

The Use Practices of Plant Texture in Textile

YANG Ting^{[a],*}; YAO Sidian^[a]; LI Daiyang^[a]; LIANG Liefeng^[a]

^[a]College of Textiles & Garments, Southwest University, Chongqing, China.

*Corresponding author.

Supported by Fundamental Research Funds for the Central Universities (XDJK2016E042).

Received 30 March 2016; accepted 24 May 2016

Published online 26 June 2016

Abstract

Plant texture is widely used in textile design, and its design methods varied. This paper discusses the artistic conception in the textile design process of plant texture, and expounds the design principles of the plant texture in textile design. Then analyzing the concrete applications of plant texture in the textile design, meanwhile, predicting the market prospects for development of the plant texture in the field of textile design, and providing theoretical basis and reference methods for the plant texture in the modern textile design.

Key words: Plant texture; Pattern Texture; Textile design; Design techniques

Yang, T., Yao, S. D., Li, D. Y., & Liang, L. F. (2016). The Use Practices of Plant Texture in Textile. *Cross-Cultural Communication*, 12(6), 54-58. Available from: <http://www.cscanada.net/index.php/ccc/article/view/8600>
DOI: <http://dx.doi.org/10.3968/8600>

INTRODUCTION

Extracting design elements of decorative patterns from plants exist everywhere in our daily lives. Design concepts and forms based on inspirations from plants, such as the growth of plant morphology, the texture and patterns of plants, and extraction of fiber material from plants are widely used in the textile field. Plants texture that comes in a variety of forms, appears in different styles of textiles, and, the inspiration mainly comes from two aspects, one

is the plants' microscopic image, and the other is plants' appearance (Jin, 2006).

1. ART IDEAS OF PLANT TEXTURE DESIGN

Plant Texture refers to the figures and lines that can be visualized and touched from the surface or cross section of the plant, and to the appearance during the growing process of the plant. At the beginning of design for plant texture, it is necessary to first carry on the reasonable idea through the accumulation of material of the expression intention and then do design work after thinking of the expression forms.

The art ideas of plant texture design needs repeated thinking of the continuous accumulation of collective material information, and in the process of gathering inspiration, designers can use bionics, microscopy and other disciplines to understand plants' macro and micro structure to develop their own field of vision, enrich the design subjects by analyzing surface texture and cell structure of plants, and creating design inspiration thereafter. Then combine metaphors, allusions, association, and imagination with the current popular trend, to interweave inspiration. Then refine the real plants with color and shape based on intuitive appearance, and convey the design intention to people through the appropriate performance techniques, making the design results coincident with the formation and spirit of the expectation (Li, 2014).

As shown in Figure 2, the design concept of the fabric patterns from the main vein of leaves shown in Figure 1. Through imagining and reorganizing, compose the picture by drawing concise lines on the plane with different density rhythm. These seemingly simple random lines are derived from the designers' experience of life and passion for the creativity. They complete the fabrics' adornment effect with clear

lines of draft, applying the products to contemporary contracted household adornment, and processing their

color according to the consumers' needs and preference for different seasons.



Figure 1
The Main Vein of Leaves



Figure 2
The Unity and Variety

2. THE DESIGN PRINCIPLES OF PLANT TEXTURE

Plant texture design used in textile is restricted by the fabrics' function and the technology level. Meanwhile it is essential to unify color and design with its environment. Compared to other art forms, it has its own characteristics, it must follow the principle of its design in the design process.

2.1 The Texture Pattern Proportion of Harmonious and Unified

In any kind of design, reasonable proportion in design can make a person feel perfect, quiet and comfortable visually and psychologically. The use of plant texture in the textile pattern needs to be coordinated with the space on appropriate proportion. In home environment, textile

design on the proportions of the color and size all need to consolidate with the whole household environment (Xu, 2009). As shown in Figure 3, in the adornment of the sitting room environment, the curtains, chairs and pillow cover fabric choose plant grain pattern fabrics, and the harmonious proportion of plant texture in American rural domestic outfit style provides person with natural and comfortable feelings. In the clothing fabric development, plant texture on the harmonious and unified pattern of size and colour ratio can make the garment more vitality and appeal. As shown in Figure 4 2014 S/S Elie Saab, designer chose tulips as design inspiration, applied the tulip petals texture to in the design of the series, and layout petal texture with appropriate size on the dress. The proportion of the nude the gauze skirt collocation satin shoes makes a complete set of clothing elegant.



