

Exploring the Design Concept of Cultural and Creative Products of Intangible Cultural Heritage Chinese Linen from the Perspective of Dynamic Inheritance

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Abstract: As one of the oldest textiles in history, the Chinese Linen weaving technique was included in the second batch of intangible cultural heritage lists as early as 2008. Chinese Linen, which was once inseparable from people's lives, has had its living space squeezed due to the acceleration of industrialization and its own technological limitations. On the premise of clarifying the artistic characteristics and performance attributes of Chinese Linen, this article explores the design ideas and methods of intangible cultural heritage of Chinese Linen in cultural and creative products from the perspective of dynamic inheritance. Through the four dimensions of intangible cultural heritage dyeing, texture reconstruction, material splicing, and three-dimensional shaping, the design practice of intangible cultural heritage Chinese Linen is carried out, and the design method of Chinese Linen cultural and creative products is constructed, thus proposing effective ideas and paths for the dynamic inheritance of intangible cultural heritage Chinese Linen.

Keywords: intangible cultural heritage Chinese Linen, culture and creative product design, Living inheritance, Product design concept.

1. Introduction

Intangible cultural heritage Chinese Linen is known as the "living fossil" of ancient textiles, but research has found that current technological limitations make Chinese Linen clothing prone to itching when worn, and its narrow width makes it difficult to cut out large coat pieces[1]. Meanwhile, some scholars have pointed out that due to the lack of market environment and insufficient deep processing capabilities of factory enterprises, the industrial chain is too short, resulting in most Chinese Linen enterprises directly producing and exporting Chinese Linen fabrics, and the market is limited to a few Asian countries, making it difficult to withstand the impact of market turmoil[2]. As a result, the intangible cultural heritage of Chinese Linen is facing the dilemma of inheritance, making it difficult to carry on in today's industrialized era. Under the strong promotion of national policies, the State Council issued the "Revitalization Plan for Traditional Chinese Crafts"[3] in 2017, proposing to build a system for inheriting excellent traditional Chinese culture, strengthen cultural heritage protection, revitalize traditional crafts, and make the protection and inheritance of intangible cultural heritage a focus of industry attention.

The handmade fabrics, such as intangible cultural heritage Chinese Linen woven from ramie, are more in line with people's spiritual pursuit of green and environmental protection. The current industrial production mode also presents opportunities and challenges for the Chinese Linen industry. There are objective drawbacks to using intangible cultural heritage Chinese Linen as a clothing fabric. At the same time, China's tourism industry is experiencing a booming trend. Based on this, this article attempts to apply it to cultural and creative products, clarify the relationship between the characteristics of Chinese Linen and the design requirements of cultural and creative products, and explore the design path and methods of cultural and creative products. Thus, it helps to integrate intangible cultural heritage Chinese Linen into modern life, allowing it to return to daily use, and then feed back into the handmade weaving industry of Chinese Linen, achieving the dynamic inheritance of intangible cultural heritage Chinese Linen.

2. The integration between Chinese Linen and cultural and creative design

2.1. Unique artistic appearance

Natural color and transparent texture. Intangible cultural heritage Chinese Linen is made from ramie as raw material. The hemp bark must be peeled off from the hemp stem, and then the surface green bark must be scraped off. It can only be woven from ramie after drying in the sun. After completing the pre-treatment step of scraping green, the remaining bast fibers are extremely light and transparent, so the woven Chinese Linen has a transparent texture like silk. At the same time, the hemp skin will change from its original green to linen brown after being air dried, with a simple and elegant color quality that cannot be compared to ordinary synthetic fabrics that have undergone mechanical bleaching and dyeing treatment.

