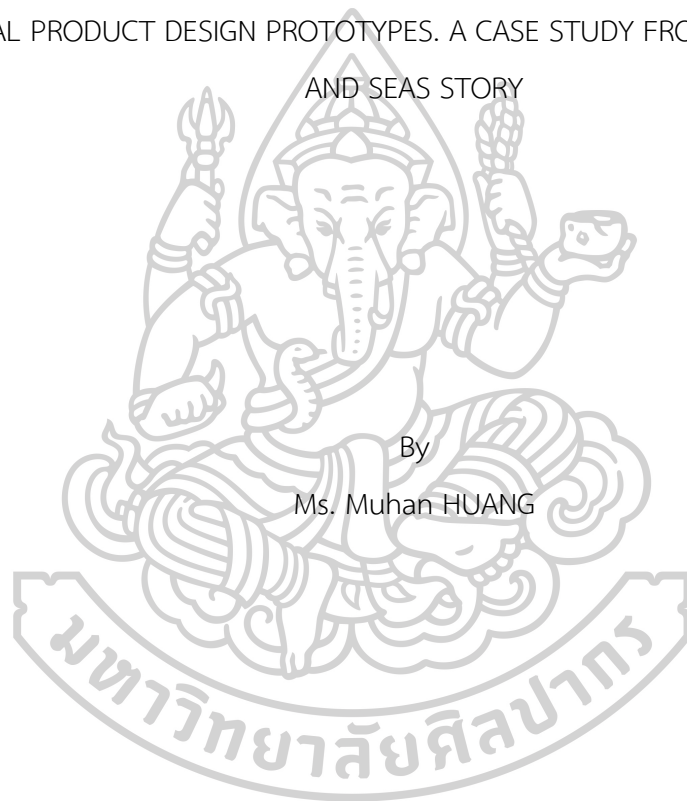




THE INTERPRETATION OF TRADITIONAL CHARACTER CREATURES INTO THE NEW  
CULTURAL PRODUCT DESIGN PROTOTYPES. A CASE STUDY FROM THE MOUNTAINS  
AND SEAS STORY



By  
Ms. Muhan HUANG

A Thesis Submitted in Partial Fulfillment of the Requirements  
for Doctor of Philosophy DESIGN ARTS (INTERNATIONAL PROGRAM)

Silpakorn University

Academic Year 2023

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วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปรัชญาดุษฎีบัณฑิต  
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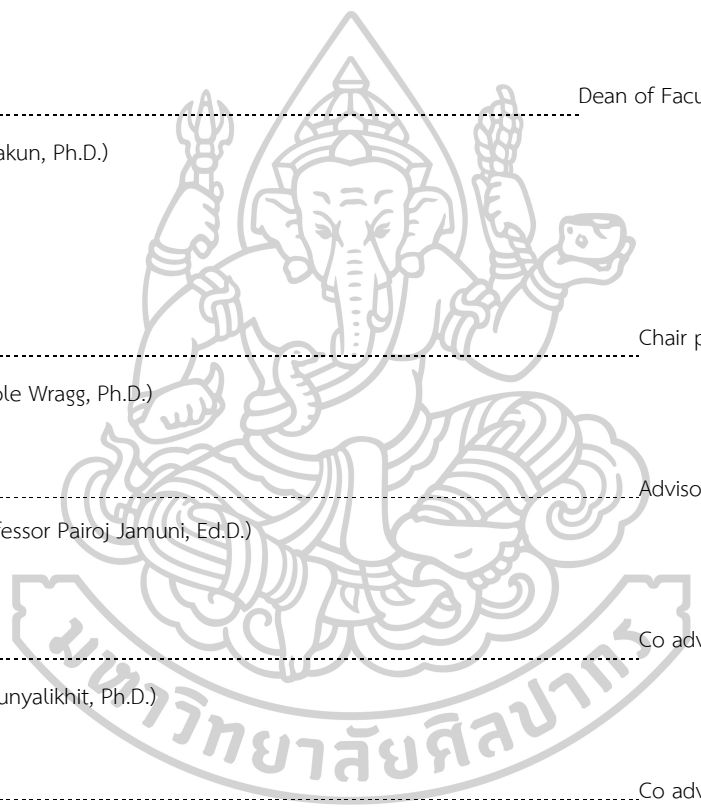
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The Classic of Mountains and Seas is a classic ancient book that includes multiple cultures, beasts characters and myths in ancient China, which contains a large number of convertible cultural resources and is a pearl of ancient Chinese literature. The beasts culture is one of the important part of Chinese culture. Many myths elements were decorated on the art of lanterns, and which reflects the wisdom and creativity of the Chinese nation, combines abstract structure, anthropomorphic paper-cutting, planar painting and calligraphy, composite decoration and the principle of light and motion, and it is a kind of comprehensive spatial art with strong national characteristics.

Combined with modern aesthetics and redesign the beasts character images, and the lantern design is used as an entry point to explore the feasibility of transforming the image of beasts into cultural products. Expanding the audience scope of the culture of "The Classic of Mountains and Seas", realising a new breakthrough in traditional culture, and promoting Chinese culture.

Through the research and analysis of the cultural connotation of (classics of mountains and seas), the images and symbols of beasts character and lantern decorations, and takes 20 images of 20 beasts as research objects, and adopts qualitative and quantitative as well as experimental research methods to combine the traditional culture with modern aesthetics, so as to make it integrated with modern lifestyle. It injects vitality into intangible cultural heritage and creates new value. This study takes lantern design as an entry point to explore the application of story elements in new cultural products.

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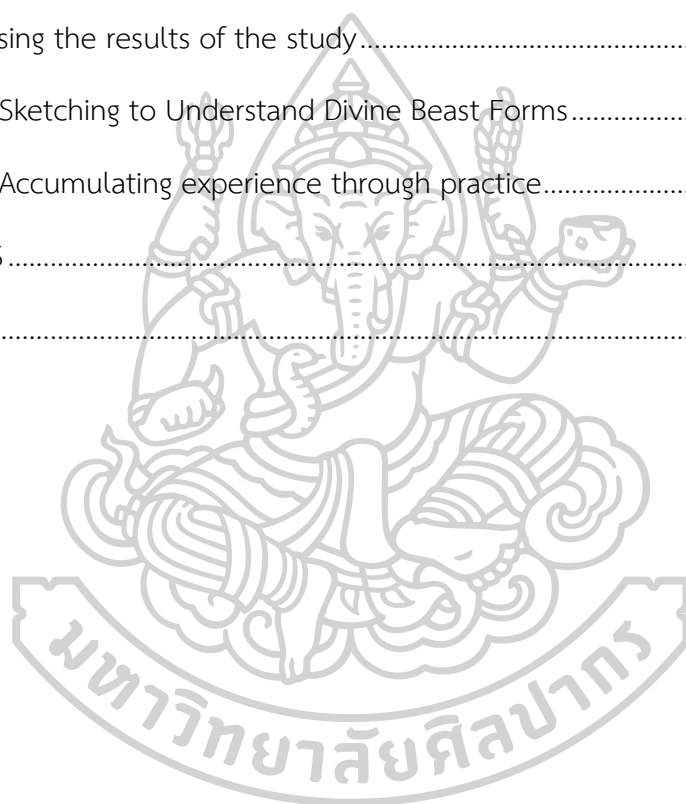
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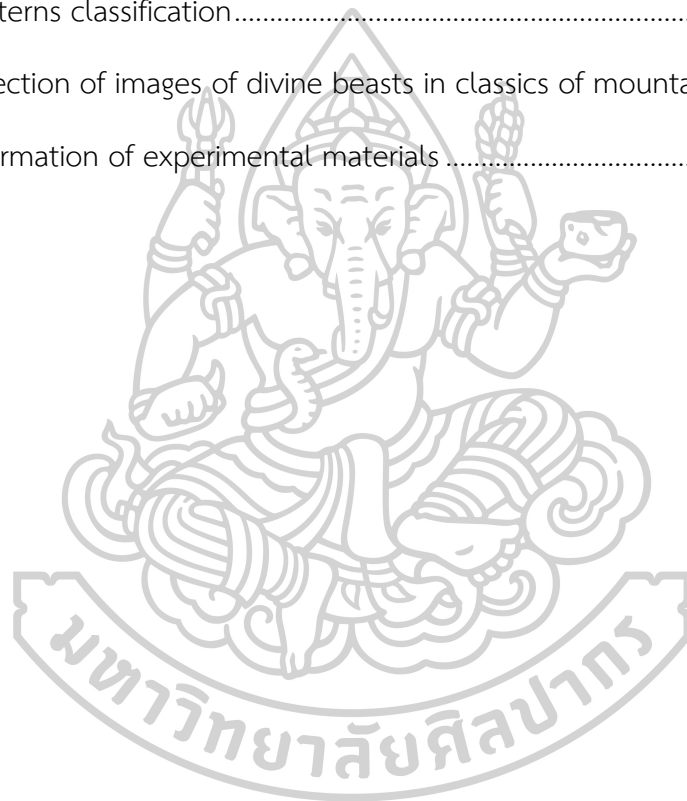
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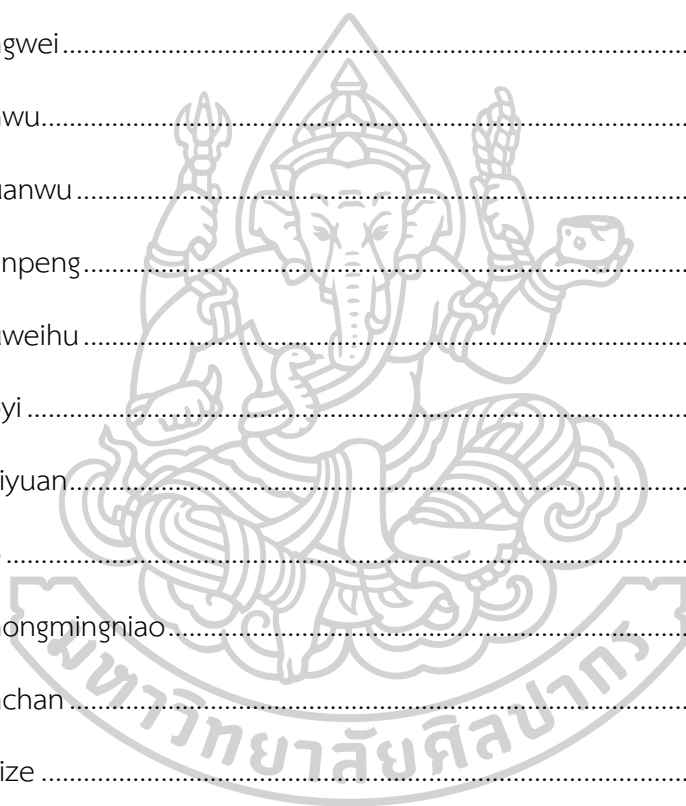


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## CHAPER1 INTRODUCTION

### 1.1 Background of the research

"Fire trees and silver flowers, starry bridge, iron locks open" depicts the prosperous scene of the Lantern Festival in the Tang Dynasty of China. Since ancient times, the Lantern Festival has condensed the Chinese people's longing and desire for a beautiful reunion. Lanterns are a product of the traditional Lantern Festival, and the development of lanterns records the trajectory of Chinese folk people in pursuit of "light" and reflects the wisdom and ingenuity of the Chinese people. There are many kinds of materials to carry "light", from stone and shells in the Stone Age to bronze, iron, gold and silver candlesticks, ceramics, glass, etc., The role of lamps in the development of human life from a single lighting gradually diversified, used for rituals to worship the Buddha celebration of lamps, festivals ornamental longevity lamps, interesting horse lanterns ... Tao to become a tool, and the tool to carry Tao, which cohesion of traditional Chinese thought of creation, explains the fundamental design concept of the creation of objects, reflecting people's "object" function, aesthetics, the pursuit of the unity of the interests of the people.

The market for the mountains and seas culture as the subject of the product is quite a lot, the application is not limited to the handheld game character story design, illustration design and product design, the classics of mountains and seas contains the culture of the depth of the broad, but the market this category of cultural and creative products of inconsistent quality. It is worth exploring how to combine and maintain such a large and rich cultural system with the modern lifestyle. Designers and artists from various fields have pounced on it and elaborated the new fashion of traditional culture with their works. As an intangible cultural heritage of China, lanterns have condensed the Chinese people's wisdom on the principle of heat energy, the study of light and shadow and the aesthetics of painting, and are still relevant to the design of lanterns today. Using the culture of



the mountains and seas stories as the carrier can give the lanterns richer cultural connotation and interest, awaken people's memories of traditional culture, narrate the culture through the combination with technology, and narrow the distance between traditional culture and the behaviour of modern life. We are looking for the best combination of traditional culture and innovative products that enrich life with culture while strengthening national cultural confidence and transforming cultural value into economic value.

### **1.2 Research Questions**

How can the image of the beasts of the Mountains and Seas stories be renewed?

How to combine the material of the lanterns with the modern lifestyle?

What possibilities are there to present the image of the beasts elements in the cultural products?

### **1.3 Research purpose**

1) To sort out the beasts character in ancient mountains and seas stories, find the design elements and draw and design the images of divine beasts, so as to inherit the traditional Chinese culture through artistic innovation.

2) To analyse the traditional Chinese lamps and lanterns, and to sort out the production methods and processes of traditional Chinese lanterns and combine them with modern people's lifestyles to innovate the performance materials and structures of lanterns.

3) To combine the 20 beasts character with the design of lanterns and cultural products design. To breathe life into intangible cultural heritage, expanding the reach of the traditional culture and create new values.

#### 1.4 Scope of Research

1) Explore the design innovation of the beasts in mountains and seas stories , to make the transformable artistic and cultural resources of classics of mountains and seas tangible.

2) The research focuses on the heritage of the classics of mountains and seas and the application of its beast imagery in the form of cultural products.

3) To aim at, but not limited to, young Chinese and people interested in traditional culture.

#### 1.5 Research Outcome

1) With a comprehensive knowledge and understanding of the images of beasts character in the mountains and seas stories, the researcher uses hand-drawing in combination with computer graphics technology to complete the interesting design of 20 images of sacred beasts. In order to enrich the artistic expression of the images of divine beasts, and better apply to the design of lanterns.

2) To collect important data for the realisation of the traditional culture in lamps. To obtain a new way of presenting the beasts character in three dimensions. And to enrich the sense of transmission of intangible cultural heritage.

3) To find the connection between traditional Chinese lanterns and the symbolism of the divine beasts character. To renew the expression of the Classics of Mountains and Seas culture, combine modern aesthetics with traditional culture, bring intangible cultural heritage to life, and create new values and promote Chinese culture.

#### 1.6 Research Methodology

This study applies a mixed methods approach to complete the research findings by collecting quantitative and qualitative data. The aim is to establish the link

between traditional culture and modern life, and to make the heritage and innovation of traditional culture. The research can be divided into four phases. The first phase is a quantitative study that aims to fully understand the subject of the study. In the second phase, the materials and results collected in the first phase are used to design a qualitative study that aims to determine the results of the quantitative study through the qualitative study. The third stage is an experimental study to explore how to combine the traditional art of lanterns (intangible cultural heritage) with the culture of classics of mountains and seas and to realise its visual effects. Based on the third stage, the results will be applied in the fourth stage to make lamp artworks with ornamental and practical features, which can be decorated or used in daily life and festive occasions to promote the heritage of traditional culture.

### 1.7 Definition of terms

**Cultural Product Design:** It integrates elements of culture, art, technology, business model and other aspects. This design method is driven by innovation and oriented to user needs, and achieves the transformation and dissemination of cultural values through the form of products or services.

**Mountains and Seas Story:** Classic of Mountains and Seas (Shanhaijing), whose author is unknown, consists of two parts, the Mountain Scripture, and the Sea Scripture, The book is a complex edition of 18 volumes, including 5 volumes of the Mountain Scripture and 13 volumes of the Sea Scripture. The Mountain Scripture is about mountains and rivers, and the description includes birds and animals, myths, ancient history, and religion, etc. Sea Scripture is about the magnificent elegance of overseas countries. This ancient book is a collection of myths, religion, geography, folklore, exotic animals, and other artistic elements as one of the ancient wonders, is the accumulation of thousands of years of precipitation before the crystallisation of traditional culture.

**Divine Beasts:** Divine Beasts is a collective term for supernatural creatures that usually have special abilities or magical properties. Most descriptions of beasts come

from ancient texts or mythological stories and legends. Traditional beasts of ancient China include the dragon, the phoenix, the nine-tailed fox and the unicorn, all of which have a special symbolic meaning.

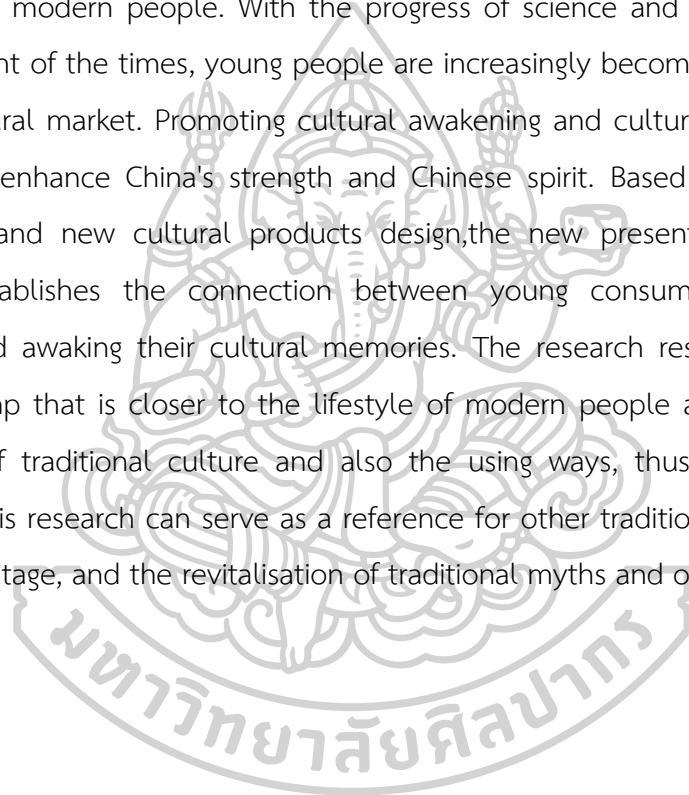
**Intangible Cultural Heritage:** also known as intangible cultural assets or ICH for short. The Interim Measures for the Nomination and Evaluation of Masterpieces of the Intangible Cultural Heritage at the National Level define intangible cultural heritage as "all kinds of traditional cultural expressions (such as folkloric activities, performing arts, traditional knowledge and skills, and related utensils, objects and handicrafts) and cultural spaces that are transmitted from generation to generation by all ethnic groups and are closely linked to the lives of the masses".

**Flower lanterns:** which can also be called coloured lanterns - are lamps decorated with colours. Lanterns are a type of lantern and traditional Chinese handicraft and usually refer to the lanterns for viewing during the Lantern Festival. In ancient times, lanterns were used as a means of illumination, but in later development, they became the embellishment of festivals in people's lives. Lanterns are usually made of paper or silk as the outer skin, bamboo, or wood as the skeleton, with candles or light bulbs in the centre, and are a tool for illumination and decoration. Lanterns are a fairly common item in Buddhist temples and monasteries. There are many types of lanterns, which can be classified into different categories according to their form, such as chandeliers, wall lanterns, pedestal lanterns and lanterns, and according to their shape, they include dragon lanterns, dragon and phoenix lanterns, gauze lanterns, palace lanterns, etc., which also include Taiwan's "drum lanterns".

**Revolving scenic lanterns:** The lantern is an ancient Chinese mechanism, a scientific principle in which the fire drives the wheels, which in turn set other things in motion. In the Tang Dynasty, there was a prototype of the Dynasty poets of the Song dynasty called them "riding lanterns" because the figures in the lanterns ride a horse and hold a gun to hunt and kill. Since the Yuan and Ming Dynasty, poets have been singing riding lanterns, but the physical heritage is rare. Beijing, Suzhou and other places of the Qing Dynasty where the lanterns were printed, one or two can still be seen.

## 1.8 Summary of this chapter

This study explores how to promote the heritage of traditional culture and the innovation of art forms by combining the lanterns and traditional character elements to enrich storytelling and artistry in the design of new cultural product design. By taking young Chinese and people who are interested in traditional culture as the main research object, establishing the emotional connection between traditional culture and modern people. With the progress of science and technology and the development of the times, young people are increasingly becoming the main players in the cultural market. Promoting cultural awakening and cultural self-improvement can better enhance China's strength and Chinese spirit. Based on redesign of the characters and new cultural products design, the new presentation of traditional culture establishes the connection between young consumers and traditional culture, and awaking their cultural memories. The research results lead to a new type of lamp that is closer to the lifestyle of modern people and can expand the audience of traditional culture and also the using ways, thus continuing cultural heritage. This research can serve as a reference for other traditional crafts, intangible cultural heritage, and the revitalisation of traditional myths and old books.



## CHAPTER2 LITERATURE REVIEW

The purpose of this study is to promote the living transmission of the culture of the classics of mountains and seas and intangible cultural heritage by presenting the mythological stories and redesign the elements that are closer to the lives of modern people by combining them with new cultural product design.

The related literature and research comprise four parts. The first part deals with the compilation of texts and images of classics of mountains and seas, convertible cultural resources and cases on the subject. The second part focuses on information about traditional Chinese lamps, lanterns and revolving scenic lanterns to better understand the development and current situation of traditional Chinese lamps and lanterns and the relationship between the three. The third part connects the culture with the lanterns and discusses the appropriate subject and methodology of this study. The last part is the conclusion of the literature review. Through the review, the researcher can conclude that the art of revolving scenic lanterns can be combined with the culture of the Classics of Mountains and Seas and show its fun and storytelling, and that the design and three-dimensional display of the divine beasts can promote the development of the cultural and creative products market and the life of cultural heritage.

### 2.1 The Classics of Mountains and Seas Cultural Compilation

#### 2.1.1 Overview of the Classics of Mountains and Seas

"Every cultural phenomenon is created or adopted to fulfil human and social needs. Therefore, every culture that is created or adopted fulfil its function in society and has an impact on people's lives. Throughout history, many cultural phenomena, whether they have disappeared or survived to the present day, have played a certain role in society and occupied a certain place in cultural history. The Classics of Mountains and Seas has recorded a large number of ancient Chinese myths,

describing hundreds of images of mythical animals and exotic plants. Written by different authors in different eras, the book is a true treasure of Chinese culture, which is a cultural system based on ancient people's experience of the world. The book contains chapters on geography, describing a large number of mythical beasts and plants and revealing the relationship between human beings and nature. It reflects the philosophical thinking of antiquity about the universe and life. Due to the long history of the book's origin, it is impossible to determine from which dynasty the first book originated, and the contents of the earliest ancient books are derived from folklore. According to the available data, the classics of the mountains and seas can be traced back to the time of the Warring States or even earlier.

The Classics of Mountains and Seas passed through many dynasties and authors, which was sorted out constantly and perfected until a more complete version of the book was produced during the Han Dynasty historian Liu Xiang (c. 77 BC - 6 AD) was entrusted with compiling the ancient books, and due to the complexity of the content and the difficulty of sorting it out, scholars such as Xu Shen and Guo Pu were involved in sorting out and expanding the content. Due to the development and evolution of history and the complexity of the literary tradition, the Classics of Mountains and Seas that have survived to this day are not the most primitive, but those that have undergone many revisions and are more readable for modern people. The Tang Dynasty literary scholar Li Yun Dynasty organised the classics of the mountains and seas into a complete and more mature version. Song Dynasty scholar He Yinglong wrote the "Interpretation of the Mountain and Sea Classics", which meticulously explains the original text, making the Mountain and Sea Classics more accessible to readers and improving the readability of the literature.

In the Song Dynasty, the scholar Wang Siren compiled the "Notes on the Classics of Mountains and Seas", which combined images and text to better visualise the fantastical landscapes in the Classics of Mountains and Seas. In the Yuan Dynasty, numerous scholars also embellished the Classics of Mountains and Seas, such as Li Shizhong's *The Illustrated Description of the Classic of Mountains and Seas* and Wang Gui's *The Series of the Classics of Mountains and Seas*, which explored the

geography, myths and legends as well as the cultural significance of the Classics of Mountains and Seas. Based on the early ancient scholars' extensive research contributions on the old book, the scholars of the Ming and Qing dynasties commented on and studied the myths, legends and geographical wonders of the Classics of Mountains and Seas in greater depth. The Ming scholar Liu Jin, in his *Kaoyi* of the Classics of the Mountains and Seas, analysed in detail the discrepancies and doubts of the various versions of the Classics of Mountains and Seas.

The Qing Dynasty scholars Qian Daxin, Zhao Yi, Guo Xiang, and others also played a driving role in the cultural development of the Classics of Mountains and Seas. Due to the rich cultural content of the book, the long period of time and the wide range of research, the modern study of the book is still in an active stage, and it is worth paying attention to the fact that more scholars of the culture of the Mountain and Sea stories have studied the geography of the Classics of Mountains and Seas in detail, have studied the mythological stories and deeper cultural significance of the classics in depth, and a large number of academic works and research on the culture of the Classics of Mountains and Seas provide more references and opportunities for the inheritance and innovation of Chinese culture. Numerous academic papers and studies on the *Shanhajing* provide more references and opportunities for the inheritance and innovation of Chinese culture.

Taking the China Knowledge Network Literature Library with the search term the "Classics of Mountains and Seas" as an example, the annual publication table of domestic research literature on the Classics of Mountains and Seas (Figure 1) shows that the number of research literature on the classics of the mountains and seas shows an overall upward trend from 1983 to 2022.

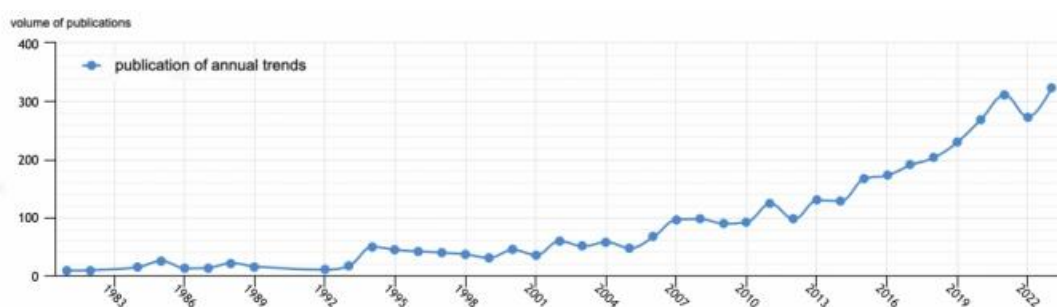




Figure 1 Annual release chart of domestic research literature related to the Classics of Mountains and Seas

Figure 2 shows the distribution of disciplines related to the dissertation on the classics of the mountains and seas, with Chinese literature, secondary education, fine arts, calligraphy, sculpture and photography, and religion being the primary areas. The general research direction takes the theoretical knowledge on the subject as a starting point to examine its historical value, literary value, and artistry.

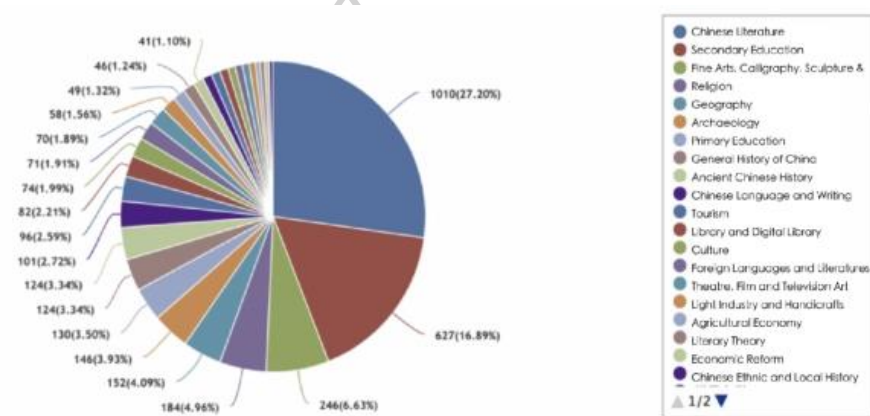


Figure 2 Distribution of disciplines related to the (classics of mountains and seas)

Figure 3 is a diagram of the annual publication trend using the search term "Classics of Mountains and Seas design". It can be seen that the number of publications on the topic of Classics of Mountains and Seas design increased overall from 2004 to 2022, with a clear upward trend from 2014 in particular.

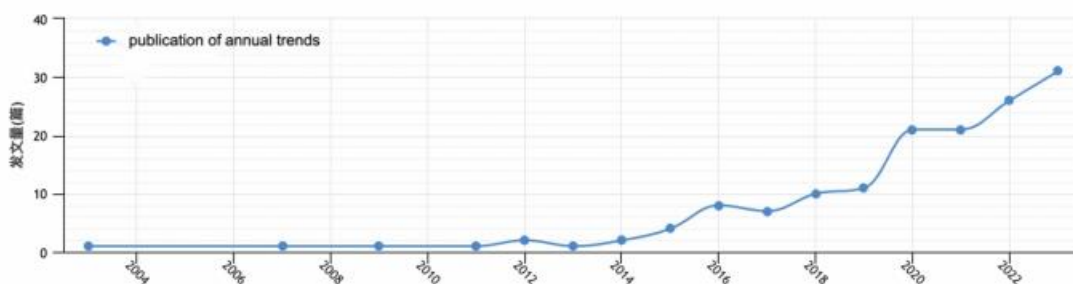


Figure 3 Annual publication trend related to (classics of mountains and seas)

Figure 4 shows the distribution of topics related to the design of the CLASSICS OF THE MOUNTAINS AND SEAS, the main content in mythology, literature and

archaeology, cultural and creative products, illustration design and the image of gods and beasts accounted for a total of about 15%, but also includes a large number of art design topics such as clothing design, image design, product design, etc., so it can be seen in the *CLASSICS OF THE MOUNTAINS AND SEAS* in the transformation of cultural and artistic resources is fruitful.

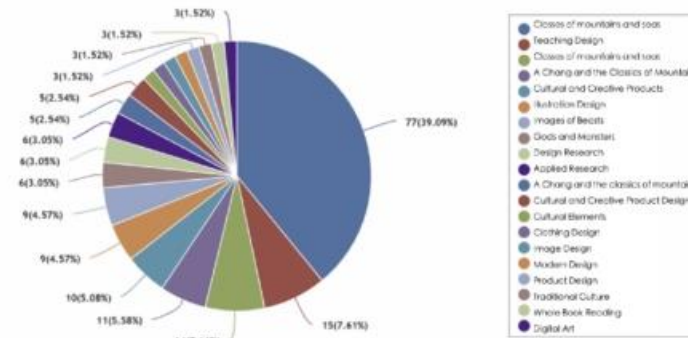


Figure 4 Distribution of themes related to the design of (classics of mountains and seas)

## 2.1.2 The contents and composition of *CLASSICS OF MOUNTAINS AND SEAS*

### 2.1.2.1 Content

The *CLASSICS OF MOUNTAINS AND SEAS* consists of two parts, totalling 18 volumes, which describes a variety of information about the geography of ancient China, its mountains, and seas, as well as myths and legends and images of gods and beasts common to various regions. According to the findings of ancient cultural research, there were first atlases and then texts on the classics of mountains and seas, but due to the long period of time, a large number of complete atlases were not well preserved and passed down. Later generations of antiquarian book designers and researchers made pictorial reductions and reproductions of deities, gods, and beasts as well as maps according to the textual descriptions in the *CLASSICS OF MOUNTAINS AND SEAS*. These illustrations of the book originating from

which date back to the Ming and Qing dynasties or even earlier, are also of great artistic value for the modern study of the culture of the *CLASSICS OF MOUNTAINS AND SEAS*.

The book Discoveries of the Divine State - Geographical Study of the *CLASSICS OF MOUNTAINS AND SEAS* published in 2006 and edited by Fu Yongfa, analyses the geographical and cultural resources of the Classic of the Mountains and Seas in many ways. The book mentions a section of the *CLASSICS OF MOUNTAINS AND SEAS* of more than 20,000 words, which is about two-thirds of the entire length of the book. In it, various sacred and strange mountains are described, demonstrating the ancient people's reverence for geographical mountains and rivers and their imagination. The Classic of the Seas contains information about most of the oceans, rivers, and lakes in ancient China, such as the Yellow River, the Mother River of China, the Chang Jiang River, and the Huai River, etc. It also describes numerous mythological marine organisms and magical landscapes based on the ecology of the rivers, testifying to the great curiosity and desire of the ancients to explore the waters. The *CLASSICS OF MOUNTAINS AND SEAS* from the field of geography describe a large number of fantastic stories and rich mythological images. Together, the two parts of the classics of mountains and seas enriched the treasury of ancient Chinese culture and had far-reaching effects on later generations in many ways, such as geographical changes, biological development, mythological concepts, art, and culture.

Since ancient times, people's worship of gods and spirits and people's innate creativity have contributed to the development of totem culture, and the images of gods and beasts in the *CLASSICS OF MOUNTAINS AND SEAS* have also led to hand-painted atlases, murals and other pictorial works, which provide a more intuitive and clearer interpretation of the images of gods and beasts and the natural landscapes in the *CLASSICS OF MOUNTAINS AND SEAS*. According to archaeological data, the earliest drawings of the *CLASSICS OF MOUNTAINS AND SEAS* can be traced back to the Han Dynasty. The literati and scholars of the book in the landscape of pictorial representations supplement the lack of textual description, but also add interest to the ancient books and enrich the viewer's understanding of

various types of images. After the Wei, Jin, Northern and Southern Dynasties, the pictorial representation of the *CLASSICS OF MOUNTAINS AND SEAS* reached its peak in the Tang and Song Dynasties, with a large number of paintings being used in the modelling of vessels and in the decoration of tombs.

### 2.1.2.2 Composition

The classics of mountains and seas cover a wide range of topics. The systematic categorisation consists of three parts: nature, myths and legends, and humanities.

Nature includes mountains, rivers, lakes, seas, islands and so on. For example, Xuanwu Mountain, Taishan Mountain, Yellow River, Dongting Lake and etc. A total of fifty-one mountain ranges are described in the book, with references to the geographical location, shape and associated climate, such as (quoted from the Mountain Scripture - North Mountain Scripture): "玄武山，在武都县北二十二里。高五丈，周一百里。有神兽焉，其状如乌龟，其文如蛇，其喙如鹤，名曰玄武。其音如雷，可往来负重二千石，千里而不息。可以大负载山川之金石而南之江河也。"Describes the surroundings of the basalt mountains and the characteristics of the beings in that ecology. As (quoted from the Sea Scripture- Northern Scripture of the Sea Within): "黄河起于岳阳，至蓬莱而入海，东经四百里，深四百仞，广二百里。其水黄而不清，可味而饮。有鱼焉，其状如龙而一角，名曰鲤。"It is the description of the Yellow River, the mother river of the Chinese nation, in the Classics of Mountains and Seas, which describes the geographical location and characteristics of the Yellow River, describes the gods, plants and animals in the Yellow River, and reflects the ancient people's admiration for life and rivers. In addition to the vivid natural landscapes, the Classics of Mountains and Seas also include accounts of the wilderness. Barren mountains, deserts and wastelands are not without life, and rare creatures exist in barren lands and harsh environments. The descriptions of mysterious and exotic lands and unknown deities in the book reflect the ancient people's reverence for nature.

The second component is the most famous myths and legends of the book, which contain a large number of descriptions of gods, deities, sacred

animals, mythological stories and mysterious places, usually possessing superhuman powers to rule over the natural world or the earthly realm, as well as sacred animals with their special abilities and habits, such as the Nine-tailed Fox, the Unicorn, the Green Dragon, the White Tiger, and the Phoenix, among others. (Extract from the Northern Scriptures of the Sea): "九尾，其状如狐而九尾，其音如婴儿，可使人相忘，见者百毒不侵。"It describes the basic form and characteristics of the Nine-tailed Fox, with a baby-like voice that exudes a charming charisma, has the ability to strip people of their memories, and makes those who see it immune to all poisons. (Excerpt from the writings on the sea and the inner south): "麟，其状如马，四足有鳞，首有角，鳞曰黛，角曰广，其音如磬，见者得禄。"

The text describes the form of the Qilin, which resembles the body of a horse, with scaly limbs and horns on its head; it can produce the sound of Pan, and those who see it will be rich and honourable. A large number of images of mythical beasts by the Qilin are also widely used in today's artworks and literary works. In addition, household myths such as the Quafu chasing the sun and the Nuwa repairing the sky originate from this ancient book. The ancestor of the Dongyi, Emperor Donghua, who could ride the five-coloured birds on the battlefield, as well as the strange treasure of immortality and herbs are also written down in the very metaphysical text.

