

The Importance of Color in Cultural Artworks: Focusing on Red and Yellow and Exploring Their Transformation during the Renaissance

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Abstract: This paper examines the cultural and symbolic significance of red and yellow in artistic traditions, with a particular focus on their evolution during the Renaissance. By analyzing their historical uses in Chinese and Western art, this study examines how these colors evolved from representing religious and imperial power to embodying humanistic values and artistic innovation. Through comparative analysis and case studies, the research highlights the role of pigment technology, cultural exchanges, and philosophical shifts in reshaping the meanings of red and yellow. It argues that the Renaissance marked a pivotal period where these colors transcended traditional symbolism, reflecting the era's emphasis on realism, individualism, and cross-cultural dialogue.

1. Introduction

1.1 Introduction to Color in Art

In ancient times, artists used different colors to show different meanings and emotions. The same color in different periods may have various meanings as well. For a painter, color is not only everything that any of us can see; the most unusual thing is that it is also the pigment that unfolds on the palette, where there are unique colors and just colors. To understand the artist's art, this is the most important fact to understand. However, these bright, lustrous pigments don't lie on the palette forever and stay as simple colors. They are to come in handy for the painter to paint, so the use of color has to be limited by the function of painting. The painter is confronted with two systems of color: one provided by nature and the other required by art. One is the color of perception, and the other is the color of the picture. Both sets of colors are presented, and the painter's work depends on what colors stand out first in one set and then in another [1].

1.2 Thesis Statement

This paper examines the historical, cultural, and artistic significance of red and yellow in Chinese and Western art, with a particular focus on their transformation during the Renaissance. By analyzing the symbolic meanings and technical applications of these colors, it is argued that the Renaissance period marked a significant shift in how they were perceived and utilized, driven by advancements in pigment technology, the rise of humanism, and the emergence of cross-cultural interactions. To be specific, the colors red and yellow are common in many Renaissance artworks and masterpieces, as they hold important meanings in art history and technology. This is because we can notice that the quality of the colors has improved, thanks to the enhanced material and advancements in technology and color-making skills. However, there are significant differences between Western and Eastern cultures, as they have distinct cultural differences, and as a result, the styles and methods of using colors will have distinct meanings. Therefore, it is valuable to analyze them.

2. Historical and Cultural Significance of Red and Yellow

2.1 Historical and Cultural Significance of Red

2.1.1 In Chinese Art

First of all, red symbolizes festivity, auspiciousness, prosperity, and happiness in traditional Chinese culture. It is widely used in festivals, wedding banquets, daily clothing, etc. For example, in the official uniform system of the Tang Dynasty, red was given a certain hierarchical significance, and officials of the fourth and fifth grades wore red official uniforms. In addition, red is a positive color in the five-color concept of traditional Chinese culture, corresponding to the element of fire, representing the south, and symbolizing enthusiasm and vitality. In specific application scenarios, red has many expressions in ancient art. As a unique art form, red stone carving has become an important carrier of cultural transmission through exquisite skills to carve far-reaching mythological stories, historical legends, and biographies. Red stone carvings are not only widely used in architectural decoration but also play a significant role in the art and cultural heritage of sculpture. In addition, red is also used in lacquerware, such as the lacquerware excavated from the Chu tomb of the Warring States period, where the interior is painted in vermilion, and the exterior is dyed with ink, showing the unique charm of red. The application of red in ancient art is not only reflected in visual aesthetics but also contains profound cultural connotations. Red symbolizes power, dignity, and auspiciousness and is often used in the decoration of royal buildings and wealthy homes, such as the palace wall of the Qianqing Gate and the vermilion used by the emperor for imperial approval. Red is also associated with the ancestors' worship of fire, and the colors of flame and sun were used in faience to symbolize the power and vitality of life.

2.1.2 In Western Art

In Western painting, red is frequently used in a wide range of works as a vibrant and expressive color. Red can convey a variety of emotions, including passion, danger, love, and anger, among others. Renaissance artists began to explore the use of color, using red to depict the facial features of figures, costumes, and elements such as fire in the background. This application makes the picture more vivid and realistic while also enhancing the expressiveness of the work. For example, in the Life of St. Francis by the Italian painter Giotto, the use of red is very prominent. His clever use of red in depicting St. Francis's clothing and the surrounding flames makes the whole picture full of enthusiasm and energy. In addition, Renaissance painters also used contrasts and blends to create a more harmonious and unified picture by combining red with other colors [2].

