

Research on the Cultural and Creative Product Design of Wuliangye Baijiu Culture Museum

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Abstract: *China has a long history of baijiu culture. Based on the research status of the Wuliangye baijiu Culture museum, this paper analyzes the relationship between Wuliangye baijiu culture and cultural and creative products and the necessity of developing cultural and creative products, summarizes the material and non-material elements of baijiu culture of Wuliangye Baijiu Culture Expo Center, analyzes the Wuliangye baijiu culture from the perspective of semantic symbol transformation and contextual construction, extracts the elements of brewing raw materials and drinking vessels of Wuliangye culture, and combines the elements of baijiu culture with consumer demands to form cultural and creative designs with Wuliangye baijiu culture characteristics. This paper constructs a graph of the baijiu culture elements of the Wuliangye Baijiu museum, proposes the analysis of baijiu culture symbols and cultural and creative ideas, and provides new ways for the dissemination of baijiu culture. This paper designs cultural and creative products with typical features and connotations of Wuliangye baijiu culture, promotes the application of Wuliangye baijiu culture in cultural and creative design, helps to deepen the public's understanding and recognition of baijiu culture, and spread traditional Chinese baijiu culture.*

Keywords: *Wuliangye Baijiu Culture museum, elements of wine culture, cultural and creative design*

1. Introduction

The Sichuan baijiu culture has rich connotations and is an important part of China's baijiu culture. Wuliangye baijiu is one of the main representatives of Sichuan baijiu, and its unique traditional brewing technique is a national intangible cultural heritage. In recent years, government departments have advocated increasing the dissemination and popularization of intangible cultural heritage, expanding dissemination channels, and creating excellent cultural and creative products that meet market needs and modern consumer demands. Taking the Wuliangye Baijiu Culture museum as an example, this paper extracts the elements of Wuliangye baijiu culture by interpreting its connotations and conducts design practice for cultural and creative product development. Against the backdrop of the development of baijiu culture tourism economy, the development of Wuliangye baijiu culture creative products generates economic value and allows traditional baijiu culture to enter people's daily lives, thus providing a new path for the dissemination of Sichuan baijiu culture while gaining more popularity.

2. Research Status of Wuliangye Baijiu Culture at Wuliangye museum

The Wuliangye Baijiu Culture museum is located in the Wuliangye baijiu city in Yibin City, Sichuan Province. Yibin has a long history of baijiu making and it is known as the "city of baijiu" since ancient times. The ancient cellars of Wuliangye were also located within the city area. The museum showcases the process of baijiu-making, the historical development process of Wuliangye baijiu, various types of Wuliangye baijiu, and drinking-related artifacts and ancient relics. On the corridor connecting the exhibition hall, there are nearly a hundred calligraphy scrolls of classical expressions from famous historical figures related to baijiu culture. The exhibition items have rich connotation of wine culture. In fact, they tell the development history of Chinese baijiu, which is represented by Wuliangye. At present, research on the theme of the Wuliangye museum is relatively less, and in the studies of Sichuan baijiu culture, there are mainly: Xie Weili and Zhou Rui's effective creative ways in the image construction of Sichuan baijiu culture, especially in naming, advertising design, baijiu container design and ornamentation design^[1]. Lei Jinfeng proposed the key points for the exhibition of Sichuan baijiu culture^[2]. In terms of the translation of international dissemination of Sichuan baijiu culture, Tian Na proposed to establish an ecological view of "translators-oriented, text-dependent, and cross-cultural information conversion-oriented" from the perspective of ecological translation, to inherit and develop Sichuan baijiu

culture^[3]. Liu Wenting proposed a new strategy for Sichuan baijiu culture translation, focusing on text types, professional terms, and cultural keywords^[4]. In terms of marketing and tourism of Sichuan baijiu culture, Xie Wei proposed to strengthen the young and fashionable elements of baijiu culture marketing and integrate baijiu culture with local tourism resources^[5].

