

Visual Exploration of Silk Road Cultural Genes

Taking "Silk Chain" Cultural and Creative Industrial Design as an Example*

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Abstract—Against the social background of the "fever of cultural and creative industrial design", this paper tries to study and analyze the shortcomings of the current cultural and creative product design. Taking the "Silk Road" cultural and creative industrial design as the research scope, and comparing with the excellent cultural and creative products in China and foreign areas, this paper carries out the innovative exploration of the "Silk Road" cultural and creative industrial design methods, summarizes and promotes the higher application value.

Keywords—the Silk Road; cultural and creative industrial design; cultural genes; visualization

I. INTRODUCTION

At present, the concept of "cultural and creative industry" is generally accepted in China. As an emerging industry with a main culture or cultural elements as its core, it involves many fields such as culture, art, science and technology. Especially, after the Ministry of Culture officially issued the "Thirteenth Five-Year Plan for the Development of Cultural Industry", the cultural innovation industry was listed as the pillar industry of the national economy. This strategic goal has opened up more attempts, innovations and opportunities for cultural and creative industrial design. At present, there are some common problems with the vigorous development of domestic cultural and creative industries, such as the serious homogeneity of design forms of some products. Starting from the cultural and creative industrial design of "Silk Chain", this paper focuses on the inheritance of cultural heritage, transformation and promotion of value innovation of the Silk Road, further sorts out the cultural gene of the Silk Road, and constantly improves the connotation and extension of the cultural and creative product design art, so as to better serve the society.

II. A POINT OF PENETRATION OF VISUALIZATION OF SILK ROAD CULTURAL GENES

The definition of cultural gene refers to abiotic genes relative to biological genes.¹ It mainly refers to the smallest

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¹ Wang Nan. The Construction of Human Settlements in Zhoushan Islands New Area from the Perspective of Cultural Ecology [M]. Zhejiang: Zhejiang Ocean University, 2014.

information unit and the smallest information link which are inputted into the human body consciously or unconsciously by congenital inheritance and the acquired, active or passive, conscious or unconscious. It mainly manifests in beliefs, habits, values, language, art, thought, culture, history, etc. Therefore, the most direct visualization of "Silk Road" cultural genes is in museums and famous scenic spots, while the indirect visualization of "Silk Road" cultural genes is in all aspects of local life. The visual exploration of "Silk Road" culture gene — "silk chain" cultural and creative industrial design is discussed through the above two dominant and invisible directions. At the same time, the volume and use of cultural and creative products can be roughly divided into two categories. One refers to the national heavy artifacts, which highlight China's profound cultural heritage and advanced technological strength, and generally have the characteristics of large volume, precious gifts or national gifts, low production and high price. The second category refers to small and beautiful daily necessities design, which is close to daily life. That is to say, aesthetic and practical products play a role in the dissemination of culture, and generally have the characteristics of small size, large production, fast circulation, low price, practice and decoration. The visual entry point of this design is more inclined to the second category of cultural and creative industrial design with the characteristics of the small and beautiful. Its inspiration concept of main ideas refers to "the Silk Road culture and the western region — "silk, chain", and it finally determines the design theme as a series of cultural and creative products of "silk chain" brand. The target population is female, 20-40 years old, and the price is at the middle and low. The products are expected to have the characteristics of practical jewelry, short use cycle, and strong substitution, and can achieve the combination design of similar combination, different combination and subject addition.

A. Consideration on Homogenization of Cultural and Creative Products

During the two-week inspection of "Silk Road" cultural and creative products, a major problem of cultural and creative industrial design of domestic tourism was exposed. The homogeneity is serious, and forms are various, lacking the innovation. It is most common for cultural and creative industry of museum and scenic area, or city IP to be printed by map. There are also homogeneity phenomena in carriers, such as postcards, pillows, dolls, refrigerator stickers and key

chains, which must be sold in the sales office. The prices of such cultural and creative commodity design in museums and scenic spots are generally higher. In order to avoid the problem of homogeneity of cultural and creative products, the "Silk Chain" brand cultural and creative design takes the short-term lifestyle of "Silk Road Tourism" as the background of cultural and creative product design, and focuses on creating cultural and creative products that meet the needs of tourists on the Silk Road journey and meet the cultural, functional, memorial and unique needs of the public, so as to make the design have the theme and trade-offs.

