Research on the Design of Regional Cultural Blind Boxes Based on User Experience

Qu Wu[1]

[1] *Fuzhou University, Xiamen, Fujian, China*

ABSTRACT

In recent years, the economy has developed rapidly, and the cultural and creative industry has been vigorously supported by the government, showing a booming scene. As a novel cultural and creative product, the blind box has attracted the attention of many fashion fans. Blind box handwork is a cultural and creative product integrating entertainment, collection and functionality. Combining regional culture with blind box handwork products can strengthen the cultural connotation of blind box handwork products, enhance the inheritance and activeness of regional culture, and attract more young people's attention to regional culture. The innovation of this paper is to apply user experience model to the design and analysis of blind box handwork. With user experience model as the research method and blind box handwork design as the research object, how to integrate regional cultural characteristics into the design of blind box handwork on the basis of conforming to modern aesthetics has always been a widely debated issue. Further analysis is made in order to seek a design breakthrough.

Keywords: User experience, Regional culture, Cultural and creative products, Blind box.

1. INTRODUCTION

1.1 Research Background

In recent years, with the increasingly growing market economy construction in China, the cultural and creative industries have further developed comprehensively and received widespread attention. More and more cultural and creative products of different types have entered the cultural and creative market, injecting new vitality into the development of the cultural and creative industry. In 2021, according to a survey conducted by the National Bureau of Statistics on 64,000 cultural and related industry enterprises above designated size nationwide, the above-mentioned enterprises achieved a revenue of 8420.5 billion yuan in the first three quarters, an increase of 21.8% compared to the same period last year on a comparable basis, and an average growth rate of 10.0% over the past two years. Cultural and creative products with unique regional cultures are being developed throughout China. Blind box figurines are a novel type of cultural and creative product used to showcase trendy elements or traditional culture.

They are widely used in museums, scenic spots, etc. to help showcase the cultural characteristics of the region. They have both modern aesthetic appearance and narrative expression. They not only have high ornamental and collectible value, but also have the mysterious and surprising feeling of limited "hidden styles" that cannot be determined before opening, which can quickly stimulate consumers' purchasing desire and make blind boxes a popular cultural and creative product today.

1.2 Research Purpose and Significance

As is well known, regional culture exists in various places where people engage in activities and survive. It conveys unique and distinctive cultural connotations of each place, and is an important component of traditional Chinese culture. Due to differences in geographical location, environmental climate, and local customs, it has formed diverse characteristics. Regional culture is a concentrated expression of the level of social development, economic development, and cultural development, reflecting the depth of a country's cultural heritage. It has long been a part of a

country's economic strength and plays an important role in foreign exchanges and showcasing comprehensive national strength. However, the integration between blind boxes that conform to modern aesthetic design and the expression of regional cultural connotations is insufficient, making it difficult to drive regional economic development and cultural dissemination through blind box figurines with regional characteristics. How to apply user experience models to the design and development of blind box figurines with regional cultural characteristics has become a hot research direction. Therefore, by studying the user experience model and starting from the perspective of user experience, a multi-level comprehensive analysis of the element characteristics of regional culture is conducted to construct a practical and feasible blind box design method with regional culture, and to propose certain strategies for the effective transmission of regional culture in blind box figurines.

1.3 Review of Chinese and Foreign Research Literature

In the field of user experience model construction, renowned psychologist Donald A. Norman proposed in his book "Design Psychology 3: Emotional Design" that product design should be centered on user needs, and the emotional experience brought to users should be divided into three levels: instinctive level, behavioral level, and reflective level. He believed that the three levels gradually convey information from shallow to deep, from low to high, and at the same time affect people's momentary and long-term emotions and cognition, prompting them to generate deeper memory associations. The three-level interaction is indispensable, and only by fully utilizing the design function of the three levels can users have a more comprehensive experience. It is often used in the design of industrial products' functional appearance and cultural and creative products. Jesse James Garrett proposed in his book "User Experience Elements" that design needs to respect the user's experience and feelings. User experience evaluation can guide the direction of design, and the user experience layer can be divided into five levels: strategic layer, scope layer, structural layer, framework layer, and presentation layer. This user experience model is mostly used for APP interface development and application, with a focus on the convenience and comfort of the user's usage process.

