

Classifying and Applying Tang Dynasty Dunhuang Motifs: A Design Research Framework for Digital Textile Printing in Contemporary Fashion

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Abstract

The Mogao Caves in Dunhuang, China, have been listed as a World Cultural Heritage Site and have become a brilliant pearl in the world's history of art. However, the survival status of traditional murals in Dunhuang is not optimistic. Given various factors, such as natural weathering, human damage, and poor management, the original appearance of many murals has become very difficult to restore, leading to a significant loss of cultural heritage and artistic value in the region. This study seeks to investigate the motif types, color characteristics, and structural forms of traditional Dunhuang motifs from the Tang dynasty. It employs a literature review to explore the subject matter types, color characteristics, and structural forms of traditional motifs in the Dunhuang region during the Tang dynasty. On this basis, its application in fashion was realized through digital textile printing technology. As an intangible cultural heritage, the traditional motifs of Dunhuang from the Tang dynasty can serve as unique design elements in the context of fashionable culture and be developed into sustainable technical designs for society and culture. Four main types of the motifs of Dunhuang from the Tang dynasty have been identified: plant motifs, animal motifs, natural motifs, and geometric motifs. Five design proposals have been developed and presented.

Keywords: Traditional Chinese motifs, Dunhuang Tang dynasty, Fashion design, Digital textile printing

Introduction

China in the Tang dynasty was one of the most prosperous countries with a wide reputation, characterized by the diversification and openness of its economy, society, culture, art, and other aspect

(Wang, Y. & Gao, Z., 2022). The artistic wealth of Dunhuang also continuously grew and developed day by day. By the Tang dynasty, its Buddhist art reached its peak, and the size of the Mogao Grottoes alone reached more than 1,000 grottoes (Zhu, B., 2011). Dunhuang culture, which has lasted for nearly 2,000 years in history, is a shining pearl in the treasure house of Chinese traditional culture and provides precious historical materials for the study of Chinese culture and art. As an important cultural heritage, traditional mural painting provides rich creative resources for contemporary artists with its visual elements and expression methods (Meng, B. & Wang, P., 2025).

The traditional mural paintings in Dunhuang, China, are not in good condition. Many mural paintings have been difficult to restore to their original appearance because of numerous factors such as natural weathering, human destruction, and poor management. With the development of cultural relic protection technology and the attention of the government in recent years, some important murals have been effectively restored and protected (Meng, B. & Wang, P., 2025). In the face of traditional cultural heritage and intangible cultural heritage protection, sustaining cultural confidence and promoting the development of the cultural industry have become urgent tasks (Bao, W., 2019).

The Dunhuang motif of Baoxiang Flower has been widely applied in the design of home textile products because of its artistic characteristics of magnificent beauty and complex structure. Wang, Y. and Yan, M. (2023) showed that innovative designs were achieved in home textile products such as beddings, cushions, silk scarves, and carpets. Additionally, Ran, H. and Shi, J. (2024) took ceramic tableware as the carrier and integrated Dunhuang motifs into its design. Meanwhile, Ke, Y. and Li, S. (2024) conducted an in-depth analysis of the motifs of the Dunhuang Grottoes; from the perspective of design studies, they drew on the typical motifs in the Dunhuang Grottoes and combined them with the characteristics of luggage products to create the shape design and motif decoration of such products. Some clothing brands have also incorporated Tang dynasty Dunhuang motifs into their haute couture designs. However, most of the current research on Dunhuang patterns focuses on individual classic designs. This study will organize and summarize the Dunhuang patterns from the Tang dynasty to lay the foundation for further design.

The development of modern science and technology also provides a new possibility for the revival of the traditional motifs of Dunhuang from the Tang dynasty. The application of digital printing technology and computer-aided design has enhanced the accuracy and diversity in the reproduction of these traditional motifs, and designers can create and experiment across a wide range. Following Liu, C., Feng, H. and Shan, X. (2024), this research uses a combination of this technology and traditional art to promote the diversified development of traditional motifs in modern design and advance the exchange and integration of cultures. This research project aims to explore the characteristics, colors, and structural forms of the Dunhuang traditional motifs of the Tang dynasty in China. In doing so, this work examines how traditional Dunhuang motifs are applied in fashion design.

Research Objectives

1. To explore the characteristics, colors, and structural form of the Dunhuang traditional motifs of the Tang dynasty in China.
2. To develop and apply traditional Dunhuang motifs in contemporary fashion design.

