

# Preliminary Exploration of Application of Solid Figures in the Costume Patterns of Southwest Minorities\*

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**Abstract**—Costume patterns are the patterns and styles on clothing which are used to decorate costume. In the system of minority costume language, costume pattern is one of the very important recognition contents with great research value, containing the national history, cultural tradition, spiritual pursuit, religious belief and some other abundant multi-layer contents of minorities. In the process of making minority costume patterns, the particular handicrafts of different minorities are applied in them to form different patterns and present different visual effect. Based on the costume patterns of southwest minorities, this paper explores and summarizes the application of some solid figures in them and researches the different decoration methods and effect presentation.

**Keywords**—solid figure; costume pattern; southwest minorities

## I. INTRODUCTION

China's southwest region is where the minorities cluster and most minorities are distributed. Their costumes are diversified. In the process of cohabitation and clustering of all Southwest nationalities, their costumes are integrated and developed, which contributes to the costume patterns with high research values. Most studies on the costume patterns of Southwest minorities are focused on the meaning, mode of manifestation, color and material reflection effect of pattern as well as innovation within the said scope. On the basis of the above, this paper tries to further discuss the innovation possibility by considering 3D concept so as to create innovative design technique.

## II. THE CONCEPT OF COSTUME PATTERN WITH SOLID FIGURES

Costume patterns can be manifested and classified not only in abstract and realism but also in the plane and solid. Plane figure is the figure whose all parts are in the same plane; solid figure is the figure whose parts are not in the same plane. Some plane patterns may give people three-dimensional visual effect by modeling and color design. The

costume patterns of solid figure researched in this paper are classified to be:

- The pattern is the figure giving people solid visual effect. For example, Japanese famous designer Shigeo Fukuda was good at using pure lines and planes to form three-dimensional visual effect on plane. This blur of spatial awareness is of great significance for visual performance and greatly enriches the plane patterns and extends visual feeling.
- Solid relation can be formed between patterns and fabric.

## III. THE SOLID FIGURES IN THE COSTUME PATTERNS OF SOUTHWEST MINORITIES

The costume patterns of different minorities are numerous and distinct because their national culture, regions of residence, aesthetics and custom are different. Limited by length of this paper, some representative solid costume patterns of Miao, Qiang, Zang and Yi nationalities in southwest regions are chosen, researched and summarized.

### A. The Costume Patterns of Minority with Solid Visual Effect

As for the patterns with solid visual effect, you feel flat when touching them but see them solid in eyes. Some plane compositions of Chinese traditional patterns have three-dimensional visual effect, such as cloud patterns and patterns of seawater & cliff. Plane unit patterns are stacked to form the patterns. This technique of expression is similar to incised inscription of embossment. The layers of patterns can be prominent and real, giving people visual solid sense.

Some plane cloud patterns of Qiang nationality have three-dimensional visual effect. Being different from cloud stack pattern, the cloud patterns of Qiang tend to form solid sense depending on gradual change and transition of colors. Not limited to the gradual change of colors of the same kind, contrasting colors are even used creatively to extend and expand the sense of space. This method can be called "color gradation transition". Color gradation transition is to use color transition to show the layers of patterns and give

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people solid sense. In the order of color cycle, choose the serial colors between two contrasting colors and use them together with the contrasting colors [1]. The similar method is used in other patterns of Qiang nationality. Taking the representative pattern Horn Flower for example, female embroiders use pink embroidery threads of different brightness for gradual color change and choose green in sharp contrast to regularize them. Combining stitching skills and change, the layer of each petal can be shown to form layering sense and visual solid effect and harmonious and uniform pattern can be achieved (as can be seen in "Fig. 1").



Fig. 1. The three-dimensional effect of gradual change in Qiang costume pattern.

#### B. The Solid Relation Between Costume Pattern and Fabric

Regular costume patterns are plane. Nevertheless, three-dimensional solid form can be achieved by using different craft techniques and multiple materials. Different visual effects can be presented in different angles. As for the costume patterns of minority, traditional handicrafts can be used to achieve different three-dimensional effects of patterns. These solid patterns not only enrich the forms of traditional patterns but also endow another connotation to traditional patterns. They show the makers' understanding of the patterns [2].

##### 1) Texture:

The minorities have their own traditional handicrafts. Embroidery is one of them used widely. Especially, the embroidery of Miao nationality represents the highest level of embroidery of Chinese minorities. The stitching skills of minority embroidery are multiple and some of them generate special texture that gives people special three-dimensional effect, such as seed embroidery, chain embroidery and braid embroidery.

As mentioned above, stitching skills can be used to form three-dimensional effect. Besides, people often use different embroidery threads to form the three-dimensional sense of patterns.

In traditional Qiang embroidery, female embroiders choose intumescent yarn skillfully for embroidery.

