

# COLOR CHARACTERISTICS AND CULTURAL CONNOTATION IN THE TEMPLE MURALS OF MING DYNASTY

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## ARTICLE HISTORY

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## ABSTRACT

With the continuous development of cultural heritage preservation and artistic creation, in-depth research on the colors of temple murals and their application in modern society has become particularly urgent. This research analyzes the main color features of Ming Dynasty temple murals and the cultural connotations behind them, and explores their symbolic meanings. The symbolic meaning of color in religious art is explored. In the research process, qualitative research methods such as literature research, interviews, field observation, and design practice are used to study in depth the color connotation and emotional expression of Ming Dynasty temple murals. Quantitative research methods were used to conduct a questionnaire survey to study the impact of color connotation on emotions and to collect people's emotional responses and perceptions of Ming Dynasty mural painting colors. The results of the study found that the study of mural painting color helps to deepen the understanding of temple mural paintings, analyze the impact of different colors on the viewer's emotion and cognition, find out the rules and trends of color use, and provide new ideas and methods for cultural heritage protection and artistic creation. Conclusion, the study of the color of Chinese Ming Dynasty murals complements and improves the construction of the color system of Chinese murals, and provides certain references and help for the protection and restoration of murals. At the same time, this ancient color system is used to create new paintings, so that new art works can be integrated into contemporary cultural creation.

**Keywords:** Temple Murals, Color Characteristics, Cultural Connotations, Religious Symbols

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## INTRODUCTION

The Ming Dynasty (1368-1644) was the heyday of China's feudal society, Buddhism, Taoism and other religious beliefs flourished, and temple architecture was widely developed during this period. As an outstanding representative of ancient Chinese art, Ming Dynasty temple murals show a high degree of skill and carry rich cultural connotations and historical values. Color, as an important part of mural art, not only conveys the visual impact of aesthetics, but also profoundly reflects the religious beliefs, social customs and ethics of the time. Therefore, it is of great historical, artistic and cultural significance to study the color characteristics and cultural connotations in Ming Dynasty temple murals.

Color is one of the core elements of visual art and has a profound influence on the aesthetic value and symbolism of art. Studying the color characteristics of Ming Dynasty temple murals and their cultural connotations not only helps to deepen the understanding of the artistic style of this period, but also provides inspiration for the inheritance and innovation of contemporary culture and art. In addition, since the Ming Dynasty temple murals have experienced the erosion of time and natural damage, the systematic study of their color application is also an important part of cultural heritage protection.

### Research Objectives

This research aims to explore the symbolic meaning of color in religious art, and to analyze the main color features of Ming Dynasty temple murals and the cultural connotations behind them.

## LITERATURE REVIEWS

### Current status of research on Ming dynasty temple murals

As an important part of ancient Chinese art, Ming Dynasty temple murals have been studied in a variety of fields, including art history, religious history, architectural history and cultural studies. Existing researches mainly focus on the stylistic evolution of murals, religious symbols, technical materials, protection and restoration. Scholars generally agree that Ming dynasty murals inherited the painting traditions of the Tang and Song dynasties and showed diversity in content, technique and style. For example, the mural paintings of the Fahai Temple in Beijing are of great artistic and cultural research value. Considered as one of the masterpieces of ancient Chinese murals, the Fahai Temple murals depict a wealth of Buddhist images, figures, animals and natural landscapes. Researchers have mainly focused on its painting style, brushwork techniques and color expression. For example, the mural paintings of the Fahai Temple are depicted in brushwork, with delicate lines and strong colors, reflecting the magnificent style of Ming Dynasty court art. These murals not only demonstrate the religious function of Buddhist art, but also reflect the evolution of the aesthetic sense of color in ancient China.

#### 1) Mural protection and restoration issues

Due to the age of the mural paintings, affected by the natural environment, humidity changes, light exposure and other factors, the Ming Dynasty temple mural paintings gradually faded and broken. Therefore, in recent years, cultural relics protection experts gradually pay attention to the protection and restoration of mural paintings. Using modern science and technology, such as digital restoration, mineral pigment analysis, infrared scanning, etc., digital recording and restoration of murals has become a hot area of research. Literature shows that some scholars try to restore the original colors of Ming Dynasty murals through modern technical means, in order to better understand their artistic and cultural values.