Research Methodology

1. Data Collection

Through literature review, this study analyzes the traditional motifs of Dunhuang from the Tang dynasty in China. Additionally, the characteristics of the traditional motifs are carefully read, examined, and summarized. Moreover, it classifies and organizes relevant books, periodicals, and magazines according to these designs.

The specific methods for literature retrieval are as follows: Using “Dunhuang motifs 107,” “Tang dynasty motifs 148,” and “Tang dynasty Dunhuang Caisson 21” as the main titles, keywords, and article titles, respectively. A search was conducted through the China National Knowledge Infrastructure, with the search conditions being “Conventional” and “Journal.” A total of 276 pieces of data were obtained. Considering that knowledge econometric analysis emphasizes the “purity” of data, nonacademic information, such as book reviews and information notifications, information that is irrelevant to the research topic, and duplicate literature were excluded. Core journal articles closely related to “Tang dynasty Dunhuang Traditional motifs” were manually selected from the citations of the remaining valid literature, totaling 69 articles. Furthermore, 15 books that are closely related to the “Traditional motifs of Dunhuang from the Tang dynasty” were taken as the analysis objects of this study.

2. Data Analysis

Based on the summarized patterns, a questionnaire survey was conducted to identify the patterns that respondents most liked. Then, these patterns were used for design. Gen Z constitutes the main force among young people. We obtained first-hand data on Gen Z women by distributing an online survey questionnaire to the target population in China in July 2025 over a one-month period. A total of 325 valid responses were collected. The sampling criteria are as follows: 1) Participants must be Gen Z women living in China. 2) No specific occupation requirements for participants. 3) Participants must be able to complete all questionnaire questions. And 4) Participants must demonstrate a certain level of demand for clothing.

This study aims to develop new motif designs derived from the traditional motif elements of Dunhuang from the Tang dynasty in China. The research uses shape generalization, decomposition, and combination techniques to explore novel motif formations. It provides a comprehensive review and analysis of styling features, color characteristics, and structural forms. These findings offer solid theoretical support for subsequent studies. Furthermore, this approach provides an entry point and direction for new motif design thinking. The study continuously develops motifs in two and four directions. Arrangements are

applied to cotton and linen fabrics, resulting in new motif creations that are digitally printed. Table 1 shows how to use a mixed-methods approach to achieve the research goals and expected results.

Table 1. *Research objectives and expected results*

Research Objectives	Methodology	Expected Outcomes
1. To study the characteristics, colors, structural forms of the Dunhuang traditional motifs from the Tang dynasty in China.	Literature Review	Conducting a study and analysis of the features, colors, and structure can transform the abstract Dunhuang culture into tangible and perceptible aesthetic symbols. This examination will facilitate the dissemination and inheritance of the traditional Dunhuang motifs of the Tang dynasty, enhance cultural identity, provide high-quality original materials for local design, and offer references for modern design aesthetics.
2. To develop and apply the traditional Dunhuang motifs in contemporary fashion design.	Data Analysis and Design Process	Based on the first objective, new patterns were created. The digital textile printing technology was used to apply these patterns to the fashion field. The traditional patterns of the Tang dynasty in China were integrated into contemporary fashion design, making them suitable for daily wear.

Results

At the end of the third century or the beginning of the fourth century, Buddhists in Dunhuang Mogao Grottoes had dug caves as accommodation and places of worship. Later, with the development of Buddhism, temples gradually replaced caves. The prosperity of temples led to an increase in grottoes dedicated to worshipping Buddha (Zhu, B., 2011).

Dunhuang Mogao Grottoes (see Figure 1), also known as Dunhuang Grottoes, is known as the “pearl of Oriental art” (Cui, J., 2024). The long history of Dunhuang provides many vivid, rich, and accurate historical conditions and clues. Dunhuang Mogao Grottoes have been recognized as a World Cultural Heritage site and have become a shining pearl in the history of Chinese and world art. It is a microcosm of the historical development of caves and fine arts in China. Its historical development was not formed overnight but passed down by artists of successive dynasties based on the evolution of local culture, gradually forming a unique Dunhuang civilization with national characteristics (Bao, X. & Kang, Z., 2023).