The above exploration of Sichuan baijiu culture and Wuliangye baijiu culture has provided meaningful insights. The brewing technique of Wuliangye baijiu, an intangible cultural heritage, and the tangible material culture exhibited at the Wuliangye Expo Center contain representative symbols of Wuliangye baijiu culture. By applying design symbol theory to analyze these symbols, the results of baijiu culture analysis can be applied to cultural and creative product designs. This is also a new angle to explore the inheritance and dissemination of the Wuliangye Expo Center and Sichuan baijiu culture from the perspective of cultural and creative products.

3. Analysis of symbols of baijiu culture elements in Wuliangye museum

3.1 Picture of Baijiu Culture Elements of Wuliangye museum

Through the collection and organization of cultural materials related to Wuliangye and its museum, the author classified the cultural elements of Wuliangye from the perspectives of intangible and tangible culture, summarized the typical cultural elements of Wuliangye, and constructed a picture of the cultural elements of Wuliangye museum, as shown in Figure 1.

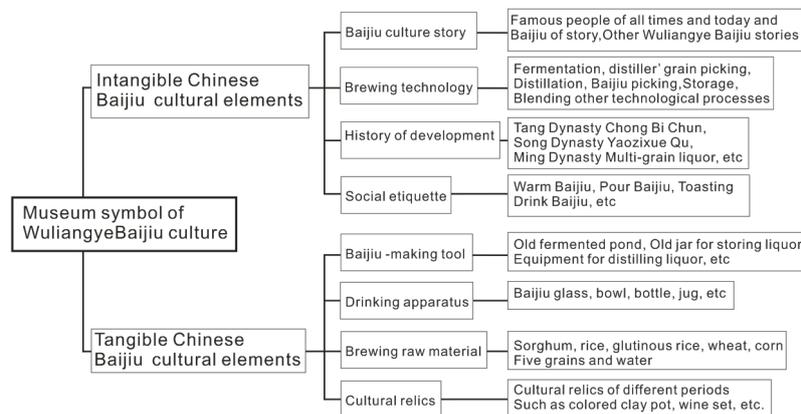


Figure 1: Typical elements of Wuliangye Baijiu culture

The intangible cultural elements of Wuliangye museum's culture mainly include stories about the culture of baijiu, baijiu-making techniques, historical development, and social etiquette. Since modern times, Wuliangye has won awards at domestic and international expositions, which is part of the story of Wuliangye's baijiu and its honor. Wuliangye has a long history, and China has a tradition of drinking, so literati and celebrities of all ages have drunk Wuliangye and many interesting stories have occurred, which can often attract consumers and deepen their understanding and memory of Wuliangye's cultural essence. Baijiu-making techniques encompass the skills of making qu, fermentation, distiller' grain picking, distillation, picking the baijiu, blending, etc. These traditional techniques are listed in the government's intangible cultural heritage registry and are important representatives of Wuliangye's non-material cultural heritage. Wuliangye has been around since ancient times, with a history of over a thousand years. From the Tang Dynasty's Chong Bi Chun to the Song Dynasty's Litchi Green and Yaozixue Qu, to the Ming Dynasty's multi-grain liquor, it was only in modern times that it was officially named Wuliangye. Behind every name is a history of the development of Wuliangye, providing plenty of content for researchers to explore. In terms of social etiquette, Wuliangye is often used as a gift in daily social interactions, and special etiquette such as toasting, pouring baijiu for others, and drinking are formed during drinking, along with circle games and other cultural elements.

