

Colours: Culture, Fashion and Sustainability

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Abstract

Colours in our daily life induce various impressions and emotions to our heart. The colour impressions and emotions affect our interests and actions. Speaking indirectly, colours are having various roles and effects. We would like to introduce our three keywords, i.e., culture, fashion, and sustainability, which are relating to the colour impressions and emotions. We would also like to introduce our researches briefly, which are relating to the sustainability.

1. Introduction

After the discovery of artificial colorant 'mauve' by Sir William Perkin, various artificial dyestuffs and pigments were developed. Using the colorants, our household goods and appliances used in everyday life have been becoming much more colourful. This may mean that we have made a virtual colourful world with using oil and coal.

By the colorant manufacture and by textile manufacture industrialized at the similar period, the ordinary people had been able to wear colourful clothes as a daily-use dress and also able to enjoy the fashion of clothes. This means

that the specific gravity has moved from the thing for clothes to protect our bodies to what emphasizes individuality gradually. And, now, it is one of the most important matters how we should change our sustainable society from oil based society.

In this paper, we roughly introduce Japanese fashion culture and its propagation and expansion to all over the world with a viewpoint of colour. In addition, we also introduce our research relating to the sustainability which is a keyword of present time and the near future.

2. Culture and fashion

Considering the history of the fibre materials, the turning point was when oil-base synthetic fibres of Nylon and Polyester had been developed. After the developments, improvement and functionalization of those fiber and their textiles have been performed, and various colouring methods have been developed. Recently, some natural-base synthetic fibres were developed. However, natural-base dyestuffs able to use in textile industry have not been developed.

In ancient Egypt, ancient China, and some other ancient countries, it has been performed that noble persons cover their body with various clothes and accessories. And in medieval Europe, aristocrats were clothed in gorgeous clothes on their bodies. And, by above-mentioned textile and colorant Industrial Revolution, ordinary people's yearning against the gorgeous clothes had been able to be realized. Through the history, we are making clothing culture and fashion culture.

Paying attention to present Japanese fashion culture, we can find that it has a few characteristics. One of them is that people of many countries are looking at the Japanese pop-culture, especially, animation and street fashion. In the case of Japanese street fashion, young people such as teenagers walking at the places shown in Table 1 are making the street fashion. Harajuku and Omotesando in Tokyo are symbolic places on Japanese street fashion.

Table 1 Places of typical Japanese street fashion.

City	Place
Tokyo	Daikanyama, Ginza, Harajuku, Omotesando, Shibuya
Osaka	America-mura, Umeda
Kobe	Sannomiya

Table 2 Categories of the Japanese street fashion [1]

Type A	Casual (casual): The design is simple and not tight-fit. It features ubiquitous and non-characteristic appearance.
Type B	Gyaru (sexy and slim-dilly): Hair is bright coloured and well cared. Skin is dark. Clothes are florid, exposed and body-tight.

- Type C Onei(girlish elegance): Hair is bright coloured and well cared. Clothes are extremely feminine and decorated with lace and ribbon. Skirt and dress are in variety. Pink and white are favorite colours.
- Type D Mode (elegant and modish): Clothes are designed in a similar concept of high fashion and collection. Main colour is black and white. The silhouette is unique.
- Type E Lolita(individualistic): Wearing multi-layer of different clothing styles is a main trend even in summer. Clothes are decorative. Shoes and accessories are elaborate as seen in Harajuku area. Urahara-kei and Gothic Lolita are also included in this type.
- Type F OL(young career women): The design is conservative, and resemble to the power fashion of career women
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The styles of the street fashion can be categorized to several types as shown Table 2. And each street fashion place has a feature. People dress similarly in each area and dress in the way that suitable for the area [1]. The features are not dependent only on forms, but also on colour.

The fashion saucers are many fashion magazines featuring a or a few categorized style(s), clothes sold at the shops of those areas, and fashion shows like Tokyo Girls Collection and the Kobe Girls Collection, which are different from the shows of high fashion. The two collections are joint fashion shows of many small young design brands, and the designs of clothes displayed at the collections are varied. Also, as the prices of the clothes are not so expensive, even teenagers can buy them. In addition, a

new business model, which people can buy their favorite clothes through internet communication of their mobile phones during the fashion shows.

