

Research on Visual Image Design of Zhengzhou Shang Dynasty Site Museum

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Abstract

Through the research and analysis of the Shang Dynasty Site Museum in Zhengzhou, this paper determines the importance of the museum's visual image design, and through the field investigation and questionnaire analysis of the current situation of the Shangdu Site Museum, the objective problems and shortcomings are summarized. By studying the cultural background and characteristics of the Shang Dynasty, and combining it with modern design concepts, the museum is cleverly integrated into the visual image design, which not only inherits the national culture, but also gives the museum a unique visual symbol. The results are as follows: 1. Understand the development of decorative art in Shang Dynasty, the origin of bronze ware and the evolution of bronze pattern decoration in different generations. 2. Identify the application of bronze pattern in visual image design, the color expression of Shang culture in visual image design, and the application of pattern in auxiliary graphics. 3. The application prospect of bronze art in visual image design is prospected. Through sorting out the development history and artistic characteristics of Shang Dynasty culture and art, it aims to promote the integration of bronze art and current visual image design, form a theoretical research system, and apply the concept of cultural revival to practice.

Keywords: Visual image design, Bronzes, Shang Dynasty, Site Museum

1. Introduction

Zhengzhou Shang Dynasty Site Museum, as the core landmark project of Zhengzhou Shang Capital National Archaeological Site Park, is a special site museum focusing on the history and culture of Zhengzhou Shang Dynasty capital. As a repository of national culture, museums attract tourists and inherit culture in various forms, so it is an inevitable choice to promote the development of museum visual image. However, the visual image design is relatively lacking, the lack of a unified guide system, and the logo is not novel enough, the brand image is not malleable enough and other problems. Although there is a cultural integration of historical precipitation, the lack of systematic visual image design is not conducive to the long-term development of the museum. Therefore, the application of visual image design theory to create a visual image with unique cultural connotation plays an important role in promoting regional culture, so that visual aesthetics and regional culture can be integrated.

1.1 Research Objective

With the rapid development of multimedia technology, visual image design, as a medium of information dissemination, presents a more and more diversified trend. Excellent visual image design can fully reflect the cultural characteristics of museums and make the audience have a deep impression in the process of visiting. This paper will make innovations in modern design by drawing on the unique modeling and decorative style of Shang culture. And explore the visual elements of Shang culture in depth to promote the inheritance and development of culture.

2. Methodology

This project needs to study and analyze the human history and similar museums in Zhengzhou, and understand the psychological and functional needs of tourists. During the study period, I read a lot of literature about regional culture and design principles of visual image design, and initially understood the connotation of regional culture and the development trend of visual image design.

(1) Inductive induction method. This study will combine the main theory and practice of effective ways into the full text. It is based on the theoretical support of reading books and literature, assisted by reading professional academic papers, and the theoretical knowledge background and thinking basis of the author's postgraduate study. In addition, on the basis of field investigation, collect relevant typical cases, form the transformation of perceptual understanding to rational understanding, and complete the final summary.

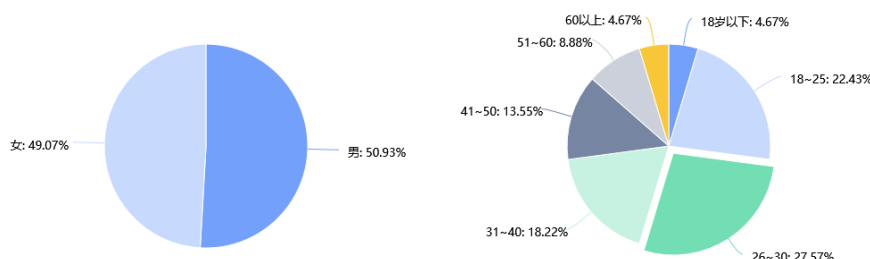
(2) Investigation and analysis methods. On the basis of the existing research data, the site investigation and user data collection of the Shang Dynasty Site Museum were carried out, the investigation results were analyzed and effective conclusions were drawn, and the related problems that needed to be solved and could be adjusted and improved in the museum environment guidance system were recorded and summarized and analyzed.

(3) Questionnaire survey method. In order to more truly understand the behavioral purpose and wayfinding process of people coming to small towns with cultural tourism characteristics, a simple and easy to understand questionnaire was designed based on the results of previous field interviews, taking into account different age differences, education levels, social backgrounds and other factors. At the same time, in order to ensure the reliability of the questionnaire, the questionnaire was randomly distributed among museum visitors, filled in and collected on site. Later data statistics and analysis.