The tangible cultural elements of Wuliangye museum's culture mainly include baijiu-making tools, drinking utensils, baijiu-making materials, and cultural relics. Wuliangye's liquor -making tools are visible utensils used by the masters in each step of the making process, with different shapes, forms, and functions; the drinking utensils exhibited at Wuliangye museum include drinking glasses, drinking bowls, various types of drinking bottles and pots, from ceramic drinking utensils to modern glasses, all of which are necessary when drinking baijiu. The museum displays cultural relics from different historical periods,

mainly including colored pottery jars, porcelain drinking bowls, liquor-warming vessels, Ti Guang (lifting and pouring tool), liquor pots, etc. These "relics" have unique shapes, different materials, exquisite patterns, and rich cultural connotations and design element extraction values.

3.2 Analysis of cultural symbols and elements extraction of Wuliangye baijiu

Symbols are a type of signifier and carrier, carrying the role of information exchange. One of the most frequently used languages and patterns by humans is also a type of symbol. Designing products with cultural connotations often requires consideration of cultural symbols. In modern design, symbols are a key element of expression, allowing audiences to better understand and receive the information, meaning, and connotation being conveyed [6]. By analyzing the design symbols of Wuliangye liquor culture, we can deeply understand the Wuliangye liquor culture contained in the material elements displayed in the Wuliangye Exhibition Center. Integrating Wuliangye wine culture into product innovation and development through modern design methods, this study selects two representative material elements of Wuliangye liquor culture in the Wuliangye Exhibition Center - baijiu making materials and drinking utensils, and analyzes them using the method of semiotics design. See Figure 2.

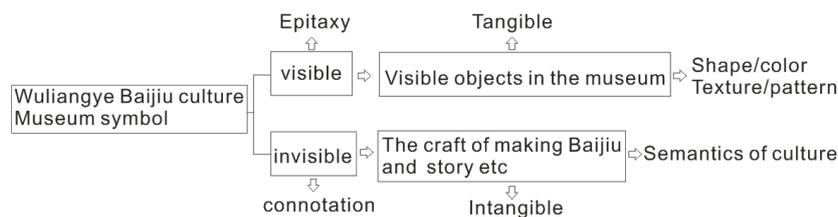


Figure 2: Analysis of cultural symbols of Wuliangye Baijiu

Symbolic semantics is an important aspect of the study of design origins. Digging out representative cultural symbols from museums is the foundation for the design and development of all cultural derivatives in museums.[7] The conversion of symbols in the Wuliangye museum mainly involves the extensional unfolding of explicit, visible elements of exhibits and the connotative, invisible unfolding of implicit elements. Elements such as form, color, and material in the exhibits, especially different shapes and materials of liquor vessels such as bronze, earthenware, ceramics, metals, and glass, as well as their distinct colors, are direct sources of design symbols that enable semantic transformation through symbol element extraction. Connotative semantics are mainly implicit and abstract, and represent an intangible image, aesthetic, and culture. This connotation evokes impressive feelings, so it is necessary to extract representative design symbols from the stories of baijiu culture, the intangible cultural heritage of baijiu-making techniques, folk legends, poetry and literature related to baijiu, etc., to achieve semantic transformation.

The context of symbols is constructed jointly by culture, symbols, and audiences. It is based on the structure of products, product functions, consumer needs, and other aspects. The process of establishing context is also a process of constructing language. Semiotics is the study of various connections between symbols includes internal structure, overall layout, and related cultural connections.[8] The construction of the Wuliangye culture context forms a mutual exchange of information between "objects" and "people". Audiences often first see pictures and words and observe the baijiu-making process from a visual and auditory perspective, then they listen to stories about baijiu culture and eventually form cultural identity through emotional experiences. This process is the construction of a cultural context in the consumer's mind for Wuliangye baijiu culture. When consumers look at cultural creative works, they seek resonance based on this context. Designers need to use both the explicit and implicit features of Wuliangye culture to recreate the baijiu culture context through symbol conversion in creative products. Consumers can experience the context of creative products through visual, auditory, and tactile means, including the process of using products of baijiu culture. The context of Wuliangye baijiu culture can be naturally presented in excellent creative products, which enhances their value for cultural dissemination.

