Nile Joint Application for World Heritage". The 2024 White Crane Ridge International Academic Symposium, focusing on the "Heritage value and protection of Nile ruler", conducted academic exchanges on the inscription of the White Crane Ridge and Nile water ruler in the research of cultural heritage, cultural relic protection and utilization and other aspects. The purpose is to

discuss the new model of cooperation between trans-intercontinental joint application for World Heritage and cultural heritage protection, and make suggestions for the joint application of China-Egypt for World Heritage.



Figure 90 Liu Chunming, deputy director of China Three Gorges Museum in Chongqing, presided over the opening ceremony of the 2020 White Crane World Cultural Heritage Sustainable Development Seminar  
Source: Wang Longbo, November 22,2023



Figure 91 2023 the White Crane Ridge International Symposium  
Source: Wang Longbo, November 22,2023



Figure 92 2024 the White Crane Ridge International Symposium  
Photo source:[https://www.sohu.com/a/816142607\\_121106884](https://www.sohu.com/a/816142607_121106884)  
Accessed on: 2024.10.29

From the social level, the White Crane Ridge festival international academic conference by China sites protection association, China cultural heritage institute, Chongqing culture LvYouWei guidance, fuling district government, Chongqing China three gorges museum, participants from China, Egypt, the United States, Japan, the Netherlands, Brazil and other countries of hydrological heritage experts. The purpose of the academic space is to discuss the historical, cultural and emotional values of water, heritage and heritage under the background of global climate change with domestic and foreign experts. The continuous hydrological records of Chinese White Crane Ridge and Egyptian Nile ruler have extremely valuable scientific value, providing important clues for the study of ancient climate and social changes in Asia and Africa, and even the Northern Hemisphere. At the seminar, Zhao Yun, director of the China World Cultural Heritage Center at the Chinese Institute of Cultural Heritage, said that the application of the White Crane Ridge and Nile ruler as world cultural heritage as a series of heritages, which is conducive to filling the blank of hydrological observation heritage in the World Heritage List.

Egypt's ambassador to China, Hanaifi, said in his speech, the pyramids, Luxor temple and Nile foot historic sites witnessed the glory of the past, The White Crane Ridge also in its unique way shows the Yangtze river basin, and even China's splendid civilization, this is not only the pride of China, but also the common precious wealth of all mankind. The purpose of academic exchange is not only the cultural exchange and collision, but also the innovative exploration of world heritage protection. The conference gathered cultural heritage experts from all over the world to discuss the value and commonness and differences between China's White Crane Ridge and Egypt, and took the opportunity of promoting the joint application of world cultural heritage to open up new ways of exchange and cooperation in the field of world hydrological heritage protection. We should use this as a bridge to strengthen experience sharing and technical cooperation among countries in the field of cultural heritage protection, so that more heritages like the White Crane Ridge and the Nile foot can be passed on, so that future generations can appreciate the wisdom and creativity of their ancestors.



Figure 93 2024 The White Crane Ridge International Symposium, Ambassador of Egypt to China Asiim Hanaifi delivered a speech

Photo source: [https://www.sohu.com/a/816142607\\_121106884](https://www.sohu.com/a/816142607_121106884)

Accessed on: 2023.10.29

From the spiritual perspective, the White Crane Ridge and the Nile foot, as bright pearls in the history of hydrological observation between China and Egypt and even the world, have their unique value not only in their contribution to the ancient hydrological science, but also in the historical memory and cultural spirit they carry as cultural heritage. In the production of academic space, these cultural resources become important research objects in education and scientific research. Through these historical sites, scholars can deeply explore the hydrological knowledge system of ancient civilizations, and how this knowledge has influenced the scientific development of later generations. At the same time, the protection and research of these cultural heritages also promote interdisciplinary cooperation, such as the participation of experts in the fields of history, archaeology, hydrology and environmental science, providing a multi-angle perspective and method for the protection and inheritance of cultural heritage.

The White Crane Ridge international academic conference of beneficial value from the theory, method, or empirical specific problem, put forward many constructive opinions, highly academic enlightening and realistic pertinence, from the direction, target properties are put forward new insights, to promote the White Crane Ridge inscription to declare the world cultural heritage and the sustainable development of the national cultural heritage has been of great significance. The holding of the conference also provides a platform for experts at home and abroad to exchange and strengthens international academic cooperation. Through these academic activities, not only enhance the understanding of the cultural heritage, but also promote the international dissemination of the concept of cultural heritage protection.

## (2) Display and Exhibition Space

The exhibition space of the Cultural Festival includes three dimensions: physical space, spiritual space and social space. Physical space mainly refers to the physical places on which the White Crane Ridge Cultural Festival depends, such as exhibition hall, two-river square, Jinxiu Zhou Cultural Square, etc. These places provide material basis and performance platform for the cultural festival. The spiritual space involves the cultural concept, historical value and artistic atmosphere conveyed by the cultural festival. It stimulates the emotional resonance and spiritual enjoyment of the participants through various forms of cultural activities and artistic performances. The social space is reflected in how the cultural festival influences and promotes social communication, cultural exchange and community development. Through the cultural festival, it strengthens the connection between community members and enhances social cohesion.

From the dimension of physical space, the exhibition and performance space of the White Crane Ridge Cultural Festival not only uses the specific physical space of the underwater museum, but also carries out cultural activities and artistic performances with the help of the surrounding cultural square, the cultural center, the grand theater and the river, adding rich cultural connotation and visual effects to the cultural festival. For example, the special design of the underwater museum allows visitors to get a close look at the original inscription, the White Crane Ridge Square and Jinxiu Zhou Cultural Square provide spacious space for large outdoor exhibitions and performances. For example, the 2020 White Crane Ridge Cultural Festival, with

the theme of "Watching Stone · Celebrating Harvest Together", and in 2023 and 2024, with the theme of "White Crane Ridge of the World, Happy New Fuling", will hold a large-scale thematic art performance in Jinxiu Zhou Square. Fuling Cultural Center also held the "Our Chinese Dream", culture into thousands of activities, Fuling Grand Theater staged a number of distinctive dance performances.



Figure 94 The 2020 White Crane Ridge Cultural Festival, with the theme of "Watching Stone together · Celebrating Harvest", will hold a large-scale special art performance in Jinxiu Zhou Square

Source: [http://www.cqcb.com/county/fuling/fulingnews/2020-09-23/3028565\\_pc.html](http://www.cqcb.com/county/fuling/fulingnews/2020-09-23/3028565_pc.html)  
Accessed on: 2024,11.9



Figure 95 With the theme of "The White Crane Ridge", the Festival of 2023 will hold a large-scale special art performance in Jinxiu Zhou Square

Source: [https://m.thepaper.cn/baijiahao\\_24972460](https://m.thepaper.cn/baijiahao_24972460)  
Accessed on: October 20.22,2024



Figure 96 Fuling Grand Theater dance performance "Life is only like the First sight"  
 Source: [http://www.cqcb.com/county/fuling/fulingnews/2019-04-15/1562222\\_pc.html](http://www.cqcb.com/county/fuling/fulingnews/2019-04-15/1562222_pc.html)  
 Accessed on: 2024.11.8



Figure 97 In 2024, the White Crane Ridge Cultural Festival will hold a large-scale special art performance in Jinxiu Zhou Square  
 Source: [https://www.sohu.com/a/815971944\\_121106884](https://www.sohu.com/a/815971944_121106884)  
 Accessed on: 2024.11.8





Figure 98 In 2024, the White Crane Ridge Cultural Festival will hold a large-scale special art performance in Jinxiu Zhou Square  
Source: Cao Wenyi, October 12, 2024

From the perspective of social space, the White Crane Ridge Cultural Festival is not only a cultural event, but also an important platform to promoting the protection of cultural heritage and international cultural exchanges. It plays an important role in promoting social harmony and cultural progress. The construction of social space is reflected in how the cultural festival influences and promotes social communication, cultural exchange and community development. Through the holding of the cultural festival, departments and units at all levels organize community residents to participate in the preparatory activities of the cultural festival. In this process, it not only enhances the cohesion of the community, but also promotes the local connection with the outside world. During the cultural festival, community residents and tourists jointly participate in cultural activities to experience and enjoy the cultural achievements, which promotes the dissemination and sharing of culture at the social level, and also promotes the diversified integration of social culture. The social space of the cultural festival has also become a place for local residents to express themselves and share their cultural identity. Through the display of art and culture, the White Crane Ridge Cultural Festival has successfully transformed the past traditions into a dynamic and modern social and cultural exchange space.

From the perspective of spiritual space, the spiritual space of the White Crane Ridge Cultural Festival is mainly constructed by holding various cultural activities. These activities not only show the cultural value and artistic charm of the White Crane Ridge, but also enable participants to deeply understand the historical significance and cultural heritage of the White Crane Ridge through interactive experience. The construction of spiritual space aims to stimulate the public's awareness and enthusiasm for cultural heritage protection, and promote the cultivation of cultural confidence and national pride. For example, the gathering ceremony in the 2024 White Crane Ridge Cultural Festival expresses the cultural spirit and origin between the two countries through the ceremony of the Yangtze River and the Nile. The construction of the spiritual space has successfully immersed the participants in

an environment full of creativity and imagination. The creation of this space not only provides a platform for local residents to express themselves, but also provides an opportunity for foreign tourists to have a deep understanding of this characteristic culture. By participating in the preparation and experience activities of the festival, the exhibition space of the festival enhances residents' understanding of the local cultural heritage, and enhances community cohesion and cultural pride.



