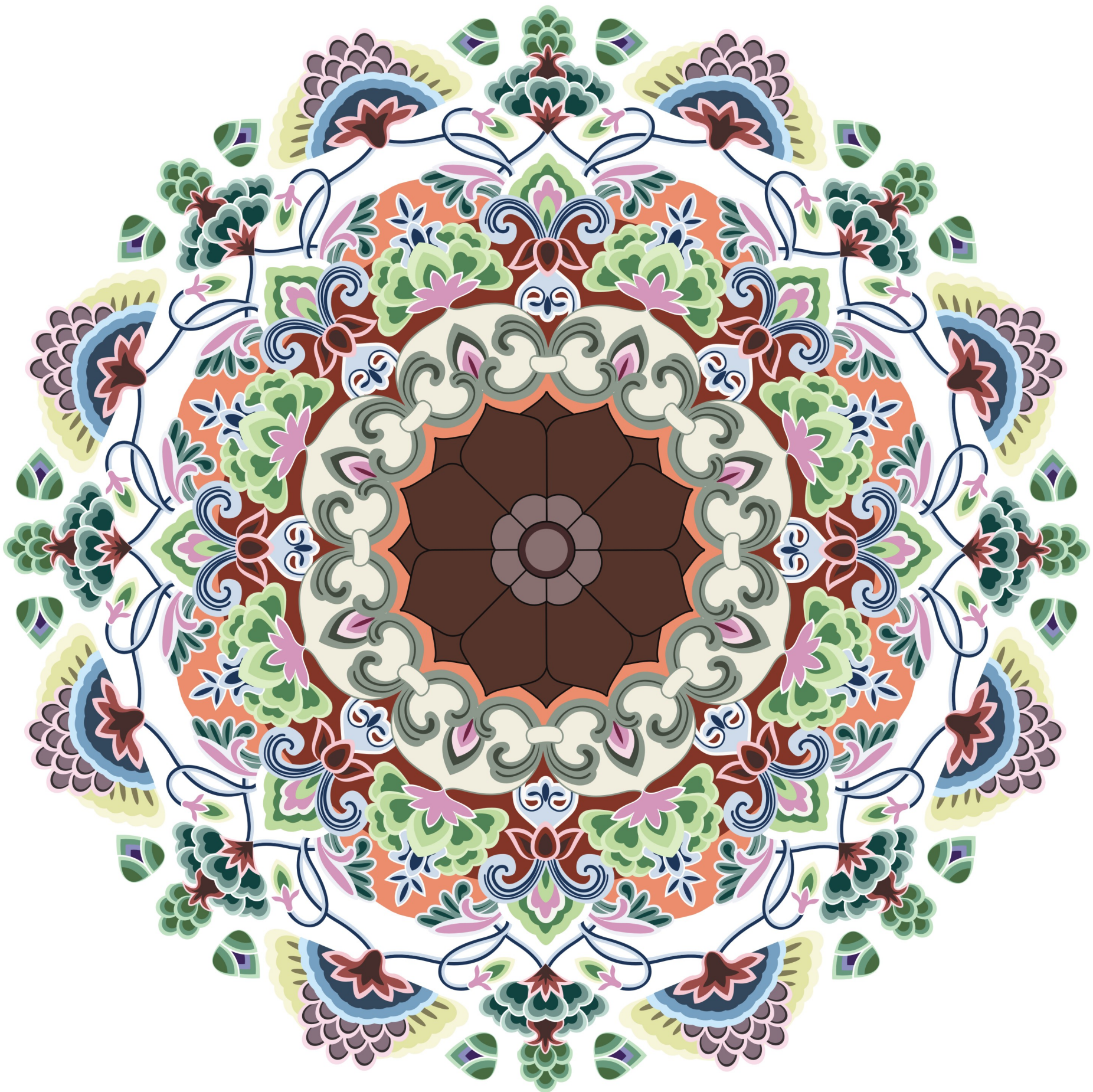


中国传统纹样在现代设计中的应用  
The Application of Chinese Traditional  
Patterns in Graphic Design



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MENG FANYU EDITOR

# 中国传统纹样在现代设计中的应用

以宝相花纹样为例

孟凡丽

# The Application of Chinese Traditional Patterns in Graphic Design

## Abstract

Composite flower patterns is the most representative pattern in Chinese tradition. It is not a flower in reality, but a pattern imagined by Buddhist art. It is composed and created by various traditional flower patterns, and becomes a unique and decorative pattern. It is produced from Buddhist culture and widely used in industry with full and gorgeous images and beautiful implications. Art field, such as fabric, utensils, architecture and other aspects of daily life. In different periods, the forms of composite flower patterns have also changed. From the appearance of flower patterns in Wei, Jin, Southern and Northern Dynasties, through Sui, Tang, Song, Yuan, Ming and Qing Dynasties to today, a variety of combinations have emerged and reached the peak of its development since the Tang Dynasty.

Based on the study of composite flower patterns in Dunhuang grotto buildings, painted sculptures, murals and costumes, this paper explores its formation, development, evolution process of successive dynasties and its shape-making structure, speculates on the reasons, differences and similarities of its evolution, summarizes its shape implication and aesthetic connotation, and take the shape of composite flower in Sui and Tang Dynasty as a model for research and discussion, showing its unique rich and luxurious, graceful and full artistic style.

In addition, through the way of design practice, five classical patterns are selected and applied to wallpaper design, so that traditional Chinese patterns and modern design can be integrated and innovated. In the process of combination and application, the original shape, structure and color of the composite flower patterns are analyzed, the elements are re-extracted and reformed, and new patterns are designed, and experiments are carried out in actual wallpaper to obtain the most visual pattern size, and further develop the artistic value of the composite flower patterns.

## Key words

Chinese traditional, Composite flower patterns, wallpaper design



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# 1.Introduction

## [1.1] The purpose and significance of the research

As a country with a long history and culture, the art created by the ancients through wisdom is the eternal precious wealth of the Chinese nation. It's a pity that if we can't find out, sort out and protect well, we can't make contribution to inheritance and development. Ancient people's creation provides abundant resources for future generations' learning from their ideas and techniques, from which we can get a lot of creative inspiration. composite flower patterns occupies an important position in Chinese traditional pattern and is a model of combination and innovation of Chinese and foreign cultures. It is worthwhile to inherit and develop this long-standing culture and art. This requires a comprehensive and profound understanding of composite flower patterns. Any pattern form does not appear out of thin air, but is a different culture. The product of the background.

Through the research of the subject, the paper analyses the shape from local elements to the whole structure, and explores the decorative application of composite flower patterns in ancient and modern times. It is not only of certain significance to the protection of traditional culture, but also hopes to have a systematic integration for the study of composite flower patterns, opening up for the future research and creation of patterns and new ideas.

Based on the historical chronological order and the previous research, this topic breaks through the original simple understanding of composite flower patterns and studies its origin, constituent elements, development process, shape rule and petal shape characteristics. Starting from the perspective of shape and culture, this paper summarizes the style characteristics of Chinese and foreign decorative patterns inherited by it, and studies the generation and innovation of patterns under the era renewal.

## [1.2] Current status of research

Most of the domestic research on composite flower patterns is reflected in the murals of the Mogao Grottoes<sup>[1]</sup> in Dunhuang. As one of the key objects of cultural relics protection in China, many experts who have been engaged in the study of Dunhuang art for a long time have made in-depth research and theoretical achievements on composite flower patterns.

As an important part of Chinese traditional patterns, composite flower patterns are introduced in many books and materials related to traditional decorative arts. As Zheng Jun(The Art of composite flower patterns in Chinese Dynasties,2008)<sup>[2]</sup> and Chang Shana (Decoration Patterns in Chinese Dunhuang Dynasties compiled,2009)<sup>[3]</sup>, a large number of traces of composite flower patterns in various dynasties were collected and collated, and the names of varieties, dynasties and sources were noted, but the composite flower patterns were not introduced and analyzed in detail. As Tian Zibing (History of Chinese Patterns,2003)<sup>[4]</sup>, the essence, evolution, aesthetics and techniques of patterns are deeply studied. In the second section of Chapte 8, the

popular patterns of flowers and plants such as composite flower patterns are deeply studied, and some ancient legends, myths and implicatures are combined. And so on, make the whole book full of mystery, and strengthen people's desire to explore this book.

In the process of historical development, the traditional patterns of composite flowers have unique artistic characteristics, rich color composition and complex structural combination, which enrich the decorative art of Dunhuang. These designs, which take both aesthetic sense and culture into account, through the integration of tradition and modern, give people historical associations, enrich the connotation of modern design, and inherit the emotions of traditional culture. However, there is still much room for improvement in the combination of traditional decorative patterns and modern design in China at this stage. We need to constantly give more innovative thinking to traditional decorative arts and modern design so as to promote the inheritance and innovation of traditional composite flower patterns.

Modern design is a kind of free expression of ideas, using aesthetic principles and material technology to meet people's social needs, but also reflects the progress of human civilization, it makes people's thinking, behavior and emotions more specific, and closely related to life. Modern design not only includes the value of design and works, but also reflects the regional style, historical process and cultural value. However, few traditional elements can be seen in Chinese modern design, which is also a pity of Chinese design.

## [1.3] Method of research

**1.Document research method:** Collect the literature related to traditional composite flower patterns on Academic Journal websites, and consult and collate the relevant books and materials. Through a large number of data analysis and interpretation, provide a strong basis for the demonstration of this topic.

**2.Comparative research method:** Collect the relevant pictures and data of composite flower patterns, and make a comparative analysis of the pictures and words in its formation stage and development process. Through comparative research method, analyze the evolution process of composite flowers in different periods.

**3.Examples:**By collecting the application of composite flower patterns in fabrics, utensils and grotto murals, the decorative effect and decorative characteristics of composite flower patterns are considered. By means of examples, the manifestations of composite flower patterns on different carriers are analyzed and understood.

**4.Design Practice:** Through the basic theoretical knowledge, explore the combination of traditional composite flower patterns and modern visual image design, and carry out design practice.

[1]Mogao Grottoes:Located in Gansu Province, China, Mogao Grottoes has 735 caves and is famous for its beautiful murals and statues.

[2]Jun ,Zheng (2008)The Art of composite flower patterns in Chinese Dynasties,People's Fine Arts Publishing House.

[3]Shana Chang(2009)The Decoration Patterns in Chinese Dunhuang Dynasties compiled, 1st ed,Tsinghua University Press.

[4]Tian Zibing(2003)History of Chinese Patterns,Higher Education Press.

#### **[1.4] Key points and difficulties in research**

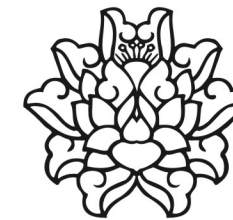
In this paper, the formation, development and evolution of traditional composite flower patterns are studied, the decorative structure and art form are analyzed, the connotation of visual images is explored, and the inheritance and application of composite flowers in modern design are rethought.

##### **The focus of research:**

1. Define the concept of composite flower patterns and understand the historical development and evolution of composite flower patterns.
2. Grasp the basic components of the composite flower patterns, the shape and composition of the petals, and analyze them from the visual point of view.
3. Explore the aesthetic connotation of composite flower patterns in all kinds of articles, and analyze its beauty of form and intention.
4. Combining with the background of the times, this paper analyses the application of composite flower patterns in modern design and puts forward its own views.

##### **Difficulties in research:**

1. There are many kinds of traditional decorative patterns in Chinese history. Among them, the types of composite flower patterns are abundant and varied, and there are many forms of expression in the same historical period. More documents and pictures are needed to verify them. At present, the available books and materials are limited, and the differences among various materials also bring some difficulties to the subject research.
2. The study of decorative patterns involves many disciplines, such as history, religion, art and so on. It needs abundant interdisciplinary knowledge and considers from different disciplines, which is a great challenge to oneself.
3. To analyze the application of traditional patterns in modern design, we should not only have a profound understanding of contemporary design, but also have a higher design literacy and vision, so as to achieve comprehensive demonstration and reasonable judgment.
4. In China, few designers use composite flower patterns for modern design and decoration, which also brings some difficulties to the application of this topic in modern design.
5. In China, few designers will do wallpaper design. Most of the wallpapers are produced in the name of the wallpaper company. Most of the patterns are mainly imported, and rarely their own innovative patterns. Research has brought difficulties.



## [2]

### Composite flower pattern

Introduction

The development process of the composite flower

The common petal shape of the composite flower

Other Patterns in composite flower Patterns

The characteristics of the composite flower pattern

The pattern of composite flower in Dunhuang art

Color analysis of composite flower in grotto mural



## 2.Composite flower pattern

### [2.1] Introduction

Composite flower patterns is a kind of plant pattern with visual and decorative effect in Chinese traditional pattern, which combines foreign and native patterns.

The word “Baoliang”<sup>[5]</sup> comes from Buddhism and is also a respectful name for Buddha statues. For the precise definition of composite flower patterns, a large number of reference books of traditional patterns also have their own explanations. Through induction and comparison, we know that composite flower patterns is not a real natural flower, but through the imaginary deformation of natural flowers, and through exaggeration, re-composition and other artistic treatment.

As Huang Nengfu (The Chinese Clothing Art of the Past Dynasties, 1999)<sup>[6]</sup> said, “The decorative pattern is composed of natural materials such as blooming flowers, petals, flowers with buds, buds and leaves, which are reassembled according to the law of radiation symmetry. It is called composite flower patterns.” This book explains this to composite flower. It is shape and form come from the extraction, combination and re-creation of a variety of flowers in nature.

Shen Congwen, (Chinese Ancient Costume Research, 2011)<sup>[7]</sup>, He is a famous Chinese writer and archaeologist, And he said “On gold and silver, some jewellery-inlaid flowers are common, intersecting the central stamens and petals. Pearls and precious stones are embedded in the joints. In the design, we use the method of fading out and colouring in Buddhist art to form a magnificent cluster of blooming, half-blooming, bracted flowers and flowers’ leaves. Nowadays people generally call it composite flower patterns” From the definition of Shen Congwen, it can be seen that composite flower patterns is composed of a variety of flower elements, and Add some pearls and gems as a group of flowers, which is also the essence of the composite flower patterns.

In the Dictionary of Chinese Patterns (Guo Lianfu, 1998)<sup>[8]</sup>, the composition of composite flower patterns is summarized as follows: “The method of forming composite flower patterns is to radiate image materials such as peony flower, lotus flower, bud, flower receptacle and leaf in four directions symmetrically. In the form of multi-directional symmetrical radiation, it forms circular, diamond or square decorative patterns. Surrounding by blue, green, brown, camel into different levels of brightness, layer by layer to fade, so that it shows the general magnificent effect of jewelry inlay.” It can be seen from this, the composite flower patterns is composed of a variety of different petals and leaves in a cascade way, and with different colors and degrees, gradually changed into. There are mainly two kinds of models. The first one is the four-petal flower model. The “十”<sup>[9]</sup> structure is simple. The second is multi-layer petal or cluster flower shape, mostly with the “米”<sup>[10]</sup> structure, petal fragmentation is numerous. Its sense of order follows the principle of formal beauty,

fragmentation is numerous. Its sense of order follows the principle of formal beauty, namely, contrast and unity, symmetry and balance, repetition and gradual change. On the basis of structure, according to certain rules, a central point is used as the origin to launch outwards, forming different forms, which is also one of the most important patterns in Dunhuang culture.

Composite flower patterns is mainly composed of lotus pattern, peony pattern and pomegranate pattern. History of Chinese Patterns (Tian Zibing, 2003)<sup>[11]</sup> thus describing the petals of composite flower patterns, “composite flower patterns have been used in all dynasties since the Tang Dynasty, generally to form a fixed format, regardless of peony, lotus, pomegranate, the difference is only based on the heart of the flower, the petals are uniform.” Usually, petals can be divided into lateral curl petals, cloud curl petals and paired hook petals. There are not too many changes in petals shape in different periods, but slight changes according to different painters’ different painting styles and styles. In history, it has gone through a process of simplicity, complexity and simplicity.

This imaginary pattern is flexible and diverse, and its expression is usually decided by the painter who draws the pattern, thus forming a strong decorative pattern. Most of the prototypes originate from lotus, but they are not rigid to the prototype. It combines many other elements and can be changed and added according to the nature and connotation of the carrier. And replace the pattern elements. The emergence of composite flower patterns is closely related to Buddhism. After Buddhism was introduced into China, people compared and beautified the natural attributes of lotus with Buddhist doctrines and rules, and gradually formed the worship of lotus. As a classic image in Buddhist art, lotus flower not only embodies the idea of Buddhist lotus incarnation, but also combines the auspicious and beautiful implications of Chinese culture.

### [2.2] The development process of the composite flower pattern

#### [2.2.1] Initial stage

The Wei, Jin, Southern and Southern Dynasties (220-589) was the initial stage of the formation of composite flower patterns. Because of the introduction and popularity of Indian Buddhism and Persian and Greek cultures, many new cultural factors influence each other. At this time, Indian lotus and Pearl patterns are combined with local patterns, and new simple models are created.

At the end of the Eastern Han Dynasty (184-220), with frequent wars and the collapse of the country, people hoped to end their homeless life and live and work in peace and contentment as soon as possible. Buddhist thought helped to consolidate the ruling regime, so it was highly valued by the rulers in this period. The rulers began to build a large number of art buildings related to Buddhism, such as the famous Longmen Grottoes<sup>[12]</sup>, Dunhuang Mogao Grottoes, Yungang Grottoes<sup>[13]</sup> and so on, thus deepening the influence of Buddhist culture among the

[5]Baoliang:The compound flower is called Bao Xianghua in Chinese.

[6]Huang Nengfu(Peking,1999) The Chinese Clothing Art of the Past Dynasties,China Tourism Publishing House.

[7]Shen Congwen(2011)Chinese Ancient Costume Research, Shanghai Bookstore Press.

[8]Guo Lianfu(1998)Dictionary of Chinese Patterns,Tianjin Education Press.

[9]“十”:Chinese character, meaning “ten”,here refers to the same structure as this Chinese character.

[10]“米”:Chinese character, meaning “rice”,here refers to the same structure as this Chinese character.

[11]Tian Zibing(2003)History of Chinese Patterns,Higher Education Press.

[12]Longmen Grottoes:The one of the treasure houses of Chinese stone carving art. It was excavated in the Northern Wei Dynasty and located in Luoyang City, Henan Province. Longmen Grottoes and Mogao Grottoes, Yungang Grottoes and Maijishan Grottoes are also known as the four major Grottoes in China.

[13]Yungang Grottoes:It is located in the south of Wuzhou Mountain, Datong City, Shanxi Province, China. There are 45 main grottoes, which is one of the largest ancient Grottoes in China.

influence of Buddhist culture among the people. Following the rise of Buddhist decorative art, and lotus pattern is its manifestation in life. The appearance of this novel plant pattern was an aesthetic change when people sought new sustenance in the difficult environment at that time. In addition, the Pearl pattern brought about by Persian culture has become a new decorative pattern. In the process of blending various cultures, they learn from each other and combine with each other, laying a solid foundation for the development of composite flower patterns. The connotation of the treasure-faced patterns in this period more reflects people's yearning for Buddhism's "reincarnation" and "rebirth" and their escape from the cruel reality of life.

Since the Sui Dynasty (581-619), lotus patterns have experienced a variety of local creation. Although the Sui Dynasty lasted only for decades, it was full of creative spirit in decorative art. Among them, the composite flower patterns in the caisson<sup>[14]</sup> of Mogao Grottoes has gradually formed, which is the only visual center on the top of the grottoes, and it is more important.

[14]Caisson:See[2. 6. 2].