The third part is the composition of the humanities, and the book describe this part very vividly, with a large number of descriptions of tribal and human societies, customs and rituals appearing in the ancient texts. For example, the Great Desert South scripture describes the Southern Desert tribe who live in the southern land of the Great Desert, the Great Desert North scripture mentions the Northern Di tribe in the northern desert region who are good at horse riding and archery, the Great Desert East scripture mentions the Dongyi tribe who are good at sorcery, and the Great Desert West scripture describes the Xirong tribe who are good at training beasts and so on. There is also the Central Plains tribe, who are good at agricultural crafts, etc. There are also strange and great lands and tribes that are good at farming. There are also strange and weird countries such as the Kingdom of the Great People, the Kingdom of the Small People, the Kingdom of the Feathered

People, the Kingdom of the Immortal, etc. However, as the classics of the mountains and seas are interspersed with a variety of myths and legends with certain mythological colourings, some of the contents are yet to be proven and it is necessary to rely on more relevant literature to confirm and study them.

The composition of the Classics of Mountains and Seas is of multiple value. Their descriptions of geography and local cultures reflect the changes in the landscape of ancient China and provide a wealth of clues to help people understand the cultural background and geographical knowledge of different parts of China. The depictions of myths and legends, gods and animals, and the power of nature in the ancient texts reveal people's reverence for and belief in all things in the universe, and also provide valuable information for later scholars of religion and culture. The numerous descriptions of gods and beasts and exotic treasures in the classics of the mountains and seas also provided artists, painters and writers of all eras with rich artistic material and creative space. At the same time, these texts, which reflect the relationship between man and nature, also demonstrated the respect and reverence of ancient people for the laws and rules of nature and reminded future generations of the need to coexist harmoniously with nature.

### 2.1.3 Images of *CLASSICS OF MOUNTAINS AND SEAS* beasts as well as artistic symbols

#### 2.1.3.1 Analysis of early illustrated images of divine beasts in the *CLASSICS OF MOUNTAINS AND SEAS*

Artistic symbols have existed since the beginnings of human artistic creation, and in the development of ancient civilizations, mythological cultures also used symbolic artistic techniques to convey certain cultural values. Bronzes from the Shang and Zhou dynasties in ancient China were decorated with animals, figures and totems of gods and beasts, all of which expressed the ancient

people's reverence and fear of gods, nature or rulers. Hundreds of different beasts are described in the book, some of which appear in several chapters. These beasts have different images and have their own special abilities. The types of the divine beasts can be categorised according to their appearance, characteristics, and functions. Different classifications allow the reader to find the target beasts more comprehensively and quickly.

The divine beasts in the Mountains and Seas story can be categorised according to their appearance into: Unicorns, Snakes, Tigers, Lions, Birds and Finches, etc. Unicorns include Qilin, Yangfeng, Kunlun and so on. Snakes include the poor, pit vipers, white snakes etc. Birds include the Vermilion and Zhu Rong. There are a large number of sacred animals therefore it is difficult to count them accurately, some of them are described differently in different chapters of the classics. After a long history of inheritance, the descriptions of divine beasts in different versions of the Classics of Mountains and Seas also have certain differences. According to the symbolic attributes of the various divine beasts, the researchers will list the representative images of the divine beasts in the ancient texts and analyse the artistic features as well as the symbolic meaning.

#### **Case 1: Qilin**

The qilin is one of the most common representations of traditional Chinese sacred animals, and it is described in the Classics of Mountains and Seas - (The Middle Classic of the Seas) "有兽焉，其状如鹿而一角，名曰麒麟。其音若婴儿，见则县官大夫士人皆宾拜，吉。"In it, the Qilin is described as deer-like with a single horn, it makes baby-like noises and forces even prominent dignitaries to bow when they see it. In ancient China, it was considered a sacred animal that symbolised good luck and longevity. These are the interpretations of the image of the Qilin in the ancient books. Although there is no image of the Qilin in the ancient books, its "traces" are common in the long history of the development of the Qilin. as can be seen in Figure 5 (first from the left), this is the Western Hunt for the Qilin, painted by Chuan Qiuying, and is the 35th of the 39 images of the Sacred Marks. The painting shows Confucius and his disciples gazing at a reclining Qilin clad in scaly armour, its tail spread out like a fan and a single horn on its head. Its appearance is similar to

that of the Qilin depicted in the Classic of Mountains and Seas. However, as the image shows the Qilin being hunted, the divine nature of the beast has been toned down.

Figure 5 (second from the left) shows an image of the Qilin from the San Cai Tu Hui, which depicts the impression of the Qilin during the Wanli period of the Ming Dynasty's body resembles that of a deer, its limbs are athletic and leaping, its eyes expressive and its scales and hair abundant and flowing. (Figure 5, third from left) is a copy of the Punggol Kirin by Qing artist Chen Zhang, based on the original Ruiying Kirin by Ming artist Shen Du, which depicts a giraffe brought to Bengal by Zheng He in 1414 AD. At that time, a giraffe was called a giri in the Somali language, and a giraffe was a giraffe, which was a giri, or a qilin, which was the name for a deer, and a giraffe, which was the name for the giraffe. In ancient times, some people believed that a deer was actually a giraffe, with the male deer being called Qi and the female Lin. The giraffe in this painting is hugely different from the earlier depictions of giraffe motifs, which associate the shape of the giraffe with a real giraffe and tone down the antlers mentioned in the ancient texts. The horns of the animal mentioned in the ancient texts. It is clear that the Qilin in this painting is not the Qilin recorded by the ancients, but it reflects the curiosity and desire of the ancients to explore ancient mythological imagery.

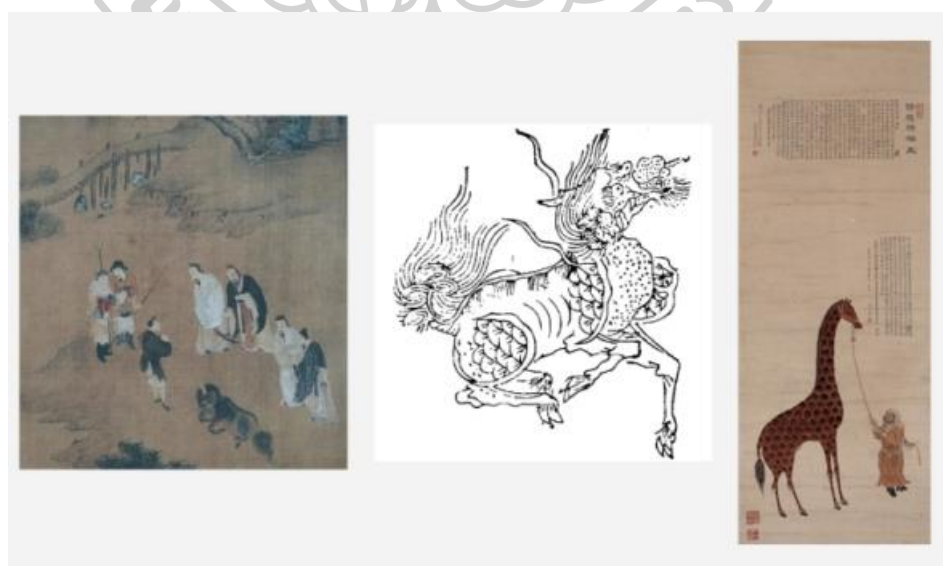


Figure 5 Qilin's shape

## Case 2: Baiyuan



Described in the Classics of Mountains and Seas, the northern scripture of the sea: "有兽焉，其状如狸而白首，名曰白猿。能言五六言。"The Baiyuan mentioned here is a spirit animal with an ape-like body, its arms are thick and strong, its limbs are long and agile, and it can climb rocks well. The Baiyuan can speak well, its body is silvery white, quite intelligent and it can absorb the essence of the sun and moon, which is a symbol of longevity.

In Figure 6 (first from the left) you can see a Baiyuan painted by Hu Wenhuan in the Ming dynasty its hands raised and its legs curled up as if it were climbing and hanging from a tree. Hu used the technique of white drawing to emphasise the baiyuan's features and limbs, an accurate depiction of the baiyuan's form in the Classics of Mountains and Seas. (Similar to Hu, the Baiyuan's limbs are long and slender, but the latter is more dynamic and uses both rocks and tree branches to emphasise the Baiyuan's rock-climbing ability and agility. These two works show the Baiyuan in the eyes of the ancient Chinese, but interestingly, there are also foreign painters who have depicted the Baiyuan in a different style. (Figure 6, third from the left), this is the Italian Milanese painter Lang Shining, who (partially) painted the Baiyuan. Lang Shining painted in China for more than 50 years in the three dynasties of Kangxi, Yongzheng and Qianlong and is one of the top ten painters in the Qing dynasty court. Lang Shining's Baiyuan combines Western painting techniques with traditional Chinese ink and brushwork in a full-bodied composition and a sophisticatedly designed scene. The Baiyuan's gaze is fixed, his legs stand on a tree branch, one hand holds on to a branch with a firm grip, the other tests the edge of a beehive with a twig, and a waterfall seems to splash in the distance. This work is full of colour, the details of Baiyuan and plants are carefully drawn, and the near and distant scenes are sparsely depicted, as if the real scene is printed in the eyes.

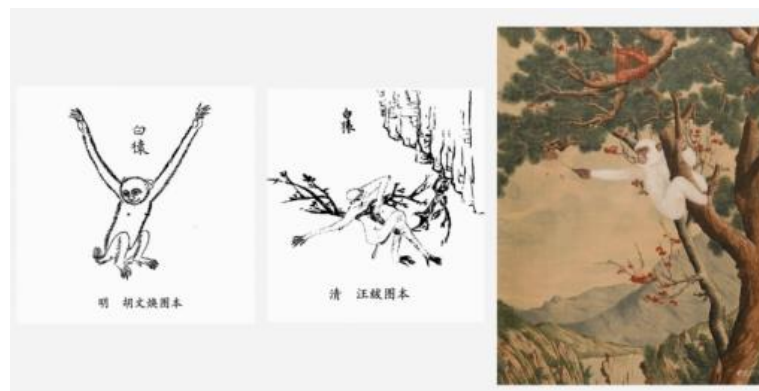


Figure 6 Baiyuan's shape

### Case 3: Jiuweihu (Nine-tailed Fox)

Described in the *Classics of the Mountains and Seas* - (The Northern Classic of the Sea): "有兽焉，其状如狐而九尾，其音如婴儿，名曰九尾狐。其神通，可以飞行。食人之精气，可以长生。" The divine beast mentioned here is called Jiuweihu (Nine-tailed Fox), it looks like a fox but has nine tails and can emit a baby-like cry. The Jiuweihu has great strength and can fly well. It often eats the essence of humans to gain immortality.

The large tail is a key feature of the nine-tailed Jiuweihu, painted by the Ming Dynasty artist Hu Wenhuan (Figure 7, first from the left). The artist used the technique of white drawing to clearly depict the Jiuweihu's appearance and expression. In the painting, the Jiuweihu's eyes are sharp and full of spirit, the mouth is slightly open as if demonstrating the general, the Jiuweihu has naturally bent downwards, the front limbs of the mighty Jiuweihu are raised, quite an expression of spirituality. The nine-tailed Jiuweihu in the drawing by Hao Yixing from the Qing Dynasty (Figure 7, second from the left) is remarkably similar to the drawing by Hu Wenhuan. Probably because of the simplicity and intuition of his depiction of the jiuweihu, Hao Yixing of the Qing Dynasty reproduced Hu Wenhuan's drawing and added a description of the characteristics of the Jiuweihu to the picture. The depiction of the Jiuweihu by the Qing artist Wang fu differs from the previous two (Figure 7, third from the left). The Jiuweihu is in a reclining position, its limbs powerfully coiled on the ground, but its nine tails extend from the back of the spine to the ground, in the form of a fan resting on the ground. The nine-tailed fox in this

illustration visually recreates the image of Jiuweihu in the Classics of Mountains and Seas and is depicted more vividly in its bestiality.



Figure 7 Jiuweihu's shape

Since ancient times, the Jiuweihu is one of the most classic images in ancient Chinese myths and legends, and it is also the inspiration for the characters in the films *Green Snake*, *The New Version of LiaoZhai's Nine Lives of the Fox Immortal*, and *Journey to the West of the Great Lies - The Moonlight Box*. In traditional Chinese culture, the Jiuweihu is considered a symbol of mystery and good fortune.

#### Case 4: Shusi

The Shusi is a divine bird described in the Classics of Mountains and Seas and is found 180 miles east of Mount Huangshan. It resembles a scops owl, has a head and body full of feathers, but possesses a pair of human feet and legend has it that a person who eats its flesh will be freed from disease. (Figure 8, the first from the left, below), Shusi painted in the Ming Dynasty Hu Wenhuan graphic book highlights the characteristics of his human feet, the image Shusi was walking sideways, look naive. Figure 8, the second from the left, shows Shusi in the Wang Fu catalogue from the Qing Dynasty. It has a more owl-like shape, with a slightly larger head to torso ratio, and although the human foot is weakened, it can still be clearly recognised from the animal's foot.



Figure 8 Shusi's shape

### Case 5: Wenyao

The Classics of Mountains and Seas – Western Mountains: “又西百八十里，曰泰器之山。观水出焉，西流注于流沙。是多文鰩鱼，状如鲤鱼，鱼身而鸟翼，苍文而白首，赤喙，常行西海，游于东海，以夜飞。” It describes a divine creature called Wenyao, which has the appearance of a carp and has the body of a fish and the wings of a bird, with white stripes, a white head and a red beak. The Wenyao often migrates from the West Sea to the East Sea and soars into the sky at night.

(Figure 9, first from the left), a Wenyao in illustration by Hu Wenhuan from the Ming Dynasty, shows the divine creature with the wings of a bird and the body of a fish in the form of a spread wing and leaping, with black spots on the body and no whiskers around the mouth. The Wenyao depicted in the catalogue of Qing Dynasty artist Wang Sash (Figure 9, second from the left) is a more active creature with its head raised and whiskers swinging in the air, making it appear particularly mischievous and active. Ancient texts report that the Wenyao's flesh is sweet and sour and that humans can eat it to cure epilepsy. The appearance of the Wenyao is an omen for a good harvest. In ancient times, when productivity was backward, the Wenyao was the lucky charm longed for by farmers, reflecting the old people's expectations and hopes for a rich life.

Although the Wenyao is a mythical beast, in real life there is a fish called "ray", (Figure 9, third from left) the small ray is up to 50 cm long, the large one can grow up to 8 metres long. According to scientific research, rays appear on the water surface to breathe the oxygen in the air, and this often happens in the

rainy season, drought and water shortage of crops in the rainy season to be fed after the growth of farmers can usher in a bumper crop, this scientific logic explains the ancient records of "Wenyao" appeared, that is, the reason for the bumper crop. However, from the classics of the mountains and seas in the description of Wenyao morphology, the real ray and its physical similarity is relatively low, Wenyao and skate whether there is a biological evolution in the correlation, but also referred to the scientists to prove more research.



Figure 9 Wenyao's shape

There are also a large number of magical beasts in the Classics of Mountains and Seas, such as the Bai Ze in the Overseas East Classic: "有兽焉，其状如狸而白首，乘风飈，其名曰白泽。" The Bai Ze here is a divine beast that looks like a civet cat and has a white head. Its special ability is to ride the wind and it is sometimes regarded as the king of all beasts and mystery and symbolises supreme power. There is also the gnarled beard, which resembles a tiger, in the classics of the mountains and seas, and the kumpeng, which can lift thousands of waves, in the classic of the eastern overseas territories. These divine animals, which symbolise luck, power and authority, have become an important and indispensable part of traditional Chinese culture.

In addition to the divine beasts good morals, numerous wild and vicious beasts also been recorded. In the Classics of the Mountains and Seas, (the Northern Classic of the Sea) there is a description of the pit viper: "蝮蛇之首，其状如牛，蛇身鼠尾，其音如婴儿，能食人。" This refers to the fact that the pit viper has a

body shaped like a snake, but a head that grows like a cow and a tail that resembles a rat's tail, and that it prefers to feed on humans and animals. People's image of the pit viper is caused by the fear of nature, and the pit viper, which is not necessarily real, symbolises evil and danger. There is also the Cyprinodon described in the classics of Mountains and Seas - the southern scripture of the sea."青鱼之首，首有角，其状如鱼，其音如兔，常见于西海之中，食人。"The green fish referred to here, is a divine beast with horns on its head and a voice like that of a rabbit, which is able to feed on humans and often lives in the Western Sea; this divine beast represents evil spirits or terrible things. In addition, there are the classics of Mountains and Seas - (Sea in the middle of the scripture) in the three heads, the shape of the horse-like Kuisanshou, the classics of Mountains and Seas -(Overseas East) in the conch crab, Quodid, Xiezhi, etc., recorded in ancient cultures. recorded, in ancient cultures, these ferocious and hideous beasts are regarded as a deterrent to ward off the evil spirits of the symbols, reflecting the ancient people of the unknown spirits of awe of the forms of their paintings, carvings, etc., were used in the form of architectural or vessel decorations, sometimes these beasts, although terrifying, are not the same as those in the Western Sea. Sometimes it was believed that these beasts, although terrifying, drove away evil and protected from harm on certain occasions.

### 2.1.3.2 Allegorical compilation of images of divine creatures of

#### *CLASSICS OF MOUNTAINS AND SEAS*

The symbolism inherent in the classics of mountains and seas reflects the ancient people's desire for unknown power and their longing for a better life. The depiction of beasts and gods reflects the view of nature in primitive society and the animalistic view of the ancient people. Since there are many images of gods and beasts described in the Mountain and Sea Classics, and some of them appear in different chapters or have different descriptions, the researcher has combed and

analysed the Classics of Mountains and Seas for the symbolic categories of gods and beasts to ensure the accuracy and beasts.

### 2.1.3.2.1 Auspicious Beasts

Auspicious beasts usually have a positive appearance and symbolise wealth, health or good fortune. Among these beasts some that can cure all diseases, others that can ward off evil spirits and protect the body, and still others that bring about good when they appear. These auspicious beasts endowed by their creators with beautiful and positive meanings and can fulfil people's present wishes and future fantasies. The researcher has sorted the "auspicious beasts" in the classics of mountains and seas as shown in Table 1.

auspicious beast	medical value	Eaten, applied externally to cure diseases, have medicinal value, and can gain magical powers.
	ward off evil spirits	The beast's own positive energy can dispel evil spirits and avoid evil spirits.
	Foretelling	Predicting what will happen, e.g. rain falling from the sky, good harvest of grains.
	Symbolism	Fulfil people's wishes for good or positive results

Table 1

### 2.1.3.2.2 Neutral Beasts

In the Classics of Mountains and Seas, there are fewer descriptions of divine beasts that have no clear attributes of good and evil. These divine beasts do not distinguish between good and evil and symbolise neither good nor evil. Neutral beasts are the result of a continuous development, and people's understanding of these beasts varied in different eras. The meaning of the "neutral beasts" is summarised in the table 2.

The Neutral Beast	good and evil coexist	Can be good, bad or in a grey area
	symbolise	Different meanings in different eras, symbolism is indeterminate

Table 2

### 2.1.3.2.3 Beasts of Fierce Fury

The Beasts of Ferocity and Fury are one of the most numerous beasts in the classics of mountains and seas. As the name suggests, the Beasts of Ferocity and Fury refer to beasts that represent darkness, terror and malice. The Beast of Fierce Rage appeared as a terrifying image in the records of primitive ancient books, and because of its ugly image and ferocious nature, it is still avoided to be mentioned by people, and even regarded as a symbol of disaster and doom by people. The following Table 3 is a compendium of the meanings of the Beasts.

<b>fierce beast</b>	Oppress the people	They feed on humans. They are fierce and terrifying.
	scourge	Compulsive and leads to negative results
	prophecy	Predicts what will happen, such as natural disasters, war woes
	Symbolism	Explaining death and disaster

Table 3

### 2.1.3.3 Classifications of mountains and seas beasts form combination laws

In the *CLASSICS OF MOUNTAINS AND SEAS*, there are a variety of forms of sacred animals, including common animal forms in life, animal and animal limbs combined and connected with each other, and the combination of animal and figure forms that are localised. The characteristics of divine animal forms can be divided into three categories. The first category is the repetition of a part of the animal body or the number of additions and subtractions. For example, the Jiuwei hu, the bird of prey, the flounder and so on. As can be seen in Figure 10, the Jiuwei hu has increased the number of fox tails while retaining the original shape of the fox, and the head of the bird is repeated in the morphological representation of the biplane, including the pattern of combining the shape of the flounder.





Figure 10 Beasts form combination laws 1

The second category is the combination of different living beings by grafting, and this form of combination is used in a large number of the form of figures. There is the combination form of animal head and human torso, there is also the human head grafted onto the torso of an animal, or part of the features of different animals grafted onto a complete body to create a new image. As can be seen on the left side of Figure 11, Ying Zhao is a horse with a human face, four hooves on the ground and the wings of a bird, i.e. a typical human-animal combination form of a divine beast. On the right side of Figure 11 is Yanwei, also known as the Committee Serpent and the God of Ze. He has a human face with two heads and a serpentine body, with a head on each side and a purple dress, and his prototype is derived from the two-headed serpents in nature.



Figure 11 Beasts form combination laws 2

The third category is the wrong placement of body organs. The wrong combination refers to the rearrangement of the individual elements of an

animal, as in Figure 12, left, the Boyi with eyes on his back, and Figure 12, right, the Xingtian, who according to legend competed with the Yellow Emperor for the throne and after his decapitation used his own breasts as eyes and his navel as a mouth, and it is indeed true that the two eyes and the mouth are wrongly placed on the Xingtian's belly in Tuben's depiction.



Figure 12 Beasts form combination laws 3

The artistic expression of the ancients in the *Classics of Mountains and Seas* in the depiction of beasts coincides with modern surrealism, the beasts are filled with a sense of contradiction and a sense of disorder contains a wealth of symbolic beauty.

#### 2.1.4 Convertible cultural resources of *CLASSICS OF MOUNTAINS AND SEAS*

The *CLASSICS OF MOUNTAINS AND SEAS* are a treasure of ancient culture that richly enriches the development of the modern cultural industry and the creations of artists and designers. The cultural resources they contain reflect the history of humankind, the cultures of ethnic groups and natural resources. At present, there are many literary products on the market whose background is the *CLASSICS OF MOUNTAINS AND SEAS*. From the perspective of literary creation, the myths, and legends in the *Classics of Mountains and Seas* have become a source of inspiration for ancient and even modern literary works, which include metaphysical stories, fantasy novels, film and television works, etc. such as the 2016 television

series The Ancient Myths of the Legend of the Red Shadow of the Classics of Mountains and Seas, which brings the geography, divine beasts and ethnic groups in the ancient texts to a wider audience with the help of modern film and television productions, special effects and other techniques, and the 2018 television series The Ancient Myths of the Classics of the Mountains and Seas, and "The Ancient Secret Testament of the Classic of Mountains and Seas", which will air in 2019, as well as a variety of other film and television productions that recreate the images of some of the divine beasts in the ancient texts and transport the audience to the mysterious realm of ancient times by exaggerating the characters' personalities and adapting the plot.

Co-directed by Canadian director Kevin Monroe and Norwegian director Kristian Kamp, Little People of Mountains and Seas (Figure 13) also presents a thrilling and bizarre adventure set against the backdrop of the classics of the mountains and seas, recreating the story of a Little People prince who rescues his king against the humanistic backdrop of the Little People country of Zhou Rao as recorded in the classics of the mountains and seas. The film will be released in cinemas in 2021.



Figure 13 Movie of (Classics of Mountains and Seas)

Novels, poems and comics on this subject are also worth mentioning. The comic artist A-Meng focused on the characteristics of the image of the sacred beasts and created the comic collection "Mountains and Seas Against Adversity", followed by a large number of excellent comics such as "The Monsters of the Classes of Mountains and Seas", "Bravely Breaking into the Classic of Mountains and Seas" (as shown in Figure 14).



Figure 14 Comics of (Classic of Mountains and Seas)

And "Mountain Spirits and Sea Monsters" (as shown in Figure 15), and many other excellent comics have also been released.



Figure 15 "Mountain Spirits and Sea Monsters"

The numerous descriptions of divine animals and spirits, spiritual grasses, and mountains in the Classics of Mountains and Seas provided a large number of creative sources for artistic expressions such as paintings and sculptures and set a unique and mysterious creative tone for the artistic creations of later generations.

#### **Case 1: (Classics of Mountains and Seas) and sculpture**

In 2021, sculptor Qiu Qijing organised a large-scale installation exhibition at the foot of the Great Wall in Beijing on the theme of "Classics of Mountains and Seas" (Figure 16), which was also the first and largest domestic installation exhibition". The artist combined the image of beasts and sea animals with modern artistic expressions, reconstructed the relationship between human beings and beasts and sea animals, integrated sculpture, music and dance, and let the traditional Chinese culture represented by the ancient beasts, in a fully sensory way into the eyes of the audience, the use of electronic musical instruments, guitars, violins and the traditional Chinese musical instruments of erhu and pipa emphasises the auditory atmosphere of the scene and lets the audience experience a strong collision between ancient culture and new visual art forms. It brings the audience a strong

collision between ancient culture and new visual art forms. The most remarkable thing is that the art installation breaks through the boundaries of the environment, the natural environment and the art installation become one, the artist restored the ancient gods and beasts torso image characteristics, nearly 60 images of gods and beasts "free to liberate", some sculptures of gods and beasts stand on the edge of the cliffs, and some squat in the forest, visitors can casually roam around the exhibition, accidentally will find the figure of gods and beasts! Visitors can wander through the exhibition area and find the figures of the beasts without realizing it.

The artist mentioned that in creating this series of sculptures, he had observed a large number of ancient paintings, such as those of Wu Daozi in the Tang Dynasty, Lu Xinzong and Jin Dashou in the Song Dynasty, Wu Bin in the Ming Dynasty and Shi Tao in the Qing Dynasty, all of which were depicted in the form of flat paintings and depicted differently according to the artist's subjective understanding of the image of beasts and goddesses. Unlike his earlier classics of the mountains and seas, Qiu Qijing depicts the beasts of the mountains and seas as fully as possible in three dimensions and establishes an emotional connection between the people and the beasts. However, geoscopic installation art is usually temporary, and the viewer can only appreciate and understand the work for a limited time. Such works are not easy to maintain permanently and require the use of a large number of resources, which may have a certain impact on the environment from the perspective of environmental protection for sustainable development.

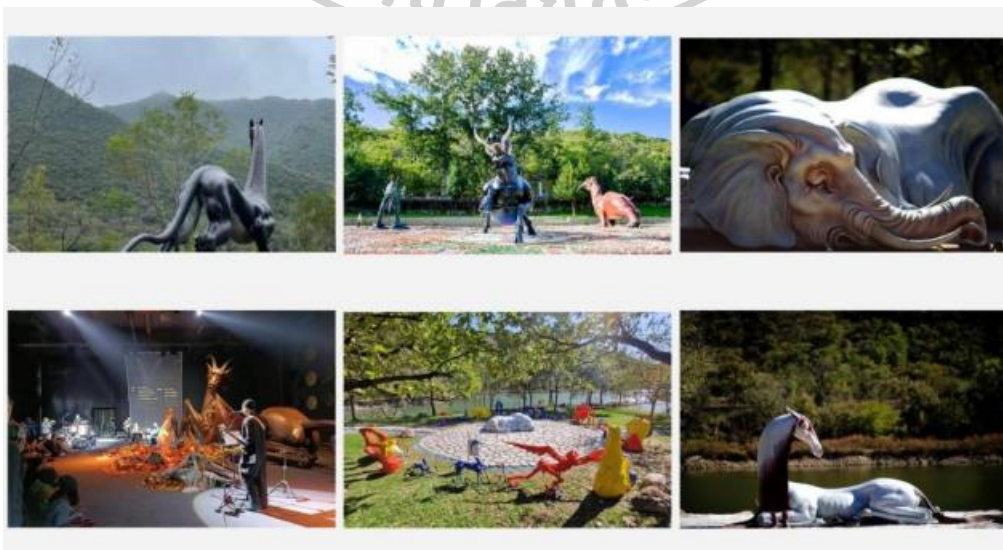


Figure 16 Qiu Qijing's artwork

**Case 2: (Classics of Mountains and Seas) and picture books**

In the literature on the images of the beasts of the Classics of Mountains and Seas, we find that Ma Changyi's "Ancient Pictorial Description of the Classics of Mountains and Seas" distinguishes the images of the beasts of the Classics of Mountains and Seas in a systematic and comprehensive manner, and also summarises and compiles the ancient texts of the Classics of Mountains and Seas of various dynasties in the early period. In addition, Xu Ke's "Illustrated Classics of Mountains and Seas" also summarises the content of the ancient texts. Not only in China, but also in Japan, there are studies dealing with the classics of the mountains and seas, such as the traditional Japanese demon picture book "One Hundred Ghosts and the Night Journey", in which more than 60 per cent of the prototypes of demons and monsters are from the "Classics of Mountains and Seas", and there are also "Picture Scrolls of Strange Birds and Beasts" and other beautiful works depicting the images of some gods and beasts of the (Classics of Mountains and Seas).

Zhongnan Bohji Tianvolume Culture Media Company and Hunan Literature and Art Publishing House have jointly published the hand-painted picture book "Viewing Mountains and Seas" (Figure 17) by the young artist Shanze, a popular reading book with the classics of the divine animals of the mountains and seas as the main content. The artist has drawn nearly 200 pictures of divine beasts and deities in his paintings, referring to old books such as "Encyclopaedia of Chinese Monsters and Demons", "Commentary on the Classics of Mountains and Seas", "The Dictionary of Chinese Monsters and Deities" and so on. With the concise original text and interpretation, combined with the colourful expression of traditional Chinese painting, the appearance and forms of the gods and beasts of the mountains and seas are vividly depicted.

As can be seen from the drawing of the forms of the god beasts, the artist has invested a lot of time in analysing the textual descriptions of the images of the god beasts and the environment in which they grow in the classics of the mountains and seas, and has referred to a number of books on the images of the ancient god beasts.



Figure 17 “Viewing Mountains and Seas” artwork

As can be seen in Figure 17, the first picture on the left shows Xingxing, who is reported in the book to be able to walk upright or squat, and the legend says that human increase their walking ability after eating his flesh. The main colours of this painting are blue-green and ochre. The loose and relaxed form of Xingxing is depicted with flowing strokes, creating an aura of nature, and the large white area also makes the picture more breathable and increases the space for the reader's imagination.

As shown in Figure 17, second from the left, it is a sacred beast called Mafu, which according to ancient records lives under Manku Mountain, has a tiger-like body but a human face and a voice like a baby's cry, and is a wild beast that eats humans. The artist meticulously depicts Mafu's ferocious appearance and its blood-stained fur reminds people whether it has just finished a wild predatory action. The whole picture consists of a few bare grasses, the beast walking forward and white space. The composition emphasises the powerful sense of aggression of this type of sacred beasts.

Similar to this composition, the third painting from the left in Figure 17 also uses a lot of white space to emphasise the featured image as the main motif. The image is called Jiaochong and is the mountain god of Pingfeng Mountain. Pingfeng Mountain has no grass because there is no water source nearby. This is probably due to the description of this mountain in the Classics of Mountains and Seas, so the artist did not depict the surroundings of the painting in the composition. Jiaochong has two human heads and he is the leader of all stinging insects. Although

he is the god of the mountain, people are afraid of him because he looks so terrifying.

These pictorial materials are only the beginning of the hand-painted illustrations of "Viewing Mountains and Seas", but they also epitomise the entire illustrated work. Analysed from the point of view of combination and composition, the artist uses a single page to depict the image of a single god and beast, with the images of each god and beast but leaving white space and room for imagination in each image. Some of the images are paired with different elements depending on the environment of the god and beast and the god as described in the ancient books, but the overall focus is on depicting the form of the god and beast. The use of colour throughout the book is simplified, with strong contrasts between light and dark and soft and free lines and strokes. However, the depiction of the book's images also somewhat exaggerates the ferocity of the beasts and the warmth and kindness of the gods and beasts are rarely reflected, leaving the viewer with a sense of distance from most of the beasts, making the book challenging for younger readers to accept.

With the rapid development of Internet technology and the popularity of mobile Internet, more and more self-media artists are also using self-media platforms to disseminate the classics of mountains and seas, so that more people know about the traditional cultural, and the cultural and creative products have gradually penetrated into people's lives. Some art self-media bloggers promote the related theme on the Little Red Book platform, which is created by amateurs and professional artisans.

### **Case 3:**

(As shown in Figure 18) This is the Atlas of Classics of Mountains and Seas republished by the People's Literature Publishing House-Humanities Treasure and the young Chinese artist Li Yunzhong. Humanities Treasure adheres to the creative concept of "enlightening life with literature" and presents the Classics of Mountains and Seas in a way that is easier for modern people to accept. In the order of "Scripture" - "Overseas Scripture" - "Writing of the Inner Sea" - "Writing of the Great Desert", the artist has created more than 360 pages of paintings, and each painting of



the gods and goddesses shows the artist's exquisite painting skills. In contrast to Case 2 mentioned above, the image of gods and beasts created by artist Li Yunzhong is more vivid, with nearly 400 pages of full-colour albums, the original translations and images are designed according to the left-right layout, and the background tones of the Mountain Scriptures and the Sea Scriptures are lime green, which echoes the meaning of green mountains and green water. From the binding method to the choice of materials to the colouring techniques, The entire book has a hardcover binding with a cloth spine, which is more comfortable for the reader to read, and the outer cover is made of large earth paper to highlight its texture, combined with a hot stamping process that complements the paintings of sacred animals on the inside pages. The composition of each is very full-bodied and also combines the traditional Chinese totem. The single painting not only has vivid forms of divine beasts, but also rich scenes. It is worth mentioning that the artist Li Yunzhong has designed a set of traditional Chinese colour card bookmarks with the paintings of the beasts, which makes this album gift box even richer and more exquisite and has a high collectible value.



Figure 18 Li Yunzhong's artwork

#### Case 4: Classics of Mountains and Seas and cultural and creative peripheral design

In addition to the reproduction of the Classics of Mountains and Seas in the form of films, books and illustrated books, there are also more and more related cultural activities and everyday cultural and creative products appearing in the lives of modern people. (As can be seen in Figure 19), classics of mountains and seas culture lovers shared the marginal designs of food festivals with the theme, including advertising posters, tickets, clothing, stickers and other souvenirs. The series of

cultural and creative products are in shades of black. The designers have depicted some of the images of the divine beasts in the form of simple illustrations that combine the characteristics of the various beasts with culinary elements, which is quite interesting. However, the drawings as a whole are rather abstract, and without the text description it is difficult to imagine that the images of these beasts from the Classics of Mountains and Seas. The overall design tends to favour the use of simple totems or simplified patterns of the beasts, which is somewhat detrimental to the beasts' recognition.



Figure 19 Creative peripheral design

#### Case 5: Classics of Mountains and Seas, and lanterns

The images of divine beasts in the Classics of Mountains and Seas were also used for the design of lantern moulds (Figure 20). The 2023 Shanghai Yuyuan Lantern Festival featured a grand drama of the sacred beasts of the mountains and seas, the lanterns depicted the sacred beasts and immortal herbs from the ancient books, combining the non-hereditary art of lanterns with the traditional culture, and adding the multimedia art of lanterns to realise the magnificent image scrolls of the ancient myths.

Most of the images of the beasts at the festival are based on gentle and auspicious symbols, such as the Xuan Turtle, which appears in the Classics of Mountains and Seas - North Sea Scriptures. “有兽焉，其状如龟而四足，名曰玄龟。玄龟之目，可以照空野。玄龟之怒，可以震百里。” Classics of Mountains and Seas - Middle Mountain Classic: “玄龟见水则雨，其音可以止风。” The Xuan turtle has a tortoise-like appearance, its eyes can light up the vast world, its roar can shake a hundred miles, and when it appears in the water, it is a harbinger of rain, but its

voice can calm the storm. A thousand years ago, the turtle was a symbol of longevity and wisdom. There is also the Yinglong, a divine beast mentioned in the Classics of Mountains and Seas (The Northern Classics of the Sea). The Yinglong's eyes are good at observation and its appearance brings prosperity and fertility to the land. In traditional culture, Yinglong therefore also symbolises good fortune and auspiciousness as well as the authority of the emperor. Wenyao, Luwu, White Deer and other sacred beasts also appear at this lantern festival. The designers of the lanterns have retained the characteristics of the divine beasts described in the ancient books, softened the edges of the divine beasts and toned down their animalistic character so that these ancient divine beasts can be more easily accepted by the public.