In the field of cultural and creative design, author Li Zhongyan pointed out that blind boxes can encourage users to immerse themselves in appreciation and increase the sense of mystery by extracting unknown styles, making them a popular type of cultural and creative product nowadays; Cultural and creative blind boxes designed based on historical background, cultural relics characteristics, and traditional cultural connotations can bring economic benefits while also playing a role in cultural dissemination[1]; Authors Wang Lian, Li Ran, Xu Xiaofei, and Zhong Ling pointed out that regional cultural products can bring unique cultural experiences to users, and how to give vitality to the design of regional cultural products is the focus of design. A multidimensional evaluation model for product styling with regional and local characteristics was constructed through multi-dimensional analysis[2]; Authors Zheng Linxin and Wang Ying believed that color, shape, cultural connotation, and other elements together constitute the design elements. They point out that the appearance of the shape, color, texture, and material have high recognition, and the internal cultural connotation is not reflected in the appearance, but is associated through external factors. Through cognitive experiments, they explain the rules for the composition of design elements in creative products[3]; Song Hainan and Xu Zhanmin believe that before designing blind boxes, it is necessary to fully understand the psychological emotions of different types of users. They propose a cultural and creative product design method based on a user experience model, and construct the expression techniques and design process of cultural element design characteristics[4]. Zhao Xingchen and Chen Qingjun elaborated on the origin of blind boxes and analyzed their successful marketing concepts. They pointed out that blind box figurines are emotional design products, and only by fully combining ethnic culture with blind box figurine design can they

1.	Li Zhongyan, A Brief Analysis of Blind Box Cultural and Creative Design in Current Museums in China J. Tomorrow's Fashion, 2021(16): 138-140.

2.	Wang Lian, Li Ran, Xu Xiaofei, Zhong Ling, Multi-dimensional Evaluation Model of Regional Cultural Product J]. Packaging Engineering, 2021, 42(20): 389-394.

3.	Zheng Linxin, Wang Ying, Exploring the Design Elements of Culture-related Products [J]. Packaging Engineering, 2013, 34(08): 79-81.

4.	Song Hainan, Xu Zhanmin, Animation Design of Cultural and Creative Products Based on User J]. Packaging Engineering, 2020, 41(02): 305-310.

bring good economic benefits and promote the development of the cultural industry[5].

2. OVERVIEW OF USER EXPERIENCE MODELS AND EXPLANATION OF REGIONAL CULTURAL CONCEPTS

2.1 Overview of Model Elements of Blind Box User Experience

In Norman's book "Design Psychology 3: Emotional Design", the core concept of the three-element model of user experience is explained, which "divides people's cognition of things from low to high into three levels: instinctive level, behavioral level, and reflective level." [6] The instinctive level is the most fundamental level, which comes from the appreciation and first impression of beautiful things in human nature consciousness; Compared to the instinctive experience, the behavioral experience emphasizes more on the functional attributes and user experience of the product, although both are pre-conscious experiences. It brings interactive fun and a pleasant mood to users during use; The reflective layer is the advanced stage of user experience, mainly reflected in the understanding of cultural connotations and situational associations that vary from person to person. Literature research has found that the user experience model is widely used in many design fields. It starts from the perspective of user experience and combines the key points of design to construct a multi-level experience design model, which has been applied by many design practitioners and scholars in product design and development.

