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# The Representation and Symbolic Significance of Black in Traditional Chinese Colors

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#### Abstract

Color did not initially possess symbolic significance but gradually developed throughout human practical activities and conscious evolution. In the beginning, people categorized the colors of the world into just two: black and white. As people's understanding of colors deepened, they began to identify more hues. Few countries in the world have been as profoundly influenced by color concepts in politics, economics, and cultural life as historical China. This article primarily focuses on the significant and unique position of blacks in Chinese cultural systems. It symbolizes many aspects of Chinese culture. Black is a member of the "Five Colors" in the traditional Chinese color system. This paper aims to elucidate how the Chinese have employed this color, discussing its symbolic meaning and evolution within the historical context. The primary emphasis is on the use and symbolism of black in traditional Chinese colors.

Keywords: Black, Traditional Chinese Colors, Lacquerware

## Introduction

The relationship between color and culture is intricately intertwined. Initially, colors manifested in the natural world and subsequently permeated into the realms of history and societal culture, evolving into symbols imbued with symbolic significance. From a modern scientific perspective, the perception of colors by individuals is constrained by the physiological characteristics of their visual system, which in turn further influences the nomenclature associated with colors(Li, Q 2022).

The Chinese civilization, with an uninterrupted history spanning five millennia, has profoundly influenced the Chinese people's perception of color. Discussing color within the context of Chinese culture necessitates the application of a historical perspective and the integration of color research with the study of ancient Chinese philosophical thought.

In the primitive era, the use of color by early ancestors was more instinctual than purely artistic expression. Existing relics reveal a simplicity and intensity in color usage, with primitive tones that reflect the characteristics of early thought. The colors used in primitive creations served as external manifestations of early human consciousness, tributes to individual potential, closely linked to themes of survival, reproduction, and belief among the population. They carried strong emotional and symbolic significance while being relatively uninhibited by rational constraints, exhibiting non-logical traits. These physiological perceptions of color formed the most primitive symbol memory for individuals.

Based on archaeological findings, it can be inferred that during the Paleolithic era, the use of red ochre powder on corpses during burial rituals by the cave-dwelling people may indicate the emergence of the

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shamanistic or religious awareness, potentially imbuing significance to the use of red iron ore blocks. However, due to the antiquity of these practices, the precise purposes behind them remain elusive. By the Spring and Autumn period and the Warring States period, unprecedented developments occurred in society, economy, politics, and culture. Classical aesthetics, represented by Confucianism and Daoism, had already taken shape. Sensory perception of color gradually evolved into a systematic understanding of color, continuously infused with culturally distinctive connotations. Chinese people correlated thecomponents of life with the five elements and five colors, forming a distinct perspective on color.

The earliest documented mention of the "five colors" in China can be found in the historical text "Zhouli," which states, "The matters related to painting involve the mixture of the five colors." Archaeological discoveries, such as those in the tomb of Yin people known as "Luoyang No. 2" in China, revealed four-color painted silk curtains featuring red, yellow, white, and black.

Considering the viewpoints corroborated by historical documents and archaeological excavations, the concept of the five colors indeed began to take shape during the Western Zhou period. This development predated the Western notion of "seven colors" and "three primary colors" by over a thousand years. The five colors, also known as the "right colors," consist of blue, red, yellow, white, and black.

Traditional Chinese colors are profoundly steeped in "conceptual morphology," a characteristic that has been inherent from the outset. Consequently, research into Chinese colors necessitates a return to the traditional concept of the five colors, and an examination of the symbolism associated with Chinese colors must delve into the intricate tapestry of its historical and cultural heritage.

As the cycle of day and night unfolds, black and white are the earliest colors perceived by humanity. They occupy polar opposite positions, eliciting the most intense visual sensations and being the easiest for visual cells to distinguish. Our civilization began utilizing black as far back as over ten thousand years ago during the Neolithic period. When our ancestors had just begun crafting pottery, they were already employing red and black for decorative purposes. Numerous archaeological discoveries from the Yellow River basin during the Neolithic era have unearthed pottery fragments adorned with black stripes, some of which can even be described as exquisite. In the Shang Dynasty period, people often used red and black powdered substances to fill the inscribed characters on tortoise shells and animal bones after engraving them (Chen, LuNan, 2014).