The exhibition activities were combined with AR technology and digital means, linking multiple scenes together to achieve a combination of on-site and online lantern festivals. Visitors can also participate in online guessing games, sky lanterns and other activities to simultaneously promote traditional culture but also increase people's interest in life. Compared with the previous Lantern Festival, the Lantern Festival with the classics of mountains and seas as the background not only achieves content richness and innovation, but also perfectly integrates new technology into the interactive experience, and realises a profound blending of the digital economy and cultural tourism industry, so that the intangible cultural heritage of the Yuyuan Lantern Festival can be more widely disseminated and better inherited.

These cultural and creative products have preserved the core values and symbols of traditional culture in the classics of mountains and seas, absorbed the artistic personality and aesthetic expression of the creators and formed a unique product style. The increased demand for cultural and creative products also promotes the development of cultural and creative industries, creates more employment opportunities and economic benefits, and also promotes the exchange of traditional culture with foreign countries, highlighting the charm of Chinese traditional culture and enhancing the cultural self-confidence and identity of the Chinese nation.



Figure 20 Yuyuan Lantern Festival

## 2.2 Overview of luminaire design

Light originated from fire, and the survival of humanity and the progress of civilisation are intricately linked to fire. "The importance of fire in human consciousness is so great that there is no nation on earth that does not have a story explaining the origin of fire." In his book *The Myth of the Origin of Fire*, edited by James George Fraser, he describes the connection between fire as a bringer of light and the world of the human spirit. The fires of Tasmania are the stars  $\alpha$  and  $\beta$  Gemini, which, according to legend, were cast from the sky by Black men to give birth to the first fire. The myth of fire in Indonesia is even more marvellous. The creator god created people from stone, blew a wind to them and they came to life. Later, people used worms to find a way to get fire from the god of the sky, and the way of getting fire with iron and flint is still used by the Tractarians today. In ancient Greek mythology, Zeus, the god of the sky, hides the fire that humans are not allowed to have, but Prometheus steals the fire to bring humans down to earth. Since ancient times, humankind has been full of wild fantasies about fire. Even in China, the ancient classics of mountains and seas (Figure 21) describe the mythological story of Sui ren stealing fire from the Celestial Emperor and bringing people the wisdom to cut wood to make fire. These fires in people's intentions depict folk psychology and folk beliefs from the perspective of cultural studies.



Figure 21 Classics of mountains and seas

In ancient times, people used drilled wood and flint to make fire and thus dispelled the darkness. Fire brought light, temperature, cooked food and the hope and possibility of survival. "With fire, which led to the gradual development of the functions of the human brain and hand, the path to human civilization began." Fire can bring light, but it can also bring disaster, so people learnt to control it, to use it, and the "lamp" emerged as a product of time. "The American Encyclopaedia Britannica states: Primitive lamps are dug into a small hole in the stone, the hole is filled with moss or other material soaked in animal fat and can be lit by ignition. This lamp was made in 70,000 BC. I do not know what this statement is based on, but it contains at least two points that merit further discussion." Firstly, human society 70,000 years ago was still in the Palaeolithic period (1.7 million to 10,000 years ago) and thus still belonged to the age of human obscurantism. L. H. Morgan mentioned the concept of obscurantism in his book *Ancient Societies* and divided the early history of human society into three phases based on the "technology of survival" of progress: the stage of savagery, the stage of Barbarism and the stage of Civilisation. According to palaeoanthropologists, human development in the stage of savagery was extremely slow. "And for the invention of any device, it is necessary to appropriate the elements from which it was created. Thus, as far as the state of production and life at that time is concerned, the sufficient necessary conditions for the use of lamps had not yet been formed." The appearance of fire brought a break from this period and thus a transformation into the age of barbarism. Secondly, the statement that the early primitive lamps were made by digging a small cavity in a stone is also not sufficiently accurate. This is because the manufacture of lamps and lanterns cannot be invented out of nothing, but it is the objective existence of

nature and the needs of human life that are linked to the product. Before humankind learns to make its own primitive lamps, there must be a natural stone lamp that utilises the natural formation of a small cave of the long process. Because every point in the eyes of today's insignificant progress that the ancients have is extremely difficult and slow. The sequence of development of the first natural, then human-made, also reflects the human "teacher from nature" law of creation.

As for our country, according to the analysis of archaeological data, the Palaeolithic Beijing apes began to use fire about 70 to 200,000 years ago, and during this period and no description of the lamps and lanterns of the relevant records, despite the development of the XiaShangWest Zhou period, the emperors and princes of the use of the lighting apparatus is also only as a prairie, torch. After a long exploration of the living environment, this was finally the birth of lamps. China's lamp culture has a long history that can be traced back to the Warring States period. Luo Yi from the Ming Dynasty recorded the origin and development of China's lamps and lanterns : “燧人作火，神农作油，轩辕作灯，汤尧作灯檠，成汤作蜡烛。” which means that Sui ren made the fire, Shennong made the oil, Xuanyuan made the lamps, Tangyao made the bamboo and Chengtang made the candles. It is a myth or legend, but it is worth speculating about it for a moment. There are also ancient records: “灯源于豆，瓦豆谓之登”。The “豆” referred to here is a utensil used in the Shang and Zhou dynasties to hold a fire. The authoritative archaeologists have also found lamps in the artefacts unearthed during the Warring States period. There is a birth, there is a development, with the changes in human habits and the progress of civilisation, lamps and lanterns are gradually diversified materials, such as bronze, iron, ceramics, wood, glass and other materials, the lack of productivity in different periods and the scarcity of types of raw materials, so that the original lamps and lanterns evolved, in order to meet the basic needs of mankind, the early lamps and lanterns of the material by the stone, pottery and clay-based, and then there are bronze, iron, the material mentioned here Perhaps it is the birth of an era, but also the legacy of mankind's exploration of lamps and lanterns material and update the record. When people began to use iron and bronze tools, they did not completely abandon the stone tools and did not use them. The invention of iron smelting

heralded a new cultural epoch, but the same cannot be said for the beginning of bronze production. As the Stone Age overlapped with the Bronze Age and the Iron Age and the Bronze Age with the Iron Age, the two eras cannot be clearly distinguished from each other.

The origins of Chinese lamps date back to the Warring States period, and traditional lamps and lanterns were also influenced by the respective social structures in subsequent eras. As the Tang Dynasty, because of social peace, economic prosperity, the development of several types of lamps and lanterns flourished, people's spiritual world, the pursuit of beauty is reflected in all aspects of life device, lamps and lanterns are no exception. A large number of lamps and lanterns of flat decoration, structure and shape are about the flourishing of Buddhist culture in the Tang Dynasty, but also reflects the aesthetic interests of the people in the Tang and Song Dynasties. After the Sui and Tang dynasties, lanterns were also introduced to the people as part of traditional lamps and became the most widely used and popular lamps. The palace lantern thus passed to the people and became a crucial element of folk lanterns. Copper lamps underwent a long period of development until they essentially disappeared in the Song and Yuan periods and ceramic lamps came to dominate. After the Opium War, paraffin lamps, gas lamps all over the country, until the Republic of China, because of external forces, a large number of new materials influx into China, more and more iron, glass material lamps and lanterns instead of the traditional bamboo tie papier-mâché lanterns, despite this, lanterns are still the important decorative lamps of traditional Chinese folk festivals. In the long history of Chinese cultural development, lanterns interpret the history of dynastic changes and contain the cultural heritage of thousands of years.

### **2.2.1 The origin and development of traditional Chinese luminaires**

The emergence of Chinese lamps can be traced back to the Warring States period, the lamps of this period are mainly moulded from bronze and ceramics, the latter is more numerous, "According to the Department of Art and Museums of Fudan University, Professor Gao Menghe, in the book of lamps and

candles: in 1975 in Zhengzhou, Henan Province, the early Shang Dynasty tombs unearthed in the basin-shaped ceramic lamps, can be confirmed that the earliest China lamps. "The ceramic lamps in the later stages of the development of the pottery period gradually achieve stylistic diversification, most of them are related to the moulding of living vessels, such as bowls, Zhan, pots, plates, beans and so on. The bronze lamps from this period were mostly unearthed in the tombs of kings and nobles and were unique in their modelling and decoration.

In "Chu Shi" (Figure 22), a literary work written in the state of Chu during the Warring States Period, there is a description of "兰膏明烛，华灯错些", which translates as "Bright candles with orchid fragrance are shining, and splendid lamps are staggered high and low". The word "灯" here is the traditional form of "灯". It can be seen that oil lamps appeared for lighting in the Spring and Autumn Period and the Warring States Period, and the lamps of this period mainly referred to the bronze candlestick.



Figure 22 Chu Shi

The lamps from the Bronze Age have one incredibly significant feature. It is that they changed the earlier lamp rotation at the lamp edge of the burning habit. A peg was placed in the centre of the lamp so that the lamp rotated in the centre of the burning oil basin. Although not all lamps changed this shape, most lamps did. During the Warring States period (770-256 BC), the bronze vessels were richly decorated, beautifully patterned and practical, such as the Gui-shaped bronze lamps of the Warring States (Figure 23), which are currently preserved in the Hebei Provincial Cultural Relics Research Institute, and the ceramic lamps, people will see



the practicality of expanding the bronze food vessels in the lamp, but also designed in the side of the vessel to make it possible to hang and store the rings, saving space.



Figure 23 Gui-shaped bronze lamps

In addition, the tree-shaped lamp is a typical representative of the tree-shaped bronze lamps from the Warring States period (Figure 24), which is modelled on the shape of a tree for the manufacture of the lampshade and whose individual parts can be dismantled. The skilful design of the ancients in terms of the length of the branches of the lampshade ensures the suppleness of the lamps, while the staggered branches also convey a sense of visual rhythm.



Figure 24 Tree-shaped bronze lamps

As slavery still prevailed in the Warring States period, the symbols of authority and status were also embodied in the living vessels of the powerful and aristocrats, followed by the emergence of human figures and human-shaped lamps, which are the typical representative objects of the Warring States period, such as the silver-headed lamps with human figures excavated in Pingshan County, Hebei Province (Figure 25).



Figure 25 silver-head human figurine lamps

And the bronze lamps of a man riding a camel excavated in Wangshan, Jiangling, Hubei Province (Figure 26), all impressively moulded into a vivid humanoid form, reflecting the aesthetic trend of the aristocracy in lamps and lanterns at that time. Archaeological data show that the lamps excavated during the Warring States period are beautifully shaped and of exquisite artisanship. People must suspect that the primitive lamps were made in the Warring States Period before the emergence of the era, but there is no definite information and evidence, perhaps the truth will be revealed in the future by archaeologists studying the ancient lamps.



Figure 26 Bronze lamps of a man riding a camel

During the Qin and Han dynasties (221 BC - 220 AD), the rapid development of arts and crafts, the progress of iron smelting technology and the general use of iron led to lamps being made of richer materials, bronze lamps, iron lamps, ceramic lamps and more varied shapes. As the burial concept of "treating death as if it were life and treating death as if it were existence" became prevalent in the two Han dynasties, lamps also became a common item of grave, also pottery lamps, which are divided into grey and red pottery. The unglazed ones are made of plutonium. The glazed earthenware lamps were both meditative and practical. In addition to the lamps from the Han Dynasty period, there are also animal-shaped lamps, human-shaped lamps and even branch lamps. Animal-shaped lamps have the shape of an animal as the main body, combined with the lighting function of the lamp design, such as the copper lamp of a reclining goat from the Western Han period (Figure 27).



Figure 27 Western Han lying goat copper lamp

Western Han goose fish copper lamp (Figure 28).(Now in Shaanxi History Museum)



Figure 28 Western Han goose fish copper lamp

The Eastern Han Dynasty wrong silver copper ox lamp (Figure 29).(Now in Nanjing Museum)



Figure 29 The Eastern Han Dynasty wrong silver copper ox lamp

Western Han Dynasty Vermilion Bird copper lamp (Figure 30). (Now in Hebei Provincial Museum)



Figure 30 Western Han Dynasty Vermilion Bird copper lamp

This is a major breakthrough in the history of lamp development and innovation. The design of the man-shaped lamps, which are mostly held in the shape of figures, continues the stylistic features of the man-shaped lamps from the Warring States period, but in the design of more environmental protection concepts,

this thinking is very forward-looking in this period, but also reflects the ancient people's pursuit of a liveable environment.

The most representative palace lamp of the Western Han Dynasty with a long character excavated from the Han Tomb in Mancheng, Hebei Province (Figure 31) is now in the Hebei Provincial Research Institute of Cultural Relics, the lamp is a courtesan in the shape of a lamp, from the clothes to the hair, the clothes of Han Dynasty courtesans are vividly recreated, the lamp is divided into six parts: the head, the body, the right arm, the lampshade, the lamp base, the lamp bowl, and can be disassembled to clean the lamp, the lamp bowl and the lampshade can be rotated at will, the role of adjusting the radiation direction and light intensity. The light disc and lampshade can be rotated at will to adjust the direction of illumination and light intensity. The smoke and embers generated during illumination can rise through the smoke channel of the palace maiden's right arm and be absorbed into the palace maiden's body, and then dissolve into the clear water of the body to achieve an environmental protection effect. The Changxin palace lamp perfectly illustrates the Dynasty and perfectly combines practicality, science and art, which also has a certain revelatory effect on contemporary green design. Since the porcelain industry was not yet mature, there are only a few porcelain lamps in the Han Dynasty. From the functional considerations, the Han Dynasty in addition to continuing the use of the original seat lamps, but also appeared in the series of lamps, series of lamps, also known as flick lamps, as the name implies, it is used for people walking in the walking lighting in Shandong, Hebei, Henan, and other places, there are such lamps unearthed. In addition, there are chandeliers in the form of lamps unearthed in Hunan, Jiangxi from the same period.



Figure 31 Western Han Dynasty long letter palace lamp

In addition, the "lamp candle" is also an important feature of the Han Dynasty, forming a "lamp in the shape of a pillar". Before the Wei and Jin Dynasties, China's traditional lamps, regardless of shape, on the way to light, that is, the lamp (cone) and the lamp disc (lamp) of the relationship, "lamps in the cone shape". Bean-shaped lamps are the most common in the two Han Dynasty, a nail in the centre of the round lamp disc, people use it to distinguish between oil lamps and candle lamps. In addition to ordinary lamps and lanterns, vividly modelled lanterns also appeared in the Han Dynasty, and the Lantern Festival gradually emerged. With the introduction of Buddhist culture, people throughout the dynasty expressed their faith in Buddha by releasing lanterns at the Shangyuan Festival.

In the Wei, Jin and North-South dynasties, bronze lamps gradually weakened due to the rapid development of porcelain production, ceramics replaced bronze in lamps, multi-armed lamps, lamps with multiple discs and humanoid lamps were no longer as popular as before and were replaced by lamps and candlesticks made of ceramics, which is of course due to the use of candles, which became increasingly popular. "Stone lamps, which first appeared in the Han Dynasty, became popular with the development of stone carving.

Lamps made of iron and jade as well as wooden candlesticks have also been unearthed. Due to the change of materials, the lamps of this period changed greatly in shape, the lamp seat was separated, no candle in the lamp became the most basic form of lamps and lanterns, multi-armed lamps were very difficult to see. From the point of view of overall modelling, this period of lamps can be divided into the following types."

One is a disc-shaped seat, it is divided into two types, one is on the disc-shaped lamps, the other is a two-tiered bearing disc is also known as a candlestick or lampstand, because the top of a cylinder can be inserted directly into the candle, but also support the small lamps, and this is more in the Sui and Tang Dynasties of porcelain lamps. The second is a cylindrical lamp, the Han Dynasty pottery cylindrical lamp in the Wei Jin and North-South Dynasties period appeared a series of two to three cylindrical lamp design hold. Such as yellow glaze lion-shaped lamp, in the shape of a lion as the main body to squat, the lion drew on the back of

the long board placed side by side three tall cylindrical lamps, these lamps can be burnt fat can also be used as candlestick. Third, there are a large number of lying sheep, lions for the shape of candlesticks and porcelain lamps. The fourth is a single bowl, a plate, a bowl as the main part of the lamp and the lamp holder increased significantly. In the same period, the Lantern Festival, the custom of the lantern is also more perfect, and here the lamp is the lantern. In the Song Book - Rites of Passage quoted by Wang Lang of the Wei Dynasty, it is said that the old practice of "正月朔，贺。殿下设两百华灯。" Emperor Liang Jianwen in the Southern Dynasty had also made a "column of lights Fu", which shows that the Southern Dynasty, the Lantern Festival atmosphere has been extraordinarily strong.

During the Sui and Tang dynasties (581-907), the country was prosperous and politically clear. The famous Sui and Tang dynasties were the most open dynasties in Chinese history. The opening of the Silk Road enabled China to get to know the world. Although China still regarded itself as a heavenly dynasty, the way the lamps were lit had changed without it realising it. Cultures intermingled, and the "Kai Huang Dynasty" created by Emperor Wen of Sui, the "Reign of Zhen Guan" of Emperor Taizong of Tang and the "Kai Yuan Dynasty" of Emperor Xuanzong of Tang made the Sui and Tang dynasties more prosperous than ever before in world history. Unprecedented prosperity. The shape of the lamps became more diverse, there were pot-shaped lamps, lamps with the flow of the lamp. Sinicisation and the construction of the North-South "Canal" connected the civilisation of the Yellow River Basin with that of the Chang Jiang River Basin. Not only that, but the active exchange with foreign countries also led Chinese culture to absorb more foreign cultures, and people projected richer cultural connotations into the design of the lamps.

Such as the Sui dynasty five holes to support ceramic candlestick (Figure 32), at this time the development of architecture to a high level, people to the building of emotions into the design of appliances, so that the lamps in the realisation of the lighting function at the same time is also very aesthetically pleasing.



Figure 32 Sui dynasty five holes to support ceramic candlestick

Tang Dynasty underglaze brown and green beads Arabian flying carpet oil lamp (Figure 33), it is very interesting modelling features, as if in the West to tell the mythological story, this vivid display of exotic style lamps modelling, in the past has almost never appeared, reflecting the frequent interaction between the Chinese and Western cultural exchanges and the craftsmen's superb skills at the time, in addition to this period of lantern culture also triggered a climax, the revolving scenic lanterns, also known as shadow lanterns. In addition to this, the culture of lanterns also reached a climax during this period, the walking lantern, also known as the shadow lantern, which uses thermodynamics to create the art of walking with images in lanterns, is not only a toy, but also the originator of the principle of thermodynamics. The Briton Dr Joseph Lee mentions in his book "History of Science and Technology in China" that this invention was made at least a thousand years earlier than in the West.



Figure 33 Tang Dynasty Arabian flying carpet oil lamp

Song and Yuan period (960-1367), is a period of developed commodity economy, but also the domestic porcelain technology leap period, the emergence of Jun kiln, Ru kiln, official kiln, brother kiln and Ding kiln five kilns, porcelain lamps and lanterns to the mainstream of lamps and lanterns production skills are more skilful. Palace lamps are huge, the lamp body is also larger than before, Song, Yuan lamps

and lanterns of the shape of more inherited from the Tang Dynasty, but the production is more exquisite, the Song Dynasty literati pursuit of beauty is reflected in the styling lines of the vessel, such as the Song Dynasty porcelain lotus petal pattern oil lamps (Figure 34), the structure of the lamp body is clear and concise, both sides of the lamp post are engraved with the Rui Bird pattern, a lifelike representation of good fortune and prosperity the vision of the lotus flower pattern is full of exquisiteness and reflects the period of The lotus petal pattern is full and delicate, reflecting the penetration of Buddhist culture at that time.



Figure 34 Song Dynasty porcelain lotus petal pattern oil lamps

Traditional elements of auspicious symbolism is often used by the ancients in the design of lamps, such as the Song Dynasty porcelain doll lamp (Figure 35), the porcelain is now hidden in the Yangzhong Oil Lamp Museum, porcelain dolls with soft facial lines, rounded body, the lamp modelling atmosphere random, the calligraphy on the bib strokes are very decorative, reflecting people's hopes for more children and more blessings, the same as the lamp, the Song Dynasty, lamps and lanterns designed mostly full of interest and folk colour of life.



Figure 35 Song Dynasty porcelain doll lamp

Like this lamp, the design of lamps in the Song Dynasty was mostly full of joie de vivre and popular colours. After the political changes, the adjustment to



the habits of the rulers, the Mongolian rule, so that the Yuan dynasty lamps and lanterns have a rougher atmosphere, the Yuan dynasty lamps and lanterns in the Song dynasty compared to the modelling changes are not big, the porcelain glaze colour is not bad. But whether the porcelain lamp or copper lamp, with such a stream from the grassland of the simple and lush atmosphere.

In the Ming and Qing dynasties (1368-1840), the design of lamps and lanterns reached a new heyday. A large number of ceramic lamps were used for rituals and meditation, relatively few porcelain lamps were used for daily use by the people and lamps made of bronze and stone were replaced by lamps made of red copper, brass, and tin. In addition, foreign new materials such as glass, enamel, etc. were also used as the main material for the lamps. The trendiest style of Ming and Qing porcelain lamps is the book lamp, i.e. the lamp used for reading in the house. The book lamp appeared as early as the Yuan Dynasty. And this is closely related to the life of the people in the Ming and Qing Dynasties, the general sitting habits of the people of squatting, kneeling development of sitting with legs hanging down, wise, the design of the book light in line with the current ergonomics, its height is suitable for people to two-handed reading lighting, but also very ornamental and scientific, such as the Qing dynasty Qianlong imperial blue and white intertwined branches of the lotus pattern of the book light (Figure 36).



Figure 36 Blue and white twining branches of lotus pattern of the book light

In the Ming Dynasty, in addition to black glaze, white glaze, celadon and other streetlamps and lanterns, there happen to be more blue-and-white five-colour porcelain lamps. The three-colour Ming ceramic lamps adopted the styles of the

Tang, Song and Liao three-colours and gave them a face of their own. The colours of the lamps were richer and more splendid than in any previous dynasty. Meanwhile, the palace lanterns of the Qing Dynasty developed to perfection. Every year, when the Lantern Festival is celebrated, the court enlisted the world's best craftsmen elaborate production. The Qianqing Palace stands in front of the An Longevity Lantern, which has sixteen lamps with the size of one hundred and twenty-eight lamps and lights such as "peace in the world", "universal happiness", "longevity", "Fu", "Shou", "double happiness", "Daji" and so on. The palace lamp represents the highest level of lamps in the Ming and Qing dynasties. During this period, when the feudal emperors paid attention to the Lantern Festival, the lantern culture also became more flourishing and popular in folklore. "Lantern production, as a basic component of the Lantern Festival, not only has a long history, but also has a colourful and even bizarre artistic expression, reflecting the cultural activities of the people in each period of peace and prosperity. It is thanks to the hanging lanterns of the Lantern Festival that this custom exists, so that in the rapid development of electronic lamps and lanterns, some of China's traditional lamps and lanterns still survive today."

In the modern era (1840-1949), when the country's doors opened wide, the frequent cultural exchange between East and West also revitalised lamps. Paraffin lamps, or "foreign lamps", were introduced to China in the 18th century and became widespread in the 19th century.

The design of lamps in different periods reflects the social status and cultural connotations of different eras. As inseparable vessels of people's lives, the lamps are both inherited and constantly renewed, which illustrates the lifestyle and spiritual beliefs of the ancient people.

## 2.2.2 Design Features of Traditional Luminaires

### 2.2.2.1 Practicality

"The first and most important purpose of mankind's creation is expediency. Since folk craft is a kind of art-making activity, it is inevitable that it is developed for this reason, reflecting first its "labour" aspect, i.e. as a tool and utensil, and distinguishing itself from other objects. This practicality is reflected in the fact that folk crafts have been closely linked to people's clothing, eating, living, travelling, use and leisure activities since the day they were created." Since the Spring and Autumn period, the Chinese nation is small, the use of lamps is relatively small, the Warring States period, with the widespread use of iron, agriculture and the rapid development of handicrafts, the feudal economy to achieve a high degree of prosperity, and thus the expansion of the city scale, the Qin and Han periods, the large-scale emergence of the imperial palace high platform building to promote the development of indoor lamps. The development of the construction industry prompted people to have higher requirements for the living environment, also appeared a large number of different division of labour lamps, hanging use of chandeliers, placed on the floor lamps, desktop table lamps and wall lamps hanging wall, in addition to static lamps and lanterns, there are convenient to walk, if the hand lamps known as the walking lamp, walking lamps in the two Han period prevalent, for the bronze material, the basic shape for the lamp disc open, flat belly, flat bottom, because of In view of the need to hold, the lamp is generally small, easy to carry, Wei Jin and Northern and Southern Dynasties period due to the maturity of porcelain also appeared in the celadon lamp. Because of the Song Dynasty, a large number of lamps in the wind, the ancients invented for energy-saving oil-saving lamps, the lamps use chemical cooling, water jacket pretreatment distillation process, to achieve the role of saving materials. Such as Qiong kiln green glazed porcelain oil-saving lamps (Figure 37), according to the relevant research experts deduce that the lamp belly below and above the centre of the

compartment space for receiving water, water can be injected from the side of the body of the lamp into the small mouth, ignite the lamps and lanterns, water can reduce the upper shell inside the oil temperature, thereby reducing the speed of oil burnt out, to achieve the purpose of saving oil.



Figure 37 Qiong kiln green-glazed porcelain oil-saving lamps

### 2.2.2.2 Scientific

There are many traditional Chinese lamps and lanterns, of which the number of classics is also considerable. The classical design of lamps and lanterns not only considers practicality, but also incorporates the principles of science. In terms of morphological design, the application of bionic technology is common in antique lamps. As shown in Figure 38, in addition to object-like lamps such as bean lamps and pot lamps, there are also biomimetic shapes that imitate animals, plants and humans, such as lamps with multiple branches, goose lamps and lamps with human figures, etc.

### The regulation of the development of lanterns

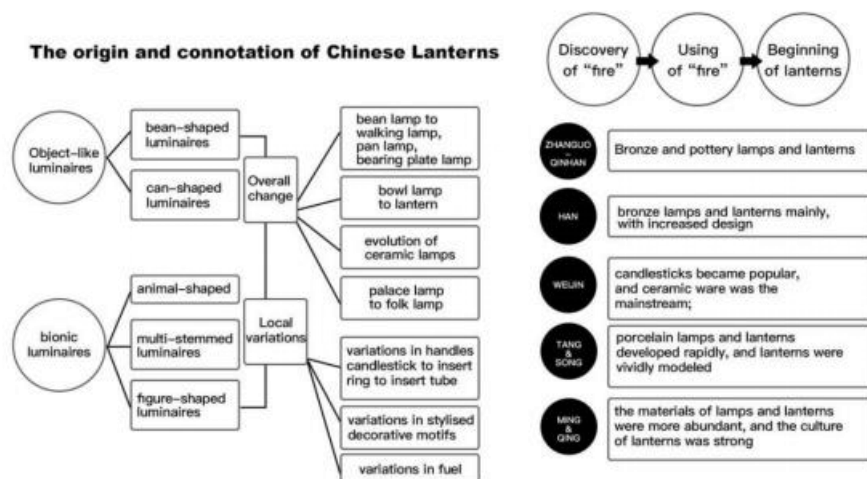


Figure 38 The regulation of the development of lanterns

There are many lamps and lanterns that imitate animals. Imitation of animal shape lamps and lanterns, such as the Warring States period of the elephant-shaped bronze lamp (Figure 39), the whole of its bronze material shaping, bronze elephant limbs tripod, mouth slightly open, revealing the short tusks, cheeks slightly curved, the shape is very full and stable, the lamp disc is the top of the elephant upwards, the overall centre of gravity in the lower part of the structure, the structure is more stable, but also adapted to the requirements of the structure of the design of lamps and lanterns. Since ancient times, elephants in China symbolise good luck and scholarship, "elephant" has the meaning of "peace", but also represents wealth and health. This lamp reflects people's expectations and hopes for good during the Warring States period, but also shows the artistic and technological level of lamp design and production at that time. This lamp reflects people's expectations and hopes for good during the Warring States period, but also shows the artistic and technological level of lamp design and production during this time.



Figure 39 Elephant-shaped bronze lamp

The scientific design of traditional lamps and lanterns is also reflected in the ingenuity of their structure. The structure as a basic lamp and lantern shape must be taken into account in the design and manufacture of a variety of aspects: Material saving, easy processing and manufacturing, portability, etc., the structure is reasonable and simple and beautiful. Chinese traditional lamps and lanterns of the structure of scientific from the Han Dynasty and even the Warring States period of unearthed artefacts to see, such as the Warring States period of tree-

shaped copper lamp (Figure 40), also known as the "fifteen even lamps and lanterns", these lamps and lanterns as high as 82.9 cm, the whole is a biomimicry of the tree shape, there are a total of 15 branches staggered layers of intertwined, stylised living animal shapes distributed in the branches, as if the body of the jungle, as the body of a jungle. On the branches, as in the jungle, monkeys play, birds sing happily, the base is composed of three single-headed, double-headed tigers and decorated with dragons, a dynamic scene of life, the lamp uses sub-casting technology, the lamp base and lamp holder use tenon cutting technology, so that each part of the easy to disassemble and clean and re-splice to break the fatigue of visual aesthetics, the lamp branch design of different lengths, and at the same time also combines the relationship between force arm. The relationship between length and stability ensures the stability and balance of the lamp stand.

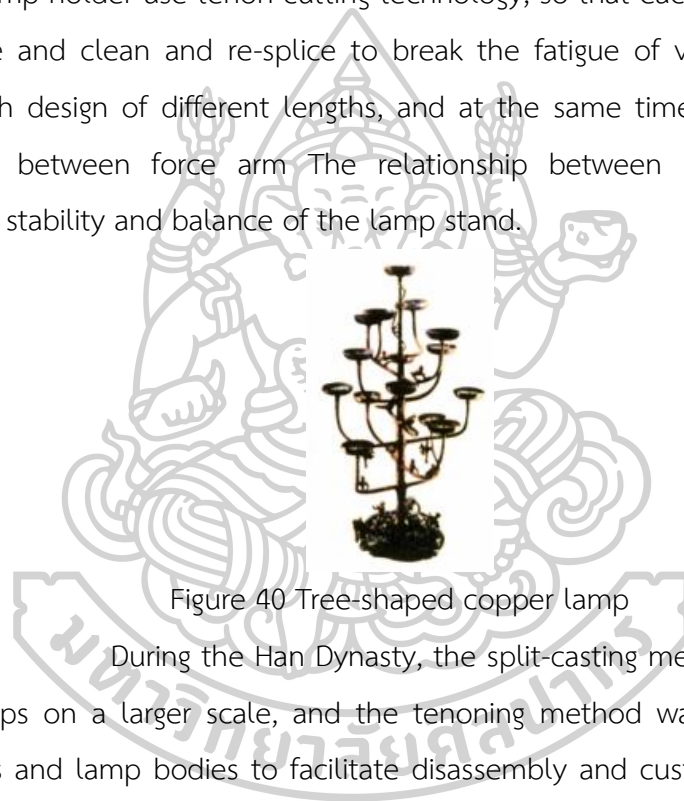


Figure 40 Tree-shaped copper lamp

During the Han Dynasty, the split-casting method was applied to various lamps on a larger scale, and the tenoning method was also used on the lamp plates and lamp bodies to facilitate disassembly and customisation according to people's needs in terms of the light source. The split-casting method was also applied to the large lamps for composite shapes, such as the Changxin palace lamp and the goose and fish lamp, etc., such as the Reclining Goat Lamp of the Western Han Dynasty (Figure 41).



Figure 41 Reclining Goat Lamp

The lamp as a whole was lying sheep shape, by the lamp base and lamp disc two parts, with bronze as the main material, the body of the sheep, which is the lamp base, sheep belly hollow, used to make the lamp oil, the sheep's neck and hips, respectively, according to the design of the knob and the knob, lift the sheep's back up can be placed on the top of the sheep's head for the use of lamps and discs. The lamp cleverly uses the concept of space, the lamp twist can be placed in the lamp disc at one end of the arc of the flow of the mouth, when the lamp is idle lamp oil can also be used to flow into the belly of the sheep, the lamp set of lighting, oil storage, decorative in one, very environmentally friendly design concepts.

Scientific structural design thinking can also be seen in the traditional chandelier, such as the Eastern Han Dynasty human-shaped chandelier, (Figure 42) the lamp is also bronze-based materials, each part of the ring connected by the link, the lamp disc and human figures in front of the chest of the infusion of small holes, when the lamp disc when in use, the human shape tilted down, the centre of gravity fell in the lamp disc, with the reduction of lamp oil, oil tank savings in the oil flowing into the lamp disc, which can be saved, can also be illuminated, but also save resources, the human figure head and the centre of gravity fell in the lamp disc, as lamp oil decreases, oil tank savings in the oil will flow into the lamp disc, that is, savings can also be illuminated, can also save resources, human figures head and body through three copper chain link hanging, so that the lamp disc is in a balanced state, see the ancients will see the location of the lamp disc lamp base is also quite ingeniously designed.



Figure 42 Human-shaped chandelier

In addition to these scientific designs, there is another noteworthy is the traditional lamps in the scientific functional design, such as the bronze phoenix lamp of the Western Han Dynasty (Figure 43), and most of the lamps of the Han Dynasty, it is mainly made of bronze, but also using the sub-casting method, the lamp body for the shape of the phoenix bird, phoenix body casting a hand, convenient for people to hold the phoenix bird neck riveted with copper tubes, which can be convenient to rotate and disassemble, the lampshade was flared and connected to the neck of the phoenix bird, the belly of the phoenix bird can be used as a water reservoir, the lighting of the soot produced by the combustion of the lampshade by the neck can be absorbed into the belly dissolving in water, to prevent the use of lamps and lanterns in the process of soot to produce pollution, not only that, people can also be adjusted by turning the neck of the phoenix light range and intensity. The famous imitation of the above-mentioned human-shaped lamps, the Western Han Changxin Palace lamp is also the use of its scientific principles, in addition to the Eastern Han Dynasty unearthed in Jiangsu Province, the false silver copper cattle lamp, unearthed in Guangxi, Western Han Dynasty geese and fish copper lamps, Western Han Dynasty, two tubes and three-legged cauldron copper lamps, and so on. Lamps from different periods are the epitome of the social productivity of their times, and the scientific nature of traditional lamps also reflects the ingenuity and wisdom of the ancient Chinese and the pursuit of higher skills.





Figure 43 Bronze phoenix lamp

### 2.2.2.3 Artistic

"The tool is a human creation and a prerequisite for the creation of material wealth. As an upstream factor in the creation of handicrafts, it is both a product of labour and a sign of the emergence of art." The shapes and decorative patterns of traditional lamps are important components in expressing their artistry. They show the old people's expressiveness in making things and convey the old people's vision of a better life. When we analyse the artistry of traditional Chinese lamps, we must look at them from the perspective of folk art, which is a level of art. From the sociological point of view, folk art develops together with folklore and shows its artistry with visible and touchable images, which not only reflect the social significance of the lamps in different eras, but also embody the cultural connotation. Dynasty bronze lamps from the Han Dynasty are beautiful and diverse. There are tile patterns, cloud patterns, bird patterns, Lin patterns, curly grass patterns, dragon patterns, intertwined branches, animal faces, monkey patterns, frog patterns, tiger patterns, deer patterns, rabbit patterns and many other patterns. (Figure 44) All these patterns show the geometric aesthetics and beautiful symbolism of ancient people's creation.