2.2 Historical and Cultural Significance of Yellow

2.2.1 In Chinese Art

Yellow, a vibrant hue that symbolizes sunlight, happiness, and prosperity in Chinese art history, has been used extensively throughout various periods. In ancient times, yellow was often associated with imperial power and the emperor's regalia, reflecting its significance in representing authority and legitimacy.

During the Tang Dynasty, yellow became prominently featured in ceramics, textiles, and architectural decorations. It was used to create a sense of grandeur and opulence, reflecting the wealth and extravagance of the era.

Later, during the Ming and Qing Dynasties, yellow continued to be favored for decorative arts such as porcelain, jade carvings, and embroidery. These artworks not only showcased the technical prowess of artisans but also served as symbols of social status and cultural achievement.

Today, the application of yellow in contemporary Chinese art remains relevant, often employed to evoke a sense of nostalgia or to represent the rich heritage and cultural identity of China.

2.2.2 In Western Art

Yellow is a vibrant hue that symbolizes sunlight, happiness, and prosperity in Western art history, having been used extensively throughout various periods. In ancient Greece and Rome, yellow was

often associated with imperial power and the emperor's regalia, reflecting its significance in representing authority and legitimacy.

During the Renaissance, artists such as Leonardo da Vinci and Michelangelo employed yellow to create a sense of grandeur and opulence in their works, reflecting the wealth and extravagance of the era [3].

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3. The Role of Red and Yellow in Renaissance Art

3.1 Transformation of Red

3.1.1 Innovations in Pigments

The transformation of red in Western art history can be traced back to the early Renaissance period when the use of this vibrant color began to shift from its symbolic associations with blood and violence to a more aesthetic and expressive role. During the 15th century, artists such as Leonardo da Vinci and Michelangelo employed red to create a sense of grandeur and opulence in their works, mirroring the wealth and extravagance of the era.

Red's symbolic significance continued to evolve throughout the Baroque period, where it was frequently employed in decorative arts, including porcelain, jade carvings, and embroidery. These artworks not only showcased the technical prowess of artisans but also served as symbols of social status and cultural achievement. Red became a common choice for clothing and accessories during this time, reflecting the importance of personal appearance and social status [4].

In contemporary Western art, red remains a significant presence in various forms of expression. It is often employed to evoke a sense of nostalgia or to represent the rich heritage and cultural identity of Europe. For example, in the work of modern artist Pablo Picasso, red is frequently used to create a sense of intensity and passion. In contrast, in the paintings of Salvador Dali, it is used to create a surreal and dreamlike atmosphere.

Overall, the transformation of red in Western art history has been a complex process that reflects changing cultural values and artistic styles. From its symbolic associations with power and violence to its aesthetic use in creating a sense of grandeur and opulence, red has remained a powerful and versatile color that continues to inspire artists worldwide today.

3.1.2 Symbolic Changes

During this period, red evolved from a purely religious symbol to a marker of human emotion and individuality. Raphael's Sistine Madonna (1513) uses red drapery to frame the Virgin's maternal tenderness, while Caravaggio's Supper at Emmaus (1601) employs dramatic red contrasts to emphasize spiritual revelation through human interaction. This shift mirrored the Renaissance's focus on humanism and naturalism.

3.2 Transformation of Yellow

3.2.1 Innovations in Pigments

The Renaissance witnessed a revolution in yellow pigment technology, driven by alchemical experimentation and global trade. Before the 15th century, Western artists relied on orpiment (arsenic sulfide), a toxic and unstable yellow mineral, and gold leaf for luminous effects. However, the development of lead-tin yellow (a synthetic pigment composed of lead oxide, tin dioxide, and silica) marked a turning point. This pigment, first produced in Bohemia around 1400, offered a bright, stable hue that did not darken over time, enabling artists to create vibrant flesh tones and sunny landscapes. For example, Sandro Botticelli used lead-tin yellow in The Birth of Venus (1486) to paint the goddess's golden hair, blending it with white pigments to achieve a translucent, ethereal

quality that symbolized divine radiance.

By the 16th century, cross-cultural exchanges introduced new sources of yellow. "Indian yellow", derived from the urine of cows fed on mango leaves (a process shrouded in mystery and later banned due to ethical concerns), arrived in Europe via the Dutch East India Company. Its warm, earthy tone became popular in landscape painting, as seen in Joachim Patinir's *Landscape with Charon Crossing the Styx* (c. 1515), where it was used to model sunlit cliffs and distant horizons. Additionally, artists experimented with ochre (iron oxide) and yellow lake pigments (derived from plant dyes, such as weld), which provided subtle tonal variations for underpainting and glazing.