Comparing with common embroidery threads, the intumescent yarn endows plane patterns with three-dimensional visual features. Combining solid seed embroidery, layers can be abundant. The unsophisticated and full-bodied country life vitality and greatly intense decoration is shown in "Fig. 2".



Fig. 2. The three-dimensional effect of Qiang intumescent yarn embroidery combining seed embroidery.

Horsetail embroidery is a special embroidery method that uses embroidery threads to achieve three-dimensional effect. It can be often found in Shui nationality and Miao nationality. In difference, only one horsetail is used in horsetail embroidery of Miao nationality. Horsetail is very thin and it is very difficult to complete the embroidery. As for the horsetail embroidery of Shui nationality, three horsetails are chosen to form stronger solid sense and more prominent visual effect (as can be seen in "Fig. 3").

The craftsmanship of horsetail embroidery is complex. Taking the horsetail embroidery of -Shui nationality for example, 3~4 stout, resilient and glossy healthy horsetails shall be selected firstly as the core of embroidery threads; then intertwine white threads around the horsetail core closely to get special horsetail embroidery threads. Secondly, embroider the horsetail embroidery threads on the outline of patterns to form the framework of embroidery patterns. Flat colorful thread made of seven colorful threads is filled in the framework. Finally, the common handicrafts of plain embroidery, cross-stitch work, embroidery with disordered needles and skipping stitch are used to embroider the other parts. By weaving and intertwining embroidery threads, thick embroidery framework and internal structure can be formed. The whole patterns are thick and three-dimensional with embossment effect. Horsetail embroidery adds wonderful visual symbol to the costume patterns of Shui nationality and Miao nationality.



Fig. 3. Comparison between Shui horsetail embroidery and Miao horsetail embroidery.

Passementerie is an important three-dimensional costume pattern of minority. As an accessory made of serial beads or slices of various different materials and shapes, passementerie contains variety of materials. The texture of the materials is different from each other. If they are properly used in costume of minority, the texture of patterns will present their particular charm and another feeling of texture.

Besides thread embroidery, there is a special decorative traditional handicraft in Miao nationality. It is called tin embroidery. Namely, metal tin is added to traditional embroidery to get three-dimensional decorative effect. In other words, it is the solid figure in costume patterns. In details, firstly use traditional embroidery method to place basis; then straighten thin tin wire, one side is made to be a hook and the other side is made to be a needle. Use needle to pick out a cotton thread from embroidery pattern for the purpose of adding tin wire. Pass the needle side of the tin wire through the cotton thread, cut down the wire and cover the other side on the cotton thread. Repeat the process in cycles until the preset pattern is completed. It should be noted that a cloth must be put on the cotton cloth embroidered with patterns to prevent the patterns being damaged or polluted. Glossiness of tin embroidery is good; and the texture sense is strong to people. Its effect is similar to that of silver ornament. In addition, it is not easy to oxidize tin embroidery. Therefore, as an important material of Miao embroidery, tin embroidery is favored by Miao people. Tin embroidery changes people's concept of material use in traditional embroidery. It determines the special status and handicraft value of material use in Miao cross-stitch embroidery (as can be seen in "Fig. 4").

Likewise, there is decorative metal edge in the costume patterns of Yi nationality for achieving three-dimensional effect (as can be seen in "Fig. 5").



Fig. 4. Miao tin embroidery.



Fig. 5. The edge and sequins in traditional embroidery of minority.

## 2) Stack:

For structuring three-dimensional shape, it is a frequently-used method to increase the sense of volume.

Among various traditional handicrafts of Miao nationality, barbola is one handicraft of minority that sense of volume is increased by stack. As one of Miao embroideries, barbola is usually put on the back neck, shoulder, front placket and cuff of Miao costume. Being different from traditional stitching embroidery, Miao barbola is more similar to paper folding art. In details, silk cloth is tailored to be parts in different size. Starch them to make them hard. In this way, it is easy to model and shape them and not easy to break them. Then fold the silk parts to be triangles in different size. The methods of stack, folding and stitching are used to make patterns with different color matching and in different size. Then add the patterns on costume. Generally speaking, a pattern on barbola is comprised of the stack of hundreds of triangles. The handicraft of Miao barbola is very precise and the colors are brilliant and abundant; combinations are various and the visual effect is gorgeous like that of kaleidoscope and three-



dimensional like embossment. Depending on colors and pattern matching, the stack in Miao barbola gives people the sense of volume with multiple layers. Visual multi-dimensional space is achieved perfectly. At present, barbola has been listed in National Intangible Cultural Heritage List (as can be seen in "Fig. 6").



Fig. 6. Miao barbola.



Fig. 7. The solid pompon and waist band of De'ang nationality.