Figure 99 The confluence ceremony in the 2024 the White Crane Ridge Cultural Festival expresses the cultural spirit and origin between the two countries through the confluence ceremony between the Yangtze River and the Nile

Source: Cao Wenyi, October 12, 2024

The exhibition and performance space of the White Crane Ridge Cultural Festival combines its traditional resources with modern creativity to create cultural inheritance and aesthetic experience with the flavor of The Times. For example, through the clever use of modern stage design and lighting effects, the traditional cultural symbols are innovated and deduced to a new artistic height. Combining the production process of traditional culture with dance art, we have created works such as large-scale dance poems "The White Crane Ridge", songs and dances "Ten Thousand Cranes Around the White Crane Ridge", "Come to the White Crane Ridge" and "Fu Weng New Language". These works not only convey the concept and historical value of traditional culture, but also incorporate the atmosphere of contemporary art, bringing spiritual pleasure to the audience and stimulating emotional resonance.

### (3) Sports Competition Space

In the White Crane Ridge Cultural Festival, the production of sports space is not limited to traditional sports activities, but also combines sports with culture and tourism through innovative ways to create a unique sports culture experience. For example, with the help of the natural landscape and historical background of the White Crane Ridge, special sports events such as the "The White Crane Ridge Dragon Boat Race" are organized. These activities not only attract the participation of sports lovers, but also become a highlight of the cultural festival and attract the attention of many tourists. In addition, outdoor activities such as hiking and cycling with the theme of the White Crane Ridge have been developed, so that participants can have a

deep understanding of the history and culture of the fun of sports. These activities not only enrich the content of the cultural festival, but also promote the development of local sports tourism, and bring new growth points for the local economy. Through the innovative production of sports space, the White Crane Ridge Cultural Festival successfully combines sports with cultural inheritance and tourism development, forming a new cultural space with diversified interaction and vitality.

From the perspective of physical space, the physical composition of the White Crane Ridge sports space includes Fuling Gymnasium, city Marathon course, the river surface of the Yangtze River and the leisure footpath integrated with the natural environment of the White Crane Ridge. These facilities meet the basic needs of sports competition during the cultural festival, and also take into account the harmonious coexistence with the surrounding environment, making sports activities and the natural landscape complement the other.



Figure 100 Top view of the city marathon track

Source: [https://sports.sohu.com/a/820852789\\_121433834](https://sports.sohu.com/a/820852789_121433834)

Accessed on: 2024.11.8



Figure 101 Top view of the city marathon course integrated with the natural environment

Source: <https://www.fulingwx.com/page/news-center/cultural/20231014/604093.html>

Accessed on: 2024.11.8



Figure 102 Sports competition space is on the river surface of the Yangtze River

Source: [https://sports.sohu.com/a/820852789\\_121433834](https://sports.sohu.com/a/820852789_121433834)

Accessed on: 2024.11.8

From the perspective of spiritual space, the construction of the White Crane Ridge sports space conveys positive sports spirit and cultural value through a series of sports and cultural activities, such as dragon boat race, hiking and cycling, aiming to stimulate peoples enthusiasm for sports. These activities not only provide spiritual pleasure and satisfaction for the participants, but also promote the dissemination and communication of sports culture, enhancing the cohesion of the community and the sense of belonging to the culture. Through innovative sports activities, the White Crane Ridge Cultural Festival not only shows the charm of sports, but also conveys the healthy and dynamic concept of life, and further promotes the deep integration of sports and culture. In addition, the sports space also provides places for local residents and tourists to relax and entertain themselves, enriching their social life and improving their quality of life.

The construction of social space is reflected in how sports space promotes social communication and cultural exchange. The White Crane Ridge sports space promotes social communication and community cohesion through the holding of sports activities. Sports events attract people from different regions and different backgrounds to gather here to participate in and experience the fun brought by sports together. This social interaction not only enhances peoples understanding and friendship between people, but also promotes social harmony and stability. Through the holding of sports activities, the sports events of the White Crane Ridge Cultural Festival have also become a bridge between man and nature, man and culture, and man and society.



Figure 103 Kenyas Vincent Kipsegechi Yator (Vincent Kipsch Yor) won the mens race with a time of 1:06:30

Source: [http://news.sohu.com/a/820850782\\_120388781](http://news.sohu.com/a/820850782_120388781)

Accessed on: 2024.11.8



Figure 104 2024 the White Crane Ridge Half Marathon Public Health Run

Source: [http://news.sohu.com/a/820850782\\_120388781](http://news.sohu.com/a/820850782_120388781)

Accessed on: 2024.11.8

#### (4) Tourism Space

The tourism space of the White Crane Ridge Cultural Festival is multi-dimensional, including not only the material tourism facilities and environmental construction, but also the cultural experience and educational functions at the spiritual level. The design concept of tourism space emphasizes the communication and educational function of culture, and pays special attention to the barrier-free design to ensure that all tourists, regardless of age or physical condition, can enjoy equal cultural experience. Through these meticulous designs, the tourism space has become a bridge between the past and the future, material and spiritual, individual and society.

From the perspective of physical space, the tourism space of the White Crane Ridge takes the White Crane Ridge Underwater Museum as the core, and shows visitors the history, culture and underwater wonders of the White Crane Ridge

through various exhibitions and interactive experience activities. The festival also focuses on creating a series of well-designed tourist attractions and facilities. These scenic spots and facilities can provide visitors with the opportunity to view and experience the White Crane Ridge culture, where visitors can have a deep understanding of the historical changes of the Yangtze River basin and feel the wisdom of ancient water conservancy projects. For example, visitors can experience the ancient the White Crane Ridge water conservancy projects through virtual reality technology, or understand the ecological changes of the Yangtze River basin through interactive exhibitions. In addition, the tourism space of the White Crane Ridge Cultural Festival has also creatively carried out large-scale art performance, music and food festival, special commodity display, etc., providing tourists with a full range of tourism experience.

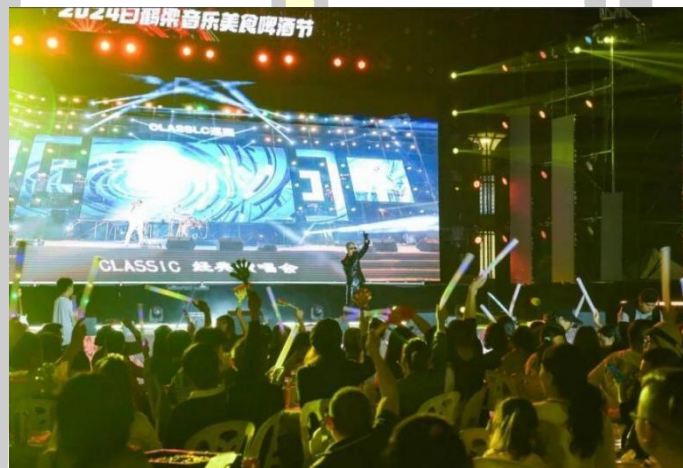


Figure 105 2024 the White Crane Ridge Music and Food Beer Festival opened in CBD Square of Fuling High-tech Zone

Source: [https://www.sohu.com/a/816706024\\_121106884](https://www.sohu.com/a/816706024_121106884)

Accessed on: 2024.10.11



Figure 106 2024 White Crane Ridge Music and food Beer Festival scene

Source: [https://www.sohu.com/a/816706024\\_121106884](https://www.sohu.com/a/816706024_121106884)

Accessed on: 2024.10.11

From the perspective of spiritual space, the tourism space of the White Crane Ridge Cultural Festival is not limited to the display of material forms, but also pays more attention to the spiritual experience and cultural inheritance. Visitors can feel the profound heritage of the Yangtze River culture here. By participating in various cultural activities, such as lectures, seminars, interactive workshops and exhibitions and performances, they can have an in-depth understanding of the history and culture of the Yangtze River basin. In addition, the tourism space also stimulates tourists interest and thinking in traditional culture through the interactive experience of art installation and multimedia, so as to resonate with the White Crane Crane culture on the spiritual level. In addition, the spiritual space of the cultural festival emphasizes the function of cultural dissemination and education. Through educational activities and cultural experience courses, every participant can be educated and inspired to become the messenger of the cultural inheritance of the Yangtze River.

From the perspective of social space, the construction of tourism space of the White Crane Ridge Cultural Festival has received the active support and participation of the local government, as well as the close cooperation with the local community. The construction of this tourism space not only brings rich cultural experience to tourists, but also provides valuable opportunities for local residents to participate in and share excellent cultural resources. Through the cultural festival, residents can show their traditional skills and cultural characteristics, which not only enhances the cohesion of the community, but also deepens the residents sense of identity. At the same time, the creation of the White Crane Ridge tourism space has also promoted local employment and provided more job opportunities for residents, so as to improve their economic conditions.

#### (5) Consumption Space

In the consumption space of the White Crane Ridge Cultural Festival, visitors can not only experience the shopping environment blend of tradition and modernity, but also enjoy a series of well-planned interactive experience activities. These activities have the on-site display and experience of traditional crafts, as well as the special food production. By planning consumption activities, tourists can make souvenirs or make special food, so as to deepen and understand the local culture.

From the perspective of material space, the consumption space of the White Crane Ridge Cultural Festival is built in the physical space, including the product consumption of museums, cultural squares and other Spaces. Therefore, the sale of goods not only includes the physical goods, but also covers the consumption of cultural experience and spiritual enjoyment. Visitors can buy souvenirs with local characteristics here. For example, the 2023 the White Crane Ridge Cultural Festival held an exhibition in Chengdu-Chongqing area. Exquisite characteristic cultural and creative products were exhibited in Nanchong city, including northern Sichuan puppets, Liuhe silk, Gaoping bamboo weaving, Jialing good mulberry tea, Yilong paper cut, Yingshan Panda Shu embroidery, cultural and creative gifts of Sichuan Troupe, which are deeply loved by local citizens. These commodities not only carry rich cultural connotation, but also become the carrier for tourists to commemorate travel and spread culture.