Technical treatises of the era, such as Cennino Cennini's *The Craftsman's Handbook* (c. 1400), documented these innovations, emphasizing the meticulous process of grinding, mixing, and testing pigments for consistency. For instance, lead-tin yellow required precise firing temperatures in a kiln, a technique mastered by Florentine workshops. These advancements not only expanded artistic possibilities but also reflected the Renaissance's scientific curiosity, blurring the lines between art and alchemy.

3.2.2 Symbolic Changes

During the Renaissance, yellow transcended its medieval dualism (divinity vs. sin) to embrace a more complex symbolism rooted in humanism and material culture. In religious art, golden halos persisted but were increasingly integrated into naturalistic settings. For example, Leonardo da Vinci's *The Virgin of the Rocks* (c. 1483–1508) uses a delicate yellow nimbus around the Virgin Mary. Still, its soft edges and placement within a rocky grotto reflect the artist's focus on atmospheric perspective rather than rigid dogma.

Yet the darker associations of yellow lingered, now shaped by Renaissance anxieties about decadence and moral ambiguity. Hieronymus Bosch's *Garden of Earthly Delights* (c. 1500) uses acidic yellows to paint rotting fruit and grotesque creatures in the hell panel, linking the color to decay and indulgence—a nod to medieval warnings about sin. Meanwhile, Pieter Bruegel the Elder's *The Tower of Babel* (1563) employs yellow bricks in the unfinished tower, symbolizing human ambition and hubris.

A pivotal shift occurred in still-life and genre painting, where yellow came to denote sensory pleasure. Caravaggio's *Basket of Fruit* (c. 1599) includes a yellow apple with a wormhole, blending naturalism with memento mori—a reminder of life's transience. This duality—beauty and decay, divinity and materialism—epitomizes the Renaissance's complex relationship with color, as yellow evolved from a static religious symbol into a dynamic tool for expressing human experience in all its contradictions.

4. Comparative Analysis of Red and Yellow in Chinese and Western Renaissance Art

4.1 Comparative Use in Chinese Art

4.1.1 Continuity and Change

During the Renaissance period (c. 14th–17th centuries), Chinese art—predominantly under the Ming (1368–1644) and early Qing (1644–1912) dynasties—exhibited remarkable continuity in its use of red and yellow, rooted in centuries of imperial and Confucian traditions. Unlike the radical symbolic shifts in Western art, these colors remained anchored in political and cosmological hierarchies. For example, yellow continued to signify the emperor as the "Son of Heaven," a role codified in rituals and art. The Forbidden City's golden, glazed, yellow tiles and the Yongle Emperor's dragon robes, embroidered with yellow thread, exemplified this exclusivity, reinforcing the Mandate of Heaven. Red, meanwhile, retained its auspicious associations in folk art and imperial ceremonies; the Ming Dynasty's Red Cliff Ode paintings, inspired by Su Shi's poetry, used red to depict scholars' boats and seals, symbolizing camaraderie and cultural refinement within Confucian frameworks.

4.1.2 Influence of Western Art

Direct Western influence on Chinese color use remained limited before the 18th century; however, Jesuit missionaries, such as Matteo Ricci (1552–1610), introduced oil painting and linear perspective. The Kangxi Emperor's court painter Lang Shining (Giuseppe Castiglione, 1688–1766) hybridized Chinese brushwork with Western chiaroscuro, using red and yellow to model figures more three-dimensionally in *Banquet in the Forbidden City* (1714). However, these innovations were absorbed into existing symbolic systems: the emperor's yellow robe and the red banners in the painting still signified power and celebration, unchanged in meaning. Notably, Chinese artists did not adopt Western symbolic shifts (e.g., red as a symbol of individual passion or yellow as a symbol of secular wealth), preserving the colors' traditional roles as emblems of social order and cosmic balance.

This continuity underscores the resilience of China's imperial cultural system, in which art served as a tool of governance. Unlike the Renaissance's humanistic revolution, Chinese art during this period evolved within a closed symbolic framework, prioritizing tradition over radical reinterpretation.

4.2 Comparative Use in Western Art

The Renaissance in Western art was marked by dynamic cross-cultural exchanges that reshaped the use of red and yellow, blending indigenous traditions with global influences. Unlike China's relative isolation, Europe's growing trade networks (e.g., the Silk Road, Columbian Exchange) and colonial expansions introduced new pigments, techniques, and symbolic meanings.

