

Design Research on Mythical Animal IP Images in Chinese Traditional Culture: A Case Study of the Dunhuang Nine-Colored Deer

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ABSTRACT

In the context of new media integration, character image design reflects both brand value and cultural value, becoming a form of spiritual consumer goods. With the continuous improvement of living standards, IP (Intellectual Property) culture has become an inevitable product of the cultural industry in the Internet era. Integrating traditional cultural elements into character image design not only helps inherit and promote Chinese traditional culture but also endows the characters with cultural connotations. The Dunhuang murals are a precious cultural heritage of China, among which the image of the Nine-Colored Deer has left a deep impression on the public. This paper reviews literature on Dunhuang culture, explores the development prospects of IP image design based on traditional culture, and carries out the design of the IP image.

KEYWORDS

Chinese traditional culture; IP image design; Character design; Visual design

1 Research background

In today's communication environment characterized by "informatization" and "entertainment-oriented" tendencies, the dissemination of traditional culture faces significant challenges. Fast-paced content enjoys widespread popularity, whereas traditional cultural content tends to attract relatively less attention. What truly leaves a lasting impression should be content that carries history, value, and meaning. To sustain public interest over time, it is necessary not only to adopt appealing forms of presentation but also to embed profound cultural connotations. The connotations and values inherent in outstanding traditional culture are always worth inheriting and promoting.

Dunhuang is renowned for its past glory and profound cultural heritage. The Mogao Caves were listed among the first group of national key cultural relics protection units by the State Council of China in 1961, inscribed by UNESCO as a World Cultural Heritage site in 1987, and awarded the "World Cultural Heritage" certificate in 1991. With a history of over two thousand years, Dunhuang culture represents the brilliance of ancient Chinese civilization.

The general public often perceives traditional culture as ancient and unadorned. Without widespread recognition and innovative dissemination, it cannot achieve vibrant continuity. Therefore, traditional culture-based IPs must continuously innovate on the foundation of traditional elements, align with the preferences of modern young audiences, and integrate traditional culture with contemporary aesthetic demands.

2 Research objectives

Derivatives of Dunhuang murals represent both the inheritance and promotion of outstanding Chinese traditional culture. As an important component of Chinese traditional culture, they embody profound cultural heritage and reflect the development of traditional Chinese painting art. In order to better preserve and promote Chinese traditional culture, artists and designers have drawn inspiration from the Dunhuang murals to develop various types of derivative products. IP images, characterized by high recognizability, rapid dissemination, and broad public acceptance, are particularly suitable for the transmission of traditional culture. The mere sight of an IP image can immediately evoke associations with its related cultural background.

By analyzing the relationship between IP image design and traditional culture, this study extracts elements from Dunhuang culture and related traditional motifs to design an IP image of the Nine-Colored Deer from Dunhuang murals. The aim is to increase the interest of younger audiences in traditional culture and thereby promote Dunhuang culture more effectively.

3 Cultural characteristics of dunhuang

Dunhuang, located in the western part of Gansu Province, China, was historically an important hub along the Silk Road—a key nexus for transportation and trade between the East and the West in ancient times. The exchange of diverse cultures in this region contributed to Dunhuang's prosperity. The Mogao Caves in Dunhuang comprise 735 grottoes and

45,000 square meters of murals, making it the largest and most richly endowed repository of Buddhist cultural art in the world. It stands as one of the outstanding examples of China's traditional culture and a precious cultural heritage of global significance. The Mogao Caves represent a synthesis of cave architecture, polychrome sculpture, and painting.

The mural *The Deer King Jataka* is a representative work of the Northern Wei dynasty caves and is considered one of the most beautiful murals in the Mogao Caves. It holds great research value within Dunhuang culture, being distinctive as one of the rare murals where animals serve as the main subject. The mural also embodies a fusion of Western Regions and Central Plains cultures, bearing witness to the history of Sino-foreign cultural exchange. The colors of the mural were influenced by Western Regions' painting traditions, differing from the red-and-black dominant palette since the Han dynasty. In this period, colors were primarily composed of green, blue, and red, producing a vivid chromatic effect.

The story of the Nine-Colored Deer conveys the moral concept that good and evil are duly rewarded and reflects complex ethical thought. It carries significant cultural value and educational meaning, embodying virtues such as self-sacrifice and altruism—qualities that are worthy of learning and promoting.

4 The Value of dunhuang IP

In 2016, the Dunhuang Museum initiated the development of the Dunhuang Cultural and Creative IP project. The core concept was to integrate Eastern and Western cultures as well as traditional and modern cultural elements, enabling more young people to understand and appreciate Dunhuang culture. In 2019, the cultural and creative brand of the Dunhuang Museum was officially launched, revitalizing traditional culture and Dunhuang art through innovation. In 2020, under the mission of promoting Dunhuang culture, the museum engaged in cross-industry collaborations with popular variety shows. That same year, in order to allow young audiences to experience the charm of Dunhuang in a broader and more immersive way, the "Discover Dunhuang Colors" special event was held. By adopting livestreaming—a more direct and youth-friendly form of communication—the event promoted Dunhuang IP effectively.