This article primarily focuses on the significant and distinctive position of blacks in the Chinese cultural system. It symbolizes many aspects of Chinese culture. Black is a member of the "five colors" within the traditional Chinese color system. This article aims to elucidate how the Chinese employ this color, andit discusses its symbolic significance and evolution within the context of history. The emphasis is on exploring the use and symbolism of black in traditional Chinese colors.

#### From the Perspective of Written Language

The "Shuowen Jiezi · Black Section" states: "Black is the color produced by the influence of fire. It is derived from the character '炎' (flames) over a window," indicating traces left by the action of fire. The color black is commonly found in divinatory inscriptions, with the character "黑" (black) in oracle bone script representing sacrificial offerings with black hair, such as "黑牛" (black ox), "黑羊" (black sheep), "黑 马" (black horse), "黑豕" (black pig), and so on. In divinatory inscriptions, there are records like "黑羊, 有大雨" (black sheep, there will be heavy rain), suggesting that black sacrificial offerings were used in rain-seeking rituals. However, whether black played a role solely in rain-seeking rituals in sacrificial contexts requires further research (Guo Jingyun, 2010).

In the ancient Chinese color perception, black inherits the most primitive sense of color, signifying the Kurdish Studies

color of the original dark and lifeless world. In the "I Ching" (Book of Changes), black is considered the color of the heavens. Ancient Chinese believed that the northern sky often presented a mysterious black hue over extended periods, thus associating black with the north.

The position of the North Star was considered the position of the Heavenly Emperor, making black the principal color among all colors in ancient China. During periods of monochromatic reverence in ancient Chinese history, the era of valuingblacks endured the longest.

#### From the Perspective of Daily Life

During the pre-Qin period, black did not carry the connotations of impending life's end and sorrow, as is commonly construed today. Quite the contrary, blacks held auspicious significance in this era. On important ceremonial occasions, the Emperor adorned himself in black attire.

For instance, in the "Lüshi Chunqiu · Season of Winter Record," it is documented: "(In the month of) Jidong, the Son of Heavenresides in the Xuantang (Dark Chamber), rides the Xuanhan (Dark Chariot), drives the Fijian (Iron Chariot), is transported in the Xuanlu (Dark Carriage), wears black garments, adorns himself with Xuan jade, and partakes in millet and helium..." When black was the predominant color in clothing, it signifiedauspicious attire and was not worn during mourning events.

In the "Analects of Confucius · VillageDiscourses," it is asserted: "A kid's pelt and a black headdress are not worn in condolences." Both a kid'spelt and a black headdress are characterized by their black hue, and mourning events are associated with inauspiciousness, thus precluding their use during such occasions. Naturally, there exist exceptions, with black being employed as mourning attire in the state of Jin. The "Zuo Zhuan · The Thirty-Third Yearof Duke Xi" records: "Sui Mo (a place) was chosen for the burial of Duke Wen, marking the commencement of the use of ink (black) by Jin."

In ancient China, the color black carried several specific connotations. First, because common people typically wore black clothing, black could symbolize the common populace. Second, black attire was worn by palace guards during the Warring States period and was associated with them. In the Tang Dynasty, soldiers were even required to wear black, solidifying the use of the term "black attire" to refer to soldiers. Third, black was used in ancient times for punitive purposes. One of the Five Punishments in ancient China was called "qing," which involved inscribing marks or characters on a person's face and applying black ink. Therefore, black also served as a symbol of servitude.

Additionally, black was influenced by another significant symbolism. Since black represents the color of night, it evoked fear and aversion due to associations with darkness. In the context of the Five Elements theory, black belongs to the element of Water, associated with winter. Ancient people believed that with the arrival of winter after the autumn harvest, all things withered, and life approached its end, evokingfeelings of sadness and sorrow. Moreover, as black is the color of nighttime, which often conceals various dangers, people feared the night, thus making black symbolize inauspiciousness and malevolence.