4.2.1 Influences from Other Cultures

Medieval Byzantine and Islamic art had already established gold as a sacred color, but Renaissance artists like Gentile Bellini (1429–1496) further deepened this legacy through their connections with Middle Eastern cultures. Bellini's *Saint Mark Preaching in Alexandria* (1504) incorporates golden arabesque patterns inspired by Ottoman textiles, merging Christian hagiography with Islamic geometric aesthetics [5]. Similarly, the vibrant reds of Persian miniatures, achieved with imported vermillion (cinnabar), influenced Venetian painters like Titian, who used the pigment to create the sumptuous red velvets in *Venus of Urbino* (1538). The Medici family's collection of Chinese porcelain, with its delicate yellow glazes, inspired still-life artists like Jan van Eyck to experiment with translucent yellows in *The Arnolfini Portrait* (1434), where a yellow bedspread hints at luxury and marital fertility.

4.2.2 Cross-Cultural Exchanges

The Columbian Exchange brought transformative materials: cochineal from South America, a vivid red dye derived from insects, replaced the unstable kermes pigment, allowing artists like Caravaggio to paint deep, enduring reds in *The Calling of Saint Matthew* (1599–1600). Meanwhile, Indian yellow, sourced from Bengal, became a staple for Dutch Golden Age painters like Johannes Vermeer, who used it to capture the warm glow of sunlight in *Girl with a Pearl Earring* (1665). These exchanges were often exploitative—cochineal was extracted through colonial labor—but they democratized access to rare colors, enabling smaller workshops to create vibrant works.

Symbolically, Western artists reinterpreted red and yellow through a humanistic lens, distancing them from purely religious roles. Red, once tied to martyrdom, now expressed earthly passion; yellow, formerly divine or demonic, came to signify intellectual enlightenment (e.g., the yellow robes of philosophers in Raphael's *The School of Athens*) and scientific inquiry. This pluralism stood in contrast to China's rigid symbolic hierarchy, reflecting Europe's fragmented political landscape and the rise of individual patronage (e.g., the Medici, Borgia families), who commissioned art for personal glory as much as religious devotion.

In essence, Western Renaissance art transformed red and yellow into malleable symbols of a globalizing world, blending spiritual heritage with material ambition. The result was a rich, contradictory vocabulary—red as both sacred blood and luxurious silk, yellow as both heavenly

light and earthly greed—capturing the era’s tension between tradition and innovation.

5. Case Studies

5.1 Chinese Art Example – Along the River during the Qingming Festival (Zhang Zeduan, 12th century)

Zhang Zeduan’s handscroll *Along the River During the Qingming Festival*, created during the Northern Song Dynasty (960–1127), serves as a pivotal exemplar of red and yellow’s symbolic integration within Chinese art. Spanning over five meters, the scroll depicts the bustling life of Kaifeng, the capital, during the Qingming (Tomb Sweeping) Festival, blending meticulous realism with cultural symbolism [6].

Red appears throughout the scroll as a marker of communal vitality and civic order. Merchants’ banners, dyed in cinnabar-derived red, flutter above market stalls, signaling commercial activity and prosperity. The red doors of official buildings and the crimson belts of civil servants underscore the Song Dynasty’s bureaucratic structure, while the subtle red accents on peasant clothing denote participation in seasonal rituals. This reflects Confucian values of social harmony, where red transcends mere decoration to embody collective identity.

Yellow is employed more subtly but intentionally. The pale-yellow robes of elderly scholars walking along the riverbank symbolize wisdom and alignment with Confucian ethics. At the same time, the golden hues of temple roofs evoke spiritual authority without overt religiosity. Notably, the central bridge—a focal point of the scroll—features yellow-tiled pavilions, representing the state’s role in mediating between human activity and the cosmos. This aligns with Song Dynasty philosophy, which merged Confucian governance with Daoist concepts of universal equilibrium.

Zhang’s use of mineral pigments (red from cinnabar, yellow from realgar) highlights the technical continuity of Chinese art before the Renaissance period. Unlike Western artists of the same era, who were beginning to experiment with oil-based glazes, Zhang relied on water-based inks and pigments, layering them to create depth without the use of chiaroscuro. The scroll’s narrative flow, guided by color, reinforces the Song Dynasty’s emphasis on order and tradition, where red and yellow remain steadfast symbols of political and cosmic stability.