Figure 107 2023 the White Crane Ridge Cultural Festival Nanchong featured products sales display  
Source:Cao Wenyi, October 14,2023



Figure 108 2023 the White Crane Ridge Cultural Festival Nanchong Exhibition area  
Source:Cao Wenyi, October 14,2023

From the perspective of social space, the consumption space of the White Crane Ridge Cultural Festival also provides a variety of entertainment activities, such as characteristic markets and cultural themed night markets, etc. These activities not only enrich the night life of tourists, but also provide a good place for local residents for leisure and entertainment. In addition, the expansion of the consumption space has also driven the development of relevant industrial chains, such as handicraft production, local characteristic catering, etc., which provide new employment opportunities and entrepreneurial platforms for local residents, and further promote the prosperity of the community economy. The production of the consumption space at the White Crane Ridge Cultural Festival not only promotes the interaction between local residents and tourists, but also strengthens the connection within the community. Through these well-planned consumption experiences, the White Crane Ridge Cultural Festival successfully combines cultural heritage with modern consumption trends, creating a vibrant and innovative consumption environment for tourists and local communities.

From the perspective of spiritual space, the consumption space of the White Crane Ridge Cultural Festival not only provides tourists with material satisfaction, but also enriches their experience on the spiritual level. Through the consumption culture and consumption experience, tourists can understand the local history and culture in the imperceptible consumption and entertainment, so as to resonate with the local culture spiritually. For example, tourists participate in local characteristic handicraft production experience, local drama performances, etc. This spiritual consumption not only improves the cultural experience of tourists, but also promotes the inheritance and dissemination of cultural heritage. At the same time, it can also stimulate tourists understanding and respect for cultural diversity, and build a bridge for building a harmonious society and promoting cultural exchanges. In addition, the consumption space is also reflected in the catering service, where tourists can taste the authentic local food, which has also become an important way to promote the local culture.

#### **5.4 Summary**

Taking the White Crane Ridge Cultural Festival as a case analysis, this chapter discusses the production process of the White Crane Ridge space being developed into a modern comprehensive cultural space. The researchers collected rich first-hand information through field visits, literature review and in-depth interviews to ensure the accuracy and depth of the analysis. The White Crane Ridge Cultural Festival is a new cultural tradition invented by the past tradition, which is of great value in the utilization of heritage. This article analyzes the various activity contents and practice projects of The White Crane Ridge Cultural Festival, and the presentation way of these contents and projects is the innovative expression and utilization of heritage. The positive effect brought by the cultural festival urges people to reassess the value and significance of the past cultural customs of the White Crane Ridge in the contemporary society. The study not only reveals the diversity of heritage utilization, but also emphasizes the synergistic role of "authoritative discourse" and "folk discourse" in the process of its spatial construction.

The research in this chapter also reveals that cultural practice is a key factor in promoting space production, and it is also important in promoting local economic development, enhancing community cohesion, and enhancing cultural identity. Through the analysis of a series of traditional and modern cases during the cultural festival. Such as the reappearance of ancient hydrological observation ceremony, modern art exhibition, and combined with local folk customs and other project practices. The space and significance created by the cultural festival have successfully stimulated the cultural confidence and emotional memories of the local residents. As a cultural event with a comprehensive cultural space, the platform built by the White Crane Ridge Cultural Festival has become a medium to promote interdisciplinary, cross-regional and cross-intercontinental dialogue, cooperation and exchange, innovating the value and significance of modern space production of the White Crane Ridge. This study shows that the White Crane Ridge Cultural Festival is not only a cultural event, a construction of dynamic space, but also a successful model of the use of heritage.

The study of this chapter can provide valuable insights and suggestions for policy makers, cultural activity organizers and relevant researchers, in order to promote the coordinated development of cultural activities and social progress. It is suggested that in the future development, the White Crane Ridge Cultural Festival should strengthen its role as a bridge between cultural inheritance and academic exchange, and enhance the popularity and influence of its cultural value. At the same time, the organizers of the Festival should pay attention to sustainable development to ensure that the cultural activities will not have a negative impact on the heritage.



## CHAPTER VI

### Conclusion, Discussion, and Suggestion

#### 6.1 Conclusion

This study is a basic study, using qualitative research methods, including the managers of the White Crane Ridge heritage, cultural heritage researchers, cultural heritage users, Fuling locals, external tourists and other groups. The research text is the White Crane Ridge in Fuling district of Chongqing city. It is a huge natural giant stone beam in the Yangtze River and a special space in the heart of the Yangtze River. In historical times, it was used as a hydrological station, a stone carving art space, a place of faith, and a window for cultural dissemination, leaving many relics. In modern times, it was built into an underwater museum, the first in the world to be a non-diving accessible underwater site. The spatial change of the White Crane Ridge reflects the social and cultural significance and function that it carries in different historical stages. Therefore, the cultural heritage and space production of the White Crane Ridge have the academic problems that reflect social history, culture and economy. Therefore, this study takes "the production of space" as the main research concept, through field visits, data analysis of relevant literature, descriptive analysis combined with pictures and showing the research results. The research results of this study are summarized below.

##### (1) The History and Development of the White Crane Ridge Are Studied by Means of Historical Stages

This part of the research discusses the formation, development and evolution of the White Crane Ridge culture. Ancient China was a big agricultural country with a high dependence on water resources. The topography, geology, climate and watershed characteristics of Fuling area constitute the basic conditions of agricultural production in ancient Fuling area, and are also the key factors for the functional formation of the White Crane Ridge Hydrological Station. Due to the dependence of ancient agricultural production on water, this huge stone beam (the White Crane Ridge) in the Yangtze River was used to measure the water level of the Yangtze River, making it developed into a functional hydrological station. It is used to record and predict natural disasters such as floods and droughts, so as to guide agricultural production and reduce the losses caused by disasters.

This part also discusses the social culture, local folk customs and historical development of Fuling area. These analyses help us to have a deeper understanding of the social environment and cultural basis of the White Crane Ridge in its formation, development and evolution. These factors constitute the core driving force to promote the formation of the rich cultural content of the White Crane Ridge. For example, people watch the stone fish on the water, celebrate the harvest and offer sacrifices, which reflect the life vision and spiritual pursuit of local residents. In the interaction of geographical environment, local culture and historical performance, the space of the White Crane Ridge has been continuously innovated. Therefore, through the discussion of this part, we can better understand how the White Crane Ridge

developed into an ancient social and cultural space with the center of the traditional social period. This dynamic construction process of space reflects the management and utilization of space resources in the ancient society.

From the perspective of the sequence of historical development, this part discusses the evolution process of the White Crane Ridge from a natural space to a functional space. The "stone fish water logo" on the White Crane Ridge marks the birth of the functional space of the ancient hydrological station. From the research documents "Yadi Jisheng", "Shu Zhong Guangji", "Taiping World" and other relevant documents, we can see that the White Crane Ridge was famous as early as the first year of Guangde in the Tang Dynasty. People go to the White Crane Ridge to start a spring, watch the stone fish come out of the water, write poems and carve inscriptions, which shows that the space function of the White Crane Ridge has been expanded. In the Northern Song Dynasty, the phenomenon of stone fish coming out of the water and folklore attracted the attention of the authorities and were reported to the court by local officials. This phenomenon shows that the folk behavior of the White Crane Ridge had attracted the attention of the government. After the founding of the Peoples Republic of China (1961), it was officially included in the category of cultural heritage management. During the construction of the Three Gorges Project, the cultural heritage of the White Crane Ridge was specially protected. After the completion of the Three Gorges Project, the new space of the White Crane Ridge was born. The combing and analysis of these historical evolution can help researchers to study the subsequent chapters from a birds eye view.

In addition, the researchers in this chapter also define the detailed content, value significance and public awareness of the White Crane Ridges cultural heritage. These heritages include stone carving, poetry, poetry and folk culture, hydrology, water conservancy projects, art research and Yangtze River culture research; their significance reflects the social governance in different historical periods, peoples living conditions, common psychology and spiritual pursuit. For example, the governance concepts, folk beliefs and customs of the ancient officials in Fuling, and how they influence and shape the local social culture and values in the process of history. These factors constitute the basis for the study of the space production and significance of the White Crane Ridge in the past, and are also the key resources for the study of the current space production and heritage utilization of the White Crane Ridge. It has also become a bridge between the contemporary the White Crane Ridge culture in connecting the past and the present, history and the future.

To sum up, the history and development of the White Crane Ridge is a process of constantly adapting to social changes and meeting human needs. From the ancient hydrological station to the modern underwater museum, the historical changes of the White Crane Ridge show its social function and cultural significance in different historical stages. The research in this part can help researchers better understand the interaction between human society and natural environment, and can also help researchers to conduct subsequent chapters in the order of historical development.

## (2) Use the Concept of "Production of Space" to Analyze the Past Space of The White Crane Ridge

The past space of the White Crane Ridge was shaped by the natural environment and human activities. In the long river of history, the White Crane Ridge is not only a geographical entity formed by nature, but also a stage for human

production activities. From the stone fish scale in the Sui and Tang Dynasties, to the spring fish watching and poetry inscriptions in the Song and Yuan Dynasties, to the modern underwater museums and cultural festivals, the space of the White Crane Ridge has undergone an evolution from practical functions to cultural symbols. This evolution not only reflects the change of social and economic structure, but also reflects the evolution of human space utilization mode. With the help of Lefefers theoretical concept of "production of space", the research in this section helps us to understand the physical space, social space and spiritual space in the past, and how these spatial practices interact with social culture, economic activities and political forces to jointly shape the formation of the cultural heritage of the White Crane Ridge.

