

A Study of the Artistic Beauty and Stylistic Continuity of Dunhuang Frescoes of the Flying Sky

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Abstract

This article explores Dunhuang murals' artistic beauty and sculptural continuity, with a particular focus on the "Flying Apsaras" figures. The primary purpose is to explore the spread and evolution of the Dunhuang mural "Flying Apsaras" art form and thoroughly examine its artistic quality and durability. The research objectives of this article are as follows: (1) Analyze the basic types and characteristics of Dunhuang murals and study the artistic beauty of Dunhuang murals. (2) Study the continuity of the "Flying Apsaras" shape. By analyzing the basic types and characteristics of Dunhuang murals and by investigating the origin, artistic aesthetics, and style differences of "Flying Apsaras" images, we examine this art form from three different angles: analyze how to combine the historical development of "Flying Apsaras" shapes with the combination of modern science and technology proposes an effective combination of traditional mural art and contemporary animation. This study aims to understand the visual communication of modern art through the perspective of Dunhuang murals, explore various strategies for the continuation of "Flying Apsaras" clothing styles, and thereby contribute to the continuous development of the "Flying Apsaras" art form of Dunhuang murals.

Mixed research methods combined qualitative and quantitative analysis, including questionnaires, expert interviews, group discussions, etc. Build a joint research process for artists, designers, and ordinary consumers. Participants included three famous artists, designers, and 207 everyday consumers from Gansu Province, China. Through in-depth interviews and group discussions, various perspectives, artistic insights, and data on the art of Dunhuang Flying Apsaras were collected. They measured customer and expert satisfaction through evaluation forms to provide data support and insights for the future development of Flying Apsaras imaging.

The findings highlight the artistic beauty and sculptural continuity of the "Flying Apsaras" murals in Dunhuang, revealing the potential of mural art to connect the past and present, linking Dunhuang's rich history with its vibrant contemporary through Flying Apsaras symbol analysis and effect evaluation. The characteristics are integrated into one, and the research results are as follows:

(1) Combine artistic beauty with contemporary art forms and transform and innovate to enhance the continuity of the flying sky shape.

(2) The unity of Dunhuang art and animation reflects the effectiveness of Dunhuang art on technology.

(3) The effective dissemination of culture demonstrates the artistic heritage of Dunhuang and the ability to reveal cultural value in a modern context.

This research opens the way for creative adaptations in graphic design, advertising, and multimedia storytelling, bridging traditional and modern modes of communication.

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Introduction

The Flying Apsaras murals in Dunhuang are believed to date back to the Tang Dynasty and occupy a unique place in Chinese art history. These " Flying Apsaras " decorate the Mogao Grottoes, exuding an atmosphere of elegance and embodying the harmonious fusion of spirituality and artistic splendor. However, gaps still need to be in our understanding of the stylistic elements contributing to the continuity of Flying Apsaras murals across different eras. This study aims to enrich our knowledge of Dunhuang cultural heritage by bridging these gaps by carefully examining artistic nuances and revealing potential clues to stylistic continuity.

Dunhuang murals specifically refer to the paintings on the inner walls of the Dunhuang Grottoes in my country, including 522 Dunhuang Mogao Grottoes, West Thousand Buddha Caves, and Anxi Yulin Grottoes, with a total area of more than 50,000 square meters. They have the most significant number of murals in China and even the world—the cave group with the richest content. The study of Flying Apsaras-shaped costumes involves many fields, such as clothing history, art history, Buddhism, etc., which are both related to and different from real life (Jie, 2021).

As a classic work of ancient Chinese art, the Dunhuang mural Flying Apsaras has significant artistic value and influence. By studying its artistic beauty and style continuity, we can understand the inheritance and development of Dunhuang mural art and explore how artists innovate while continuing tradition. Learning the artistic beauty and modeling continuity of Flying Apsaras murals can help us understand the relationship between form and connotation in Dunhuang artworks. By analyzing the formal changes and continuity of the " Flying Apsaras " mural, we can reveal the development of the artist's creative techniques and artistic language in expressing themes and emotions.