### [2.2.2] Prosperous stage

Tang Dynasty (618-907) was a prosperous period of feudal society. At that time, the economy was developed, the national strength was strong, the trade between China and foreign countries was frequent, and the living standard of Chinese people was high, which presented a prosperous scene. It absorbs and accepts many exotic styles with an open attitude, and assimilates, melts, harmonizes and integrates with foreign cultures. At that time, artists also liked to express foreign themes and foreign saints, and absorb their different creative styles and techniques, among which Buddhism was unprecedented in this period. Development under the influence of this cultural atmosphere, the composition, structure and color of composite flower patterns become more complex and luxurious, thus developing to a very high artistic level. Its pattern modelling is full of flowers and leaves, highlighting the atmosphere of the Tang Dynasty, increasing the number of petal layers in structure, forming a single round flower modelling, composition of pomegranate, grape and other foreign patterns. The integration of Chinese and Western patterns, elegant and full and mellow in shape, is the product of cultural exchanges between China and the West, which embodies the spirit of acceptance and compatibility and the connotation of open and self-confidence.

### [2.2.3] Turbulent stage

After experiencing the prosperity of the Tang Dynasty, composite flower patterns has been widely used in a variety of utensils, buildings and clothing, and is widely accepted and loved by people. After that, in the Song and Yuan Dynasties, composite flower patterns entered a turbulent stage completely different from the peak period of the Tang Dynasty.

The Song Dynasty (960-1279) was founded by a military coup, and its political and economic culture was comparable to that of the Tang Dynasty. Therefore, the Song Dynasty had a policy of promoting civil servants and suppressing military generals. Local Taoism and Confucianism had developed very well. At this time, the influence of Buddhist culture was weakened a lot. Influenced by Song Dynasty's proxy ideology, aesthetics and economic culture at that time, the shape of composite flower petals was mostly sharp and slender, showing the rational trend prevailing in the society at that time, and following the direction of Song Dynasty's culture and fresh and dynamic development. Although the composite flower patterns in Song Dynasty lacked some beautiful feeling of magnificence and richness, it had a fresh beauty under the influence of rational atmosphere in Song Dynasty.

Due to the rapid increase of social wealth, people's taste is constantly improving. Social aesthetics has changed, and the pursuit of natural beauty is more. The twisted form of "thin as beautiful" in plant patterns is more in line with people's aesthetic needs. Combine twisted branches with treasure-faced patterns to enrich the morphological structure of patterns and make their shape and meaning develop steadily. During this period, composite flower patterns showed natural, dexterous, elegant and beautiful style as a whole, showing implicit and static beauty.

By the Yuan Dynasty (1271-1368), ethnic minorities were valued and the social atmosphere changed. Although the traditional pattern has not been greatly developed, the integration of ethnic minority styles has also enhanced it. composite flower patterns modelling does not continue the implicit static beauty of the Song Dynasty, and becomes bold and generous, but it is different from the vitality and vitality of the Tang Dynasty. Remove excessive decoration and gradually form a fixed pattern. After the alternation of different national regimes, the patterns of composite flower in the turbulent period showed vigorous vitality, and gradually developed to the direction of mature period.

### [2.2.4] Maturity stage

Ming and Qing Dynasty was the last prosperous period of Chinese feudal society, and composite flower patterns also entered a mature period of development, often used together with other traditional auspicious patterns.

As the Ming Dynasty (1368-1644) government implemented a series of policies to support the handicraft industry, which greatly mobilized the enthusiasm of workers for production, handicraft industry has been greatly developed, thus the pattern has also undergone great changes, in which the development of plant pattern is more and more mature.

In the Qing Dynasty (1636-1912), the handicraft industry further developed, and the traditional culture also received people's attention, so the trend of using the composite flower patterns was more mature.

With the development of secular culture in this period, people will express their wishes for a better life by means of patterns. Therefore, auspicious patterns are widely used. The patterns of different subjects reflect not only aesthetic expression, but also auspicious and beautiful implications. but also auspicious and beautiful implications.

On the basis of basic modeling, composite flower is often combined with Cirrus cloud, grape and honeysuckle patterns. Through the combination of different patterns, composite flower presents a variety of visual aesthetics and conveys rich auspicious implications such as happiness and longevity.

At this stage, the composite flower patterns draws on the essence of many fine patterns to express auspicious wishes, and to get rid of the strong Buddhist culture in the initial stage, to express the desire and hope for reunion and peace to the development of secular culture that prayed for life and happiness. At the same time, the combination of composite flower patterns and other auspicious patterns reflects people's pursuit and creation of beauty.

### [2.2.5] Inheritance stage

After the Qing Dynasty, in modern times, China's social structure has undergone tremendous changes, economic strength, scientific and technological strength has been constantly improved, people's living standards, lifestyle, life pursuit has also undergone tremendous changes. People pay more attention to more fields, have more expectations and require more comprehensive development. Slowly, people have also found the importance of culture to a nation. As one of the traditional characteristic cultures, composite flower patterns has also been transferred from mature period to inheritance period. With the development of traditional culture, traditional composite flower patterns has been more and more widely used in fabrics, utensils and buildings. At the same time, it has been injected into a new understanding. Visually more diverse, in line with the aesthetic needs of modern people. It is widely used in clothing and home textiles, which reflects the importance of modern design to Chinese traditional culture, and also reflects the vigorous vitality of Chinese traditional culture after thousands of years of development. To excavate the artistic characteristics and cultural connotations of traditional patterns is one of the ways to inherit traditional culture and realize innovative application. For example, hand-made wooden Tang Dynasty composite flower patterns mirror<sup>[15]</sup>, the ceiling design of the Great Hall of the People<sup>[16]</sup>, etc., designers extract composite flower patterns and colors, using the design method of pattern combination to rebuild, to show the people of the world the broad and profound Chinese traditional culture. Modern designers add modern design methods, such as deconstruction, extraction and reorganization, to enrich the pattern modeling. The application of composite flower patterns in modern design embodies people's confidence in conveying traditional culture and enhancing culture.

[15]Composite flower patterns mirror:See [3. 2. 2].

[16]Ceiling design of the Great Hall of the People:See [3.2.3].

### [2.3] The common petal shape of the composite flower

The petals of composite flower can be roughly divided into three shapes: lateral curl petals, cloud curl petals and paired hook petals<sup>[FIG.1/2/3]</sup>.



[FIG 1]Paired hook petal:The paired hook petal resembles the auspicious pattern in ancient times, so it is also called the ideal pattern, which symbolizes auspiciousness and peace.

[FIG 2]Lateral curl petal:It is also known as heart-shaped petals, are shaped like hearts, and are formed by the inward merging of two honeysuckles leaves. The profile is like an unbroken bud.

[FIG 3]Cloud curl petal:The shape of cloud curl petals is closely related to peony. During the Tang Dynasty, the pattern of composite flower began to change to the pattern of peony. Peony pattern was characterized by short flower heads, multi-layer petals, and the edge of petals was combined with cloud petals, which was rich and noble.

[17]Zhou Dunyi:(1017-1073)Ode to the Lotus Flower,A Collection of Zhou Yuangong.

### [2.4] Other Patterns in composite flower Patterns

#### [2.4.1] Lotus pattern

Lotus pattern is the initial flower pattern of composite flower. Before the Tang Dynasty, it appeared in the form of lotus on grotto murals or stone-brick. As Zhou (1017-1073)<sup>[17]</sup> of China had an ancient poem, "The lotus grows out of the mud, but it is not contaminated, it is washed in the clear water but it does not look flirtatious." Lotus is popular in Buddhism, which also represents the essence of purifying oneself, being free from pollution and being fresh and free from vulgarity. Before the Tang Dynasty, lotus was the most frequently used flower pattern, such as floor tiles<sup>[FIG.4]</sup> in the Five Dynasties, three layers of lotus petals, each with eight leaves, showing a sense of hierarchy.

[FIG 4]Tile with Eight Petal Lotus:Five Dynasties(907-960)Mogao Grottoes,Dunhuang. (Photographed at the Mogao Grottoes Museum).



#### [2.4.2] Persimmon calyx pattern

Persimmon pedicle pattern is a typical plant pattern with the character "十"<sup>[FIG.5]</sup>. In many places, persimmon pedicle pattern is called four-petal flower or four-leaf pattern (which is commonly used in Japan). Persimmon pedicle pattern is the traditional Chinese name, mostly refers to the large flat leaf pattern. Literally, it is like the four leaves

held under the persimmon<sup>[FIG.6]</sup>, so it gets its name. Many ancient buildings will be used in persimmon pedicle pattern, which mostly means the building is strong and solid.

[FIG 5] “+” shaped persimmon pedicle pattern.

[FIG 6] Persimmon pedicle pattern prototype.

[18] Feng Shui: Also known as Chinese geomancy, it claims to use energy forces to harmonize individuals with their surrounding environment. The term feng shui literally translates as “wind-water” in English.

[FIG 7] The five elements of gold, wood, water, fire and earth are the basic elements of the five constituent materials. The five-line theory of ancient Chinese philosophers illustrates the formation of the world and their mutual relations.

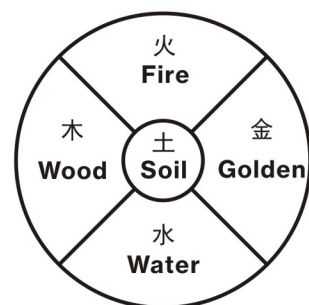


Persimmon pedicels are very big. When the flowers wither from the persimmon flowers, they leave a larger pedicel. With the growth of the fruit, the pedicel keeps the fruit tightly, until the fruit matures, it is difficult to separate. This is a rare phenomenon in nature. The ancients used persimmon roots strong, persimmon tree longevity, persimmon peduncle life and fruit accompanied by the auspicious meaning, created persimmon peduncle pattern, reposing the family, clan tribes, national unity and prosperity of the blessings.

Persimmon pedicel pattern is beautiful, generous, decorative, simple and clear lines. The Feng Shui<sup>[18]</sup> coincides with the persimmon pedicel and its four leaves, the middle receptacle represents the center, the four leaves represent four directions, which coincide with the east, the wood is the east, the fire is the south, the gold is the west, the water is the north, and the soil centered<sup>[FIG.7]</sup>. Some will add special animal ornaments in the petals, such as Azure Dragon, White Tiger, Vermilion bird and Black Turtle<sup>[19]</sup>. Persimmon pedicle pattern carved in daily necessities, such as vessel lid, bronze mirror, wooden window, jade, etc.<sup>[FIG.8]</sup>, is a commonly used decorative pattern in ancient times.

[19] Azure Dragon, White Tiger, Vermilion bird, Black Turtle: The four gods in Chinese mythology, representing the four directions of east, west, South and north, originated from the ancient Chinese belief in stars.

[FIG 8] Ancient persimmon pedicle pattern on the vessel lid, bronze mirror, wooden window, jade.



Through the study and study of persimmon pedicle pattern, the leaf petal shape of persimmon pedicle was divided into four types<sup>[FIG.9-12]</sup>:

[FIG 9] Leaf-shaped petals: Leaf petals are slender, pointed at both ends of the shape, is the initial shape of persimmon leaf pattern.

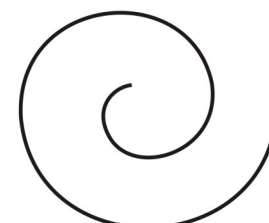
[FIG 10] Heart-shaped leaflet: The leaflet is wide and full, and the cusp angle of the leaflet is 60 or 90 degrees."

[FIG 11] Bud-shaped petals: The petals are in the shape of “ ”<sup>[20]</sup>, and in the middle they are like a bud to be opened.

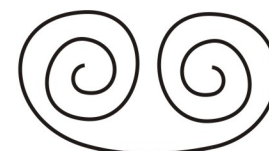
[20] “山”: Chinese character, meaning “mountain”, here refers to the same structure as this Chinese character.

[FIG 12] Bat-shaped petals: The petals are like the deformed patterns of heart-shaped petals. The tip of the cusp-shaped petals is elongated like a long needle, and the side petals are curved inward. The whole petals look like a bat. It is also said that this pattern is formed by the combination of cirrus cloud pattern.

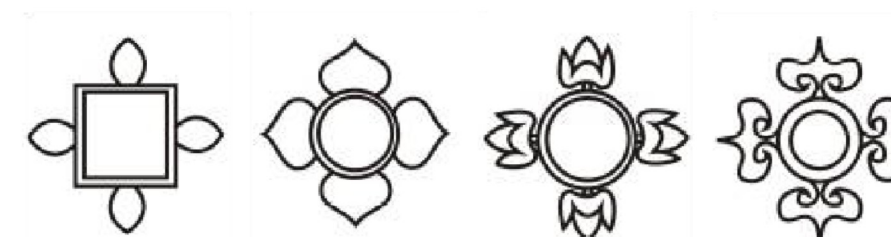
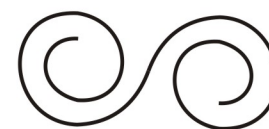
[FIG 13] Single-cirrus cloud.



[FIG 14] Double-cirrus cloud.



[FIG 15] “S” structure cirrus cloud.



Persimmon pedicle pattern and lotus pattern appeared and developed almost at the same time, but the image of the lotus changed with the development of Buddhism, and the structure level was more enriched. Persimmon pedicle pattern continued to maintain the simple style of the “+” structure as before, and became the most basic structure of composite flower pattern in later generations.

### [2.4.3] Cirrus cloud pattern

Cirrus cloud pattern has a very high position in Chinese traditional culture. This is because the ancient climate change is an important factor in farming and harvesting, and also the key to people’s survival. Praying for rain is also praying for clouds, so cirrus cloud pattern has received great attention in China. The early cloud pattern appeared in Shang and Zhou Dynasties (1600 BC - 221 BC) of China, which was called thundercloud pattern, that is initial formation stage of cirrus cloud pattern. Later, with the development of the times, the elements of thundercloud pattern were simplified and dispersed, making it become a more concise cirrus cloud pattern<sup>[FIG.13]</sup>. This pattern began to be called cirrus cloud pattern in the Spring and Autumn Period and the Warring States Period (770 BC- 221 BC).

Later, it developed from a single cirrus cloud pattern to a double-cirrus cloud pattern, which connected the tails of two kinds of cirrus cloud and curved the two ends inward into a cirrus cloud-like, symmetrical structure<sup>[FIG.14]</sup>.

The third innovation of cirrus cloud pattern is “S” structure<sup>[FIG.15]</sup>. The same two single cirrus cloud pattern tails are connected, while the head curl is in the opposite direction, making the whole pattern “S”.

The persimmon pedicle pattern of the bat-shaped leaf petal is reasonable because it combines with the cirrus cloud pattern. The combination development of the cirrus cloud pattern and the plant pattern is the characteristic of our country in the early stage. It has unique Chinese characteristics. It has been combined with the plant pattern in the past dynasties, playing the role of foil and filling decoration. Later symmetrical cirrus cloud pattern is also the most important basic form to develop into ideal cloud pattern. This provides an early basis for the study of the combination of composite flower pattern and cloud pattern as a plant subject.

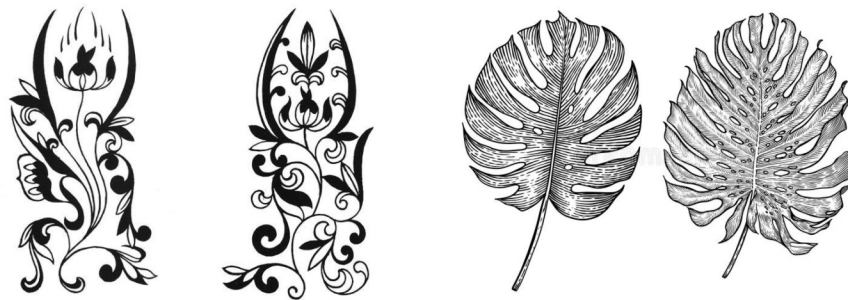
#### [2.4.4] Honeysuckle pattern

Honeysuckle pattern is a kind of vine plant, commonly known as curly grass. Its long petals are drooping, The color is yellow and white, and it is named “Endure winter” because it does not wither in winter. During the Wei, Jin, Southern and Southern Dynasties, the pattern of honeysuckle was thin<sup>[FIG.16]</sup>, generally three-leaf and multi-leaf, but its changes were varied. By the Tang Dynasty, it had evolved into a complex roll of grass, known as “Tang straw”. At the same time, as an important decorative symbol in the visual symbols of Dunhuang art, it is also one of the earliest and most frequent patterns in Dunhuang grottoes.

From the origin of development, the early honeysuckle pattern originated from the lotus in Egypt, and then developed into the palm pattern<sup>[FIG.17]</sup>. Palm pattern plays an important role in Greek decorative art, which is closely related to Egyptian culture. Finally, it was introduced into China with Buddhism, and was transformed by China in the process of Buddhism. At the same time, it shows the process of interaction and exchange between Chinese and Western cultures in ancient times. The process of dissemination should be: from Egypt to the East through the Mediterranean, to the west of Asia, India, and with the introduction of Indian Buddhism into China during the Northern and Southern Dynasties.

[FIG 16] Honeysuckle pattern of Wei, Jin, Southern and Northern Dynasties.

[FIG 17] Palm pattern.



The most important decorative function of honeysuckle pattern in Mogao Grottoes is reflected in the edge decoration<sup>[FIG.18-20]</sup>. It is a continuous pattern used in grotto decoration to divide the boundary, forming a rhythmic pattern with repeated rhythm, concise style and strong sense of rhythm. In the wavy tissue, single, double or three flower leaves are arranged symmetrically on both sides of the main trunk, forming a continuous and strip pattern. The murals of the Mogao Grottoes in Dunhuang are mostly scrolled with honeysuckle pattern as their decorative pattern. The overall structure is smooth, full and gorgeous, and full of vitality. It is an important part of Tang Grass in Tang Dynasty arts and crafts, and has become a model of scroll graffiti in later generations. After the Tang Dynasty, the Tang straw pattern was inherited continuously. Besides honeysuckle and peony, there were pomegranate, lotus, chrysanthemum, orchid and so on. In the mid-Ming Dynasty, the Tang straw pattern with lotus flowers as the main body was emphasized and widely used in brocade weaving. The

style of Tang straw pattern in Ming and Qing Dynasties tended to be complex and delicate, losing the vitality of Tang Dynasty, but it was still an important traditional pattern. Nowadays, Tang straw pattern is mostly found in architectural decoration, dyeing and weaving, furniture, ceramics and other decorations.

[FIG 18] Border decoration, Western Wei, 285 cave.

[FIG 19] Border decoration, Western Wei, 288 cave.

[FIG 20] Border decoration, Northern Wei, 251 cave.



#### [2.4.5] Pomegranate pattern

Pomegranate pattern is another important element in composite flower pattern. It is also a branch of Chinese traditional plant pattern. It is popular with the rise of plant pattern. Pomegranate grain has flexible forms of expression and rich and profound connotative implications, and still has a strong artistic charm.

As early as the Wei, Jin, Southern and Southern Dynasties, pomegranate was endowed with the auspicious meaning of multi-seed and multi-fortune by the people with the image of many seeds in the fruit, and was given as gifts to each other with pomegranate. The original pomegranate grain appears in a realistic image<sup>[FIG.21]</sup>, and becomes a single pattern, carefully depicting layers of leaves, highlighting the characteristics of the growing pomegranate belly and plump fruit. Later, with the development of the times, the pomegranate pattern was gradually abstracted, and the combination of curly grass pattern and twining pattern enriched the shape of the pomegranate pattern. This kind of pomegranate pattern is not only used in clothing, caisson and other applications, but also often used in porcelain decoration.

[FIG 21] Pomegranate pattern plate.