Lefefers theory of space production holds that space is not only the product of material forms, but also the carrier of social relations and historical memory. Based on this theoretical perspective, the author studies the past space production and the legacy of the past space. In the past, people developed the crane space into a carrier full of historical memory and cultural significance through different spatial practice activities. For example, the special hydrological recording methods such as stone carving, text carving, graphic carving, and the artistic creation and other space practice activities such as literary creation, make the White Crane Ridge not only complete the space function to upgrade the art space, but also form a rich cultural heritage. It solidifies the historical memory and cultural inheritance on the stone beam. The past space production of the White Crane Ridge proves that space practice created history and culture. For example, the literati of the past wrote poems and paintings, making it a cultural space, the local residents believed that the stone fish were the arrival of a harvest year, and the crane was a blessed place. Therefore, from the perspective of historical space, the production of the past space of the White Crane Ridge can be regarded as a cultural production process.

In this part of the content, the author also discusses the multi-dimension of the past space of the White Crane Ridge. In the past, the White Crane Ridge was developed into a functional space, art space, belief space and political space, which reflected the social and economic characteristics, cultural atmosphere and peoples common psychological aspirations at that time. For example, the hydrological stone carvings reflect the economic characteristics and production mode of the agricultural social period, and the hydrological scale of the fish-shaped pattern reflects the totem worship of the local residents for the fish. The legends of the gods on the White Crane Ridge, the local beliefs and the common local aspiration for a good agricultural harvest reflect the social and cultural atmosphere, values and beliefs at that time. These factors constitute peoples special feelings for the space of the White Crane Ridge. Ancient rulers valued agricultural production and set up hydrological observation institutions on the White Crane Ridge. They took advantage of the firm belief in the White Crane Ridge to encourage farming and guide people to agricultural production; externally, they actively spread relevant culture and attract businessmen and cultural celebrities to visit the place or develop the economy. The implementation of these decisions promotes the enrichment and perfection of the content of the space.

From the perspective of the researchers, the White Crane Ridge was used as a hydrological station, an art space, a place of faith, cultural communication and political expression, which was the innovation and application of the space by the

ancient people. For example, in terms of art space, due to the need for records, people continue to carve stone records here. In terms of faith space, due to the fairy legend and the mysterious prediction of stone fish, it is developed into the holy land of the local people; the hydrological scale and the fairy legend on the stone beam become the spiritual sustenance for people to pray for harvest and good luck. In terms of political space, the ancient rulers set up hydrological observation service points on the White Crane Ridge, which would not only serve agricultural production, but also become a tool for the ancient rulers to implement political strategies. Through hydrological observations and predictions of stone fish in the water, rulers can not only effectively manage agricultural production, but also strengthen their political influence. This combination of politics and culture shows the wisdom and strategy of the ancient political operation.

Through the study of this part, it is found that the past space production of the White Crane Ridge is actually the formation process of cultural heritage. The production and reproduction of the past space created the rich cultural content of the White Crane Ridge, reflecting the social culture, economic activity characteristics and political governance means of Fuling area in the agricultural social period, where the White Crane Ridge is located. The research and analysis of this part of the content can help us to better understand how the cultural heritage was created in human production practice. Its formation process confirms Lifebvres theory of space production, "space is the product of social practice and the result of the interaction of various social forces".

### (3) Use the Concept of "Production of Space" to Analyze the Current Space of The White Crane Ridge

In this part of the research, the researchers took modernity as the research background to explore the close connection between the current spatial form and the heritage of the White Crane Ridge. In the use of research concepts, the researchers followed Lifefers theoretical concept of "space production". With the help of the theoretical framework, the researchers expounded the space production process and significance of space production in the context of modernity, and analyzed the new characteristics and trends of space production in the background of modernity, so as to help us better understand the interaction between the space production and heritage utilization of the White Crane Ridge. In this part, with the theoretical framework of heritage utilization, it discusses how the cultural heritage of the White Crane Ridge is reinterpreted and utilized in contemporary society, as well as the cultural power game and cultural identity construction involved in this utilization process.

From this part of the research, the researchers found that the current spatial production of the White Crane Ridge is mainly completed by means of two discourse systems. These two major discourse systems are respectively the "authoritative discourse" system and the "folk discourse" system. The "authoritative discourse" system and supervises the utilization of heritage with a scientific, objective and rational attitude. For example, in the process of establishing the cultural brand of the White Crane Ridge, the government effectively controls the utilization of the cultural heritage through the "authoritative discourse" system to ensure that its value utilization conforms to the core goal and does not deviate from the objective facts. The system of "folk discourse" is to make innovative use of the heritage through the diversified means of resources outside the heritage. For example, innovative cultural

activities or workshops, using traditional festivals and themed cultural festivals, will actively organize, participate in and innovate various activities. These two discourse systems jointly enable the activation and utilization of cultural heritage, and shape the rich content of the current space of the White Crane Ridge.

This study shows that in the process of space production and heritage utilization of the White Crane Ridge, authoritative discourse ensures the authenticity and integrity of cultural heritage, and avoids excessive commercialization and cultural distortion. However, the folk discourse breaks out of the restrictions of various rules and regulations, innovates the expression mode of the cultural heritage in the contemporary life, and makes the cultural heritage activate and be closely connected with the modern life. The dual track of authoritative discourse and folk discourse enriches the current space production and significance of the White Crane Ridge. For example, as a public cultural space, the White Crane Ridge Underwater Museum conveys historical and cultural knowledge to the public through an authoritative discourse system. As a unique tourist attraction, the tourism space of the White Crane Ridge has constructed the spiritual and cultural life space of contemporary people and promoted the local economic development through the interaction between the authoritative discourse system and the folk discourse system. As a political space, the modern space of the White Crane Ridge shows to the public the firm determination and outstanding contribution of the Chinese government to the protection of cultural heritage through the authoritative discourse system, and responds to the international controversy that the Three Gorges Project is a "barbaric project".<sup>88</sup>

Through the research and analysis of this chapter, the author finds that the current space production of the White Crane Ridge is the dynamic process of cultural heritage protection and sustainable utilization of heritage. As can be observed from the data presentation in the field, the current space of the White Crane Ridge is used as exhibition, academic exchange, educational popularization, political expression, cultural innovation, social life, tourist destination, as well as the emotional memory and memory space of local residents. These innovations in spatial functions reflect the diversity of peoples social and cultural life under the background of modern society. The production and reproduction of its space is a dynamic process of the continuous utilization of the heritage, and it is always closely connected with the modern social life. The study of this part can help us to understand the dynamic construction process of the cultural heritage and space production in the background of modernity.

#### (4) Case Analysis of the Connection Between the White Crane Ridge Cultural Festival and Modernity in the Past

In this chapter, the researchers discussed the production process of the development into a modern comprehensive cultural space through the case analysis of the cultural festival. It studies and analyzes the various activity contents and practical items of the White Crane Ridge Cultural Festival, and the presentation way of these contents and projects is the innovative expression and application of cultural heritage. The careful design and successful holding of the cultural festival have prompted people to reassess the value and significance of the past cultural customs of the White

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<sup>88</sup> Some people in the world believe that the Three Gorges Project is a "brutal project". This criticism usually emphasizes that the project may be too rough and does not properly handle the relationship with the environment and humanistic care. It emphasizes the impact on the environment, the protection of cultural heritage and the lives of local residents, as well as the possible long-term risks.

Crane Ridge in the contemporary society. The study not only reveals the diversity of heritage utilization, but also emphasizes the synergistic effect of "authoritative discourse" and "folk discourse".

The content of this section also discusses a series of traditional and modern activities during the festival. Such as the reproduction of ancient hydrological observation ceremonies, modern art exhibitions, and art performances combined with local folk customs. The implementation of these projects stimulated the cultural confidence and emotional memory of local residents, and shaped the memory space about the memory of the White Crane Ridge. As a cultural event with a comprehensive cultural space, the manager of the White Crane Ridge Heritage has built an academic exchange platform for scholars of international water cultural heritage research through the cultural festival, become a medium to promote interdisciplinary, cross-regional and cross-intercontinental dialogue, cooperation and exchange, and innovated the use of the modern space of the White Crane Ridge. This research shows that the White Crane Ridge Cultural Festival is not only a cultural event, a space of innovation, but also a model for the protection and innovative utilization of cultural heritage.

The study in this part further confirms that cultural practice is a key factor driving space production. It is important in promoting local economic development, enhancing community cohesion and enhancing cultural identity. Through the case study of the White Crane Ridge Cultural Festival, it is proved that the cultural heritage and space production should be advanced and promoted synchronously with the development of modern society.

## 6.2 Discussion

Through this research work, combined with my research topics, I understand the "production of space" as follows:

First, "space" no longer refers to the traditional sense of the container or the hollow area in geometry, it is a field of social organization relationship or production practice. It is constructed through the material form, and shows its essence through the relationship and structure of social organization. For example, the White Crane Ridge was developed into an important place to predict agricultural harvest in the past because of the mysterious prediction that stone fish pray for disasters and predict a bumper harvest. Its physical form (the White Crane Ridge and the stone fish water logo on its stone beam) and the relationship between social organizations (local governments and local residents) jointly build a dynamic practice field.