3. Results

The subjects of the survey were visitors to the Shangdu Site Museum in Zhengzhou, Henan Province. A total of 214 valid questionnaires were collected by using SoJump and random questionnaire survey.

Figure 2.1: User information survey



Source: Sojump

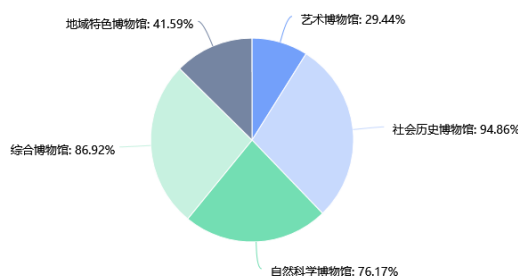
From the data, it can be seen that the gender distribution of the participants is basically close to equilibrium, in which the proportion of men is 50.93% and the proportion of women is 49.07%. According to the distribution of age groups, the 26-30 age group had the highest proportion, reaching 27.57%, indicating that there were relatively more participants in this age group. This was followed by 18 to 25 years old and 31 to 40 years old, accounting for 22.43% and 18.22% respectively. The proportion of participants in the age group of 41 to 50 years old and above is relatively low, especially the proportion of people over 60 years old is only 4.67%. The younger age group (18 to 30 years old) accounted for the majority of participants, indicating a higher level of interest in relevant content or activities. In contrast, the lower participation of middle-aged and older age groups may reflect their lack of attention to the activity or topic.

Table 2.1: User information survey

Features	Situation description
Gender	The gender distribution is nearly balanced, with 50.93% of males and 49.07% of females
Age	Most were between the ages of 26-30, with 50% between the ages of 18-30 and 40.65% between the ages of 31-60
Education Background	Bachelor's degree accounted for 21.96%, master's degree accounted for 13.55%, and junior college accounted for 33.18%
Occupation	The proportion of enterprise employees is the highest, 35.51%, which shows that professionals are willing to participate in cultural activities

Through the analysis of museum user groups and online questionnaire survey, we found that users were interested in various types of museums, and social history museum was the most favored type of museum by respondents with 94.86%, showing a strong preference among respondents. Secondly, natural science museums and general museums also performed well, accounting for 76.17% and 86.92% respectively. Art museums and regional museums are less popular, at 29.44% and 41.59% respectively.

Figure 2.2: Type of museum preferred by users

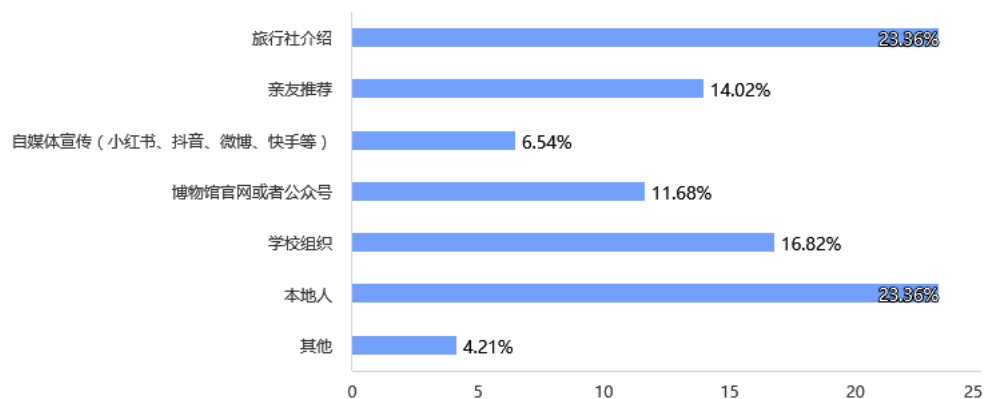


Source: Sojump

Through the analysis of the channel data of Zhengzhou Shangdu Site Museum, it can be seen that "travel agency introduction" and "local people" are the most important channels, accounting for 23.36% each. This shows that travel agencies and local residents play an important role in promoting and recommending museums.

Relatively speaking, the proportion of we-media propaganda is relatively low, only 6.54%, which may indicate that the influence of we-media has not been fully utilized in the current publicity strategy. In addition, the recommendation of the museum's official website or public account accounted for 11.68 percent, which also shows the potential of digital publicity.

Figure 2.3: The museum's way of knowing



Source: Sojump

As can be seen from the data, the use rate of museum tickets and brochures is very high, 97.2% and 85.51% respectively. This indicates that visitors have a high degree of reliance on these two services when visiting exhibitions, possibly because they directly affect the experience and access to information. In contrast, the use rate of the museum's wechat official account was only 28.97% showing that the utilization rate of this channel is low, which may be due to the lack of tourists' awareness of digital services or the formation of use habits. The usage rate of navigation signs is 58.88%, showing a certain demand, but there is still room for improvement.

