Simplicity Characteristics Analysis of 20th Century Women's Clothing using S-Polygon

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Introduction

From the beginning of the 20th century, simple design with reduced decoration has been an attractive and prevalent theme for designers of women's clothing. And until now consumers are steadily in favor of a reduced and simple design. Emotional simplicity is quite attractive in a modern life that changes every moment along due to rapid technological development. Previous studies on clothing simplicity have described the visual simplicity of clothing with the characteristics of individual design elements such as lines, colors and textiles. However, the observer perceives the visual object from an integrated perspective not only from a detailed point of view. Therefore, a holistic approach to visual characteristics of clothing appearance is required. S-Polygon (Park, 2018) is an analysis tool to explain the simplicity of a piece of clothing. It covers the detailed and analytical content of design elements such as placement, amount, and the method of design as well as overall characteristics such as form, surface and visual contrast. Therefore, analysis using the S-Polygon can help to observe and understand the simplicity of clothing from an integrated perspective (as a total visual object).

This study is a comprehensive analysis of how the visual characteristics of 20th century western women's clothing is expressed by the interaction of the simplicity factors that are components of S-Polygon. Through this approach, it is possible to understand the relationship between factors that constitute the visual simplicity of the clothing and to identify various characteristics of visual simplicity shown in clothing. This understanding and analysis will lead to a search for design methods that can add novelty to a sensibility of simplicity that can appeal to consumers in the 21st century.

Research Method

Clothing is analyzed using the S-Polygon developed in the study of Park (2018). A total of 400 fashion images to represent each decade of 20th century was chosen from 11 published materials related to the history and culture of clothes as well as Internet sites that included samsungdesign.net, firstview.com, and redlist.com. Three professional experts supervised the extracted clothing images; subsequently, we analyzed 85 images that were identified from 7 fashion books. The subjects of analysis were limited to the high fashion suits and the dress, and the images used in the analysis were those of the frontal gaze and the movement was minimized so that clothing was in full view.

Theoretical Background

The factors that constitute S-Polygon are Arrangement, Decoration, Overlap, Reduction, Tautness, and Visual Smoothness. 'Arrangement' refers to symmetry with an orderly arrangement of design elements and 'Overlap' is the repetition of shapes and lines created by ease, gathers, pleats and ruffles. 'Reduction' means that the form of the clothing can be rapidly

reduced to a geometric form, 'Tautness' relates to the tension of the clothing surface and 'Visual smoothness' relates to the visual contrast of the clothing and means that you can quickly observe the whole. Each factor is divided into 5 stages from 1 (the lowest stage) to 5 (the highest stage); in addition, the degree of stage is displayed at the corner of the hexagon where the six factors are located. Then shape of the polygon is expressed by connecting the six points (for more information on the S-Polygon, see Park, 2018). The degree of simplicity of the clothing can be identified through the width of the polygon; in addition, the shape of the polygon shows the visual expressive characteristics of the clothing by the comparison of degree and stage of each factor.

Results & Discussion

The results of this study can be summarized as follows. First, the 20th century was divided into three periods according to the degree of simplicity. The first period, from the 1900s to 1920s, was the beginning of the pursuit simplicity in clothing, when paring-down and decoration still coexisted even though clothing were simpler than before. The second period was from the 1930s to 1960s, when simplicity was maximized, and restraint and uniformity were prominent. In this period, the degree of simplicity in all factors is high, and the simplicity of the clothes is most prominent. The third period, from 1970s forward, show how simplicity began to be expressed in sophisticated and diverse ways. In this period, degree of simplicity varied according to the clothes because there were no common low or high factors, and all factors served as determinants for each outfit.

Second, as a result of analyzing and comparing the representative clothing of each decade of the 20th century with the S-Polygon, clothing can be classified into 9 groups according to the shape of the S-Polygon because it is decided depending on visual characteristics. For example, clothing with a high degree of simplicity and less visual stimulus is classified into a large hexagonal group. However, simple clothing with straight lines and pleats is classified into a slim hexagonal group. Clothing of the pentagon group is somewhat simple visually but just one of six simplicity factors is very low, revealing the characteristic of the clothing. And the irregularly shaped polygon group such as water drop group or diamond group appear in clothing which has more pronounced complexity than simplicity.

Third, visual characteristics resulting from each type vary in each of the nine groups of clothing, because the simplicity factors are used as different stages for each group. This shows the possibility that the characteristics of the clothing can change according to the combination of simplicity factors. So, it can be a kind of design method to add sophistication and novelty with simplicity to the clothing.

Conclusion

Analyzing the visual characteristics of western women's clothing in 20th century using the S-Polygon makes it possible to interpret changes in women's clothing in terms of simplicity. A comparison and analysis between multiple designers using the S-Polygon will make it possible to propose new ways to design.

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