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# Innovative Application of Fabric Recycling in Fashion Design

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#### ABSTRACT

With the continuous development of the socialist market economy, human aesthetic standards are constantly changing, the occurrence of this situation to the development of the garment industry challenges, that is a single fabric has long been unable to meet people's aesthetic needs, And then the art of fabric reengineering will be born. This paper elaborates the meaning of fabric reworking art. This paper systematically describes the meaning of fabric reengineering to garment designer and garment itself, and comprehensively summarizes the fabric recycling technique and its characteristics.

Keywords: Application, Creative, Fabric reengineering, Fashion Design. This is an open access article under Creative Commons Attribution 4.0 License.

#### 1. The fabric recycling overview

Clothing design is a fabric as the carrier, the human body as the skeleton of the sculpture art. Its style, style is reflected through the fabric, we can say that all the fabric is not the premise of the design are empty talk. Now, we are in a focus on artistic content and the spirit of the human spirit of the times, a single fabric is a variety of recycled fabric banned has become an inevitable trend. Modern designers in order to have their own in the costume design for creative recycling design, we must first understand the unique characteristics of fabric recycling and a variety of recycling techniques.

Destructive reconstruction refers to a personalized design that changes the original structural features of a fabric by removing part of the fabric or damaging the surface condition of the fabric. It can inject a unique, As well as want to say the rest of the hidden beauty. Representative methods are drawing, digging holes, corrosion and so on. Artex, through the fabric of the weft, the rationale for the separation of the fabric, so that the spacing of fabric changes, and then through the embroidery process for the chain, Loisi, woven embroidered thousands of state-like pattern, the fabric to form a new organizational structure, Corrosion is the use of chemical principles on the fabric recycling, to produce discoloration, pilling, or the new appearance of Burnt-out. Such as: with polyamide dissolved cotton yarn woven into the cloth, to form a lonely deep artistic effect. Digging holes, through the advanced machine products, the fabric of the fabric to dig flowers, laser, and ultimately get through, through, empty, leakage of the unique effect of the designer of the fabric for destructive

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reconstruction, should pay attention to damage to the method and damage Of the "degree". If the tear on the jeans, pay attention to tear the size of the area, tear too much or too much will lead to fabric breakage and damage.

The diversity of garment fabric recycling, mainly reflected in the recycling practices, such as decorative re-construction, structural reconstruction, destructive recycling and so on. These recycling techniques are not isolated, the designer can be based on design requirements, combined with a variety of techniques, extract their own essence of creative recycling.

It is precisely because of the rapid development of science and technology, a variety of fabric recycling techniques have the feasibility. At the same time, clothing design and other design is different, it is more emphasis on practicality, the performance of clothing materials, recycling technology practices, fabric trends and so on need to undergo rigorous and objective scientific analysis.

Designers through the personalized design language, changing the artistic approach to clothing materials, color or structure and other aspects of the second reconstruction, as much as possible to improve the original lack of, giving it more spiritual content, which gives me a artistic And ornamental high clothing works, so a lot of time, people will be re-fabric called fabric "sculpture" design.

Garment fabric recycling is to meet the individual needs of the market and developed, with creative fabric design can enhance the added value of clothing to meet consumer demand, different requirements, which can promote consumption and guide consumption.

Regardless of the color of clothing, style, how to change the fabric, its emphasis on clothing features this feature will never change. On the contrary, with the development of society, clothing fabric recycling in addition to consider increasing the visual effects of clothing, but also a multi-level consideration of the functional clothing, such as comfort, convenience, post-maintenance.

Decorative recycling, is the line, beads, lace, rhinestones and other decorative materials stacked, added to the surface of the fabric, so rich in visual beauty of a way. Commonly used in the form of embroidery, hanging, such as beads embroidery. Embroidery, can be divided into machine embroidery and hand embroidery both species. Hand embroidery is one of the traditional handicrafts of the Chinese nation, is to use embroidery and silk thread will be designed to add the pattern to the embroidery can not only reprocess the fabric, but also can be fully recycled, with the characteristics of automation, refinement. Hanging, is through the sewing, hanging, hanging way, in the fabric surface to add a different material, so that a change in the decoration of a decorative. This approach emphasizes the uniqueness and diversity of materials, such as metal, leather, feathers, lace and so on. Beads embroidery, is the size of the shape of different sequins, acrylic, diamonds and other ornaments as materials, based on the point, with the line interspersed, will be embroidered on the clothing to show a kind of jewels of visual effects.

Reconfiguration, refers to the designer using irrational thinking mode, breaking the original characteristics of the material, the same or different clothing materials splicing reorganization, so that from the line to the surface changes. Among them, splicing is one of the most common reorganization practices. Can be the same material of the fabric cut into the same or different shapes, there are rules or no rules of the splicing combination; can also be different materials to re-integration of the fabric, showing a strong contrast to the visual effects.