Figure 44 example of patterns

For example, the tile pattern, for example, which was prevailed from the late Western Zhou Dynasty to the Spring and Autumn Period, is a simple decorative pattern, also known as the string pattern. It consists of a parallel horizontal stripe, like the roof tiles on the house, adding and gives a sense of hierarchy and space to the vessel modelling, which is mostly used in the belly of the copper gui. Rolling cloud pattern as the name suggests, is to geometric lines representing the cloud form a pattern, compared to. Compared with the tile pattern, the cloud pattern is more dynamic and exciting, but also better able to express the spirit of the ancients mood, cloud pattern from the Qin and Han Dynasty to the Wei, Jin, Northern and Southern Dynasties to the Sui and Tang dynasties have been widely used and continue to innovate, the Tang Dynasty, prevalent which prevails in the context of the social background of Buddhism, the ethereal and detached from reality, rich in religious colours of the flow of the cloud pattern prevalent, Ruyi cloud pattern also sends a message to the people on the hope of a better life is widely used. The Ruyi cloud pattern was also widely used, as it held people's hope for a better life. Cursive pattern is also one of the classic traditional Chinese decorative patterns, usually with lotus, orchid, lonicera and other flowers and plants as the main body, after according to the design for the curved line arranged in a continuous pattern of the two sides, the pattern of the spirit of the conveyor of the natural and harmonious symbiosis of the relationship. In addition to plant-based patterns, there are also animal patterns. The dragon pattern has always been regarded as a symbol of the Chinese nation. "The dragon is a divine animal in Chinese myths and legends. Ancient records show that the dragon has a long body, scales on its body, horns on its head, feet that can walk, but can also fly clouds and fog, will be wind and rain. In

the Yin Shang unearthed oracle bones and "dragon" related to the text, and early historical documents also have a lot of records about the dragon. For example, in the ancient classics of the mountains and seas, it is said that Xiaqi, Jumang and so on "riding the rain dragon". Yi - Kun" : “龙战于野，其血玄黄。” The dragon symbolises good luck and power, and also has the symbolism of eliminating disaster and taking refuge. There are many kinds of dragon patterns in China, such as the cloud dragon pattern, the dragon pattern and the double dragon pattern that plays with pearls, etc. In addition, there is also the tiger pattern, which has been used in Chinese history for a long time. In addition, there is also the tiger pattern, which has been used in Chinese history for a long time. Usually, the side of the tiger is used to make the design, the tiger pattern also has the symbolism of disaster and refuge, the image of majestic and solemn, but also the meaning of good luck and auspiciousness. Deer patterns as an expression of change, lively modelling, because "deer" and "Lu" are homophonic, but also mean rich and auspicious. In the Ming and Qing dynasties, the deer pattern is frequently used in porcelain vessels, painting, calligraphy, silhouettes and murals, where the figure of the deer pattern is often seen. Since the monkey is full of spirit and wisdom, the monkey pattern has been widely used since ancient times, and "monkey" and "Hou" are homophonic, symbolising the nobility of the king and generals, and sometimes the monkey pattern and the horse pattern are used in the vessels at the same time, which means that the right to seal the waiter. The frog pattern is also one of the indispensable traditional Chinese patterns, from ancient times in the colourful pottery has its figure, rock paintings, bronze vessels, to the contemporary art of paper cutting, frogs are also often used as the subject of the creation of patterns, "in the history of traditional Chinese folk culture, frogs and toads collectively referred to as toad, and the meaning of the two is basically the same. Mr Wen Yiduo, a famous modern scholar, proved that in the Han Dynasty, Nuwa was listed together with Fuxi "as the first two of the three emperors" and was "the representative of the sun and moon gods". "The frog totem naturally became the emblem of the Nuwa clan. "Frogs are said to have a strong reproductive capacity, and they also have the symbolism of having many children and grandchildren, which, like the symbolism of Nuwa's creation of humans, represents a strong sense of

vitality and creation. Traditional Chinese motifs have recorded the aspirations of the people of every dynasty and every generation. Throughout history, they have adorned the traditional lamps and lanterns with majestic and solemn or simple and beautiful shapes, and with the advancement of traditional artisanry, they have become one with the expression of ability. Since the Warring States Period, the ancients have incorporated the concepts of "man-centredness" and "unity of heaven and man" into the design of lamps and lanterns, and under the influence of these concepts, the bionic design of lamps and lanterns has its representative works in different eras. The Warring States period of the bird handle bronze lamp (Figure 45) cast with the casting method, the middle of the lamp plate to set up a conical lamp spit, the lamp plate flat belly open mouth, the side of the lamp plate has a circular handle, the upper end of the handle casting the bird modelling stop modelling, the bird tail up, easy for people to hold, the wings are slightly closed, the bird body is decorated with feather patterns, delicate and dynamic, both aesthetics and practicality.



Figure 45 bird handle bronze lamp

Toad glazed lamps of the Eastern Han Dynasty, (Figure 46) the lamp on the toad shape of the main model, limbs perched on the square base, the toad raised the head and mouth, eyes to the sky, modelling lifelike, the surface of the toad is rich in decorative patterns, to the toad real sense of touch, the overall shape of the full and graceful, reflecting the ancients to the "fertility and happiness" and the expectation of prosperity! The overall shape is full and beautiful, reflecting the old people's expectation of "more children, more happiness" and prosperity.



Figure 46 Toad glazed lamp

In addition to the animal bionic design, there are also a large number of plant bionic design, such as the Beiqi period of Applique porcelain lamp (Figure 47), the lamp is a typical decorative lighting lamps, the body to yellow-green glaze is mainly, the lamp, the lamp handle, the basis of the use of sub-firing technology for assembly, the lamp was bowl-shaped, the mouth of the lamp is a continuous bead pattern, the lamp belly on the Baoxiang flower and Lonicera intertwined arrangement of lotus pattern, convex string pattern in turn around the handle of the lamp, the base for the inverted bowl shape and decorated with eight-petal lotus, Buddhism was introduced to China at that time, the lotus flower in Buddhism symbolised “sacred”, and was respected as a “sacred flower”, the lotus pattern is “sacred flower”. The base is in the shape of an inverted bowl and is decorated with eight-petal lotus flowers. Buddhism was introduced to China at this time. In Buddhism, the lotus flower symbolised “holiness” and was revered as a “sacred flower”, and the lotus pattern was also widely used on household objects.



Figure 47 applique porcelain lamp

To the Song Dynasty, the maturity of ceramic technology, so craftsmen will be porcelain technology and bionic mould design fusion of pure fire, such as the Song Dynasty porcelain lotus petal pattern oil lamp, (Figure 48) the lamp on porcelain clay as the main material, white glaze throughout the body, the base of the central standing lamp post, the upper thin and the lower thick lamp post, to

shift the centre of gravity of the lamp downwards to maintain its stability, the base of the flat plate and the lotus pattern decorative, chic, decorative pattern vivid and soft, both sides of the lamp post Rui Bird pattern decoration, Rui Bird carving detailed, dynamic shape vivid, so that the lamps show more life, which also depicts the various social and cultural penetration at that time.



Figure 48 porcelain lotus petal pattern oil lamp

In addition to the modelling and decorative patterns on the bionic design style, the ancients also often combined the art of calligraphy with lamps, the Qing dynasty trapezoidal blue and white porcelain wax table (Figure 49) is very representative of the artistic fusion of poetry and painting and porcelain vessels in the Ming and Qing dynasties is very common, this wax table is trapezoidal, concave around the sides and decorative poetry calligraphy, brush strokes free and clear, the blue and white elegantly written: “香炉不息千年火，华盏长明万年灯”，the lamp reflects the aesthetic taste and poetry of the literati of the Qing Dynasty.



Figure 49 blue and white porcelain wax table

## 2.2.3 Traditional Chinese lantern art

### 2.2.3.1 Origin of Chinese lanterns

Flower lantern is a part of lanterns. One of them says that Emperor Wu of the Han Dynasty worshipped “Taiyi” as a sky god who ruled over the five emperors in the colours red, yellow, green, white and black and was responsible for everything in the universe. The Lantern Festival is the day on which the emperor lit lamps for the god Taiyi. “According to records, the Han emperor adhered to the original tradition of making all-night altar offerings to the sky god “Taichi”, the Lantern of the Predecessor, on the 15<sup>th</sup> day of the first month of fire. Later generations followed this custom, and the art of lanterns became more prosperous and refined.” There is another theory is recorded in the Southern Song Dynasty Wu Zimu’s “Meng Liang Records,” which mentioned. It states that the 15th day of the first month of the year is the birthday of the Heavenly Officials, but also the day on which the Heavenly Officials bestow blessings, and that people who light lanterns on this day can ask for blessings for the whole year. There is also another theory that is closer to life: the lanterns are the evolution of the torch festival in the Han Dynasty. People hold torches to drive away pests in the fields in the hope of a fruitful harvest. As you can see, the history of lanterns can be traced back to more than 2,000 years ago in the Second Han Dynasty, and there are ancient books describing the scene of burning lanterns in the Wei, Jin, Northern and Southern Dynasties.

As "Southern History - Emperor Song Wu Record " in the “壁上挂葛灯笼”。 The emergence of lanterns, not only to ensure that the windy conditions in the outdoor lighting kept normal, but also for the lights outside the decoration opened up a new world. By the time of Emperor Wu of Liang in the Southern Dynasty, it was already possible to make fantastic and peculiar lotus root silk lanterns by using elaborately decorated brocade with images of Buddhism, celestial beings and stories of gods and spirits. "During the Wei Jin and the Northern and Southern Dynasties, the lantern festival became a fashion. Emperor Yang once wrote

a poem “元夕于通衢建灯夜升南楼: 法论天上转，梵声天上来。灯树千光照，花焰七枝开。月影疑流水，春风含夜梅。燔动黄金地，钟发琉璃台。”The Tang and Song dynasties ushered in a new tide of lantern culture. With the introduction of the official Lantern Festival, all households opened lanterns and colours to welcome and celebrate the Lantern Festival. Due to social peace and economic prosperity, Lantern Festival activities are even more lively, the princes and nobles and the common people all go out to enjoy the lanterns. In the Tang Dynasty, on the 15th day of the first month of the lifting of the curfew, the Lantern Festival was extended from the original day to three days, the lights overflowing with colour, especially wealthy. After the Tang Dynasty, lanterns became an important symbol of the Lantern Festival.

"Song Dynasty inherited the Tang Dynasty lights, Song Emperor Qiande five years issued an imperial edict, the Lantern Festival viewing time will be extended from three days to five days; the palace lights are particularly prosperous, the light of the palace in front of the main gate there are hundreds of thousands of lamps and candles, the number of large, large, ornate novelty. Lights from the development of the city, lamps and lanterns also came to life. Through the lights of the city, the lights of the city interaction, light ball, poetry card lamps, water lamps, shadow lamps, million eyes Luo, pearl lamps, boneless lamps, sheepskin lamps, five-coloured glazed bubble lamps, bamboo silk lamps ... (Yan Yi Yi tries to capture): Song Taizu Zhao Kuangyin was in the first month of the five years of Qiande A Chen promulgated an imperial edict. The edict said: on the distant festival shine only two nights in the past, now the country is quiet. People are happy, and catch up with this year's bumper crop, it is appropriate to celebrate the country, the people lengthwise music. So, the Kaifeng Province to extend the festival, and then seventeen, eighteen two nights of lights, and then as an example. From that time on, the annual Lantern Festival of the Tang Dynasty was extended from three nights to five nights."

The Southern Song Dynasty painter Li Song "also depicts the scene of lanterns in people's lives in "Lantern View" (Figure 50). The painting shows babies playing with colourful lanterns in their hands, female servants watching the lanterns playing, at this time, the art of lanterns in the Song Dynasty has spread from



the court to people's lives, "Dongjing Meng Hua Records": “自灯山至宣德门楼横大街，约百余丈，用棘刺围绕，谓之“棘盆”。内设两长竿，高数十丈，以缯彩结束，纸糊百戏人物，悬于竿上，风动宛若飞仙。内设乐棚，差衙前乐人作乐杂戏”。



Figure 50 Painting-Lantern View

In the Yuan Dynasty, the shape of the palace lantern is simple, but the market is still lively at the Lantern Festival. Ming Dynasty Yongle years, the lantern market is livelier, the first eight days of the first month began to light the lanterns, the first fifteen days of the Lantern Festival reached a peak, commercial prosperity, lantern market people, lanterns, lanterns, lanterns, a variety of interesting. During the Ming and Qing dynasties, the development of lanterns reached a new peak, because the feudal emperors attached great importance to the Lantern Festival. In the time of Zhu Yuanzhang, the first emperor of the Ming Dynasty, 10,000 water lanterns were set up on the Qinhuai River, and in the time of Zhu Di, the first emperor of the Ming Dynasty, a large lantern market was established and the Lantern Festival was extended to ten days. According to historical records, from Shou'anfang to Zhong'anqiao, lanterns were sold and viewed before the Spring Festival after the Lunar New Year, thus the Lantern Market. The lanterns at the lantern market came in various forms, such as letter lanterns, flower lanterns, animal lanterns. The Shangyuan lanterns (Figure 51) show the market scene during the Lantern Festival in Nanjing during the Ming Dynasty, with storytellers, sellers of daffodils, rock gardens, toys and lanterns in various shapes and sizes, creating a busy and lively scene.



Figure 51 Shangyuan lanterns

Kangxi's Wanping County also described the beautiful lanterns scene in text, which show the lively lantern markets and crowds. (e.g. Figure 52):



Figure 52 Kangxi's Wanping County Records

In the Qing Dynasty, the atmosphere of the Lantern Festival is obviously even more intense. People roamed the streets and enjoyed densely packed lanterns, juggling, spinning rice plant songs, juggling, dancing dragon lanterns ... The shape of the lanterns is even more colourful, beautifully designed and refined. The Qing dynasty court with a large number of lamps, the function is also different, there is a New Year allegory of heavenly lanterns, longevity lamps used for rituals into the lamp (Figure 53).



Figure 53 longevity lamp

Highly decorative and has the function of lighting the balustrade

lamp (Figure 54).



Figure 54 balustrade lamp

Quadrangle lamp (Figure 55)



Figure 55 Quadrangle lamp

The ball lamp “吉祥万年”(Figure 56).



Figure 56 The ball lamp

Gourd lamp (Figure 57).



Figure 57 gourd lamp

The fish lamp (Figure 58).



Figure 58 fish lamp

And ornamental props lamps. The lanterns of the Qing Dynasty, in addition to continuing the lanterns of the Ming Dynasty based on models, also introduced the Manchu ice lanterns, so that the traditional lanterns were given new colours. The lantern technology went from the people to the court, the rise of the court and the general return to the people. The various types of folk lanterns, crafts, materials, decorative design and even science, combined with local folk customs and cultural connotations, the lantern culture continues to this day. On the fifteenth day of the first month of the first month of the year, the colourful lanterns are hung everywhere, the lantern activities are also diverse: lantern showing, lanterns, lantern guessing, etc, in many regions of China, the lanterns of the Lantern Festival will usher in the end of a year and the New Year's greeting.

### 2.2.3.2 Classification of Chinese lanterns

Chinese lanterns have a history of more than 2,000 years with rich and varied decorations and structures, and their ingenuity is also unique. In the Folk Lantern Atlas published by Li Mianlu, today's Chinese folk lanterns are described as follows: "Lit on festivals, but only for ceremonies and celebrations, the art of lanterns shows its true spirit of red. Chinese folk lanterns are extremely rich in style: there are various functions of ornamental lamps (e.g. palace lanterns, pavilion lamps), play lamps (e.g. dragon lanterns for social dances, flower drum lanterns) and everyday lamps (e.g. daily lighting of the travelling lamps, lanterns, offerings to the country lamps, ancestor lamps, prayers for a child to congratulate the child lamps, lights, prayers for blessings and offerings of the lucky lamps, grain lamps, the soul of the spirit of the spirits of the soul lamps, lanterns and the front of the advertising of the merchants lamps); there is a different form of anthropomorphic lamps. Different forms of the proposed shape of the lamp (such as fish lamps, tiger lamps, pagoda lamps) and geometric lamps (such as round gauze lamps, square lamps, pentagonal lamps); there are different ways of knotting the single lamp (such as a single whole of the hexagonal lantern), mother and child lamps (such as a set of units combined with one of the horse lanterns, hexagonal mother and child lanterns) and a collection of lamps (such as lamps, lamps, lamps, bead hoarding); there are different frames of the bony lamps (lanterns in general more than one belongs to this) and boneless lamps (such as the pulling of flowers and paper lamps, needle-punched boneless lamps) (such as pulling the paper lanterns, needle piercing boneless lamps); there are different mechanisms of pneumatic lamps (such as revolving scenic lanterns), air floating lanterns (such as sky lanterns), moving lamps (such as wheel lamps) and electric lamps (such as modern large electric lanterns); there are various types of chandeliers, sconces, lamps and hanging lamps; and even more because of the different craft materials and the name of the lanterns of various types of flowers and flowers, such as engraved paper lamps, ink gauze lamps, silk lamps, straw lamps, gabion wire lamps, fish scale lamps, silk fabric lamps and ice lanterns and so on.





Palace lanterns	mimetic lanterns	Color tie lanterns	Revolving lanterns
			

Table 4 Lanterns classification

Each lantern has different customs and forms in each region, such as the palace lanterns in Beijing, the Kipsi lanterns in Zhejiang, the dragon lanterns in Shanghai, the Zigong lanterns in Sichuan and the revolving landscape lanterns in Guangdong. In Han Yanru's "Chinese Excellent Arts and Traditions Series - Lanterns", there is also a brief introduction to the lanterns of various regions famous for their local specialities, such as Quanzhou Lanterns, Qinhuai Lanterns, Xiushan Lanterns. Wang Ping's 100 Folk Arts and Crafts of China also mentions famous lantern production areas, such as Zhejiang, Jiangsu, Fujian, Shanghai, Guangdong, Hubei, and Anhui. The book says: "Henan Luoyang lanterns are famous for palace lanterns, a kind of hexagonal wood-carved palace lanterns, this kind of lamp design is exquisite, carved and painted, colourful, solemn, with strong national characteristics; another kind of palace lanterns made of red yarn, this kind of lamps have a solemn shape, bright colours, the atmosphere is warm, give a person a sense of uplift and joy. Shanghai's Songjiang lanterns, the most famous paper clip yarn lamp, which was widely used in the Ming Dynasty. Suzhou, Jiangsu lanterns, since the Song Dynasty, that is, "Luo lamp" is famous to the world. Ming and Qing dynasties with their exquisite construction and splendid decoration, known as "Su lamp". the "Suzhou lanterns" are a sophisticated combination of paper-cutting, assembling and laminating techniques, with strange patterns and refined lantern paintings, and the revolving scenic lanterns are the most representative of their characteristics. "And when it comes to the palace lanterns, one meaning is the use of coloured lanterns at court, coloured lanterns have a long history with the successive emperors and monarchs

and the system in general, with the development of history, their shape and decorative features are also slowly changing. The second refers to a style of lanterns that was under the influence of the aesthetic taste of the imperial aristocracy. The palace lanterns mentioned in this chapter are all referred to as one type of lantern. Compared with other types of lanterns, lanterns in the material process and design style has its own distinctive feature, the palace lanterns of the material is more precious, the workmanship is also more the pursuit of refinement, styling more than other lanterns more worthy standards, decorative patterns carefully carved, gorgeous patterns, every aspect of the royal style, nobility and eminence.

### 2.2.3.3 Chinese lantern production process

The lantern is a composite folk artwork that combines paper binding, knitting, gluing and assembling, carving, paper cutting, painting and calligraphy, embroidery and other crafts. There are kinds of folk lanterns, and the making process of lanterns in different regions is slightly different, but the basic binding process is still the same.

The basic process of lantern making is divided into four steps: Proofing, framing, gluing and painting. Firstly, proofing refers to the design process of the lanterns. Craftsmen or "designers" design the modelling style on the drawings of the lanterns, which is the first step in casting the lanterns.

This is the first step in the moulding of the lanterns. Then the frame is made according to the design drawings of the proofs, which is the structure of the lanterns, i.e. the skeleton of the lanterns, which is usually made of bamboo canes, iron wire, bamboo strips and other materials. Before the skeleton is made, the bamboo gabions must be carefully and specially processed. The bamboo must be heated for half an hour in advance or in a steam bath and then taken out to dry, which should be just right to maintain the flexibility of the bamboo. It must not be exposed to the sun or dried excessively. These steps are limited to the skeleton of the lanterns. There are also lanterns without a skeleton, such as the ten-thousand-needle lantern from Foshan, which is moulded directly from thick paper pulp.

The third step, the paste assembly, as the name implies, the paste assembly is the silk, yarn, paper and other materials on the skeleton, both lamp wall and lampshade, paste is the key to this step, first it is evenly brushed on the skeleton, and then paper, yarn or other materials on the surface of the skeleton to serve, and then use the paste will be brushed flat to make it free of voids.

The last step is drawing, that is, for the lanterns for the process of drawing decoration, but here the "drawing" is not only painting, but also paper cutting, piercing and other techniques. Decorative motifs include landscapes, insects and birds, figures and stories, flowers and butterflies or calligraphy, usually with coloured balls, glass, beads, necklaces, coloured spikes. Since it is handmade, there are inevitably some details that are not refined enough, the same also need to patch up the gaps in the decorative way, such as paper processing can be made into a decorative line to cover the gap left by the paste framing, beads are also useful, and embroidery used to decorate the wall of the lamp decorations on the small details such as flowers, birds, dragons and phoenixes, etc., lanterns in different regions have their own subtle differences.

In the "Folk Lantern Atlas" edited by Li Mianlu, a detailed description of the various lanterns in different regions of China, it is precisely the boneless lanterns that are mentioned in this book, such as the lanterns in this chapter, which describes the paper-carved boneless lanterns in Quanzhou, Fujian Province: "Boneless lanterns, i.e. lanterns without a rigid bone i.e. lamps without a rigid bone support, have been recorded as early as the Song Dynasty. However, the Quanzhou boneless lamp and the Song Dynasty actually glass lamp "boneless lamp" is different. The former is folded into a variety of geometric cartons and then connected and glued together to form a paper lamp body without rigid bones. Quanzhou's boneless lamp is delicately and carefully crafted, the knotted body is differently corrugated. The surface of the lamp is decorated with carved paper applications and openwork fine lines, which is both dignified and elegant as well as vividly splendid and has high ornamental value."

Pictogram lamps are also a usual form of lantern. In the chapter on pictograph lanterns, the book describes the fish lanterns in the city of Bazhou,



Hebei Province, Emperor Liang Yuan's "Candle Fugue" in the “本知龙烛应无偶、复讶鱼灯有旧名”。Palace lanterns are also an important part of the traditional Chinese lanterns, compared with folk lanterns, the production of palace lanterns is quite elaborate, from the production of materials, the main material for the skeleton of wood, including high-quality mahogany, mahogany is not specifically referred to a tree, but the rare wood of the general term. Rosewood, also known as "green dragon wood", has a smooth surface, such as silky smooth satin, but in return, the wood inside is watery, so it needs to be dehydrated during processing. The second is the pear, also known as "fragrant redwood", this wood is with the same rosewood, glossy but more fragrant, uniform colour, good dryness, not easy to deform. The third is the fragrant knot wood, also called "Hainan Huanghuali", this wood is hard, powerful sense of texture, spicy aroma, easy to process, smooth cutting surface. In addition, there are black, red, sour knot wood, chicken wing wood, ebony. In addition to mahogany, there are other woods, such as dogwood, jujube, coloured wood and so on. Since the wood as the lantern of the bone also needs dry processing, the ancients naturally studied the method of drying wood. There are three common drying methods: the artificial drying method, the simple artificial drying method and the natural drying method. With the artificial drying method, the wood is dried statically in a steam room so that the moisture evaporates, but with this method too much water is easily lost and the wood cannot be carved well.

The simple artificial drying method consists of roasting the moisture in the wood or boiling out the resin content of the wood with water and then air-dry it, this method can shorten the drying time of the wood and improve the efficiency of production. The natural drying method is air drying, where the wood is cut open so that the air draws the moisture out of the wood and dries it, and this method takes longer. Silk is often used for lampshades. According to historical records, the silk used to make palace lamps is alum silk. In ancient China, calligraphy and painting were often drawn and written on silk, but the alum silk used to make the lanterns was different. Materials such as flat cardboard (non-absorbent), yellow gelatine, alum. are needed to make alum silk. The process requires careful handling and the silk must be hung to dry at the same time as the alum. The yarn is also

often used as a material for lampshades. The general choice of raw silk yarn is, as the name suggests, made from raw silk yarn. The cocoon is specially processed into raw silk. Raw silk is translucent, silky, and soft to the touch, flexible and translucent, and can be described as a superior textile material. In the Qianlong period of the Qing dynasty, glass was introduced to China and also became a common material for lanterns, but because of the high price, the production is small, the number of glass lanterns is not very large, if embedded in the glass, they are of the highest quality in the name of palace lanterns. In the production of lanterns, some auxiliary materials are also used, such as glue, paint, paraffin, tassels, copper wire, etc., the role of glue is to glue wooden lanterns, it is the use of non-rotting pig skin softened and placed on a wooden frame, carefully cleaned the various hair shredded, and then its counterparts to level scalding from the fat and fat, the rest of the meat discarded, and then soaked in clean water, followed by the next in line with the pig skin and quicklime 10:1 ratio, the pig skin is soaked in lime water. This step ends with the softening of the skin, whereby the duration of soaking can vary depending on the season. The skin is then cleaned, steamed and glued. White glue is also used for gluing in an equivalent way. The role of colour in the production of lanterns is to protect the material, but also to achieve a decorative effect. High-quality mahogany for the lantern material does not need to be painted to enhance the colour, but only waxed to preserve the grain and structure of the wood itself.

As the saying goes, “three points of craftsmanship and seven points of household goods”, lanterns as a typical Chinese traditional handmade art development so far, of course, inseparable from the old craftsmen on the production of tools for development and research, the production of lanterns combined with a variety of techniques, the use of tools are also different, but no matter how, for artists and craftspeople, with the use of “brush” while the hand! But in any case, the “brush” for artists and craftsmen “”is the good brush.

The traditional handmade tools of the palace lanterns fall into five categories: Measuring tools, wooden tools, carving tools, painting tools, and knitting tools. Measuring tools are steel tape measure, ruler, ruler, ink bucket and paddle, tape measure is easy to carry and bend, ruler with a line with a line drawing,

ruler generally for the degree of 90 degrees, ruler, also known as the "rules", as the old saying goes, "no rules are not a square", and the production of square lanterns. The squareness of the production of the palace lanterns, and the role of the ruler is irrelevant. The use of ink buckets is more flexible, they can be marked on the wood, jumping out a straight line, but their use must ensure that the vertical to accurately mark the ink line. Woodworking tools include gang saws, chisel saws, narrow hand saws, jigsaws, hand planes, hand chisels, which are used for cutting various shapes and sizes of wood, grooving, sanding, etc. Carving tools are even more numerous, chisels, folding axes, tapping hammers, flat chisels, front and rear chisels, triangular knives, etc. Different tools are used depending on the content of the carving. Painting tools are the tools used by the craftsmen to paint the lamps, and their tools are the same as those used in traditional painting: brushes, ink, ink stones and pigments. There are many types of brushes, but they can be categorised into hard hair, soft hair and part hair according to their size, length, hardness and thickness. Wolf hair, rat tail for hard hair, the most common, sheep hair and chicken hair for soft hair, partial hair is a combination of the advantages of hard hair and soft hair, such as sheep hair with some wolf hair, so it is soft and hard, the artist will be based on the specific needs of the picture to choose the right size of the brush for painting. When it comes to brushes, of course, ink and inkstone are indispensable. "Ink in a black ball, black ink in a black ball, heaven and earth are far", there are ancient literati in the ink, and there are also princes and generals in the thousands of miles of rivers and mountains. Finally, the knotting tools, in the palace lantern roughly completed, often in the lower centre or peripheral dragon head part of the knot celluloid, tassels and other decorations, the basic tools are beading needle, pliers, scissors, lighters, needle and thread and so on. A beautiful handmade lantern, even if it is made by skilled craftsmen, often requires a lot of time and energy. With the development of the industry, modern mechanical tools are also used in the production of lanterns to improve the efficiency of lantern production. Commonly used mechanical tools are electric saws, chisel machines, drilling machines.

Palace lanterns have a variety of craft processes and many craft names, such as woodworking, chiselling, shovelling, sanding, colouring, hot waxing,

varnishing, and so on. These terms also indicate the tools and methods used in the craft, such as lacquering, which refers to the spraying and brushing of lacquer.

Since the Ming and Qing dynasties, the main style of palace lantern has been the six square carved chandelier. As the traditional lantern practise is similar, only in the selection of raw materials is more rigorous, the general palace lantern is carved mahogany frame and then with copper ornaments connected to the skeleton, and then to the yarn or silk for the lampshade decorations, or then hang celluloid and so on to add the icing on the cake. The design of the palace lantern can be easily disassembled and remodelled, the fan and the holder can be stacked separately so that they can be easily collected. Based on this basic structure, new materials, decorative shapes, artisanry, etc. can be used to renew the diversity of the palace lantern. The design style of the palace lantern reflects the aesthetic interest of the royal family of different dynasties: dignified and elegant, honourable and generous. In comparison, folk lanterns have more local cultural atmosphere, folk lanterns in the selection of rustic, lively modelling, the decoration does not lack romantic subtlety. Lantern culture and art is not only a feast for the eyes, but also a driving force for the development of regional tourism and the promotion of cultural and commercial exchanges due to its unique artistic interest, so the book in the lanterns has a chapter on the description of the pavilion-shaped lanterns: "Haining popular agriculture, handicrafts, trade is also quite developed. The prosperity of Kipsi lanterns and the development of local industry are closely related. Silk, rice, cloth, tea and other industries and trade, the use of prayer customs, fundraising, in the production out of season or gap, mobilise practitioners to participate in the production of lights, and before and after the Lantern Festival lights to attract businessmen and tourists from all over the world to expand their influence, promote production and sales. The pavilion-shaped palace lanterns are finely crafted and elegantly styled, typical of Jiangnan lanterns."

#### 2.2.3.4 Chinese Palace Lanterns and Folk Lanterns

About the origin of the palace lanterns, there is also a legend in the book "Beijing Palace Lanterns": "In the early years, the people made a lamp for a living old man, every New Year's Eve, a few lamps hanging in front of their own homes to do a festive atmosphere, due to the lamps too good to provoke passers-by to come to see. One year, the district magistrate just passed by and saw the beautiful lamps hanging in front of the door, after which the old man hung a few of them. He speculated in his heart, this object is very new, if I put it tribute to the emperor, his old man was happy, give me a promotion of half a post, if it is not a beautiful thing. Of course, this pair of lights as a tribute to the palace really won the heart of the emperor. The emperor of the county expert and is rewarded, and is added to the official, but also added to this lamp as the palace special. In the course of time, this "tribute lamp" is called the "palace lamp"."

According to historical records, the Spring and Autumn period, Lu Ban built the palace, the wood formed the skeletal structure into which lighted lamps were inserted, surrounded by brocade to form the original palace lanterns. Perhaps because the material process is not yet mature enough, the early palace lanterns are not easy to save, before the Ming Dynasty, the records of the palace lanterns are not very extensive. Chen Qiaoyi's "Dictionary of Chinese Capitals" describes, "The palace lanterns of Beijing began in the Ming-Yongle years, the Ming capital of Beijing, with the summoning of artists from Suzhou and Hangzhou to the capital, the production of palace lanterns for the exclusive use of the palace, and then spread outside the Palace."

A large number of historical materials contain descriptions of ancient Chinese lanterns for the Mid-Yuan Festival. In the past, a lantern market was held every year on the day of the Mid-Yuan Festival, and some dignitaries marked their official titles on the gauze lanterns, which were known as official title lanterns. In the "Scenery of the Imperial Capital" co-authored by Liu Dong and Yu Yizheng, a Ming Dynasty literati, the spectacle of the lantern market on the day of the first

moon is described, and the activities of the lantern market also promoted the development of lantern-making technology. The lantern market in the Ming Dynasty was already very diverse, and there were already wooden-framed lanterns on which fictional scenes from history were drawn, making the lanterns both decorative and entertaining. "In the first year of Ming Chongzhen (1628), the production level of the palace lantern has risen to a higher level, the palace lantern makers had used alum silk from the temple, carriages and horses, figurines and other imperial ornamental lamps, so the palace lanterns of this ancient traditional craft shine."

Until the Qing Dynasty, the palace lanterns not only did not decline, but ushered in the peak of the development of the Qing Dynasty lanterns by the Ministry of the Interior Office of management, repair, collection, the palace lanterns are essentially from outside the palace procurement and tribute, the introduction of the Western glass material to the production of lanterns of the material is abundant, "the end of the 18th century, the British King George sent a large number of lanterns. In the late 18th century, the British King George III sent a large delegation to China in the name of Emperor Qianlong's birthday to pay tribute to the Lord Magazine In the late 18th century, the British King George III sent a large delegation to China in the name of Emperor Qianlong's birthday, led by Lord Margaret Nicholson. The accompanying artist, William Alexander, painted a series of watercolours, including depictions of the palace's lantern workshops." During the Lantern Festival, Qianqing Palace, the imperial garden and Yuanmingyuan Garden were decorated with lanterns, and not only that, but also the royal aristocracy outside the palace, in Qing Dynasty, the making of the lantern material, the unique shape. With the end of the Qing dynasty, folk lantern making also developed anew. Wen Sheng Zhai, Xiu Zhen Long, Xiu Zhen Zhai, Huamei Zhai and other shops specialised in lantern making. The history of Wen Sheng Zhai can be traced back to the 11th year of Jiaqing (1806) and represents the highest level of palace lanterns in terms of proofing, colour tying, painting, and lacquering.

### 2.2.3.5 Design features of palace lanterns

#### (i) Skeleton Structure

Legend has it that in the early days, no drawing templates were required to make palace lanterns and the craftsmen were both designers and artisans who made the lanterns according to their own ingenuity and creativity, sometimes slightly adapting them to the needs of customers. With the increase in demand and the development of artisanry, the production of lanterns gradually became a uniform standard. Palace lanterns are both works of art and products, and the first step in product design is to understand the demand, the people who use them, the scene and the way they are used. "In 1984, the 35th anniversary of the founding of the People's Republic of China, Beijing Fine Arts Red Lantern Factory designed and produced palace lanterns for the Tiananmen Square Citadel. The main designer, Ma Yuanliang, based his design on the actual situation of the Tiananmen Square Citadel. Tiananmen Square is the main gate of the imperial city of the Ming and Qing dynasties, carved beams and painted buildings, the royal style, the overall design of the lamp must be adjusted; and then take into account the Tiananmen Square on the load-bearing and fire safety requirements, although the appearance of the lanterns reflect the traditional characteristics of the design of the design can be highlighted in the use of the "dragon" modelling, but in the choice of materials to be selected separately. Accordingly, Ma Yuanliang in the design of the lanterns for the choice of refractory light metal materials, the use of printing, graver and other metal techniques to form a variety of patterns on the lanterns, gave this design for Tiananmen Square a new charm."

The structural design of the lantern is the backbone of the whole lamp, in any kind of lantern, the frame design is fundamental, especially for large lanterns, the rationality of the frame design is a stable protection for the suspension of the lantern, a clever structural design that pushes the exquisite play of the lantern to the extreme. From a structural point of view, the long and short beams of the palace lanterns have a curved shape that resembles the beams of

ancient buildings, and the beams intersect with the columns to keep the lamp body balanced and stable. The mortise and tenon structure (Figure 59) is ubiquitous in the structural design of the lantern, making every part of the structure rigidly connected, stable and reliable.

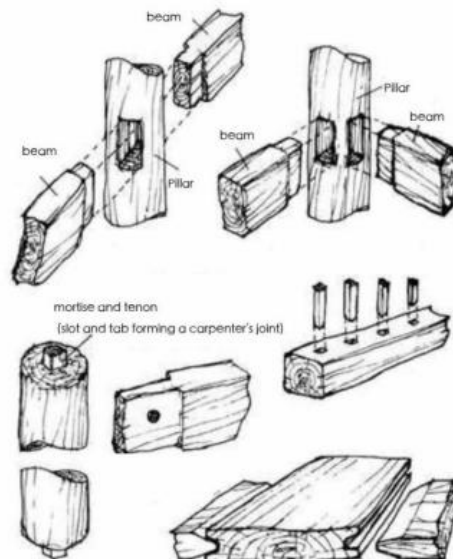


Figure 59 The mortise and tenon structure

(ii) Decorative patterns

"Modelling and decorative patterns are important design elements in antique lamps. They show in figurative or abstract form the ability of the ancients to reproduce and express the things of nature in their creations, and at the same time they are also the portraits and representations of the emotions of the ancients. "The flower teeth in the palace lanterns are the decorative part, which basically uses decorative carving techniques, and most of the decorative patterns are symbolic of good fortune, such as longevity, sea water, river teeth, ruyi, intertwined branches, etc. The "dragon head" is the most important part of the lanterns and is regarded as a symbol of good luck. The "dragon head" often appears in the decoration of palace lanterns, but this "dragon head" not only means "dragon" pattern, but also can be designed as "phoenix" or other good symbols. "Phoenix" or other good symbolism pattern, the dragon is just a general reference to this decorative part. The dragon pattern is often due to the totem worship and symbolises the authority and nobility of the emperor and is decorated in the palace



lamp. This decoration may not be used among the people, but only for the sole use of the Emperor of Nine to Five. In addition to a small area of decorative patterns, the lampshade will also have a large area of the scene painted, and most of them are very symbolic, such as plum orchids, bamboo and chrysanthemums, Chinese literati will be known as the "Four Lords", respectively, because of the nature of the plant has a different meaning, the plum blossom for the pride, the high and noble, like high and pure spirit; the orchid for the calm, the elegance and spirituality, like the world of the wise; the bamboo for the firmness, tough and unyielding, like the modest gentleman; the chrysanthemum for the chastity, cold and chaste, like the world outside the hermit.