Studying the artistic beauty and style continuity of the Dunhuang mural " Flying Apsaras " can help us deeply understand the inheritance and innovation of Dunhuang art, the relationship between form and connotation, and reveal the continuation and change of cultural traditions, and the interaction between art and society. This is of great significance for promoting artistic research and cultural heritage inheritance.

The Flying Apsaras murals in Dunhuang bear witness to ancient Chinese civilization's artistic originality and cultural richness. This study seeks to uncover these masterpieces' intricate artistic beauty and stylistic continuities, exploring the nuances that define their visual appeal and the clues that bind them across time. The Flying Apsaras murals of Dunhuang have long attracted the attention of scholars, art lovers, and cultural historians.

Based on relevant research by previous scholars, such as "Celestial Phenomena in Dunhuang Art: A Comparative Analysis," which raises interesting questions about the symbolic meaning of celestial bodies in the broader artistic narrative ((Minhu et al., 2023).

"Iconography and Symbolism in Dunhuang Murals" provides an in-depth exploration of the iconography and symbolism prevalent in Dunhuang murals, laying the foundation for our study of Flying Apsaras murals (Chaozhi & Minmin, 2020).

"The Evolution of Stylistic Elements in Dunhuang Art" Exploring how stylistic elements evolve is crucial to revealing the dynamics of Dunhuang culture and art (Qianwen, 2022).

"The Cultural Significance of Flying Apsaras Murals in Dunhuang" provides a comprehensive overview of the cultural significance of Flying Apsaras Murals (Guohua et al., 2022).

Research Objectives

1. Analyze the basic types and characteristics of Dunhuang murals and study the artistic beauty of Dunhuang murals.
2. Study the continuity of the Flying Apsara shapes in Dunhuang murals.

Literature Review

Based on the previous research on the artistic beauty and style continuity of Dunhuang Flying Apsaras murals and through an in-depth understanding of the historical and cultural context of Dunhuang. The study is mainly reviewed from the following aspects:

First, the historical origins, cultural symbolism, and religious influences that shaped the creation of these murals are examined, laying the foundation for understanding their artistic importance. The apsara in Buddhism is not only an art form but has its roots in ancient Hindu mythology, representing the fusion of the Hindu gods Gandharva and Chanara. Gandharva and Tana were revered as gods of singing and dancing in ancient Indian mythology. As early celestial images dedicated to the Buddha, they were incorporated into the Buddhist system. They are often depicted presiding over music, flower ceremonies, and ceremonies. In Buddhist scriptures and Nirvana teachings, they are shown dancing, playing music, and scattering flowers in the air, symbolizing the joyful atmosphere of the Western Paradise. In appearance, apsara figures often have features such as large breasts, thin waists, and round hips, reflecting the typical rugged and exaggerated shapes in Indian aesthetics (Changwu, 2019). Although Flying Apsaras originated in India, the Dunhuang Flying Apsaras represents the fusion of Indian, Western, and Chinese cultures. The fusion of Indian Buddhist gods, Chinese Taoist gods, and Western flying men created Flying Apsaras with distinctive Chinese cultural characteristics (Lian, 2004).

Secondly, the investigation of cultural continuity and the academic investigation of the continuity of the Dunhuang Flying Apsaras mural style are discussed. It reviews the evolution of artistic styles, identifying commonalities and deviations across different periods. The importance of stylistic evolution in the context of Dunhuang art is emphasized. For example, Deng Xinhang discussed the stylistic characteristics and aesthetic expression of Flying Apsaras art in the Bazhong Grottoes in the Tang Dynasty. Delicate carvings and diverse postures characterized the Flying Apsaras art of the Bazhong Grottoes during this period. The development history of the Bazhong Grottoes in the Tang Dynasty mainly spans from the early Tang Dynasty to its peak period, consistent with the overall evolution of the Bazhong Grottoes. Flying Apsaras art in the early Tang Dynasty was characterized by beauty and dynamism while Flying Apsaras art in the prosperous Tang Dynasty was characterized by elegance and elegance. The Bazhong Flying Apsaras of the Tang Dynasty embodies the unique aesthetic pursuit of flight, decoration, and realism (Xinhang & Xiaoyang, 2017). Wu Si proposed a study on the artistic inheritance of Dunhuang murals. As a unique system, Dunhuang mural art is

famous for its tranquil and prosperous religious atmosphere, full of romantic and brilliant creative colors. It significantly impacted the structural layout, character modeling, line drawing, and color composition of Chinese paintings (Si, 2013).