Figure 3
Plant Grain Pattern Fabrics



Figure 4
The Dress With Tulip Pattern

2.2 Innovation and Open Mind of Plant Texture Design

Design is to develop potential innovative thinking and cultivate the innovative spirit of a process. Designers get all sorts of new ideas, and these new ideas will make textile design more appealing. Unceasing innovation will make textile design enduring (Qin, 2012).

The designers' inspiration from plant texture not only contains a 2 d plane pattern lines, also includes a plant's 3 d texture effect. Also, designers would widely absorb the essence of culture from various countries, combine it with the designers' daily life experience and emotions, and use their own art language and expression skills, making every efforts to get the design works with novel design theme, vivid form of expression, rich cultural connotation, and effective to convey emotion. In addition to skillfully use all kinds of hand-painted techniques to express ideas, communicating their design ideas emotionally with the machine is also very important under the rapid development of modern aided design technology of computer. Computer software can undertake permutation and combination of deformation texture of the plants in practical design applied to textiles.

It is essential for designers to take courage for innovation, open design, interdisciplinary and multidisciplinary combination, and various performance techniques, and combine them with the fashion trend, making all kinds of plant texture feature in textile and comforting the aesthetic needs of consumers.

2.3 Plant Texture Design Must Follow the Market Demand

Plant texture textile is produced using diversified forms, but the key purpose of design is to meet the needs of people. Under the background of a rapidly developed economic environment, people began to pursue the spiritual enjoyment, yearning to return to nature. And on the premise of following the fashion trends, more personalized plants texture textile design can attract more eyes of the people.

Textile designs can only realize their value by winning the market's (consumers') approval. Therefore, during the

process of plant texture design, designers should target their design to accurate positioning, and they should know about the financial status of target consumer groups and accurate understand consumers' psychological and physiological needs, leading to a more accurate grasp of the plant texture main points of the design.

3. SPECIFIC APPLICATION METHODS OF PLANT TEXTURE IN TEXTILES

With the rapid development of modern textile technology, especially after including the computer in the textile industry, the wide application of digital textile technology makes plants texture design perform much better in textile design and development with more expressions (Ren, 2005).

In the design of modern textile, the plant texture is divided into two parts: Pattern combination and the special process of decoration.

3.1 Pattern combination

3.1.1 The Actual Plant Texture Combination Use

With the help of photographic equipment and CAD software for processing the actual plant texture, would make this kind of fabric pattern real and clear. Designers can choose in thick or thin, shiny canvas to carry on the design of fabrics of silks and satins. As shown in Figure 5, it used a variety of stump cross-section texture combinations in the canvas fabric. And after processing, those fabrics can be used for household textiles, such as table cloth, cushion and so on.

3.1.2 With Animal Pattern Combination Use

Combination of plants and animals in textile design can make the textile more lively, they are also extensively applied in textile design with more diversified material, such as cotton, hemp, silk and chemical fiber, etc.. As shown in Figure 6 and Figure 7, the tree and leaves in hand-painted textures graffiti way, at the same time with the birds to ornament, make the whole piece of fabric used in home textiles look more vitality.

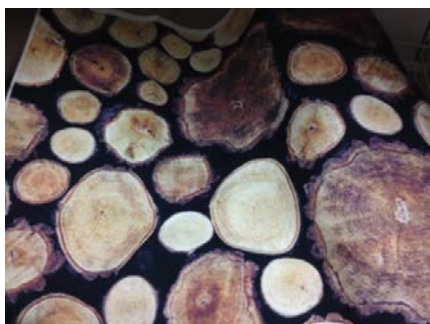


Figure 5
The Plant Texture Combination Use



Figure 6
Flower and Bird Pattern Fabric



Figure 7
Flower and Bird Pattern Curtain

3.1.3 Texture Combined With Plant Form

Texture in the design of textile plants can't avoid being combined with plant entities. Applying texture to plants entity is relatively extensive, the fabric choice and application scope, they are all welcomed in home textiles and clothing design. As shown in Figure 8 the combination of fern leaf texture and its unique bending growth model are use in cover type of fabric used in the household.



