

Pattern application of stamped pottery from Guangfulin culture in tourism derivatives

Cui Zhao, Yongning Qian

Shanghai University of Engineering Science, Shanghai 200030, China

Keywords: guangfulin culture, stamped pottery, tourism derivative, pattern extraction, pattern derivation.

Abstract: Combining the elements of historical Guangfulin culture, mainly from its stamped or linear-tooled pottery, the paper applies traditional decorative elements to the design of modern tourism derivatives. This paper investigates the application and extraction methods of traditional decorative elements and proposes the specific design ideas of tourism derivatives. Combining the characteristics of modern graphics, through the analysis of the characteristics and the extraction, reconstruction and derivation of the Guangfulin culture, our market research and analysis could ensure that the design of tourism derivatives can meet the needs of consumers. The procedure and method of the analysis, extraction and derivation of design elements of tourism derivatives, could provide new ideas and methods for the design and development of other cultural tourism derivatives in China. And it also provides insights into the inheritance of Guangfulin culture and the development of tourism derivatives industry.

1. Theoretical basis analysis

1.1. Analysis of Background Data of Stamped pottery in Guangfulin Culture

Recently, there are a lot of reports on Stamped pottery of Guangfulin culture, this means it has research value. However, these researches are mainly limited to history and archaeology. So, it is almost blank in the field of art design, which also means the innovation of the topic and the scarcity of research on its tourism derivatives.

Through the analysis of relevant archaeological and historical literatures, this paper summarizes the Stamped pottery in Guangfulin Culture' ornament. And from the perspective of design, this paper studies the types of stamped pottery pattern of Guangfulin culture and the characteristics of its pattern [1]. At the same time, according to the aesthetic needs and market analysis of modern people, combine the stamped pottery pattern of Guangfulin culture with the carrier of modern tourisms. [2] Through the analysis of existing research, derived design of the stamped pottery pattern of Guangfulin culture by using the modern modeling method. And through the positioning analysis of the target population, design a series of tourism derivatives that are in line with them.

1.2. Development Trends of Tourism Derivatives

The combination of tourism derivatives and traditional culture is a historical trend. It is also one of the mainstream directions in the development of modern design. The combination of culture and design helps to increase the added value of the product. While meeting the functional needs of the product, it is helpful to arouse the consumer's recognition of culture. Targeting the needs of consumers, finding their representative objects, and integrating traditional cultural ideas into the design of tourism derivatives. This will not only meet the spiritual needs of people, but also realize the inheritance and innovation of culture. [6] [7]

2. Stamped pottery ornament extraction and derivation

2.1. Stamped pottery ornament analysis

According to historical records, the stamped pottery in the lower reaches of the Yangtze River, the first period of their emergence is in the Guangfulin culture stage. Therefore, many patterns on the surface of the stamped pottery are a creation of the original inhabitants. It is also their pursuit of art, and which further reflects their love for the life. The origin of the pattern is determined by a variety of factors, based on a comprehensive analysis of the data. It can be said that most of the early pattern originated from production and life. For example, bamboo weaves and veins are derived from plants. It is also closely related to the snake totem of the ancient Yue ethnic group. In the early days, the pattern on these prints were expressed in an abstract bionic way, but still retained many traces of figuration. And the craftsmanship of these patterns is also different. The main decorative techniques include stamping, scribing and additional stacking.

2.2. Extraction and Derivation of Decorative Patterns

2.2.1. Extraction of unit ornamentation

Faced with a wide variety of prints of Guangfulin culture, you can use the direct extraction design method to extract the Guangfulin culture stamped pottery ornament. These patterns are used as decorative elements of the stamped pottery, each of which has its own characteristics and valuable in modern design. See Table 1.

Table.1. Related ornamentation legend

object	Decorative	object	Decorative	object	Decorative
					
					
					
					

2.2.2. Reconstruction and Derivation of Unit Patterns

After the direct extraction of the visual elements of the stamped pottery pattern of Guangfulin culture, these design elements were further refined, in order to make these design elements into a single graphic, which is more advantageous in design practice. Table 2 is based on the graphical characteristics of these design elements. These design elements have been reconstructed using relevant design techniques, and these design elements have finally evolved into design elements that can be directly utilized.

Table.2. Extraction and Reconstruction of Unit Patterns

Local Extraction	Decorative Display	Unit Structure	Graphic Reconstruction
Bamboo wave			
Checked Pattern			
Lozenge			
Polyline			
Leaf vein			
Thunder			

As an important intangible asset in the traditional culture of the Chinese nation, the pattern has a long history. How to inherit and develop traditional pattern in modern design has attracted more and more attention. According to the above extraction and design of the individual pattern of the printed wood of Guangfulin culture, based on the arrangement of points, lines and faces, the composition of the combination, cutting, interlacing, repetition, etc. Derivatization was performed and a set of graphs in Table 3 below was derived.

