

## Floral Illusions

Youngji Lee, Chanmi G. Hwang, and Fatma Baytar  
Iowa State University, USA

Keywords: Older women, digital technologies, slimming effects, engineered prints

Digital technologies such as CAD patternmaking and digital printing allow apparel designers to develop new and creative designs (Parsons & Campbell, 2004). The purpose of our design was to create a dress for an older woman by using digital technologies in the apparel industry. To develop the patterns and apply surface designs, we used OptiTex PDS 12 2D/3D, Adobe Illustrator CS6, and Adobe Photoshop CS6 software. Based on the assessment of older women's clothing preferences, our sleeveless A-line dress design incorporated a combination of opposites: Slimming effects of diagonal lines and layered floral designs with blurred edges that created a painterly effect. Inspiration for using floral motifs was drawn from StyleSight's one of the Summer 2015 trends for womenswear, *Floral Showers*.



Figure 1. Front View

Dress patterns were extracted by utilizing Optitex PDS 12 Flattening module from a size 6 avatar, which was developed from the ASTM D5586/D5586M standard for women aged 55 and older. For the surface design, diagonal lines were created in Adobe Illustrator and placed on both sides of the waist area in a way to emphasize a slimmer look. Next, floral motifs with shades of purples that added a romantic charm were overlapped under the stripes. The dress pattern pieces were arranged to fit the layout of the motifs in Adobe Photoshop. The motifs on the front of the dress were strategically positioned for generating an optical illusion of an hourglass-shaped negative space. The surface design continued throughout the back as an all-over print and the floral motifs were placed vertically. Further, shadows were formed around the sides of the dress to accentuate the leaner look. Thus, we were able to achieve an effect that allowed us to integrate older women's preferences for flattering and fashionable styles with an upcoming surface design trend which is not too overwhelming.

The 2D patterns with finalized prints were virtually worn by a size 6 avatar of an average older woman to check the overall fit and the drape of the dress. Then, the dress patterns with engineered prints were printed onto a 100 % light weight cotton broadcloth by using a Mimaki TX2-1600 digital fabric printer. The printed fabrics were steamed and the patterns were cut and sewn to have the final product. The seams for the neckline and armholes were finished with quarter inch bindings with an invisible zipper on the center back.

In summary, during the whole design process we used digital technologies for developing surface designs, creating a dress for older women, and viewing the virtual prototype to ensure fit before executing printing, cutting, and sewing. With the help of the software we used, we were able to incorporate slimming effects of lines, motifs and shadowing around side backs. Colors and placement of the motifs and shadows allowed us to generate an optical illusion of an hourglass-shaped negative space and to accentuate the leaner look. We also developed dress patterns from a size 6 avatar of an average older woman and checked the overall fit of the dress virtually by draping the 2D patterns with prints on the avatar. Thus, we can conclude that fashion designers could use technologies including CAD patternmaking, virtual prototyping and digital textile printing to save time and resources, and to increase their creative potentials to meet demands from niche markets.



Figure 2. Side Details

## References

- Persons, J. L., & Campbell, J. R. (2004). Digital apparel design process: Placing a new technology into a framework for the creative design process. *Clothing and Textiles Research Journal*, 22(1/2), 88-98.
- Stylesight. (2014). *Prints & graphics: Memory*. Retrieved from [http://www.stylesight.com/fashionoffice/landing\\_pages/node.php?node=10274&gender=w](http://www.stylesight.com/fashionoffice/landing_pages/node.php?node=10274&gender=w)