De'ang nationality is another minority that is good at realizing three-dimensional effect by increasing sense of volume. De'ang nationality is adept at closely combining colors and traditional handicrafts including pompon and knitting in different size and bead strings, making the points and lines of costume patterns in three dimensions and using stack method to form strong sense of volume. The attraction of works can be greatly strengthened. Pompons usually appear at both sides of males' headcloth, in front of their chests, on the lower hem and neck ring of females' costume. Colorful pompons are decorated on the eardrops and around handbags of young women and men. The waist band on De'ang females is an important object for researching three-dimensional costume patterns. Each female adult of De'ang nationality tends to wear several or even dozens of waist bands around their waists. Most waist bands are made of rattan. The front half part of some waist bands is made of rattan and the back half part is made of spiral silver wires. The width of rattan ring is different and the color may be red, black and green. Plant and animal patterns may be engraved on some of them; silver skin or aluminum skin may be packed on them. Three-dimensional patterns transfer to be three-dimensional structure (as can be seen in "Fig. 7").

### 3) Applique patching:

Applique patching is also a handicraft that makes apophysis of costume patterns and gives people three-dimensional sense. In details, firstly cut applique cloths as required and put them on preset positions of fabric to produce the apophysis effect of multi-layer fabric stack. Finally, stitch to serge it; fix applique, fillers and fabric and

integrate them. The process of applique patching embroidery is simple and the patterns are in blocks. The style is unique and open.

In the handicraft of applique patching, Qiang people cut cloth of single color to be the shape of cloud, paste and fix the cloud cloth of single color on embroidery cloth, then use color threads to "pack" the edge of cloud patterns, use colorful threads to sketch the contours and form cloud pattern. Threads of different colors alternate to produce colorful and varying artistic effect. Threads of five colors are in a group (red, yellow, blue, green and purple) as separation for packing. Such regular color repetition, intersection and overlap gives people the sense of color that varies intensely following the fluctuation of cloud shapes. The vitality and artistic attraction of cloud patterns can be manifested [3].

In the handicraft of applique patching, Tibetan people tend to use barbola method. Barbola is a special handicraft in Zang nationality. It can be classified to be flat barbola and solid barbola mainly used on Thangka. Flat barbola is to paste the cloth patterns in different colors on designed white cloth and then use colorful threads to embroider the edges. The essence is the handicraft of applique patching.

### 4) Filling:

Filling handicraft is to fill various fillers between two layers of fabric or between fabric and lining. In this way, certain parts of fabric will be full and fluffy visual effect will be presented to people [4]. Filling is a good method to show three-dimensional effect. It can be easily found in the accessories of minority. Taking Qiang nationality for example, the patterns of cloud or horn are used as the outer contours. Cotton or spice is filled in them to be in three-dimensional shape. As the accessory of costume, people can wear them at waist or the lower edge of cap and cloud shoulder, which adds to layer and enrich details. Filling handicraft can combine the handicraft of applique patching to further strengthen three-dimensional effect. Fill between fabric and applique cloth to be in more intense upheaval status.

Bottoming paper cutting is a kind of filling and it is used in the embroidery of Miao and Qiang. Miao uses this handicraft more frequently. There is a saying that: all masters of Miao embroidery are the masters of paper cutting. In fact, paper cutting is firstly used as bottom and then the embroidery is packed. Taking the embroidery of cloud paper cutting for example, firstly cut thick paperboard to be cloud pattern and fix it on the position of embroidery cloth. Ancient method is usually used to fix it. For example, rice paste or other natural material may be used. Then use colorful embroidery threads to pack the paper cutting along the shape of cloud pattern using "stitching embroidery" method. In this way, cloud pattern can be got.

There is another three-dimensional Tibetan barbola. Based on flat barbola, cut down the internal of pattern and fill cotton or wool in to make it hump; then embroider it on symmetrical cloth curtain and use embroidered satin to combine embroidered patterns of different shapes to form a huge complete picture scroll; hang it in palace or lobby finally. The images of barbola give people three-dimensional

sense and the sense of reality. It is called three-dimensional barbola (as can be seen in "Fig. 8").



Fig. 8. Three-dimensional barbola Thangka.

#### IV. CONCLUSION

The costume pattern of minorities is a constituent part of the particular brilliant traditional culture. The costume patterns of southwest minorities are full of variety; the decoration handicrafts are different from each other; the patterns are structured precisely and skillfully; the colors are gorgeous or elegant. The handicrafts of embroidery, printing, dyeing, painting, weaving etc. make ever-changing plane figures and solid figures. The simple, practical, frugal and sincere particular style of minorities is presented. Various handicrafts of embroidery, material stack, collage and filling are used for solid figures. Vivid, lifelike and expressive images filled with artistic charm can be shown to people in different dimensions.

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