#### 2) Research on Religious and Socio-Cultural Backgrounds

Ming Dynasty temple murals inherited the high skills of the Tang and Song dynasties in terms of artistic style, especially in the depiction of characters and scene composition, focusing on realism and details. According to many studies, the grandeur of the Tang Dynasty murals and the delicacy of the Song Dynasty continued to develop in the Ming Dynasty. For example, it is

pointed out in the book *Research on the Art of Ming Dynasty Temple Murals* that Ming Dynasty murals not only continued the traditional artistic methods, but also absorbed the artistic elements from the folk, which made the murals more diversified.

The study of religious content in Ming Dynasty temple murals is also one of the academic focuses. Studies have shown that Buddhism and Taoism were the main subjects of Ming Dynasty temple murals, but compared with the previous dynasty, the murals of the Ming Dynasty were gradually diversified, reflecting the complexity of the society at that time. For example, some scholars have pointed out that the Buddhist murals of the Ming Dynasty were gradually influenced by Confucianism, and the figures in the murals not only symbolized the religious spirit, but also carried feudal ethics and moral values. In addition, researchers have also conducted in-depth discussions on the restoration and digital preservation of murals. For example, Zhang Yali et al. explored how to accurately sample, record and restore traditional mural colors through digital technology based on the color digitization study of the mural paintings at Fahai Temple, in order to promote the protection and dissemination of cultural heritage.

### **Symbolism of color in religious murals**

In ancient Chinese religious murals, color is not only a decorative element, but also carries rich religious and philosophical connotations. Color often has important symbolic meaning in religious art. For Ming Dynasty temple murals, the use of color is not only for decoration, but also to express specific religious imagery and spiritual connotations. Different colors are often closely related to the concepts of sanctity, power, and purification in religion. For example, the mural paintings at Fahai Temple use a great deal of vermilion red to express Buddhist themes, a color that not only symbolizes the sanctity and authority of Buddhism, but also reflects the sense of array and sacred atmosphere of the group of Buddhas through its repetitive use.

In the wider religious culture, the symbolism of color is closely related to the idea of the five elements. The five colors (green, yellow, red, white and black) are represented in ancient Chinese philosophy.

#### **1) Red: Sacred and Majestic**

Red is an extremely common color in Ming Dynasty temple murals, representing power, life and sanctity. In Buddhist murals, red is often used to depict the clothing of deities and statues of Buddha, symbolizing the strong power and purification function in Buddhism. According to research, the use of red is not only visually striking, but also helps to express the majesty and sanctity of the Buddha's protectors in the Buddhist faith.

#### **2) Blue and Green: Eternity and Purification**

The colors blue and green represent the sky, nature and eternity in religious murals. Blue, in particular, symbolizes transcendence, purity and wisdom in Buddhism. In Ming Dynasty murals, blue is often used to depict the sky, the ocean, or divine light, symbolizing the Buddha's infinite wisdom and compassion. Green, on the other hand, is commonly used in the representation of plants and trees, symbolizing life force, nature and its intermingling with religious beliefs. Studies have shown that the blue-green color combination makes the whole picture present a quiet religious atmosphere, giving the viewer a spiritual appeasement.

#### **3) Gold: Sacred and Honorable**

The color gold has a special meaning in Buddhist art, and is often used to indicate the sanctity and supreme dignity of Buddha. In the murals of Ming Dynasty temples, gold is mostly used in the headdresses, clothing and backlighting of Buddha statues, highlighting their divinity and sacrosanct status. It is found that the extensive use of gold color enhances the visual impact of the murals and brings a solemn religious atmosphere.

### **The relationship between social culture and religious colors in the Ming Dynasty**

The use of color in religious murals not only reflects the requirements of religious beliefs, but is also closely related to the social culture of the time. The Ming society was in the late feudal

society, and the hierarchical rituals and ethical concepts deeply influenced the forms of artistic expression, and the colors in the murals also carried these social and cultural connotations.