The study collected and selected only 88 Tang dynasty Dunhuang motifs, as shown in Tables 2 and 3. Table 2 shows four categories of Dunhuang motifs and the meaning of each motif. Six combinations of the motifs are also shown in Table 3.



Figure 1. Dunhuang Mogao Grottoes (Photos taken by the authors)

Table 2. Classification of Dunhuang motifs

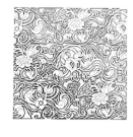
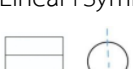
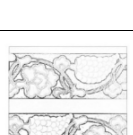
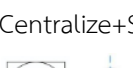
Motif Type	No.	Motif	Meaning	References
Plant motif	1. Baoxiang flower		Wealth and auspice	(Ouyang, L., 2007)
	2. Lotus		Purity and nobility	(Ouyang, L., 2007)
	3. Peony		Wealthy	(Zhan, H., 1989)
	4. Group motif		Wealthy and auspicious	(Ouyang, L., Shi, W. & Shi, D., 1995)
	5. Curly grass		Life and vitality	(Wei, X., 2025)
	6. Grape motif		More children, more happiness, wealth, and longevity	(Zhan, H., 1989)
	7. Pomegranate		More children, more happiness	(Zhan, H., 1989)
	8. Lilac		N/A	(Wei, X., 2025)
	9. Camellia		Elegant and honest	(Wei, X., 2025)
	10. Bead flower motif		N/A	(Wei, X., 2024)
	11. Ring bead motif		N/A	(Wei, X., 2024)

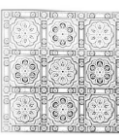
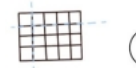
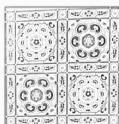
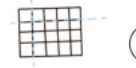
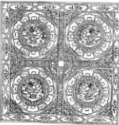
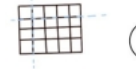
Motif Type	No.	Motif	Meaning	References
	12. Scatter flower motif		N/A	(Wei, X., 2024)
	13. Honeysuckle motif		Reincarnation and eternal life	(Yang, D. et.al., 2010)
	14. Pomegranate flower bud motif		The more children, the more blessings	(Wei, X., 2025)
	15. Sea stone garnet motif		Pure and innocent, natural and smart	(Wei, X., 2024)
	16. Continuous garnet motif		Many children have many blessings and good fortune	(Wei, X., 2024)
	17. Roll grass vine motif		Vitality, brilliance	(Wei, X., 2024)
Animal motif	18. Dragon		Power and status	(Zhan, H., 1989)
	19. Phoenix		Power and status	(Wei, X., 2025)
	20. Fish motif		Have a surplus every year.	(Zhan, H., 1989)
	21. Wild goose		Be loyal and never abandon	(Zhan, H., 1989)
	22. Rabbit		The rabbit in Buddhist culture often represents life, reincarnation, and the cycle of life and death.	(Ouyang, L., 2007)
	23. Peafowl motif		A symbol of auspiciousness, goodness, beauty and luxury.	(Ouyang, L., Shi, W. & Shi, D., 1995)

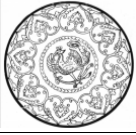
Motif Type	No.	Motif	Meaning	References
	24. Pegasus		Vitality and courage	(Zhan, H., 1989)
	25. Married couple		Affectionate couple	(Zhan, H., 1989)
	26. Parrot		Lucky	(Ouyang, L., 2007)
	27. Fly bird		Longevity and luck	(Wei, X., 2025)
Natural motif	28. Cloud motif		Worship and yearning for nature	(Ouyang, L., 2007)
	29. Flame motif		N/A	(Wei, X., 2025)
	30. Water motif		Wealthy longevity	(Ouyang, L., 2007)
Geometry motif	31. Hui motif		Longevity	(Wei, X., 2025)
	32. Round		N/A	(Wei, X., 2025)
	33. Rhombus motif		N/A	(Wei, X., 2025)
	34. Square motif		N/A	(Wei, X., 2025)
	35. Line motif		N/A	(Wei, X., 2025)
	36. Copper coin motif Ball path motif		Wealth	(Wei, X., 2025)
	37. Triangle		Stable and balanced	(Wei, X., 2025)
	38. Suo zi motif		Tenacity	(Wei, X., 2025)

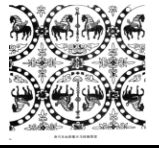
This study mainly examines the exquisite border decoration, mysterious round light, flat board, and decorative fabric motifs. After classifying many books and documents, I classified the traditional motifs of Dunhuang from the Tang dynasty into plant motifs, animal motifs, natural motifs, and geometric motifs.