It can be seen from the data that participants' views on the visual image construction of Zhengzhou Shangdu Site Museum mainly focus on several key elements. Among them, "museum relics" (21.03%) and "regional human history" (20.56%) were considered to be the most important elements, showing that the public attaches great importance to the content and cultural background of museum display. In addition, "museum name" (18.69%), "bronze culture" (18.22%) and "museum exterior architecture" (18.22%) also occupy a considerable proportion, indicating that the construction of visual image is not only dependent on internal exhibits, but also closely related to the dissemination of external images and names.

Figure 2.4: Services used by users

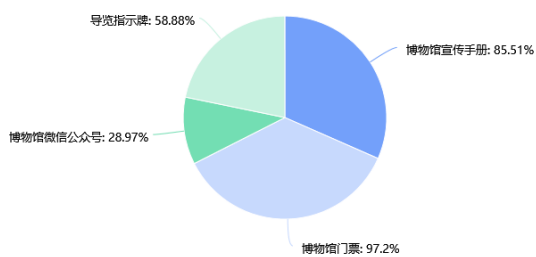
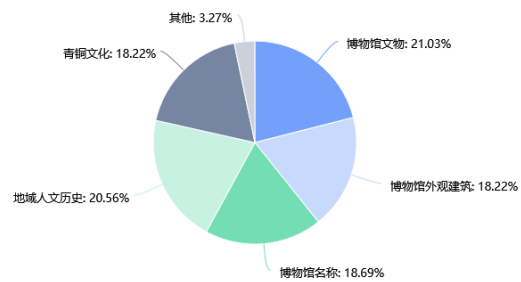


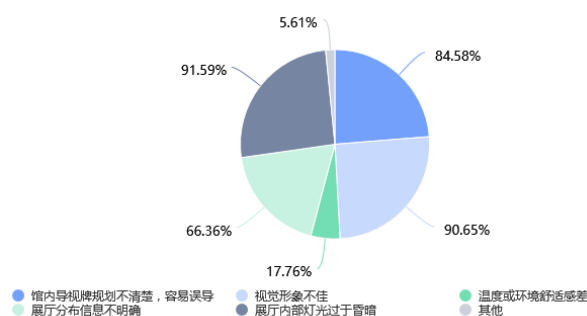
Figure 2.5: The types of visual elements that users



Source: Sojump

In the exhibition experience, the impact of visual image and the interior lighting of the exhibition hall is particularly significant, accounting for 90.65% and 91.59% respectively. This shows that the audience attaches great importance to the visual effects and lighting environment of the exhibition, and a good visual image and appropriate lighting can significantly enhance the exhibition experience. Secondly, the unclear planning of the guide board in the museum also has a greater impact, accounting for 84.58%, indicating that the audience is facing problems when looking for exhibits or information. In addition, the problem of unclear exhibition hall distribution information accounted for 66.36%, indicating that the audience had some inconvenience in the exhibition layout. In contrast, the question of poor temperature or ambient comfort had a smaller impact, accounting for only 17.76%, while the feedback for "other" options was even rarer, accounting for only 5.61%.

Figure 2.6: Problems pointed out by users



Source: Sojump

Analysis of Shang Dynasty cultural characteristics

The Shang Dynasty was a typical slave society, with slave owners forming the ruling class. In slave societies, strict hierarchies made decorative styles a symbol of status and status. In order to demonstrate their power and status, slave owners and nobles often used luxurious and complex patterns and materials in the decoration of clothing, buildings, utensils and other items. Ancestor worship and the worship of gods were prevalent in the Shang Dynasty. Therefore, the decorative patterns of arts and crafts are often colored with religious superstitions. These decorative patterns are not only used in sacrifices and religious ceremonies, but also widely used in various items in daily life, becoming a unique cultural symbol.

The Shang Dynasty is renowned for its bronze casting technology. Bronze vessels, such as ding cauldrons, gui wine vessels, and jia drinking vessels, were not only used for practical purposes but also carried significant symbolic meanings. Shang bronzes, jades and other arts and crafts were often decorated with unique patterns such as Taotie pattern, dragon pattern and bird pattern. These unique patterns and shapes provided inspiration and models for later artistic creation and influenced the formation and development of later artistic styles.