Table.3. Derivation of unit graphics

name	Bamboo Weave	Vein Leaf	Poly Line	Thunder	Stripe
Unit graphic					
Method	Combination	Tile, Repeat	Repeat	Gradient	repeat
Derived graphics					

3. The application of ornamentation in tourism derivatives

3.1. Tourism Derivative Positioning Analysis

In order to more accurately analyze and design derivatives that meet consumer needs, Questionnaire analysis was carried out to conduct a field survey of the Guangfulin Cultural Site, and a total of 123 valid questionnaires were collected. The content of the questionnaire mainly includes the age of the population and their expectations of tourism derivative products, as well as their consumption behavior characteristics and consumer motivation. The data are summarized and analyzed, and the following conclusions are drawn.

Based on the selected vocabulary of the characteristic elements of the stamped pottery with the Guangfulin culture, table 4 was produced and statistical analysis was carried out under the description. From the perspective of mean and variance, the data is normal and reliable. It indicates that the problem is designed reasonably and the analysis results are reliable.

Table.4. Descriptive analysis of survey data of Guangfulin culture tourism derivatives

Variable	Mean	Std. Dev.	Min	Max
Commemorative	2.161	1.007	1	5
Creative	2.236	1.008	1	5
Practicality	2.598	1.12	1	5
Inheritance	2.264	1.027	1	5
Education	2.396	1.017	1	5
Portability	2.758	1.144	1	5

Table.5. Investigation and Analysis of Consumers' Preferences of Tourism Derivatives

name	Commemorative	Creative	Practicality	Inheritance	Education	Portability	Comprehensive
Crafts	2.08	2.25	2.87	2.15	2.34	3.02	14.72
Office Supplies	2.16	2.30	2.57	2.28	2.41	2.76	14.49
Student stationery	2.24	2.17	2.49	2.36	2.33	2.46	14.03
Home textiles	2.16	2.22	2.46	2.26	2.51	2.80	14.41
kids toys	2.24	2.33	2.54	2.38	2.33	2.57	14.40

Conclusion 1: 40.57% of people pay more attention to the quality of products when purchasing tourism derivatives, which is close to half of the total number of surveys, followed by the price of tourism derivatives.

Conclusion 2: Through the statistics of the Likert five-point scale, it is found that the craftspeople pay more attention to their portability functions, office supplies, student supplies and furniture textiles as practical functions.

3.2. Design scheme display

The cultural prints of the Guangfulin are integrated with ceramics, patterns and colors. The design of Figure 1 was made, which was very design-inspired, with dark blue and coffee as the background, complemented by orange, gray and beige. The figure below shows the effect diagram of its application on related derivatives.



Figure 1. Derivative design

4. Conclusion

In the research and development of the stamped pottery derivatives of Guangfulin culture, the visual elements of Guangfulin culture stamped pottery are integrated. The derivative products are designed with stationery products, practical products and commemorative products. This paper studies the method of extracting and applying the visual elements of the stamped pottery ornamentation of Guangfulin culture through questionnaire survey and related data analysis methods, and applies it to the tourism derivative design reasonably, which is not only beneficial to Guangfulin. The spread of culture is also conducive to the spread and development of traditional culture. However, this paper also has some shortcomings in the derivative design. First, the creative aspect of the derivative needs to be improved. The second is the paper only focuses on the tourism derivative, thus ignoring the corporate image and corporate culture.

References

[1] Yang Xiaoyan, Wang Meiling, Du Yue. Application of Chinese Standard Mirror Pattern in Female Cosmetic Packaging Design [J]. Packaging Engineering. 2018, 39 (06): 69-73.

- [2] Niu Chuanbao. Exploring the application of Chinese ceramic ornamentation in modern graphic design [J]. Journal of Beijing Institute of Graphic Communication. 2018, 26 (08): 53-55.
- [3] Gao Yuchen, Yin Jinhai, Zhao Wei. On the Translation of Elements in Liaoning Cultural Creative Product Design from Shaman Culture [J]. Packaging Engineering. 2017, 38 (04): 22-27.
- [4] Liu Wenhua. Analysis on the Development and Marketing Strategy of Tourism Creative Products in Changbai Mountain Area [J]. Journal of Communication Research. 2018, 2 (27): 33-35.
- [5] Zhou Rui. Research on Cultural Experience Construction Strategy of Sichuan Tourism Commodity Design and Development [J]. Packaging Engineering. 2016, 37 (02): 138-142.
- [6] Bai Zhen, Yu Yuhuai, Feng Qiang. Design of Tourism Derivatives in the Age of Experience Economy[J]. Packaging Engineering. 2017, 38 (24): 257-262.