Figure 8
Plant Morphology

3.1.4 Combined With Geometry Application

Geometric patterns used in textile are rare, but a simple geometric patterns appear seems to blunt, lack of vitality. Combining plant texture with geometric, would make the fabrics more vitality and appeal. As shown in Figure 9, combine the texture of trees of several shapes and lines, with a variety of color, makes whole residential environment full of vitality.



Figure 9
Plant and Geometric Combination Pattern

3.2 A Special Process and Adornment Gimmick

3.2.1 The Three-Dimensional Decoration

Plant texture in the two-dimensional plane presents with figure or lines, and would present the characteristics of its growth pattern in the three-dimensional space. Designer will use the technique of three-dimensional decoration in textile design to show its growing pattern (Pan, 2012). As shown in Figure 10 2014 Elie Saab in the spring and summer haute couture, designers used mutual combination of plane and solid, and well performed the texture and characteristics of the flower petals.



Figure 10
The Dress with Petal Pattern

3.2.2 Knitting

Knitting knitting can shape different forms of texture, not only showing its growth pattern, also can its uneven texture. As shown in Figure 11, the knitting sweater, looks much more lively, using unique hollow out with texture plants.

3.2.3 Fold

Fold is also commonly used in plant texture process technique, especially for plant uneven skin texture effect. As shown in Figure 12, the bark of concave and convex texture was presented in cotton and linen fabric drape, realistic texture.



Figure 11
Knitted Openwork Patterns of Plants



Figure 12
The Dress With Bark Pattern Design

3.2.4 Flocking

Flocking is a method that vertical fixed short fiber on base material coated with glue .Flocking process technique can realize the two kinds of fabrics in a fabric handle, it can well show the texture of plants. As shown in Figure 13, flocking plant growth forms on the lace fabric, represent the rich texture of the petals and leaves form.

3.2.5 Nail Bead Embroidery

Nail bead embroidery way can make the textile design more delicate and higher end. Use this method to express the plant grain is often used in textiles of high quality.



Figure 13
the Lace Fabric Design



Figure 14
Nail Bead Embroidery
Garment Design



Figure 15
Display Quilting Patterns of
Plants

As shown in Figure 14, the designer used nail bead in the design of the dress and embroidery shows the texture tulip petals, looking elegant at a relatively long distance and exquisite in the near.

3.2.6 Quilts Quilted

Quilts are commonly used in the design of home textiles, to show plant growth texture. With different color quilt and different sewing lines can well show the veins of plants. As shown in Figure 15 quilting works of art, during the quilt quilting process, sewing lines represents the petal texture lines.

4. PLANT GRAIN TEXTILE MARKET DEVELOPMENT

Under the background of the rapid development of material civilization, people pay more to pursue the realm of spirit level, and start yearning to return to nature's way of life. The awakening of environmental consciousness, the nature of pure , fresh, and quiet fascinates more and more modern city people, which in return leading to a design trend of back to nature (Wang, Song, & Liang, 2015). Plant decoration intention is mainly to get close to nature and satisfies the users' needs for the return of the native and yearning. And the application of texture in textile design at the same time also accords with modern society of the concept of sustainable development and return to nature of home textiles. Plant texture of cultural connotation and visual form coincide with the contemporary people's hope for ecological regression and the consistent, meeting consumers' pursuit of nature and the concept of individuation.

CONCLUSION

Plant texture is widely used in the modern textile design, designers use different ways to represent the texture

pattern of plants, under the era of the pursuit of nature, including the plants texture in textile texture design consolidates with the physiological and psychological needs of consumers.

REFERENCES

- Jin, Y. Y. (2006). *Botany*. Shanghai: Shanghai Science Press.
- Li, X. (2014). Plant pattern in the application of visual communication research. *The Northeast Normal University. Modern Decoration (Theory)*, (1), 10-11.
- Pan, Y. (2012). *The design of household textile (bedding) design research*. Anhui University of Engineering.
- Qin, Z. (2012). *Study of contemporary fashionable home textiles design*. Beijing Institute of Fashion Technology.
- Ren, X. L. (2005). *Digital technology in the application of the textile art design*. Donghua University.
- Wang, Y. Q., Song, G. Y., & Liang, L. F. (2015). Sustainable design in the use of decorative color weaving art.
- Xu, B. J. (2009). *Textile pattern design*. China's Textile Press.