In summary, color did not inherently possess symbolic meanings from the outset but gradually developed through the process of human practical activities and cognitive evolution. Initially, people categorized the colors in the world into just two categories: black and white. As human understanding of colors deepened, more colors were discerned.

The process of recognizing colors is essentially theprocess of classifying them. Humans have an innate tendency to organize the world, making classification a crucial means to avoid disorder. Based on this classification, colors gradually became associated with economic, political, and cultural aspects. Perhaps most prominently, in ancient China, humans classified officials into different hierarchical levels based on color, forming color-based symbols within this classification framework.

#### **Data Collection**

The application of colors in ancient China is closely intertwined with its culture and cannot be regarded as a manifestation of collective unconsciousness. For instance, color is inherently linked to China's ancient centralized system of governance and the cultural influences of Confucianism and Daoism. By reading historical Chinese documents and synthesizing existing research on ancient color usage, this study first identifies representative artifacts that prominently feature the use of black and provides descriptions of them. The advantage of relying on historical sources lies in its ability to circumvent subjective judgments and ensure the objectivity of this research(Sun, 2014).

Furthermore, this study places particular emphasis on archaeological evidence, corroborating it with historical documents to enhance the scientific rigor of this paper. Secondly, this research employs color extraction techniques, utilizing Python to extract and analyze colors from images of the identified artifacts found in the literature review. This study followed two primary principles when collecting samples: firstly, the significance of archaeological excavation sites, and secondly, the selection of lacquerware patterns encompassing a diverse range of functional categories. In the context of ancient Han Dynasty tombs, the majority of excavated tombs are found to be empty, making the Han Dynasty artifacts that can be excavated today particularly precious(Dmitriev, Bayazitov, Korznikova, Bachurin, & Zinovev, 2020).

Additionally, the variety of lacquerware in the Han Dynasty is notably extensive, including containers for storage, cosmetic boxes, entertainment items, travel accessories, household items, divination tools, and funeral goods, among others. The sheer quantity, wide variety, and exquisite craftsmanship of these excavated lacquerware pieces vividly demonstrate the high level of lacquerware craftsmanship during the Han Dynasty(Kiskis, 2017).

#### Source of Samples

In Han Dynasty tombs, nine out of ten tombs were found to be empty, making the Han Dynasty artifacts excavated today quite precious. On a nationwide scale, Han Dynasty lacquerware is more commonly unearthed in the southern regions compared to the northern regions (Monteiro et al., 2019).

Notably, the majority of Han Dynasty lacquerware finds originate from areas in the Yangtze River basin, such as Hunan, Hubei, Anhui, and Jiangsu, with the Western Han period representing a significant concentration of representative lacquerware groups primarily found in Hunan, Hubei, Anhui, and Shandong, among others (Pan Tianbo, 2013). The lacquerware samples selected for this study are all from the provinces of Hunan and Hubei. Specifically, they originate from the Han Dynasty tombs of Mawangdui in Changsha, Xiangyang Leigutai in Hubei, Yunmeng Shuihudi in Hubei, Jiangling Fenghuangshan in Hubei, andYunmeng Dafuntou in Hubei.

This study utilized a dataset comprising 230 samples recorded in "Patterns of Han Dynasty Lacquerware" by Mr. Li Zhengguang as the source for data analysis. Out of the images documented in the book, 180 specific samples were selected for detailed color analysis. With the advancement of archaeological endeavors in China, an increasing number of artifacts from the Han Dynasty period have been unearthed(Karataş, İnnal, BİRECİKLİGİL, KORKMAZ, & Çiçek, 2016).

However, due to their prolonged burial underground, many of these artifacts are often found in fragmented or decayed conditions, making the process of artifact cleaning no less challenging than the actual excavation. The author of "Patterns of Han Dynasty Lacquerware," Mr. Li Zhengguang from the Hunan Provincial Museum, devoted nearly a decade to meticulously drawing decorative patterns from hundreds of lacquerware artifacts dating back to the Warring States, Qin, and Han periods. This book encompasses illustrations of essential Han Dynasty artifacts.