## 2.2.4 The art of traditional Chinese revolving scenic lanterns

### 2.2.4.1 Overview of revolving scenic lanterns

Among the many Chinese lanterns, the rotating scenic lanterns are the most eye-catching due to their dynamic interest. They utilise the principle of air convection to make the impeller rotate and project the proposed form of paper cut-outs or images onto the lantern wall. In this way, the unity of fun and aesthetics is achieved, so that the dynamic display and static decoration complement each other, which is an important invention of the ancient Chinese. "The inventor of the revolving scenic lanterns is said to have been Xin Qiniang in the Five Dynasties. Xin Qiniang was a sensible person; her husband was always travelling in the army and suffered from the troublesome traffic and lack of information. Xin Qiniang followed the example of Zhuge Liang in the Three Kingdoms period, who used Kongming lanterns to transmit information. She made a skeleton out of bamboo strips, glued paper cut-outs with a pattern of centaurs on the top of the wheel and burnt turpentine at the bottom to make the centaurs and centaurs rotate. Her husband hung the lanterns high above the ground and used them as liaison signals for the army, while the constantly revolving patterns on them represented various military

terms, and in this way the revolving landscape lanterns contributed to the victory of the war." But this is ultimately a legend, about spinning scenic lanterns on the plate is more credible in the Western Han Dynasty "Huainanzi Wan Bi Technique" in the description: “取鸡子，去其汁，燃艾火纳卵中，疾风，因举之飞。”It explains the spinning scenic lanterns at the very beginning of the principle: take eggshells and burn wormwood in it, then the eggshells can fly up with the wind, this is the principle of using hot air to rise. The earliest mention of spinning lanterns is in the Xijing Mixture, Volume III, Section 75: “有青玉五枝灯。高七尺五寸。作蟠螭，以口衔灯。灯燃。鳞甲皆动.....” he describes the treasures in the palace of Xianyang, noting the size and shape of the five-armed jade lamp, the lamp lights up, there are bronze people playing music, but the blowing is no longer seen." Archaeological also found that the Eastern Han Dynasty, similar to rotating scenic lanterns impeller (commonly known as umbrellas) device, paper windmills have also become children's toys. According to historical records, there was a prototype of rotating lanterns in the Tang Dynasty, which was called riding lanterns by poets of the Song Dynasty and by Jin Yingzhi in the Song Dynasty, who wrote "Drunken Weng Chat Records - Records of Capital City Customs and Folklore - The First Month": “上元，自月初开东华门为镫字.....又有镫毬、镫槩、绢镫笼、日月镫、诗牌绢镫、镜镫、字镫、马骑镫。”The "horse riding in the stirrups" mentioned in it is a revolving scenic lantern. Fan Chengda's poem "32 Rhymes of Haiku in the Wuzhong Festival of the Shangyuan Period": “映光鱼隐见，转影骑纵横。”It also shows revolving scenic lanterns. In the late Qing Dynasty, it was written in the (Records of the Years of Yanjing): “走马灯者，剪纸为轮，以烛嘘之，则车驰马骤，团团不休。烛灭则顿止矣。其物虽微，颇能具成败兴衰之理，上下千古，二十四史中无非一走马灯也。”This also explains the working principle of spinning lanterns, which use hot air currents to rise. The movement principle of the rotating lanterns corresponds to that of modern gas turbines, which can be described as a very scientifically forward-looking design of lamps in ancient China. The rotating lanterns are a characteristic craft of the Han Chinese. Their lamps contain scientific principles, so that the spinning lanterns complement each other in ornamental distinction from other static lanterns, decorative modelling, and dynamic interpretation.

"Whenever art is rooted in commonality or stems from the work of craftsmen, its style, although it also reveals the individual originality of the respective author, has a strong local flavour as its main tendency. This is due to the fact that skills are passed down from generation to generation, with regional restrictions and historical heritage. Of course, there are other reasons for the emergence of local styles, and this is not the only one."

With the popularity of folklore and the development of folk crafts, the revolving scenic lanterns in different regions have their local characteristics. Foshan City in Guangdong Province, Jinjiang County in Fujian Province, Suzhou City in Jiangsu Province, Wuqiang County in Hebei Province, Beijing City and other places in China are representative of the technology of revolving lanterns, the revolving lanterns are also richly and diversely modelled, opulent pavilion-shaped lanterns, graceful and ornate baskets of horse lanterns and hanging beads of horse lanterns, simple and atmospheric quadrangular, hexagonal lanterns, etc., the image of the screen on the change of scenery with the outer structure of the lantern with a special modelling design, each revolving scenic lantern is the most popular and popular in the world. Each revolving lantern tells a wonderful story that has a long history. However, due to the invasion of foreign cultures and the rapid process of industrialisation since the founding of the country, only a few cities and counties are still able to pass on the shadow of revolving scenic lanterns, and only a handful of craftsmen who have mastered the non-genetic heritage of lanterns have mastered the production method of traditional revolving scenic lanterns, and at the same time, revolving scenic lanterns are facing the loss of the current state of the technology.

#### **2.2.4.2 Types of revolving scenic lanterns and production**

##### **methods**

The revolving scenic lanterns have four kinds of dynamic light

processing forms, one of which is the built-in paper-cut using the light to project their shadows on the lampshade; the second is the cutting of paintings and coloured ribbons on the surface of the rotating wheel lamp for decoration; the third is the hanging of the papercut around the wick; and the fourth is the coloured ribbon as the heart of the lamp. Due to the use of the principle of thermal energy to drive the rotation of the impeller wheel, the traditional rotating scenic lanterns are often framed with light paper, silk paste, specially treated bamboo gabions for the frame, the square box sets the round wheel of the rotating lanterns is very common, the folk rotating lanterns are often four frames, five frames, six frames, eight frames, etc., for the outer geometric structure, and the outer geometric structure of the rotating lanterns is often made of paper, silk paste, specially treated bamboo gabions for the frame. for the external geometric structure, the shape of which is simpler than that of the revolving lanterns with a strong local flavour, the shape of the revolving scenic lanterns with the proposed pavilion-shaped lanterns, pavilion-shaped at the end of the upper. The upper end of the pavilion shape has a slightly upwardly curved cornice, the upper end is decorated with silk spikes, and the lower end is decorated with tassels. Each lampshade has a window in the geometric shape of a square, a circle or a rhombus, from which the inner light emerges after the candle is lit. In the centre of the wheel in the lampshade is a vertical shaft, under which there is usually a socket for the candle. When the heat flow generated by the burning candle increases, the impeller is set in rotation and the paper cut-outs of centaurs and horses or the images in the lampshade are dynamically projected onto the lampshade and the surroundings, creating a marvellous light and shadow effect.

During the Ming and Qing dynasties, Jiangnan's revolving lanterns were incredibly famous. Compared to the revolving lanterns of other places, their decorative style is more elegant, with delicate lace ornaments in addition to the tassel ornaments often used in lanterns. The basic production process of revolving lanterns consists of seven steps. The first step is to make the skeleton, into which a different number of sides are folded with sorghum sticks of the same length, such as a square of four sorghum sticks of the same length, which are folded into making the length of the side of the decision on the size of the revolving lanterns.

The second step is to make the rotating shaft. A sorghum rod is inserted crosswise into the skeleton of the upper and lower frame, with the pins fixed between the upper and lower beams of the centre axis. The third step is to make the rotating wheel, followed by the hanging horse, here refers to the hanging horse is mainly used to draw the desired pattern with ink, can also be drawn in other ways, according to the craftsman's own preferences or needs, and then make a circle with the same size as the wheel, and will be drawn image isometric paste on the circle, and then with a thin line will be drawn image of the circle hanging on the upper wheel. The fifth step is to paste the paper, usually choose a light paper with strong translucency, and surround the spinning lanterns, leaving the top opening blank. The sixth step is to light a candle next to the vertical shaft. The rising heat makes the impeller rotate, the impeller drives the circle to rotate, the image projection on the circle is projected onto the lampshade, creating a sense of rotation. The last step is the decoration of the spinning scenic lanterns, which are usually decorated with colourful silk tassels on the top and bottom, and some of the outer walls of the lanterns are decorated with calligraphy paintings, such as flowers, birds, fish and insects, or auspicious motifs are often used, traditional lanterns, and even traditional lamps commonly used in decorative methods and handicrafts in revolving scenic lanterns, such as bionic anime modelling of traditional lamps, traditional lanterns in the handicraft process. The craftsmen create the unique artistic vitality of revolving scenic lanterns by combining movement and statics.

#### **2.2.4.3 Status of revolving scenic lanterns**

Since the material for making the traditional revolving lanterns is not easy to use and preserve for a long time, there are only a few revolving lanterns from ancient times, and currently there are not many regions in the country where the technology for making revolving lanterns is still preserved. The places of origin are concentrated in the provinces of Fujian, Hunan, Jiangxi, Shandong, Henan, Ningxia Hui Autonomous Region, etc. The technology of making Jiangxi Xinjian revolving scenic lanterns belongs to the provincial-level intangible cultural heritage of Jiangxi

Province, and Shiyang revolving sculpture was listed in the third group of intangible cultural heritage of Hunan Province in 2013. In 2013, the revolving scenic lanterns of Shiyang were inscribed in the third group of intangible cultural heritage of Hunan Province, and in 2015, the People's Government of Shaoguan City inscribed the revolving lanterns in the fifth group of intangible cultural heritage of the city.

Five generations of Liang Sujuan's family in Linying County, Henan Province, have inherited the art of making revolving lanterns for more than a hundred years. The production of Liang Laosan's revolving lanterns can be traced back to the late Qing Dynasty, and Liang Sujuan, the eldest daughter of Liang Junsan, has inherited the traditional craft of revolving lanterns and is the fifth generation of non-genetic heirs of revolving lanterns. With the rapid development of industrialisation, more lanterns are being mechanised and mass-produced, and revolving lanterns are no exception. Although Liang Sujuan has inherited the skills of making lanterns, he continues to research the market and incorporate modern elements into the design of the lanterns.

Zhang Wendao, a folk artisan in Panji District, Huainan City, also insists on the heritage of the culture of spinning picturesque lanterns. The folk lanterns of Panji were included in the Fourth Intangible Cultural Heritage List of Huainan City in 2018. Zhang Wendao's revolving scenic lanterns are also unique in the region, and the themes of the revolving lanterns he made include the Journey to the West, the Eight Immortals Crossing the Sea and other representative Chinese mythological stories. In 2020, the technique of making revolving scenic lanterns in the city of Sanming in Fujian Province was declared an intangible cultural heritage. Calligraphy with auspicious symbols such as "national prosperity and peace of the people" and "success of the horse" are often used to decorate the spinning lanterns in the region. Huang Maosheng is the fourth-generation heir to the revolving lanterns. He is very experienced in selecting and making the lanterns and has always insisted on using the principle of heat to make the traditional lanterns.

In addition to the method of making revolving scenic lanterns handed down in various places, there are also some authors who have summarised the techniques of revolving scenic lanterns, the scenes of ancient Mid-Yuan Festival

lanterns and the characteristics of local lanterns in their books on traditional lanterns. In recent years, due to the strong support of the state and government for traditional culture, some manufacturers and designers have integrated the revolving lanterns into the design of lamps, and especially in recent years, the popular cultural and creative products in the revolving lanterns have also appeared, a revolving scenic lanterns aromatherapy gift box from the National Palace Museum has won the attention of the public, the designer will be the museum collection of beasts made into a delicate revolving scenic lanterns metal frame and accessories, and combined with the simple design of the aromatherapy candle shape, light the candle, and then the lantern will be lit. When the candle is lit, the hanging metal decoration with the impeller will rotate and project a wonderful dynamic scene. Not only in China, the famous French perfume brand DIPTYQUE also launched a Christmas spinning lantern set in 2022, which cleverly combines the aromatherapy candles and the fun of lanterns and is very popular with young consumers.

Although the art of spinning lanterns has gradually disappeared from the public eye with the development of film entertainment, it is still regarded as an intangible cultural heritage with historical value and cultural charm. This art form is an indispensable part of the tradition and history of the Chinese nation, and the protection and transmission of its intangible cultural heritage can strengthen the sense of cultural identity of the Chinese nation and enrich the diversity of human culture.

## 2.3 Feasibility analysis of the image of divine beasts of (classics of mountains and seas) in the artistic presentation of revolving scenic lanterns

### 2.3.1 Deficiencies in the Images of Divine Beasts in Early *CLASSICS OF MOUNTAINS AND SEAS* Book Drawing

From the review of ancient books, it can be found that the more complete traditional classics of mountains and seas images of gods and beasts are from the Ming dynasty painter Hu Wenhuan (Figure 60) and the Qing dynasty painter Wang fu (Figure 61).



Figure 60 Hu Wenhuan's painting



Figure 61 Wang fu's painting

In the early classics of mountains and seas, most of the animals were drawn with lines, and the technique of expression was white drawing. The historical and cultural value of these early illustrations is undeniable, as they recreate the forms of the beasts which in the classics of mountains and seas to a greater extent



and follow the artistic expression of realism. However, the smoothness of the lines in the books is poor, and apart from the distinction between long and short strokes for the animals' fur, scales and fins, there is no further detail, no colour rendering and no expression of light and dark areas.

Due to the limitations of the creative environment and the subjectivity of the artist's painting style, the artistic value of the early book in terms of ornamentation and innovation is low. The traditional classics of mountains and seas were painted in a single style, without the richness and artistic expression of modern paintings. The painting of general gods and beasts in the map book ignores perspective and three-dimensional representation, and the pictorial expression tends to be flat and lacks a sense of hierarchy and space. The depiction of traditional books is mainly based on fragmentary representation, which also lacks continuity, narrative and completeness of image. The depiction of individual beasts and gods has messy lines and exaggerated expressions, and the painting style has been influenced by the traditional culture and aesthetics of the time, making it more difficult to meet the requirements of modern aesthetics.

### 2.3.2 New expression of traditional *CLASSICS OF MOUNTAINS AND SEAS*

#### book drawing

With the aim of realising a modern artistic expression of the traditional *CLASSICS OF MOUNTAINS AND SEAS* culture, the researcher will use revolving scenic lanterns as supports and analyse the feasibility of realising their artistic expression through the innovation of two-dimensional drawing and three-dimensional representation of the sacred animals of the Classics of Mountains and Seas culture.

### 2.3.2.1 Graphic drawing

#### 2.3.2.1.1 Graphic Drawing Style:

From the 20th to the 21st century, people's lifestyles and values have changed dramatically as a result of social change around the world. Latest trends such as modernism and surrealism have had a profound influence on artists' aesthetic concepts. The rapid development of science and technology has also led to the emergence of new art forms such as digital art and the art of virtual reality. The exchange and clash of different cultures has enabled cross-cultural artistic expression among artists, and personalised imagery has subverted the traditional aesthetics of art, giving rise to different styles and genres such as abstract art, expressionism, surrealism, minimalism and digital art.

Surrealism:

Surrealist painting is characterised by the fact that it transcends the constraints of the real world, explores the artistic expression of real dreams and virtual reality and creates images that are not limited by the laws of reality. In terms of composition, the combination of pictorial elements and images is often unconventional, and the composition breaks the law of spatial perspective of traditional paintings and breaks away from the natural laws of the real world. In terms of emotional expression, the surrealist style seems to depict the subconscious or deep feelings of the creator, such as impulses, fears, or desires. The "perversity" in the paintings is a typical feature of surrealism, and the researcher will list the representative works of surrealist style and analyse their artistry.

As shown in Figure 62, the painting on the left is a work by Salvador Dalí's Apparatus and Hand, a painter representative of Surrealism, which shows a huge device surrounded by human figures, with a hand releasing lightning bolts growing out of the top of the device, which seems to be releasing some kind of signals against the background of an azure-coloured halo. This work is

full of detail. The artist has very skilfully depicted the torso of the animal, the human body and the shadows in the painting, and the distant landscape breaks up the spatial boundaries of the picture, giving the entire painting a mysterious and transcendent artistic effect.

Figure 62, second from the left, is René Magritte's work *The Third Dimension*, which takes place against a background of blue sky and white clouds, with a huge leaf as the visual centre. In the painting, eight parrots of different breeds lie on the leaf, connected to each other by the veins of the plant, as if they were communicating secrets to each other. Figure 62, third from the left, is *13 Attempts to Become a Rooster* by the German painter Wolfgang Reiter. With a rooster, a woman, and a man as protagonists and a car axle, a cube of three primary colours and the sun plunging into the sea as auxiliary elements, the work depicts a bizarre, languid adventure by the sea. The strong, saturated colours, the simplicity of the compositions and the sophisticated design of the elements will stimulate the viewer's imagination. Although the surrealist painting is "perverse", it conforms to the kind of artistic expression that is consistent with the Chinese classical aesthetic concept of "perversion and conformity to the way", and also with the traditional culture of the classics of mountains and seas, which is "interesting". This is in line with the Chinese classical aesthetic concept of "anomaly and the Way" and also with the "interest" of the traditional classical culture of the (Classics of the Mountains and Seas), which is a mysterious and dreamy spark.



Figure 62 Surrealist paintings

Pop Art Style:

Pop art is an art movement from the mid-20th century that began in Great Britain and later became popular in the United States, often using pop culture such as pop singers, advertising logos and superstars as source material. Pop art emerged with the rise of mass culture. The economic boom led to mass consumer behaviour, and the increasing popularity of mass media such as television, radio and magazines made pop culture widely accessible. By reproducing and reiterating popular culture, pop artists explored the psychology of the masses and the values of contemporary society.

Representative artists of Pop Art include Andy Warhol, Roy Lichtenstein, and others. As shown on the left in Figure 63, American artist Andy Warhol's masterpiece "Campbell's Soup Cans", a recognised Pop Art masterpiece, was exhibited at the Ferrous Gallery in Los Angeles in 1962. The main part of the work consists of banal and popularised food cans, which stand lifelessly on a wooden shelf without human intervention and illustrate the artist's criticism of the phenomenon of fetishism. At the same time, from the viewer's perspective, the tins also evoke emotional resonance with family, childhood and taste. Andy Warhol subsequently explored this theme on several occasions, utilising screen-printing techniques for machine reproduction, which broke the boundaries of mass production in traditional painting and made it possible to produce paintings in series suitable for mass production and the production of commodities. Screenprinting allows for even colour distribution as well as a high degree of material adaptability.

Figure 63, right, is Roy Lichtenstein's work 'look Mickey', a mixture of rough brushstrokes in pastel, coloured pencil and ink that exemplifies the artist's exploration of mechanically reproduced expression. The subject of the painting is pop culture imagery of Mickey and Donald Duck. The emphasis on the language of drawing to simulate the texture of print made the artist controversial at the time and his attempts at drawing were seen as a forgery of commercial images, but art historians consider the work to be a revolutionary work for the Pop Art movement.



Figure 63 Pop Art Paintings

Pop art reflects contemporary culture and aesthetic interests. Pop artists express symbols of popular culture through bright and vivid colours and emphasise the visual impact of the images. Their painting style is characterised by simple and clear lines, and the patterns are simple and intuitive. In this way, they can quickly attract the attention of the public, soften the boundaries between "metaphysical" art and public life, integrate popular culture into art creation, and bring personalised art back into the lives of the public.

The use of pop art style in the creation of drawings of traditional classics of mountain and marine culture can increase the attractiveness and influence of traditional culture, make it more in line with the aesthetic interests and cultural needs of modern society, and arouse more young people's interest in traditional culture and sense of identity. The pop art style is characterised by a strong visual impact and is therefore suitable for advertising, social media communication and the design of cultural derivatives.

#### 2.3.2.1.2 Ways of realisation:

Hand-drawn on paper:

By controlling the lines, the researcher can make the images of the gods and animals more vivid and three-dimensional, so that the images can convey finer and deeper visual information.

CG Creation:

CG creation refers to the application of computer graphics, it is a computer software or hardware as a tool for creating

graphics, visual animations. The most common computer graphics programmes currently in use are Adobe Photoshop, SAI, Open Canvas, Illustrator, Cinema4dcinema4d, etc., with which artists can create flat graphics and three-dimensional models.

Portuguese illustrator Mary Maka has created a series of works using computer graphics, such as Figure 64, an illustration project inspired by the works of novelist Amos Tutuola, with most of the characters coming from the boundless forests mentioned in the novels. The illustrator has drawn a series of fantastical creatures and scenes from their forest lives. The creatures are exaggerated, the colours are bold and the flat drawing style and use of contrasting colours give the images a soft and layered look.



Figure 64 Mary maka's painting

Computer graphics has its drawing merits, artists or illustrators can adjust the tone or elements according to the needs of the image, as in Figure 65, this is the illustration work of Latvian illustrator Diana Renzhina, the illustrator uses the artistic expression of computer graphics to tell the Latvian rituals related to the summer solstice celebrations, the series of illustrations to tell the theme of folklore, which is very narrative and mysterious. In contrast to the work of illustrator Mary Maka, Diana Renzhina's work is based on a noise texture style, with rich texture effects and the use of sepia and dark yellow tones to create a retro atmosphere.



Figure 65 Diana renzhina's painting

Compared with traditional drawing methods, CG creation can achieve high efficiency in drawing, break through the limitations of traditional drawing, facilitate modification, reduce the use of materials and equipment, so that artistic creations can be mass-produced, expand application scenarios and possibilities, and be more suitable for creation in the digital age. CG creation not only fulfils the requirements of graphic drawing, which is convenient for later material printing production, but also enables designers to create three-dimensional models and achieve animation rendering through keyframe animation, motion capture, dynamics simulation and other technologies. Designers can also create 3D models using NURBS, sculpting and other technologies and also achieve animation rendering through keyframe animation, motion capture, dynamics simulation and so on.

As shown in Figure 66, this is the second collaboration between Zombie and Final Fantasy and Karma Shanghai. The team designed a story with a married cat couple and drew, modelled and rendered the scene footage and the image of the protagonist of the advertisement using computer graphics technology to achieve the purpose of the brand advertisement. The designer achieves various painting effects by selecting different types of brushes, colours, sizes, and other parameters to facilitate subsequent modelling, scene

rendering and video editing. More CG creation techniques are playing a vital role in modern film and television special effects, game design, virtual reality (VR) and advertising design.



Figure 66 CG advertisement design

### 2.3.2.2 Three-dimensional presentation

As intangible cultural heritage, revolving scenic lanterns have rich cultural connotations and social values. Their lamps are often decorated with interesting mythological stories or symbolic patterns, and the art of light and shadow is used to enhance their appeal and mystery. The art of revolving scenic lanterns has a long history and is still displayed at cultural festivals and when travelling. At the same time, more artisans and designers are integrating revolving scenic lanterns into people's lives today in the form of cultural and creative products.

As shown in Figure 67, in 2023, the national trend gift brand Zhang Qisan launched a Mid-Autumn Festival gift box entitled "Light by Light, Shadow by Shadow", which contains three Mid-Autumn Festival moon cakes and a DIY spinning lantern kit, allowing consumers to experience traditional culture in a new form.





Figure 67 Mid-autumn festival gift box

The rotating landscape lanterns inspired by scented candles have also been well received on the market. As can be seen in Figure 68, for the gift box of "Rabbit's Fortune" fragrance launched by Three Hands Fragrance, the design team used the revolving scenic lanterns to convey the Chinese people's hope for the fortune of "good luck". The combination of sketch gradient illustration and hot stamping process, together with the atmosphere of light and shadow flow, "tells" the traditional culture of endless life.



Figure 68 "Rabbit's Fortune" gift box

With the development of the industry, the working principle of revolving scenic lanterns has moved away from a single heater, and technology has made up for the shortcomings of traditional revolving lanterns and created more opportunities for the artistic presentation of revolving lanterns.

## 2.4 Summary of the chapter

This chapter gives an overview of the classics of mountains and seas and categorises their content and composition. The researcher analyses the image of the sacred beasts of the classics of the mountains and seas and their artistic symbols using the case study method, and also explores their convertible cultural resources by listing the cases of sculptures, illustrated books and lanterns and other artworks that take the classics of the mountains and seas as their themes.

Secondly, the researcher takes the development of Chinese traditional lanterns as the main line and analyses and combs through the practicality, scientificity and artistry of traditional lanterns. He classifies the traditional lanterns, compares and analyses their production process, the artistic styles of court and folk lanterns, sorts out the types and production methods of the art of revolving scenic lanterns, and analyses the current situation they are in.

In addition, based on the research study on the classics of the mountains and seas and the revolving scenic lanterns, the researcher analysed the shortcomings of the images of the beasts of the early classics of the mountains and seas, and analysed the feasibility of the images of the beasts of the classics of the mountains and seas in the revolving scenic lanterns by taking the exploration of planar graphics and three-dimensional representation as the direction. The revolving scenic lanterns have their own light and shadow charm and artistic characteristics. It is worth exploring the theme of remodelling the images of the classics of the mountains and seas and presenting them in the form of walking lanterns, integrating traditional culture into modern life and facilitating the inheritance and development of traditional Chinese culture.



## CHAPTER3 RESEARCH METHODOLOGY

### 3.1 Research Methods

In order to ensure the scientificity and reliability of research, researchers can make the research process more transparent through a reasonable choice of research method to ensure the accuracy of research results. The research methodology can help to explain the reasons for the research results and to clarify the relationship between the research results and the research process. In addition, research methodology can facilitate other researchers to learn more about the researcher's research methodology, which encourages academic exchange and researchers to constantly explore new research methods and approaches. In this project, the researcher uses a literature review, specific case analysis, questionnaire survey, and theory and practise and other methods to investigate.

### 3.1.1 Visual Analysis

The researcher using visual analysis to finding a better presentation of the beasts characters. *CLASSICS OF MOUNTAINS AND SEAS* by Hu Wenhuan from the Ming Dynasty and Wang Sash from the Qing Dynasty forms a reference basis for the source of the images of the main mythical beasts in this project; and the *CLASSICS OF MOUNTAINS AND SEAS* (Vernacular Full Translation, Colourful Collector's Edition) edited by Xu Ke provides a certain literary basis for the paraphrasing and analysis of the original text of the book in this research project. It also provides a certain visual basis for interpreting and analysing the original text of *CLASSICS OF MOUNTAINS AND SEAS* in this research project.

### 3.1.2 Specific Case Analysis

By finding and analysing the early classics of mountains and seas god and beast picture books, modern classics of mountains and seas god and beast picture books, lanterns and other related cases of artistic presentation of revolving scenic lanterns, we explore the application performance and feasibility analysis of God and beast in the artistic presentation of revolving scenic lanterns.

### 3.1.3 Questionnaire Collection

Through the design of the pre-survey questionnaire distribution, based on different age groups, genders and live in the city of classification, the collection of content including: part of the population's interest in traditional Chinese culture, the basic cognitive degree of the classics of the mountains and seas and the degree of interest, the degree of demand for lamps and lanterns of art and functionality and other related issues. The questionnaire data and part of the research results are finally integrated and summarised.

### 3.1.4 Theory and Practice

Based on the above theoretical foundation, we have finalised a series of draft drawings of the classics of mountains and seas and tested the feasibility of the images of the classics of mountains and seas in rotating scenic lanterns with practical activities.

## 3.2 Research Innovations and Challenges

### 3.2.1 Research innovation points

Innovation point 1:

With the *CLASSICS OF MOUNTAINS AND SEAS* as the macroscopic background, this project takes the image of the divine beasts as the design element, explores the cultural symbolism contained therein with a modern aesthetic perspective, and uses the revolving scenic lanterns as the presentation carrier, combining the traditional culture with the modern design, which plays a certain role in the inheritance and innovation of China's intangible cultural heritage as well as the traditional culture. This is the focus and innovation of this research.

Innovation point 2:

In reviewing and summarising the literature on the culture of the mountain and sea classics, the researcher finds that there are more picture book illustrations, cultural and creative products and clothing designs related to the elements of the sacred beasts of the mountains and seas, and there are fewer relevant cases of combining them with the design of revolving scenic lanterns or lamps. Therefore, the combination of both can be a recommended design way of thinking for practical application.

Innovation point 3:

The method of realisation breaks the boundaries of traditional hand drawing and combines with CG creation to realise the ease of design adaptation and

freedom of mass production, facilitating further research and exploration of the form of artistic representation of the subject at a later stage.

Through the analysis of specific cases, the researcher takes the modern aesthetic perspective as the starting point to explore the design rules followed by the images of the divine beasts in the corresponding picture books and artworks, and to explore how the artistic representation of the beasts character can be realised under the modern aesthetic value.

Explore the unique charm inherent in the *CLASSICS OF MOUNTAINS AND SEAS* and the symbolic meaning derived from their historical background. In the long flow of history, the ancient people's depiction of the sacred beasts contains infinite ideas of nature and the unknown, which helps the researchers to innovate the design of the revolving scenic lanterns in the form of artistic representation.

### 3.2.2 Research Challenges

The researcher also encountered some difficulties and shortcomings in this research enquiry.

#### Challenge 1:

The *CLASSICS OF MOUNTAINS AND SEAS* is a collection of works that have experienced a long history. It is the crystallisation of the wisdom of the ancients about geography, plants, mountains, and seas as well as mythological stories and contains countless cultural resources. The *CLASSICS OF MOUNTAINS AND SEAS* have a wide variety of gods and beasts, and their content is enormous. Therefore, the researcher cannot know everything about them.

#### Challenge 2:

In early times there were different versions of the *CLASSICS OF MOUNTAINS AND SEAS*. As far as the textual descriptions are concerned, there were different or repetitive descriptions of the regions where the sacred animals were located in the different versions. As for the illustrations, the stylistic features of the different versions of the classic vary, making it difficult to classify some of the sacred

animals systematically. Figure 69 shows a comparison of the three most common versions of the pictorial texts of the classes of the *CLASSICS OF MOUNTAINS AND SEAS*. The table is taken from Ma Changyi's "Ancient Classics of Mountains and Seas", which shows the comparison of the divine beast "Lu Shu" with the illustrations of Jiang Yinghao and Hu Wenhuan in the Ming Dynasty and Wang Sash in the Qing Dynasty as an example. In addition, there are also research documents on the classics of the mountains and seas at home and abroad, as well as various illustrated versions of a variety of sacred animals of the classics of the mountains and seas, with a large number of atlases that are rich in content and clear and comprehensive in their analyses of the ancient texts. Researchers are only standing on the shoulders of giants to explore a part of the culture of the Classics of the Mountains and Seas, and there is still much room for excavation and exploration of the cultural value contained therein.

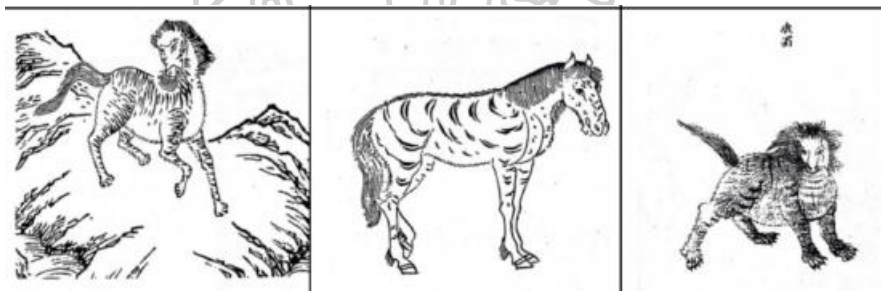


Figure 69 Common versions of the *CLASSICS OF MOUNTAINS AND SEAS*





### 3.3 Experimental process

#### 3.3.1 Selection of images of divine beasts in *CLASSICS OF MOUNTAINS*







#### *AND SEAS*







Based on the compilation and summary of the divine beasts in the *CLASSICS OF MOUNTAINS AND SEAS* in the previous article, the pictorial characteristics of the divine beasts in the classics of mountains and seas are analysed with regard to their symbolic meanings and forms. The image of the divine beasts are

quite extensive, the researcher in the study of this topic must find the appropriate amount of beasts research scope, combined with modern people's life interests and the previous compilation of "auspicious beasts" for in-depth study, to ensure that the restoration of the image of beasts based on the characteristics of the image of beasts, highlighting the spirit of beasts and the beauty of beasts, to determine the final design of beasts in the final design of the elements of the style direction of practise. The style direction of the elements in the final design practise is determined. As shown in Table 4.

Name	Original description	images	Appearance characteristics	symbolis e
Lei	《南山经》：“又东四百里，曰亶爰之山，多水，无草木，不可以上。有兽焉，其状如狸而有髦，其名曰类，自为牝牡，食者不妒。”		androgynous. People eat them without jealousy.	Inner peace and tranquillity
Huan	《山海经》记载：“其状如狸，一目而三尾，其音如夺百声，是可以御凶，服之已瘳”。		One eye and three tails. It can ward off evil spirits.	Turning bad luck into good fortune; taking it is always healthy.
Dijiang	“有神焉，其状如黄囊，赤如丹火，六足四翼，浑敦无面目，是识歌舞，实为帝江也。”		The whole thing is in the form of a meatball. It has four wings.	Cheerful, good at singing and dancing
Tiangou	“有兽焉，其状如狸而白首，名曰天狗，其音如榴榴，可以御凶。”		Body like a civet cat, white head	(literary) fight against evil



Qilin	《山海经》：麒麟者，仁兽也。		dragon's head and antlers	auspiciousness and benevolence the first of all animals
Jingwei	“有鸟焉，其状如乌，文首、白喙、赤足，名曰精卫，其鸣自。是炎帝之少女，名曰女娃，女娃游于东海，溺而不返，故为精卫。”		The body is like a crow. White beak and red feet	Determined. Undaunted.
Jinwu	《山海经·大荒东经》也说“汤谷上有扶木，一日方至，一日方出，皆载于鸟”。		The three-legged raven	Spirit of the Sun. Free and beautiful.
Xuanwu	《左传》：“玄武在北方也。龟、蛇二虫共为玄武，故蛇是玄武之宿。”		Tortoise and Snake Combined	A long and healthy life. Wealthy.
Kunpeng	《庄子·逍遥游》“北冥有鱼，其名曰鲲。鲲之大，不知其几千里也；化而为鸟，其名为鹏。鹏之背，不知其几千里也。怒而飞，其翼若垂天之云。”		Fish with huge bodies can fly in the sky or take flight as giant birds	Freedom to soar. Powerful and bold.
Jiuweihu	《山海经》云：青丘之山有兽焉，其状如狐而九尾，其音如婴儿，能食人，食者不蛊。”		Fox form with nine tails	Never forget your roots, Auspicious, King

Boyi	《山海经·南山经》记载：有兽焉，其状如羊，九尾四耳，其目在背，其名曰獬豸。		Eyes on the back. Sheep form. Four ears.	Unafraid to go forward.
Bo	中曲之山有兽焉，其状如马而白身，黑尾，一角，虎牙爪，音如鼓音，其名曰驳，是食虎豹，可以御兵。		Horse's body, one horn on the head	noble and holy
Baiyuan	又东三百里曰堂庭之山。多棗木，多白猿，多水玉，多黄金。		Silver-white body, good movement	Spirituality, swiftness, and longevity
Chongmingniao	双睛在目。状如鸡，鸣似凤。时解落毛羽，肉翻而飞。		A bird with two pupils in its eyes, a chicken-like body, and a long tail	To break calamities and ward off evil spirits, and to be bright and everlasting
Jinchan	《淮南子》：“日中所踰乌，月中有蟾蜍。”		A three-legged toad with a gold coin in its mouth.	Fortune rolls in, warding off evil spirits and attracting wealth.
Baize	帝巡狩，东至海，登桓山，于海滨得白泽神兽。能言，达于万物之情。		With horns on his head, a dragon's body, and a tiger's head	reasonable and sensible. the king's style





Wenyaoyu	又西百八十里,曰泰器之山,观水出焉,西流注于流沙。是多文鳐鱼,状如鲤鱼,鱼身而鸟翼,苍文而白首赤喙,常行西海,游于东海,以夜飞。		A fish with a bird's wings.	lit. rich harvest, rich harvest
Fuzhu	“其状如白鹿而四角,名曰夫诸,见则其邑大水。”		The body is like a white deer with four horns on its head.	great waters approaching
Chenghuang	《山海经·南山经》记载:有兽焉,其状如羊,九尾四耳,其目在背,其名曰獬豸。		Has a body like a fox with nine tails and four ears.	develop smoothly
Qinglong	《山海经》:“青龙,首有角,身长八丈,见则言,象形人行。”		The body resembles a long snake, the head of a unicorn, the tail of a carp, the face has a beard, the horns resemble antlers, and the mighty	Noble and auspicious. Powerful in all directions.

Table 5 Selection of images of divine beasts in classics of mountains and seas

Based on the above compilation of the images of sacred beasts in the classics of the mountains and seas, the researcher finally selected the following twenty sacred beasts as archetypal references for the main design practise: Lei, Huan(1), Dijiang, Tiangou, Qilin, Jingwei, Jinwu, Xuanwu, Kunpeng, Bo, Boyi, Baiyuan, Jiuweihu, Chongmingniao, Jinchan, Baize, Huan(2), Wenyaoyu, Fuzhu and Chenghuang, which symbolise the goodness or good fortune represented by the

allegorical meanings of the mythical beasts, and reflect positive emotional experience and good spiritual expectations.