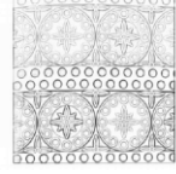
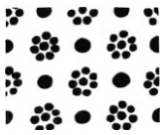
Table 3. *Traditional combination motifs of the Tang dynasty*

Combination	No.	Motif		Arrangement	References
Plant + plant	1.Baoxiang flower	Lotus+		Centralize+Symmetry 	(Ouyang, L., 2007)
	2.Lotus	Lotus + lotus		Centralize+Symmetry 	(Ouyang, L., 2007)
	3.Peony	Peony+		Centralize+Symmetry 	(Zhan, H., 1989)
	4.Camellia roll grass vine motif	Camellia + roll grass vine motif		Linear 	(Wei, X., 2024)
	5.Flowers rolled with grass motif	Peony + lotus		Linear+Symmetry 	(Wei, X., 2024)
	6.Grape garnet motif	Grape + Pomegranate		Linear 	(Wei, X., 2024)
	7.Grape garnet motif	Grape + Pomegranate		Centralize+Symmetry 	Ouyang, L., Shi, W. & Shi, D., 1995)
	8.Grape garnet motif	Grape + Pomegranate		Centralize+Symmetry 	(Wei, X., 2024)
	9.Round branch grape lotus motif	Grape + lotus		Linear 	(Wei, X., 2024)

Combination	No.	Motif		Arrangement	References
	10.Grape tea motif	Grape + Camellia		Centralize+Symmetry 	(Wei, X., 2024)
	11.Curly grass and twig motif	Curly grass + curly grass		Centralize+Symmetry 	(Yang, D. et.al., 2010)
	12.Rolled lotus motif	Curly grass + lotus		Centralize+Symmetry 	(Wei, X., 2024)
	13.Curly grass lotus pomegranate motif	Curly grass + lotus + Pomegranate		Centralize+Symmetry 	(Wei, X., 2024)
	14.Lotus regiment motif	Lotus + Regiment		Centralize+Symmetry 	(Wei, X., 2024)
	15.Lotus motif	Lotus + lotus		Grid+Symmetry 	(Wei, X., 2024)
	16.Pomegranate tea motif	Pomegranate + Camellia		Centralize+Symmetry 	(Wei, X., 2024)
	17.Curly grass Baoxiang flower motif	Curly grass + Baoxiang flower		Centralize+Symmetry 	(Wei, X., 2024)
	18.Group tea motif chess	Camellia + Camellia		Grid+Symmetry 	(Wei, X., 2024)
Plant + Animal	19.Lotus fish motif	Lotus + fish		Symmetry 	(Zhan, H., 1989)
	20.Goose bit bead string group motif	Regiment + Wild goose		Grid+Symmetry 	(Ouyang, L., Shi, W. & Shi, D.,

Combination	No.	Motif		Arrangement	References
	chess				1995)
	21.Lotus and the Three Rabbits	Lotus + rabbit		Centralize+Symmetry 	(Chang, S., 1986)
	22.Peafowl motif	Flower + Peafowl motif		Symmetry 	(Zhan, H., 1989)
	23.Flying horse motif	Honeysuckle + house		Centralize 	(Zhan, H., 1989)
	24.Phoenix motif	Honeysuckle + Phoenix		Centralize 	(Zhan, H., 1989)
	25.Phoenix roll grass motif	Curly grass + Phoenix		Linear 	(Wei, X., 2024)
	26.Double Phoenix Design	Curly grass + Phoenix		Linear 	(Wei, X., 2025)
	27.Flower and bird	Peony + bird		Symmetry 	(Zhan, H., 1989)
	28.Camellia phoenix motif	Camellia + Phoenix		Linear 	(Yang, D. et.al., 2010)
	29.Dragon and parrot motif	Lotus + dragon + Parrot		Centralize 	(Ouyang, L., 2007)
Plant + Natural	30.Cloud motif	Lilac + cloud motif		Linear+Symmetry 	(Wei, X., 2025)
	31.Lotus cloud motif	Lotus + cloud motif		Linear+Symmetry 	(Wei, X., 2025)