Structural reengineering, is a new interpretation of the traditional sewing process, which combines the designer's unique design concepts and high-tech means, with a single fabric printing and dyeing design treatment is different, it aims to create a different visual effects of the abstract space, Such as wrinkles, weaving and other recycling techniques. Fold, is a very representative of the structural means of reconstruction. Whether it is the order of the traditional fold art, or the pursuit of freedom of modern fold art, they are formed through the concave and convex texture contrast, giving a strong visual impact. Weaving, is a different fabric cut into strips or wrapped into a rope-like, and then through the series, weaving, hook, knot and other means to form a highly rhythmic space level of recycling. It is one of the common means of structural reconstruction. The use of the means of the fabric processing methods are different, and the final weaving of the texture can reach density, width, bump and other artistic effects play a decisive role.

Fabric recycling early, designers can choose to think radiant thinking, boldly put forward the

imagination and assumptions; late should be used to integrate thinking of fabric recycling to ensure the integrity of the work.

Image of the way, the most important feature is that designers rely on specific, image of things, subjective understanding and emotional experience, and then through the way of rendering the feelings of the image described. Designers to color the parrot as a source of inspiration, extracted the colorful colorful parrot, and in the skirt on the use of the patch embroidery rework techniques, the characteristics of the parrot will be vivid. This way of thinking, the need for designers in their daily lives can pay more attention to the beauty of people around things, things, and more storage of image information, so that when needed to timely extraction.

Abstract design, this design thinking requires designers with a wealth of practical experience, the use of this design thinking for fabric design, first thorough understanding, analysis of the nature of things, and then extract the essence of the part of the logical reconstruction The Is a "small universe", after a narrow folding will be people in this small space. Miyake life "I want to fold" series, the image reflects the folding behavior derived from the phenomenon of folding consciousness, a profound reflection of the Japanese nation's aesthetic philosophy and practical way of thinking.

#### 2. The fabric recycling in the design of clothing innovation

Psychologists have found a phenomenon through research, when people with a way of thinking to successfully complete a task, it will naturally form a kind of mind set, and it is difficult to destroy. And design is an innovative activity that requires designers to continually create new things. Therefore, the formation of a correct and diversified way of thinking is the designer of fabric innovation and design of the premise.

#### 2.1 Fabric recycling innovative design way of thinking

#### 2.1.1 Irrational thinking

Irrational way of thinking, refers to the designer deliberately break the traditional mindset, from the opposite direction of things to start, to seek a new breakthrough in a way of thinking. For example, the ceramic bowl is used in daily life to Sheng things, we can break this routine, it will be broken into pieces, and then according to the pattern of fragments of the characteristics of a regular combination of sticky, in order to show the amazing effect of texture.

#### 2.1.2 Radiation thinking mode

Radiation mode of thinking refers to the first to determine a design goal, and then designers break through the original mindset, at the same time from different angles, the direction of the spread, to seek a broader, wider, valuable answer or method. Such as the theme of the revolution, from different aspects of radiation, you can think of politics, flags, radicals, military and other keywords, and these keywords can continue to radiation, like a spider web, help designers re-create products More fluent, flexible and innovative.

#### 2.1.3 Integrated thinking way

Integrated thinking, refers to the process of design, integration, summed up all the knowledge and information, so that the rationalization, logic. For example, draw a triangle on paper, so what can we think of? Watermelon, awl face, pyramid, umbrella, red scarf, and so on, and then we will find these information and their needs are consistent, and summarized, finishing. This way of thinking and radiological thinking is inseparable from the recycling process.

#### 2.2 Diverse methods, diverse forms

At present, the fabric recycling techniques varied, you can fold, weave the way to enhance the three-dimensional clothing, but also by hand printing and dyeing, digital printing way to increase the sense of clothing screen. Fabric recycling has become the main way to increase the individual clothing. In recent years, the author concerned about the Milan Fashion Week show field, more than half of the clothing brands like to use digital printing of the recycling, geometric graphics, flower printing,

Bohemian patterns are their favorite elements. However, when we all use this way, we can no longer feel the novelty of digital printing. Therefore, a single fabric recycling method has been unable to meet people's aesthetic requirements, modern technology provides us with numerous kinds of fabric recycling techniques, we should use the current technological conditions, the comprehensive use of a variety of recycling techniques, extract their own essence, for consumption Showing a wide range of clothing era. The author in the graduation design works "color game" which used this method for fabric recycling.