Finally, past research on aesthetic elements synthesizes the findings of previous scholars and art historians and discusses aspects such as the use of color, brushwork techniques, and compositional elements. Analyzing these studies aims to identify recurring themes and patterns in the artistic beauty of Flying Apsaras murals. For example, the artistic aesthetic of the Dunhuang mural " Flying Apsaras " features vibrant ethnic folklore and is deeply intertwined with a thriving, cheerful, and optimistic mood. The ingenious fusion of romantic style, national imagery, and folk tradition gives Chinese Flying Apsaras paintings a unique decorative style, showing artistic solid vitality. This fusion also reflects the decorative style characteristics of Chinese painting. For example, the picture below shows one of the murals in the Dunhuang Flying Apsaras series (Figure 1).



Figure 1. Dunhuang Fresco Flying Apsaras.
Source: <https://www.dha.ac.cn/skxl/ylk.htm>.

The use of lines in the Dunhuang Flying Apsaras murals reflects the evolution from the natural and smooth lines in the silk-weaving paintings of the Warring States Period to the slender and flexible lines that gradually appeared after the Qin and Han Dynasties. This evolution can be traced back to "Silk Brocade" and "Yun Brocade," to Gu Kailin and "Silk Satin" in the golden age. By the Tang and Song Dynasties, represented by Wu Daozi's "Brick Belt," the line drawing technique of Chinese painting had become mature (Yun, 2013).

The art of line drawing in Chinese painting has a long history, benefiting from specialized Chinese painting tools. The use of traditional brushes changes the thickness, shade, elegance, and bluntness of the lines through techniques such as pressing, changing, eating, poking, and rubbing. In addition, the dryness, wetness, thickness, and brightness of the pen and ink help make the form more expressive and detailed (Yu, 2008). In Chinese painting, lines are used to outline and convey texture, light and shadow, emotional resonance, and the artist's personality and emotions. Lines have relatively independent aesthetic significance. The line drawings in the Dunhuang mural "Flying Apsaras" carefully outline the lines of clothing, hairpins, and other elements, showing an exquisite pattern structure. Through the lines, one can perceive the spiritual essence of Flying Apsara (Figure 2). Dunhuang Flying Apsara not only depicts the beauty of human form but also symbolizes vitality (Amin, 2008; Hui, 2014).



Figure 2. The Image of Flying Apsaras Lady in Tang Dynasty.

Source: <https://mp.weixin.qq.com/>

The color configuration of the Dunhuang mural " Flying Apsara " is divided into two types: 180° and 120° according to the color wheel(Minhu et al., 2023).In terms of color contrast, there is a 120-degree red and blue contrast color configuration, which produces robust, lively, and rich color effects. the hue adopts two less exciting techniques: introducing colorless elements into two strongly contrasting colors and the difference in the area of the two contrasting colors, the smaller area being orange-yellow, the larger one being blue-purple. Despite this, there is still an obvious contrast in color; in light and dark colors, contrasting dark tones are used; bright colors with strong contrast are always emphasized(Zhao, 2020).

After a long period of development and evolution, the flying shapes in Dunhuang murals have experienced a transformation from male to female and evolved from a "V" shape to an "S" shape. The main characteristic of Dunhuang Flying Apsara in the Tang Dynasty is gender transformation from male to female. The shape, ornaments, and facial features of the Tang Dynasty mural " Flying Apsara " have been determined to be female. During the Southern and Northern Dynasties, the images of Bodhisattvas and flying gods did not have obvious gender tendencies but were characterized by female appearance, clothing, and posture. Some Bodhisattvas in the early Tang Dynasty, such as Manjushri, although they still retained masculine characteristics such as tadpole-shaped beards, showed prominent feminine characteristics in appearance, clothing, posture, etc.