## **Functional Categories of Samples**

Building upon the selection of significant excavation sites, this study systematically opted for lacquerware artifacts that were representative, and diverse in terms of categories, forms, and functions. These included lacquer boxes, lacquer basins, lacquer plates, lacquer cosmetic boxes, lacquer flat teapots, lacquer-handled cups, lacquer cups, lacquer tripods, lacquer cases, lacquer utensil cups/boxes, lacquer weapon stands, lacquer-painted pottery boxes, lacquer-painted pottery tripods, lacquer-painted pottery fang (square vessels), and lacquer coffins.

## **Research Methods**

This study employs a mixed research methodology that combines qualitative and quantitative approaches. On one hand, the research involves a literature review, which entails extensive reading of relevant literature to identify representative artifacts suitable for color analysis, along with their images, and the establishment of an analytical framework for assessing color meanings. On the other hand, this study employs the Python programming language for data analysis.

#### Literature Review

A literature review does not involve obtaining the necessary research data directly from the research subject; rather, it entails the collection and analysis of existing data in textual, numerical, pictorial, symbolic, or other forms (Feng Xiaotian, 2001).

In this study, a literature review method was employed to gather and analyze documentary materials related to the color black in ancient China, aiming to elucidate the social structures, historical events, culture, values, and transformations underlying thiscolor.

This research was conducted by analyzing three types of literature sources: archaeological excavation reports, books, and research papers. Themes relevant to the research were extracted to form a conceptual framework addressing the research questions.

## **Color Extraction**

This study conducted color extraction on the samples. K-means clustering, a distance-based clustering method, has been extensively utilized in color extraction from digital images. Given that this algorithm is tailored for processing digital images, it begins with the capture of item photographs or scans to generate a two-dimensional plane image, which is subsequently subjected to further analysis.

Each pixel within the image constitutes a data point with three attributes (R, G, B). These numerous pixels are then structured into a two-dimensional array, wherein each row corresponds to the color of an individual pixel.

The K value in K-Means clustering needs to be manually specified. Initially, K data points are selected from the pixels of the given image to serve as the initial cluster centers. The Euclidean distance between these initial cluster centers and other pixels is computed, and the pixels are assigned to the cluster center with the closest Euclidean distance.

Subsequently, the average value of each new cluster is recalculated, representing the average color of all pixels within that cluster, and the cluster centers are updated to this new average. This process is iteratively repeated until the cluster centers no longer exhibit significant changes or until a predetermined number of iterations is reached.

K-Means is a relatively simple and fast method used for color information extraction and compression. However, it has its drawbacks; different choices of initial centroids or varying values of k can yield different results. Additionally, K-Means assumes that clusters are convex and circular, which may not be suitable for certain color distributions.

In summary, the K-Means clustering algorithm clusters pixels to identify the primary colors within an image. This approach can be employed for color segmentation, image compression, or basic image analysis. With appropriate parameter selection and preprocessing, it can be highly effective in numerous applications.

#### Results

#### **Results of Color Extraction Analysis**

This study, through literature analysis, aims to preliminarily establish the color perception of the use of black in the Han Dynasty. The preliminary analysis suggests that the use of color during the Han Dynastywas not arbitrary but rooted in specific conceptual frameworks, carrying significant social and cultural connotations.

Following the preliminary analysis using quantitative algorithms, it can be observed that the predominant colors in lacquerware are primarily black and red. This dominance of black and red as the main colors in lacquerware is evident from both vertical charts and pie charts. Black holds significant importance in lacquerware, and the combination of black and red represents a typical color pattern.

The external black and internal red, serving as an enduring and universal decorative motif in lacquerware, may be linked to sacrificial practices or ancient tribal alliances. During sacrifices, blood was collected in vessels, and once the blood coagulated, the surface of the vessel turned black, thereby forming the external black and internal red pattern when more blood was collected.