### 1) Social hierarchy and color symbols

The social structure of the Ming Dynasty was strict, especially in the use of color, showing obvious symbols of hierarchy. The yellow color was used exclusively by the Ming emperors, symbolizing supreme power. In the mural paintings of Ming temples, yellow was often used in the Buddha and its halo, highlighting the supreme status of the Buddha, and this use of color was undoubtedly influenced by the social hierarchy at that time. Red, as a symbol of higher official rank, has a similar class meaning in murals, and is usually used to represent high-ranking Buddha statues, bodhisattvas and other important religious figures.

### 2) Integration of Confucianism, Buddhism and Taoism and color representation

An important feature of Ming society was integration of the three religions of Confucianism, Buddhism and Taoism. With the interpenetration of these three systems of thought in the Ming society, the color expressions in the temple murals were gradually diversified. Research shows that in many temple murals, the mixing of different colors not only reflects the phenomenon of religious fusion, but also demonstrates the inclusiveness and diversity of Ming culture.

### 3) Ethics and color expression

The profound influence of Confucianism on the Ming society is also reflected in the color expression of temple murals. Many color combinations in Ming dynasty temple murals are not only for artistic effect, but also to express specific ethics and morals. For example, the colors of the costumes of the characters in the Buddhist murals of the Ming Dynasty often correspond to the moral codes, showing the Buddhist beliefs in compassion, wisdom and justice and other virtues.

## Overseas research

The Cultural Significance of Color: A Study of Symbolism and Meaning provides an in-depth understanding of the psychology of color by exploring the cultural context, symbolism, and emotional responses to color. Research has shown that the meaning and emotional experience of color is not only influenced by cultural context, but is also closely related to an individual's life experiences. Blue serves as an important example of the multiple symbolic and emotional associations of color in different environments. Colors are capable of triggering a variety of emotional responses, including pleasure, comfort, anxiety, and sadness. These emotional responses may vary in different contexts. The research in this literature promotes an understanding of color psychology and highlights the complexity of color on a cultural and emotional level. Through in-depth analysis of color symbolism and emotional responses, this literature provides valuable theoretical support and practical application insights for design practice and color psychology research.

A Cross-Cultural Study of the Emotional Significance of Color, Color data from a study of 23 cultural semantic differences in emotional significance reveal cross-cultural similarities in feelings about color. The concept of RED is quite emotionally salient. Black and gray are bad, white, blue and green are good. Yellow, white and gray are weak; red and black are strong. Black and gray are passive; RED is active. Color component brightness, determined by comparing data on white, gray, and black, was strongly associated with positive ratings, but also with negative effectiveness. Eighty-nine previous studies on color and emotion were analyzed. They generally support these findings and, coupled with the fact that there are few exceptions in our data or in the literature, lends credence to the idea that there is a strong general trend in the field of color with respect to emotion attribution. (Francis, Adams, & Charles, Osgood, 1973)

Emphasizing the symbolism of colors in mural painting colors in culture and religion through domestic and international literature studies provides a basis for studying the symbolism of specific colors in Ming Dynasty temples and is essential for interpreting the content and

messages conveyed by the murals. It provides an important reference for the use of color in mural paintings and color configuration.

## **RESEARCH METHODOLOGY**

The purpose of this chapter is to outline the research methodology used in this study. In the research process, a combination of quantitative and qualitative methods is recommended.

### **Literature historical materials and image empirical research methods**

Combined with literature and historical materials, accurately and completely analyze the historical and cultural background and geographical environment of mural paintings, comb the color words, pigments, minerals, colors and other related information recorded in the literature, as well as the painting techniques of mural paintings in the ancient literature, and through charting, summarizing, classifying and arranging, refine the key points of the intrinsic regularity, and at the same time, summarize and summarize the information of the pigment trade in the written books of Dunhuang and the literature unearthed in Turfan. At the same time, the information about pigment trade in Dunhuang writing books and Turpan excavated literature is summarized to find out the price law of pigment and the market dynamics of pigment, so as to provide effective documentary support for the research of mural painting color technology.