In the early Tang Dynasty, the pomegranate flower pattern<sup>[FIG.22/23]</sup> in the 375 caisson of Mogao Grottoes was mainly composed of four pomegranate fruits, with a small flower as the center and a “米”

structure. It had a single flower heart pattern which dispersed from the center to the outside and a petal structure composed of various petal elements. It was a composite flower pattern with pomegranate pattern as the main part. From its shape, it lacked change and level, and had a dense structure. Sui Dynasty style.

The center of the caisson in Mogao Grottoes 209 is a composite flower pattern composed mainly of pomegranate grain<sup>[FIG.24]</sup>. Four pomegranates are arranged in the structure of “+” in the figure, and crossed with vines at the top. Among them, pomegranate and twisted grapes stand out, the intersection of branches and leaves is symmetrical and balanced, the intersection of branches and leaves is delicate, the rhythm is strong, and there are two honeysuckle grain at each corner. Collocation enriches the whole picture.

[FIG 22/23]Pomegranate flower pattern,Tang Dynasty, Cave 375.



[FIG 24]Pomegranate flower pattern,Tang Dynasty, Cave209.



## [2.5] The characteristics of the composite flower pattern

### [2.5.1] The characteristics of the composite flower pattern in the Tang Dynasty

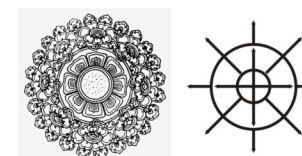
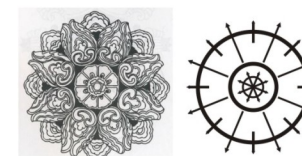
Tang Dynasty was the heyday of feudal society. It ended the long-standing war situation in China and unified the Chinese nation.

Tang Dynasty regards plumpness and gorgeousness as its beauty. Whether it is the aesthetic of women's figure, or the requirement of dress and decoration, it takes plumpness and gorgeousness as its standard. This also reflects the strong national strength of the Tang Dynasty, so that people not only eat and wear warm, but also the pursuit of quality of life has a qualitative leap. Women in the Tang Dynasty were quite luxurious and gorgeous in dress and wear, and the application of colour was mainly gorgeous, preferring contrasting colours. Therefore, it is inevitable that composite flower patterns was well developed in the Tang Dynasty.

Tang Dynasty is a very open dynasty, so that Buddhist art has no resistance to development, and has been widely disseminated, thus driving the development of composite flower with a certain religious color, and has been widely used in silk, gold and jade jewelry, pottery, architecture, etc., which is one of the indispensable decorative patterns.

From the structural point of view, most of the composite flower patterns in the Tang Dynasty is mainly based on the front view, with round patterns and full shapes. Combining the original and structural drawings, it can be seen that the overall shape of Composite flower patterns is circular, consisting of the heart, petals and receptacles<sup>[FIG.25]</sup>. It is radial from the inside to the outside and can be roughly divided into three layers: the first layer is the stamen composed of eight leaves; the second layer is the large petals composed of lateral curl petals and paired hook petals, which have a more hierarchical sense; the third layer is eight receptacles with gradient layers, with almost no space left between each layer and closely connected.

[FIG 25/26]Composite flower patterns and structure.



This is a composite flower pattern<sup>[FIG.26]</sup> of the Tang Dynasty, “米” structure, the middle layer is composed of dots and small circles of Lotus seed, the second layer is composed of eight petals of lotus stamens, each large leaf has four layers of small leaves, forming a basic pattern of a lotus, the third layer is the choice of the use of eight Peony flowers, stem and flower facies. Even, the orderly arrangement of each flower adds a sense of hierarchy to the whole composite flower. The fourth layer uses the cloud curl petals, which surround the outer circle of the flower cluster, making the whole flower look rich and full.

The Tang Dynasty bronze mirrors<sup>[FIG.27]</sup> with composite flower are now hidden in the Palace Museum of Beijing. Because the mirror is made of copper. besides the function of looking after, it can also ward off evil spirits. The back of bronze mirrors was mostly decorated with

various exquisite and gorgeous decorations, which also reflected the people's living customs at that time. Obviously, the composite flower patterns with auspicious implication is also one of the themes of the back pattern of the bronze mirror. It is decorated on the back of the bronze mirror by means of size, arrangement and deformation. The bronze mirror in the picture is petal-shaped and the composite flower on the back are radial and symmetrical.

[FIG 27] Tang Dynasty bronze mirrors with composite flower.



### [2.5.2] The characteristics of the composite flower pattern in the Song Dynasty

After the Tang Dynasty, the economic center began to move southward, and it was not until the end of the Northern Song Dynasty that the process of southward migration was completed. Agriculture, handicraft industry, silk weaving industry and porcelain industry have developed rapidly. In terms of art, the Song Dynasty had great achievements, especially in landscape painting, flower and bird painting.

Because of the geographical environment and warm climate in the south, people enjoy the willow and green grass, leisurely and unrestrained life, so the pattern of composite flower is also developing towards a more natural, elegant and relaxed direction. Compared with the magnificent and magnificent Tang Dynasty, composite flower in Song Dynasty tends to be introverted, elegant, and "S" shaped pattern

[FIG 28] Piercing pattern, Song, Yulin cave61.

[FIG 29] Twisted flowers, Song, Cave76.



is widely used, which changes the symmetrical and regular shape of Tang Dynasty and gives people a feeling of moving and charming, which is totally different from the regular and full and gorgeous shape of Tang Dynasty. It is mostly displayed by side-looking view. Now, the style is more realistic. There are roughly two types: piercing pattern and twining pattern.

**Piercing pattern**<sup>[FIG.28]</sup>: With the development of technology, branches, leaves, vines and vines are taken as basic materials. Natural flowers and leaves are successively arranged on the trunks of wavy lines to form a "S" shape with dynamic changes, which can be inverted and connected, with flower heads at the turning point, and can be connected to two or four directions for an infinite length.

**Twisted flowers**<sup>[FIG.29]</sup>: twisted branches and stems are intertwined, showing regular continuous wavy lines, branches and stems are respectively filled with leaves and flowers, forming twisted flowers.

### [2.5.3] The characteristics of the composite flower pattern in the Yuan Dynasty

The Yuan Dynasty was established by the Mongolians. It was a regime established by ethnic minorities in Chinese history. It became strong from the end of the 12th century and carried out a large-scale plundering war. Military strength once extended to Eurasia, which was the broadest Dynasty in Chinese history. The establishment of the Yuan Dynasty broke the original society of Tang and Song Dynasty. The order of meeting has realized the expansion of territory and the change of system.

Compared with Tang and Song Dynasty, Yuan Dynasty was more liberal and heroic, but it was not developed in art. Because of the long war, it destroyed the economy and culture greatly. It was not until later that measures were taken to restore production and attach importance to handicraft industry. Later, with the rapid development of economy, developed domestic transportation and frequent foreign exchanges. In the long-term international exchanges, the integration of cultures not only inherited the traditions of the Song Dynasty, but also absorbed the characteristics of Arab culture and the national style of Mongolian grassland culture, which further developed the composite flower patterns.

For example, this treasure collection in the Palace Museum of twisted composite flower pattern weaving gold brocade<sup>[FIG.30]</sup>. Compared with the realistic style of Song Dynasty, composite flower pattern is more planar and has a profile effect. The receptacles, calyx, corolla, stamens and petioles of precious flowers are all woven out of gold thread. The flower head is symmetrical, the receptacle connects the stamens, and holds up the whole treasure-shaped flower. The petals have nine petals. They are radial upward, full and thick, which clearly shows the rough and heroic style of the flower. Around the decoration twisted patterns constitute a continuous pattern, so that the entire pattern enriched.

[FIG 30] Twisted composite flower pattern weaving gold brocade.



#### [2.5.4] The characteristics of the composite flower pattern in the Ming Dynasty

[21]Zhu Yuanzhang: The Hongwu Emperor (21 October 1328-24 June 1398), was the founding emperor of the Ming dynasty.

[22]Jingdezhen: Jingdezhen is city, in northeastern Jiangxi province, China. It is known as the "Porcelain Capital" because it has been producing Chinese ceramics for at least 1,000 years, and for much of that period Jingdezhen porcelain was the most important and finest quality in China.

[23]Dou Cai: It is a method of making ancient ceramics.

After the establishment of the Ming Dynasty by Zhu Yuanzhang<sup>[21]</sup>, the culture and economy developed rapidly, which is another strong period in the history of our country. The Ming Dynasty carried out a series of policies, which greatly aroused the enthusiasm of handicraft workers. Handicraft industry and commerce developed unprecedentedly. Arts and crafts also paid more attention to the harmony and unity of practicality and beauty. As a result, Jingdezhen's<sup>[22]</sup> ceramics industry developed rapidly and became China's ceramics capital as one of the main decorative patterns. Composite flower patterns also appears frequently on ceramics. Its style shows exquisite, solemn, solid effect, with a strong decorative.

The Ming Dynasty Dou Cai<sup>[23]</sup> composite flower cans<sup>[FIG.31/32]</sup>, which are collected in the Palace Museum, are painted with the desired head pattern and lotus petal pattern at the top of the cans. In the middle, there are six groups of clumps of broken branches lotus with treasure-like patterns. According to the natural growth state of flowers, they radiate from bottom to top. The petals are nine, and the petals are wide and full. There are symmetrical moires at the top and bottom of each cluster. This jar is beautiful in shape, and matches with the vivid group pattern, which can be said to complement each other. The glaze color is mainly red and green, and the local use of yellow gives people a beautiful and elegant aesthetic feeling.

[FIG 31/32] Composite flower cans, Ming Dynasty.



[FIG 33] Composite flower pattern plate.



Composite flower pattern on the plate of Ming Dynasty<sup>[FIG.33]</sup>. Pattern are round and suitable for pattern decoration and plate bottom. Combining with twisted pattern, it grows upward around the central flower head. Composite flower petals are composed of six pairs of paired hook petals and cloud curl petals. The composition is stable, atmospheric and symmetrical.

#### [2.5.5] The characteristics of the composite flower pattern in the Qing Dynasty

[24]Manchu: There are 56 ethnic groups in China, and Manchu is one of them.

The Qing Dynasty was founded by the Manchu<sup>[24]</sup> people and was the second period ruled by ethnic minorities after the Yuan Dynasty. It was also the last feudal dynasty in Chinese history.

The handicraft industry and Commerce in Qing Dynasty developed to a certain extent. However, due to the invasion of capitalism and the outbreak of the Opium War, China began to degenerate into a semi-colonial and semi-feudal society. At the same time, it was also influenced by the culture brought by Western capitalism. The arts and crafts of the early Qing Dynasty inherited the traditions of the Ming Dynasty, but after the middle of the Qing Dynasty, the style began to become complex and cumulative, which of course also affected the shape of composite flower in the Qing Dynasty.

[25]Fen Cai: The color porcelain created in the Qing Dynasty is famous for its soft and elegant tones, and its patterns are characterized by delicacy and neatness.

For the Qing Dynasty Fen Cai<sup>[25]</sup>, the twisted branches of composite flower are covered with the vase<sup>[FIG.34]</sup> body in a complex form with, slender petals. The twisted pattern centers on the composite flower patterns, interlaces and connects with each other. It is complex and orderly. The flower head is a symmetrical figure. The whole flower looks complex and complicated, but it is very delicate and dynamic.

[FIG 34] Fen Cai Vase.



#### [2.6] The pattern of composite flower in Dunhuang art [2.6.1] Introduction

Dunhuang is a famous city in the west of China. It is also the only place for the ancient Silk Road. The reason why it is famous is that Mogao Grottoes of world civilization are situated here.

Mogao Grottoes, Yungang Grottoes and Longmen Grottoes are known as the three major Grottoes in China, and they are one of the first batch of key cultural relics protected units in China announced by the State Council of the People's Republic of China. Composite flower patterns are produced through Buddhist activities and shine brilliantly in these grottoes.

All the caves in Mogao Grottoes are excavated along the mountains.

They are scattered in high and low rows and have up to five floors. They are the largest and richest Buddhist art sites in the world. It is famous for its exquisite murals and statues. It was built in the Qin period of the Sixteen Kingdoms and went through the construction of the Sixteen Kingdoms, the Northern Dynasty, the Sui, Tang, Five Dynasties, the Western Xia and the Yuan Dynasties. There are 735 caves, but only 60-70 caves are open to people all the year round. There are 45,000 square meters of murals and 2415 clay painted sculptures.

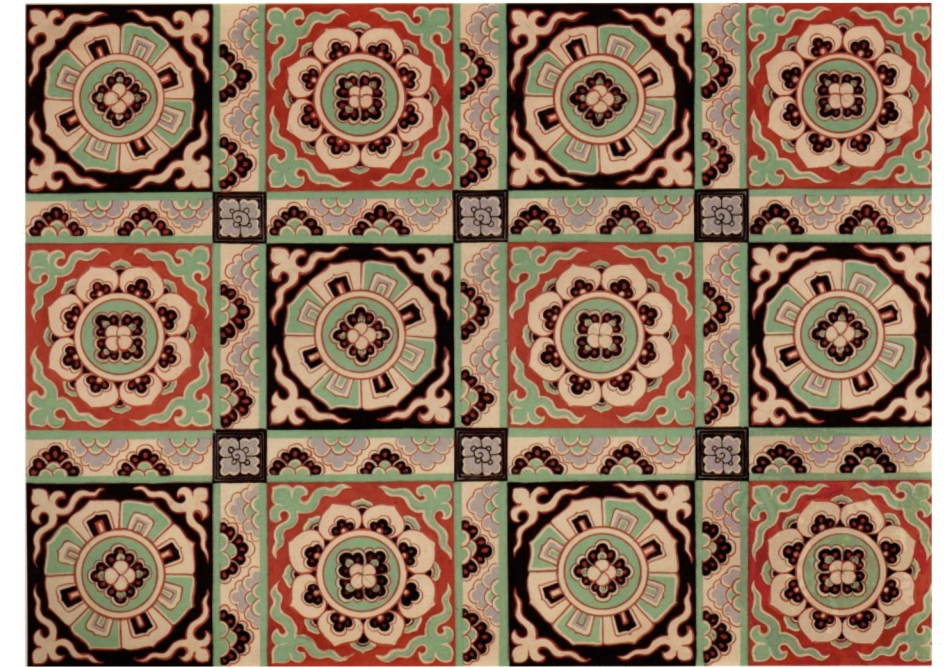
### [2.6.2] Composite flower pattern in caisson

[26]Caisson:It is an architectural feature typically found in the ceiling of temples and palaces, usually at the centre and directly above the main throne, seat, or religious figure.

The caisson<sup>[26]</sup> in Dunhuang is also a kind of fresco and a unique architectural decoration technique of the interior ceiling of ancient Chinese palaces. It was earlier seen in the decoration of the roof of Buddhist grottoes. Among them, the caisson in Mogao Grottoes is the most famous one. It is an important part of the most characteristic of Mogao Grottoes and the essence of Dunhuang painting art. At the same time, it incorporates the culture of West Asia, India and other countries and presents itself. Unique artistic temperament. Because it is situated on the top of the grottoes and is less damaged by wind and sand and harsh natural environment, it also avoids many perceived damages, so most of them are well preserved. It is used on the top of the most noble buildings, such as Buddhas or emperors' thrones, and can not be used as the roof of ordinary buildings. Tang Dynasty clearly stipulated that: Not a person of high status, can not use caisson decoration.

The caisson in Mogao Grottoes gather the essence of the Dunhuang pattern. They are decorated on the top of the grottoes. The whole structure is centered on the square of the algae wells and protrudes upward. The composite flower pattern appears in the middle of the square algae well, and then decorates one quarter or part of the composite flower pattern at the four corners of the well center. The center and the four corners of the composite flower pattern echo each other, with a sense of overall stability, while highlighting the theme. There is another kind of structure in Dunhuang caisson, called "Ping Qi"<sup>[FIG.35]</sup>, which is composed of many small squares. This form of caisson also uses composite flower pattern to fill in the center of the small squares. Some four corners are also used to fill in patterns to make a continuous arrangement of chess format in four directions. The frame arranged in this way combines with the circular pattern of composite flower and looks more correct and stable.

[FIG 35]Ping Qi:Translated into English as Checkerboard, it is a structure of the algae well, which looks like a small lattice on the board, so it is called "Ping Qi" in Chinese. (Western Xia,Cave408)



Because the pattern of the caisson belongs to the painting technology, the composite flower pattern in the Grottoes is richer and more delicate than other craft subjects. According to the characteristics of Dunhuang Grottoes painting, in the Sui Dynasty, the simple method of flat painting was mostly used, and the patterns were simpler. In the Tang Dynasty, after the introduction of concave-convex painting, the decorative techniques of layers of halo dyeing were adopted, that is, each color area was divided into several layers with contours, which strengthened the texture of the patterns and the three-dimensional effect of decoration.

Cave 251 (early Northern Wei Dynasty) caisson<sup>[FIG.36]</sup> pattern is also the initial stage of the formation of composite flower pattern. The central part is white lotus wreath, and the edge decoration tangential to Lotus wreath is continuous honeysuckle pattern. The middle four bifurcation angle is plant pattern, similar to curly grass, red bottom black edge, the outer four bifurcation angle is white bottom water eddy lotus pattern or decorated with flying Bodhisattva<sup>[27]</sup>, and the four skinny faces belong to the Central Plains style. Bodhisattva face, but its upper body is half-naked, waist-tied long skirt, and contains the characteristics of Western Regions, but also set off the importance of lotus for Buddhism and this period.

[27]Flying Bodhisattva:It is the symbol of Dunhuang art, Bodhisattva flying in the sky.

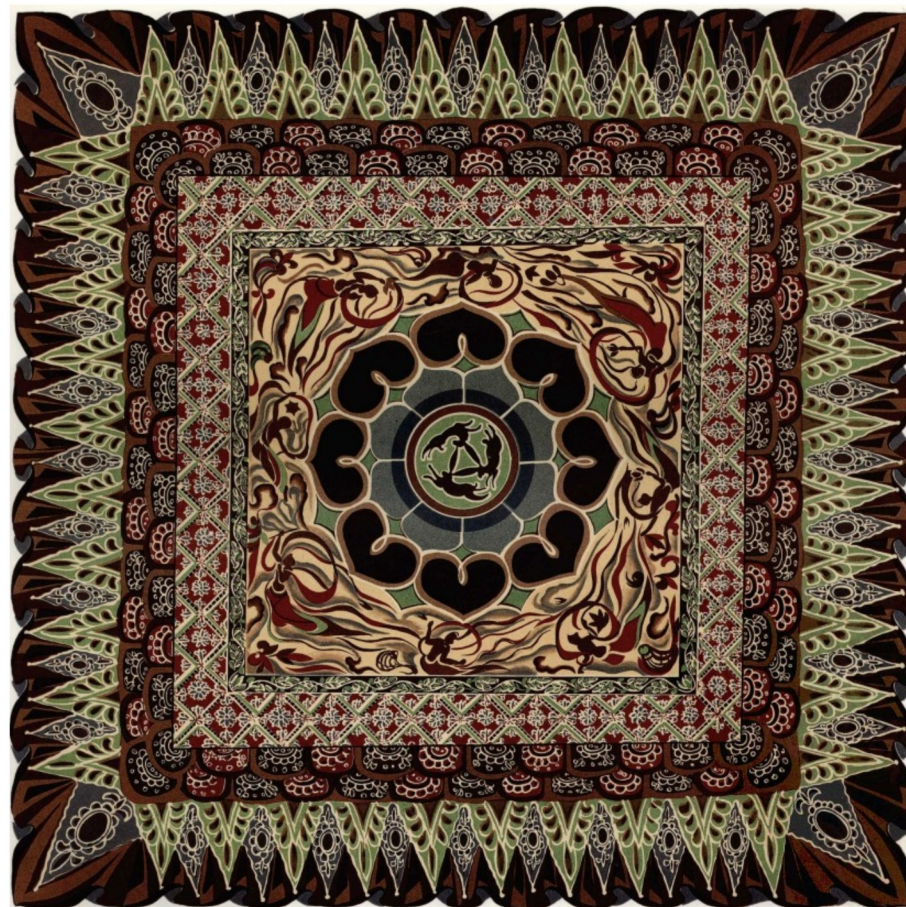
In the Sui Dynasty, the center of caisson was still dominated by lotus flowers<sup>[FIG.37]</sup>. Compared with Cave 251, the shape of lotus flower is clearer. The triangle in the center is composed of three rabbit ears, and the three rabbits are chasing each other. With the running state of the three rabbits, the central circle seems to be moving, forming a sense of never-ending movement. The outer circle of the central circle is the first layer of eight petals, taking the simple lotus petals as the shape, without excessive decoration. The outer circle is arranged by

eight larger peach petals crosswise, together with the edge decoration composed of composite flower pattern, which makes the whole caisson pattern more complete and atmosphere.

