천연 쪽 염색을 활용한 침구류 디자인 개발

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The Development of Bedclothes Design Through the Application of Natural Indigo Dyeing

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Abstract

This study aims to develop natural dyeing bedclothes by which textile designs were applied through natural dyeing and dyeing techniques. Concerning the study methods and contents: first, home textiles, bedclothes and industry trends were reviewed with consideration of related literature and previous research, and then bedclothes were developed through the application of natural indigo dyeing. As for design development, the concept and direction were set and then images relating to natural indigo were extracted. Next, textiles were designed using various dyeing techniques such as dip dyeing, paraffin dyeing, silk screen, tie dyeing and block dyeing were applied to developed textile designs on bedclothes items. Cotton or silk materials and indian natural indigo dye was used to produce the pattern samples with dyeing techniques and genuine samples. Adobe Photoshop CS 7.0, and Adobe Illustrator CS 4.0 programs were used for the standardization of motives, patterns, textile designs and 3D simulation. The results of this study are as follows.

First, there are many kinds of indigo dye, for example Polygonum Tinctorium, Indigofera Tinctoria, Isatis Tinctoria, Mercurialis Leiocarpa, etc. Among these, Polygonum Tinctorium is used mainly in Korea. The process of dyeing indigo in Korea, China, Japan varies. It can be classified into many ways. For instance how to use raw leaves, how to ferment the indigo plant, how to make dyestuff from the indigo plant by boiling. Zymotechnics is the most common among these ways and there is little difference in the processes of dyeing from country to country, although the basic principles are the same.

Second, bedclothes textile design has a tendency to have large motifs and uniform patterns compared to apparel textile design. With emphasis being placed on the role of homes as a fashion space which combines fashion and lifestyle, the development of sophisticated textile design such as motif, the design patterns and material expression technique in bedclothes to correspond with consumer’s purchasing power is becoming more important.

Third, as the bedclothes market continuously expands and competitions grow fiercer, more effort is being made into the application of natural, environment-friendly material and manufacturing methods of bedclothes. The application of such environment-friendly material is being actively made by natural dye brands, but most natural dyed bedclothes are limited to red clay or charcoal and dip dyeing.

Fourth, the designs of four sets of bedclothes were suggested, applying various dyeing techniques using natural indigo dyeing. Design 1 applied geometric patterns from motifs such as indigo leaves, the fermentation process of indigo, and bubbles in indigo dye created by paraffin dyeing and block dyeing. Design 2 mixed and matched textiles which modernly expressed indigo grass motifs and textiles that had a handcrafted feeling by tie dyeing. Design 3 used the Jogakbo technique to make a composition containing fabrics dip dyed in the various tones of indigo and fabrics of indigo leaves and flowers made by paraffin dyeing. Design 4 had simplified indigo leaves and indigo flower motifs, which produced a strong but sophisticated image.

Based on these results, it was possible to confirm the possibility of the development of textile designs using natural dyeing and other various dyeing techniques, as well as the development of high added-value natural dye textile product design.