Second, space is a process of dynamic construction, with the attributes of production and reproduction. Space creates space through perception, conception, and practice. For example, in the past, the local government in Fuling set up hydrological observation points on the crane and developed it into a functional space. In the past, local residents believed that the White Crane Ridge was a blessed place, so there were myths and beliefs related to it. In the past, the literary masters carved stone inscriptions here, making it a space for cultural and artistic creation. Because of the importance of its cultural heritage value, the White Crane Ridge has been developed into a compound cultural space for cultural tourism, academic exchange and dissemination of public knowledge. In the process of spatial dynamics, space is constantly created through perception, conception and practice.

Third, "production" is associated with production and innovation, which literally means "bring new". Specifically, the "production of space" in this paper, refers to the innovative use of space. It includes not only the transformation of physical space, but also the expansion of social space and the enrichment of cultural space, such as the creation of new cultural traditions, social customs, spiritual beliefs and economic activities. The White Crane Ridge Cultural Festival in this article is a new cultural tradition of contemporary creation.

Fourth, space is a kind of cultural capital. Through the design and layout, the cultural capital of space can be transformed into economic value, social value and political value. For example, the current space of the White Crane Ridge is an innovative space based on the use of the heritage in the past space. It can attract tourists to drive the development of tourism economy, it can also serve as a carrier of social education and cultural inheritance, and it can also serve as a medium of political expression to convey the firm determination of the Chinese government to the protection of cultural heritage, which to some extent reflects the comprehensive strength of the country.

Lifefers concept of space production theory helped me study the academic problems of "the White Crane Ridge space" and saw new knowledge of some problems in my research.

#### (1) Limitations of the existing studies

Scholars research on the White Crane Ridge mainly focuses on the value and significance of the White Crane Ridge inscription itself, and the research results support its status as the first hydrological station in ancient times. Another part of the research focuses on the protection and management of heritage, such as the protection measures of the White Crane Ridge inscription and the design of the White Crane Ridge protection project. The study of the White Crane Ridge space is only limited to the planning and design of the museum and the construction of underwater protection projects. Few studies explain the academic problems of the White Crane Ridge from the concept, especially the space problems of the White Crane Ridge from the perspective of space production. Therefore, this paper studies the significance of the space production process and its space from the past to the present, and complements the shortcomings of the existing research in the space of the White Crane Ridge.

#### (2) Space is a process of dynamic construction, and it is continuously produced

According to Christian Schmidt (2021), space is unfinished because it is continuously produced and always bound to time. Through the research and descriptive analysis of the space production of the White Crane Ridge from the past to the present, this paper finds that the space production of the White Crane Ridge from the past to the present shows the upgrade from single function to multiple function, and reflects the dynamic process of social change and cultural development. For example, in the traditional society, people practice the spatial activities such as stone carving, text carving and graphic carving on the White Crane Ridge, so as to raise the natural space attribute of the White Crane Ridge to the attribute of functional space and artistic space. Now, the space is also used as an exhibition, academic exchange, education, political expression, tourist destination and so on."Space is a dynamic construction process, the production of one space, the other space is not vanishing, and they can exist simultaneously."This is different from Christian Schmidt. Christian

Schmidts view that space is unfinished and always bound to time does not hold true in the study of this paper.

(3) The current space production of the White Crane Ridge reflects the academic issues of the protection and utilization of cultural heritage

In the topic of protection and utilization of cultural heritage, the protection of the White Crane Ridge heritage not only focuses on the preservation of the site itself, but also involves how to give full play to the value of cultural heritage in modern society through rational development and utilization. The production of the current space not only covers the spatial planning and functional layout of the site, but also involves the innovative utilization of cultural heritage. Its purpose is to create a social and cultural atmosphere that can both protect cultural heritage and promote local economic development.

In terms of heritage utilization, Laura Jane Smith (2006) put forward two core views on heritage utilization: First, heritage is a process. Second, the analysis of heritage utilization should be conducted from the audience perspective rather than the authority perspective. According to the conclusion of this study, the protection and utilization of the heritage mainly rely on the interaction of two systems, "authoritative discourse" and "folk discourse". Authoritative Chinese is rational and scientific, emphasizing respect for objective reality, while folk discourse focuses more on peoples feelings. For example, the White Crane Ridge Underwater Museum relies on an authoritative discourse system to spread cultural knowledge to the public and emphasize the objective value of cultural heritage. And the White Crane Ridge tourism space is more inclined to use the expression of folk discourse. This study is different from Laura Jane Smiths views. Smith advocates research from the perspective of the audience, while this study believes that the use of heritage should be based on the actual situation, in formal occasions should be based on authoritative discourse, and in informal occasions, we can consider the perspective of the audience and folk discourse.

(4) The artistic space production mode has a strong attraction

The White Crane Ridge Cultural Festival is a new cultural tradition invented based on the tradition of the past. The production and heritage utilization of its space are the content of the space after being carefully carved by art. Through cultural identity, reconstruction and memory reconstruction, performance and experience activities, it combines cultural symbols (white crane, Pisces, calligraphy, poetry, goddess, gods, etc.) with cultural communication and cultural policies with modern consumption trends, opening up a new way of spatial sustainable development and innovation. The conclusion of this paper is that the current space production and heritage utilization of the White Crane Ridge should be promoted simultaneously with the development of modern society, and the artistic space production mode activates the cultural heritage, which is practical.

### 6.3 Suggestions

#### (1) Suggestions to Academia

First of all, as the "only ancient hydrological station in the world", the White Crane Ridge has great academic research value due to its long history, rich cultural content and distinctive characteristics. At present, some scholars have discussed the hydrological stone carvings, folk culture, historical development and other aspects of the White Crane Ridge, and have accumulated some research. However, in these studies, most scholars focus on the study of the specific contents recorded in the stone carvings of the White Crane Ridge, or the collation of literature and history and the annotation of inscriptions. These studies are just the tip of the iceberg of the academic problems of the White Crane Ridge. Therefore, the academic problems urgently need a broader academic vision.

Secondly, in view of the unique position of the White Crane Ridge in the field of water cultural heritage in China and even the world, it is suggested that scholars carry out cross-cultural comparative research to explore the commonalities and differences between different cultural heritages. For example, the Egyptian Nile water ruler and the White Crane Ridge stone fish water logo, the commonalities and differences between them. To provide theoretical support for the international exchange and cooperation of the White Crane Ridge in the world water cultural heritage, and further enhance its status in the world cultural heritage. At the same time, in view of the role of cultural heritage in modern society, it is suggested that scholars pay attention to its role and functional innovation in contemporary society.

#### (2) Suggestions to the Society

From the perspective of local government departments, the research in this paper can help heritage managers to develop a policy framework for protection and utilization, and provide theoretical support for heritage in serving modern life. For Fuling local, the White Crane Ridge and its cultural heritage are the local cultural symbols of Fuling. The research in this paper can enhance the heat of the academic research of the White Crane Ridge and contribute new insights to the academic research of the White Crane Ridge. In addition, he can attract more researchers research interest and enhance the influence of the White Crane Ridges academic issues. I hope that my research can make a small contribution to the protection, management and utilization of the heritage of the White Crane Ridge, and provide intellectual assistance for the exploration of the academic issues of the White Crane Ridge.

From the perspective of the protection and utilization of Chinese cultural heritage, this study is expected to provide valuable insights and suggestions for other similar studies. More institutions are encouraged to actively participate in the activation and utilization of cultural heritage, so as to promote the continuous innovation in the field of heritage utilization in China.

#### (3) Another Suggestion

Study limitations and recommendations to other investigators.

The White Crane Ridge's space research value is very huge, each researcher's vision and method is different, the conclusion is different, the study of this paper is based on the research of a large number of experts and scholars, but the research

