

A Study of Clothing Design in the Digital Age

(With Priority Given to the 3D Computer Graphics Program Maya)

Bae, Lee-Sa* · Lee, In-Seong**

*Master, Dept. of Clothing and Textiles, Ewha Womans University

**Professor, Dept. of Clothing and Textiles, Ewha Womans University

I. Introduction

The popularization of computer and the supply of WEB in the 21st century enabled all the world population to be chained in a language called the digital, and also the difference of country and language as well as time and space to be cleaned. Our life is changed adapting in the digital media environment. The virtual reality, which is already used by the third dimension computer graphics in several fields, is embodied. The fashion field is already receiving the effect of the digital by the introduction of clothes CAD, Moreover it, it is expected that the influence in the wider area is going forward.

This study shows that clothes to be just the same as the real thing can be produced through the third dimension computer graphics, and then presents that not only the area of fashion design can be expanded in the virtual reality field by doing the simulation of the fashion show, but also the information can be made the real time public ownership and the communication can be fulfilled smoothly.

II. Method and Procedure

In this study, analyzing the third dimension computer graphic programs to be used much at present, Alias Wavefront Company's Maya software which was the most effective in the clothes simulation and the clothes CAD SGS OptiTex 8.7 which went well substitutive for it were used of them. The human body modeling

was manufactured in considering the rate of chest, waist, and hip circumference in 1/25 of the actual size. In order to show the silhouette changes of clothes when the imagination model performed the actions, the imagination model's actions were controlled in making use of Optical Reflection Method of Motion Captures. And the finally rendering was fulfilled with the fashion show that vivified the lighting and the camera effect.

III. Conclusion

The conclusions of this study that got through the work manufacture are as follows:

The first, there is the interface of wearing the clothes in virtual fitting room of many fashion company as Benetton, Landsend. But moving model is required for presentation of exact silhouette. The second, Maya Cloth was applied to be possible to get the natural silhouette of clothes using Maya Cloth module. The third, when the clothes were manufactured by 3D, if the draping character was applied according to the textile special quality, not only the control of textile's thickness, weight, quality feeling, and silhouette was available, but also the clothes were available to graft the special textile materials. The fourth, the natural motion of model was produced by capturing the actual model's walking action in order to produce the fashion show motion and also the dynamic fashion show was available by the angle of camera, the establishment of lighting, and etc. in the final rendering.