

Design and Application of Splicing Patterns based on Rotary Screen Printing in Modern Home Textiles

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Abstract. Patchwork is a very popular classical aestheticism handicraft in the world. Patchwork is an art form developed from patchwork under a certain social economy and cultural background. Patchwork is a modern printing and dyeing of patchwork art. Contemporary form from the perspective of technology. With rotary screen printing as a technical support, the pattern design, textile fabrics and home textiles are organically combined, thus giving birth to a spliced pattern style. This article introduces the application of splicing patterns in the field of modern home textiles to obtain a unique and integrated effect of the finished product appearance. Due to the development of new materials and new technology, splicing design is "intercepting" and "integrating" to inject new vitality into modern home textile design visually. Therefore, this article explores and summarizes the innovative design and application prospects of splicing design in modern home textile design, and guides design thinking and creative methods in practice.

Keywords: Rotary Screen Printing; Stitching Patterns; Modern Home Textiles.

1. Introduction

With the development of the national economy, the consumption concept of Chinese people has entered an era of individualization and branding. The taste of the public is getting higher and higher, and home textile products are required to have many characteristics such as comfort, adaptation to the overall home space, and uniqueness. Compared with digital printing technology, rotary screen-printing technology is more suitable for mass production and has a lower cost. The birth of modern printing technology has opened a new era of fabric design and application, enabling the application of printed patterns in fabrics. Gradually, people pay more attention to it. With the continuous development and maturity of splicing patterns, the application in home textiles has become more and more extensive. Splicing patterns are a novel modern patchwork art design based on rotary screen printing, which has good practical and aesthetic value. In this era of innovation, many people only understand splicing literally. Break ordinary people's understanding of splicing through professional knowledge, and carry out design extension and technological innovation of splicing patterns.

The investigation found that the current research on patchwork art and stitching patterns has a certain foundation, and with the development of modernization, home textiles in the form of stitching patterns have formed a certain market demand, but they lack the theoretical basis for guiding the design accordingly. This article attempts to explore the design method of splicing patterns from the perspective of application.

2. Application of Rotary Screen Printing in Modern Household Textiles

Rotary screen printing is a printing method in which the color paste in the rotary screen is printed on the fabric under the pressure of a scraper. Rotary screen printing has the advantages of simple operation, low labor intensity, and high output. It is suitable for printing various fabrics, and it is suitable for printing various small batch fabrics. Compared with digital printing, rotary screen printing has a lower cost for mass production. When applied to splicing patterns, it can maintain the uniformity and coordination of colors to a greater extent.

Home textiles are also called decorative textiles. It is a practical textile that can beautify and decorate people's living environment. Mainly used in homes and public places, it has played a great role in beautifying, improving the environment, and improving the comfort of people's lives and work.

Home textiles is an objective and concrete thing, and its artistry is to enrich the meaning of home textiles through its various crafts and decorative techniques.

Practicability and aesthetics are the driving force for splicing art creation, and splicing art is always around these two points for continuous creation. Rotary screen printing provides convenient and low-cost technical support in the production process of modern home textiles, and has a strong advantage.

3. The Concept of Splicing Patterns

The record of splicing in the literature originated in the Han Dynasty. Pinning was interpreted as "Congye" in "Erya"; and "Jiaoye" in "Shuowen" was used for splicing. [1] The traditional patchwork art comes from the folk and is a model of folk culture, which contains a high cultural connotation and artistic beauty. It has a large time span, a wide range of applications, and diverse forms. It is the crystallization of the integration and development of multiple ethnic cultures, which provides it with a profound historical and cultural heritage. Through the development of modernization, the quilting craft is no longer limited to becoming an "economic technology", and then developed into a "decorative art", which is to realize the sublimation from technology to art. The style features of traditional patchwork art and modern printing technology are mutually infiltrated, and a large number of imitation patchwork products appear on the market—that is, patchwork products in the form of patchwork patterns. Splicing patterns not only have the aesthetic form of traditional patchwork art, but also are more liberalized and more suitable for modern production methods.

The aesthetic composition of the splicing art form can inject more new design ideas into the innovation and development of modern home textile design, inject more artistic design methods, and provide consumers with a more diversified visual experience.