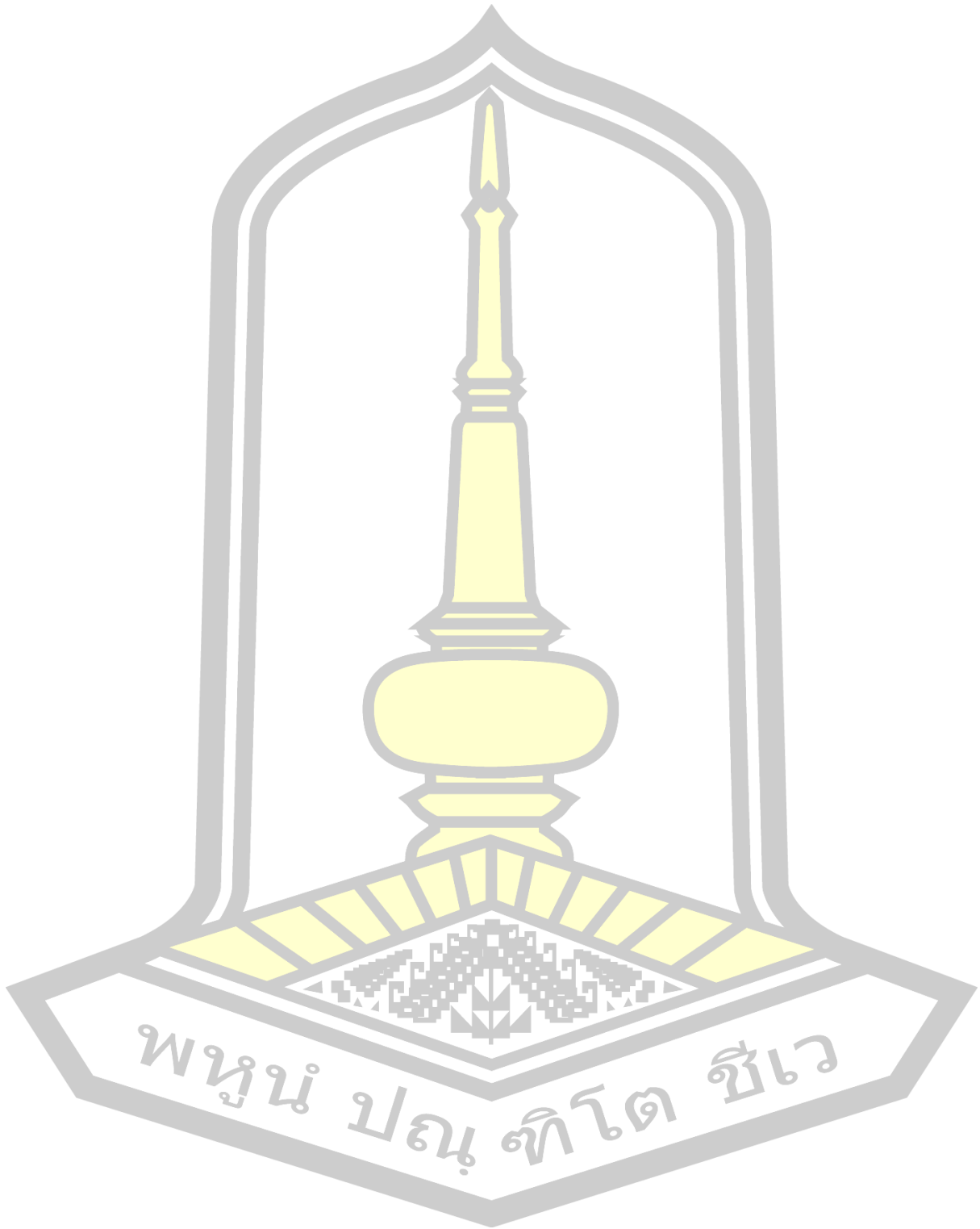
method, concept and research content is not enough to cover the whole picture of the White Crane Ridge space research. In addition, due to the lack of historical data, the past space production process and process of the White Crane Ridge can not be described in detail. Some of the inferences were drawn simply from the joint discussion of the respondents' information with other scholars. For example, in the traditional social period, the local rulers took advantage of the prediction function of the White Crane Ridge Hydrological Station, people's spatial belief in this place, and the mysterious rumors that "stone fish in the water have a bumper year". I speculated that the local rulers of the time often tied their political governance with the will of heaven. People believe that because of his political integrity, personal charm and other factors, this place got the love of heaven, agricultural production can get a bumper harvest, and this place will be more prosperous during his reign. Therefore, it is concluded that in the past, the White Crane Ridge space was also used as a tool for the ancient rulers to implement political strategies, and the production of its political space was constructed in this dynamic process.

Moreover, due to the complexity of the current spatial production and the diversity of heritage utilization, this study failed to cover all relevant data. For example, the data collection of economic indicators, social impact, decision support and other aspects of the space production is not comprehensive enough, which affects the depth and breadth of this study to some extent. In terms of further research, the important position and influence of the heritage in the international community can be discussed, and the dynamic factors of modern space production can be further refined, especially national policies, local development strategies and application of science and technology. Attention can also be paid to the specific implementation strategies and effect evaluation of the White Crane Ridge in education, politics, tourism and recall space. With a comprehensive understanding of the complexity of space production, we will provide scientific decision support for the future development of the White Crane Ridge space.

Therefore, it is hoped that my research can provide a new problem solution for other researchers. Other investigators may choose similar research texts or research concepts, or other texts and concepts for research. For example, the concepts of culture, cultural identity, tourist gaze, consumption history and so on. It is a systematic and complex project. In the future research, I will continue to pay attention to the academic research of the White Crane Ridge space.



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## APPENDIX

### **Appendix 1: Information, information, and content of the respondents**

(1) Huang Dejian, deputy director of the White Crane Ridge Underwater Museum

Huang Dejian, as the deputy director of the White Crane Ridge Underwater Museum, is an important figure in the protection and inheritance of this world-class cultural heritage. Since 1993, Huang Jian has been organizing a "farewell tour" to let more people understand and cherish this cultural heritage.



Huang Deqiang, deputy director of the White Crane Ridge Underwater Museum

During the construction of the White Crane Ridge Underwater Museum, Huang dejian faced many challenges. The biggest difficulty is to solve the technical problems caused by the underwater pressure. To this end, he cooperated with Ge Xuerun, an academician of the Chinese Academy of Engineering, and finally adopted the "non-free container" scheme,

which successfully covered the middle section of the White Crane Ridge and filled the purified Yangtze River water, so that the internal and external water pressure was roughly balanced. This scheme not only solves the problem of water pressure, but also retains the dependence between the White Crane Ridge and its natural environment, in line with the principle of cultural heritage protection.

In addition to technical difficulties, Huang also focuses on the museum experience and the sustainability of heritage protection. He promoted the application of innovative technologies such as deep water lighting system and aviation perexiglass observation window, improved the display effect of the inscription, and ensured the safety of cultural relics and sightseeing. At the same time, he also led the team to carry out the research on the current situation of water environment, air quality monitoring and regulation, to ensure the stability and comfort of the building, cultural relics and the tour environment.

In Huang Dejians view, the underwater protection project of the original site is not a "monument" type, but to extend the "life" course of the stone carving with the philosophy of human progress and advanced scientific and technological means. He will continue to devote himself to the protection of cultural relics, promote the overall improvement of the quality of the Underwater Museum, and strive to declare it as a world cultural Heritage, so as to make this historical and cultural name card on the Yangtze River more shining.

#### (2) Yang Bond, curator of the White Crane Ridge Underwater Museum

Yang Bond is the director of the White Crane Ridge Underwater Museum in Chongqing, and he is also a researcher with profound attainments in cultural relics protection and water conservancy research. He serves as the vice chairman of the National Water Conservancy Museum Alliance, an expert of the expert committee, a member of the Water Culture Working Committee of the China Culture and Art Development Promotion Association, and a member of the fourth Academic Committee of the China Three Gorges Museum in Chongqing.

Yang Bond knows the scientific value of the inscription of the White Crane Ridge, and led the team to carry out a lot of protection and research work to ensure that these precious cultural heritage can be properly preserved and inherited. He also actively organized and participated in academic exchanges, and actively promoted the joint application of the White Crane girder Underwater Museum and the Egyptian Nile foot Stone Carving, hoping to further enhance the international influence of the White Crane girder carving through international cooperation.

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Yang Bond, director of the White Crane Ridge Underwater Museum

Curator Yang Bond has also made important contributions to popular science education and cultural communication. He actively promoted the museum to become a national popular science education base and a national research and practice education base for primary and middle school students, so that more young people have the opportunity to understand and learn the inscription and the Yangtze River culture behind it.

(3) Liu Xingliang, researcher of the White Crane Ridge culture

Liu Xingliang is a researcher and deputy director of the research department of the China Three Gorges Museum in Chongqing. In 2012, he joined the China Three Gorges Museum in Chongqing, focusing on the research of the inscription culture in the Three Gorges area. When he first arrived in Chongqing, he took the center of gravity and went to the areas along the Yangtze River to carry out engraving, measurement and investigation, and strive to obtain the most authentic first-hand information.



Liu Xingliang, a researcher at the China Three Gorges Museum in Chongqing

Its main achievement is the collection and expansion of more than 3000 sections of inscription rubbings, footprints throughout many districts and counties in the Three Gorges Reservoir area. In addition, he has also published a number of academic papers and published a number of academic works, which provides an important data supplement for the improvement of the Three Gorges inscription knowledge pedigree.

Liu Xingliang not only deeply studied the crane inscription, but also actively explored the "activation" of it. He participated in the work of applying for world Cultural Heritage, and devoted himself to popularizing and transforming rigorous academic achievements, so that more people can understand and understand the Three Gorges inscription, a cultural treasure of the Yangtze River Basin.

#### Appendix 2: Information about the people who helped me during the study

- 1 Chen Junyu, researcher, the White Crane Ridge Underwater Museum, information administrator
- 2 Liu Xingliang, researcher, China Three Gorges Museum in Chongqing
- 3 Yu Jiping, Professor, Yangtze Normal University, Ethnic Culture Research Institute
4. Bond Yang, director of the White Crane Ridge Underwater Museum
- 5 Huang Deqiang, deputy director of the White Crane Ridge Underwater Museum

6 Wang Xiaohui, associate professor, director of the Department of History, Yangtze Normal University, School of Politics and History

