

From the Perspective of Green Design Analyzing Innovation Design of Clothing Recycling

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Abstract

As the economy continues to develop and natural resource is reducing, the concept of green eco-design is deeply rooted. Because clothing is essential of human to survive, clothing recycling is the most useful expression of green design methods being used in the area of clothing. This paper has a study on the performance of clothing recycling techniques and innovative design combined with the concept of green design, also elaborates the significance and value of clothing recycling.

Keywords: Green design, Clothing recycling, Innovative approaches, Value-added

1. Introduction

With the adjustment of industrial structure and the global objective understanding of human, the global sets off a wave of green consumption. In the impact with the wave of green consume, green design came into being, but also spread to clothing industries. The pursuit of fashion and trend updating makes clothing enterprises product a large number of clothing according to popular fashion. Production of clothing fabrics must be collected, and these fabrics collected inadvertently increases the ecological carrying capacity of environment, and not only that, it is likely to destroy the original ecological environment. But clothing recycling will be able to indirectly reduce the carrying capacity of the ecological environment and give clothing "green nature."

By techniques of second design, clothing has new looks and higher aesthetic value, and are closer to the avant-garde (Yi Lihue, 2005). Combination of traditional craftsmanship and modern technology, breaks the previous sense of monotony clothing and makes the field of clothing second recycling art have a unique personality style, to meet the varied and personalized market's demand, and become the focus of attention from the development of clothing recycling and updating the design. The clothing recycling is not just to maximize the value of clothing, but also to increase economic benefits for garment enterprises and reduce the waste of resources, so that the carrying capacity of the ecological environment has been reduced. Clothing has a new value, and gives a good revelation to a great majority of garment enterprises, which can solve the problem of clothing inventory backlog.

2. The clothing recycling - in the form of green design proposing several innovative approaches

Now the times develop much faster, everything is updated much faster, of course, including clothing. The rate of clothes coming out is particularly high, especially women's. Old clothes have become common items in our life, most people throw old clothes to result in a great waste of resources, and pollute the environment. With the popularity of fast fashion, clothing updates faster and faster, the annual emission is countless, and even many of them are used once or twice, old clothing recycling has become a major problem and has been a hotspot of research (Xu Haiyan, 2008). Many countries have begun respected the green design, to extend the using-time of clothing and improve its quality, sufficiently reducing the amount of waste in the apparel industry.

While it is still difficult for China to green design, but we can start from the clothing recycling .That old clothes being transformed into new clothes to wear is a kind of green design, it allows people to discover the beauty of old things, conserve resource, protect environment and promote green consumption, to lead the new green fashion.

2.1 methods of the clothing recycling

Fabrics and accessories are two major components of clothing. Based on this, two methods of clothing recycling are

fabric recycling and accessory recycling.

2.2 Using the way of fabric recycling to wear new clothes

According to needs of costume design and based on the original fabric, designers use various means to have a creative process of design, these tools can be a traditional, also can be high technologies to produce a rich visual and special textures on the surface to form a new artistic effect. This process can be called the second design of fabrics, also known as fabric recycling. After the process of fabric recycling, you can make ordinary fabric exhibit a variety of different textures feelings, to add highlights of costume design. Making good use of recycled fabric clothing can increase the added value and arouse people's desire to buy. It has gradually become a new breakthrough of costume design, to produce many ever-changing costumes.

2.2.1 Methods of fabric recycling

Fabric recycling in many ways, basically relies on manual or semi-mechanized processes to complete it, the transformation of different techniques can be recycled to make the fabric showing a different texture effect.

(1) Addition

Addition is generally on the basis of the use of fabric printing, embroidery, dyeing, hand-painted, bronzing, coating and others, you can add one or several methods simultaneously to complete the transformation of fabrics, so that fabrics reach glorified, decorated, and highlighted effect. Therefore, the most commonly used method to transform fabrics is additions (Wu Chunsheng, He Xiaoxiang, 2006).

(2) Subtraction

From the view of the production's process, the subtraction is that on the basis of primary fabrics, boldly using some technologies of industry, such as tearing, hollow and fray, to remove and destruct parts of the materials and fabrics, so that fabrics can produce a unique and incomplete beauty.

(3) Deformation

The method of deformation is able to generate a sense of relief modeling design. On the basis of designer fabrics crease, shrink seam, pleat seam, tie knots, winding, physical deformation processing, you can make the fabric shapes and forms change a lot, so that ordinary flat fabric to produce regular or irregular three-dimensional modeling.

(4) Splicing

Different fabrics are cut into various shapes, and then putting them together again will produce unexpected results. Different colors and fabrics of different materials are stitched to render rich diverse and strong contrast of texture, what's more, to make visual effects of fabrics richer. Thus, garments made of these fabrics are all unique works of art.

(5) Combination

Using the same or a different fabrics or materials through the patchwork, sewing hook, weaving, stacking, stuffing and other methods, so that the original basis of the fabric changes, from the point to the line by line to a plane, or a combination of the surface to the changes to achieve a combination of fabrics, finally to create a new fabric.