The extraction of elements includes the extraction of form and connotation elements. The extraction of external material elements mainly involves shape, color, material, texture, and patterns, and these are visible product shaping elements. All the material exhibits in the Wuliangye museum can be used as sources for cultural and creative design, while special characteristic objects can be used to extract the representative design elements. For example, there are various types of Wuliangye baijiu bottles, baijiu-making materials and tools, drinking vessels, Wuliangye company logos, award cups, etc., which can be applied to enhance the sensory communication of baijiu culture in cultural and creative design. Sensory

communication can trigger consumers' emotions and identity, feeling pleased and touching, and increases the added value of the product. The connotative elements of Wuliangye baijiu culture refer to the cultural history, folk legends, social systems of ancient baijiu-making house, social etiquette, baijiu-making techniques, craftsman spirit, and other traditional intangible elements related to wuliangye. These elements have implicit features and are representative of the connotative elements of Wuliangye baijiu culture. Grain is the basis of human life, satisfying physical and physiological needs, and using grain as raw material to making baijiu adds joy to people's spiritual and cultural lives. The external and connotative features of baijiu culture blend various fields of literature and art, inspiring numerous works of poetry, literature, and music by ancient and contemporary scholars.

In this element extraction process, sorghum, rice (including glutinous rice and ordinary rice), wheat, corn, and the painted clay pots and copper wine pots exhibited at the Wuliangye museum were selected as samples. Computer design software, such as CDR, were used for vector graphic processing. The external features of form were extracted based on vector graphics using morphological analysis methods, as shown in Table 1.

Table 1: Extraction of cultural elements of Wuliangye Baijiu

Types of samples	Name	Picture	Vector graph	Contour feature
Wine-making material	Sorghum			
	Rice			
	Wheat			
	Corn			
Drinking apparatus	Painted clay pot			
	Copper wine pot			

4. Design Development of Wuliangye Cultural and Creative Products

4.1 Cultural and Creative Needs

Wine culture has rich cultural connotations and heritage value, and is the soul of Wuliangye's cultural and creative products. Yibin has unique tourism resources, providing great potential for exploration and creation. However, the dissemination of Wuliangye's baijiu culture is not good enough, as most tourists only know the taste of Wuliangye liquor, but not its cultural significance. Many ancient cultural connotations and developments of wine culture are unknown and overlooked. The Wuliangye Baijiu Culture museum can further promote the development of baijiu culture by using cultural and creative products as carriers, and allow consumers to disseminate baijiu culture. Cultural and creative products require analysis and re-creation of cultural connotations, expressed in innovative and modern forms, to design good cultural and creative products based on cultural foundations. A cultural and creative product is not just a carrier, but an embodiment of local culture, reflecting and expressing local culture. Cultural connotation is the soul of a product, and cultural and creative products without connotation are like people without souls. The appearance and color of a cultural and creative product can attract consumer attention, while the cultural connotation of the product can further stimulate consumer purchase desire. Consumers not only pay for the purchase of a product, but also have high expectations for cultural and creative products. In the packaging of cultural and creative products, people's perception of the packaging is not limited to visual aspects, but also involves different degrees of cognition and exploration of tactile, auditory, olfactory, and gustatory aspects. [9] Novel and innovative designs play a crucial role in stimulating consumer purchasing desire. Continuously exploring the soul and essence of design in the development process enables the integration of culture into daily life. The appearance design of cultural and creative products should highlight the innovation of the product and diverse designs to ensure consumers remember the product. The creativity and sales of cultural and creative products are not just about earning economic benefits, but also about cultural dissemination, serving as a vehicle for the "baijiu culture" to go abroad.