Oracle bone script, the earliest known form of Chinese writing, originated during the Shang Dynasty. It was primarily used for divination and record-keeping, providing a window into the language, culture, and history of the time. Oracle Bone Script has a profound influence on the later art, many artists in the creation process, will draw on the elements and style of Oracle Bone Script, to create art with unique charm and characteristics of The Tim

2.3 The evolution of bronze pattern decoration

The bronze ware patterns of the early Shang Dynasty are relatively simple, mainly with the variants of thick and thin lines. The bronze ware patterns in the middle period are mainly divided into two categories, one is deformed animal patterns, and the other is dense thunder patterns and orderly animal face patterns, with the eyes protruded, but the head and body are still not clearly distinguished. The patterns of bronzes in the late Shang Dynasty tended to be overelaborate, forming multi-layer patterns overlapping the ground pattern and the main pattern.

Figure 2.7: Thunder pattern

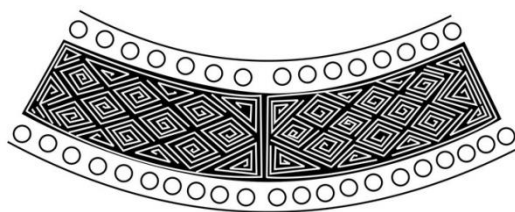


Figure 2.8: The animal face pattern



Source: Baidu Encyclopedia

The pattern of bronzes in the Western Zhou Dynasty was more concise, and the continuous pattern of two squares began to increase, and the abstract pattern gradually appeared. The bronze ware patterns of the Spring and Autumn period began to become more light and dexterous. Patterns gradually from abstract to realistic, to the four continuous patterns for many,

a variety of figuratively dragon patterns and flat dragon patterns appear in large numbers. The bronze ware patterns of the Warring States period were more diverse. In the early Warring States period, there were still intricate hollow patterns on the bronzes. During the Qin and Han Dynasties, as pottery and lacquerware entered daily life, the variety of copper vessels decreased, and the bronzes of this period did not have much development and innovation in decoration, but more reflected practicality and simplicity

To sum up, bronze decoration patterns in the evolution of different generations, reflects the aesthetic concepts and cultural characteristics of each era, but also reflects the changes in social customs, religious beliefs and technical levels at that time. These patterns are the crystallization of the wisdom and creativity of ancient craftsmen.

2.4 About bronze elements and visual image design fusion display

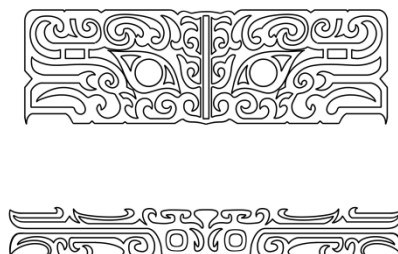
The Duling Tripod, the treasure of the town hall of Shangdu Ruins Museum, is a ritual vessel of the early Shang Dynasty and is considered an important instrument of the royal family. It has a history of more than 3,400 years. The Duling Square Ding is the earliest found Chinese ritual vessel decorated with Taotie pattern and milk nail pattern

Figure 2.9: Duling Square Tripod



Source: <https://imgoss.henandaily.cn>

Figure 2.10: The pattern of taotie



Source: Self-drawn

This design is based on bronzes, integrates the artistic characteristics of Shang Dynasty culture, shapes the IP image of modern cartoons, and deepens the recognition through the clever use of Taotie pattern on the bronzes, which is easy to be understood by the public. The color selection of green and gold on the design corresponds to the bronze newly cast gold, which becomes green after oxidation. The shape also corresponds to the Duling square tripod, clearly conveying cultural elements.

2.11: Design of visual image of Shangdu ruins



Source: Self-drawn

3. Conclusion

Through the design of the visual image of Shangdu Site Museum in Zhengzhou, we found that the importance of cultural excavation and extraction of excavation elements is based on the cultural characteristics of the site museum. In the research process of this subject, the unique regional cultural characteristics are explored and the innovative application prospects of bronze art in the field of visual image design are comprehensively and deeply prospected. This vision aims to explore and promote the deep integration of the essence of bronze art and the diversified visual image design by systematically sorting out and analyzing the development history of Shang Dynasty culture and art and its unique artistic characteristics. We hope to build a set of theoretical research system which not only has profound cultural heritage but also conforms to modern aesthetic trend, so as to promote the flexible application of bronze art elements in modern design practice. At the same time, the process will also emphasize the concept of cultural revival, and strive to revitalize the vitality and creativity of this ancient art form on the stage of modern design, so as to realize the harmonious coexistence and innovative development of traditional culture and modern design.

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