Fashion trend is changing, and new clothing culture has been made globally. For example, Lady GaGa's experimental trial of the fashion attracts attention. In the Japanese clothing fashion, KyaryPamyuPamyu attracts attentions as one of Japanese pop-culture 'Japan Cool' relating to clothing fashion.

3. Fashionbusiness and supply chain

In the manufacturing industry relating to fiber, textile and clothing (textile industry), final products are made through many processes which several companies have. Therefore, it is important to manage the processes over the companies holistically. The holistic management is called as Supply Chain Management (SCM).

On the other hand, opposite flow against SCM is Demand Chain Management (DCM). The Demand Chain Management (DCM) is the management of upstream and downstream relationships between suppliers and customers to deliver the best value to the customer at the least cost to the demand chain as a whole [2]. This DCM is also important in the textile industry.

The present clothing business trend is Fast-Fashion. ZARA, H&M, GAP, and UNIQLO are famous as fast-fashion brands. Those brands build SCM and DCM well, and it is very popular on the form/colour designs and prices of their clothing products.

4. Sustainability

Considering our future daily life, sustainability is one of the most important keywords now. The present society is the industrialized society by oil. Unfortunately, oil is decreasing, and it will disappear in a hundred years. We have to discover new energy and material sources, and establish a new manufacturing system using the new materials, especially, natural base materials.

Consumers' consciousness has also been changing in such a situation. The keyword is the word 'sustainability', which is relating to environmental awareness and LOHAS (Lifestyle Of Health And Sustainability).

Japanese dairy goods brand MUJI, which is also providing textiles and clothes, is catching consumers' consciousness for environmental awareness very well. The colours of MUJI products are off-white, beige, and brown, and the forms of the products are simple, not decorative design. Moreover, some of the products included recycled materials. The colours and forms let consumers feel natural and stimulate their environmental awareness and LOHAS mind. By these, the company of Muji brand has good earnings.

Our research group has been investigating consumers' consciousness to recycled paper. As one of the results, we found that the consumers' consciousness to 'recycled' extends their colour tolerance [3,4]. We also expressed the colour tolerance numerically as shown in equation 1.

For the tolerance threshold of the "recycled office paper for use" as;

$$T = -(0.008\lambda t_{50} + 4)\Delta E + 0.01\lambda t_{50} + 125 \quad (1)$$

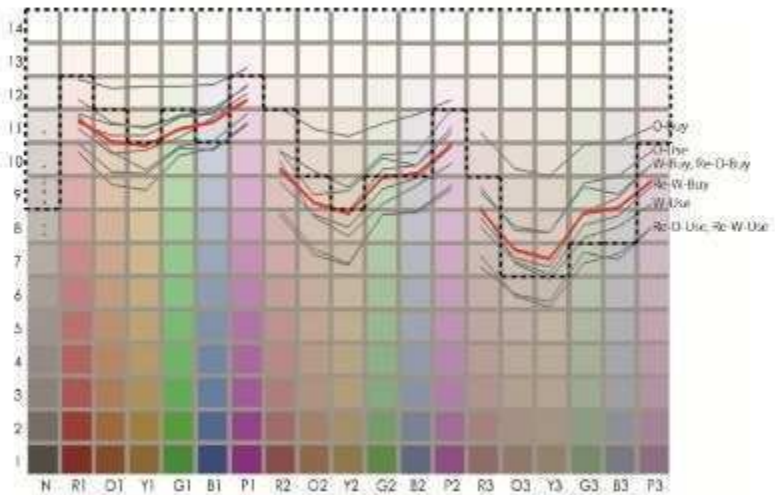


Figure 1 The grey lines denote the mean values of the lightness level across the nineteen hue categories for each instruction. The red line indicates the mean value for the lightness level across the nineteen hue categories with the eight instructions. [3]

5. Summary

Considering the life of our near future, there are various subjects, various viewpoints, and various keywords. In this paper, we very roughly described about culture, fashion, and sustainability, which is relating to colour and textile. And it is one of important reasonable things how our life is designed in a large meaning.

It will be very important how we consider about the globalization. The globalization means equalization and uniformity. The consciousness to things is becoming poor. On the other hand, culture and fashion are made in limited areas firstly. Localization may be also important.

Authors are pleased if readers have interests about clothes culture, street fashion, and sustainability, especially, Japan culture and fashion.

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