Combination	No.	Motif		Arrangement	References
	32.Regiment	Regiment + cloud motif		Centralize+Symmetry 	(Ouyang, L., Shi, W. & Shi, D., 1995)
Plant + Geometry	33.Peony motif	Peony + round		Centralize+Symmetry 	(Zhan, H., 1989)
	34.Curly grass motif round light	Curly grass + round		Centralize+Symmetry 	(Yang, D. et.al., 2010)
	35.Diamond check border	Lilac + Rhombus motif		Linear+Symmetry 	(Wei, X., 2024)
	36.Grape motif	Grape + round		Linear+Symmetry 	(Ouyang, L., Shi, W. & Shi, D., 1995)
	37.Curly grass motif	Curly grass + round		Linear+Symmetry 	(Ouyang, L., Shi, W. & Shi, D., 1995)
Animal + Geometry	38.Double pearl dragon motif	Dragon + round		Centralize+Symmetry 	(Zhan, H., 1989)
	39.Married couple	Married couple + round		Symmetry 	(Zhan, H., 1989)
	40.Double house motif	Double house + round		Grid+Symmetry 	(Zhan, H., 1989)
	41.Pegasus motif	Pegasus + round		Grid+Symmetry 	(Zhan, H., 1989)

Combination	No.	Motif	Arrangement	References
	42.Twin bird design	Bird + round	 Symmetry 	(Guo, M., 2023)
Geometry + Geometry	43.Round line motif	Round + Line	 Grid+Symmetry 	(Chang, S., 1986)
	44.Rhombus motif	Rhombus + Rhombus	 Linear+Symmetry 	(Yang, D. et.al., 2010)
	45.Square motif	Square + round	 Grid+Symmetry 	(Chang, S., 1986)
	46.Triangle motif	Triangle	 Linear+Symmetry 	(Chang, S., 1986)
	47.Suo zi motif	Suo zi motif	 Grid+Symmetry 	(Chang, S., 1986)
	48.Ring bead motif	Ring bead motif + round	 Linear+ Symmetry 	(Wei, X., 2024)
	49.Hui motif	Hui motif + round	 Linear 	(Ouyang, L., Shi, W. & Shi, D., 1995)
	50. Round round motif	Round + round	 Grid+Symmetry 	(Zhan, H., 1989)

1. Characteristics

Plant Motif: Plant motifs include Baoxiang flowers, peony, rolling grass, and lotus (Hui, G., 1990). At the same time, it also introduces exotic flowers and grasses, such as pomegranates and grapes, which are matched with rare birds and animals to form a beautiful picture (Xu, Q., 2024). According to the surface study of Wei, X., Qin, S. and Liao, F. (2007). The word “Baoxiang” refers to the “Buddha phase,” also known

as “treasure fairy flower,” which is an ancient auspicious motif symbolizing wealth and luck. Peonies were popular in the Tang dynasty. Therefore, Baoxiang flower motifs were mostly peonies, lotuses, and dahlias, reflecting the characteristics of great compassion, luxury, and generosity.

Animal Motif: Among animal motifs, bird motifs include phoenixes, peacocks, parrots, and cranes. Other animal motifs include coiled dragons, celestial horses, paired horses, and lions (Hui, G., 1990). The flower and bird motifs of the Tang dynasty are full of natural elements, liveliness, realistic imagery, plump shapes, gorgeous colors, and rich and luxurious motifs.

Natural Motif: Fire, clouds, and water are three different natural phenomena that are closely related to human life. In the development of Dunhuang motifs, these three images are extremely important components (Ouyang, L., 2007).

Geometric Motif: The geometric motifs include square chess, diamond, regular, and polygonal figures (Hui, G., 1990). In addition, some small geometric motifs were arranged to form decorative motifs. Such designs are mainly based on the small motifs of water motifs, small circles, dots, and other unit motifs; a decorative effect is formed on the full spread of fabric, with simple colors and a novel effect (Xu, Q., 2024). Geometric motifs are also very common in Tang dynasty murals, which are composed of a basic motif repeatedly arranged to form a continuous, highly decorative visual motif.

2. Colors

The color system of the murals in the Mogao Grottoes is mainly composed of mineral pigments, supplemented by a small amount of plant pigments, showing pure natural beauty (Diao, B., 2024). The painting pigments in the Dunhuang Grottoes are mainly blue, green, and red, and the dyeing materials are mostly derived from natural minerals, such as lapis lazuli, malachite, and turquoise, see Figure 2. The color effect adopts various color combinations, such as contrasting colors, gradual color changes, and complementary colors, which produce a strong aesthetic visual effect; its tone is also deeply influenced by Chinese traditional art (Bao, X. & Kang, Z., 2023).



