

The Ecological Trend of Design Aesthetics in Fashion Design

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Abstract

As the natural environment continues to deteriorate, people are becoming more aware of environmental protection. In the garment industry, more than 10,000 tons of fabric and clothes are discarded in China every year, so how to reuse these discarded clothes has become a hot topic of concern today. At the same time, under the advocacy of green economy, the green economy in garment design is a new economic structure following the agricultural economy, industrial economy and service economy, and is a more efficient, harmonious and sustainable way of growth, and the green economy era is the highest social form of human beings following the agricultural society, industrial society and service economy society, and the green economy, green New Deal and green society are the global consensus and development direction of human civilization in the century. Green economy, green new deal and green society are the global consensus and development direction of human civilization in the century. How to make good use of environmentally friendly fabrics in clothing is the key to achieving green development in the clothing industry nowadays. In this context, the author takes the modern clothing fabrics under the green concept, i.e. the trend of environmentally friendly fabrics, as the object of research, on the basis of understanding the interpretation and expression of the green concept and the research and development trend of environment-friendly fabrics under its influence, combined with clothing brands, famous designers, popular releases and popular market in The study aims to find out the design concepts and methods applicable to eco-friendly fabrics, so as to promote the better development of the green clothing industry.

Keywords

Design Aesthetics; Green; Clothing; Sustainable; Environmental.

1. Overview of the Green Development Concept and Eco-Apparel

1.1. The Concept of Green Development

Green is a symbol of life and nature. Today, green represents our aspirations for a better life. Our country has proposed green development as an important concept in relation to China's overall development. The concept of green development and the other four development concepts are interlinked and complement each other. So the green concept with the main primary aim of protecting the environment and improving the human habitat is influencing the world as the trend of the times. The so-called green concept means that the basic principles of "health, peace, green and sustainability" are followed in production and life and need to be realised by certain means and methods. In the context of global green economy integration, it has become an extremely urgent and realistic task to achieve a global green win-win situation and to promote sustainable social and economic development[2]. Clothing is closely related to life and has become the inevitable result of people's connection to green development. Ecological clothing design caters to the concept of green development and the use of eco-friendly fabrics also plays a vital role in fashion design.

1.2. The Concept of Eco-Clothing

Ecological clothing refers to garments that have been tested for eco-textiles and have the appropriate logo. Ecological clothing is also known as green clothing and eco-friendly clothing. It is designed to protect the human body and has the advantage of being safe and non-toxic. Ecological clothing is a product that is closely related to us, and it is important that clothing is disposed of at any stage from production to disposal. Ecological clothing promotes two main points: firstly, the conservation of resources: secondly, the recycling of raw materials. Professionally speaking, eco-clothing design is a feedback design for clothing based on these two design goals to achieve harmony between humans, society, clothing and the natural environment. A complete eco-cycle system does not fully exist, but it is a goal we all strive for.

Firstly, from the choice of materials, priority is given to the use of natural, non-polluting natural materials, using natural plant and animal materials as raw materials. Such as cotton, linen, silk, wool, leather and other non-chemical added fabrics. Or use new high-tech fabrics such as soya fibres, milk fibres, natural coloured cottons and modal fabrics, which are less polluting to the environment. Materials are easy to use when decomposed and reused, materials in materials are recycled; accessories such as buttons also use non-polluting natural materials such as shell buttons, fabric buttons, stone buttons, wooden buttons, horn buttons, fruit buttons and other major categories. In terms of design, we must consider whether the materials used for this garment are environmentally friendly, but also whether the energy consumption in production is too high and whether the whole process is ecological. It must reflect the concept of ecological development in order to be reflected in the whole process of garment life cycle management. There is no pollution of humans, animals or plants throughout the entire production and processing chain from raw materials to finished products[3].

Secondly, the design of recycled garments draws the consumer's attention to the raw material and the production process, and the intention behind the design is to transform old objects to give them a new lustre. This concept of 'recycling' and 'reclaiming' has the effect of turning the consumer into a temporary wearer, transforming used garments into new products, and achieving harmony between man and nature.