B. Combing the Available Resources of "Silk Road" Cultural and Creative Industry

The key point of combing the available resources of "Silk Road" cultural and creative industry lies in the detailed investigation and summary of abstract "Silk Road" cultural genes and representational local representative graphic resources. In the face of a large amount of information, the author discusses with the team tutor to classify, analyze and screen the materials and elements representing the characteristics and spirit of the Silk Road, and finally

determine the following aspects. First, abstract and available resources include: years — the change, existence and disappearance of sculpture; words — Chinese and Western scripts running through the whole Silk Road civilization; life — the life activities blending in the long river of the Silk Road. Second are concrete and available resources. The reason for selecting Zhangye Pot-bellied flying apsaras is that during the 14-day Silk Road inspection, only Zhangye cultural and creative product design has the biggest blank, and there are almost no traces of visual design in the city. At the same time, as the only "pot-bellied flying apsaras", there is a strong contrast with Dunhuang's various design styles of flying apsaras. The reason for selecting Wadang patterns is the exquisite graphics and the guardianship auspicious meanings behind them, such as the four gods of Wadang and Wadang character in Xi'an Qin Brick and Han tile Museum. People can use the functions of the collection to transform and develop its functions. Such products can enable the public to experience the life experience and interest of the ancients in modern life, thus creating emotional connections. There are two main lines for Silk Road cultural and creative industry, and the author can make the next step of graphic creation. (See "Table I")

TABLE I. COMBING THE AVAILABLE RESOURCES OF SILK ROAD CULTURAL AND CREATIVE INDUSTRY

Silk road resources	Extractable elements
Flying Apsaras in Zhangye	Unique Pot-bellied flying apsaras
Wadang	decoration, character
embroidery	colour, texture
gold and silver ware	texture, colour and lustre
ancient texts	text of Chinese and western
Painting & Calligraphy	modelling, implication
Dunhuang Flying Apsaras	colour, modelling
tri-coloured glazed pottery of the Tang Dynasty	colour

C. Design Orientation of Silk Chain Brand

The design orientation of "Silk Chain" brand is determined as: Silk Road — Sand Grains — Point, Road - Line, Time, and Life — Dynamics.² In order to achieve effective visual communication, the design of silk chain logo is in the most concise and intuitive way: point and line. Chinese people are accustomed to using lines to depict and express aesthetic feeling. Mr. Zong Baihua said in "Aesthetic Walk": "beside the word "形" (shape) in China, there are three leftfalling strokes, and three leftfalling strokes represent the lines of the body, which also show that the organization of the image of Chinese art is lines. The dynamic concept of logo is the design concept and application of "life", which impresses people and improves brand image and cultural connotation. It can accurately and quickly memorize the brand image of "silk chain" effectively and profoundly, as shown in "Fig. 1".



Fig. 1. Silk Chain Logo Design.

III. VISUAL EXTRACTION OF SILK ROAD CULTURAL GENES

The stage of visual extraction and rendering of Silk Road cultural genes is the key part of cultural and creative design, and an important embodiment of the inheritance and innovation of Silk Road culture. Relying on the available resources of Silk Road, the products are endowed with many functions such as education, aesthetics, cognition and entertainment by creative design. The extraction and rendering process is to create a series of graphics with multiple features, not a simple imitation of the existing

² Ye Jian. On the "line beauty" and skill performance in Chinese-style piano music performance [J]. Chinese Academy of Arts, 2005.

graphics, but to complete the transformation from classics to classics and reconstruct modern graphics, and to enhance the imagination space and cultural tension of the original image. Graphic creation style should be simple, dull or fashionable. While retaining strong Silk Road cultural gene, the audience has a new understanding of Silk Road resources. In the process of visual extraction, the following four methods are used.

A. Representation Extraction

The representation extraction is to reconstruct the fashionable graphics on the basis of retaining the basic features of Silk Road charm graphics. The representation extraction is able to intuitively understand the content of things to express. The advantage is that it has a high degree of the representation extraction, and people can intuitively express the cultural intentions of Silk Road cultural and creative products. Among them, the proportion of dermatoglyphic pattern elements retained in Xi'an Qin Brick and Han Tile Museum is larger, and the transformation of function is also quite charming. The architectural accessories that protect and beautify the eaves of buildings are transformed into practical chain ornaments with body protection and decorative meanings. Due to its integrity and artistic sense of Wadang pattern, the reconstruction part is relatively small, and the transformation efficiency as chain decoration is extremely high, which makes the audience feel the auspicious culture that has disappeared in the modern high-rise community but is deeply in the blood of the Chinese people. Such superficial representation extraction enables classics not only to be stored in museums, but also to extend the memory of Silk Road culture, to go out of museums and enter the popular culture of everyday wear, and to carry on better inheritance, as shown in "Fig. 2".



Fig. 2. Wadang representation extraction images of Xi'an Qin Brick and Han tile Museum.

B. Intention Extraction

Intention extraction is to transform the available resources of Silk Road effectively, and to break up and reorganize the representation and cultural genetic implications into the linguistic symbols of the works. This kind of design is not the direct visual element stacking, and they have undergone abstraction, borrowing and transformation, the understanding, digestion and rebirth of Silk Road culture. It is difficult to find the dominant source of graphic patterns, but the spiritual temperament of the whole work has a strong sense of Silk Road culture — a

thriving blend of life, and the collision of eastern and Western cultures, which breeds a colorful and brilliant civilization. It is the design embodiment of deep aesthetics and spiritual connotation of Silk Road culture. For example, the graphics and color expression of "silk chain" logo design express the collision between the East and the West — the combination of freehand brushwork and geometric aesthetics, the round and proud silk road self-confidence and visual posture of Zhangye Pot-bellied flying, and the intentional oriental aesthetics conveying the intension.