In the Dunhuang murals we see today, the image of Flying Apsara is both beautiful and rich, reflecting the artist's creative freedom beyond the constraints of traditional religious painting. This freedom allows the majestic and sacred Apsara to embody strong human emotions, bridging the gap between gods and humans. Especially under the influence of the Tang Dynasty's spirit of actively interacting with the world and advocating freedom, Flying Apsara's image gradually included more humanistic life feelings, reflecting an optimistic, positive, open, and tolerant character—the realist spirit of the times.



Figure 3. "S" Flying Apsara image.
Source: <http://www.dhbwg.org.cn>

The evolution of Flying Apsara dynamics from a "V" shape to an "S" shape is evident. The flying posture forms an "S" shape with the floating belt around the body. Flying Apsara's waist is slightly twisted, showing a delicate and colorful body, supplemented by flowing skirts and ribbons, creating a solid yet soft artistic conception. Flying Apsara's "S"-shaped figure has changed from the immature and generalized "V"-shaped figure in his early days. His figure appears slimmer, more proportionate, and full of plump and round beauty. In addition, the "S"-shaped curve brings more visual changes, effectively showing the voluptuous beauty and femininity of the female figure and emphasizing the feminine image. Compared with the almost flat flying figures of earlier times, the flying ribbons of the Tang Dynasty float or hover around the body in arcs, conveying the speed and beauty of the figures in flight (Figure 3).

Research Methodology

This study employed a mixed-methods approach, integrating qualitative research and quantitative analysis, along with a co-research process that involved artists, designers, and general consumers.

Participants. The participant group included three renowned artists and designers and 207 ordinary consumers from Gansu Province, China. All participants provided informed consent, and their identities were kept confidential throughout the study.

Data Collection and Design Procedures. The study combines qualitative and quantitative research methods. The initial information mainly came from historical documents and research by the Dunhuang Academy, focusing on the Dunhuang Flying Apsaras during the Sui and Tang Dynasties. Field trips to the Dunhuang area further enriched the data collection, and through in-depth interviews and group discussions, various perspectives, artistic insights, and data on the art of Dunhuang Flying Apsaras were collected. These discussions aimed to understand the symbolic meaning of Flying Apsaras mural art by artists, designers, and ordinary consumers and to explore viable options for innovative development.

The data collected provide the basis for understanding the artistic continuity of Flying Apsaras. Conduct comparative research by analyzing Flying Apsaras images from different caves and apply the inspiration gained from the study to the innovative design of Flying Apsaras cultural products.

Feedback from 207 ordinary consumers was collected to provide a reference for Flying Apsaras research. Through questionnaires, experts, designers, and consumers evaluated the Flying Apsaras images of different caves. These questionnaires included images depicting other Flying Apsaras character effects to record customer preferences and provide a reference for designers. They measured customer and expert satisfaction through evaluation forms to provide data support and insights for the future development of Flying Apsaras imaging.

Data Analysis. Through qualitative analysis of literature and research data, this paper explores the significance of studying the artistic aesthetics of the Dunhuang mural "Flying Apsaras" and the continuation strategy of "Flying Apsaras." Quantitative data analysis from the questionnaires and evaluation forms was also conducted, including calculating means and standard deviations.

Research Conceptual Framework

Researchers analyzed the artistic beauty and stylistic design features of the Dunhuang Flying Apsaras murals. A sketch was drawn based on the data and combined information collected above. Based on identifying cultural capital, the researchers constructed a model to study the stylistic continuity of the Dunhuang mural Flying Apsaras (Figure 4).

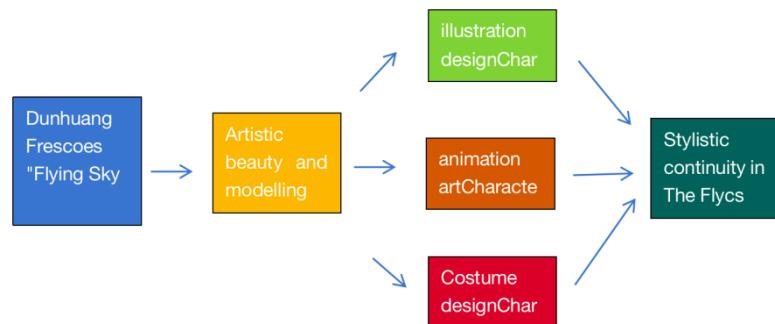


Figure 4. Research Conceptual Framework

Source: Author's own work

Research Results

1. Regarding the artistic beauty of Dunhuang murals, we have conducted the following analysis and the results are as follows.