2. Aesthetic Application of the Design of Clothing under the Ecological Concept

The application of the ecological concept in the design of clothing needs to be combined with the green ecological concept, clothing design practices and design aesthetics, to achieve the purpose of ecological concept and product complement each other. Specifically, the design of garments based on the ecological concept includes the following aspects:

2.1. Choose Green Fabrics

Choosing the right fabric is very important for designers. The comfort of the fabric determines to a certain extent the success or failure of the product quality. In addition, the choice of fabric must also be in line with the style requirements of the garment design in order to achieve a more beautiful finished garment. Ecological green clothing design requires the selection of eco-friendly fabrics, for example, natural plant and animal fibres, and avoid fabrics with excessive harmful chemicals. Eco-friendly fabrics must meet our textile quality testing standards. It is also important to eliminate the use of precious animal skins and furs as garment materials and to reflect the designer's humanistic approach to fabric selection and the pursuit of a healthy and harmless mindset. Attention should also be paid to the fact that the fabrics chosen can be recycled and that the environmental hazards of the garment should be minimised as far as possible. The choice of materials is divided into three main categories:

(1) Natural fibre materials

Fibre is the most fundamental factor in the texture of clothing materials. At present, in the field of ecological clothing design, coloured cotton, Tencel, bamboo fibre, corn fibre, these materials are increasingly widely used. This is due to the fact that these materials are non-toxic and non-polluting and belong to natural fibre materials, which not only have good clothing properties, but also cause minimal damage and pollution to the environment and consume less energy throughout the production process. Bamboo fibre, for example, is a truly environmentally friendly fibre, made from natural bamboo processing, and using physical processing methods, without the addition of any chemical ingredients. Another example is coloured cotton, whose colours are purely natural, eliminating the need for printing and dyeing as part of the process. As a result, the discharge of industrial waste water from this process is avoided and the pollution and damage to the ecological environment is relatively small. The famous Chinese clothing brand "Cloth South", the fabric of its clothing works are mostly pure natural cotton, linen, wool, silk, clothing colour is calm, elegant natural colours, always stand in the high-end of fashion, not blindly follow the so-called fashion.

(2) New eco-friendly materials

With the advancement of modern science and technology, the choice of materials for eco-clothing is no longer limited to natural fibres. More and more new eco-friendly materials are being produced, providing new directions for eco-clothing fabric selection. For example, pulp-free weaving technology. This technology, combined with a suitable manufacturing process, produces new eco-friendly materials that are not only highly abrasion-resistant and soft, but also achieve the highest efficiency in sap-free production, avoiding the need for sizing, desizing and burnishing processes, which largely reduces water and energy consumption. At the same time, it also effectively avoids the problem of toxic and harmful chemical residues on clothing fabrics and greatly enhances the quality of fabric products. In addition, there are some garment materials with special functions, which are developed and designed to cope with special working or living environments. For example, materials with anti-oil, anti-friction and anti-mosquito functions.

(3) Recycled and reprocessed materials

Natural materials are a key direction in the choice of materials for ecological clothing design, but they are not the only materials available. Pure naturalness is the philosophy of the naturalistic design style. The eco-clothing concept, however, emphasises the environmental attributes of the product. We should not interpret eco-clothing as purely natural materials. Recycled materials also fit into the eco-apparel design concept. Although these recycled materials do not have green and natural properties, they cause less pollution and damage to the ecological environment during the production process, and are even less harmful to the environment than natural green materials.

2.2. The Use of Organic Substitution in Colour Design

Colour is another essential element in garment design, yet behind the myriad of colours is a serious danger to the natural environment. The pollution of air and water by toxic chemicals, metals, bleaches and additives used in dyeing is another major source of pollution in the garment industry. This would seem to imply that in environmentalist-based clothing design, the environment must be protected by the permanent deprivation of colour in clothing, but the results are not so extreme.

Organic garment colour design follows the principle of choosing garment colours in such a way as to minimise the damage they cause to the natural environment. In order to meet the demands of both the natural environment and human beings, a large number of colours of natural origin are used in the design of eco-friendly clothing. For example, natural cotton fibres, which have brown, red-brown, green and yellow colours, can be woven directly into organic fabrics in a variety of colours and patterns without any artificial dyeing, and because the colours are

inherent to the plant itself, they do not cause fading problems. It does not cause fading problems and does not pollute water resources.