[FIG 36]Cave 251 caisson pattern (early Northern Wei Dynasty).



[FIG 37]Cave 407 caisson pattern(Sui Dynasty).



In the early Tang Dynasty, Buddhist art began to flourish. Cave 329<sup>[FIG.37/38]</sup> (early Tang Dynasty), the lotus flying Bodhisattva pattern, the central painting is no longer just a simple lotus pattern in Sui Dynasty, but a composite flower patterns composed of ten petals, each petal has drawn smaller petals, layers of radiation to the surrounding, consisting of five different colors, as far as the colorful turn is concerned. Wheels, symbolizing the light of Buddha shining on the earth, four groups of flying Bodhisattva holding tufts, in the blue sky background, foot stepping on the clouds, surrounded by composite flower patterns. Four corners are a quarter of the multicoloured lotus pattern, edge decoration is honeysuckle pattern, grid beads and other decorations, so that the whole algae well pattern looks very harmonious and beautiful.

[FIG 37]Cave329,Tang Dynasty (Inside the cave).



[FIG 38]Cave329,Tang Dynasty (Caisson).

Cave 320<sup>[FIG.39]</sup> makes the pattern of caisson in the flourishing Tang Dynasty richer than that in the Sui Dynasty. The center is a small flower with three petals and six petals each. The outer circle is composed of eight wishful patterns and gradual cloud petals, with richer and fuller layers. The outer circle is composed of peach heart-shaped petals with honeysuckle patterns. The four corners are composed of gradual petals respectively, and the figure of composite flower pattern is also indispensable in the edge decoration. The whole caisson pattern is drawn from the composite flower pattern as the main pattern, which is more repetitive and diverse.

[FIG 39]Cave 217 caisson pattern (Early Tang Dynasty)



[2.6.3] Composite flower pattern in round light

[28]Circular light: Also known as the back light, is the decoration behind the statue and the symbol of the light of the Buddha.

[FIG 40]Cave 217 caisson pattern (Early Tang Dynasty).



The circular light<sup>[28]</sup> of the statue in the caves, it can be divided into “disc”, “flame”, “auspicious pattern” and “water waveform”. Most of the back lights in Dunhuang Grottoes are round and adorned with composite flower patterns<sup>[FIG.40]</sup>. The circle is divided into eight or twelve parts. The heart of the flower is decorated with a lotus flower and distributed outward from the center, maintaining a balanced structure. The outer circle is decorated with peach heart-shaped lotus petals and twisted branches. The outer circle is decorated with small plant patterns to form a complete and regular back light pattern.

In the flourishing Tang Dynasty, the lotus petals were deformed into peach-shaped and Cirrus cloud patterns, and grape, peony and twisted branches were added to form a radial structure, forming a large flower with rich petals and colorful flowers. For example, Cave 444<sup>[FIG.41]</sup>, at this time the flowers have generally lost the characteristics of lotus, petals are becoming more and more rich, plump, round and dignified. Compared with the caisson in the early Tang Dynasty, they are more abstract and holistic.

[FIG 41]Cave 444,circular light, (Tang Dynasty)



[2.6.4] Composite flower pattern in the strip edge

Dunhuang border decoration is a band pattern used in frescoes to separate various parts<sup>[FIG.42]</sup>. In addition, Dunhuang’s clothing also contains this form, which is widely used. Composite flower pattern as a side decoration pattern mainly appears in the form of a whole flower relative to two half-flowers<sup>[FIG.43]</sup> or two half-flowers arranged in parallel<sup>[FIG.44]</sup>. The first type of inter space is continuous annular, and the second type is continuous S-shaped. The main and auxiliary flower patterns are sometimes the same, but also can be combined with different patterns of treasure-faced patterns. No matter which form of combination, it is through the use of the size of patterns, dense relationship, the gap between patterns and the formation of a sense of rhythm, constitute a lively pattern form.

[FIG 42]Cave 45,Early Tang Dynasty.

[FIG 43]Whole flower relative to two half-flowers,Border decoration, Cave 45,Tang Dynasty.

[FIG 44]Two half-flowers arranged in parallel,Border decoration, Cave 103,Tang Dynasty.



In addition to the above two arrangements, there is a special form of edge decoration, which is based on the composite flower heart-shaped pair of hook petals as a unit connected to form a continuous graphics<sup>[FIG.45]</sup>, forming a sense of continuous fluctuation.

[FIG 45]heart-shaped border decoration.



**[2.7] Color analysis of composite flower patterns in grotto mural**  
**[2.7.1] Introduction**

The color art of Mogao Grottoes in Dunhuang represents the most brilliant achievement of Chinese traditional art in the use of color. Ancient people without modern scientific color theory created excellent mural patterns by virtue of their unique color configuration.

In the color of murals, the author usually uses Chinese-specific pigments, directly according to the inherent color of objects, which is the traditional form of ancient Chinese painting. However, when the early researchers analyzed the techniques of murals, they found that the laying parts of various colours had been carefully planned and managed by the author beforehand. In some murals, the symbols of colours before coloring could be seen on the white ground. In the distribution and allocation of color, painters follow various rules of form. They pay attention to the combination of unity and change, symmetry and balance, movement and quietness, complexity and simplicity. They have profound decorative meaning and artistic appeal. It's not the relationship between light and shade in the sunshine, but the imaginative combination of colors. In order to make up for the lack of light in the grottoes, the effect of contrasting colour is fully utilized.

**[2.7.2] Color types and raw materials in murals**

Most of the pigments used in Dunhuang's caissons and other murals are natural pigments. Natural pigments are mainly natural minerals<sup>[FIG.46]</sup> and plant pigments<sup>[FIG.47]</sup>. Natural minerals and inorganic pigments are made from natural ores. It is the most advanced color in painting, because of the limited variety of colors, precious stones and minerals, such as stone blue, cinnabar, lapis, ochre and so on, stone pigments will never change color, the mineral pigments are carefully classified into 125 colors<sup>[FIG.48]</sup>. As the museum introduced: "It is through the selection of materials, crushing, de-iron procedures<sup>[FIG.49]</sup>, to create a variety of shades suitable for painting needs to be different colors. Its color is pure and thick, bright but not vulgar, with weather resistance, light resistance, not afraid of acid-alkali corrosion and other characteristics, even if not in the soil for many years will not affect its brilliant color, is a chemical synthetic synthetic pigments difficult to achieve the performance effect." Vegetable pigments are made by crushing, twisting and drying fresh plants. However, vegetable

pigments are made by crushing, twisting and drying fresh plants. However, vegetable pigments such as gamboge, anthocyanin and carmine are easily discolored over time.

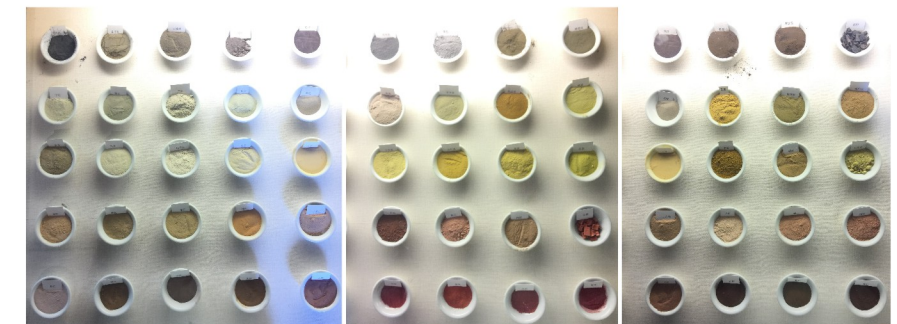
[FIG 46]Atural minerals.



[FIG 47]Plant pigments.



[FIG 48]125 mineral pigments.



[FIG 49]Process of making mineral pigments.

名称	蓝铜矿 Azurite	地胆黄矿 Cinnabar	雌黄矿 Realgar	孔雀石 Malachite
矿石原料 Raw ore				
矿石研磨 Grinding ore				
加水精制 Add water				
成品展示 Finished product show				



**[2.7.3] The color characteristics of the dynasty composite flower patterns in the murals**

Like the color of the Dunhuang murals, the color of the caisson pattern has experienced its own complex evolution process. The decoration of the caisson color reflects the color of the Dunhuang murals, which is integrated with the whole of the cave murals. In different historical periods, colors have different styles and characteristics, which are inseparable from the historical environment at that time.

During the Wei, Jin, Southern and Northern Dynasties (220-581), for example, the color of cave 272, 249, 254, 285 caisson pattern<sup>[FIG.50/51]</sup> is a simple warm tone with earthy red background. Green is also used more, earth red and stone green contrast is clear and calm, mineral pigments contain certain blending color components, there is no modern chemical pigments of high purity and strength, earth red is black, stone green is pink, such complementary color combination is more harmonious and stable, painters are aware of this, only in the wall. In the process of drawing, it draws a simple and rich picture effect, and at the same time it obtains a harmonious and unified aesthetic feeling of color.

[FIG 50] Cave 272, 249, 254, 285, Caisson(Wei, Jin, Southern and Northern Dynasties).

[FIG 51] Extract the color of the caisson of 272, 249, 254, 285 caves.



[29]Hexi Corridor: Located to the west of the Yellow River in China, it is a narrow and long plain with northwest-southeast trend, which is like a corridor. It is as the only way for the Silk Road.

During the Sui Dynasty (581-618), China's political economy, military culture and other aspects were more consolidated and developed. Because the emperor adopted a policy of active support for Buddhism and opened the Hexi Corridor<sup>[29]</sup>, which greatly stimulated the communication between the Central Plains and the Western Regions, the color collocation also became more diverse. For example, the color of the caisson patterns in caves 314, 407, 401 and 390<sup>[FIG.52/53]</sup> increased significantly, and the color tended to be bright, besides the traditional earthen red and stone. Green, stone green and other colors, but also appeared many previously unused colors, such as cinnabar, grey green, dark green, grass green, yellow, orange red and other colors, as well as different colors of gray and popular gold from the Central Plains. In this dynasty, the richness, harmony and diversity of caisson pattern color greatly exceeded the previous dynasty, and the color characteristics were more gorgeous and strong, and the atmosphere was calm.

[FIG 52] Cave 314, 407, 401, 390, Caisson(Sui Dynasty).

[FIG 53] Extract the color of the caisson of 314, 407, 401, 390 caves.



In the early Tang Dynasty (618-781), the pattern of caisson reached a magnificent peak, such as those of caves 320 and 329<sup>[FIG.54/55]</sup>. The method of overlapping halo dyeing appeared in the aspect of color. The color contrast is more distinct, and the use of colors is also more rich and colorful. The fusion of different color phases and different color degrees make the selected pigments more diversified than the previous dynasties. It also increases the use of various color harmony, and the style becomes graceful, magnificent.

[FIG 54] Caves 320 and 329.



In the mid-Tang Dynasty (781-848), Dunhuang was occupied by Tubo, and communication with the Central Plains was hindered. At this time, the flourishing Tang style in the caisson pattern was no longer used, and there were obvious differences in style. There have been abandonment and simplification, and it has become rich and elegant. It is another peak of development after inheriting the pattern of the flourishing Tang Dynasty. For example, the patterns of caves 171 and 319<sup>[FIG.56/57]</sup> are more complicated, with more than ten layers of various colors and edges, rich in color and gorgeous design. The main tones of this period are light earth yellow, earth red and ochre, besides the chlorite blue.

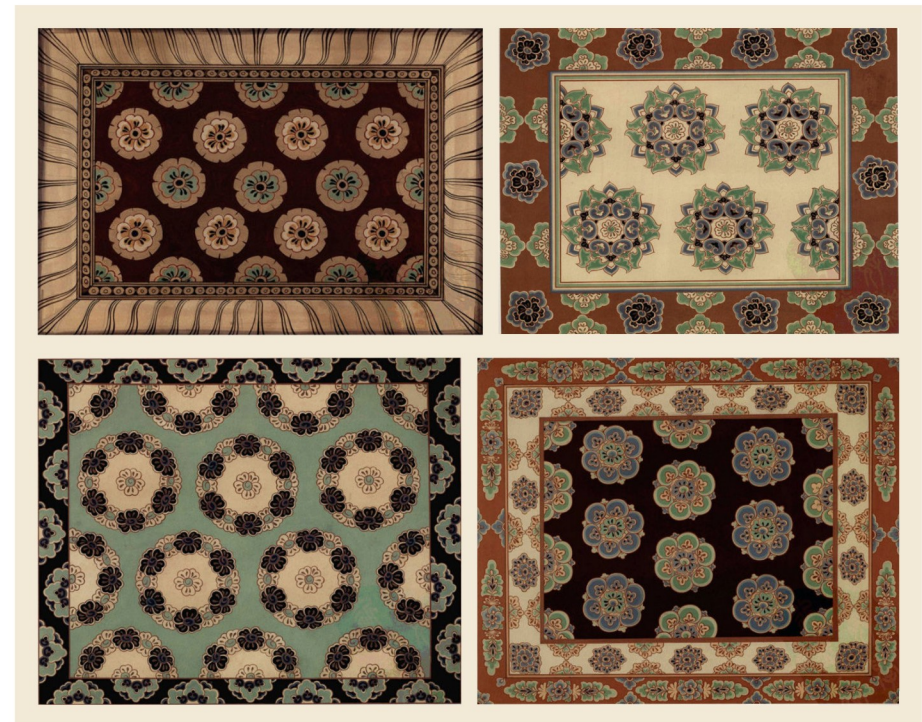


[30] **Guiyi Army:** It was a regime centered around Dunhuang in Hexi area from the end of Tang Dynasty to the beginning of Song Dynasty.

During the late Tang Dynasty (848-910), the Guiyi Army<sup>[30]</sup> expelled the Tubo rulers and re-administered Dunhuang area. Frescoes developed again. For example, the decorative patterns of grottoes 112, 9 and 196<sup>[FIG.58/59]</sup> mostly continue the old patterns of the Mid-Tang Dynasty. The color realizes the harmony between Dunhuang regional color and Tubo style, highlights the decorative effect of color, and mostly uses its own earth color or khaki as the background color. The color of the picture is mild and bright.

[FIG 58] Cave 112, 9, 196, Carpet (late Tang Dynasty).

[FIG 59] Extract the color of the carpet of 112, 9, 196 caves.



[FIG 59] Caves 61, 13, 378, 207 caissons (late Tang Dynasty).

[FIG 60] Extract the color of the caissons of 61, 13, 378, 207 caves.

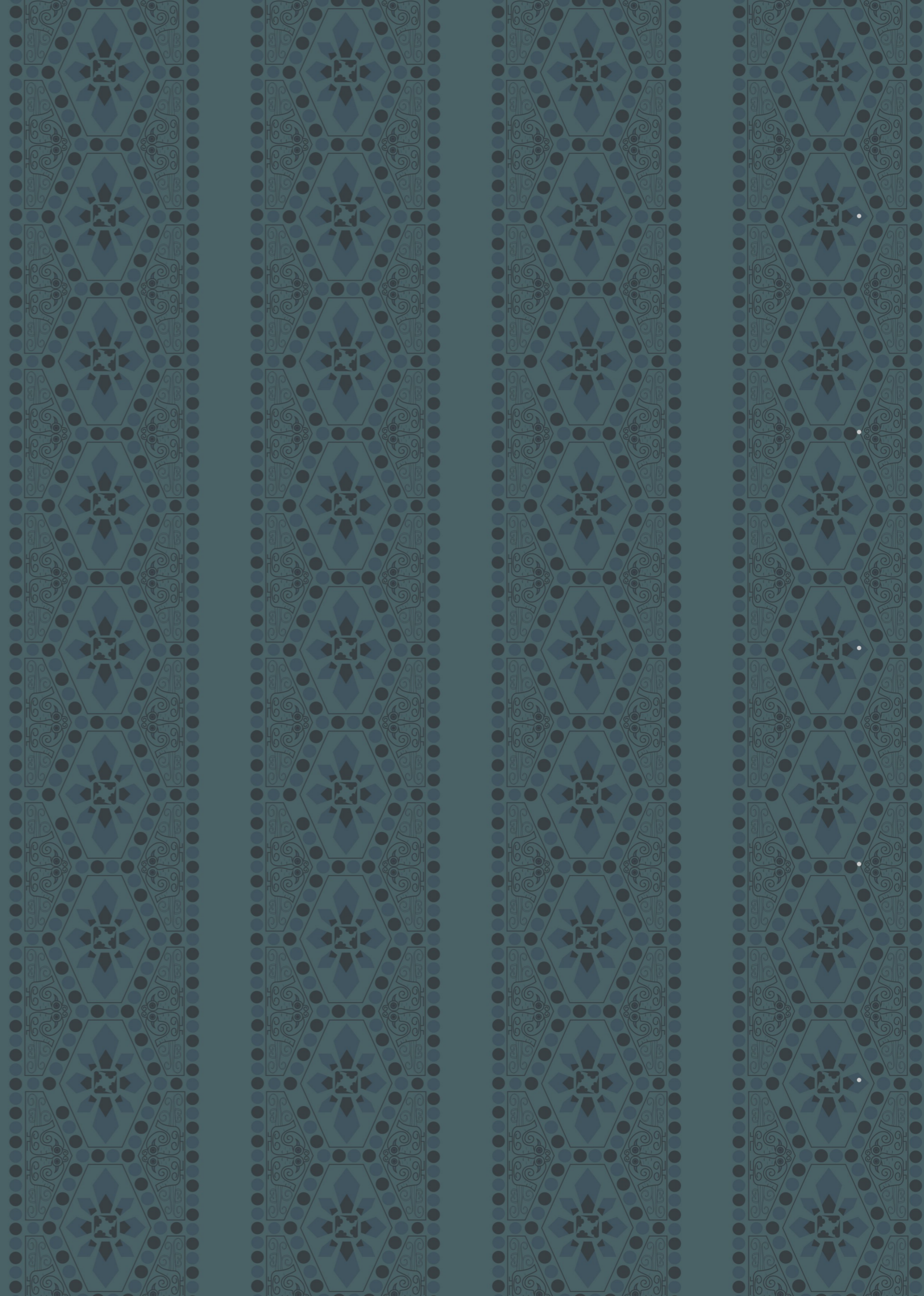


During the Five Dynasties (907-979) and the Song Dynasty (910-1036), after the fall of the Tang Dynasty, the art level of murals gradually declined, showing a tendency of simplification and procedure, lacking vitality, such as caves 61, 13, 378, 207 caissons<sup>[FIG.59/60]</sup>. Because of the war, traffic between China and the West was blocked, and the source of pigments became difficult, and the variety of pigments decreased accordingly. Red pigments mainly use magenta and lead, scarcely use cinnabar, blue pigments mainly use lapis, because the source is not easy and expensive, lapis lazuli has been rarely used. The pursuit of colour is one-sided, which weakens the harmony of colour and the richness of colour change. The green system has become the mainstream, and the edge decoration often has a three-dimensional green texture, which makes the whole caisson more hierarchical. The patterns of caissons in the Five Dynasties were exquisite and rigorous, but there was no sense of violation between their colors, and the excessive use of stone green resulted in the light and flashy color of caissons. The grotto decoration had come to an end in this period and failed to reproduce the brilliance of the Tang Dynasty.