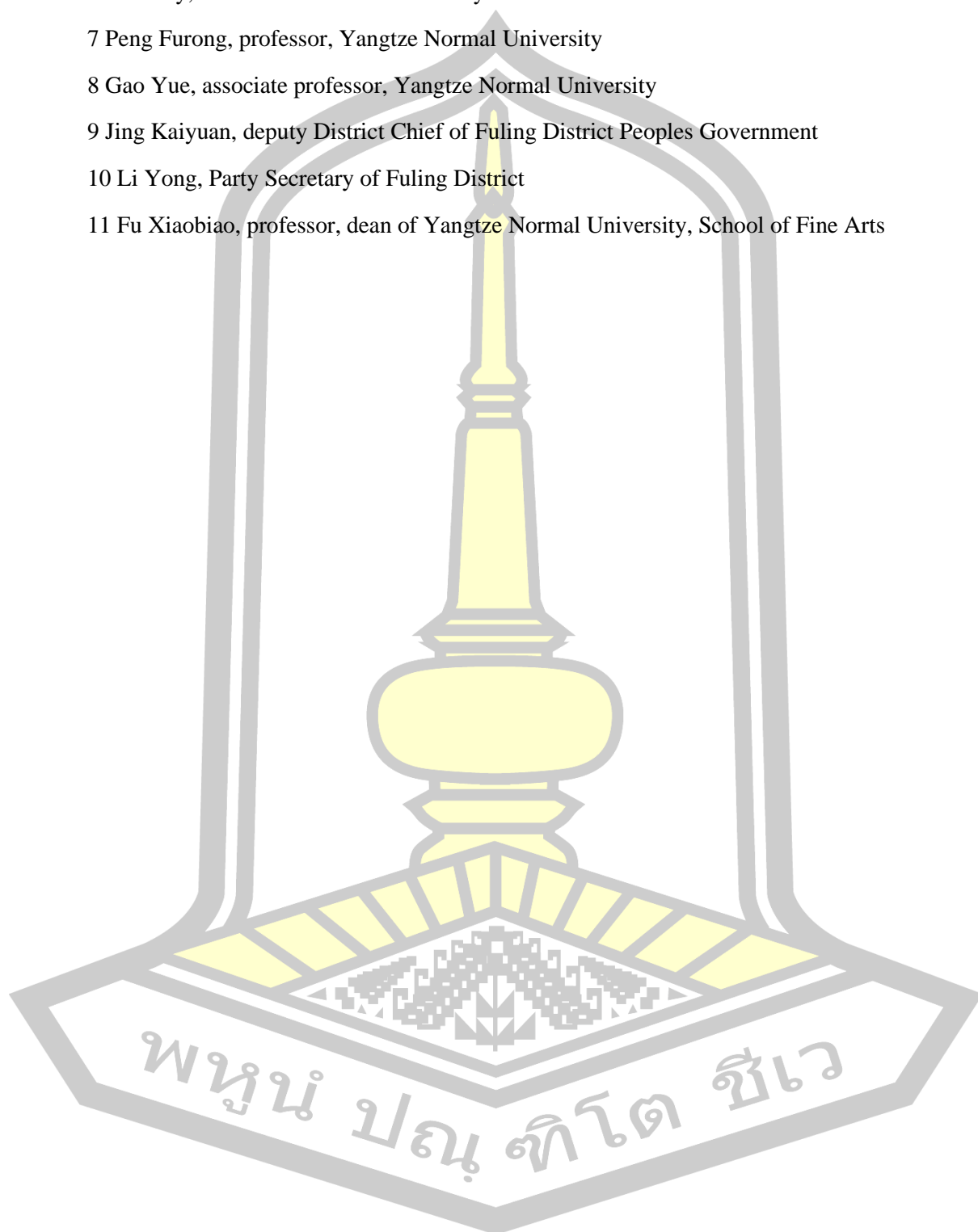
7 Peng Furong, professor, Yangtze Normal University

8 Gao Yue, associate professor, Yangtze Normal University

9 Jing Kaiyuan, deputy District Chief of Fuling District Peoples Government

10 Li Yong, Party Secretary of Fuling District

11 Fu Xiaobiao, professor, dean of Yangtze Normal University, School of Fine Arts



### Appendix 3: Study tools

Fuling the White Crane Ridge Field Questionnaire Survey (I)

The White Crane Ridge cultural knowledge understanding questionnaire survey (local citizens)

#### A) basic information

1 Your gender

- man
- woman

2 Your age

- Under the age of 18
- From age 18 to 35 years old
- From 36 to 55 years old
- Over 56 years old

3 Your degree

- Junior high school and below
- High school junior college
- undergraduate course
- Graduate student or above

4 Your career

- student
- Staff of the government or enterprises and public institutions
- Agricultural practitioners
- professional
- self-employed
- worker
- retiree
- other

B) Knowledge degree and suggestions of the White Crane Ridge culture

5 How much do you know about the history and culture of the White Crane Ridge?

- Very familiar with
- Compare the understanding
- Understand some
- Heard of, but do not know the specific content
- I dont know

6 Do you know why the White Crane Ridge got its name?

- know
- hear nothing of

8 Do you know that there are inscriptions and stone fish on the White Crane Ridge

- yes
- deny

9 Do you know the hydrological value of the White Crane Ridge inscription

- yes
- deny

10 Do you know that the White Crane Ridge inscription is praised as the worlds first ancient hydrological station by UNESCO

- yes
- deny

11 Have you ever visited the White Crane Crane Underwater Museum

- yes
- deny

12 How did you learn about the White Crane Crane Underwater Museum

- Network such as TikTok Ctrip, etc
- Recommended by relatives and friends
- press
- Lectures related to traditional culture
- other

13 If you have visited the White Crane Crane Underwater Museum, how do you evaluate the experience

beyond compare

good

centre

difference

very bad

14 What do you think of the importance of the White Crane Ridge culture to the local society?

very important

More important

same as

Not too important

It doesnt matter at all

15 Do you have your expectations or suggestions for the future development of the White Crane Ridge culture

Increase publicity efforts and raise public awareness

Strengthen protection measures to ensure the safety of cultural heritage

Carry out educational activities to let more people know about the White Crane Ridge culture

Encourage and support relevant research and academic exchanges

Other (please specify)

Thank you for your participation. Your answer will help us to better understand the publics cognition and demand of White Crane Ridge culture, and provide reference for the inheritance and development of White Crane Ridge culture.

Fuling the White Crane Ridge Field Questionnaire Survey (II)

Questionnaire survey of understanding of the White Crane Ridge culture (outside people)

A) basic information

1 Your age

Under the age of 18

19-30 Years old

31-45 Years old

46-60 Years old

Over 60 years old

2 Your gender

man

woman

Do not want to reveal

3 Your occupation (optional) \_\_\_\_\_

4. Where are you coming from?(Province / city of) \_\_\_\_\_

B) Cultural cognition of the White Crane Ridge

5 Have you ever heard of the White Crane Ridge?

yes

No (If yes, go straight to question 14)

6 What kind of cultural heritage do you think the White Crane Crane is?

Stone carving art

hydrologic record

Historical sites

folk culture

Other, please specify: \_\_\_\_\_

7 Do you know which city or region it is located in?

Fuling, Chongqing

Other, please specify: \_\_\_\_\_

indeterminacy

8 Do you know what is engraved on the White Crane Ridge?

Stone fish patterns and hydrological records

Ancient poetry and inscriptions

Historical figures and stories

Folk culture elements

Unsure / unknown

Other, please specify: \_\_\_\_\_

9 Do you know the reason why the White Crane Ridge is known as "the worlds first ancient hydrological station"?

Fully know

A little understanding

Unsure / unknown

10 Do you know the efforts of the White Crane Ridge in its protection and inheritance (such as underwater museums)?

Very familiar with

A little understanding

Unsure / unknown

C)The White Crane Ridge culture understanding channels

11 If you have heard of the White Crane Ridge, through what channels did you first know (optional)?

School education or history courses

The Internet or the social media

TV or radio

Books or magazines

Travel guide or recommendations

Stories from friends or family members

Field visit

Other, please specify: \_\_\_\_\_

12 Cultural interest and participation

What is your interest in the White Crane Ridge culture?

Very interested in

Compare interest

same as

Not very interested

Not interested at all

13 Are you willing to participate in cultural activities or learning opportunities (such as lectures, exhibitions and field visits)?

- willing to do that
- can be considered
- Not too willing to
- I dont want to

14 Do you have any other questions or opinions about the culture that you want to share?

Thank you for your participation. Your answer will help us better understand the publics cognition and demand of the culture, and provide reference for the future development of Baihe Liang.

Fuling the White Crane Ridge Field Questionnaire Survey (III)

Questionnaire survey of the White Crane Ridge Tourism and Cultural Festival (special the White Crane Ridge Cultural Festival)