Table 1. Assessment of stylistic features of Dunhuang mural paintings of flying skies from different caves.

Cave number	Head	Upper body	Lower body	Item of jewelry	Consumer Mean (SD)	Expert Mean (SD)
390	With hair in a bun and a precious crown	Naked	Wear a long skirt with a belt at the waist	Necklace, Wrist Chain	4.81(0.14) 4.6 (0.44)	4.83(0.14)
305	Two buns and a crown.	Naked	Wear a long skirt with a fluttering belt at the waist	Necklaces, bracelets	4.85 (0.11)	4.86 (0.11)
322	A girl's hair in a bun without a crown.	Naked	Wear a long skirt and go barefoot.	Necklace, Wrist Strap, Hand Rest Flower Plate	4.71 (0.18)	4.76 (0.13)
321	Hair worn in a bun with a precious crown on the head	Naked	Wear a long dress with flounces.	Necklace, armlet	4.78 (0.16)	4.81 (0.14)
39	Hair worn in a bun, with a precious crown	Naked	Wear long, waisted skirts	Necklace, armlet	4.83 (0.12)	4.86 (0.11)
44	The head is dressed in a bun, wearing a crown of treasures, and there are precious bindings on both sides of the head.	With a lute on her chest.	Wear long dresses with waisted skirts and flounces, bare feet	Necklace, armlet	4.83 (0.13)	4.86 (0.44)
Total					4.85(0.11)	4.83(0.08)

A comparative study of flight images from six representative caves was conducted by issuing questionnaires to artists, designers, and consumers. A total of 207 questionnaires were collected. Consumers and experts alike spoke highly of these caves' flying paintings, praising them for their beautiful shapes and high artistic value. The overall mean values are 4.85 and 4.83, respectively, as shown in Table 1.

2. Judging from the continuation strategy of the Flying Apsara shape in Dunhuang murals, creators from all eras and dynasties have made modifications and innovations to the Flying Apsara shape for more than a thousand years. However, they largely retain the primary form of the original Flying Apsara look. Throughout the evolution of art, creators have always relied on inherent traditions since all artistic reproductions are at least superficially based on some form of fixed schema. This is true for everyone involved, creators and viewers, who are naturally influenced by psychological mechanisms.

The virtual nature of Dunhuang mural art and animation must be addressed when exploring the connection and innovation between the two. In the art of Dunhuang murals, the mystery of images often provides unlimited space for imagination, which complements the virtuality of animation. This virtual aspect transforms mural art into animated art with infinite possibilities(Yuchen, 2023). As a modern art form, animation has both narrative and aesthetic functions. Dunhuang murals mainly tell stories through single frames, horizontal scrolls,

screens, and other forms. The main plot is the centerpiece, and the rest is neatly blended. Dunhuang mural art is similar to the exaggerated deformation in animation. Inspired by the image of Flying Apsara in Dunhuang murals, we refine the characters in multimedia animations, promote and continue the image of Flying Apsara through the integration of traditional culture and technology, and provide a solid foundation for the shaping of the image of Flying Apsara in animation (Feng & Yuanbo, 2020).

Table 2. Presents the results of evaluating the Flying Apsara modeling continuity strategies in Dunhuang murals.

	Flying styling continues the strategy	Mean	SD
1	Animation art	5.0	1.0
2	Illustration design	4.33	0.57
3	Costume design	4.0	1.0

The study on the continuity of Dunhuang mural Flying Apsara shapes mainly uses three categories: animation art, illustration design, and costume design for comprehensive evaluation. This study's primary focus is to evaluate the effectiveness of these strategies in depicting complex models in Dunhuang murals. The first continuity strategy of the Flying Apsara shape of the animation art received the highest rating with an overall mean of 5.00; however, the experts also gave positive evaluations to the first and second models with mean values of 4.33 and 4.00, respectively. Believes that animation art is the most successful medium to capture and convey the essence of the Dunhuang Flying Apsara shape (Table 2).