### **Field investigation method**

Since the selection of the topic, the author has gone to the Fahai Temple in Beijing, Zhihua Temple in Beijing, Vilu Temple in Hebei, Longxing Temple in Hebei, Yunlin Temple in Shanxi, Dofu Temple in Shanxi and other places to collect relevant mural painting data, and investigate and study the Ming Dynasty mural paintings and mineral pigment specimens, painting techniques.

### **Research Methods of Cultural Geography**

Cultural geography mainly studies the spatial combination of human culture, the distribution, spatial combination and development and evolution law of various cultural phenomena on the surface, as well as the cultural landscape, the origin and spread of culture, the relationship between culture and ecological environment, and the evaluation of culture on the environment. It “pays attention not only to the differences in the forms of different peoples, i.e., the differences in material culture, but also to the differences in ideological concepts”. The uniqueness of geographic space and the diversity of human cultural activities have created differences in culture and art in different regions. With the help of the research method of cultural geography, we study the distribution area of frescoes, pigment consumption area, pigment production and circulation in the 13th-17th centuries, observe the relationship between the three horizontally, draw the spatial distribution map of frescoes and pigment production area, and then explore the distribution law of frescoes, the reasons for the formation of regional characteristics of fresco colors, and the channels of pigment production and circulation.

### **Statistical Analysis**

In view of the relatively scattered and complex information on the mural paintings of monasteries in northern China from the 13th to the 17th centuries, statistical methods were used to retrieve and count the dates, numbers, locations, mural color types, and techniques of the mural tombs, so as to make the point distribution areas of the mural paintings in this period clearer. At the same time, the data of color words, pigment origin, pigment price and other information recorded in historical documents are also statistically analyzed by tabulation.

### **Type Atlas Quantification Method**

The type analysis of mural color samples is quantified according to the archaeological type, collated into reference values, and then the color differences of the image samples are compared and studied. Then through the collective color atlas analysis to get the data results, such as mural color variable analysis, hue, brightness, purity comparison analysis of mural

color taken in different areas in the same period, etc., to observe the color change law, to provide a basis for selecting the standard color of the mural. It can also be used to observe and analyze the color combination relationship and color system of frescoes, and provide support for the color identification, interpretation and generation break of newly discovered frescoes in the future.

## **RESEARCH RESULTS**

### **Findings**

Through field research and literature analysis of Ming Dynasty temple murals, the findings reveal the symbolic function of mural colors in religious scenes. Ming Dynasty temple murals mainly use strong colors to form the visual focus, especially the murals in Fahai Temple and Yongle Palace use a lot of red, gold and blue. These colors have symbolic meanings, such as red symbolizes power, majesty and sanctity in religious art; gold represents light and purity in Buddhism.

In addition, the investigation also found that Ming Dynasty murals used mineral pigments, such as vermilion, stone green and stone green, which have good preservation and vividness. The matching and layout concepts of the time.

### **Data analysis results**

Data analysis shows that the use of colors in Ming Dynasty murals is highly regular, especially in the main visual scenes of the murals, where the combination of red and gold appears frequently. The use of these colors is not only a visual presentation, but also an expression of religious symbolism. For example, in the mural paintings of Fahai Temple, the robes of the ten Buddhas are mostly in cinnabar red, and the sense of the array of Buddhas is expressed through simplified colors.

In the analysis of color levels, it is found that the mural paintings often use techniques such as halo dyeing and overdyed, which make the color levels rich and the transition natural. For example, the sky, clouds and other scenes in the mural paintings are mostly overdyed, showing a strong sense of three-dimensionality and dynamism ().

In addition, the data also show that the colors in the murals of the Ming Dynasty were not only influenced by the traditional five-color view, but also absorbed elements of foreign cultures. For example, the blue and green colors in some of the murals are strongly characterized by the Buddhist art of the Western regions, indicating the openness of the Ming Dynasty in absorbing foreign cultures.