The bones are stiff, and the texture is plain. Chinese Linen was once known for being "as light as cicada wings, as thin as rice paper, as soft as Luo Juan, and as flat as a water mirror". However, due to current weaving conditions and varieties of ramie, the hemp yarn produced by artisans in the important step of harvesting hemp is no longer as delicate as before, making handmade Chinese Linen relatively stiff, skin-friendly, and prone to wrinkles, making it less suitable for large-scale use in ready to wear clothing[4]. But for cultural and creative products, the stiff bones of Chinese Linen can be used to achieve a shaping effect. The raw material of Chinese Linen is ramie, and its fiber structure has knots on the longitudinal surface. The most important step in the pre-treatment before weaving is the use of blue hemp. In the process of breaking and twisting the hemp fibers into strands and connecting them into threads, the ramie bast fibers are connected end-to-end, leaving handmade marks at the connection, resulting in irregular and unique textures after weaving intangible cultural heritage Chinese Linen.

At present, cultural and creative design products are relatively homogeneous, and popular products are copied in a short period of time. The random longitudinal and transverse textures generated by hand weaving of intangible cultural heritage Chinese Linen break the similar design of cultural and creative products on the surface, which is more handmade compared to fabrics produced in large quantities by industrialization. At the same time, the stiff bones of Chinese Linen can also enhance the texture of cultural and creative products themselves, reduce process constraints, and add added value to the products.

2.2. Superior Performance

Green and environmentally friendly. In today's world of increasing work pressure and pace of life, the distance between people and rural life is getting farther and farther, but they are also increasingly eager to strengthen their connections. With people increasingly advocating for natural and environmental protection, returning to simplicity, industrialized mass-produced synthetic and

blended fabrics are no longer attractive[5]. Instead, environmentally friendly materials such as pure natural fabrics, biodegradable materials, and bio based materials are favored by consumers. Handmade Chinese Linen is made of plant material, ramie bast tissue, which is spun and woven by hand on a weaving machine. It is a green, natural, and environmentally friendly fabric that meets people's pursuit of green and environmental protection. People will experience the charm of green life and get closer to the connection with nature through plant fiber products. From the perspective of the fiber structure of ramie, there are many pores in the tube wall of ramie fiber, which has the function of deodorization and adsorption. The fiber has high strength but low elongation, and its wear resistance is superior. Simultaneously containing elements such as catechins, pyrimidines, purines, etc., it has varying degrees of inhibitory effects on bacteria, and has functions such as anti-corrosion, antibacterial, and anti mold.

The dyeing effect is excellent. Ordinary synthetic fabrics can only be dyed through industrial methods, such as repeatedly immersing the fabric in a dye solution or uniformly rolling the dye solution into the fabric through rolling pressure. The cross-section of ramie fiber in Chinese Linen is elliptical or flattened circular hollow tube shaped, which allows the inhaled liquid to penetrate into the cavity and be quickly exported, making Chinese Linen superior in moisture absorption and breathability. At the same time, Chinese Linen has a faster absorption rate in dye solutions. For Chinese Linen, industrial dyeing can actually destroy its original fiber texture, while plant dyeing can better highlight the texture effect. The colors dyed by plants originate from nature, and the dyeing effect is warm and delicate, bringing an elegant and soft visual effect while retaining the natural color of Chinese Linen. The mutual coordination between the two resonates with people's spirits.

3. Concepts and principles of Chinese Linen cultural and creative product design

3.1. Upholding integrity and innovation, inheriting intangible cultural heritage

Adhering to tradition and innovation is based on the subject's grasp of the laws of development of things, using creative thinking to change the form of existing things and create new things. Traditional intangible cultural heritage Chinese Linen embodies the wisdom and sweat of craftsmen from ancient and modern times, and is known as a living fossil in textiles. However, its complex craftsmanship has become a drawback. At the same time, due to insufficient deep processing capabilities of producers, most Chinese Linen is directly exported as raw fabric to other Asian countries, resulting in high dependence on export trade, short industrial chain, and limited market.