2.1.1 Instinct Layer: Shape and Color Design

In the user experience model, the instinctive level originates from the simple and primitive part of the human brain, emphasizing the initial impression directly felt by the naked eye, focusing on the shaping characteristics of the product, color comfort, etc. It is not easily influenced by different knowledge experiences, cultural backgrounds, and

social experiences of different groups of people, and there is a certain commonality. For example, people in different regions have a relatively consistent recognition of the quality of artistic works, the attractiveness of music, and the smell. The main aspects of blind box figurines are the shaping of form and color, as well as the selection of materials. Regional culture has undergone a long process of refinement and elimination, and what remains today is widely accepted, capable of generating positive emotions, existing in people's memories, and can be well applied to instinctive design. User preferences and aesthetics are the direction of designer design. In the process of human evolution, people are more likely to have positive emotions towards bright, highly saturated colors, rounded, and smooth shapes. The instinctive level design that caters to users' aesthetic preferences can help products gain a good initial impression, generate psychological feelings such as "this color scheme looks very comfortable" and "this design is so cute", and thus drive the audience's purchasing desire and enhance economic benefits. As shown in "Figure 1", the character image of DIMOO in the POP MART Tiger Leaping Spring Festival series blind box is designed based on the Spring Festival of the Year of the Tiger. The main color tones of the character are warm red and orange, and the eyes use a light blue cool color tone for cold and warm contrast, enhancing the visual tone change and enriching the visual experience. The character DIMOO has a round face and round eyes, full of childlike innocence. He wears a cartoon tiger hat with orange as the main color tone and red pants, resembling the dressing style of children during the Spring Festival, catering to the festive atmosphere of the festival. DIMOO holds golden lanterns in both hands, looking cute and well behaved. Under the red and white cloak, two large tiger claws extend, reflecting the characteristics of the Year of the Tiger while being lively and playful, adding recognition to the character.

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5. Zhao Xingchen, Chen Qingjun, Reference Significance of Blind Box Design Concept to Cultural and Creative Products [J]. Packaging Engineering, 2021, 42(20): 375-380.
6. Donald Arthur Norman, Design Psychology 3 — Emotional Design [M]. Beijing: CITIC Press Group, 23.

Figure 1 POP MART Tiger Leap Spring Festival series blind box.

2.1.2 Behavioral Layer: Interactive Experience Design

The experience at both the behavioral and instinctual levels precedes the conscious experience. The design of the instinctual level focuses on quickly capturing visual elements and attracting users' attention with appearance and color. However, the design of the behavioral level is related to the derivative functions of the product and emphasizes meeting users' usage needs. Therefore, when designing behavior levels, it is necessary to first understand the purpose of users using the product and the expected results to be achieved after use. A good level of behavior can continue the positive impression brought by the instinctive level, reflected in the interaction and communication between the product and the user. An effective level of behavior can not only meet the user's needs and achieve the expected goals, but also bring joy to the user's operation during use, and can generate positive emotions[7]. The sale of figurines in blind boxes is a reflection of behavioral design. Its purpose is to allow users to choose and purchase figurines that are packaged in boxes with the same appearance, and have a certain probability of obtaining their desired style, thereby achieving a sense of surprise and satisfaction. The behavioral layer design also includes a series of derivative products, which deepen users' impression of the product and enrich their usage through the redesign of the blind box figurine image.

2.1.3 Reflection Layer: Presentation of Cultural Connotations

The level of reflection, also known as the psychological level, is an advanced level in user experience that comes from conscious reflection by users, and is influenced by knowledge, personal past experiences, and cultural differences in the region.[8] Its essence is that everything is in the viewer's mind. It may come from the user's impression of a certain cultural feature in their memory, or the connotation of a cultural story they have previously understood. The reflective level design of regional cultural blind box figurines originates from the inner thoughts generated by user experience and the specific memories of a certain region that are evoked. Its purpose is to concretize the originally vague regional cultural elements in user memory and give them new vitality. The blind box series of Tang Palace Night Banquet, as shown in "Figure 2", was designed inspired by the highly acclaimed dance program "Tang Palace Night Banquet" on the 2021 Henan Spring Festival Gala. The long dormant Tang Palace culture has once again entered people's sight, presenting distinct cultural characteristics and reproducing situational stories. The handmade Tang Palace maid has a graceful figure, fair skin, highly recognizable green dress and hair accessories, and distinctive crescent shaped makeup at the corners of the eyes. Paired with classic Tang Palace maid movements such as playing musical instruments and dancing, it evokes users' fond memories of the dance program "Tang Palace Night Banquet", prompting users to deeply understand Tang Palace culture from multiple aspects, presenting the unique charm of Tang Palace culture to users, and arousing their attention and new thinking about traditional culture.