### 3.3.2 Innovation in the image design of sacred beasts

In this design practise, the researcher has identified twenty representative images of mythical beasts whose auspicious symbols can add beautiful spiritual and cultural connotations to the design of the revolving scenic lanterns and fulfil the cultural identity of modern people and the expectations of traditional culture. From the perspective of modern aesthetics, the images of the divine beasts are redesigned, and the revolving scenic lanterns are presented in the form of art to achieve the purpose of promoting traditional culture.

#### 3.3.2.1 Sketching of Individual Beast Images

Sketching the individual beast forms is an essential step in the process of exploring the design results. Exploring the dynamics of individual beast images helps the researcher to capture beast postures that are more appropriate for the overall image scene, and sketching facilitates the understanding of the animals' characteristics during the research process.

##### 3.3.2.1.1 Lei

Lei is the divine beast, a kind of spirit cat, the original text contains: “又东四百里，曰亶爰之山，多水，无草木，不可以上。有兽焉，其状如狸而有髦，其名曰类，自为牝牡，食者不妒。” It is mentioned that Lei has a body like a civet and that a man who eats his flesh will not be jealous. In Figure 70, you can see a sketch of the beast made by the researcher, showing the shape in the early illustrations and the dynamics of the developing parts, as well as a more complete sketch of the beast. The description of Lei in the *CLASSICS OF MOUNTAINS AND SEAS* mentions that it has beautiful hair and is hermaphroditic. In the early book,

Lei is depicted in a reclining position, with a fierce expression and tiger stripes, which are not mentioned in the textual descriptions. The researcher has vividly depicted the animal's flowing hair, eyes and overall angle of presentation in the sketches. Here, the researcher focuses on Lei's body hair as well as his long hair, which hangs down at an angle three-quarters of the way down the side of his face. The strong limbs and warm eyes combine the characteristics of the hermaphrodite.



Figure 70 Lei

### 3.3.2.1.2 Huan(獾)

The original text of the classics of mountains and seas reads: “其状如狸，一目而三尾，其音如夺百声，是可以御凶，服之已瘳”。 This describes the sacred beast called Huan. Early books depicted its vivid form, but there are a few differences with the form of the civet, the researcher exaggerated its features, from the sketches can be found, "Huan" form is more robust, based on the text refers to the divine beast has the ability to against the evil. The animalistic nature of the beast was magnified in the sketches, and its face was depicted with an emphasis on the expression of its calm demeanour, with the corners of its mouth slightly upturned, adding a sense of affection, and its three large tails clustered behind it, showing its wisdom and agility. (Figure 71)



Figure 71 Huan(獾)

### 3.3.2.1.3 Dijiang

Dijiang is the ancient Chinese god of song and dance, recorded in the classics of mountains and seas: “有神焉，其状如黄囊，赤如丹火，六足四翼，浑敦无面目，是识歌舞，实为帝江也”， Dijiang's form is very special, as a whole, he is a ball of flesh, without a head and with five senses, reddish like the dan fire, he has four wings, can sing and dance well. As can be seen in Figure 72, the researcher retains the basic morphological features of the beast while anthropomorphising its form, combining the crawling posture of a baby with multi-angled depictions, anthropomorphising the beast and bestiality and make it more vivid, and optimising the angle of the depiction of the four wings as well as the proportions to make it more in line with the norms of perspective. (Figure 72)



Figure 72 Dijiang

#### 3.3.2.1.4 Tiangou

In the classics of mountains and seas it says: “有兽焉，其状如狸而白首，名曰天狗，其音如榴榴，可以御凶”，The Tiangou is one of the most iconic beasts and there are many stories about it. In ancient China, people regarded solar or lunar eclipses as the "masterpieces" of the Tiangou, which in mythological history was the hunting dog of Hou Yi and was considered a beast with the ability to protect its masters and drive away evil spirits. Early illustrations of the Tiangou were vividly depicted, but in the illustrations the decorative patterns of the beast those of other divine creatures, and in the textual descriptions of the classics of mountains and seas, the tiangou did not have the same fur as the tiger. The researcher focuses on the civet cat shape, white head and barking sound mentioned in the characteristics, and outlines the dynamic characteristics of the tiangou by presenting it in a semi-standing position for the final image, toning down the flat decorative pattern of the tiangou and focusing on its dynamic and active state of life, emphasising its protection of the master and its docile and lovable characteristics. (Figure 73)

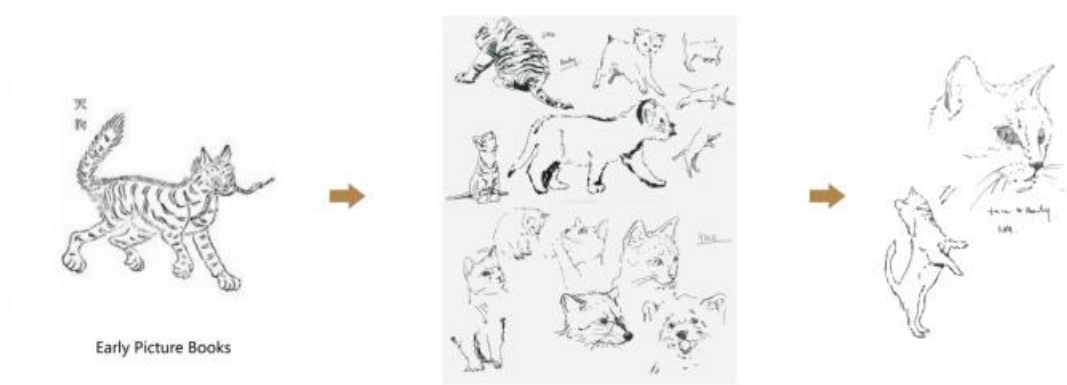


Figure 73 Tiangou

### 3.3.2.1.5 Qilin

The Qilin is a well-known animal in ancient China and even today. Its shape resembles a horse and a dragon, and in other ancient texts it is described as looking like a sheep and a wolf. When it roars, its voice is like thunder and it is usually friendly. The Qilin can live up to a thousand years, so it has been associated with longevity since ancient times. It can ward off evil spirits and protect the body and bring good luck to children. The researcher has weakened the Qilin's body for the sake of general compositional rationality and mainly depicted its facial features, especially its horns and hair, beard, and fangs, to emphasise its majestic and solemn stylistic features. Compared with the Qilin in the early drawings, the lines in the sketches are smoother and the sense of space of the head and the expression conveyed by the Qilin are more intuitive. The researcher paid attention to the integrity and coherence of the final image when drawing the sketches, capturing the emotional characteristics of the various mythical beasts before sketching them, and then incorporating the elements of the mythical beasts' life scenes to achieve the richness and narrative of the image.(Figure 74)





Figure 74 Qilin

### 3.3.2.1.6 Jingwei

Jingwei is a divine bird which, in ancient mythology, was transformed into a Jingwei bird by the daughter of Yan Di after she died from drowning. There is also a theory that it is a divine bird that was transformed into a divine bird when the leader of the ancient tribes, Nuwa, was destroyed by the warming climate and rising sea levels. classics of mountains and seas", “有鸟焉，其状如鸟，文首、白喙、赤足，名曰精卫，其鸣自。是炎帝之少女，名曰女娃，女娃游于东海，溺而不返，故为精卫”。 The Jingwei is graceful, has a coloured head, a white beak with reddish claws and a body like a crow. It often flew day and night, carrying wood and stones from the western mountains to the eastern sea to fill the sea. It was therefore regarded as a symbol of determination and fearlessness. The researcher recreated its external features, sketched the dynamics of its flight, the stopping and flapping of its wings, and finally showed it in a frontal, sideways-facing form, with a gentle yet determined look in its eyes and with the lines of the feathers on its back depicted as naturally undulating, giving it an air of lightness and spirituality. (Figure 75)



Figure 75 Jingwei

### 3.3.2.1.7 Jinwu

"Jinwu" is a pleasant name, but it actually refers to the three-legged crow, that is, a crow with three legs. The golden crow is also known as the "three-legged crow" and "sun crow", which is recorded in "Huainanzi - Spiritual Discipline": "There is an administrative crow in the sun." In the classics of the mountains and seas, there are myths about the Golden Crow, which is the incarnation of the Golden Crow, the son of Di Jun and Xi He. The Golden Crow is often one with the sun. According to legend, it flies from the divine Fusang Tree in the east to the west every morning and lands on the divine Wakagi Tree in the west in the evening, reflecting the ancient people's observation of the law of sunrise in the east and sunset in the west. As shown in Figure 76, the classics of the mountains and seas do not show the shape of the crow, but there were totems of the golden crow used to decorate artefacts in the Bronze Age. Early patterns of the golden crow focussed on the simplicity of the outline, similar to modern black and white ink drawings. The researcher focuses on the expression of the crow's face and the dynamics of spreading its wings and flying in the sketch, and finally enlarges the proportions of the crow's head and feet to emphasise the divine nature and three-leggedness of the divine bird. The head and feet of the jinwu were enlarged to emphasise the divine nature of the bird and its three-legged character.



Figure 76 Jinwu

### 3.3.2.1.8 Xuanwu

In China, many people have heard of the word "Xuanwu" beast is a combination of turtle and snake, the turtle represents the yin and yang in the "yin", female incarnation, while the snake represents the "yang", male incarnation, both yin and yang in one body make up Xuanwu. The turtle represents the "yin" of yin and yang, the embodiment of the feminine, while the snake represents the "yang", the embodiment of the masculine. Early drawings of Xuanwu were simple totems, but later there were more detailed styles of depiction, and the images were wilder. Based on the restoration of the animal's external features, the beast the strength of the tortoise's body, highlighted the wisdom and calmness of the face, and toned down the cruel and terrifying features of the snake. Such treatment can make the Xuanwu image more acceptable (Figure 77)



Figure 77 Xuanwu

### 3.3.2.1.9 Kunpeng

The Kunpeng is a huge divine beast described in Zhuangzi's *The Journey to the Promised Land*: “北冥有鱼，其名曰鲲。鲲之大，不知其几千里也；化而为鸟，其名为鹏。鹏之背，不知其几千里也。怒而飞，其翼若垂天之云。” Through the description of the text, it can be understood, that the size of this sacred beast, as if it can cover the sky and the earth in general, it sometimes turns into the shape of a fish and sometimes turns into a huge bird shape, in the unpredictable swim in the sky and the seabed. Due to its long history, the early *CLASSICS OF MOUNTAINS AND SEAS* did not include drawings of the Kunpeng. Based on the textual descriptions, the researcher depicted the original form of Kunpeng as a sketch and tried to depict the dynamics of Kunpeng such as leaping into the air and falling to the bottom of the sea, and depicted the eyes of this divine beast and its luxuriant and strong body as the focus of the depiction of its life force, which is comparable to that of the sky and the earth. The vitality of Kunpeng is comparable to the longevity of heaven and earth (Figure 78)



Figure 78 Kunpeng

### 3.3.2.10 Jiuweihu (Nine-tailed Fox)

The Jiuweihu is one of the many sacred beasts with mixed reviews. Until the Song dynasty, it was a beast of Dynasty is said to have been the mount of the Queen Mother of the West and to have a modest character.

There is also a saying that a person who eats the meat of the Jiuwei hu can avoid demons. In "The Feudal Deity", Jiuwei hu disguises himself as Daji to bewitch people, so in a pejorative sense, Jiuwei hu also stands for flattery and deception. With the development of history, people are exploring more the deeper characteristics of the divine beast. Researchers have discarded the demonic and animalistic nature of Jiuwei hu in the early classics of the mountains and seas and expanded its characteristics of spirituality and intelligence, with smooth lines representing the nine tails waving flamboyantly on its back to create a dreamy sense of unlimited divine power.(Figure 79)

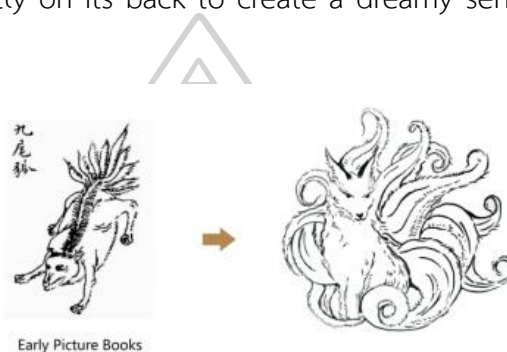


Figure 79 Jiuwei hu

### 3.3.2.1.11 Boyi

Like the other divine beasts the classics of mountains and seas, Boyi is also a representative divine beast. Boyi's form corresponds to the law of the partial transplantation of limbs between animals and the repetition of elements. The classics of the mountains and seas state: “有兽焉，其状如羊，九尾四耳，其目在背，其名曰獬豸。” The Boyi in the early illustrated book reflected the content of the text description, this sacred beast has four ears, looks like a sheep, has eyes on its back, and when people wear its outer skin, they become brave and fearless. The researchers depicted the eyes and tail prominently, enlarged the proportion of the tail on the body, left the tail in a random cluster on the back, and also directed the centre of the gaze to the eyes on the back.(Figure 80)



Figure 80 Boyi

### 3.3.2.1.12 Baiyuan (White Ape)

Baiyuan is the *CLASSICS OF MOUNTAINS AND SEAS* in the "Eleven" like existence, ancient records: “又东三百里曰堂庭之山。多棧木，多白猿，多水玉，多黄金。” Here "This describes the environment where Baiyuan grows, near many crystal jade and gold. Baiyuan has long limbs and is very agile. In ancient times, Baiyuan is a symbol of dexterity and longevity. They are often groups of people who are good at spitting and channelling and are remarkably similar to humans. The Baiyuan in early illustrations are very conspicuous with their long arms. Based on the early illustrations and textual descriptions, the researcher made sketches of the white ape and finally decided on the dynamic depiction of squatting, jumping with two knees and one-handed climbing to emphasise its agility and the attribute of coming and going in groups.(Figure 81)



Figure 81 Baiyuan

### 3.3.2.1.13 Bo

"Beast the mountains of Zhongqu there is a beast that looks like a horse but has a white body, a black tail, a horn, tiger teeth and claws and a sound like a drum; it is called Bo and eats tigers and leopards and can guard the army." This is the description of Bo in the Classics of Mountains and Seas, which is most similar to the Western unicorn in the image of ancient Chinese divine beasts the ancient Chinese myths and legends thousands of years ago, it existed in the image of a warlike beast that can defeat tigers and leopards.

Bo's head grows a horn, his body resembles a horse and his voice resembles the sound of a drum. The depiction of Bo in the early illustrations is more perfect in form, but lacks aesthetics. The researcher attempts several dynamics of Bo through sketches, such as Figure 82, and focuses on the head features of Bo from the perspective of the overall interest of the image presentation, and completes the overall composition and ambience with the help of computer graphics in the later stage.



Figure 82 Bo

### 3.3.2.1.14 Chongmingniao (Chongming bird)

Chongmingniao's eyes are incredibly special because he has two pupils in one eye. In the classics of mountains and seas it is written: “双睛在目。状如鸡,鸣似凤。时解落毛羽,肉翻而飞。” “双睛在目。状如鸡,鸣似凤。时解落毛羽,肉翻而飞。” Its body shape resembles a chicken, the sound of its call that of a phoenix and it is so powerful that it can defeat wild beasts. The Chongmingniao

is a symbol of protection from evil spirits and symbolises longevity and eternal life. The surviving early Chongmingniao drawings are sparse and vague in detail. Based on the description of its appearance in the text, the researcher sketches the chongmingniao from several angles, modifies and shapes its tail and head, softens the depiction of its feet and makes a close-up of its eyes to convey the special abilities of the divine beast (Figure 83)

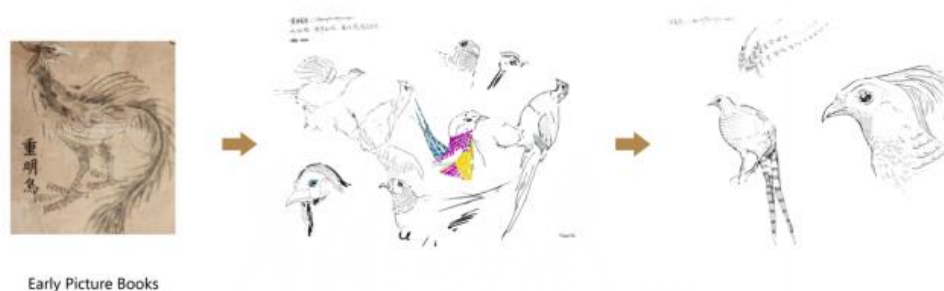


Figure 83 Chongmingniao

### 3.3.2.1.15 The Jinchan (Golden Toad)

The Jinchan is considered the most powerful treasure-attracting beast, capable of spitting out a steady stream of gold and silver treasures with only three legs and copper coins in its mouth. In ancient times, there were many vessels decorated with toad elements that reflected people's longing for wealth and prosperity. The researcher has used the stacked Yuanbao as a secondary element to emphasise the atmosphere of abundance, toning down the depiction of the details of the Jinchan's skin and highlighting the divinity and dominance of the divine beast. (Figure 84)

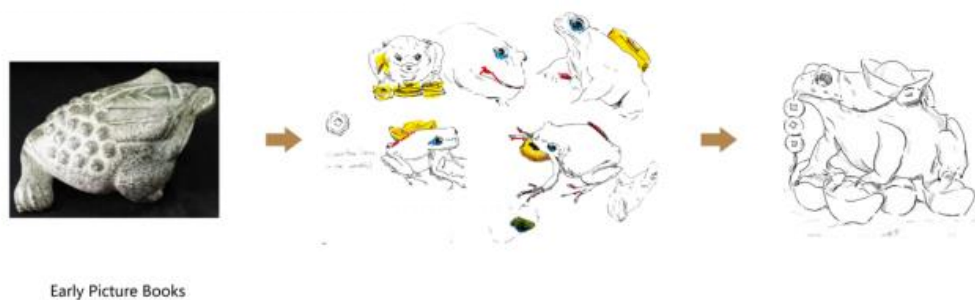


Figure 84 Jinchan



### 3.3.2.1.16 Baize

The Xuan Yuan Chronicle records, “帝巡狩，东至海，登桓山，于海滨得白泽神兽。能言，达于万物之情。” "Baize" is a mythical beast in ancient Chinese mythology that can speak well and reach all things. Early about Baize divine beast of the picture book is less, according to the text description, it grows a tiger head goat horn, the body of the dragon, surrounded by fire, enormously powerful. The researcher depicted its local dynamics, to highlight the power and wisdom of the beast, the image of the beast to go dynamic presentation, Baize head with a smile, eyes firm and warm, by the spirit of the beast and untamed. (Figure 85)



Figure 85 Baize

### 3.3.2.1.17 Wenyaoyu

The Wenyaoyu is also known as the Flying Fish. In the classics of mountains and seas, the Wenyaoyu is described as having the body of a fish, the wings of a bird, a long white head and a red beak, with pale spots on its body and a call similar to that of a chicken. Legend has it that eating Wenyaoyu meat can cure epilepsy and that people who are lucky enough to see it will have a good harvest year. The Wenyaoyu symbolises a good harvest of all crops and is a sign of wealth and prosperity. The researcher uses a pond as the background of the image and depicts the shape of the wenyaoyu floating freely in the water, with soft lines emphasising the flexibility and strength of the fish. The remaining white space provides enough room to adjust the colour scheme in the later phase (Figure 86)

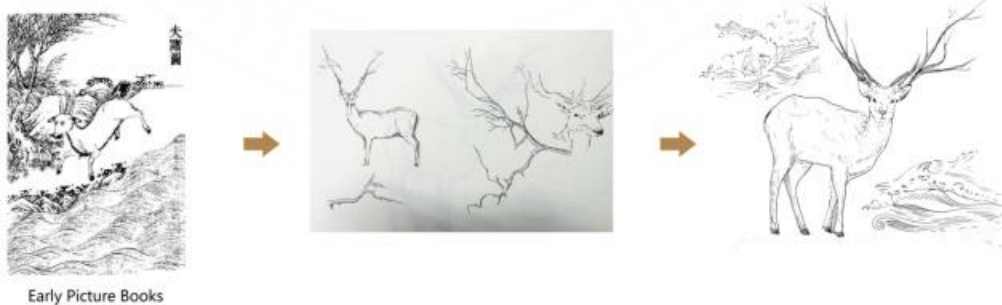


Early Picture Books

Figure 86 Wenyaoyu

### 3.3.2.1.18 Fuzhu

The Wenyaoyu is also known as the Flying Fish. In the classics of mountains and seas, the Wenyaoyu is described as having the body of a fish, the wings of a bird, a long white head and a red beak, with pale spots on its body and a call similar to that of a luan chicken. Legend has it that eating Wenyaoyu meat can cure epilepsy and that people who are lucky enough to see it will have a good harvest year. The Wenyaoyu symbolises a good harvest of all types of grain and is a sign of wealth and prosperity. The researcher uses a pond as the background of the picture and depicts the shape of the wenyaoyu floating freely in the water. The soft lines emphasise the flexibility and strength of the fish. The remaining white space provides enough room to adjust the colour scheme at a later stage. (Figure 86)



Early Picture Books

Figure 87 Fuzhu

### 3.3.2.1.19 Chenghuang

Chenghuang has similarities with the divine beast Jiuweiwu mentioned above. Its appearance resembles that of a fox, but

without the nine tails of Jiuweihu. Chenghuang had horns on its back and was yellow in colour. If a person rode him, his life expectancy could be increased by 2,000 years. The depiction of Chenghuang in the early illustrations is crude. The horns on its back are in the shape of a hill, and the perspective of the beast's mouth is simpler. The researcher depicted Chenghuang as crouching and looking back, which gave the animal a sense of playfulness and beast. Chenghuang's fur was depicted with more strokes, and the shape and proportions of the horns on its back were exaggerated to emphasise the beast's strong physique and sense of power. (Figure 88)



Figure 88 Chenghuang

### 3.3.2.1.20 Qinglong

The Qinglong is one of the four ancient divine beasts, the White Tiger, the Qinglong, the Xuanwu and the Vermilion Bird. It is also called the Cang Dragon. Ancient people believed that the dragon was responsible for the shade and rainfall, which in turn determined the harvest of the farmland, and so the dragon became one of the most popular totems in agricultural civilisation. The researcher focuses on the Qinglong's wings, its body rising straight into the air, and its domineering facial expression, with its four claws majestically outstretched, surrounded by a ball of fire, giving it a regal appearance. (Figure 89)



Early Picture Books

Figure 89 Qinglong

### 3.3.2.1.21 Auxiliary Elements

Auxiliary elements are an indispensable part of the overall picture, and the researcher has categorised the representative auxiliary elements according to their symbolic meaning and the living environment of the beasts in Figure 90, auspicious clouds have been a gift from nature in the minds of Chinese people since ancient times, and the shapes of different clouds metaphorically represent the wishes of "gentle and happy" and "wind and fire". The explorer drew various kinds of auspicious clouds to set off the divine animals flying in the sky and running in the mountains. In addition, there are also magical plant elements such as immortal grasses and fruit trees found in the classics of the mountains and seas, which have different effects and meanings and form the habitats of the beasts and gods.

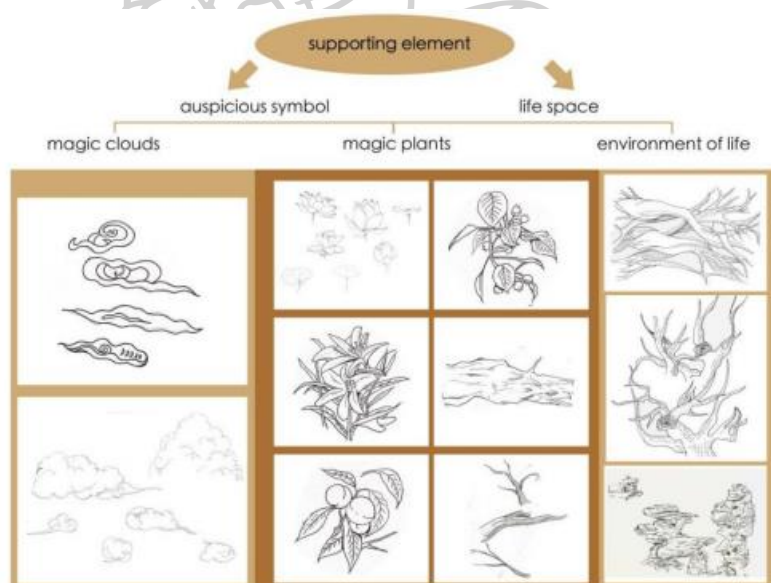


Figure 90 Auxiliary Elements

### 3.3.2.2 Different classics of mountains and seas divine beasts

#### drawing

##### Style 1: Chinese Style

The researcher explored and practised various styles in drawing the divine beast forms of the Classics of Mountains and Seas, and the style is as in Figure 91, where the researcher maximally restored the forms of the divine beasts depicted in the early illustrated books of the Classics of Mountains and Seas and renewed their dynamics, colours and lines. The geographical distribution recorded in the Classics of Mountains and Seas is used as a background for the design of the pictorial composition.



Figure 91 Chinese Style Drawing

In the drawing of Style 1, the researcher concentrates on optimising the shortcomings of the early illustrations, by adjusting their rough lines and individual scenes. As can be seen in Figure 92 and Figure 93, the researcher has optimised the lines of the animals in the early illustrations to make them more

smooth and delicate, and the design is more limited to the traditional painting style, which uses the traditional Chinese painting style to bring out the beasts' forms vividly.



Figure 92 Baiyuan Drawing



Figure 93 Lushu Drawing

### Style 2: Pop Style

To explore the feasibility of innovating the image of the divine animals of the classics of the mountains and seas, the researcher anthropomorphises the divine beasts of the classics of mountains and seas, as shown in Figure 94. The researcher anthropomorphises the divine beasts by combining the characteristics of the morphological attributes of the divine beasts mentioned in the classics of the mountains and seas, and treats the divine beasts with the attributive characteristic elements as the auxiliary decorative elements of the image, e.g., LuShu can sing well, and the image surrounds the divine beasts with the melody of musical notes as the auxiliary pattern, and the fun is highlighted by the vivid representations of the divine beasts. Through the vivid depiction of the beast's eyes and hairstyle, the fun of the beast is emphasised.



Figure 94 Pop style sketch 1

The Lei is hermaphroditic, and a man who eats it will be cosmopolitan and free from jealousy. The modern white sarees and suits that adorn the animals are meant to express their bisexual nature. The Buddha statue behind the beast symbolises compassion. The divine beast Jingwei holding a twig in its mouth is a recreation of the mythological image of Jingwei, and the gears symbolise its constant functioning to embody the symbolic meaning of the divine beast that is determined and will not be defeated by difficulties. (As shown in Figure 95)



Figure 95 Pop style sketch 2

The overall colours are bold and rich, with simple geometric shapes enriching the image and making the image of the sacred animals of the classics of the mountains and seas more "budding" and bringing it closer to modern aesthetics.

### 3.3.3 Material experiment and selection

Considering the decorative nature and portability of the lamps and lanterns, the materials selected for this design practise are shown in Figure 96 below. The main materials for the practise are lightweight materials, such as: hard kraft cardboard, matt PVC stickers, acrylic sheets, lime wood disc lamps, in addition to the theme of the light source material LED lamps.

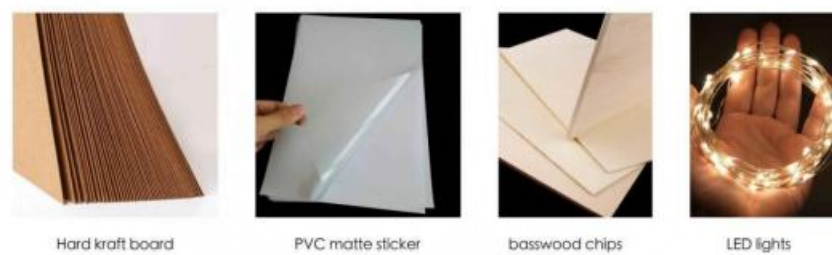


Figure 96 Material selection

Kraft board is a more specialised paper that is often used for handmade products because of its special texture and feel. Hard kraft board has its own toughness, and its grain usually conveys a natural and primitive feel to enhance the viewer's emotional resonance with the myths of the classics of the mountains and seas. The weather resistance of PVC stickers can withstand light, rain and other environmental influences, so the drawings are not easily faded and deformed. In addition, PVC material is relatively soft, can be adapted to various surfaces and curvatures, can be easily and accurately fitted, and is highly adaptable through screen printing, digital printing and other printing methods, and can better reflect the colour of the design.

Considering the production cost, PVC material is also relatively cheaper and suitable for mass production and application. Lime can play its own advantages



in the production of handmade lamps and lanterns. Compared to other wood shavings, lime wood shavings are relatively soft and are easy to cut, carve and otherwise process. Among these materials, the acrylic material is particularly noteworthy because it is translucent and the light on its surface is reflected and transmitted, giving a three-dimensional sense of light and shadow and enriching the visual effect of the lamps. Secondly, acrylic material can be formed into a variety of shapes by cutting, laser engraving, heat bending and other methods. Its smooth or matte surface is in line with modern aesthetics, better weather resistance and ageing resistance ensure that the lamps and lanterns remain stable and beautiful for a long time.

Once the choice of test materials had been decided on lightweight materials, the researcher carried out experiments on the translucency, haptics and load-bearing properties of materials such as kraft cardboard and acrylic cardboard, as shown in Figure 97.

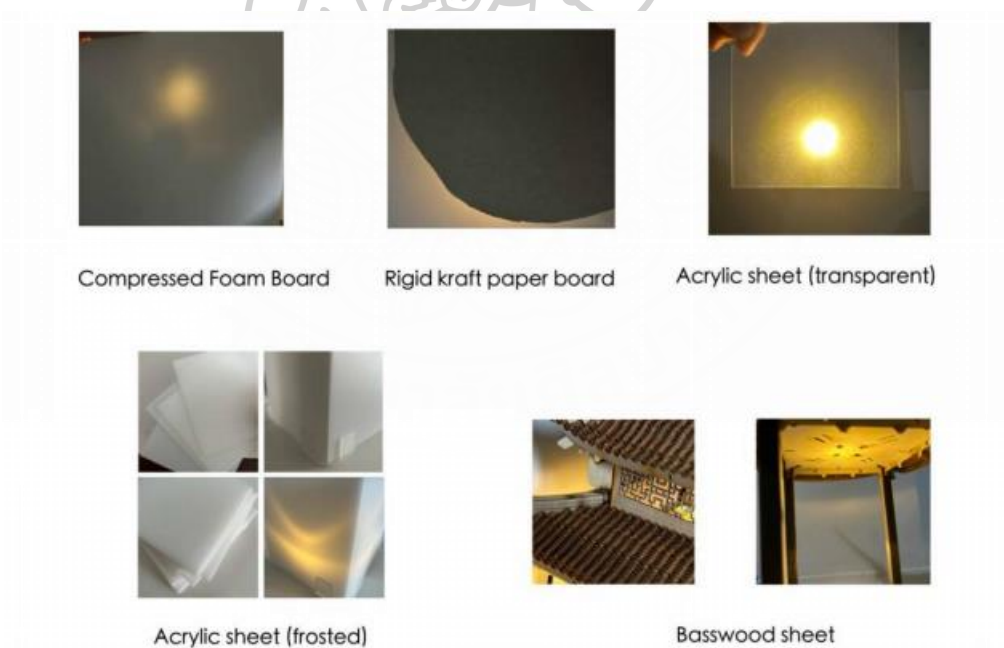


Figure 97 Experimental materials

During the material experiments the researcher made a tabular record of the properties of the varied materials as shown in Table 5 below.

Properties	Light transmittance	Load-bearing	Cutting and shaping	Touch texture
Materials				

Compressed Foam Board	Medium	relatively low	Medium	relatively low
rigid kraft paper board	Low	Lower	High	Lower
Acrylic sheet (transparent)	Very high	Very high	Very high	Higher
Acrylic sheet (frosted)	Higher	Very high	Very high	Higher
Basswood sheet	Lower	Very high	Very high	Very high

Table 6 Information of experimental materials

Instead of the candles in the traditional lamps, the researcher has used LED lamps as a modern lighting technology, which has the advantages of high energy efficiency, long life and low heat generation, and can be easily placed in special structures to create exquisite lighting effects thanks to its compact size. The environmental friendliness and energy saving are also reasons why the researchers use them in their practise.

### 3.4 Analysing the user questionnaire of classics of mountains and seas lamps (lanterns)

In this questionnaire survey on the thematic design of classics of the mountains and seas, the proportion of men was 36.61 per cent and the proportion of women 63.39 per cent (e.g. Figure 98)

Your gender is?



Figure 98 questionnaire research 1

In the questionnaire about "Are you interested in traditional Chinese culture?" It shows that 108 people are interested and 4 people are not interested, and most people show a sense of interest in traditional Chinese culture. (Figure 99)

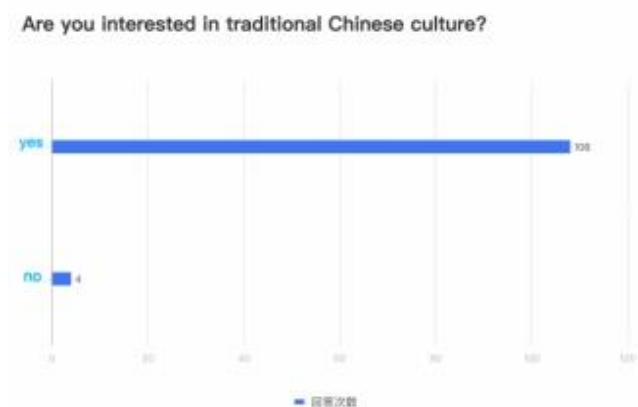


Figure 99 questionnaire research 2

As shown in Figure 100, in this questionnaire survey, the largest proportion of people were in the 12-22 and 23-55 age ranges, 54.46 per cent and 45.54 per cent, respectively.

**what is your age?**



Figure 100 questionnaire research 3

Figure 101 shows that 83.04% of them said they would be willing to buy cultural and creative products, and 16.96% said they would not buy such products.

Do you buy cultural and creative products?

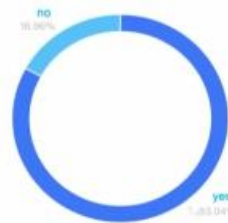


Figure 101 questionnaire research 4

In this questionnaire, as shown in Figure 102, the number of people who are interested in the Classics of Mountains and Seas but do not know anything about them is the highest at 53 people, followed by a certain number of people who stated that they are interested in the Classics of Mountains and Seas and will take the initiative to find out about it when they have time, that is 39 people, and 13 people indicated that they are very interested in the Classics of Mountains and Seas and have already had contact with it, and finally there are 7 people who indicated in this questionnaire that they are not interested in the Classics of Mountains and Seas.

What is your attitude towards the culture of the Mountain and rivers Scriptures?

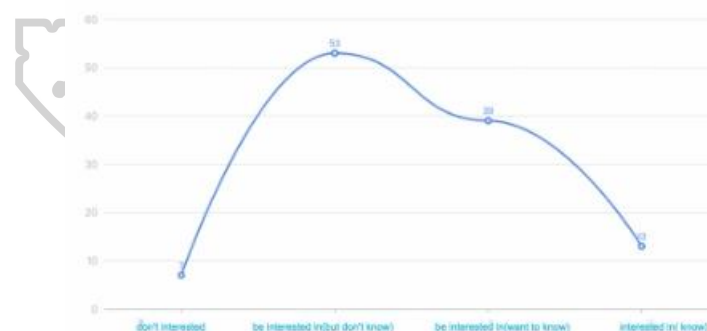


Figure 102 questionnaire research 5

Figure 103 shows that 83.04 per cent were interested in cultural and creative products in the form of lamps or lanterns, while 16.96 per cent said they were not interested.

Are you interested in creative products of lamps and lanterns?  
(e.g. in the form of scenic revolving lanterns, flower lanterns)

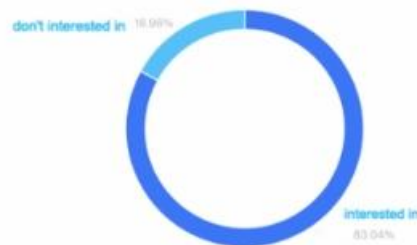


Figure 103 questionnaire research 6

In response to the question "What features do you want in the lamps you buy? ", the questionnaire survey shows that of the three functions of decoration, fun and lighting, 89 people attach more importance to decoration and make up the largest proportion, followed by fun.

What features would you like to see in the lamps you buy?