The inheritors of Chinese Linen intangible cultural heritage attempted to change the sluggish Chinese Linen market by crushing ramie fibers and spinning them again. Although this type of woven Chinese Linen can increase production, its once proud appearance has disappeared completely. In the process of revitalizing the application of intangible cultural heritage Chinese Linen, we should base ourselves on the nature of "upholding integrity", respect the original style of handmade Chinese Linen, and use creative thinking to "innovate" the modern application methods of Chinese Linen to achieve the revitalization and application of intangible cultural heritage Chinese Linen. Using intangible cultural heritage Chinese Linen as a decorative material, on the basis of clarifying its artistic characteristics, it helps to integrate it into cultural and creative design. By expanding the popularity of Chinese Linen through cultural and creative sales, it also supports the weaving and by-product industries of Chinese Linen, thereby realizing the revitalization and cultural inheritance of intangible cultural heritage.

3.2. Integration of culture and tourism, highlighting regional characteristics

The integration of culture and tourism is the mutual infiltration of culture, tourism industry and related elements, thus breaking through the limitations of the original industry. Especially at present, the

domestic tourism industry is showing a booming trend, and it is necessary to seize the huge traffic brought by "internet celebrities" and "going global", and take advantage of this trend to achieve the dynamic inheritance of intangible cultural heritage Chinese Linen. Moreover, the intangible cultural heritage of Chinese Linen has unique regional characteristics. Currently, the most famous production areas for Chinese Linen weaving are Rongchang in Chongqing, Longchang in Sichuan, Wanzai in Jiangxi, and Liuyang in Hunan. The two are integrated into intangible cultural heritage of Chinese Linen with regional "labels" for consumers to identify[6].

In the deep integration of culture and tourism, through the expression of cultural and creative products in the form of intangible cultural heritage resources and regional characteristics, a synergistic effect is achieved in the heat brought by tourism. Thus stimulating the commercial vitality of intangible cultural heritage Chinese Linen, increasing its regional attributes, and laying a solid foundation for the dynamic inheritance of intangible cultural heritage Chinese Linen. While creating cultural and creative products through design, cultural connotations are also infused into them from the material level through intangible cultural heritage such as Chinese Linen.

4. Design ideas and methods for Chinese Linen cultural and creative products

Attempt to integrate Chinese Linen with other intangible cultural heritage techniques, and combine them with different craft methods to create cultural and creative products that showcase the artistic characteristics of Chinese Linen, change the stereotypes of Chinese Linen design, and break the design routines of cultural and creative products.

4.1. Integration of dyeing techniques for intangible cultural heritage

Chinese Linen is hand woven from ramie fiber as the raw material during the weaving process. The ramie fiber has a special cavity structure inside, and the herbaceous plants to which ramie belongs are more hydrophilic after drying. Its moisture absorption performance is excellent, and its dyeing performance is superior. Therefore, by using intangible cultural heritage dyeing techniques such as tie dyeing and wax dyeing, as well as traditional dyeing techniques such as cross dyeing and gray dyeing, natural plant dyeing or fermented blue dye is used to achieve different dyeing and printing effects. Tie dyeing and clip dyeing have a high degree of randomness, and different blank patterns may appear depending on the strength and area of the tie and clip. Especially for grass fabrics, the texture is relatively stiff, and the printed blocks have a strong texture. Wax dyeing uses wax solution for anti dyeing, while gray dyeing uses a paste of soybean powder and lime for spinning and dyeing. This type of dyeing method will cause the anti dyeing part to crack during soaking in the dye solution, leaving special ice cracks in the blank printing area. At the same time, the ice crack patterns on the textured Chinese Linen are more abundant.

By combining Chinese Linen with intangible cultural heritage dyeing techniques, taking advantage of both sides' strengths, we aim to explore the feasibility of integrating intangible cultural heritage handicrafts, creating a dual effect of "intangible cultural heritage plus intangible cultural heritage". This will enable the design and application of cultural and creative products to have a unique charm and cultural heritage.