**[3]**  
**The application of composite  
flower pattern in modern design**

In modern Japanese design  
In modern Chinese design



### 3.The application of composite flower pattern in modern design

As a product of the influence of Central Asia, Western Regions and Central Plains culture, the important decorative patterns of Buddhist art, Dunhuang Grottoes always have mysterious and noble religious temperament. Ancient painters and craftsmen through rich imagination and wisdom to shape the beauty of decorative modelling, whether in the form of decoration or moral connotation, today's designers can always get infinite visual aesthetic sense, thus using in modern design.

#### [3.1] The application of composite flower patterns in modern Japanese design

##### [3.1.1] Introduction

Composite flower pattern was introduced from China to Japan in the ancient grave age of Japan (AD300-AD600), followed by Nara era (AD710-AD749) and Peace and Security era (AD794-AD1192), which were the three dynasties most deeply influenced by Tang culture. The traditional Chinese patterns were also introduced to Japan during this period. At that time, Japan was very sensitive to the popularity of China, so it was almost the same pattern that was popular in China during the same period.

Since the introduction of composite flower into Japan, it has a very important position in Japanese flower patterns. It has been used as the main pattern all the time. There are many styles and no fixed posture. It has become a widely used design element in Japanese contemporary design.

Japan attaches great importance to the application of traditional patterns in modern design. Through the observation of Japanese traditional articles, it is found that many Japanese designers are very good at using traditional treasure pattern to achieve the current fashion trend effect. By means of the deformation and abstraction of pattern, they make it into a new pattern, which is accepted by modern people. In the process of this pattern being constantly updated, new aesthetic value and market economy value are produced.

##### [3.1.2] Composite flower patterns handkerchief

This composite flower pattern handkerchief<sup>[FIG.61]</sup> is a commemorative commodity of Nara period in Japan. The handkerchief is made of cotton and printed with abstract composite flower pattern. Flower is round in shape, with four petals in the middle. The circle close to the heart is deformed by the ideal pattern. The outer layer is decorated with three large petals. The whole flower looks simple and atmospheric, which is in line with the aesthetic of modern people.

##### [3.1.3] Composite flower patterns kimono belt

The kimono<sup>[31]</sup> belt is also very important for the style and shape of the whole kimono. It is a very important decorative element to highlight the quality of kimono and the temperament of the wearer. The belt<sup>[FIG.62]</sup> of

[FIG 60] composite flower pattern handkerchiefs for commemorative goods in Nara, Japan.



[31] Kimono: It is a very important local dress in Japan.

[FIG 62] Japanese kimono belt with composite flower pattern.



[32] Pipa: A musical instrument in ancient China.

[33] Shōsōin: Located in the Dongda Temple of Nara City, Japan, it is a warehouse for the preservation of monasteries and government property. The main warehouse collects a variety of costumes, furniture, musical instruments, toys, weapons and other treasures, totaling about 9000 pieces. Among them, there are also exquisite goods from Tang Dynasty China, Xinluo and other places, and even cultural relics from Persia, so Shōsōin is known as the end of the Silk Road.

[FIG 63/64] Posters and souvenirs of Shōsōin.

this composite flower pattern is elegant in color, simple and elegant. The shape of the treasure pattern is the round shape of the Tang Dynasty. The six petals composed of honeysuckle pattern and peach-shaped petals form an outer ring, and the center is composed of ten petals. The lower left of the composite flower pattern is destroyed by a twisted edge decoration, and a small flower decoration is added around it, which makes the whole ribbon not only classical pattern decoration, but also full of modern feeling.

##### [3.1.4] Poster Design and Souvenirs of Shōsōin

The red sandalwood pipa<sup>[32]</sup>, which was displayed in Japan's Shōsōin<sup>[33]</sup> in 2015, originated in Persia and was popular in the Sui and Tang Dynasties of China and introduced into Japan in the Nara Age. It is one of the most remarkable collections. It is a four-stringed pipa, with the same four-stringed pipa Shōsōin collection of five, are long pear-shaped body, back patterns are also different. Designers extract these patterns and apply them to posters and souvenirs<sup>[FIG.63/64]</sup>. These patterns are different from those we usually see. Generally, they are petals composed of various structures, and then they are reconstructed into a large pattern. However, the pattern of this lute has not a large main body, but three different patterns made of different petals, all of which are peach-shaped. Petals and so on are combined in a symmetrical and concise way, and arranged regularly on the back of the pipa in a way of combining size and size, giving people a different aesthetic feeling of treasure flowers.



#### [3.2] Application of composite flower in Modern Chinese Design

##### [3.2.1] Hotel design-Yuechun Hotel in Xi'an

This is a famous ancient hotel in China, located in Xi'an<sup>[34]</sup>. Yuechun Hotel tries to awaken the "legacy of the prosperous Tang Dynasty". It does not simply copy the style characteristics of the Tang Dynasty architecture. It adds modern elements to the interior decorations, which reflects the fine combination of tradition and modernity, and creates a vibrant hotel instead of a heavy museum.

[34] Xi'an: It is the ancient city of Chang'an, the capital of Sui and Tang Dynasties, and the only place for the Silk Road.

The design of composite flower pattern decorations everywhere in the hotel<sup>[FIG.65]</sup>, such as walls, carpets and tea cups, combines traditional features with modern facilities, showing the local long history, cultural heritage and the charm of Chinese architecture in the Tang Dynasty, but not sticking to traditional forms, creating a modern resort integrating Xi'an's history and humanity.

[FIG 65] Yuechun Hotel.



### [3.2.2] Mirror design-Handmade Wooden Composite flower Mirror

About composite flower, it is well known that the small mirrors<sup>[FIG.66]</sup> made by two students of Architecture Department of Tsinghua University have smooth surfaces on the back, but they are made of 60 pieces of wood parts of different timber. They are refined and carved into various shapes such as composite flowers and birds. They are hand-inlaid one by one. Such exquisite and complicated inlaying techniques of composite flower flowers and trees originate from designers. Chinese Tang Dynasty culture, Tang Dynasty utensils and composite flowers pattern obsession.

[FIG 66] Handmade Wooden Composite flower Mirror.



The style of the small mirror refers to the eight-prism bronze mirror<sup>[FIG.67]</sup> of the Tang Dynasty and the composite flower pattern on the murals from Cave 112<sup>[FIG.68]</sup> of Mogao Grottoes in Dunhuang. This composite

flower pattern originated from the flourishing Tang Dynasty. On the back of each mirror, there are four composite flower patterns and four bird patterns. The center of each flower is composed of five petals. Each petal tilts slightly to the left. The combination has a special sense of rhythm. The outer ring is set off by six petals. The whole mirror looks particularly in line with the symmetry and radiation of the frescoes of caisson in the Tang Dynasty.

[FIG 67] Bronze mirror.

[FIG 68] Cave 112, Carpet, Tang Dynasty.



[FIG 69] Two different color mirrors.

[FIG 70] Paintings: This picture is "Tamping Picture" Zhang Xuan's masterpiece of the Tang Dynasty, which depicts the situation of urban women in the Tang Dynasty in tamping, arranging, ironing and sewing labor operations. The action of the characters in the painting is natural and vivid in detail, which makes people see the slight retreat of the effort when pulling silk, and shows the author's insightful observation. Its fine and vigorous lines and rich colors show the typical style of the Tang Dynasty's paintings of ladies and ladies. In 1912, Tampering Picture was purchased from an aristocrat in Beijing by the Eastern Minister of Boston Art Museum of the United States, Kang Tianxin (Japanese), and officially entered the Boston Art Museum of the United States of Tibet in August of that year.

The mosaic pattern of the small mirror has two kinds of color matching. Its color inspiration comes from the women's clothes in Zhang (Tang Dynasty) famous paintings<sup>[FIG.70]</sup>. One is bamboo blue, the other is carmine pink, elegant, not vulgar.



### [3.2.3] Design of the Great Hall of the People

[35] The Great Hall of the People: It was built on the west side of Tian'anmen Rostrum in Beijing in 1959. It is the meeting place and office of the National People's Congress of China.

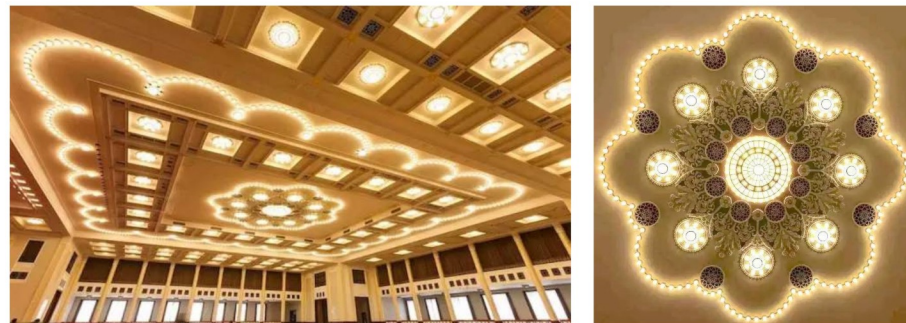
The Great Hall of the People<sup>[35]</sup> is also the symbol of our nation, representing the image of our country. On the whole, the appearance of the Hall is magnificent and magnificent. The glazed tile eaves are brilliant, the pillars are tall and magnificent, and the whole is solemn and solemn. It is fully reflects the Chinese traditional decorative art

**[35]The Great Hall of the People:** It was built on the west side of Tian'anmen Rostrum in Beijing in 1959. It is the meeting place and office of the National People's Congress of China.

features, with graceful decorative theme and outstanding national characteristics. It is also a typical representative of the early use of the composite flower patterns of Dunhuang caisson in architectural design.

When Changshana(1958)designed the Great Hall of the People, she skillfully and boldly used the content of Dunhuang art and applied Dunhuang art to modern architecture. Dunhuang frescoes, with their patterns, colors, sculptures and postures, appear on the doors, windows and beams of the Great Hall of the People, presenting a harmonious and spectacular space scene. But there are a series of difficulties in the top design. Chang(2017) mentioned in the interview that "the ceiling of the banquet hall is high and spacious. If a huge lamp is placed on the ceiling, it will appear very rigid. It seems that it is difficult to get the same design scheme."Inspired by the caissons in the Mogao Grottoes in Dunhuang, she changed the composite flower patterns in the caissons, surrounded by the headlights with rich and delicate circular patterns and colorful patterns, and equipped with modern decorative materials such as photoelectric lighting and ventilation, which had a prominent three-dimensional sense and was solemn and noble. The design of composite flower lamp<sup>[FIG.72/73]</sup> in the Great Hall of the People has achieved good visual effect, has been appreciated and praised by people, and is also a great model of applying composite flower to modern decoration.

**[FIG 72/73]**The design of composite flower lamp in the Great Hall of the People.



The most striking thing is the decoration of composite flower and caissons and ceiling in the lobby on the east side of the reception hall<sup>[FIG.74]</sup>. The composition and color of the design refer to the style of the composite flower pattern in Cave 444<sup>[FIG.75]</sup>, which is similar to that in Dunhuang's flourishing Tang Dynasty. The application of the pattern elements of composite flower makes the decorative style of the Great Hall of the People come down in one continuous line. It combines Chinese traditional decorative art with modern design, meets people's aesthetic and spiritual needs, and shows the reconstruction and combination of classical traditional patterns and modern design.

To people's surprise, Dunhuang's composite flowers are the symbols of Buddhist art. Most of them appear in the simple folk arts and crafts, but when they appear in the solemn Great Hall of the People, there is no sense of disharmony. This is closely related to the elegant, magnificent and graceful design form of the composite flower patterns. The traditional pattern image, which has experienced

**[FIG 74]**Reception hall.

**[FIG 75]**Cave 444,Circular light, Tang Dynasty.



thousands of years of cultural softness, brings people a pleasant feeling and is also a wonderful presentation of the traditional civilization form.

This traditional pattern with historical memory and rich connotation brings the working people a deep shock and sense of identity, which is also the soul of oriental aesthetics that modern design has been looking for painstakingly. The appearance of composite flower patterns in the Great Hall of the People is a successful case of the combination of traditional pattern and modern application, which leads a new direction for modern design.

# **[4]**

## **Wallpaper application and analysis**

**Introduction**

**The history and origin of wallpaper**

**Current Situation of Wallpaper Development**

**Advantages of wallpaper (function)**

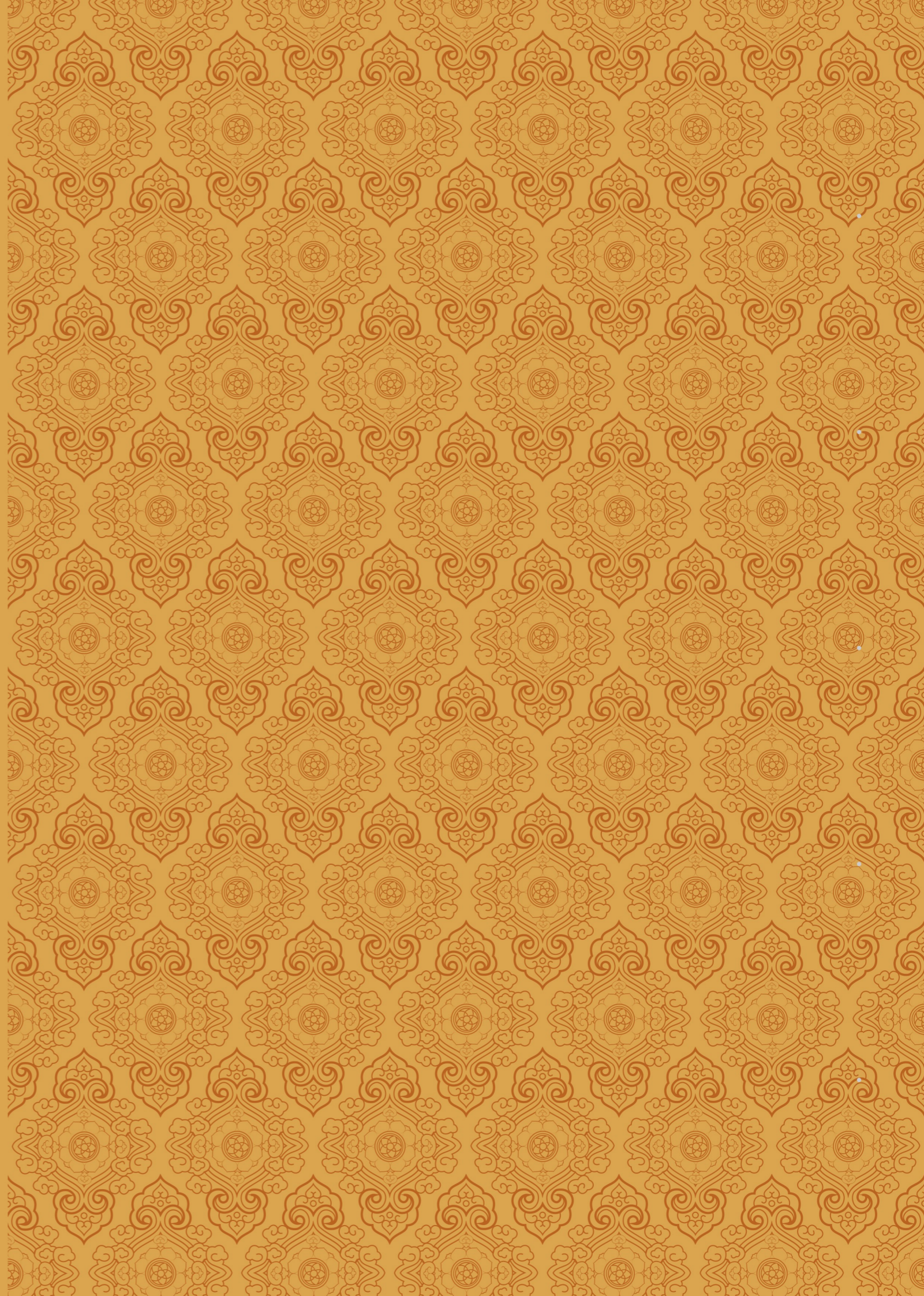
**Type of wallpaper**

**Wallpaper specifications**

**Wallpaper color**

**Wallpaper pattern and visual effects**

**Arrangement and structure of wallpaper patterns**



## 4. Wallpaper application and analysis

### [4.1] Introduction

Wall decoration is considered to be the most attractive part of the whole indoor space, and wallpaper is a widely used indoor wall decoration material, because it has a variety of colors, rich patterns, safety and environmental protection and other characteristics, in Europe, the United States, Japan and other developed countries and regions have been highly popular.

### [4.2] The history and origin of wallpaper

As for the history of wallpaper, there are different opinions about each data. Through research and sorting out a time line of wallpaper development. The earliest wallpaper, from ancient times, was invented papermaking by Cai Lun<sup>[36]</sup>. Then, the ancestors have pasted paper on windows and walls to decorate rooms and shelter the wind and dust. In the Tang Dynasty, people began to draw patterns on paper to decorate the wall, which was also the earliest wallpaper.

With the development of the Silk Road, the trade between the East and the West has been promoted. Papermaking has spread to Arabia and Europe along with the Silk Road. The earliest wallpaper works were found in France (1599). Jean-Michel Papillon, a printmaker, made a series of continuous wood carvings and printed wallpaper. Therefore, he was called "the father of wallpaper in the world".

Modern wallpaper originated in Britain. After the Industrial Revolution, a large number of mechanized production led to a sharp decline in the design level, which led to the rise of the arts and crafts movement. In the mid-19th century, William Morris, a representative of the arts and crafts movement, designed a large number of naturalistic wallpapers and began to use machines to mass-produce printing, from which wallpapers in the modern sense came into being.

Wallpaper was introduced into China in 1880, but it was mostly used in foreign houses in concessions at that time. The first volume of printed PVC wallpaper made in China was produced by Beijing Plastic Factory in 1978.

In 1974, the association Paperhangers was established in the United States. Modern art decoration, wallpaper into the popular period, it makes the wall more beautiful and romantic.

The development of world economy and culture, wallpaper was not confined to a single material, but experienced the development and changes of paper, foam paper, printing paper, embossing paper and so on. Whether from the perspective of production technology or art, aesthetic feeling or economic and environmental protection is the best choice for interior decoration.

### [4.3] Current Situation of Wallpaper Development at Domestic and Foreign

#### [4.3.1] Domestic development status

Through investigation and research, it is known that the wallpaper industry in China rose in the 1970s-1980s. At that time, because of the old equipment and general technology, the wallpaper produced was of low quality and plain originality. Although there were many enterprises involved in the production, few of them really survived. The wallpaper at that time had many problems, such as curling, untidy flowers, monotonous patterns and fading, because of the insufficiency of design, material and production, which made consumers have a bad impression of wallpaper. As Bai(2017) said, "Although they lived in wallpaper houses later, they found that the seam edge of wallpaper was easy to rise, making it easy to warp. What worries people is that they can't deal with and recover from the large-scale warping in the gap."<sup>[37]</sup> This problem is often encountered by many wallpaper users, which is also one of the reasons for its utilization.

Later paint began to enter the country in large quantities, making the wallpaper industry into a low ebb, coupled with quality problems, so that consumers have serious blind spots in choosing wallpaper, as Berlin said, "34 years ago, when the first time to decorate a house by oneself, only a simple brush on the floor, the wall did not exist at all. Ability to manage. Twenty-six years ago, another apartment was assigned to another unit, so once again it was decorated by itself. The floor was tiled, the wall was painted with latex paint, and the wallpaper could not be pasted. Later, I bought my own house. When I decorated it, I did not use wallpaper, but used latex paint."<sup>[38]</sup> This should be the common phenomenon of wallpaper use in China at that time.