4.2 Design Concept scheme

To enable consumers to have a deeper understanding of Wuliangye's baijiu-making culture, bookmarks were selected as the carrier for this cultural and creative design. Bookmarks are common daily items, and this design is based on the five brewing ingredients of Wuliangye liquor, using the shapes of the five grains as elements. Through extraction and deconstruction, innovative designs were created, resulting in brand new bookmark patterns. In the design process, historical and cultural connotations of Wuliangye liquor were combined with modern design concepts. The design was centered on the brewing ingredients, combining and colliding with the culture of Wuliangye liquor. The basic form of the cultural and creative product was based on the appearance of rice, glutinous rice, sorghum, wheat, and corn, creating a simple and concise bookmark design. The grain images in the design are very clear and specific, and the identification ability of this set of bookmarks is higher than that of ordinary grain images. The appearance models embody the raw materials used in the production of Wuliangye baijiu, making the bookmarks isomorphic to the five grains. Additionally, golden yellow was used in the color scheme, representing the color of mature rice. The entire bookmark design is pleasing to the eye, allowing consumers to instantly recognize it as a Wuliangye cultural and creative product.

4.3 Evolution of baijiu culture element forms

The evolution of baijiu culture element forms is based on the extraction of basic forms and further refinement. For this design, the brewing ingredients of Wuliangye baijiu - "five grains" were selected, and in terms of external form, the external form characteristics of rice and wheat elements which needed to be retained were extracted. Using the method of form analysis, through deformation, reconstruction, and simplification of patterns, the morphological design evolution process of rice and wheat is as shown in Figure 3.

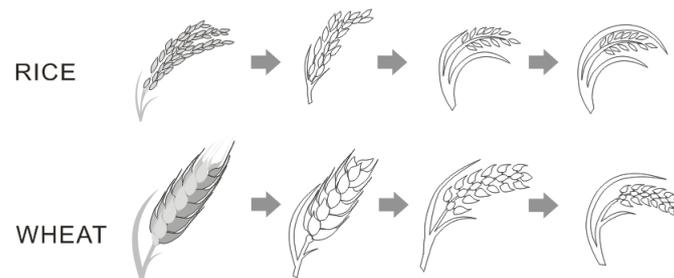


Figure 3: Evolution of elemental forms in rice and wheat

4.4 Design Result



Figure 4: Bookmark Design

After evaluating numerous hand-drawn design proposals, the best design was selected as the basis, and computer-aided design using CDR software was used to refine the bookmark's shape and color

scheme. Further refinement was achieved by establishing a 3D model of the design using Rhinoceros 7.0 software and simulating the visual effect of the bookmark using 3D rendering KeyShot software as shown in Figure 4. Following post-modeling, the bookmarks were made using electroplating technology and metal as the bookmark material. These were then placed in a wooden box with leather inserts to complete the design. In terms of form, the design of this bookmark is simple and the colors are bright, which can attract people's attention. It has both functional and commemorative attributes that can be used in consumers' daily lives. Through interaction with people, the cultural products of Wuliangye baijiu can be integrated into consumers' lives, making them more appealing and engaging.

5. Conclusion

Chinese traditional baijiu culture contains rich content. With the development of tourism and upgrading of consumption, baijiu culture can be expressed through cultural and creative design methods in a modern and product-oriented manner. The Sichuan baijiu culture represented by Wuliangye can interact with consumers directly through cultural and creative products, deepening user experience. Users gain deep experiences and cultural empathy through subconscious emotional cognition during their interactions with products.^[10] By exploring the baijiu culture related to Wuliangye starting from the museum status, baijiu culture and its dissemination, and tourist demand, and through the collection of preliminary data and later induction and analysis of liquor culture, the required cultural connotation and fashion characteristics for liquor culture creative products were determined. A bookmark named "Wuliang" was designed, and the design concept, design process, and design effects of the bookmark were introduced. Through this cultural and creative design, the creativity and diversity of cultural products at the Wuliangye baijiu culture museum were enhanced; and it provides reference for future designs of more creative baijiu culture products, facilitating the dissemination of Sichuan baijiu culture and allowing more people to understand and appreciate the unique charm of Chinese baijiu culture.

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