4.2. Texture reconstruction

Chinese Linen can only be further woven after the hemp bark peeled from the hemp stem is split and spliced. At the same time, unlike short fibers such as cotton and wool that are easily entangled with each other, hemp bark has longer fibers with glossiness and stiffness, making the warp and weft yarns of handmade Chinese Linen distinct and non adhesive. Therefore, under this premise, it is possible to more smoothly extract the warp and weft yarns of Chinese Linen according to different needs, or cut

off the unidirectional yarns at specific positions, thus forming different forms of semi transparent or hollow Chinese Linen. Especially, it can be combined with dyeing methods with high randomness such as tie dyeing, and attempts can be made to unidirectionally draw the darker colored areas to create a hazy beauty, or to cut off the warp and weft yarns in the unstained middle area to form a regular hollow effect. Due to the easy wrinkling of Chinese Linen, do not press down on the unidirectional yarn left during the drawing process to avoid deformation. Chinese Linen itself has a natural sense of simplicity, and through yarn drawing, the texture of Chinese Linen is reconstructed, adding breathability and design to its own texture. Whether used as a whole wall hanging, table flag decoration, or as a local decoration for cultural and creative products, it can make the product unique in material and creative design.

4.3. Local Material Splicing

Hand woven Chinese Linen has a natural and rustic texture, with a warm and elegant color. Although it has a unique and subtle beauty, using it as a surface material alone in cultural and creative products may inevitably appear slightly plain. Therefore, by combining Chinese Linen with other materials, a novel and unique visual effect is presented in the comprehensive processing. During the splicing process, attention should be paid to exploring the cultural connotations and artistic features of the materials, while seeking a balance between the two through comparison or harmony with the fabric materials. Using wood material as the frame for the Chinese Linen wall hanging creates a contrast between the softness and hardness of the wood and the Chinese Linen, seeking a visual collision or creating a new design effect by contrasting the texture of the leather material with the stiffness of the Chinese Linen. Both bamboo weaving and grass cloth are made of plant fibers, which are more similar in texture and color. Through the splicing process between the two, they achieve a harmonious fusion and commonality. By using different texture materials and contrasting or harmonizing relationships, differentiated designs are created in visual and tactile senses to further present the finishing touch of cultural and creative products.

4.4. Three dimensional shaping expression

The three-dimensional shaping of Chinese Linen cultural and creative products can be simply divided into two types: partial and overall. The partial shaping in cultural and creative products can be presented more through pleating, especially for hand-woven Chinese Linen. The ramie skeleton is more stiff, and the overall effect formed by hot pressing and ironing is more tough, with a good shaping effect and being less likely to rebound. Especially when applying the folding process to lighting fixtures or other decorative items, changing the original cylindrical structure through different folding shapes can further enrich the three-dimensional and layered sense of the product, presenting different rhythms and dynamics. The overall three-dimensional shaping in Chinese Linen products is presented through hot stamping technology, and different numbers of Chinese Linen can present different decorative effects. The yarn of low count Chinese Linen is relatively coarse and loose, and the pattern can be appropriately increased during shaping, while the edge position is presented in an irregular shape. High count Chinese Linen yarn is more delicate and soft, and can produce a variety of flower shapes, especially small flowers such as bell orchids, which can be used as combination decorations or clothing accessories. Through the expression of Chinese Linen in three-dimensional shaping, different and flat expression methods are further presented, presenting different expression effects for Chinese Linen cultural and creative products.

5. Conclusion

Intangible cultural heritage Chinese Linen is constrained by current weaving techniques and varieties of ramie, making it prone to issues such as insufficient width and lack of comfort when worn as clothing fabric. However, its simple artistic appearance and superior performance better meet the design requirements of cultural and creative products. On the basis of adhering to the nature of Chinese Linen, we innovate its modern application forms, providing design ideas for Chinese Linen cultural and creative products from four perspectives: dyeing, texture, local splicing, and three-dimensional shaping. At the same time, we provide added value to cultural and creative products based on the regional characteristics of Chinese Linen itself, which helps to achieve the dynamic inheritance of intangible cultural heritage Chinese Linen and promotes a virtuous cycle between intangible cultural heritage inheritors, the Chinese Linen industry, and cultural and creative products.

This article is currently limited to the design ideas and methods of Chinese Linen in cultural and creative products, and the design methods mainly focus on preserving the original weaving form of Chinese Linen. Next, more innovative design methods will be attempted on the basis of finished products to meet the test of the consumer market.

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