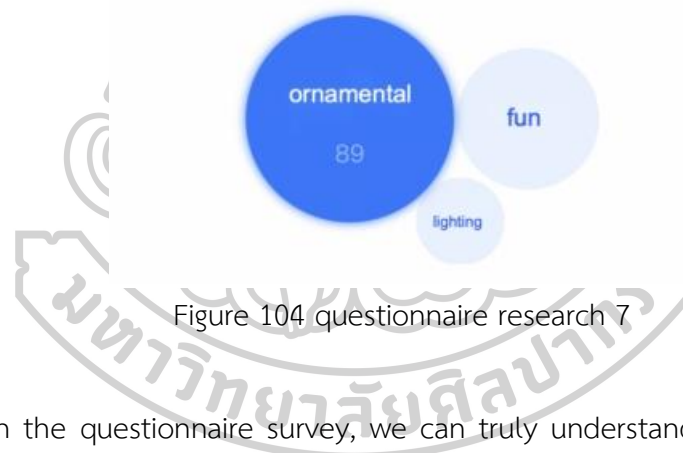


Figure 104 questionnaire research 7

Through the questionnaire survey, we can truly understand the Users' level of interest in traditional culture and related products. In general, the audience has a greater interest in cultural and creative products, and most of them are interested in the culture of mountains and seas and want to take the initiative to learn about it. At the same time, most of the audience shows interest in buying cultural and creative lamps and lanterns, and the demand for decoration, fun and lighting lamps and lanterns is demonstrably higher.



#### CHAPTER4 RESEARCH OUTCOME

The researcher combed through the culture of the *CLASSICS OF MOUNTAINS AND SEAS* and traditional Chinese lamps, and then examined the combination of the two to analyse the feasibility of their artistic representation under modern aesthetic interests. The design proposal of this research is named "Animals of the Mountain and Sea". In order to facilitate the sustained exploration of this topic, the presentation of this design proposal consists of the following three parts: the arrangement of the individual elements of the animals, the main visual diagram of the complete animals, and the three-dimensional presentation of the divine beasts characters.

## 4.1 Analysis of the meaning of the auxiliary design elements of the "Beasts of the Mountain and the Sea"

### 4.1.1 Shatang Tree

《山海经·西山经》：“（昆仑之丘）有木焉，其状如棠，黄华赤实，其味如李而无核，名曰沙棠；可以御水，食之使人不溺。” The fruit of the ShaTang tree is like a plum without a stone. Whoever eats it will not be drowned by water and can ward off floods. The Shatang tree reflects ancient people's fear of natural disasters, while people's longing and desire for life is linked to natural beings.

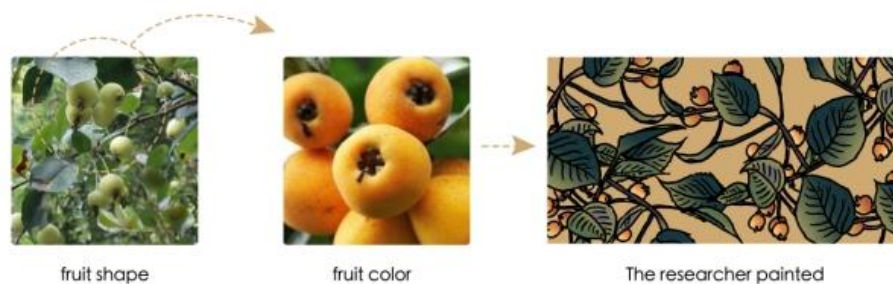


Figure 105 Auxiliary Element Shatang Tree

### 4.1.2 Fuchsia flowers

《山海经·海外东经》：“汤谷上有扶桑，十日所浴，在黑齿北。” 郭璞注：“扶桑，木也。” The fuchsia was regarded in antiquity as the flower of the sacred tree that appeared in antiquity. In mythology, the place where the fuchsia tree stands is the place where the sun appears, also known as the farthest east or the place where the sun rises, and it is an important medium for the ancient world of gods, the earth and the underworld, and at the same time, this divine tree was built for the parents of the divine bird, the golden crow.

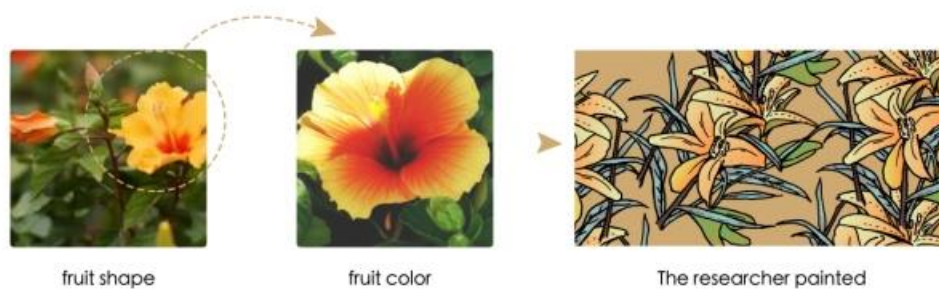


Figure 106 Ancillary Element Fuchsia

#### 4.1.3 Peach trees

《山海经·海外经》：“东海中有山焉，名曰度索。上有大桃树，屈蟠三千里。东北有门，名曰鬼门，万鬼所聚也。天帝使神人守之，一名神荼，一名郁垒，主阅领万鬼。若害人之鬼，以苇索缚之，射以桃弧，投虎食也。”This tree stands in the middle of the sea, and next to it is the Spirit Gate Pass, which is guarded all year round by two gods, Shentian and Yubi, to prevent the evil spirits from rebelling. The peach tree here can ward off evil spirits and disasters and can be hung in front of the gate to ward off demons.

The peach tree is better known as the Jianmu tree. The peach tree is divided into three classes, from low to high, three thousand years, six thousand years, nine thousand years for the fruiting cycle, if eaten, it can prolong life, make immortal. This sacred tree is a symbol of people's hope for immortality and reflects the imagination and creativity of the ancients in exploring the continuity of life.

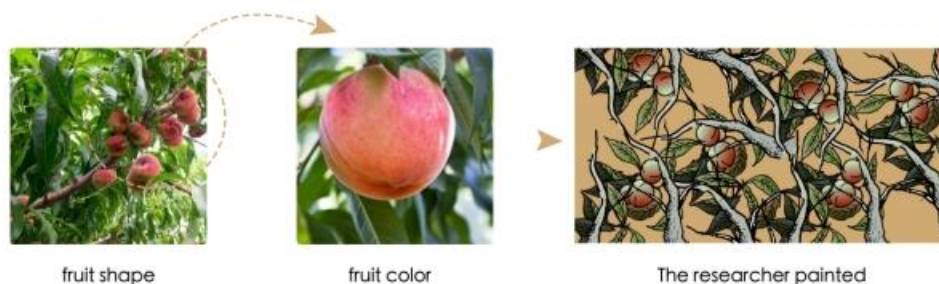


Figure 107 Ancillary Element Peach Tree



#### 4.1.4 Lotus Flower

The lotus flower, is an essential element of traditional Chinese culture. In the *CLASSICS OF MOUNTAINS AND SEAS* that the goddess "Lotus Flower Woman" was banished to earth because she had broken the rules of heaven and later became a beautiful lotus flower. The lotus flower symbolises elegance, purity and nobility and is an integral part of Chinese culture. The explorer drew a lotus pond, emphasising the roots and stems anchored in the water and the flowers and leaves floating on the surface. The way the lotus flower grows also symbolises resilience and purity. In ancient times, the lotus was also often associated with beauty and success and symbolised people's longing for happiness and prosperity.



The researcher painted (partial)

Figure 108 Auxiliary Element Lotus

#### 4.1.5 Magic clouds (Auspicious clouds)

Auspicious clouds have had a positive meaning in Chinese culture and belief since ancient times and are sacred symbols, usually seen as signs of holiness and good fortune. Ancient paintings and artworks feature numerous elements with auspicious clouds, which have long been regarded by the ancients as a symbol of good news and good fortune.

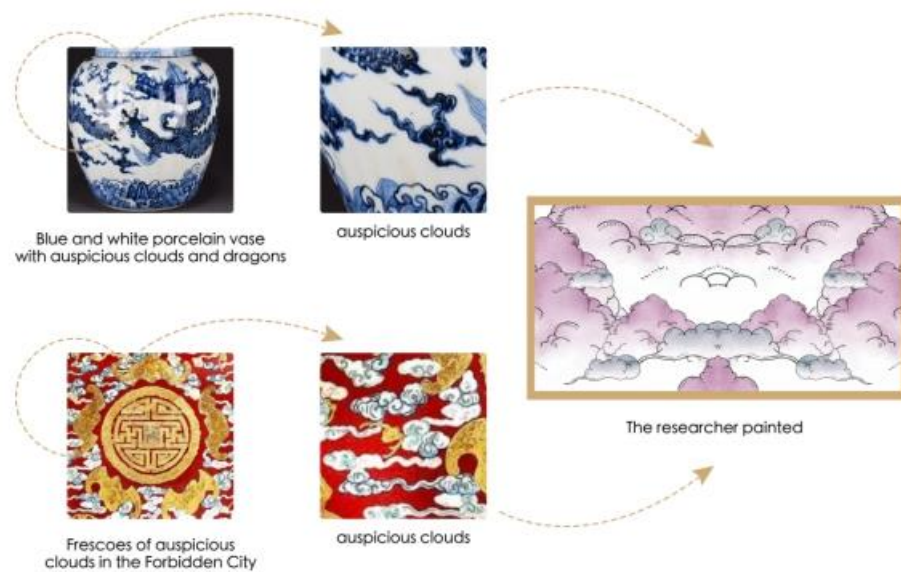
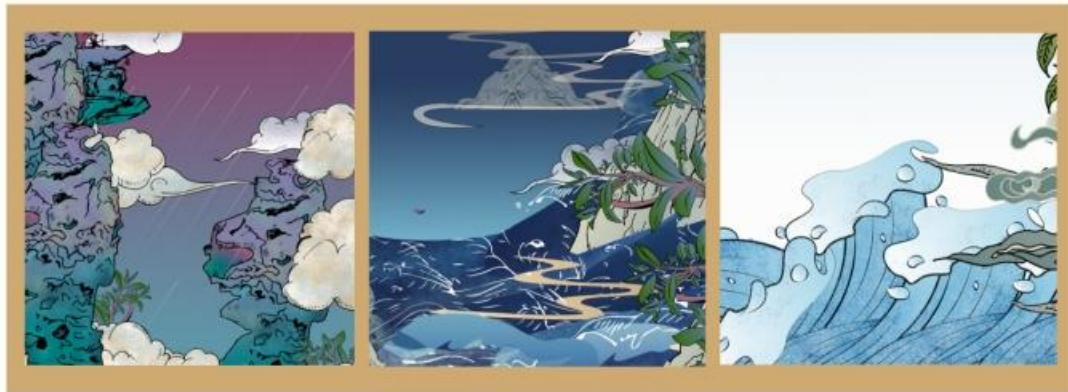


Figure 109 Auxiliary Element Auspicious Cloud

#### 4.1.6 Mountains, Rivers, and Seas

The classics of mountains and seas, rivers, and oceans make up almost the entire classics of mountains and seas, and the divine creatures climb the mountains and rivers, travel under the sea and float in the air... The researcher draws elements such as mountains, rivers, and waves echoing with the main body of the beasts, creating the divine ability of the beasts to ride on clouds and mists or enter the sky and earth. For example 《山海经·大荒北经》：“海外天山，俗谓之铜山。其首陬之，其状如锄，广八十里。冻雪雨露，有岩曲者，山海之所并。有白龙，五六首，人面蛇身。见则其国多食兼之，然后祭之。” It describes the morphology of the copper mountain and the beasts that live around it. As the classics of mountains and seas include Chinese mountains, seas and lakes and have different forms, in this study of the drawing, the researcher has toned down the morphological features of the mountains and seas and explored their harmony with the shapes of the divine beasts paired with the natural environment.



The researcher painted (partial)

Figure 110 Auxiliary Element Mountains and Waves

#### 4.2 "Beasts of the Mountain and the Sea" series single element arrangement design presentation

The "Beasts of Mountains and Seas" series contains 20 illustrations of the beasts, as can be seen in Figure 111, which shows the design of the individual elements of the "Beasts of Mountains and Seas" series. The researcher designed the colours and composition of the beasts of the classics of mountains and seas according to the living environment and the symbolic meaning of different beasts in the classics. From the perspective of colour analysis, the design is based on the physical characteristics of the beasts described in the classics of mountains and seas and the use of auxiliary elements such as auspicious clouds, sea waves, rays of light, immortal mountains and so on to express the auspicious characteristics of the beasts as well as the special abilities of the various beasts.



Figure 111 "Beasts of Mountains and Seas" single design presentation

As in Figure 112, which shows the mythical creature Kunpeng, the background of the image is decorated with the sea and auspicious clouds, which emphasise Kunpeng's ability to both ascend into the sky and dive into the seabed, and the modern and minimalist star elements embellish the image and add a dreamy effect and fun to the image of the mythical creature.

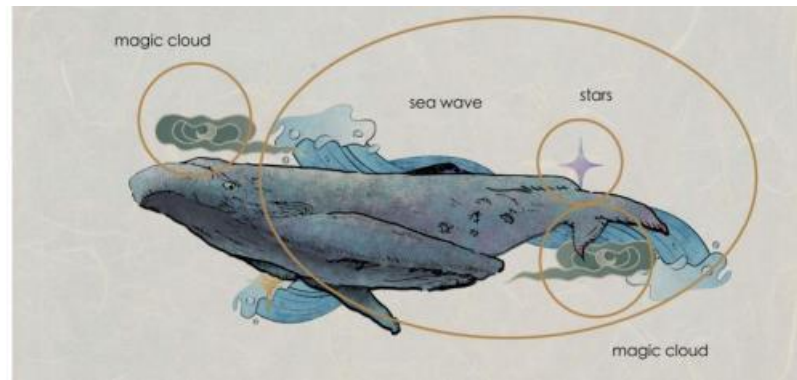


Figure 112 Kunpeng Painting

As can be seen in Figure 113, left, of the Chongmingniao, the researcher has not only used bright colours to depict the Chongmingniao's body, but also used contrasting colours to depict its tail feathers, and then used simple gradients to add the finishing touches, so that the single image of the beasts is saturated with colours and rich in hues. For example, in Figure 113, right, of the Fuzhu in the single image of the beast, the researcher combines the element of spirit wood with the horns of the Fuzhu, and the branches of the spirit wood bloom with flowering green leaves in the image, which also symbolises the vitality and spirituality of the beast.



Figure 113 Chongmingniao & Fuzhu Painting

#### 4.3 The main visual of the complete "Beasts of the Mountain and the Sea" series

In order to facilitate the subsequent three-dimensional representation of the fabulous creatures' pictorial design, the researcher will try out a variety of two-

dimensional compositional combinations in order to explore more optimal combinations.

#### 4.3.1 Combination of traditional windows

The combination of traditional windows can organically integrate different attributes and characteristics of the beasts into the image, and the beasts in different life scenes, such as floating in the air, walking on land or swimming in the sea, can enrich the composition of a single image, provide a degree of narrative and compensate for the inadequacy of depicting a single image of the animals. As can be seen in Figure 114 below, the single window format brings together a number of works into a complete series and gives the viewer more scope for imagination.



Figure 114 traditional windows design presentation

As shown in Figure 115, the explorer has merged the divine beasts Xuanwu, Lei and Jinwu into a single image, with trees and vines growing unhindered and auspicious clouds and immortal fruits lingering around the divine beasts, as if telling an ancient mythological story. The classics of mountains and seas contain other sacred trees, such as the Shennong tree, peach tree, apricot tree, Penglai tree, and the child fish tree, etc. These sacred trees are often the paradise where the sacred beasts live and play, and the sacred trees themselves are also characterised by auspicious and mysterious properties. The sacred tree in the picture represents

the Penglai tree, which is full of precious fruits, and if you eat it, you will get longevity. The researcher has drawn a uniform tone for the picture, with the colours of the entire picture dominated by grey-blue and dark green. The colour of the sun behind the jinwu contrasts strongly with the overall tone and draws the visual centre to the top right corner of the picture, while the Xuanwu at the bottom left enhances the sense of balance in the composition of the picture, and the class on the back of the Shenmu at the bottom right extends the sense of depth of the picture view.

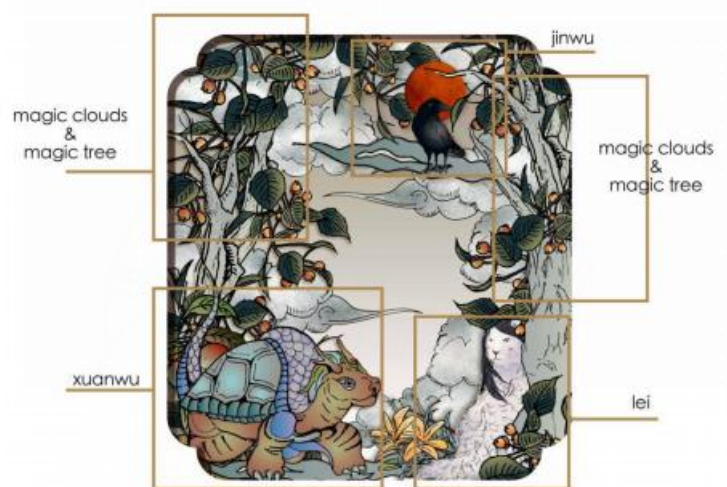


Figure 115 Case 1 of traditional windows design presentation

As shown in Figure 116, it depicts the divine beasts Kunpeng, Jingwei and Huan. To reflect the characteristics of Kunpeng as a divine beast and the image of Jingwei in the mythological story, the entire background of the painting is dominated by blue tones, and the combination of large sea wave elements and the sacred wood of the peach tree enriches the layering of the painting. According to the classics of mountains and seas, the sacred peach tree is the symbol of immortality, and the fruits of the cardinal tree can restore one's energy. The peach tree depicted in the picture serves to complement the auspicious qualities of the divine animals.

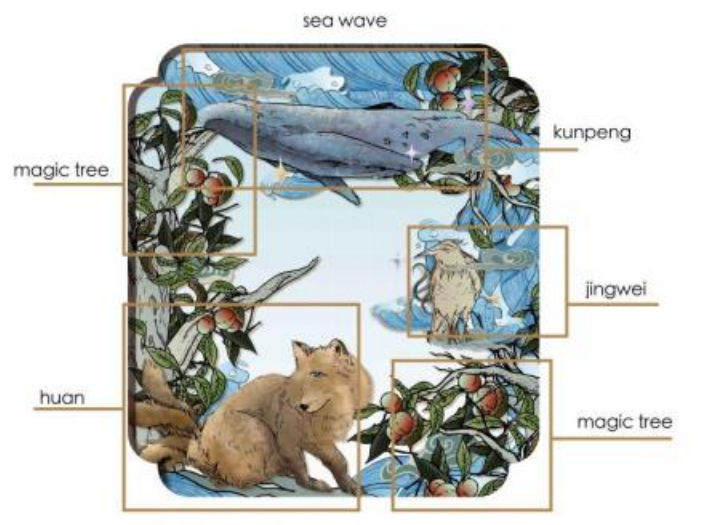


Figure 116 Case 2 of traditional windows design presentation

#### 4.3.2 Presentation of the main visual form

The main visual design is the core visual element of the series. It is the design screen that organically combines 20 complete images of divine beasts into one scene. The main visual design conveys a distinctive thematic style and is an adaptable design presentation for multiple platforms through the overall colour, beast form, composition, and other aspects. As shown in Figure 117, the main visual design is based on the colour green, which is to reflect the connection between the vitality of Classics of Mountains and Seas and nature. Compared to the traditional window form shown above, this presentation form is more complete to show the multiple images of gods and beasts identified by the researcher in this study. The compositional form is also suitable for the production of peripheral cultural and creative industry products such as silk scarves and clothing in the later stage.





Figure 117 Presentation of the main visual 1

As the researcher combines computer graphics with customised representations of different sacred animal images in the design practise, this gives a more variable space to the design representation of the theme. As shown in Figure 118 below, the researcher designs and draws the main visual impact of different colours and compositions as well as the general use of clouds and sacred trees as auxiliary elements, with the pink clouds contributing to the overall fantastical effect of the image and the green tendrils of the sacred tree reflecting the pink colours occupying the central focus of the image. The contrasting colours make the picture even more striking.





Figure 119 Presentation of the main visual 3

#### 4.4 Three-dimensional presentation of the lamps (lanterns) "Beasts of the Mountains and the Seas (Option 1)

##### 4.4.1 Design Evolution

##### 4.4.1.1 "Seeking the Moon in the Empty Mountains" (空山觅月)

Figure 120 below shows the development of the design of one of the lamps from the "Beasts of Mountains and Seas" series "Seeking the Moon in the Empty Mountains" drawn by the researcher. The picture shows the black and white and colour designs of Jiuwei hu, Tiangou and Qilin in the classics of mountains and seas used in the lamps, and the sketches show the front and back views of the lamps respectively. The lamp uses the hydrangea ball lamp as the light source, the ring wall decorated with the classics of mountains and seas as the lamp holder, and the cross-shaped base below as the lamp stand. The decorative motifs on the

hydrangea lamps project light and shadow onto the lamp holder and the surroundings.

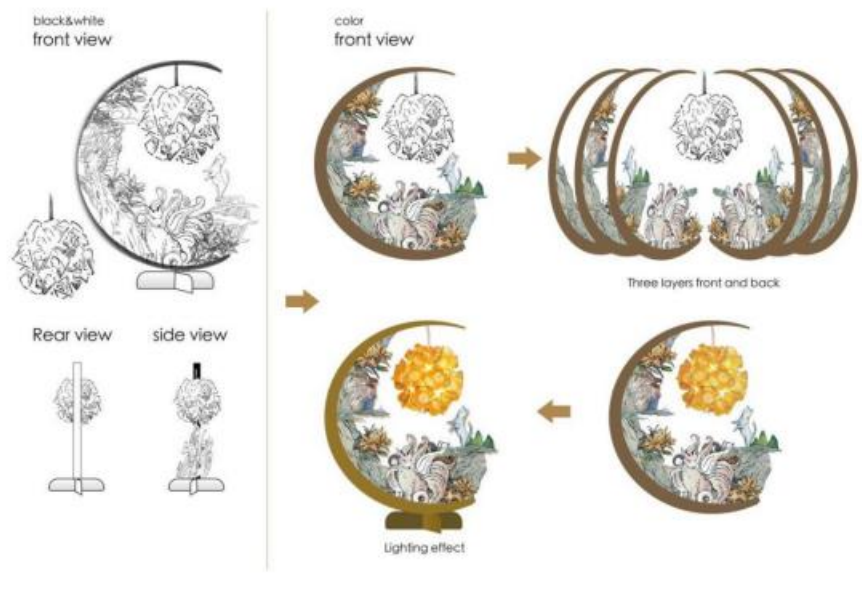


Figure 120 "Seeking the Moon in the Empty Mountains"

"The structure of this lamp utilises the mortise and tenon joints of traditional Chinese architecture, which were also mentioned above in the introduction of traditional Chinese palace lanterns. The mortise and tenon joints make the structural connection of each part stronger and more reliable and are widely used in wooden buildings and classical furniture, reflecting the wisdom and skill of ancient Chinese craftsmen. It has been widely used in wooden buildings and classical furniture, reflecting the wisdom and skill of ancient Chinese craftsmen. The researcher combines the characteristics of the tenon structure in traditional palace lanterns to design modern lamps, so that the traditional culture and its own aesthetic value can be carried forward in modern lamps.

#### 4.4.1.2 "Climbing Clouds and Seeking Rui" (攀云寻瑞)

Figure 121 below shows the development of the design of "Climbing Clouds and Seeking Rui", the second lamp in the "Beasts of Mountains and Seas" series drawn by the researcher. It consists of three parts, namely the hydrangea lamp, the lamp holder with the "Beasts of Mountains and Seas" element and the



ring around the lamp holder and the underside of the lamp holder is decorated with an auspicious cloud pattern.

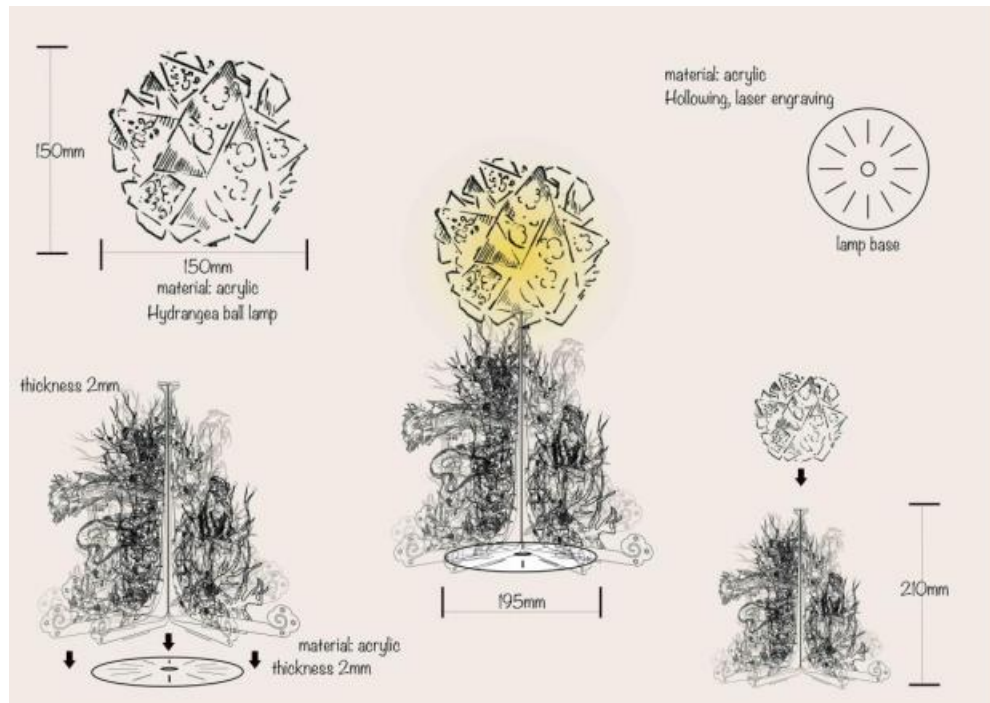


Figure 122 "Garden Tour Lantern Festival"

#### 4.4.1.4 Mountain and Sea Animals Lamp Series No. 4 "Moon Earth and Cloud Steps" (月地云阶)

The Chinese phrase "Moon-Earth and Cloud-Steps" means that the moon is the level ground and the clouds are the steps, referring to the scene in the sky and signifying a beautiful place. This lamp is one of the Mountain and Sea Gods and Goddesses lamps, which consists of six parallel acrylic moulded parts, with the hydrangea lamp dangling vertically in the lamp holder. The lamp can be placed flat on a tabletop so that the user can enjoy different views of gods and animals from both the front and the back.



#### 4.4.2.2 Production process

The researcher will combine the high-precision CNC cutting process for the three-dimensional representation of the image of the sacred beasts in the classics of the mountains and seas. The high-precision CNC cutting can localise millimetre or sub-millimetre units and achieve high-precision cutting of complex shapes through computer control. At the same time, the CNC cutting process can be mass-produced to increase production efficiency and meet the adaptability to plastic, wood, metal and other materials through the steps of computer-aided design, workpiece preparation, parameter setting and loading operations for cutting and production to enhance the ornamental and artistic character of lamps and lanterns.

#### 4.4.2.3 Hand modelling process

In order to obtain a more accurate model and an exquisite structure, the researcher made the model by hand based on the design drawings to adjust the size of the drawings, the position of the elements of the gods and animals and other details. Considering the long period of time from the modelling experiment to the casting of the lamp, the researcher first used hard kraft paper and compressed foam sheets, which can be easily cut by hand, to make the structure. As shown in Figure 124, the structure consists of four steps: printing, cutting, pasting, and assembling. Considering that there are multiple image components, in the pre-production stage of the model, the researcher used normal paper or UV stickers for printing, which are cheaper to produce and the size of the file can be easily adjusted. The second step is cutting by hand. The researcher separates and skeletonises the pattern and background plate to cut them according to the design file. The third step is pasting, UV sticker and cutting the finished kraft paper board or compressed foam board, rectangular cardboard crosses form a coherent image, the last step is to assemble the cut elements, the researcher through the effect of hand-



made models to optimise and adjust the design plan, determine the feasibility of the material, comparison and screening.

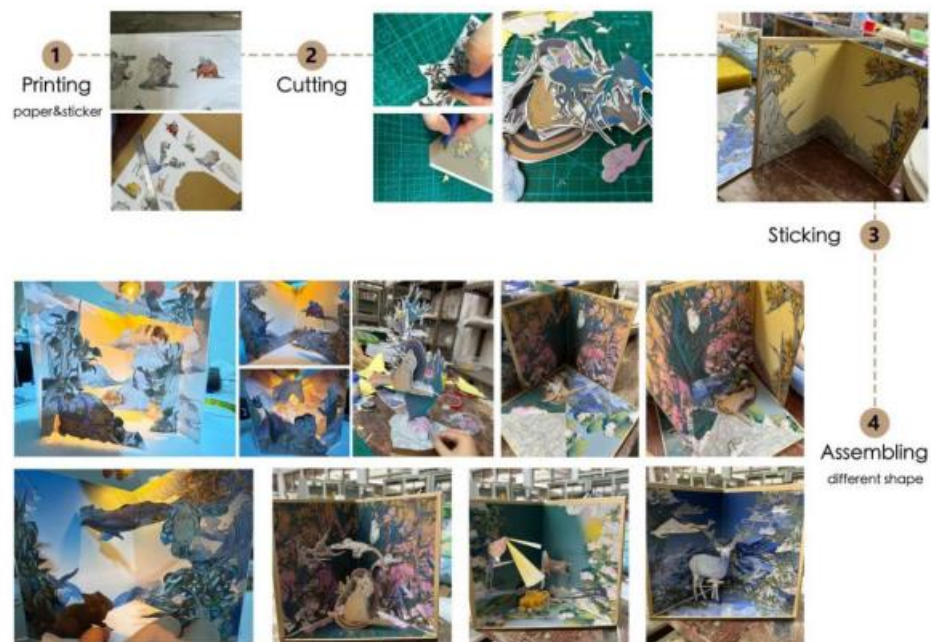


Figure 124 Hand modelling process



Figure 125 Hand modelling experiment1



Figure 126 Hand modelling experiment2

The researcher experimented with hand modelling to refine the dimensions and form of the luminaire structure even more.

#### 4.4.2.4 Computer Documentation and Machine Modelling

##### Processes

##### 4.4.2.4.1 Computer file for "Climbing Clouds and Seeking Rui" (攀云寻瑞)

This is a lamp that can be placed on the desktop, the use of the scene can be indoor, outdoor, not limited to the festive party or daily life, the researcher used the computer software to complete the production of the physical lamp file.

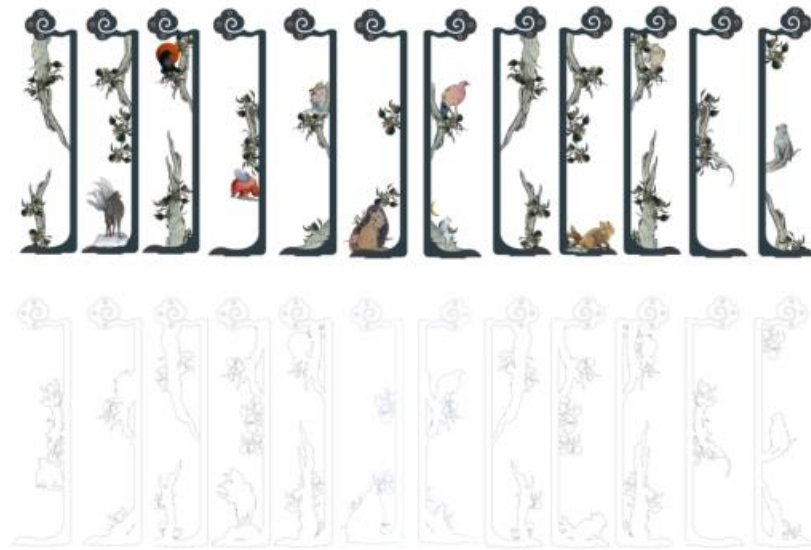


Figure 127 Creating document displays (light stands) 1

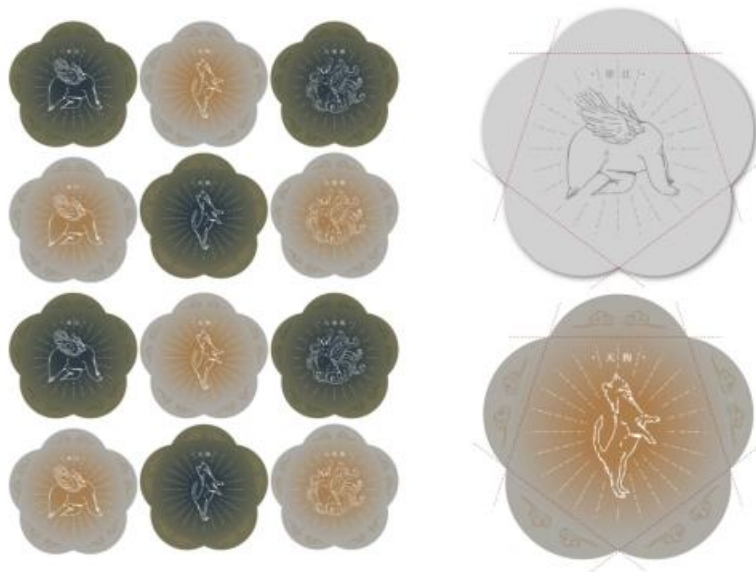


Figure 128 Creating document displays (light balls) 1

#### 4.4.2.4.2 Computer file for the "Garden Tour Lantern Festival" (园游灯会)

As with the same series of lamps, this is a desktop lamp that resembles the arched roof of a garden party, presenting a picture of "all the stars holding the moon".

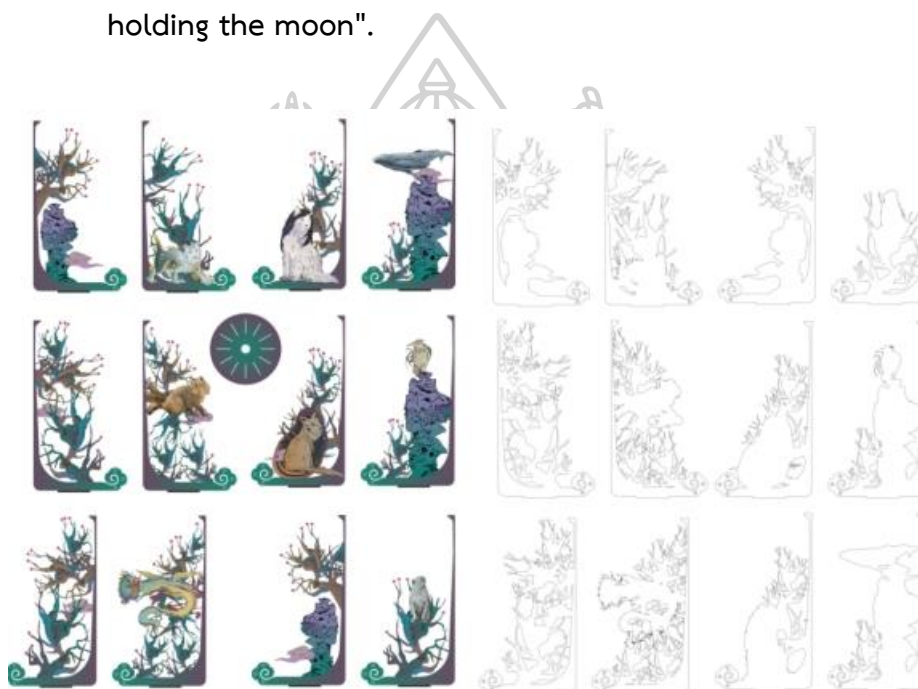


Figure 129 Creating document displays (light stands) 2

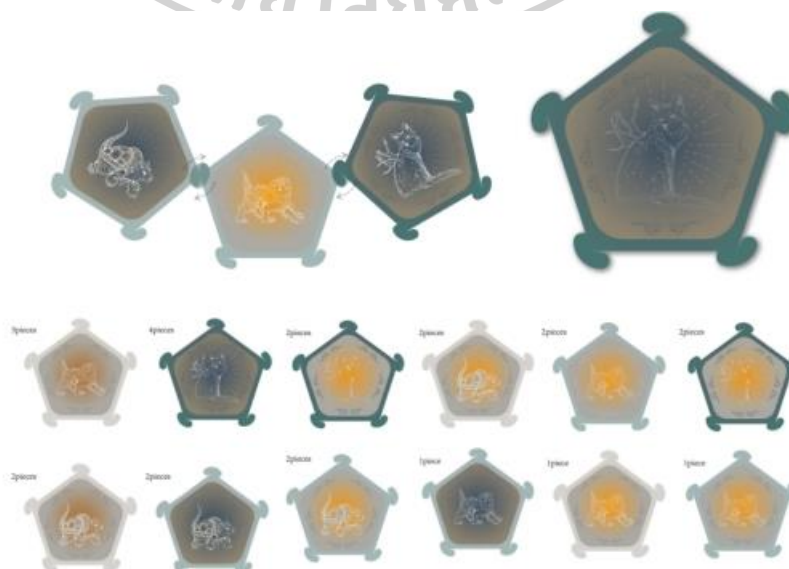


Figure 130 Creating document displays (light balls) 2

#### 4.4.2.4.3 Computer file for "Seeking the Moon in the Empty Mountains"

The researcher used the computer to create relevant documents to determine the acrylic thickness and details, the cutting contours, and the printing areas.