Figure 2. Dunhuang motifs and color (Created by the authors)

3. Structural forms

Sorting and induction reveal that the structural characteristics of motifs are mainly reflected in their symmetry and hierarchy (Li, N., 2024). First, the use of a center symmetry layout, with the motif center as the visual center point, expands layer by layer to form a rich hierarchical structure, with a balanced and harmonious visual beauty. The motif has the structural characteristics of central symmetry. Its composition mainly follows this principle and radiates outward. Second, the multilayer combination has linear and grid structure characteristics. Through the arrangement of multilayer combinations, the layered and three-dimensional sense of motif superposition is generated.

The motif structure can be summarized into two-square continuous motif designs and four-square continuous motif designs, as presented in Figures 3 and 4. A two-square continuous motif design is a long motif that repeatedly arranges individual motifs in up and down or left and right directions (Qin, S., 2024). This motif is mostly used for fine trim. Tetragonal continuity refers to the regular, continuous, and repeated arrangement of individual motifs in the left and right directions and up and down directions (Qin, S., 2024). Square continuous means that the upper and lower two motifs mirror each other (Wei, X., 2025).



Figure 3. Two-square continuous motifs (Created by the authors)

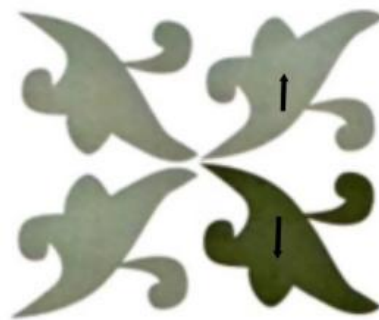


Figure 4. Four-square continuous motifs (Created by the authors)

An in-depth exploration was conducted on the styling characteristics, color characteristics, and structural forms of Dunhuang traditional motifs to understand traditional Tang dynasty motifs. These motifs are decomposed and interpreted through a new modern lens so that they can be presented to the public with a new form and attitude. Hence, it supports the application of Dunhuang motifs and traditional motifs from the Tang dynasty in modern fashion design.

4. Application of traditional Dunhuang motifs in fashion design

4.1 Case analysis

With the continuous development of globalization and cultural diversity, traditional motifs have gradually ushered in a revival in modern design. Designers are beginning to realize that traditional culture is not only a legacy of history but also an important source of inspiration for contemporary creation. As a symbol of cultural identity and national spirit, traditional motif have rich historical connotations and unique aesthetic value.

HEAVEN GAIA founder Xiong Ying used the traditional motifs of Dunhuang from the Tang dynasty in the haute couture design of the “Feixian · Heaven” series. The brand is committed to creating a unique aesthetic culture of fashion, integrating Chinese classical aesthetics and modern aesthetics (Lin, X. Yin, W. & Lin, Q., 2022).

SUNCUN founder Zhang Yan released the 2024 spring/summer series “Waiting for the wind to rise.” Inspired by the concept of “wind” in Dunhuang murals, it presents Oriental beauty in fashion, revealing the romance of waiting for time in Chinese philosophy. The brand uses the concept of waiting for the wind to rise, hoping to bring a relaxed and pleasant atmosphere in fashion. At the same time, the wind is an opportunity. Rising with the wind involves uninterrupted efforts to find one’s direction in it. This theme intends to leave an impression of courage and perseverance.

4.2 Design process

A questionnaire survey was conducted based on the patterns summarized and organized in the first part. This approach clearly identified the motifs that the respondents most liked. The top three plant motifs were the Baoxiang flower, Camellia flower, and peony. The animal motifs were the phoenix, peacock, and dragon. The natural motifs were clouds, water, and flames. The geometric motifs were the line, square, and hui. The favorite color schemes were blue, green, and pink. The design was based on the above motifs as the material.

The innovative application of traditional Dunhuang motifs from the Tang Dynasty in fashion design, as well as the extraction and evolution of motif elements, is as follows.

Draw a sketch: Clearly understand the methods of the two-square continuous motifs or four-square continuous motifs, continuous composition, and the application of auxiliary elements.