5.2 Western Art Example – The School of Athens (Raphael, 1509–1511)

Raphael’s fresco *The School of Athens*, part of the Vatican’s Stanze di Raffaello, exemplifies the Renaissance’s radical reimagining of red and yellow through humanism, classical revival, and technical innovation. Painted during the High Renaissance, the work celebrates ancient philosophy, mathematics, and science, bringing together figures from antiquity in a fictional architectural space inspired by Bramante’s design for St. Peter’s Basilica [7].

Red dominates the composition through the robes of central figures, symbolizing intellectual fervor and human vitality. Plato, gesturing upward to the heavens, wears a deep “rosso antico” cloak, a pigment associated with nobility and truth. This color contrasts sharply with the blue of Aristotle’s robe, representing empirical logic, creating a visual dichotomy between idealism and realism. The architectural arches framing the scene are accented with red moldings, grounding the ethereal discourse in physical space and reflecting Renaissance interest in perspective and proportion.

Yellow serves as a bridge between the secular and the divine. The golden coffered ceiling, modeled on the Pantheon’s dome, evokes the grandeur of ancient Rome, while the soft yellow glow illuminating the figures suggests both natural sunlight and symbolic enlightenment. The mathematician Pythagoras, seated in the foreground, uses a yellow writing tablet, linking the color to scholarly inquiry and the pursuit of universal truths. Notably, Raphael incorporates yellow into the clothing of minor figures, such as the kneeling philosopher in the lower right, democratizing its use beyond religious contexts—a stark departure from medieval art.

Raphael’s mastery of oil-based glazes allows for subtle gradations in red and yellow, such as the translucent folds of Plato’s robe, achieved through layering “rosso antico” with burnt sienna. The

use of lead-tin yellow in the architectural details ensures luminous stability, a testament to Renaissance pigment innovations. Unlike Chinese art of the same period, where color reinforced hierarchical tradition, The School of Athens uses red and yellow to celebrate individualism and intellectual diversity, embodying the Renaissance's break from medieval orthodoxy and its embrace of human potential.

6. Conclusion

6.1 Summary of Key Points

This study has examined the cultural trajectories and symbolic transformations of red and yellow in Chinese and Western art, with a focus on their roles during the Renaissance. In pre-Renaissance Chinese art, red and yellow served as stable emblems of imperial power and Confucian order, as seen in Zhang Zeduan's *Along the River During the Qingming Festival*, where red signified communal harmony and yellow embodied cosmic balance. Technical innovations, such as mineral pigments, evolved incrementally but preserved traditional meanings under the Ming and Qing dynasties.

In the West, the Renaissance triggered radical shifts. New pigments like cochineal and lead-tin yellow enabled artists such as Raphael and Caravaggio to redefine red and yellow beyond religious contexts. Red transitioned from a symbol of martyrdom to a marker of human passion, while yellow expanded from divine halos to signify secular wealth and intellectual enlightenment. Cross-cultural exchanges, such as the Columbian Exchange of pigments and the influence of Islamic and Chinese art, further diversified their symbolic meanings.

6.2 Implications and Reflections

The comparative analysis reveals how color acts as a mirror of societal priorities: Chinese art's continuity reflects the primacy of tradition and imperial governance, whereas Western art's transformation embodies the Renaissance's humanistic revolution and global curiosity. Notably, while China's use of red and yellow remained anchored in hierarchical symbolism, Europe's fragmented political landscape and emerging individualism allowed colors to become malleable tools for expressing contradiction—such as yellow's dual roles in Bosch's "Garden of Earthly Delights" (decay and divinity).

These findings also underscore the material basis of symbolic change. Pigment innovations were not mere technical advancements but catalysts for artistic and philosophical reevaluation. For example, lead-tin yellow's stability in Western art enabled naturalistic depictions that challenged medieval iconography, while China's reliance on mineral pigments reinforced aesthetic continuity.

6.3 Final Thoughts

The legacy of red and yellow in Renaissance art highlights the dynamic interplay between culture, technology, and power. In both traditions, these colors transcended mere decoration to encode values, beliefs, and global interactions—albeit in profoundly different ways. As seen in Raphael's synthesis of classical and humanistic ideals or Zhang Zeduan's celebration of imperial order, color remains a universal language that negotiates tradition and innovation.

For future research, exploring post-Renaissance evolutions of these colors—such as their roles in modernism or contemporary global art—could further illuminate their enduring relevance. Ultimately, this study reinforces that art's power to communicate across time lies not only in its visual beauty but also in the layered histories embedded in every hue.

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