(6) Comprehensive Method

When we are conducting fabric recycling, which does not need to be limited to the use of a method, you can combine two or more techniques of fabrics recycling are used together to design and create a wide variety of fabrics, the use of these fabrics on the clothing can increase a number of added value.

2.2.2 The role of fabric recycling in fashion design

Fabric recycling in fashion design can be used as decorative effect, partial effect and entire effect.

The decorative effect can play a role of highlighting. By dealing with styles of space and contrast of levels, the partial effect can have some impact on creating a focus of clothing style design and playing a striking role. The entire effect is to use colorful recycled fabrics with strong senses of three-dimensional to design the whole clothes, which mainly to emphasize the effect of expression of fabric recycling of clothing styles, but also need to pay attention to controlling the proportion of fabric recycling in the entire series (Lee fight, 2006).

Now fabrics tend to be more and more varied, simply making a breakthrough and innovation in shapes of structures that can't meet various kinds of people's tastes. But fabric recycling makes up and riches techniques of design, to add a new method for costume design and open a new path of design.

2.3 Using the way of accessory recycling to produce personal clothing

Accessory is an important part of the clothing. Making good use of accessories of clothing can bring amazing results. It can form special shapes and constitute skeleton structures of garments, but also can improve the grade of the entire garment. Conversely, if the use is not good, it will destroy the whole structure. Now, types of materials are more and more, from the material to the shape and the production process are constantly changing.

The relationship of clothing and clothing accessories is as the relationship between global and local, clothing accessories are indispensable parts of clothing. Clothing accessories include lining, wadding, bedding, cable type material, and trademarks signs. Clothing accessories more appears on the surfaces of clothing, in the form of lines and areas. You can play a finishing touch to the overall shape of clothes by these actions.

3. Methods of clothing recycling applied to the design

3.1 The recycling of Long-sleeved T sleeve



Picture 1. long sleeve T



Picture 2. Jeans



Picture 3. the first product

As Picture 1 showing, the long T-shirt was cut down two long sleeves to left the body, and using the method of addition covers the body with chiffon fabric, which leads to the whole become more elegant. What's more, the length of clothing need to be longer, so to add the little skirt made from chiffon and jeans stitching at the bottom of this clothing, which makes the shape tender and lovely. And as shown in Picture 2 the jeans pocket, it was removes and changed into a small bag to match the transformed dress. Finally the effect is stylish yet full, as Picture 3 showing.

3.2 The recycling of the Denim dress and the Ladies' skirt



Picture 4. the denim dress



Picture 5. the ladies' skirt



Picture 6. the second product

As shown in Picture 4, the style of denim dress is very common, but it is the highlight of the metal tassels. At present, short denim jacket is one of popular single products for the young to follow, because it is simple, stylish and easy to match. So according to the proportion of the dress to cut and leave the upper body. Next, following principles of splicing, to stitch a piece of chiffon fabric at the back of clothing, which makes the whole effect be stylish and sexy, with much love from the young, shown in Picture 6.

In Picture 5, the ladies' skirt is white and clean with pursued by girls, but because of too long length and old-fashioned style, gradually being forgotten in the closet. According to fashion trends, the long dress should be changed into the skirt, but not directly cutting the dress to be short. In fact, its shape was fold into various types of pleated to be made into the tutu skirt, as shown in Picture 6, it is a lively and lovely shape, then with the denim jacket in Picture 6, the whole style is full charming.

3.3 The recycling of the Suspender and the Jeans



Picture 7. the Suspender



Picture 8. the jeans



Picture 9. the third product

Picture 7 shows the Suspender that is essential goods to girls , but the color and shape have not been changed for long time, which are often forgotten or abandoned through a few times. As shown in Picture 9, after the transformation of suspenders, the following part of the bust line was cut into tassels, so the overall effect has become fashion and unique.

The jeans, shown in Picture 8, were cut into two parts at the file line, and the crotch was opened to be made as a hip skirt. However, because the length is slightly shorter, the lap needs to be re-spliced. In order to make distinctive

styling, the denim skirt was cut and spanned, to form finely crushing tassels. At last, the lap was spliced by chiffon and sewn into laminated, so the skirt becomes cute and fluffy.

To mix the suspender, the lower half of the dress shown in Picture 4 was transformed into a sleeveless shawl as shown in Picture 9. Its shape is extremely simple and fashion. In addition with the little denim skirt, the overall effect is youth and lively.

4. Conclusion

Today, the whole world is pursuing sustainable road and green living, to reduce the waste of natural resources. For human necessities of clothing, the second use of old clothes is not only a good interpretation of the concept of green design, but also develops new ideas of fashion design, and it is a new source of inspiration for fashion designers. In addition, it diversifies clothing design greatly and enriches people personalized needs of beauty. What's the most important, it makes the value of clothing play to the greatest extent, and resolves the backlog of inventory problems about clothing, meanwhile, it increases the economic benefits for enterprises, reduces the waste of resources and environmental bearing pressure. In short, with the development of society and economy, the second design of clothing would gain widespread attention and become a new trend of green clothing.

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