Refine the lines: Based on the sketch, further refine the lines to ensure smooth line forms, accurate shapes, and maintain the symmetry and layering of the motif.

Adjust and improve: Adjust and refine the drawn lines to ensure that the entire motif conforms to historical traditions while also having modern aesthetic value.

Five design patterns have been developed and applied to ladieswear (see Figure 5).

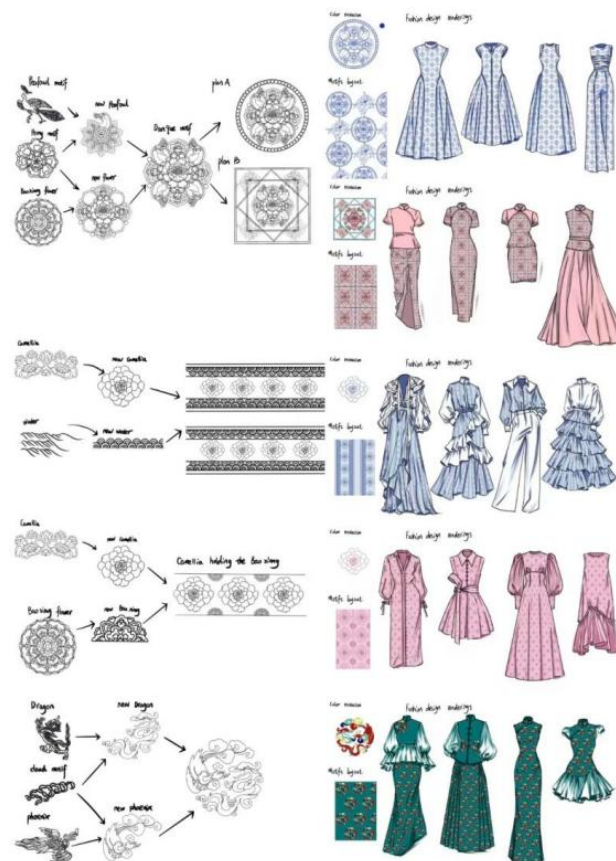


Figure 5. Design process (Created by the authors)

The effect achieved through digital textile printing technology is as shown in Figure 6.



Figure 6. Digital textile printing technology effect illustration (Created by the authors)

In fashion design, exploring the application of traditional Dunhuang motifs can demonstrate the perfect integration of traditional culture and modern fashion while deeply emphasizing the significance of inheritance and innovation. Let traditional motifs enter our lives.

Conclusion and Discussion

1. Conclusion

The literature review revealed that the motifs of the Dunhuang murals from the Tang dynasty can be broadly classified into four categories: plant motifs, animal motifs, natural landscape motifs, and geometric motifs. The colors are mostly produced using natural pigments. The composition forms are the two-square continuous arrangement and the four-square continuous arrangement. They feature central symmetry and repeated arrangements to form a highly decorative continuous visual effect.

The research results are consistent with those observed in earlier studies. Compared with applications in home textiles, ceramics, and luggage, this study explores the innovative application of traditional Dunhuang motifs from the Tang dynasty in fashion design, which is more practical and life oriented than other applications. This work demonstrates the perfect integration of traditional culture and modern fashion and enables a deep understanding of the significance of inheritance and innovation.

2. Discussion

This study on the Tang dynasty Dunhuang motifs provides a solid foundation for the subsequent redesign of Dunhuang motifs. It explored the application of Dunhuang traditional motifs in fashion design and conducted a systematic decomposition and reconfiguration of these motif elements. In doing so, this work not only retains the aesthetics and spiritual connotations of Chinese civilization but also meets modern consumers' demands for personalized, sustainable, and culturally significant fashion designs.

The newly designed patterns were laid out and arranged on cotton and linen fabric. Through experiments on the effects of the pattern sizes, the appropriate size was finally selected, and the final textile was presented through digital printing. The drawback of digital printing is that it performs poorly on dark fabrics and cannot be used on synthetic fabrics.

This study has some limitations. For instance, the research method employed is relatively simple, and the sample size for collecting questionnaire data is rather small. Future research can attempt to combine the use of diverse research methods, which will allow for a comprehensive verification of the results from different perspectives. Future studies can also involve long-term or cross-regional research to see how the Dunhuang motifs from the Tang dynasty have been applied in fashion and whether they have a market and are applicable in other countries.

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