After 2001, the wallpaper industry has experienced a serious failure, and made deep thinking. It has introduced a large number of the most advanced production equipment and production technology in the world. By relying on scientific and technological innovation, the safe and practical production of wallpaper is mainly popular. By 1992, the wallpaper industry reached its peak, but then because of the quality and national economy problems. The usage rate continued to decline.

Two latest industry standards(2016)<sup>[39]</sup> issued by the Wallpaper and Wallpaper Branch of China Building Decoration Materials Association in 2017, further standardize and improve the quality of wallpaper products and determine the production, circulation and consumers' production. Quality provides an important basis.

Slowly with the solution of wallpaper quality problems, but in the process of investigation another problem arises. The domestic wallpaper industry is not fully mature. Most of the patterns and templates rely on imports. Not only the price is high, but also the patterns are always outdated in the international market, which makes it difficult to export.

According to He(2018)<sup>[40]</sup>, deputy secretary-general of China Wallpaper

[36]Cai Lun:Eunuch in the Han Dynasty(25AD-220AD) invented papermaking and was listed as one of the "four great inventions" in ancient China.

[37]Bai Wenxue "Wall Decoration Aesthetics", (2017,P73).

[38]Bai Wenxue "Wall Decoration Aesthetics", (2017,P74).

[39]China Association of Building Decoration and Decoration Materials," Standard JG/T509-2016 for Non-woven Wallpaper for Architectural Decoration", "Textile Fabric Standard JG/T 501-2016", Chinese Architectural Newspaper(2017).

[40]He Huilin "Feelings of Shanghai Wallpaper Exhibition", (2018,P48)

Association, "there are also wallpaper exhibitions in Shanghai every year. Last year's wallpaper exhibition had eight pavilions and thousands of pavilions, almost all of them were wallpapers. There were only 23 wallpaper pavilions in the pavilion, "Although it was said that there were only 23 wallpaper pavilions in the pavilion. Wallpaper exhibition, in fact, is the exhibition of decoration building materials, which is practical, because at the same time there are building materials exhibition, curtain exhibition, paint exhibition, door and window exhibition, etc., but it is a large-scale interior decoration of a marketing means. There are fewer and fewer wallpaper companies, and according to the survey, the main business is mainly foreign wallpaper agents and wallpaper imports.

Searching various websites and asking former teachers and classmates, we found that there is no designer specializing in wallpaper in China, and there are hardly any wallpaper designers in the recruitment of major companies. Only relying on the import of patterns, China is far behind the developed countries in innovation, and innovation is the most important in wallpaper design. Part of this may be the most important reason for the depression of China's wallpaper industry. In the absence of reference, it also brings some difficulties to the application and design of composite flower patterns in wallpaper.

#### [4.3.2] Foreign development status

Wallpaper in Europe, the United States, Japan and other developed countries have a high utilization rate, good quality, variety. "Statistics show that since 2005, the demand of international wallpaper market has increased by 10% annually. The countries with the highest wallpaper usage rate in the world are Japan and Korea, whose wallpaper coverage rate is more than 90%, and the developed countries in Europe and America have reached more than 50% - 60% in wallpaper usage, while in China, the wallpaper usage rate is only about 10%.<sup>[41]</sup> Britain is one of the most developed wallpaper producing, consuming and exporting countries in the world. It is also an important member of the International Manufacturers' Association (IGI) and the European Standardization Commission (CEN). With the long history of wallpaper development, large production, advanced technology and other factors, the British wallpaper industry is representative in the international wallpaper industry.

It is found that most of the top 10 wallpaper brands in the world come from Britain, Germany and France. Taking Britain as an example, the research and analysis shows that with the development of the industrial revolution, British wallpaper has experienced a long process from manual carving, manual printing to mechanized production. There were 14 wallpaper companies before World War I, and in 1954 the British Standardization Commission (BSI) established a unified standard for the quality and safety of wallpaper products.

Wallpaper in the actual use process, people often regard it as a

handicraft and pay more attention to its decorative, in fact, it is a product of both decorative and functional. The texture of wallpaper materials and the design patterns and colors together form its unique artistic charm. What interests the author most is the atmosphere of European wallpaper design. They attach great importance to the design of wallpaper patterns and colors. Each company has its own arts and crafts designers. They are familiar with not only the production technology and art design of wallpaper, but also the aesthetic characteristics of different nationalities. Through various channels to timely grasp the wallpaper market information, regular wallpaper market pattern and color research, consultation and analysis and design new patterns. Designers also regularly attend wallpaper exhibitions in London or international wallpaper exhibitions in Paris and Milan.

Long-term wallpaper development has also produced many excellent wallpaper works and its designers, such as William Morris of England, Marthe Armitage, Peggy Augus, Florence Broadhurst of Australia and so on. Because of the lack of research materials in China, the research work focuses on the design of foreign countries.

#### [4.4] Advantages of wallpaper (function)

Wallpaper is a highly decorative product with aesthetic craftsmanship. It is not only environmentally friendly, but also the most convenient and fast way to change the style of the wall and the atmosphere of the space, so that the environment becomes lively and rich. It is found that besides the decorative effect on beauty and vision, there are also many advantages in function. After summarizing the data, there are the following points:

1. Preventing wall cracking: In general, latex paint wall which is often used in our country will crack in two years, especially in the drier cities in the north. Wallpaper is the best way to avoid wall cracking. At the same time, it has a certain coverage to the wall which is not particularly flat, such as small lines and pits. .
2. Not easily damaged: Wallpaper is not easily damaged under general impact, unlike ordinary latex paint, it is easy to knock off the skin.
3. Easy to handle: Children at home prefer to graffiti on the wall, stick stickers, etc. If it is sticked with wallpaper, then don't worry at all. General waterborne color pens can be washed with clean water and detergent, easy to clean and have better update function, with wear resistance and pollution resistance.
4. Functional wallpaper: Wallpaper generally needs to abide by the principle of safety. Due to the continuous strengthening of production technology, there are many functional wallpapers on the market, which have the functions of sound insulation, heat insulation, mildew prevention and fungus prevention. These Wallpapers not only have good artistic expression, but also have very strong physical properties, and are ordinary clothing. The repaired wall material is hard to reach.

[41] China wallpaper and wallpaper industry data report (2016, No. 612).

**5. Easy to replace:** Wallpaper is very convenient to pave, which is also one of the reasons for everyone's favorite. If you need to update wallpaper, just tear off the surface of the old wallpaper, the new wallpaper can be directly pasted on, and the new wallpaper does not affect living, more healthy than latex paint.

#### [4.5] Type of wallpaper

It is found that wallpaper is not only made of a single paper material, but also of plastics and non-woven fabrics. It can be divided into the following categories:

**1.PVC wallpaper:** PVC is a high molecular polymer, which is thicker and softer than ordinary wallpaper. It has a plastic film on the surface. It has good waterproofing performance and is convenient to clean. Among them, the surface of high foaming wallpaper is elastic concave-convex; low foaming wallpaper is printed with patterns on the foaming plane, such as relief, wood grain, ceramic tile and other effects. The design is lifelike, three-dimensional and the decoration effect is good. It is suitable for interior wall skirt, living room and corridor decoration. High foam wallpaper has elastic concave-convex pattern on its surface, which is a kind of multi-functional wallpaper with decoration and sound absorption. Because PVC wallpaper is layered, if the temperature difference in the room is very large, PVC plastic wallpaper may expand and shrink, leading to warping edge.

**2.Non-woven wallpaper:** Non-woven wallpaper is made of natural plant fibers. It has the advantages of natural, environmental protection, easy decomposition, recycling and high permeability. It is called "breathing wallpaper". It is the most popular new type of green environmental protection material in the world. It is harmless to human body and environment, and fully conforms to the environmental protection and safety standards. Because of the use of pure natural plant extraction production, the price is relatively high, color selection is less, it is difficult to meet people's visual aesthetic needs.

**4.Pure paper wallpaper:** Pure paper wallpaper is a kind of natural wallpaper made entirely of pulp. It has good air permeability and is an environmentally friendly low carbon wallpaper. It eliminates the chemical composition of traditional wallpaper PVC, and the printing surface paper is coated with water-based macromolecule ink-absorbing coating. It can print directly with water-based pigment ink. The printing pattern is clear and delicate, the color is restored well, and it can be moisture-proof and ultraviolet-proof. Pure wallpaper is fairly priced and suitable for many consumers.

#### [4.6] Wallpaper specifications

After investigation and research, it is found that the size and specifications of wallpaper in different areas are different. The arrangement is as follows:

#### **China/Europe:**

53 cm × 10.5 m / roll  
70 cm × 10.5 m / roll  
1.06 m × 50 m / roll

#### **Japan:**

92 cm - 120 cm × 50 m / roll

#### **South Korea:**

53 cm × 12.5 m / roll  
93 cm × 17.5 m / roll  
1.06 m × 15.6 m / roll

#### **United States:**

53 cm × 10.5 m / roll  
68.5 cm × 8.2 m / roll  
1.37 m × 27.5 m / roll

#### [4.7] Wallpaper color

Wallpaper determines the overall style of home, but also reflects the owner's personality color. According to the analysis of scientists, wallpaper can affect a person's mood. Some psychologists found in experiments that in red environment, people's pulse will accelerate, blood pressure will rise, emotional excitement impulse. In a blue environment, the pulse slows down and the mood is calmer. Some scientists have found that color can affect brain waves, which are alert to red and relaxed to blue.

Art learners are sensitive to colour, they can combine numerous different colors from the basic three basic colors, but they are basically divided into two categories: cold colors and warm colors. many color theories have made special introduction to this, and these experiences clearly affirm the influence of color on human psychology. Cold color and warm color are physical classification of color based on psychological illusion, material impression of color is roughly produced by cold and warm color systems. Red light, orange light and yellow light, which have longer wavelength, have warmth themselves, so any color of sunlight will have warmth. On the contrary, purple light, blue light and green light with short wavelength have the feeling of cold. In summer, when we turn off the incandescent lamp and turn on the fluorescent lamp, we will have a cool feeling. For example, using cold colors in frozen food or cold beverage packaging can visually cause you to feel cold about these foods. In winter, changing the curtains of the bedroom into warm colors will increase the warmth of the room.

In addition, the color of cold and warm also affects the visual size of the space, if you want to make the space look more spacious, it can consider the blue and gray of the cold color system, Because the cold color is fading back, it will make the wall backward in feeling. If a space is too large, it will make people feel cold, Orange and red can be used to make the room warmer <sup>[FIG.76/77]</sup>.

The rich colors really give people a visually stunning and enjoyable, but there are limitations in the use of matching. Usually people choose the overall color matching when choosing the interior decoration. Too bright or rich colors are not suitable for other items. For collocation, especially indoor large-area walls are not suitable for too rich colors <sup>[FIG.78/79]</sup>.

[FIG 76/77] Contrast cool and warm.

[FIG 78/79] Contrast multicolor and monochrome.

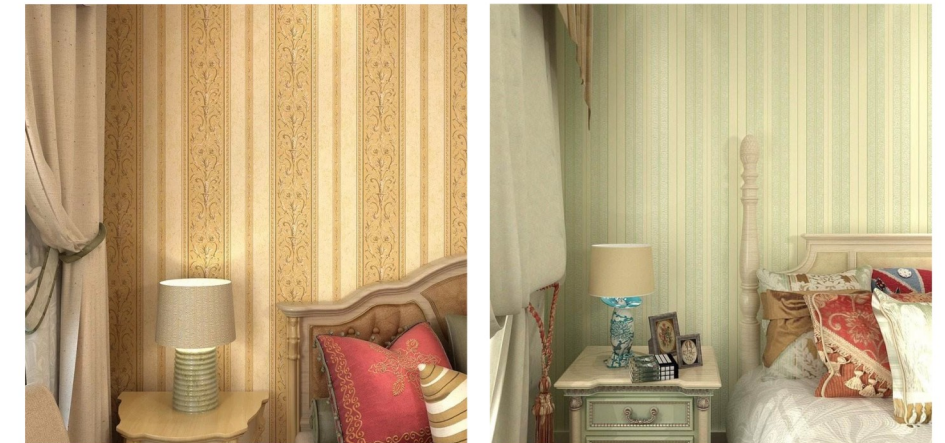


#### [4.8] Wallpaper pattern and visual effects

The pattern of wallpaper also belongs to a kind of graphic design. Different patterns have different effects and visual feelings, and basically summarize the following patterns:

**1.Stripe pattern:** Stripe wallpaper has the characteristics of classical, modern and traditional. It can spread the color on the whole wall in the most effective way. It is simple and elegant, and it is very easy to match with other patterns. A slightly wider stripe is suitable for use in large space, which can make the original tall room extend to the left and right; while a narrower stripe pattern is more suitable for use in small rooms, which can make the shorter room produce the effect of upward guidance <sup>[FIG.80/81]</sup>.

[FIG 80/81] Contrast wide and narrow stripes.



**2.Flower pattern:** The flower pattern can make the space more open. Some flower patterns are realistic and the color is strong. There will be a feeling of coming out at a distance. This wallpaper can reduce the sense of restraint in the room and make the user's mood more relaxed. Most of them are more exaggerated, so they usually match some classical furniture <sup>[FIG.82/83]</sup>.

[FIG 82/83] Contrast complex Flowers and Simple Flowers.



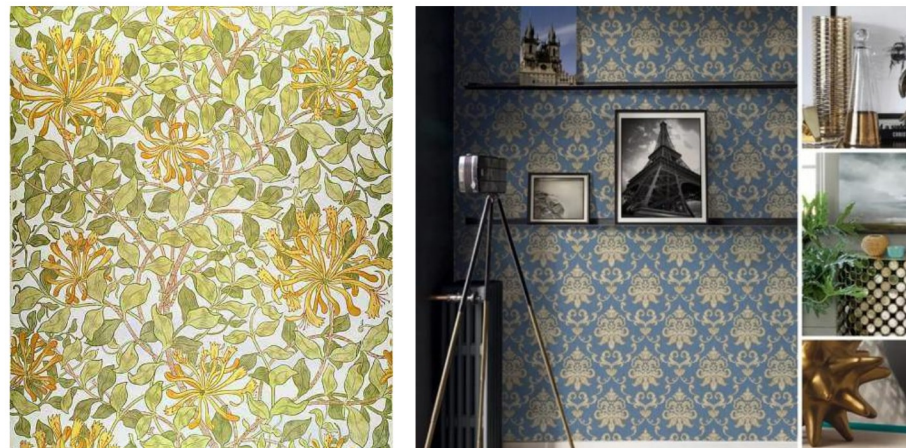
**3.Small pattern:** This pattern will add a sense of order to the whole space. Regular small patterns can provide space with a wall that is neither exaggerated nor too flat. There are not too many restrictions on matching different styles of furniture <sup>[FIG.84/85]</sup>.

[FIG 84/85] Contrast between big and small patterns.



**4.Classical and Modern Patterns:** If we want to use the classical pattern of composite flower as a pattern design in wallpaper, it must be the most appropriate choice for classical furniture, but if we want to integrate this classical pattern into modern design, maybe we should make some modern treatment in pattern design, such as format and color, etc. Different effects <sup>[FIG.86/87]</sup>.

[FIG 86/87] Contrast between Classical and Modern Patterns.



**[4.9] Arrangement and structure of wallpaper patterns**

Different patterns have different arrangement and structure. Through the study of different wallpapers, the following structures are summarized:

**1.Pattern Irregularity <sup>[FIG.88]</sup>:**



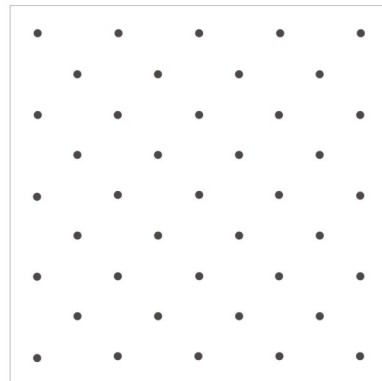
**2.Vertical Stripe Pattern <sup>[FIG.89]</sup>:**



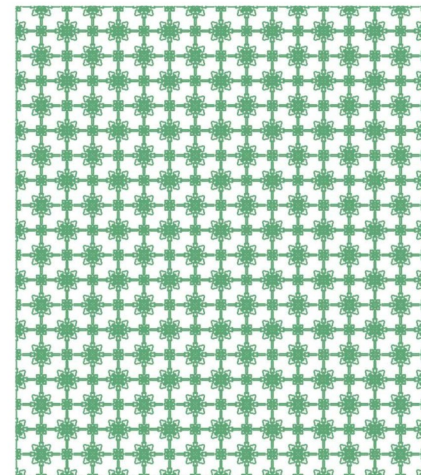
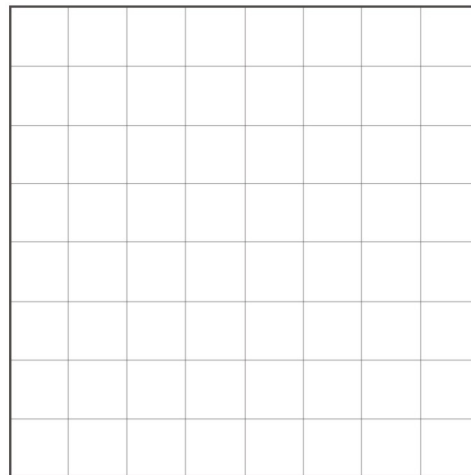
**3.Horizontal Fringe Pattern** <sup>[FIG.90]</sup>:



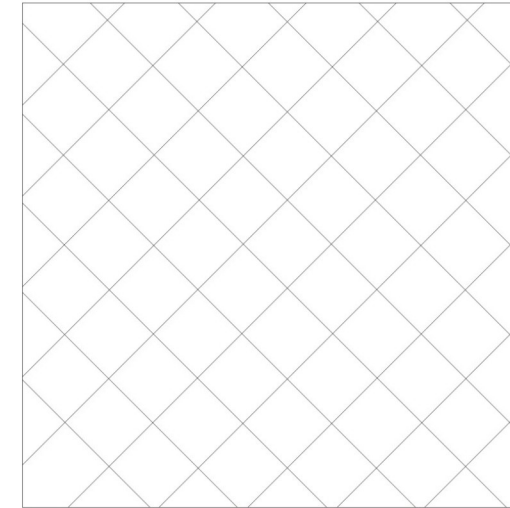
**4.Punctate Pattern** <sup>[FIG.91]</sup>:



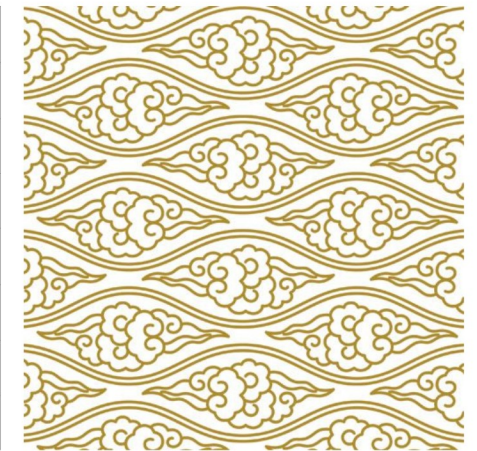
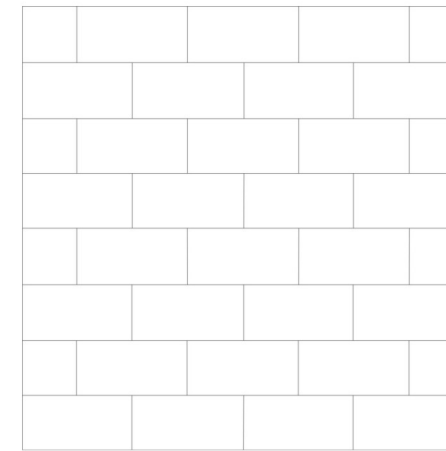
**5.Square distribution pattern** <sup>[FIG.92]</sup>:



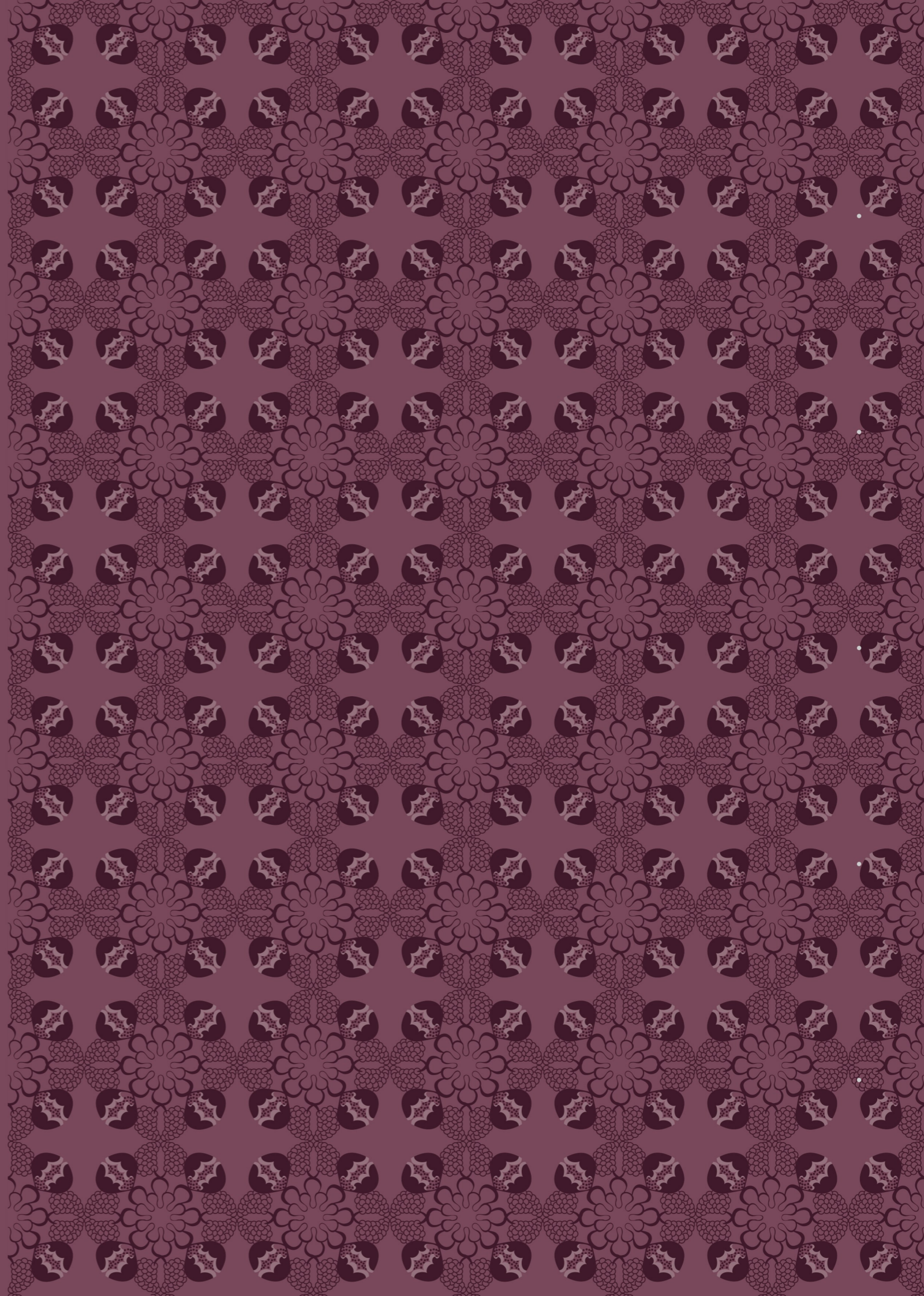
**6.Rhombu Pattern** <sup>[FIG.93]</sup>:



**7.Cross Distribution Patterns** <sup>[FIG.94]</sup>:



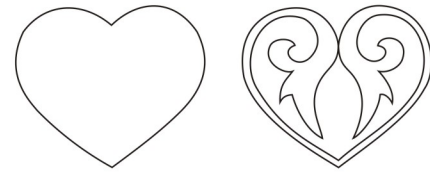
**[5]**  
**Combination and application of  
composite flower patterns and  
wallpaper**  
Design and Practice  
Summary



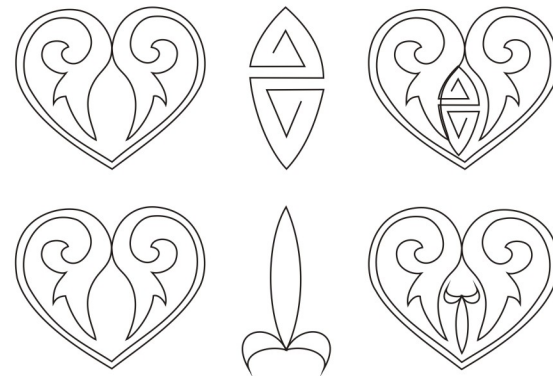
## 5. Combination and Application of Composite flower patterns and Wallpaper

### [5.1] Design and Practice

#### [5.1.1] Combination design of persimmon pedicle pattern and honeysuckle pattern



Use heart shape to design persimmon pedicle pattern petals, and then with honeysuckle pattern.



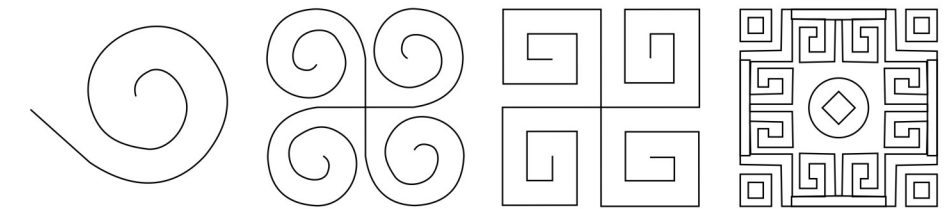
There are two schemes, the first is to add a deformed moire to enrich the shape of the entire petal; the second is to continue to use plant patterns to enrich it.



Because the persimmon pedicle pattern is a “+” shape structure, so combined with the design of the front two petals, there are two composite flower patterns.



This is the Chinese character “福”, which changes the shape of Chinese characters and makes them pattern, so that they can be better matched with other patterns.



The last pattern is designed on the basis of cirrus cloud pattern. Because of the diamond and circular design, the figure is designed with square shape. The last one is centered on the shape of ancient coins. It also fits the meaning expressed by the word “Fu” and persimmon pedicle pattern.



Compound wallpaper with persimmon pedicle pattern as the main pattern is distributed in dot form and matched with the word “福” and cirrus cloud pattern. The meaning of “福” means Fortune, while the meaning of persimmon pedicle pattern represents the prosperity and

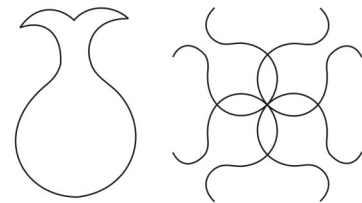
[FIG 95/96] Chinese New Year posted blessing.



stability of the family and the country, which also means “福”, while the word “福” in the wallpaper is upside down, which is in the middle. One kind of national custom, every family will paste the word “福” on the door during the Spring Festival. It is pasted upside down because in Chinese it is the same pronunciation, meaning “福 is here”. When redesigning the cirrus cloud pattern, the inspiration and the pattern of an ancient coin came to the center. In ancient times, if people wanted to live happily, a large part of the reason was that life was rich, which must be inseparable from money, so this small pattern of coins also represented people’s expectations for a happy life.

The whole wallpaper is color matched on the basis of red tone. Red represents festivity, liveliness and vitality. The word “福” is also written on red paper [FIG.95/96]. Besides, there are many things related to red in China, such as the national flag, Chinese knot, Tiananmen City Wall and so on. This red also represents China’s stability to the country. The people’s expectation of happiness.

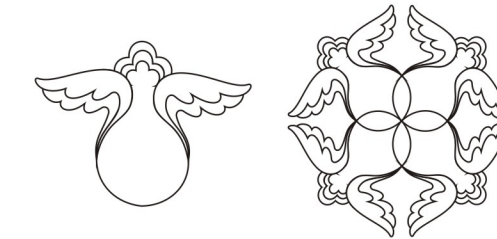
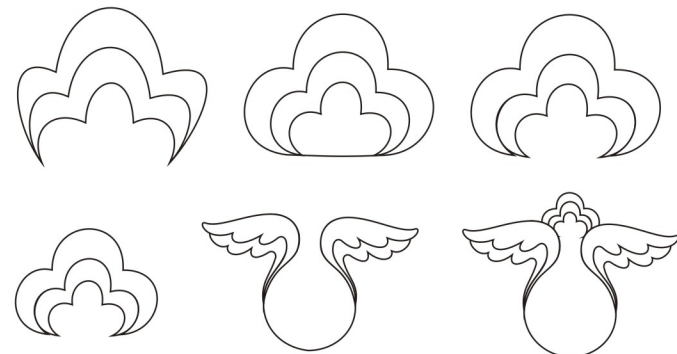
[5.1.2] Combination design of pomegranate pattern and curly grass pattern



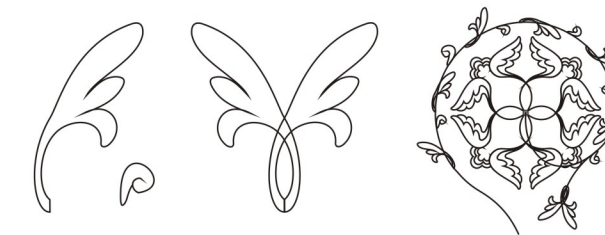
The pattern of pomegranate fruit was extracted to make it interlace with each other and form a “十” pattern in the center.



The pattern of pomegranate fruit is combined with double honeysuckle pattern.



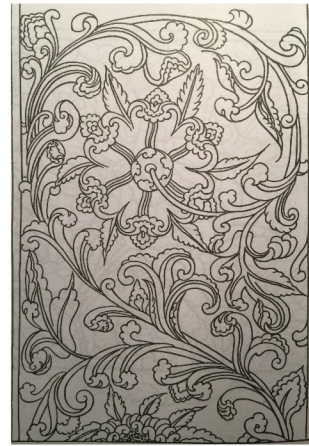
It combines the cirrus cloud pattern with the pomegranate flower to form a new pattern.



With some honeysuckle patterns combined, the curly pattern surrounds the pomegranate flower.



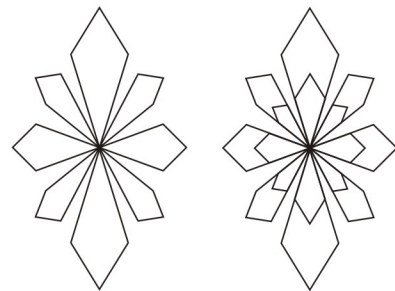
[FIG 97]Cave 344, Mural, Tang Dynasty.



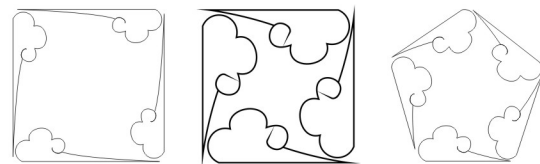
The whole design was inspired by the twining pattern decoration of Cave 334<sup>[FIG.97]</sup>. Moreover, because there are many seeds in pomegranate and the pronunciation of “seed” is the same as that of “child” in Chinese, people have a special preference for pomegranate pattern, implying that family members are thriving, and with the green honeysuckle pattern around it, because honeysuckle flowers survive the winter without dying, it can be used to describe the health of family members and their descendants.

Color matching in green. On the one hand, the whole wallpaper pattern is mainly plant-based, on the other hand, green is also the color of spring, representing the growth of all things, but also more appropriate to the design to express the moral.

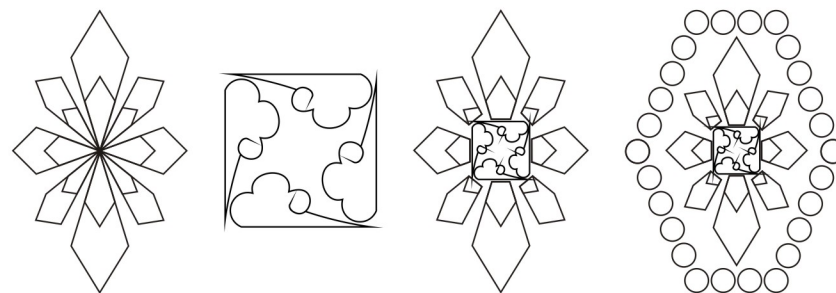
**[5.1.3]Combination design of honeysuckle pattern and Pearl patterns**



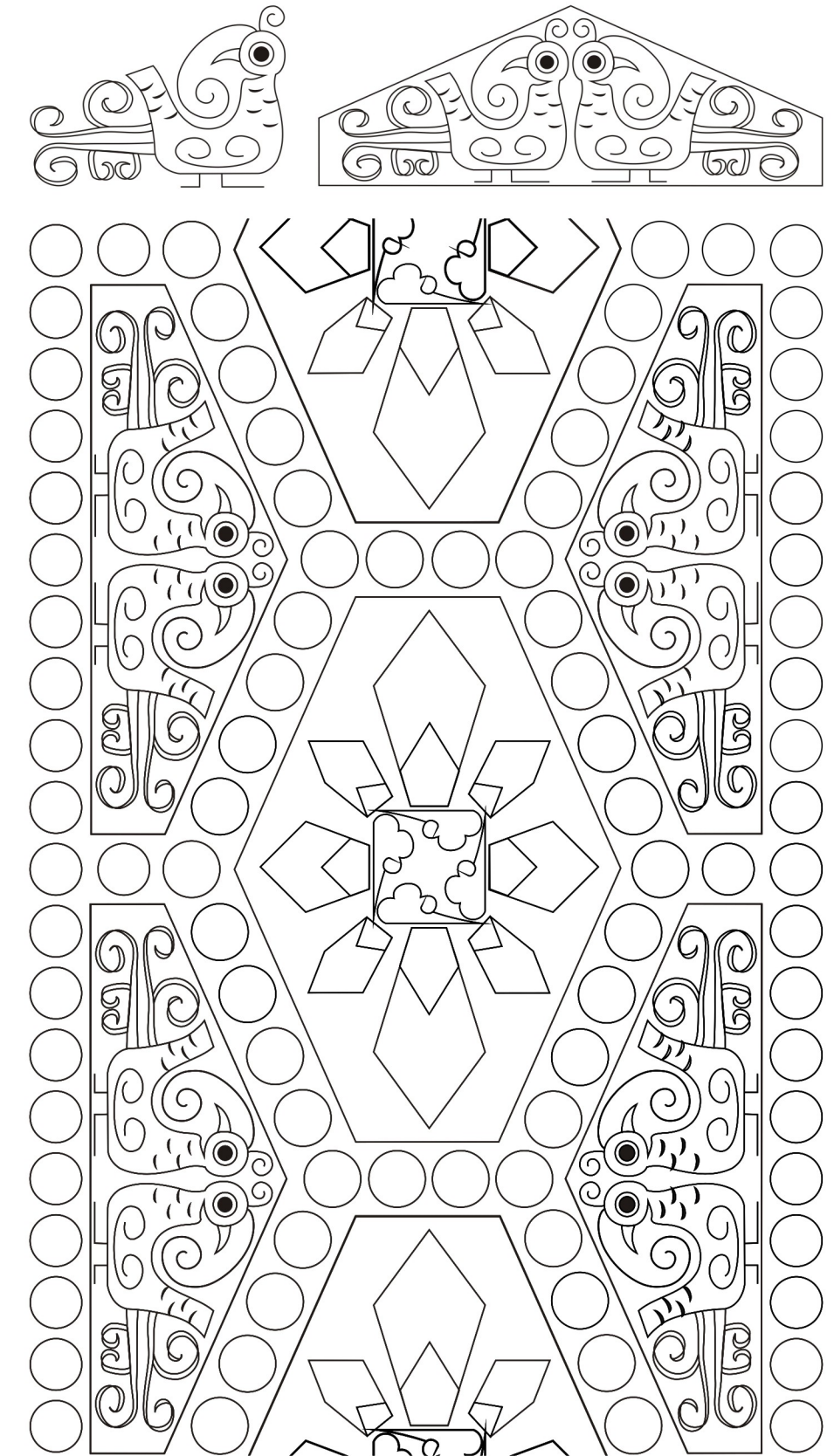
Another form of honeysuckle pattern, it angled and then superimposed a layer in the middle, forming a sense of hierarchy, looks like an ice flower.



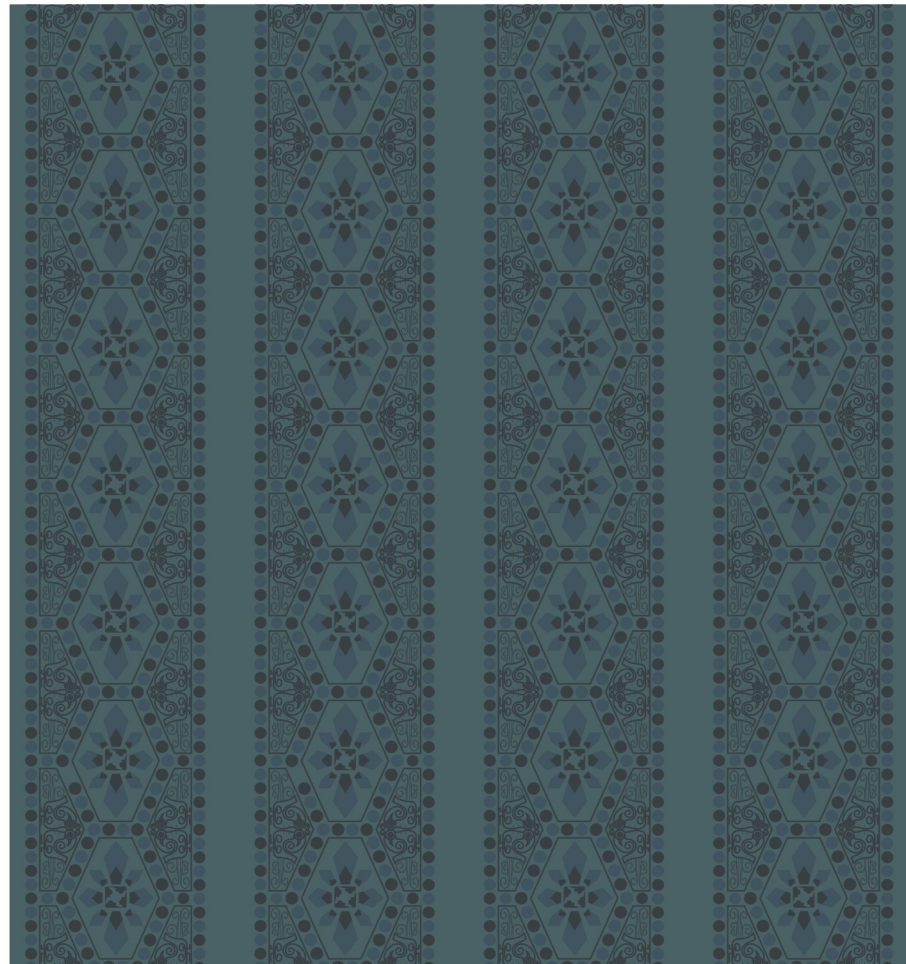
With a cirrus cloud pattern design and stretching the cirrus cloud tail. Visually, like a “three-rabbit ear” chart, there is a sense of rhythm that always rotates.



