

Conservation of the Historic Costumes Excavated from General Lee Eung-Hae's Tomb

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Introduction

The excavated costumes belong to General Lee Eung-Hae, who lived from 1547 to 1626, during the rule of King Injo of the Joseon Kingdom. They number 66 pieces in all. These costumes provide important clues to the costume styles of noblemen who were government officials, especially military functionaries, in the mid-Joseon Kingdom period in the 17th century. They are seen as having great cultural value.

In this study, the whole conservation process, including washing the excavated costumes, recovering the fabrics and colors, and repairing, exhibiting, and storing the costumes, was conducted, especially cleaning and repairing were brought into focus. Colors of the fabrics and treatment methods were analyzed.

Methodology

The soils of the excavated costumes were removed by washing them with water. They were slightly pressed and hand washed in water tubes, and the tensile force applied to them was minimized using nets. So that the costumes would not be deformed, they were spread out according to their sizes, and their soils were removed in running water. Stubborn soils were removed with the use of soft paintbrushes. The costumes were then rinsed several times until clean water came out of them, and were later spread out without being folded, laid on nets, and drip-dried in the shade naturally.

Colors of the excavated fabrics were measured by spectrophotometer (Macbeth Color-eye 3000) and L*, a*, b* values were determined through CIELAB color-order system. Raw silk fabrics were degummed and dyed to be similar to the excavated ones in texture and colors, which were used to repair damaged costumes.

Electric ironing, which applies heat and pressure to the material being pressed, was avoided to prevent the further weakening of the excavated costumes. Instead, the wrinkles on the excavated costumes that did not need to be repaired were removed manually that is,

the palms of the hand were used for pressing. Seams that have been detached were stitched in place using sewing thread. As for the costumes that needed to be repaired, the damaged parts were replaced with fabrics similar in color and texture to those of the excavated costumes. The new pieces of cloth were put in place, were attached with the use of pins or were tacked, and were then sewn onto the damaged costumes.

Results & Discussion

Conditions of the costumes as excavated revealed that they were wet, they smelled very bad, and the degree to which each of them has been soiled differed from those of the others. The fabrics were considerably weakened, but they were relatively in good shape, with only a few of them losing some of their parts.

The costumes appeared clean after they were washed. Furthermore, the costumes' foul odor was drastically reduced, presumably because the microorganisms that attached themselves to the fabrics were almost completely removed. Thus, it was found that washing with water is effective in removing soils.

The costumes had been discolored, and their colors were categorized into white, light brown, dark brown, and strong indigo. Natural dyes have poor colorfastness as a result of the exposure of the dyed fabric to soils, microorganisms and water encountered during burial. There was difficulty in recovering same-color fabrics. Moreover, the degree to which the costumes were weakened after they were given a preservation treatment was impossible to measure. Thus, there was difficulty in confirming or determining the most appropriate and optimal conservation methods.

Conclusion and Suggestions

From the results, washing is an optimal method for wet excavated costumes to clean. As colors on fabrics were discolored excessively under soil-burial, it is suggested to infer and restore the historic textiles with natural-dyed fabrics to original colors.

Further studies, with the cleaned and treated excavated costumes, on characteristics of shape and details of the costumes, traditional construction and sewing methods, analysis of fiber and fabric, and fabric patterns are suggested to obtain historic valuable data.

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