Figure 131 "Creating document displays (light stands) 3

#### 4.4.2.4.4 Computer file for the "Moon Earth and Cloud Steps"

The researcher adjusted the specific dimensions and areas of the image of the god-beast with reference to the recorded data of the handmade model.



Figure 132 "Creating document displays (light stands) 4

#### 4.4.3 Lamp design in three dimensions

##### 4.4.3.1 "Climbing Clouds and Seeking Rui" (攀云寻瑞)



Figure 133 3D "Climbing Clouds and Seeking Rui" (攀云寻瑞) 1



Figure 134 3D "Climbing Clouds and Seeking Rui" (攀云寻瑞) 2

#### 4.4.3.2 "Garden Tour Lantern Festival" (园游灯会)



Figure 135 3D "Garden Tour Lantern Festival" (园游灯会)

#### 4.4.3.3 "Seeking the Moon in the Empty Mountains" (空山觅月)



Figure 136 3D "Seeking the Moon in the Empty Mountains" (空山觅月)

4.4.3.4 "Moon Earth and Cloud Steps" (月地云阶)



Figure 137 3D "Moon Earth and Cloud Steps" (月地云阶)



Figure 138 Photo of option1(1)





Figure 139 Photo of option1(2)



Figure 140 Photo of option1(3)

#### 4.5 Three-dimensional presentation of revolving scenic lanterns "Pavilion resting on Mountains and Seas" (亭歇山海) (option2)

##### 4.5.1 Interpretation of the "Pavilion Resting on the Mountains and Seas"

###### Design

Researchers who have analysed traditional Chinese lamps have found that pavilion-style lamps are widespread. In Chinese culture, the pavilion is used as a resting place with practical functions. From an aesthetic point of view, the pavilion is of great ornamental value and has a symbolic and symbolic meaning in traditional Chinese culture, reflecting the Chinese people's love of architectural art. As a public place, the pavilion is also a place for relaxation and socialising, and in a way, it symbolises the connection between all living beings.

The researcher combines the image of the animal with the appearance of the pavilion and creates different images from the perspective of the four sides. This treatment aims to visualise different images as the scenic lanterns rotate.

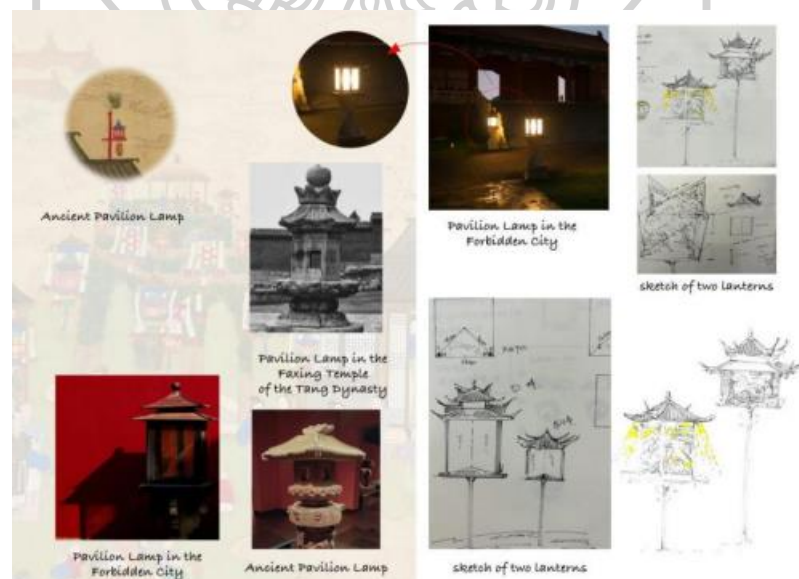


Figure 141 "Pavilion resting on Mountains and Seas" thought process

#### 4.5.2 Design realisation

The materials used by the researcher in this project are basswood sheets, acrylic, etc. The process is laser cutting and UV printing, a combination of manual and mechanical processes. The linden sheets have the advantage of radiating emotional warmth and giving the artwork a traditional vintage feel. The combination of this material and laser cutting allows for a precise connection of the linden structures. The researcher used the computer to draw the floor plan and communicated with the factory several times to adjust the production files to achieve the stability of the structure of the lamps and the harmony of the image.

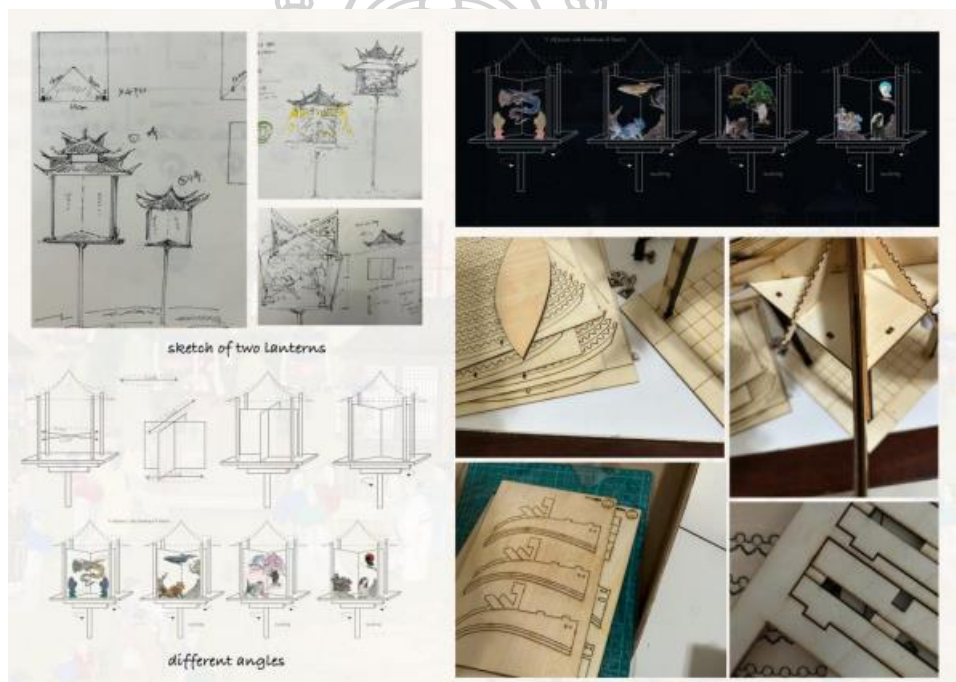


Figure 142 "Pavilion resting on Mountains and Seas" process1



Figure 143 "Pavilion resting on Mountains and Seas" process2



Figure 144 part of "Pavilion resting on Mountains and Seas"

#### 4.6 Post-construction design and presentation of lanterns

##### 4.6.1 Optimisation of the three-dimensional presentation of the classic of mountains and seas series of luminaires "月地云阶" & "攀云寻瑞"

Difficulties and solutions in the experimental process of lamps:

(1) light transmission and waterproof:

Compared with the double-sided UV printing method, the outer UV printing method does not have strong waterproof and light transmittance, in the later design, the use of laminated double-sided UV printing method is combined with laser engraving to improve the light transmittance of the lamps and lanterns and the edge of the smoothness of the edge of the chamfered edge of the acrylic material edge wrapping treatment, reduce the sharpness of the lamps and lanterns, so that the lamps and lanterns are smoother and more comfortable to touch. As shown in Figure145.

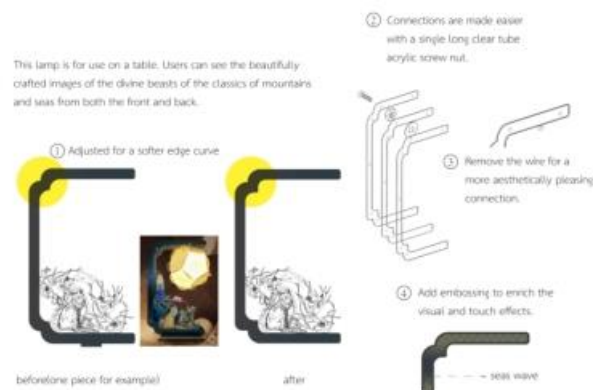


Figure 145 Design Optimisation Adjustment 1

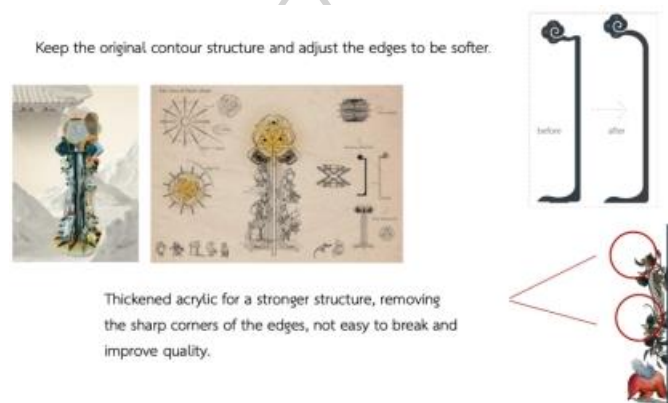


Figure 146 Design Optimisation Adjustment 2

The aesthetics of the lamp power cord:

In the initial phase of the experiment, the researcher used an ordinary LED lamp charger with a mains cable. The way the lamp is switched is more convenient, but the power cord makes the visual effect of the whole lamp look messy. Later, the researcher put the remote-controllable LED light body into the lamp bulb, which solved the problem of poor visual effect of alignment. In addition, the user can adjust the lamp switch by remote control, which makes the operation more convenient.

4.6.1.1 Three-dimensional presentation of "月地云阶" (after optimisation)



Figure 147 Photographic view of the "月地云阶"(partial)



Figure 148 Photographic view of the "月地云阶"(whole)

4.6.1.2 Three-dimensional presentation of "攀云寻瑞" (after optimisation)



Figure 149 Photographic view of the "攀云寻瑞"



Figure 150 Photographic view of "攀云寻瑞"&"月地云阶"

## 4.6.2 The classic of mountains and seas Theme lanterns II (ceiling lanterns)

### 4.6.2.1 Ceiling lantern design

The researcher designed the ceiling lantern by analysing the connection method of the Chinese pavilion structure in the middle period before the experiment and combining it with acrylic material. The lantern consists of four parts: the upper part of the lamp, the first floor, the first floor and the third floor, which show the scene from heaven to earth from top to bottom. The highest floor is an image consisting of divine beasts living in heaven, with auxiliary elements such as auspicious clouds and immortal mountains. The middle floor gradually approaches the earth from below and shows the divine beasts moving between the mountains and the water.

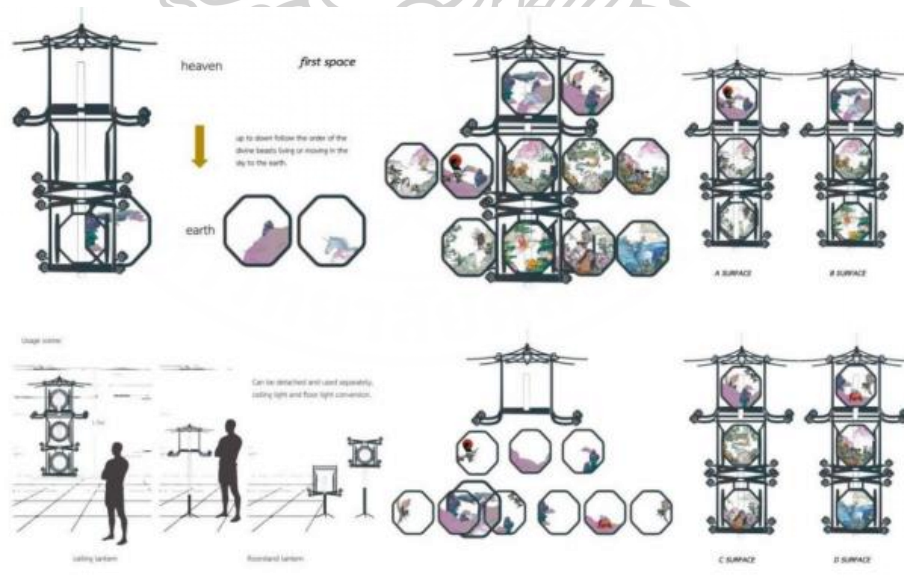


Figure 151 Design of ceiling lantern (period 1)



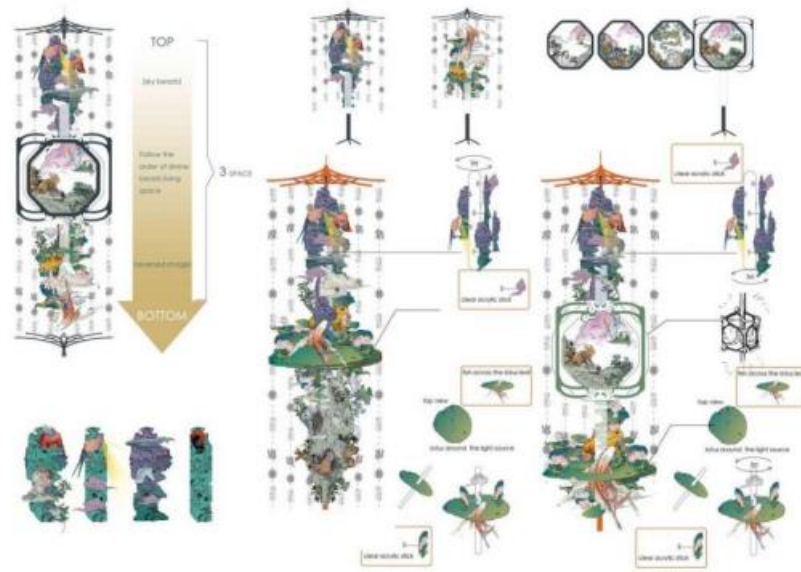


Figure 152 Design of ceiling lantern (period 2)

#### 4.6.2.2 Ceiling lantern making process



Figure 153 Process of making ceiling lantern (1)

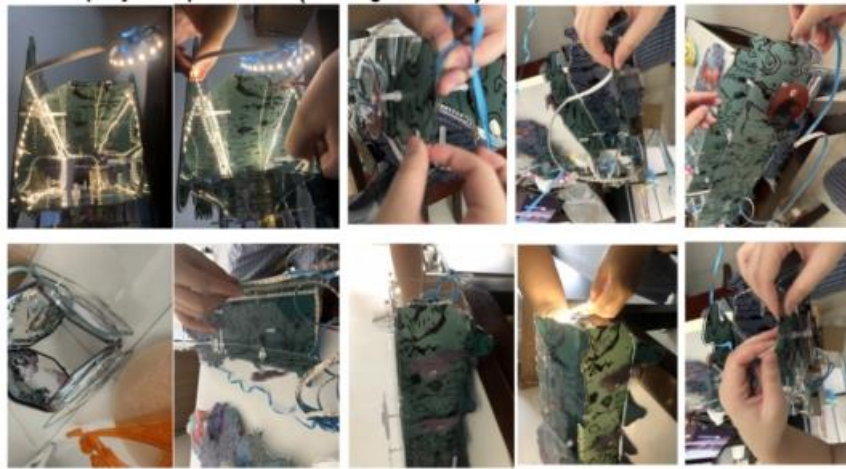


Figure 154 Process of making ceiling lantern (2)



Figure 155 Process of making ceiling lantern (3)



Figure 156 Part structure of ceiling lantern



Figure 157 Part details of ceiling lantern

#### 4.6.2.3 Three-dimensional presentation of ceiling lanterns



Figure 158 Three-dimensional presentation of ceiling lanterns

#### 4.6.3 The classic of mountains and seas Theme Lantern III (Wall Lamp)

The Classics of Mountains and Seas wall lamp differs from table lamps and ceiling lanterns, which is a decorative lantern that is hung on the wall. Based on the geographical locations of the sacred animals listed in the original text of the classic, the researcher has designed the living scenes of the beasts in the four dimensions of south, east, north, and west. As most of the beasts are distributed in the form of mountains, the image of this luminaire is also based on the background of cascading mountains surrounded by auspicious clouds where the beasts are in a tranquil state.

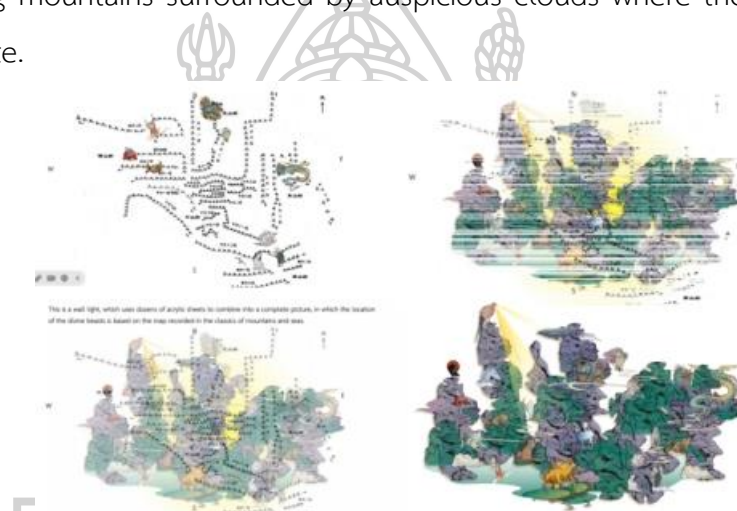


Figure 159 Geographic rendition of wall light screen

The Classic of Mountains and Seas records the mountains and rivers of ancient China and even the ancient world. With mountains and rivers as its warp and woof, it reflects the ancient people's reverence for all things natural and their curiosity and longing for the vastness of the universe. The mountains and rivers constructed the ecological context of the divine beasts. One of the earlier forms of traditional Chinese landscape painting than ink landscape, green landscape is often regarded as an idealized natural landscape with far-reaching philosophical significance in Eastern philosophy.

The term "landscape" as a distinctive art form was already established in the Jin Dynasty, and the term "landscape" often appears in the painting treatises of the Six Dynasties, such as Zong Bing's Preface to the Painting of Landscapes and

Emperor Liang Yuandi's Pine and Stone Grids of Landscapes, which are important foundational works for the discussion of landscape painting. "

In Chinese culture, green landscape is synonymous with serenity, harmony, nature and beauty, and its philosophical significance emphasizes the harmony between humans and nature, as well as the infinite vitality and beauty of the natural world. "In an influential article written in 1983, the German scholar Lothar Ledderose suggested that in the development of Chinese art, the artistic composition of "landscape" was inseparable from the idea of ascension to immortality."

From the initial "Spring Tour" to the development of green landscape to the heyday of "A Thousand Miles of Rivers and Mountains" (painted by Wang Ximeng), these masterpieces of landscape emphasize the rhythmic beauty of landscape and the pure beauty of nature, reflecting Chinese culture's reverence and respect for nature. The ancient records and drawings of the sacred beasts of the Classic of Mountains and Seas also represent the ancient people's understanding of the natural world and the pursuit of the spiritual world, which coincides with the emphasis on harmony and coexistence and the desire for pure beauty in blue and green landscape paintings.

#### Color Selection:

The researcher extracted lime green landscape painting of stone green and stone blue as the main colors, presenting a fresh and bright tone with a strong visual impact. The matching of stone green and stone blue makes the depiction of mountains and rocks more vivid and lively, reflecting the ancient people's keen observation of the colors of nature and unique way of expression. Highly saturated hues do the mountains fill in the color, so that the mountains sit in rich layers, situated in an orderly manner. The white background, auspicious clouds and mountains echo the overall coordination and unity.

#### Drawing and Outlining:

The line outlining of traditional lime green landscapes is unique, in which the outer contours of the mountains and houses are first outlined with vigorous ink lines, and then the strong lime green color is used to paint flatly within the contours, creating a sharp contrast. The researcher combines hand-painted

mountains with computer coloring to reproduce the philosophical meaning of traditional lime green landscape in a modern creative way.

#### 4.6.3.1 process of making wall light



Figure 160 Process of making wall light screen (1)



Figure 161 Process of making wall light screen (2)

#### 4.6.3.2 Three-dimensional presentation of wall light



Figure 162 Three-dimensional presentation of wall light



Figure 163 Adjusted final work image



Figure 164 Paper cutting of final work image



Figure 165 Detail of decorative wall painting



Figure 166 Decorative wall painting in exhibition



#### 4.6.4 Beasts character Theme cultural product design(talisman)

The talisman has a long history, and it often has the symbolism of protecting peace and avoid disasters. Also reflecting the ancient people's worship of mystical powers and their longing for a better life. The researcher has taken 20 beasts as the main characters and used their symbols to give different meanings to the peace talisman.

The talisman include 5 parts in the image, which are chinese pinyin (name of beasts), Chinese knot, slang with good meaning (include beasts name), character mark and meaning of the beast. it with talisman shape and magnetic suction.

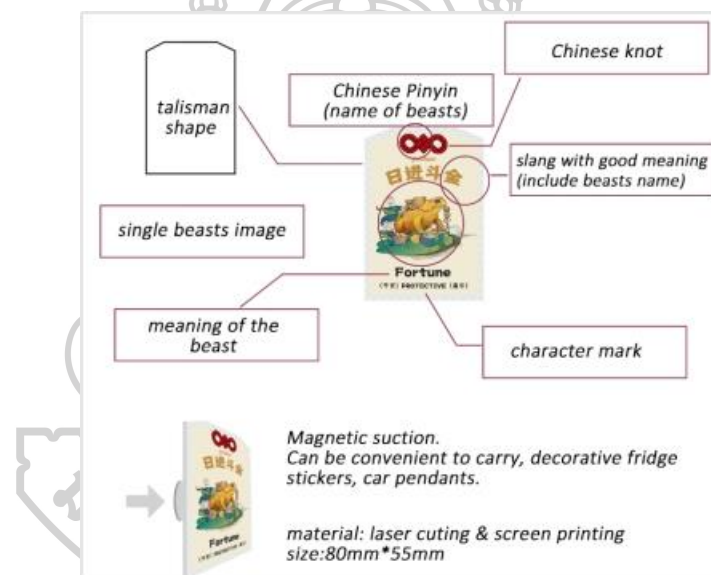


Figure 167 Talisman design



Figure 168 20 beasts characters talisman design

20 beasts characters talisman has its own auspicious meaning, people could interact with the characters depending on the information and description in the exhibition, playing with the talisman, which is a process to make people know more about the beasts' meaning and features. Also, they can be used in life, such as decorated on refrigerators.



Figure 169 20 beasts characters talisman design on paper

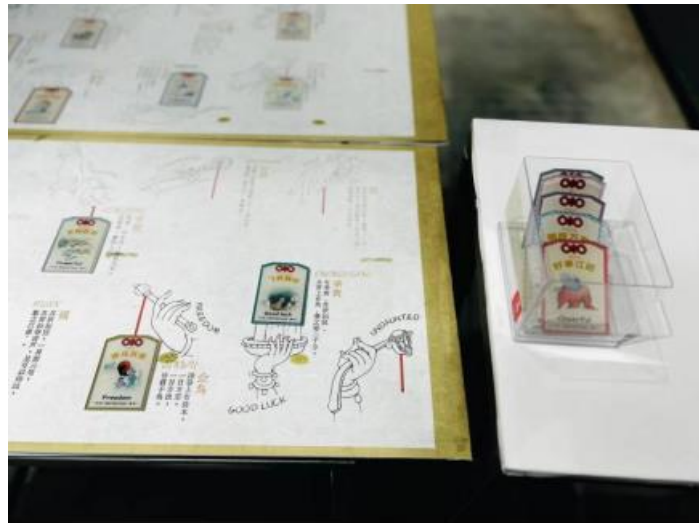


Figure 170 Talisman design show in exhibition

#### 4.6.5 5 Beasts character solo display

The researcher choose 5 beasts in the 20 beasts characters for the solo show of the beasts, which are xuanwu, jiuwei hu, jinchan, baize and qinglong. The researcher assembles the acrylic sheet by hand and completes the three-dimensional image display on both sides according to the characteristics of the beast to make it more vivid.



Figure 171 Design drawing of beasts characters



Figure 172 5 beasts characters display in exhibition

#### 4.6.6 Beasts character information card design

Each information card designed with the meaning and characters images, help people know clearly about the beasts characters. As show in figure173. The information card including the original text recorded, beasts name, beasts features description, redesigned images and meaning of characters.



Figure 173 Information card design content

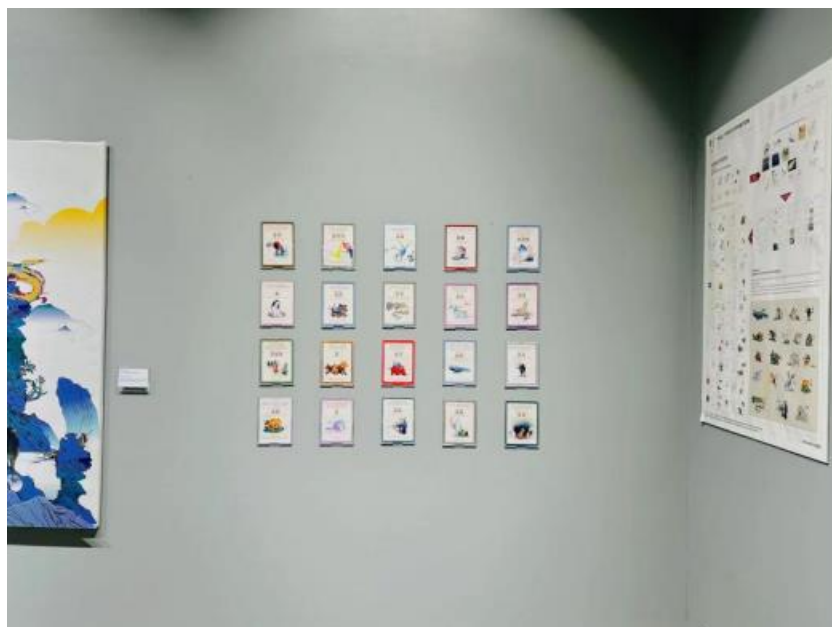


Figure 174 Information card show in exhibition

#### 4.6.7 Beasts character silk scarf design

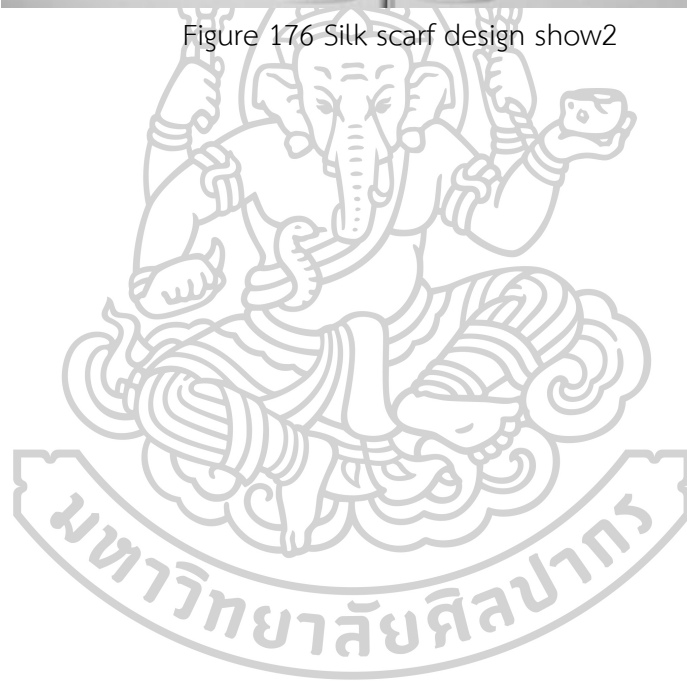
The researcher carried out the design of several images of beasts in the practice phase as the main screen of the cultural and creative product design. The texture of the silk combined with the image makes the image of the beasts come to life, and the comfortable touch adds to the warmth of the image.



Figure 175 Silk scarf design show1



Figure 176 Silk scarf design show2



## CHAPTER5 Conclusion

The *CLASSICS OF MOUNTAINS AND SEAS* is a masterpiece that contains rich cultural resources, and researchers can understand Chinese history, geography, humanities, theology, aesthetics, and other aspects of knowledge by tapping into its resources. The images of gods and beasts in the *CLASSICS OF MOUNTAINS AND SEAS* are a powerful tool for disseminating traditional culture. The depictions and recordings of the gods and beasts by the early ancients reflect the ancient people's reverence for the gods and their expectations of good. By studying the images of mountains and seas and their meanings, the researcher understands the development of traditional Chinese lamps and presents the magic of mountains and seas through modern revolving scenic lanterns as carriers.

### 5.1 Restatement of the study

1. As far as the traditional culture of the mountains and seas is concerned, the literature analysis concludes that the creative innovation of the images of divine beasts in the *CLASSICS OF MOUNTAINS AND SEAS* has considerable value for people's understanding of the culture. Early drawings in the book also play a key role in the study of traditional Chinese culture. The classification of the symbols of mountains and seas provides more thinking and digging depth for other researchers. The presentation of lamps also expands the application of the theme.

2. As for the carriers of intangible cultural heritage, lanterns, represented by revolving scenic lanterns, have a long history and are the result of the ancient Chinese people's wisdom on the aesthetics of light and shadow. Renew the traditional revolving scenic lanterns to better adapt to the lifestyle of modern people. Traditional revolving scenic lanterns usually appear at traditional festivals or lantern festivals. By incorporating the lifestyles and aesthetics of modern people into the design of innovative lanterns, the audience of traditional culture can be expanded to achieve sustainable development of traditional culture. It provides a

form of presentation for the heritage of classical mountain and marine culture and establishes a link between traditional culture and the lives of modern people. This research method is even applicable to the heritage of other traditional cultures.

3. This study uses mixed methods to collect quantitative and qualitative data. The conceptual framework of the study includes the following: the Classics of Mountains and Seas culture, the image of sacred beasts of mountains and seas, traditional Chinese lamps, and lanterns, and the three-dimensional representation of the combination of the two. The study is divided into four phases. In the first phase, the perception and heritage of the classics of mountain and sea culture in modern society will be investigated through data collection. In the second stage, theoretical research and argumentation will be carried out through literature research, case studies, questionnaire surveys, etc., to find out the convertible cultural resources of the mountain and sea classics and explore the design of the images of the divine beasts in line with modern aesthetics. The third stage is experimental research, aimed at exploring the feasibility of the redesign of beasts characters in the new cultural products design. The fourth stage is the theoretical and practical basis of the three previous phases. The new cultural products decorated with the images of the divine animals from the classics of the mountains and seas will be realised.

## 5.2 Difficulties encountered during the study

During the course of the study, the researcher summarised the following difficulties.

### 5.2.1 Knowledge grooming phase

The *CLASSICS OF MOUNTAINS AND SEAS* are incredibly old. They were compiled and optimised over many dynasties and contain a wide range of content. The early *CLASSICS OF MOUNTAINS AND SEAS* were not well preserved, and some of the beasts appeared in more than one chapter, which made the compilation of the images of the beasts very tedious. There is a need for a clearer classification of the



appearance and symbolism of the beasts, such as the combination of beasts in the local area, auspicious beasts, neutral beasts and evil beasts, etc. In the huge culture system of *CLASSICS OF MOUNTAINS AND SEAS*, although the image of gods and beasts is very representative, it is also a part of the culture into the life of the public and promote the charm of traditional culture, the excavation and research must be deepened more and more.

### 5.2.2 Design phase

After completing the knowledge combination stage, the researcher draws 2D images of the divine beasts in the Classics of Mountains and Seas. It is necessary to restore the appearance characteristics of the beasts and the description of their deeper meanings. This is also one of the difficulties in the design, which forces the researcher to express their deeper meanings graphically after collecting the image features of the beasts. The second difficulty is the 3D visual presentation of the revolving scenic lanterns, how to enrich the images of the lamps from different perspectives, and how to integrate the practicality, science and artistry brought out in the design of the traditional Chinese lamps into the modern lanterns. The connection of the lamp parts is not made with glue, but with the "mortise and tenon structure" in traditional Chinese architecture, which is often used in traditional palace lanterns. 3D model design, the size requirements of the design drawings are very strict, a deviation of 1mm may cause the lamp parts to be not firm, so that the factory controls the size of the material and the design drawings. It is necessary to control the size of the material and check the design drawings.

### 5.2.3 Material selection phase

The researchers were supported in their choice of materials by tutors from the University of the Arts in Thailand. In order to achieve the functions of heat resistance, waterproofness and durability of the lanterns, the researchers tried to make the lanterns from acrylic (frosted, transparent), hard kraft paper, lime wood

crisps, special plastics, etc. using laser cutting technology. After discussions with the factory and adjustments to the laser cutting performance, the researchers opted for acrylic, which is suitable for high-precision cutting, and a thickness of 1.5 mm to 2 mm, which, combined with the UV printing process, resulted in the revolving scenic lanterns. The multi-angled three-dimensional presentation of the fixtures.

### 5.3 Analysing the results of the study

#### 5.3.1 Sketching to Understand Divine Beast Forms

By drawing sketches by hand to understand the forms and movements of the divine beasts, firstly, it can recreate the textual descriptions of the divine beasts in the *CLASSICS OF MOUNTAINS AND SEAS*, and secondly, it can make the forms of the divine beasts more vivid to convey the spirituality and beauty of the divine beasts. The 2D presentation form is an important part of the materialisation of traditional culture, a process that helps the researcher to deeply understand the traditional culture, and also the embryo to express the traditional culture with a modern perspective, but there are some limitations in practicability and dissemination. However, there are some certain limitations in practicality and dissemination, and the 3D visual presentation can empower the development of traditional culture.

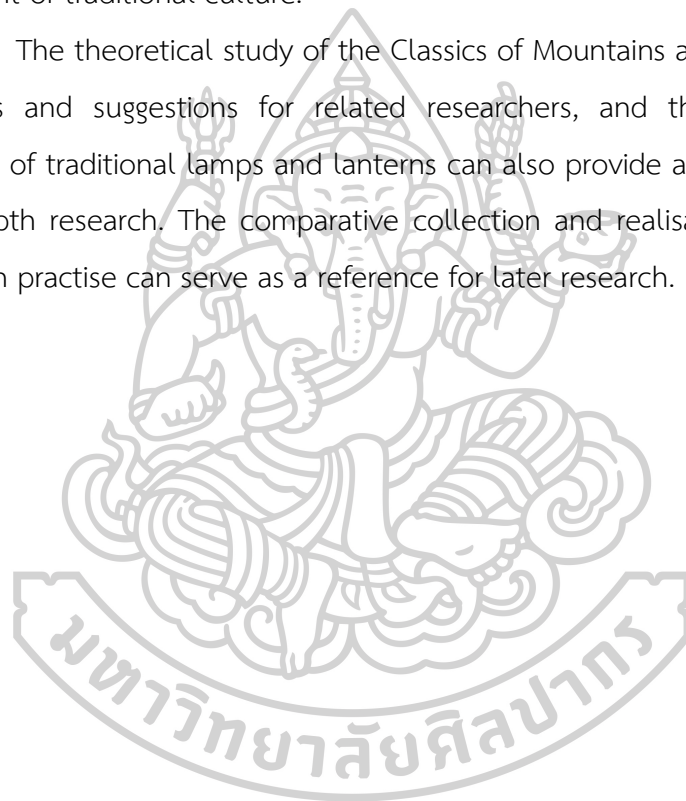
#### 5.3.2 Accumulating experience through practice

In this practise, the researcher gains confidence and experience by comparing different materials, repeated manual practise and understanding production details such as the selection of components, the method of capping and the laser engraving process. The rich practical experience is conducive to the implementation of the physical innovation of traditional culture, and also improves the efficiency of the production of intangible culture-related cultural and creative

products and provides a different creative perspective and a practical basis for the design of the same kind of cultural and creative products in the later stage.

Materials and technology are only one medium for artistic expression but play a significant role in realising the innovation of modern revolving scenic lanterns. Appropriate materials and processes can ensure the practicality and decorative characteristics of the lamps to a greater extent. The organic combination of graphic design and three-dimensional display can be a great impetus for the development of traditional culture.

The theoretical study of the Classics of Mountains and Seas can provide latest ideas and suggestions for related researchers, and the compilation and organisation of traditional lamps and lanterns can also provide a theoretical basis for more in-depth research. The comparative collection and realisation of materials in this research practise can serve as a reference for later research.



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