In conclusion, the research underscores the superiority of animation art in preserving the continuity of Dunhuang mural painting's Flying Apsara modeling. The animated medium respects the cultural and artistic heritage of Dunhuang. It brings it into the contemporary realm, ensuring a seamless and captivating representation that resonates with audiences across different mediums and platforms. This preference for animation art opens new avenues for preserving and promoting the rich artistic legacy encapsulated in Dunhuang mural paintings.

Discussion

This study investigates the artistic beauty and modeling characteristics of Dunhuang frescoes Apsara shape, and based on this, researches the strategy of Dunhuang frescoes Apsara shape modeling continuity.

The analysis shows that the artistic beauty of Dunhuang Frescoes Flying Apsara is unique with its delicate lines and colors. Flying figure in the figure of graceful, whole, complete, soft posture, giving people a sense of lightness and flying. Light lines outline the characters' facial expressions, costumes, and flying forms, making the picture vivid and rhythmic. At the same time, the use of color is rich and varied, with bright and contrasting colors, giving a strong visual impact. The combination of delicate lines and vivid colors creates a unique visual effect that makes people fall in love with it.

The continuity of the Flying Apsara modeling in Dunhuang mural paintings and the links with animation art, illustration design, and costume design is a remarkable exploration of the intersection of historical, artistic traditions, and contemporary visual disciplines. The analysis of the findings prompts reflection on the wider implications and innovative insights of this interdisciplinary inquiry.

Combining artistic beauty with contemporary art forms, inject the cultural capital of Flying Apsara in Dunhuang murals, transform and innovate, and enhance the continuity of Dunhuang Flying Apsara shape. Consumer and expert reviews indicate that Dunhuang mural shapes offer valuable insights into their potential applications in contemporary visual communication. Recognizing that certain stylistic elements effectively communicate narrative and emotion opens the way for creative adaptation in graphic design, advertising, and multimedia storytelling. Exploring these applications may lead to the development of new visual languages that bridge traditional and modern modes of communication.

Future research could delve more deeply into the techniques and methods used in Dunhuang murals and animation art to identify common principles of visual storytelling. Furthermore, investigating the reception and interpretation of Dunhuang visuals in contemporary contexts can provide valuable insights into audience perception and cultural resonance.

In summary, research analyzing the continuity of Dunhuang mural flying shapes with animation art, visual communication, and costume modeling highlights the relevance of historical artistic traditions in shaping and inspiring contemporary visual expressions. This interdisciplinary exploration opens new horizons for researchers, designers, and practitioners, promotes the dialogue between traditional art and modern design, and enriches designers' innovative understanding of visual culture.

Suggestion

1. Interdisciplinary Approach - Beyond the Murals.

Adopt an interdisciplinary approach by exploring the influence of Dunhuang Flying Apsaras murals beyond traditional art forms. Investigate their impact on literature, music, or performing arts, and assess how the artistic beauty and stylistic elements have permeated various cultural expressions. This broader perspective can provide a more holistic view of the murals' significance and continuity within the broader cultural landscape, showcasing their enduring influence across different forms of artistic expression.

2. Comparative Stylistic Evolution.

Conduct a comparative study of the stylistic evolution of Flying Apsaras murals over different historical periods. Identify key features, such as brushstroke techniques, color palettes, and compositional structures, to trace how the artistic style has evolved or remained consistent. This comparative analysis can shed light on the cultural influences, technological advancements, or religious shifts that may have impacted the aesthetic choices made in different epochs, contributing to the overall understanding of style continuity.

3. Future research could delve deeper into the techniques and methods used in Dunhuang murals and animation art to identify common principles of visual narrative. In addition, investigations into the reception and interpretation of Dunhuang-inspired visuals in contemporary contexts could provide valuable insights into audience perception and cultural resonance.

In summary, research analyzing the Dunhuang mural flight modeling continuum with animation art, visual communication, and costume modeling highlights the relevance of historical and artistic traditions in shaping and inspiring contemporary visual expression. This interdisciplinary exploration opens new horizons for researchers, designers, and practitioners, promotes dialogue between traditional art and modern design, and enriches designers' innovative understanding of visual culture.

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