Home textiles are the first to attract people's attention to their colors and patterns. The colors of splicing patterns have their own unique connotations and individual laws. Their individual colors, aestheticism and pattern changes are the focus of home textiles.

4. Splicing Patterns in Home Textiles

The pattern refers to the pattern made by the designer according to the purpose of use and beautification, according to the materials, combined with technology, technology, and economic conditions, through artistic conception, and then made according to the design plan. Pattern designers need to start with the design ideas currently applied, and then take effective measures to absorb and sort out the data and information related to pattern design. In addition, they need to fully research the market. Splicing pattern is a type of pattern formed on the basis of traditional patchwork art. It not only inherits the aesthetic connotation of traditional patchwork art, but is also more suitable for mass production, providing a good way for the inheritance of traditional patchwork art.

Home textiles are a common carrier of splicing patterns. As a traditional craft, splicing gradually carries artistic expression in the long process of flow. Nowadays, home textiles need to be more suitable for large space decoration styles, and splicing pattern printing products meet the life and spiritual needs of space owners in terms of color block, texture, and comfort. The splicing was originally derived from a smart measure taken by the working people to cope with the needs of life when materials were scarce. After being recognized, this measure gradually became popular, continuously integrating and innovating rich forms, and becoming a unique kind of unique aesthetics with its unique aesthetics. The artistic expression technique of, combined with modern printing technology, enables the traditional patchwork art to be innovated and developed.

5. The Design Points of Splicing Patterns

Any pattern design has its own rules. The stitching pattern is based on the traditional patchwork art, inherits the pattern of the pattern, and combines with modern printing technology to form a contemporary design method. This article takes the cyclic splicing of 18 squares of 21.33cm*21.33cm

as an example, taking 6 square patterns as the unit shape, through rotation, symmetry and other techniques, forming various changes, combining them into a 64*128cm splicing pattern, and using color registration. The method makes the overall stitching pattern more integrated and unified. The design and application methods of splicing patterns in home textiles will be specifically analyzed from the following three aspects:

5.1 Pattern Type

Splicing patterns can be divided into concrete and abstract types according to the subject matter, and they can be divided into dots, lines, and blocks according to the way of presentation. In the process of pattern design, we must pay attention to multiple comparisons. For example, the visual conflicts brought by concrete and abstract flower patterns, the contrast between the density of patterns formed by dots, lines and planes, and the spatial relationship between the front and back of the patterns affected by density, etc.

5.2 Pattern Size

In the design of grid splicing pattern, we often divide the flower type into six types: large flower, medium flower, small flower, dot, line, and surface. The pattern size is used to express the sense of expansion and contraction between patterns, which is used in home textiles. It enables consumers to feel the sense of "breathing" and "rhythm" in it.

5.3 Color Tendency

As the saying goes: look at the color from a distance and look at the flower close up. Before designing, it is inevitable for the positioning of the product, including audience research. People of different ages and regions prefer colors that are very different; including seasonal products also play a decisive role in color. For example, fresh colors should be used in spring and summer. High brightness, low saturation colors are more popular, while autumn and winter colors are more enthusiastic. In addition, in the design of contemporary home textiles, designers should give more consideration to the suitability of colors and the overall home space.

6. Splicing Patterns in Home Textiles

The first prerequisite for inheritance is to fully and deeply understand the connotation of traditional culture. Only by truly grasping its inner meaning can it be better used and passed on. Designers need to continuously improve their self-cultivation and naturally reveal the meaning of these traditional cultures, which will have more vitality and characteristics in the design of textiles.

Splicing patterns gives new life to the art of interior design, creates a comfortable living environment, and plays an important role in meeting the psychological needs and aesthetic requirements of the public, inspiring people's love for home, and bringing comfort and fun. The application of splicing in the design of home textiles can express the designer's creative ideas and design thinking from multiple angles and forms.

In splicing patterns, how to balance the contrast between squares and inches and the sense of uniform order is the design focus. Matching appropriate colors to form a unique style and clarify the preferences of the audience is a design difficulty. Splicing patterns combined with rotary screen printing have practical and market significance when applied to modern home textiles. Carrying forward traditional culture while giving it contemporary meaning is the responsibility of designers.

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