C. Color Extraction

In the design of silk chain brand logo, the uniform cultural color of Silk Road is extracted, which can make Silk Road have many kinds of colors and high purity. The definition of "blending" which combines with brand connotation is found in the use of the colors of Tang tri-color glazed ceramics. Therefore, the first step is to design the logo. At the same time, the second step is to make the wearer more selective when choosing matching clothes according to the consumers. It has a wide relationship with the color of everyday clothes, and then selects the neutral tone silver as the main tone of the design of cultural and creative products.

D. Text Extraction

The shape extraction of characters in the "silk chain" cultural and creative design can be expressed by geometry and abstraction. Firstly, Wadang symbolizes the simple desire of the public for a better life — "hundreds of gold and thousands of rice per day", which is still the most active and simple pursuit in today's social life. The decoration of the geometric lines in the circular Wadang is already perfectly represented, and it is enough to extract the representation and give it new decorative function. Secondly, in the museum along the Silk Road, the repeated Koran scriptures have strong decorative meanings and strong rhythm of the combination of points and lines. Therefore, further strengthening its decorative meaning as a reorganization of abstract point and line no longer pay attention to its reading, but will be written strokes.

IV. INNOVATIVE POINTS OF "SILK CHAIN" BRAND CULTURAL AND CREATIVE DESIGN

A. Brand Strategy

At present, most of the forms of cultural and creative design and development are scattered development, that is, scattered theme development around a collection, a group or a library. There are few cases of cross-regional series development based on culture and function. "Silk Chain" brand cultural and creative design is to shape its own unique Silk Road cultural characteristics and temperament. Taking "Silk Road Tourism" as the design theme and combining with fashion and travel, functionality and personality are in one, and the public can make the wide dissemination.

B. Serialization Strategy

Serialization strategy is the most intuitive way to make the Silk Road cultural gene into a unified and integrated

product image, and it also helps to reduce the cost of product development substantially. There are two strategies for serialization of silk chains. One is the serialization of graphics processing. For example, four sets of four-god Wadang with prominent styling features in Han Dynasty are selected to design silk scarves. They are also divided into two series of painting styles. One is the type with abundant hand-painted brush marks ("Fig. 3"), and the other is the type of round vectors ("Fig. 4"). The second is the serialization of replaceable composite chain ornaments. Chains and pendants can be exchanged in the same theme or in several themes. Customers have strong autonomy in choosing products.



Fig. 3. The scarves design of four-god Wadang series.

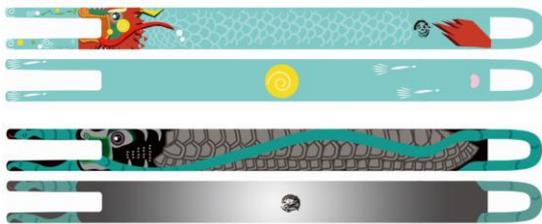


Fig. 4. The scarves design of four-god Wadang series.

C. Appropriate Packaging Strategy

Against the background of audience gender, product price orientation and the theme of "Silk Road Tourism", the author inspects the scenic spots and the museum's cultural and creative sales office. It is found that it is difficult for consumers to have a good impression on the product packaging with large volume and heavy material, such as large wooden box packaging, etc., especially for foreign consumers who need to consider how to transport or mail during the journey. Therefore, "Silk Chain Brand" is not a fragile, cultural and creative product that needs special protection. It should be based on minimalist and moderate packaging. It should avoid over-design of product packaging. The overall packaging design is "moderate packaging" in line with product demands. It opposes the waste of resources caused by "excessive packaging", and also alleviates the economic pressure of early product development. It should emphasize "light, tin and small packaging" in design and production.

D. Extraction of the Concept of Time

In the investigation of Silk Road, we can see the passage of time everywhere, such as the peeling color of the flying apsaras, and the changing landscape of Danxia glacier gully under the erosion of rainwater. Some scenery is built in time

and some will disappear forever with the passage of time. The Silk Road journey is to consume such a time. The author made visual extraction and transformation of abstract concept to make products with Silk Road stories. The reaction is in the graphic design. For example, Zhangye Pot-bellied flying has a rich and confident facial expression. However, in the 3D printing flying modelling, the face was removed.

V. CONCLUSION

Through the research of "silk chain" cultural and creative design, we can get the following enlightenment. The development of industry makes the extraction of cultural genes have a broader space to expand and deepen, inherit and activate culture. In the design process of this interdisciplinary industry, comprehensive theoretical support and field research are very important in order to find the entry point of visibility and invisibility. The visual effect of aesthetic experience of cultural and creative design comes from various ways of visual extraction, which can further expand the ability of visual integration and expression. The combination of cross-professional teams can also better ensure the quality of color, graphic composition, material, texture, function, form and process of cultural and creative design, eliminate the design expression boundary in the dimensions of space, action and perception, and make the exploratory and experimental of cultural and creative design play a greater role, so as to achieve unexpected results.

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