The author's graduation design works "series of color game" for the city men's casual wear, color elements from the Moroccan town buildings. In order to show people more accurate, rich color effects, the author adopted a green, environmentally friendly, energy-saving digital printing and dyeing methods for color reproduction. Of course, digital printing and dyeing is only a kind of plane recycling, only to change the color of the fabric, and the rapid development of digital printing and dyeing technology has led to the proliferation of printing and dyeing elements, will inevitably make people tired, no new innovation. Therefore, the author followed a variety of recycling techniques combined with the principle, respectively, in the clothing before the film, sleeves, shoulders and other local position using a cross pattern bamboo knitting techniques. Cross-pattern weaving, bamboo is the most simple but the most practical way. It is through the warp and weft intertwined, hooked composition, this weaving techniques to produce more intertwined points, the combination of latitude and longitude tight, strong solid fabric, the appearance of flat Ting, an increase of the three-dimensional clothing, relaxed also highlights The man's boldness. At the same time, Zhubian process is one of the long-standing handicrafts in China. It has the traditional cultural characteristics of the Chinese nation. The author uses this element in his series of works, and it is also in order to conform to the people's demand for dress culture in the 21st century.

# 3. The fabric recycling ideas in the design of clothing in the application

Garment reengineering creativity is a multi-channel, the fabric to achieve the ideal design concept is the costume designer after the hard work of the results, they generally have to study the multi-level space, the pursuit of multi-dimensional visual effects, but also on the fabric texture and mechanism To explore, which also makes fabric recycling ideas in the clothing design has been widely used.

# 3.1 Destructive design of the application

Destructive design is mainly through the fabric cutting, scraping, etc., thus changing the basic structure and characteristics of the fabric, the fabric of a soul driven by the soul of life, giving an imperfect, resulting in a defect Beauty or deeper sense of the state, such as drawing, grinding, tearing, etc., this design makes the clothing in the external expressive power has significantly improved to meet people's psychological needs of the external beauty, this design approach is usually people feel To the comfortable, transparent art, it is generally used for personalized clothing design, giving a personalized display effect.

# 3.2 Three-dimensional design use

The use of folding, wrinkling, weaving, contraction, accumulation, folding and other practices, the formation of concave and convex texture contrast, giving a strong sense of touch; the different fiber material through the series, weaving, Hook, knot and other means to form the rhythm of the spatial level, showing the infinite three-dimensional texture effect, so that the formation of the plane material relief and three-dimensional.

# 3.3 Embroidery, weaving, printing and dyeing design applications

Embroidery, weaving, printing and dyeing are spread in China and still have a wide range of technology means, they are also in the field of fashion design has a wide range of applications, and occupy an unshakable position. Embroidery technology is one of the effective means of fabric recycling ideas, whether it is the use of clothing or fashion fashion, it is essential to the process, used in many aspects of clothing design, clothing in the collar, chest, etc. The local application of more, embroidery

not only for a single fabric to add color, but also to convey the romantic, elegant atmosphere; weaving technology is also an effective means of fabric reproduction art, it can make the fabric changes more beautiful visual effects , This means of recycling is mainly used in the design of woolen clothing, weaving generally need to use a combination of needle and fine needle design techniques, coarse needle gives a rough feeling, and fine needle gives a showing a Exquisite feeling, the combination of the two can make the performance of the effect is more obvious; printing and dyeing technology, for the modern industrial production of the kind of machine-printed products for the meaning is completely different, it is mainly dependent on the traditional handicrafts, Printing and dyeing technology, have different characteristics and style, which has a greater impact on the design of clothing with tie-dye, batik, type dyeing, dyeing and so on. Sometimes these technologies can be achieved with a combination of, and that is what a few the common idea of the design is to have a wider space in the external expression of clothing, to meet people's higher requirements for costume design.

# 3.4 The application of digital printing technology

The application of digital printing technology shows the technology and trend of fashion design, its application in the design of clothing is mainly part of the clothing or all show digital. The overall pattern of printing and dyeing in clothing to show a three-dimensional three-dimensional visual effects, more stylish and modern. In the clothing of the collar, chest, cuffs and other places can be printed with some unique patterns or patterns, in some clothing display, you can also use this technology on the clothing logo personalized display. In short, modern digital technology has been in the fashion design came into being, many designers have to consider the design elements.

# 3.5 LED lamp technology applications

Clothing design cannot be confined to minimalism, cannot blindly follow the fashion trend, LED lights in the design of clothing applications to meet the people of these two requirements of clothing, to achieve a simple fashion visual effects, it is the main Pay attention to the perfect blend of fabric and light, the use of light and shadow of the intertwined to create a focus of the feeling of space, so that the light and the surrounding environment clever blend of people to focus on the visual beauty, and sometimes can inspire people to imagine the future of the future.

# 3.6 Combine with modern art

Garment material recycling to be combined with the times, in line with the trend of the times, the clothing itself belongs to the art field, so the modern art is dissolved in the re-creation of clothing materials, will achieve unexpected artistic effect, the use of modern art in the abstract. Deformation and other forms of expression for the development of modern fashion design art to provide a broader space. In short, the fabric recycling is the clothing materials from the traditional textile fibers out of the full use of a variety of material materials and a variety of modern scientific and technological means on the basis of the original re-processing and re-innovation for the design of clothing design thinking that a new performance Road.

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