Figure 2 Tang Palace Night Banquet Dance anime version blind box.

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7. Cheng Zhipeng, Discussed the Design Methods of Culture and Creative Product Based on the User Experience [D]. East China University of Science and Technology, 2016.19.

8. Donald Arthur Norman, Design Psychology 3 — Emotional Design [M]. Beijing: CITIC Press Group, 35.

2.2 Explanation of Regional Cultural Characteristics

In the book "International Encyclopedia of Social Sciences", the explanation of regional culture is: "Regional culture mainly refers to a cultural characteristic that continues and represents the regional characteristics of a relatively determined area. Regional culture encompasses the sum of the humanistic spirit, customs, and traditional ethnic art and culture formed by the population in a specific region through long-term social life, material and spiritual production." [9] Regional culture has its own uniqueness. China is vast in land and rich in resources, and traditional Chinese culture has inherent consistency. At the same time, due to differences in climate, natural resources, and resource utilization methods in different regions, the cultural connotations of each region are also different. Regional culture can be divided into static culture and dynamic culture. Static regional culture is mainly reflected in visible cultural features such as cultural relics, buildings, artifacts, specialties, clothing, patterns, etc. within a specific region, which must be visible and tangible. Cultural relics, artifacts, and artifacts are physically preserved in their original state and passed down in a static form. Specialties, clothing, and patterns are passed down through the recording and retention of existing information and data. Dynamic culture is an intangible culture that is difficult to widely spread. It is a knowledge system, production experience, and humanistic spirit that have been accumulated and developed over a long period of time by people of a place in the process of living and learning, ultimately forming specific dialect culture, clothing, food, housing, transportation, and civilized customs, which are often interpreted through dynamic behavior. Reasonably applying regional culture to the design of blind box figurines can evoke the perception and memories of the target group, promote the dissemination and inheritance of regional culture.

3. REGIONAL CULTURAL BLIND BOX DESIGN STRATEGIES

In the existing blind box figurines, common cultural elements from traditional Chinese culture such as Chinese folk culture, traditional festivals, Chinese historical events, Chinese characters, etc.

are often used for combined design. There are relatively few blind box figurines with cultural characteristics from different regions. However, there have been many successful cases in terms of visual expression techniques, creating interactive experiences, and injecting cultural connotations. By combining the design advantages of existing excellent blind box figurines with regional cultural elements, design strategies suitable for regional cultural blind box figurines can be derived, which can help enhance the economic and cultural value of blind box figurines.

3.1 Capturing Visual Elements and Stimulating the Audience's Instincts

Color and design are the most direct impressions that blind box figurines give to viewers. By analyzing the main color tones and design characteristics of cultural elements in the target region, it is possible to accurately extract the characteristic colors of the elements and match them with highly generalized or exaggerated external designs. Through reasonable arrangement, they can be unified and harmonious; The instinctive experience is at the most basic stage among the three levels of user experience, originating from the first reaction of the human brain, and therefore requires grasping the most fundamental visual experience. The form, color, and texture materials are directly perceived by the viewer's sensory organs such as visual, auditory, and tactile senses. Based on personal preferences and visual perception, people summarize and judge whether the first impression of the product is good. In instinctive layer design, it is necessary to grasp the characteristic elements that can trigger strong visual sensations for users. In reflective layer design, it is necessary to balance aesthetics and cultural significance, while attracting the audience's attention and allowing them to quickly capture the cultural connotations involved.