### **Results of hypothesis testing**

The research hypothesis is that the colors in Ming Dynasty temple murals not only have religious symbolism, but also reflect the cultural environment and hierarchy of the Ming Dynasty society. By analyzing the murals of different temples, the research results support this hypothesis. For example, the gold and red colors in the mural paintings of Fahai Temple not only symbolize the majesty and purity of Buddhism, but also reflect the reverence for gold in Ming Dynasty, which, as the exclusive color of royal family, symbolizes power and sanctity.

The results of the hypothesis test further suggest that the choice of colors in the murals was highly systematic, especially in the costumes of the figures and deities, and that colors were used not only to distinguish between different identities, but also to express different religious hierarchies. For example, in the mural paintings of the Fahai Temple, the crowns and necklaces of the gods use a large number of gold-plastering techniques to enhance their sense of sanctity and solemnity.

### **Criticisms of the research findings**

Although the study reveals the complexity and religious symbolism of the colors of Ming dynasty temple murals, there are some limitations. First, the murals are in different states of preservation, and many colors have faded or changed over the centuries, making it difficult to

recover some colors that originally had religious symbolism. For example, some of the red colors in the murals may have been chemically altered, making it difficult for researchers to accurately determine their original intent when analyzing them.

Second, this study mainly focused on murals of well-known temples, such as Fahai Temple and Zhihua Temple, and failed to extensively cover temples in other regions, which may have led to a lack of comprehensiveness in analyzing the color characteristics of the overall temple murals of the Ming Dynasty. Therefore, future studies should expand the sample to cover more temple murals in different regions in order to fully understand the connection between religious and social colors in the Ming Dynasty.



**Figure 1** Fahai Temple



**Figure 2** Zhihuai Temple

This research reveals the multiple meanings and complexities of the colors of temple murals in the Ming Dynasty, especially their symbolic functions and socio-cultural embodiment in religious scenes. However, the problems of mural preservation and the limitations of the study object suggest the need to further expand the scope of the study in the future and to use more advanced technical means to recover and analyze the mural colors.



**Figure 3** Dunhuang mural painting, Cave 257, "The Deer King's Original Life" drawing extracting colors.



## DISCUSSION & CONCLUSION

This study analyzes the symbolism of color in religious murals and its deep connection with Ming social culture. Through the investigation of mural color and data analysis, the study reveals the complex interaction between visual expression, religious symbolism and social class in Ming Dynasty murals.

First, from the perspective of the color characteristics of the murals, the Ming Dynasty temple murals formed a highly systematic color language in the use of color, reflecting the religious beliefs and aesthetic system of the time. Red, gold and other primary colors are repeatedly used in different scenes to symbolize wisdom, compassion and authority in Buddhism, while also conveying the worship of power and status in Ming society. These colors are not only a tool for religious expression, but also a reflection of the social hierarchy of the Ming Dynasty. Through the matching of colors and the choice of shades, the murals conveyed the coexistence of religion and secular society.

Second, the study shows that Ming Dynasty murals were not limited to religious functions; they were also a reflection of social culture. Through the use of mineral pigments and the complex treatment of color layers, the murals created a highly visual religious experience that demonstrated the mastery of religious art. This visual experience not only serves religious rituals, but also conveys to the viewer the high level of aesthetic and artistic pursuits of the society at that time.

However, the limitations of the findings should also be noted. Due to the long history of the murals, some of the colors have faded or undergone chemical changes, which affects the researcher's accurate judgment of the symbolism of the original colors. Meanwhile, the research object mainly focuses on the temple murals in Beijing, which may lead to an incomplete grasp of the overall color characteristics of Ming Dynasty murals. Therefore, future research should pay more attention to cross-region mural analyses and utilize more advanced techniques to recover faded and deteriorated mural colors to ensure the accuracy and comprehensiveness of the research conclusions.

Overall, this study explores the cultural connotations of Ming dynasty temple murals through the medium of color, demonstrating the profound connection between religion, society and art. Color in Ming dynasty temple murals is not only a visual language, but also a symbolic cultural carrier that conveys the religious beliefs, aesthetic orientations, and power structures of Ming society. This discovery provides a new perspective for us to understand the religious art of the Ming Dynasty, as well as a basis for subsequent cross-cultural and cross-regional studies.

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