At the 2020 Tokyo Olympics, the Chinese rhythmic gymnastics team performed the Dunhuang Flying Apsaras Dance, evoking a sense of lightness and freedom, and showcasing to the world the beauty of traditional Chinese culture and the elegance of ancient Eastern aesthetics. Dunhuang murals often feature mineral pigments such as cinnabar, malachite green, gold powder, and indigo, resulting in intense, high-contrast colors. The rhythmic gymnastics team's costumes employed this color palette, highlighting the artistic characteristics of Dunhuang and creating strong visual impact and emotional resonance.

During the 2022 Beijing Winter Olympics, the Shougang Big Air venue incorporated the imagery of the Dunhuang "Flying Apsaras" ribbons into its architectural design, merging the dynamic curves of the ribbons with the slope structure. Using rigid steel to forge a sense of fluidity, the design transformed the downward extension of the slope into an upward soaring vision, presenting Dunhuang-inspired elements to the world.

The development of Dunhuang IP is inseparable from the artistic value and unique charm of its murals. The murals' lines are dynamic and flowing, while their color schemes employ a wide range of complementary hues, warm-cool contrasts, and light-dark variations to create rich visual changes. The vivid yet harmonious palette exudes rhythmic beauty, decorative appeal, and distinct ethnic characteristics, eventually giving rise to the concept of "Dunhuang Colors." In terms of cultural foundation, brand scalability, and aesthetic value, Dunhuang cultural creativity holds particularly notable advantages.

5 Designing the dunhuang nine-colored deer IP image

This work anthropomorphizes the image of the Nine-Colored Deer, rendering it in a cute style, utilizing the color palette of Dunhuang murals, and referencing the postures and gestures of the Dunhuang Flying Apsaras.

The head and body of the Nine-Colored Deer IP character are roughly the same size, giving it a juvenile and adorable appearance with greater approachability. The antlers and ears retain the distinctive features of a deer, while the eyebrows are curved and the outer corners of the eyes are slightly upturned. The hairstyle draws inspiration from those found on Dunhuang stone statues, and the decorative element behind the headpiece originates from the honeysuckle motif, with modifications to its shape. The hem of the skirt incorporates flowing ribbon elements: the ribbons cross at the front and are symmetrically arranged at the back. Complementary tones from Dunhuang murals were chosen as the primary color scheme, extracted not only from the predominantly red palette of *The Deer King Jataka*, but also expanded to include red, blue, and green as the main hues. The antlers, eyebrows, ribbon-end decorations, and the lower skirt feature a blue-green gradient, while the eyes and the decorative markings beneath them employ rich gradient tones. The golden headpiece references the adornments of the Flying Apsaras, with red ribbons extending from behind. The upper garment adopts a relatively low-saturation vermilion. Both a flat orthographic three-view drawing and a 3D model of the character were

produced.

On this basis, four action poses for the Nine-Colored Deer were designed: Holding a tambourine, with a simplified caisson pattern added to its surface and ribbons flying to both sides; Pressing the palms together with eyes closed, with a halo of Buddhist light radiating from behind; Sitting cross-legged upon a lotus pedestal; Playing the traditional musical instrument yueqin (moon lute), adorned with the Dunhuang honeysuckle motif.

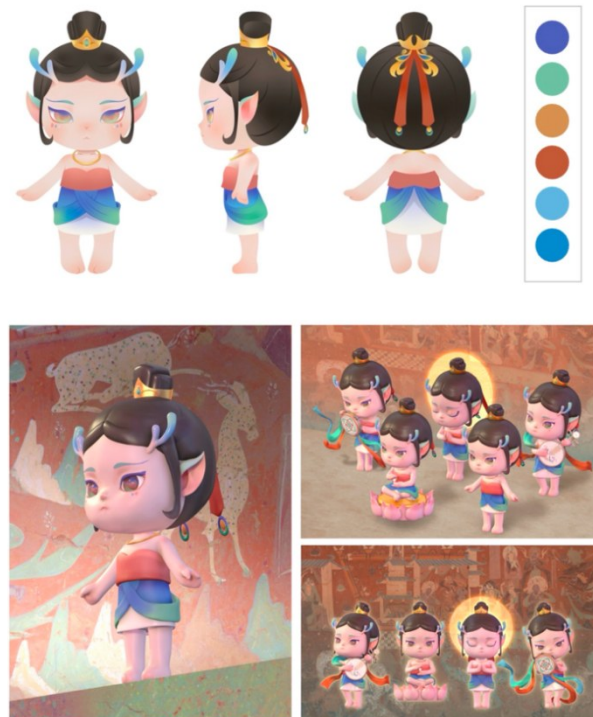


Figure 1

6 Conclusion

Outstanding traditional culture requires our inheritance and promotion. In today's era of rapid technological development, innovation in content is fundamental. By leveraging technological innovation and online communication channels, the dissemination of China's outstanding traditional culture can continuously increase public attention and engagement.

The design of the Nine-Colored Deer IP image aims to facilitate the broader spread of Dunhuang culture. As a creative approach to cultural inheritance, IP imagery differs from traditional modes of dissemination by being more humanized, engaging, and entertaining. It integrates traditional culture with contemporary aesthetic demands, inspiring growing interest in traditional culture among the public and contributing to the better preservation and promotion of China's cultural heritage.

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