In terms of styling design, while maintaining the basic prototype with reference cognitive function, the regional cultural characteristics suitable for blind box figurines are extracted by highly summarizing the appearance and simplifying the lines. Exaggeration and personification techniques are used to combine material cultural forms with blind box characters or scenes, bringing users a cute and interesting first impression visually, while also deepening the integration of aesthetics and culture.

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9. Wang Linqing, The Derivative Development of City Museum under the View of Regional [D]. Soochow University, 2016. 6 -7 .

In terms of color design, analyzing the color tone direction from the target regional culture, extracting fixed colors and characteristic colors that occupy a large proportion of the area, and appropriately selecting approximate colors of fixed colors as supplementary transitional color reserves. Reasonable and comfortable color matching can make blind box figurines more aesthetically pleasing, meet the aesthetic needs of users, and generate emotional changes. The combination of different color schemes brings different feelings to the audience, and designers match color schemes according to the emotional direction that needs to evoke user associations. Generally speaking, orange and yellow tones in warm tones can bring a warm and comfortable visual experience, red tones can bring a passionate and positive visual experience, and blue, green, and purple tones in cool tones can bring a cool and clean visual experience. Color matching based on the cultural and character characteristics of blind box figurines can make the overall image more harmonious and unified.

The use of patterns is a means of expressing regional culture, and when applied to the surface of large objects with relatively simple colors and shapes, it can enrich details and attract viewers' in-depth observation. Extracting the basic graphics from the target elements, appropriately combining popular elements, and arranging them according to the needs of blind box figurines can not only preserve traditional pattern features, but also enrich product details and increase aesthetic appeal.

3.2 Developing Entertainment Features and Enhancing Interactive Experience

As the intermediate stage among the three levels, the behavioral level mainly refers to the interaction between users and the product when using it. Therefore, functionality, fun, and ease of use are the focus of this level's design, aiming to enhance the interaction and intimacy between users and the product. Blind box figurines based on regional culture have cultural education and promotion functions, so they can deepen users' understanding of regional culture through interactive entertainment. The collection and viewing value of blind box figurines is mostly greater than their practical value, often due to familiarity with the way they are opened and used. Most blind boxes on the market are opened directly to obtain unknown styles of blind box figurines, which are then placed for viewing. Therefore, from a behavioral

perspective, blind box figurines themselves can be combined with entertainment forms based on their cultural characteristics. The Sanxingdui folk series blind boxes shown in "Figure 3" and "Figure 4", combined with the archaeological scene of mining and excavating Sanxingdui in Sichuan, are designed as archaeological blind boxes. After purchasing, users can simulate the excavation work of archaeological relics and personally dig out blind box figurines designed in the style of "Sanxingdui cultural relics" from the imitation soil, which can give users a sense of freshness and cultural belonging, and enjoy the experience and exploration of archaeology. In addition to obtaining blind box figurines through excavation, this blind box can also be used as a daily cultural item. The bronze standing human and divine bird shaped blind box figurines are engraved with seals on the base, which can be dipped in ink to flip out the words "fu" on paper; The copper chicken shaped blind box figurine can be used as a pen holder; The gold faced bronze figurine has a long handle and can be used as a bookmark.