#### Figure 4.2: Color Usage Proportions

#### Black Color and Symbolism of Rank

The aesthetic preference for blacks is associated with both kinship ties and economic structures. The strict hierarchical feudal system, privatization of land, and rigorous ancestral worship practices established a comprehensive kinship system. The use of black evolved from its origins in natural worship to a highly regulated practice at the national level. Concepts related to the orientation of colors and hierarchical systems gradually became well-established. Blood alliances and economic operating modes influenced kinship systems and cultural ideologies, while kinship systems fostered the development of a color hierarchy. This laid the foundation for the early formation of color aesthetics in Chinese culture. After the fall of the Qin Dynasty, Liu Bang established the second centralized feudal state in Chinese history in 205 BC. During the early years of the Western Han Dynasty, due to turmoil and economic stagnation, the Han Dynasty implemented several measures to strengthen and consolidate its rule. Economically, it practiced "recuperation of the nation," introduced policies like "fifteen taxes for one" and "loan-based agriculture," and also promoted initiatives such as extensive irrigation projects and the use of oxen in farming to boost agricultural production. During the reigns of Emperor Wen and Emperor Jing of the Han Dynasty (180-141 BC), there was significant socio-economic development, resulting in a prosperous society and a strong state known as the "Wen-Jing Era." The Han Dynasty's lacquerware craftsmanship was built upon the advancements made during the Warring States and Qin Dynasty, experiencing substantial growth. During this period, bronze ware had declined, and porcelain had not yet emerged, making lacquerware the dominant art form. The Han Dynasty was thus a prosperous period in the history of Chinese lacquerware craftsmanship. During the early Western Han period, the price of lacquer was 35 gian per dou (a unit of measurement), but by the time of Emperor Wen of Han until the Eastern Han period, the price had risen to as muchas 345 Qian per dou, nearly ten times the initial cost. The substantial increase in lacquer prices during this period can be attributed to the establishment of a hierarchical system related to lacquerware in themid-Western Han period. One may wonder why, despite the availability of red and black pigments, people insisted on using them for lacquerware production. From a functional perspective, lacquerware of specific colors must havehad necessary or practical functions to justify their production. Vermilion lacquer and black lacquer served as cultural symbols of power and rank, with the living assigning these colors to the deceased as a sign of their hierarchical status.

During the reign of Emperor Wu of the Han Dynasty, Confucianism was established as the sole governing ideology, and within Confucian culture, filial piety was one of the most important tenets. The court promoted the idea of "governing the country with filial piety," leading to elaborate funeral rites. According to the "Book of Later Han," different ranks in Han society were associated with specific types of coffins, with distinctions in terminology (e.g., palace coffins), materials (e.g., zi or camphor wood), and lacquer colors (e.g., vermilion or black).

Among these, the highest-ranking individuals such as princes, princesses, and nobility were interred in vermilion lacquered coffins, earning vermilion lacquer the title of "first-grade lacquer." In contrast, the coffins of the Three Excellencies and Specially Advanced officials were black lacquered, signifying their lower status compared to the aforementioned individuals and thus denoted as "second-grade lacquer." This demonstrates that in the Han Dynasty, the status of red and black was not the same.

#### Symbolism of Color Authority

The "Kao Gong Ji" states, "Red and black follow each other," indicating that ancient people believed in the compatibility of pairing red and black colors. Black is considered the fundamental color of lacquer, representing nobility and sheen, while red is one of the richest colors. Color decoration serves both practical and aesthetic functions. In the case of Han Dynasty lacquerware, color decoration also incorporates cultural and aesthetic elements related to religion, imperial authority, the Five Elements, Yin and Yang, and more.

In everyday life, the combination of red and black embodies various forms of balance. The guiding principles are equilibrium, the Five Elements, and the unity of heaven and humanity. This approach differs from Western color principles, where contrast in brightness and intensity serve as the primary criteria.

In traditional Chinese culture, colors serve not only as natural pigments for decorating various objects and artworks but also hold significant importance in their conceptual associations with space, time, celestial phenomena, the Five Elements, Yin and Yang, and more. Specifically, ancient Chinese culture assigned five colors – blue, red, white, black, and yellow – to represent the five cardinal directions: east, south, west, north, and center.