The honeysuckle pattern, cirrus cloud pattern and pearl pattern are combined to form a new composite flower pattern.

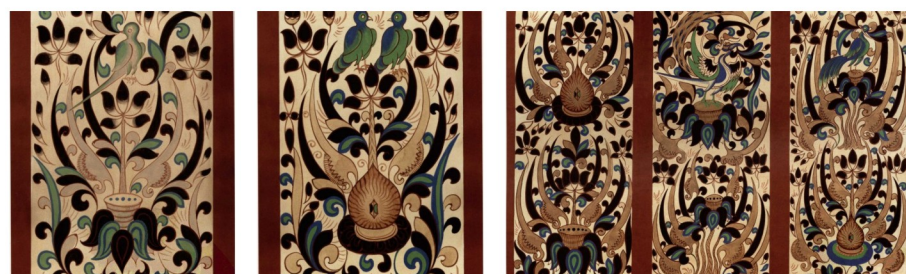


The Phoenix birds are simplified and symmetrical, distributed on the left and right sides of the honeysuckle pattern.



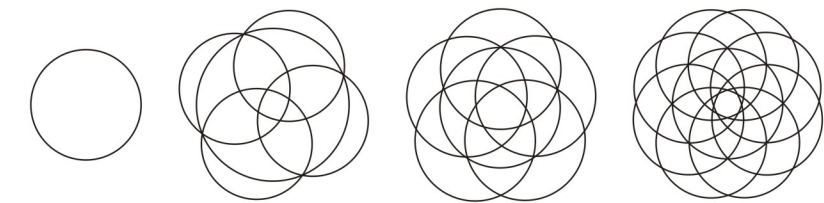
The design was inspired by the Phoenix and honeysuckle patterns in Cave 288<sup>[FIG.98]</sup> of Mogao Grottoes. Phoenix is one of the ancient auspicious animals in China. Later, the queen was likened to a phoenix. In the art of Mogao Grottoes, there are many phoenix patterns in each period. Most of them appear in the grotto murals of Sui and Tang dynasties. There are lotus patterns, honeysuckle patterns and phoenix patterns in the murals. The patterns are extracted and combined with bead patterns to create. This design reflects a vivid scene. It is the painter who grows everything. I hope that the country will have a good harvest with good weather.

[FIG 98] Phoenix and honeysuckle patterns in Cave 288 of Mogao Grottoes, Mural, Early Tang Dynasty.

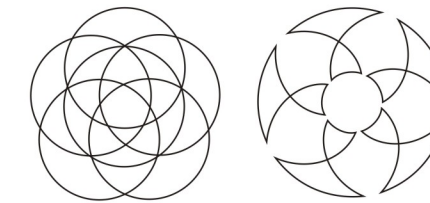


Choosing the blue color system for color matching also reflects the good quality of honeysuckle flowers in the winter ice and snow environment, which are still resolute, strong and do not bow to difficulties.

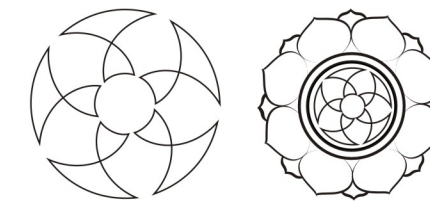
[5.1.4] Combination design of cirrus cloud pattern and lotus pattern



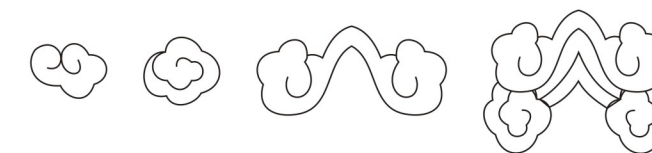
Four circles, five circles and eight circles intersect regularly to form the shape of flowers.



The shape of five petals was extracted and simplified to make lotus center.



The traditional eight-petal lotus petals are added to the outer circle of the flower heart to form a complete lotus pattern.

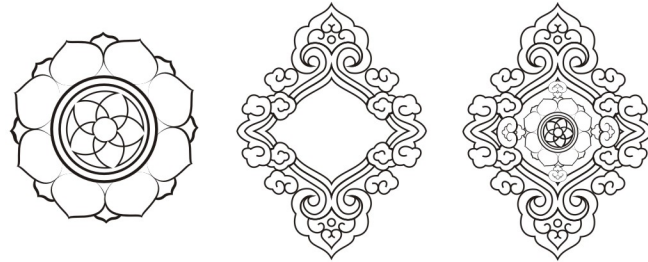


Make the cirrus cloud pattern deformation design and repeat the overlay so that it has a layer effect.

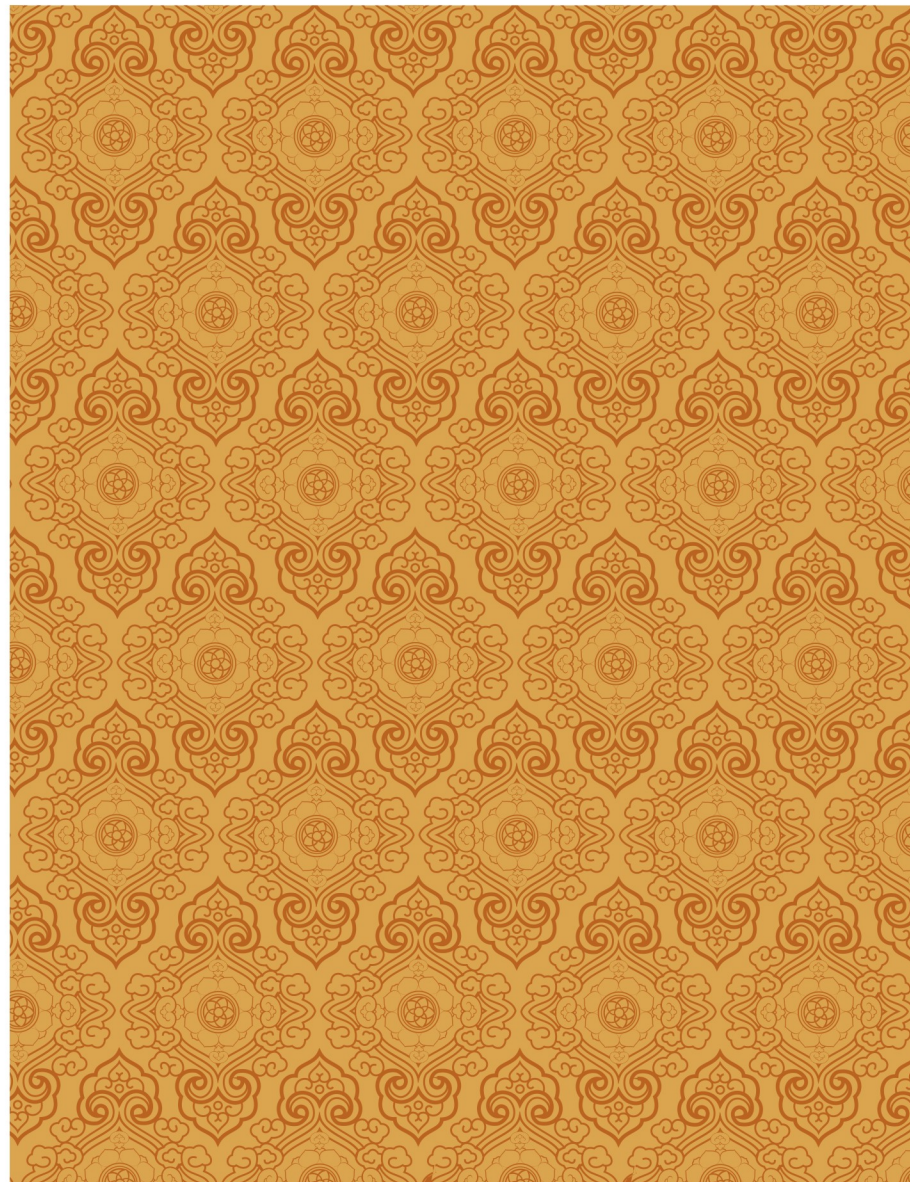


The combination of wishful pattern and heart-shaped, this is also a

common way of combining in Dunhuang art.



Combine all the patterns together to form a diamond-shaped lotus cirrus cloud pattern.



The lotus Cirrus cloud pattern is arranged in order on the wallpaper to create a more intense visual sense.

The inspiration of this design comes from the flying sky Bodhisattva in Dunhuang. It is also a kind of mural painting. It appears in many grottoes. Take Cave 329 of the Tang Dynasty and the caisson <sup>[FIG.99]</sup> pattern centered on lotus flower as an example. Four Bodhisattvas with lotus flowers in hand and foot on clouds fly around the lotus pattern clockwise. The basic patterns of this design is extracted from this caisson pattern.

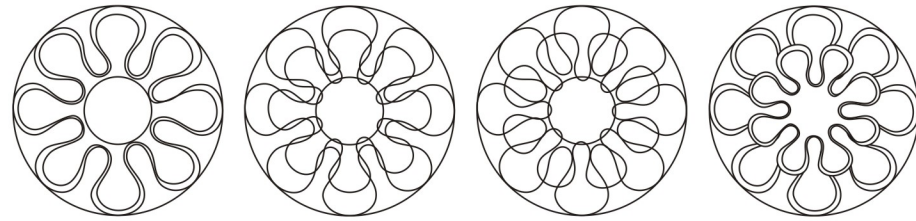
[FIG.99]Cave 329, Caisson,Tang Dynasty.



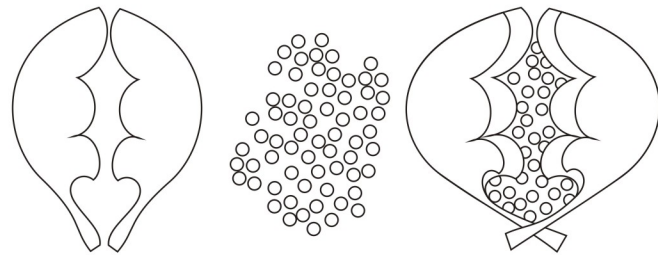
Art style can best reflect the political, economic and social forms of the times. This caisson was born in the Tang Dynasty, in which the flying Bodhisattva has the beauty of free and unrestrained, exotic capital and infinite change. This is consistent with the enlightened politics, powerful national power, prosperous economy and rich culture of the Tang Dynasty. It also reflects the peaceful and peaceful state and the fine life of the people.

In terms of color matching, yellow is the main color, and yellow is a warm tone, which can set off the purity and warmth of Cirrus cloud and lotus.

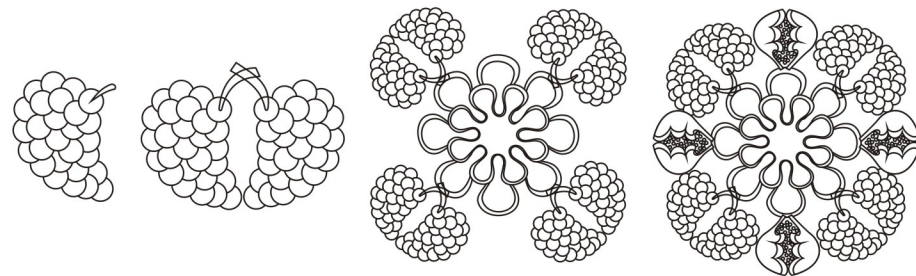
**[5.1.5]Combination design of Grape pattern and Pomegranate pattern**



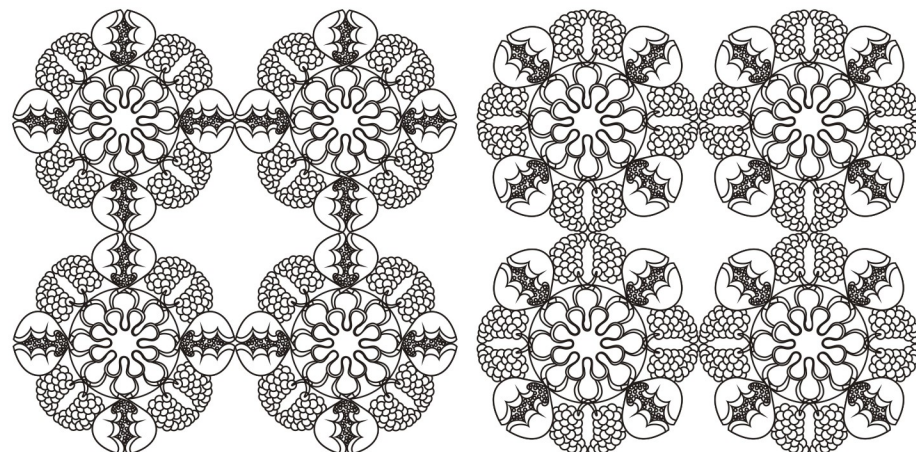
The center of this design is grapevine, which has a changeable shape and strong visual sense. There are four schemes, intersecting, overlapping and so on.



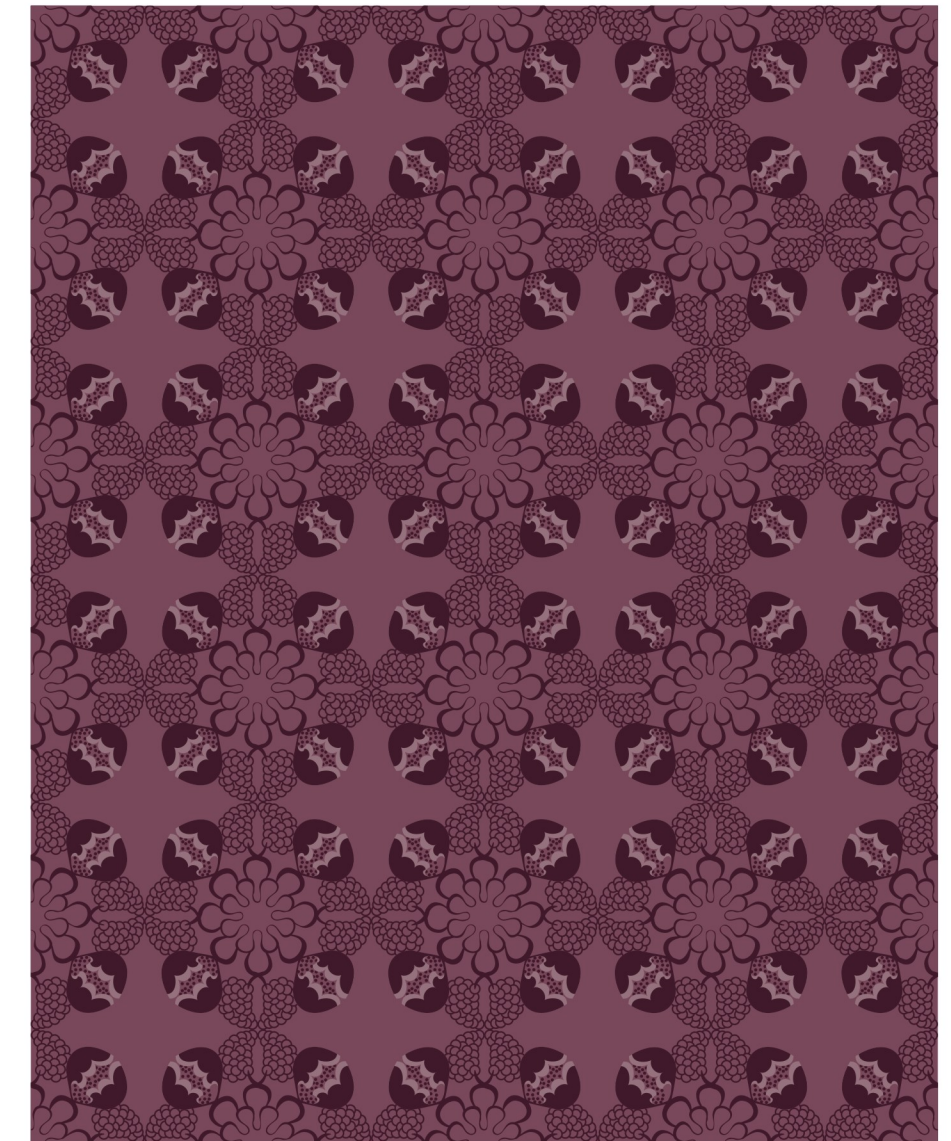
The honeysuckle pattern is superimposed into two layers, and some pomegranate seeds are added in the middle to make the whole pattern fuller.



The grape pattern is symmetrically formed into a new pattern and connected with the grape vine and the pomegranate pattern.



There are two options here.



Try a new centralized combination and arrangement of patterns, select the most visual arrangement.

**[FIG 100]**Cave 209,Caisson pattern, Early Tang Dynasty.



The design is inspired by the caisson pattern <sup>[FIG.100]</sup> in Cave 209. Grapes and pomegranate vines are intertwined, and the intertwined grape vines have a special sense of visual modelling. After extraction, they are used to design in the middle of the pattern and connect grape and pomegranate veins. Because these two kinds of fruits have many seeds, people give it hope that the family has many new lives, which is a hope for new life.

In the color matching with purple, it is the color of fruit ripening, symbolizing the good will for the maturity of all things and the birth of new life.

## [5.2]Summary

Modern Chinese design began to develop from the mid-20th century and was developed on the basis of social, economic and cultural development. The purpose of the design is to meet the needs of people's production and life, to reflect practicality and functionality, and to conform to the aesthetic law to form its aesthetic and decorative. The composite flower pattern is beautiful in shape, complete in form, and symbolic in auspiciousness. It is derived from more modern and advanced technical conditions, and the aesthetic and practical functions are sublimated, reflecting a distinct and unique national personality. Regardless of architectural decoration, graphic visual art, textiles and clothing, or the composite flower pattern of all kinds of arts and crafts, they can show the more exciting design images through the evolution of the morphological shape and the sublimation of the spiritual conception, showing the traditional and modern The beauty of intimacy combined.

As a product of Buddhist thought and Confucian culture, the composite flower pattern is an important part of the decorative pattern of Dunhuang Grottoes. It combines the mysterious romance of Western art, and the dignified elegance of Chinese Confucianism, which provides a rich spiritual connotation for modern From the commercial considerations of design, the styling is beautiful, the ornamentation is gorgeous, the visual impact is strong, and it is easier to be recognized. It is of great significance for building a striking business image and enhancing brand culture. The cultural thinking of design, the traditional patterns reflect the national cultural temperament, embody the oriental design aesthetics and reproduce the oriental design civilization. In today's life, the era of design is only completely covered by Western aesthetics, it is particularly precious.

"Tradition is open rather than closed. It has three directions: past, present and future," Gadamer said. Tradition is a very broad and meaningful entity. Traditional patterns reflect the common aesthetic feelings and spiritual pursuit of people from the past to the present. Visual design has been developing for centuries. Traditional patterns connect the past, the present and the future. "Modern" comes from "tradition", which is the result of the forward development of tradition, while "modern" brings fresh vitality and energy to "tradition".

Modern pattern and traditional pattern have different development trajectories. Modern design is more from Western design concepts. It combines and arranges points, lines and surfaces, showing a rigorous beauty of format, and the design methods are more modern and international. With the development of capitalism, western design concept has undergone a long process of exploration and change.

Wallpaper design can well show this combination of tradition and modernity. Wallpaper industry is not developing well in China. There are few designs and innovations in wallpaper patterns. This design can not only promote the protection and development of traditional

patterns, but also promote the development and innovation of wallpaper industry.

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