Improving the design of a series of derivative products around the image of the blind box figurine itself can compensate for the lack of interactive experience in a single blind box figurine. Using the visual features of blind box figurines in the design of practical items, such as phone stands, water bottles, keychains, etc., as derivatives of the blind box figurine series for sale, can deepen users' impression of the image of blind box figurines, increase interaction between users and products, and enrich the playability and usability of blind box figurines.
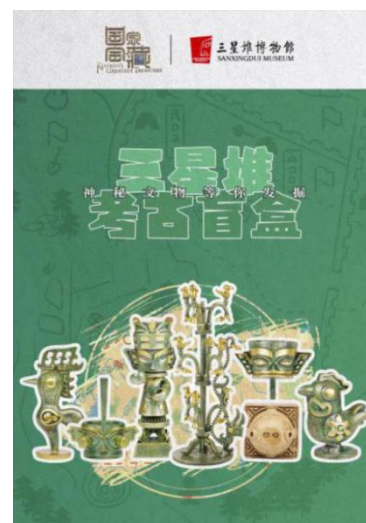

Figure 3 Sanxingdui Archaeological blind box.

Figure 4 Sanxingdui Archaeological blind box.

3.3 Exploring Story Scenarios and Conveying Cultural Connotations

The presentation of cultural context connotation is the soul of regional cultural blind box figurines and the top priority of regional cultural blind box figurine design. The reflective level is the highest level among the three levels, and the biggest difference from the instinctive and behavioral levels is that it affects the level of human consciousness, which requires creating complex emotional experiences to trigger users' associations and thoughts. Blind box figurine products that only have an attractive appearance can only give users a brief impression, and products that only have entertainment functions will lose interest after users become familiar with the usage and gameplay. However, internal reflection and cultural exploration are the key to generating lasting memories and love. Its function goes beyond appearance. When users first see a blind box figurine product, they judge whether it meets their own aesthetic taste through instinctive reactions that occur before their consciousness. Through the entertainment function of the product, they bring a sense of distance closer, and only then can they obtain spiritual feelings from a reflective perspective. Therefore, at the level of reflection, by delving into distinctive regional cultural stories and scenes, and using concrete physical objects to showcase the cultural core behind them, it can easily bring users and products closer together. At this time, the spiritual pleasure that users gain will be more abundant and fulfilling. In contrast, using products with a more distant form is difficult to achieve this effect, as it cannot strengthen the connection between users and products, and the emotional experience will be weaker. Character actions and situational stories with unique memory points can also quickly evoke viewers' understanding of them. In the Sanxingdui Chuanshu Xiaodui blind box figurine shown in "Figure 5", the movements of the bronze figures are everyday scenes of people in Sichuan, such as performing long mouthed teapot tea art in tea houses, changing faces in Sichuan opera, and focusing on Sichuan embroidery. These highly characteristic behaviors and movements in Sichuan and Chongqing can make viewers quickly recall or associate with the local customs and traditions. The key to reflective design is to evoke users' associations or memories of certain cultures through the cultural values and connotations in blind box figurines. At this level, it is necessary to fully grasp the emotional needs of users, reasonably combine static culture with dynamic culture, cleverly endow blind box figurines with behavior actions and situational stories that have popular memory points, and create a unique cultural atmosphere for users.

Figure 5 Sanxingdui Chuanshu Xiaodui blind box figurine.

4. CONCLUSION

This article takes existing blind box figurines as a case study and uses the user experience model as the research method to construct a regional cultural blind box figurine design framework based on the three-level theory of user experience. A regional cultural blind box figurine with strong cultural sentiment can effectively condense and gather the long-term development products of a region, with cultural and economic value, bringing users a sense of cultural belonging and playing a role in cultural inheritance. About the design elements of the instinct layer, behavior layer, and reflection layer in the user experience model, the instinct layer captures the visual elements of shape and color to give it its own distinct style, giving the blind box figurine a strong visual impact to attract viewers' attention; The behavioral layer mainly creates interactive experiences for users in terms of the functionality and entertainment of blind box figurines; The reflection layer belongs to the advanced level of the user experience model, which explores regional cultural stories and visually expresses the cultural connotations of cultural scenarios in the form of physical objects, thereby enhancing the cultural value of blind box figurines and arousing resonance and memories among viewers. Extracting these design elements can summarize how to apply user experience model theory combined with regional culture for blind box figurine design, providing a certain direction for the innovative development of the cultural industry.

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