Furthermore, these colors were intricately linked to concepts such as space, time, astronomy, and philosophy. This linkage allowed ancient Chinese thinkers and artists to employ colors to convey a wide range of ideas and traditional concepts. The theory behind this color symbolism is rooted in the organic connections established between color, space-time, the Five Elements, and the Yin-Yang system. It provided guidance for various aspects of daily life for ancient Chinese people.

According to the viewpoint of the Five Elements and Colors, black represents water, which counters red, representing fire. Thus, traditionally, black and red were considered incompatible colors. However, during the Han Dynasty, these two colors were extensively combined in the decoration of lacquerware.

Moreover, if the Qin Dynasty was associated with the Water Element and black, the Han Dynasty, especially the Western Han period, should have been associated with the Earth Element and the reverence for yellow. However, based on the color extraction analysis conducted in this study, there was no significant usage of yellow observed. Also, according to literary research, there is no conclusive evidence to suggest that the Western Han Dynasty promoted the Earth Element, and there are even conflicting accounts.

The "Records of the Grand Historian" ("Shi Ji") mentions that in his youth, Emperor Gaozu of Han killed a snake, which was said to be the son of the White Emperor, killed by the son of the Red Emperor. Later, Emperor Gaozu rose to power and adopted the beginning of the tenth month as the start of the year, favoring the color red. The "Book of Han" ("Han Shu") also contains an account of Emperor

Gaozu beheading a white snake, which was considered a manifestation of the Red Emperor. Furthermore, the "Records of the Grand Historian" and the "Calendar" ("Li Shu") section mention that the previous dynasty conducted ceremonies for the Five Emperors at different cardinal directions, but the Han Dynasty omitted the ceremony for the Black Emperor in the north, as Emperor Gaozu believed that the northern direction awaited his rule. This association of the north with the color black, representing the Water Element, led Emperor Gaozu to consider the Han Dynasty as being under theinfluence of the Water Element and having a preference for black. These various accounts in the "Records of the Grand Historian" show internal contradictions in the historical records themselves.

# Conclusion

Studying colors, especially interpreting their symbolic meanings from a historical perspective, is not an easy task. Due to the antiquity of the subject matter, our insights into the history of colors primarily rely on ancient texts that have survived to this day and artifacts unearthed by archaeologists. The history of Chinese colors has not gone unstudied, and previous research from disciplines such as history, sociology, anthropology, color theory, and psychology has laid a solid foundation for this study. In other words, we can still build upon the work of these predecessors to conduct a symbolic analysis of colors.

This study combines meticulous literary research with quantitative color extraction analysis to examine and discuss the usage of black and red in China's Han Dynasty, along with the cultural and symbolic meanings associated with them. Given that black and red were the primary colors used in Han Dynasty lacquerware, this research focuses on lacquerware as the medium for discussion.

Black and red hold symbolic significance related to hierarchical distinctions. During the Han Dynasty, red lacquer was used on coffins for princes, princesses, and nobility, while black lacquer was employed on coffins for high-ranking officials and special dignitaries. Consequently, red lacquer was referred to as first-grade lacquer and black lacquer was considered second-grade lacquer. However, an examination of color extraction results from the samples reveals that the Han Dynasty's use of red and black did notstrictly adhere to these regulations. Both black and red were found to be used in tombs of different hierarchical levels.

On one hand, the craftsmanship of black and red lacquer was not exclusive to the imperial government; artisans from the general populace also created lacquerware. On the other hand, there were no imperial decrees commanding that only princes, princesses, nobility, high-ranking officials, and special dignitaries could use black and red colors. Consequently, common people, to signify their social status, would imitate the color choices of the imperial court and government officials. Regardless, black and red were still recognized as prestigious colors by the imperial authorities.

This study has its limitations. Despite extensive collection and organization of existing literature and archaeological excavation data, it remains challenging to comprehensively analyze all aspects of artifacts using black color. Therefore, the study had to prioritize the selection of lacquerware samples that are representative and typical. Additionally, the theoretical foundation for the study of Han Dynasty lacquerware is relatively weak, with few available theoretical achievements to reference. Scholars have yet to establish a comprehensive theoretical framework for the research of ancient Chinese lacquerware.

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