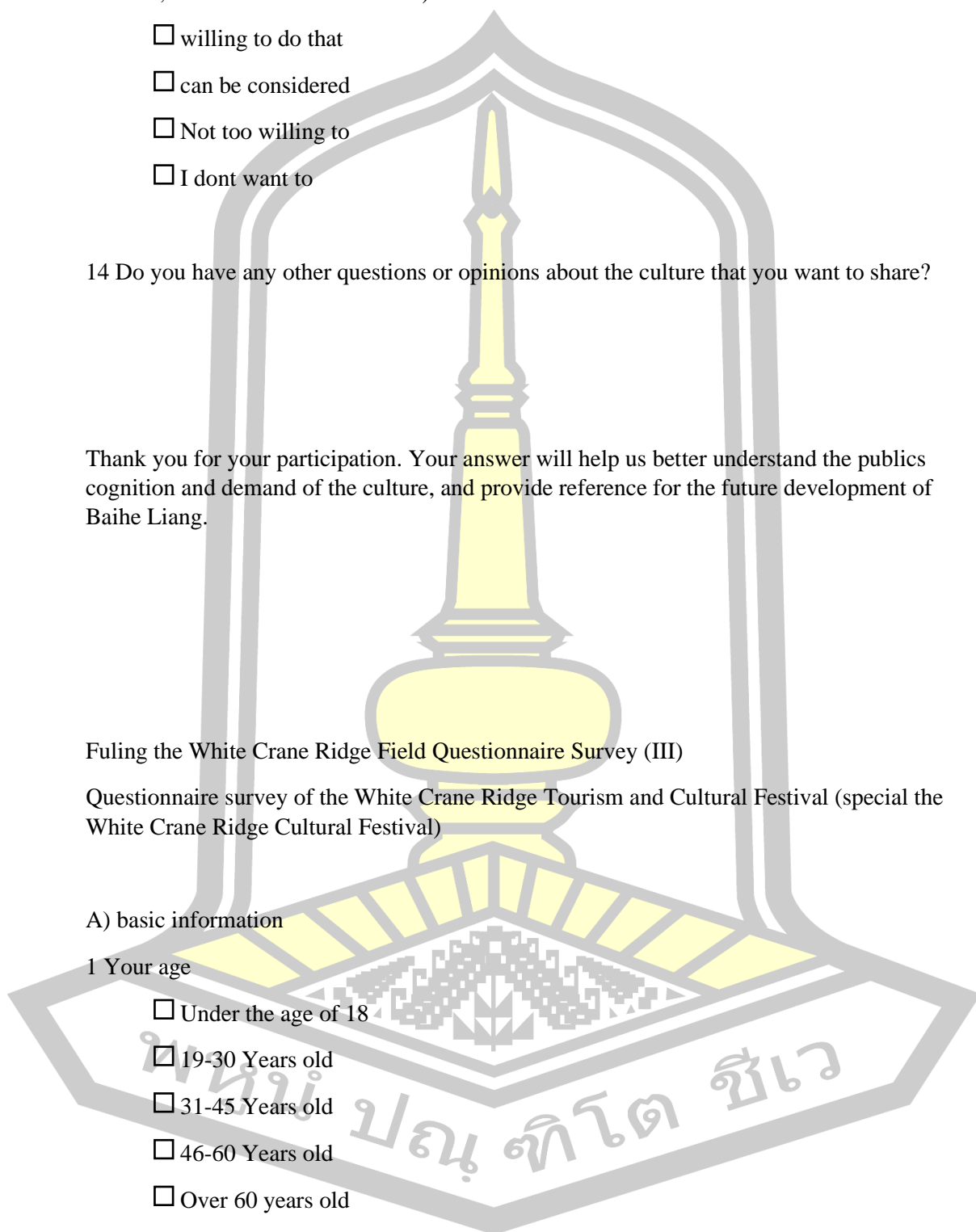
A) basic information

1 Your age

- Under the age of 18
- 19-30 Years old
- 31-45 Years old
- 46-60 Years old
- Over 60 years old

2 Your gender

- man
- woman



Do not want to reveal

3 The city or area where you currently live in \_\_\_\_\_

4 Your career background (optional fill in) \_\_\_\_\_

5 Have you ever heard of the White Crane Ridge Tourism and Culture Festival?

yes

deny

6 If you have heard of the White Crane Ridge Tourism and Culture Festival, through what channels do you know that (you can have more choices)?

The Internet or the social media

TV or radio

Newspapers or magazines

Recommendation from friends or family

Travel agency or travel agency

Other, please specify: \_\_\_\_\_

7 Have you ever attended the White Crane Ridge Tourism and Culture Festival?

Yes (please continue to answer questions 8-10)

No (please jump directly to question # 11)

B) Cultural festival participation in the experience

8 What is the main purpose of your participation in the White Crane Ridge Tourism and Culture Festival (many choices)?

Enjoy cultural performances and exhibitions

Experience traditional cultural activities

Learn the history and culture of the White Crane Ridge

Leisure tourism and sightseeing

Spend time with your family and friends

Other, please specify: \_\_\_\_\_

9 What is your overall satisfaction with the White Crane Ridge Tourism and Culture Festival?

Very satisfied

satisfied

same as

- discontent
- Very dissatisfied

10 What do you think are the highlights or features of the White Crane Ridge Tourism and Culture Festival (you can choose or fill in freely)?

- The brilliance of cultural performances and exhibitions
- Experience and participation of traditional cultural activities
- The deep excavation and display of the history and culture of the White Crane Ridge
- Holiday atmosphere and venue layout
- Professionalism of the organization and service
- Other, please specify: \_\_\_\_\_

11 If you have not participated in the White Crane Ridge Tourism and Culture Festival, what do you think prevents you from participating (optional or free to fill in)?

- Schedule conflict
- Not interested in the activity content
- Transportation or accommodation is inconvenient
- Insufficient publicity or difficulty in obtaining information
- Other, please specify: \_\_\_\_\_

12 What do you think there is room for improvement in the White Crane Ridge Tourism and Culture Festival (you can choose or fill in freely)?

- The richness and diversity of the activity content
- The intensity and effect of publicity and promotion
- The convenience of tourist service and experience
- Transportation and accommodation arrangements during the cultural festival
- Environmental protection and sustainability
- Other, please specify: \_\_\_\_\_

13 Do you have any other suggestions or ideas about the White Crane Ridge Tourism and Culture Festival?

Thank you for your participation. Your answer will help us to better understand the public's cognition, participation experience and improvement suggestions, so as to further enhance the quality and influence of the festival.

#### Fuling the White Crane Ridge Field Questionnaire Survey (IV)

Field questionnaire (professional researcher)

##### A) basic information

- 1 Your name (optional):
- 2 Your professional title:
- 3 Your research institution:
- 4 Your research field (more optional):

- hydrogeology
- historic culture
- ecological protection
- irrigation works
- Other (please specify)

##### B) research background

- 5 Your years of engaged in White Crane Ridge related research:
- 6 What are your main research interests?
- 7 What do you think are the three most important issues in the study of the White Crane Ridge?

##### C) research status

- 8 What do you think is the biggest challenge facing the current research team?
- 9 What factors do you think limit the in-depth development of the White Crane Ridge research?
- 10 Do you think that the existing research methods and means can meet the needs of the research? why?

## D) future expectations

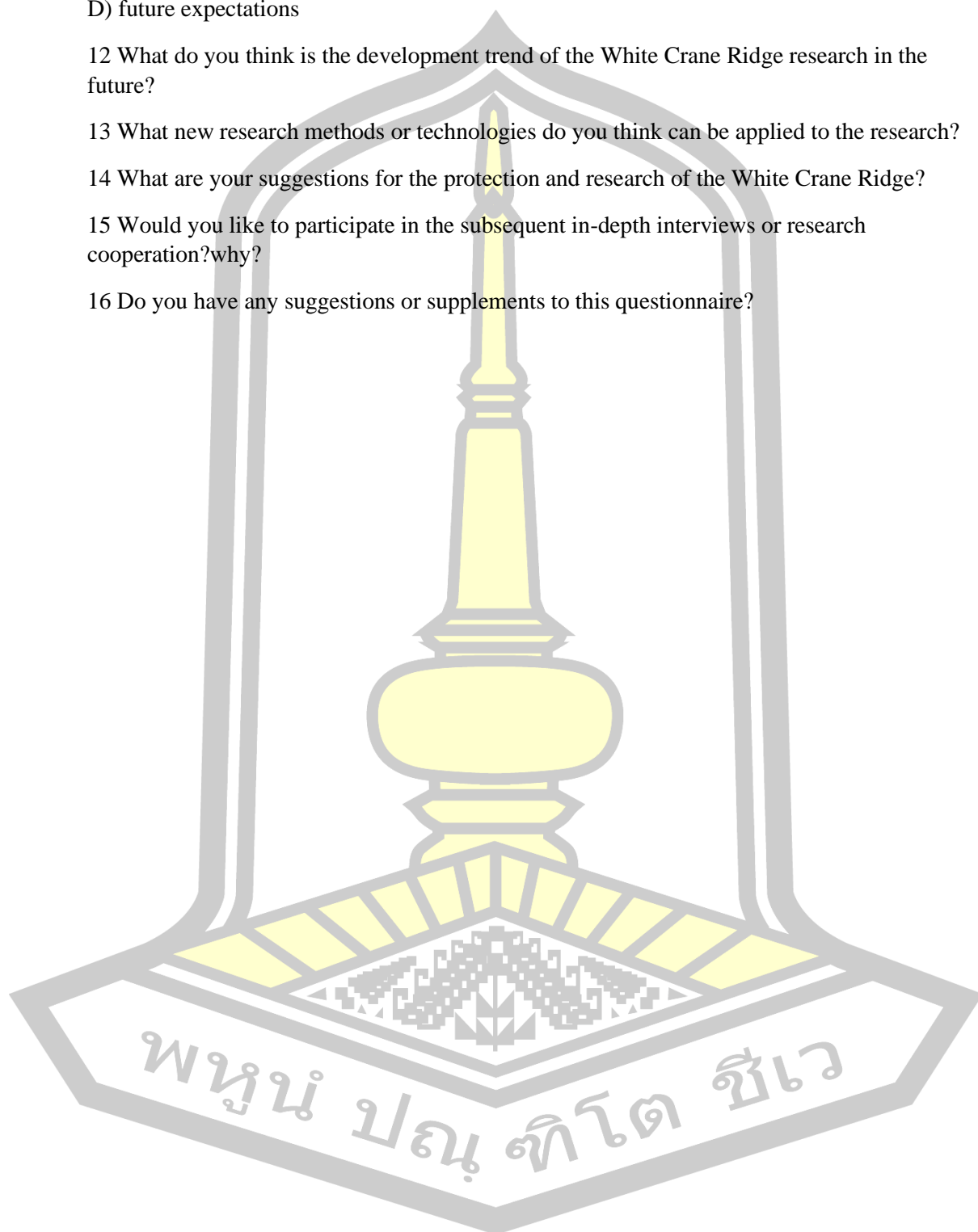
12 What do you think is the development trend of the White Crane Ridge research in the future?

13 What new research methods or technologies do you think can be applied to the research?

14 What are your suggestions for the protection and research of the White Crane Ridge?

15 Would you like to participate in the subsequent in-depth interviews or research cooperation?why?

16 Do you have any suggestions or supplements to this questionnaire?



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