On the other hand, under the influence of environmentalist ideas, many garment designers and research institutions have devoted themselves to the development and use of natural vegetable dyes, seeking to replace the chemical dyes now used with natural vegetable dyes that are basically harmless to the natural environment. dyes, and so on. However, the use of natural dyes in organic garment design is not a re-use of ancient techniques, but rather a combination of high-technology and the use of refined natural dyestuffs that are known to be an extremely viable method for mass production of garments, meeting environmental requirements and achieving colour design at the same time. For example, "Wool fibres and fabrics can be dyed with the water-soluble natural dye CL Natural Orange2"[4]; "A natural dye made from dried *Tagetes Erecta* flowers can be dyed to produce a bright yellow fabric"[5]; Recently, a method has been devised for dyeing fibres using entirely natural raw materials. "The plants are first heated in a sea salt solution, bleached using natural light, with cherry plums as a mordant, dark herbs as a dye and a solution of leaves from the Dhavdi or Jajaku tree as a fixing agent, which achieves zero pollution throughout the dyeing process.

2.3. Expressive Features of Eco-Clothing Design

Ecological clothing design is about finding the best combination of ecological and economic requirements, and through the improved or innovative design of products, optimising their environmental value as well as their commercial value in terms of cost, performance and technology, and minimising the negative impact on humans and the environment.

(1) Improved product design

Improved design refers to the further adaptation and improvement of existing products from the perspective of environmental protection, while maintaining the product itself and the production technology, so that the economic and environmental benefits of the product can be developed simultaneously. In the field of ecological clothing design, the fundamental purpose of improved product design is to 'prevent pollution and protect the environment'. For example, the improvement of existing technology, the design of textile recycling systems, etc., these are all improved designs for clothing products[6].

In addition, the addition of anti-pollution devices in the production process also falls under the category of improved product design.

(2) Innovative product design

Innovative product design refers to the innovative development or substitution of product components while keeping the product design concept intact. For example, in the choice of materials, the development and use of high-performance fibre materials, as far as possible to reduce the number and type of auxiliary materials and raw materials; in the production cycle, to minimise energy consumption and pollution during the production of products. The famous down jacket brand "Bosideng", for example, is a brand of down jacket products lining is a revolutionary design of environmentally friendly materials. This material is warm, windproof, moisture-repellent and easily degradable.

2.4. Simple, Natural Aesthetic Design Style

(3) Along with the accelerated progress of social material civilisation and the ever-increasing ideological and cultural level of modern people, society is paying more and more attention to the concepts of harmony between human beings and nature and putting people first. In order to strengthen the concern for the humanization of clothing design, more attention should be paid to the natural and healthy attributes of the design concept and design content. The naturalistic style of clothing design is also the trend of the times. It takes nature as inspiration and aims to show the simple, rustic style that clothing products bring to people as nature does.

This simple and natural style of clothing aesthetics design is manifested in many aspects, firstly, the appearance of clothing, in the pursuit of design aesthetics based on the return to the natural design style, no longer overemphasise the exaggerated modelling lights, the use of colour is also closer to nature, giving people a sense of freshness and brightness. Secondly, the theme of ecological concept in the field of clothing design shows that, in addition to the basic green design concept, it also reflects the aesthetic thought of nature and simplicity. Especially in the current environment where people are increasingly pursuing a simple life and green lifestyle, green clothing design should also strive to repeatedly return to the truth, turn complexity into simplicity, and move from complicated and extravagant to the idea of simplicity and nature[7]. The so-called "less is more" also reflects the concept of green clothing design, that is, to strengthen the emphasis on the functionality of clothing, while reducing the decorative nature of clothing, so that a piece of clothing can maximize the satisfaction of people's needs for comfort, ease and other functions. In addition, the functionality of the garment should be specifically enhanced so that it can be worn more than once. This simple, natural design aesthetic also reflects the concept of green ecology in terms of its functional purpose[8].

3. Summary

Overall, as people pay more attention to the ecological environment, future garment design must develop towards an ecological trend. While advocating healthy ecological fabrics, the simple and rustic aesthetic design style also caters to the green and practical design concept. Clothing design should emphasise the human-centred concept of green sustainability, and the application of naturalism in clothing design should be emphasized. Let natural and environmentally friendly fabrics and accessories be used to maximum benefit, and emphasise conservation and waste reuse to tap into the harmonious relationship between man and nature.

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