Striated

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Sustainable approaches in apparel patternmaking have been applied and explored among various apparel designers. The concept of minimal waste design can be traced through historical dresses and is increasingly popular in modern clothing design. Designers such as Holly McQuillan embrace the zero-waste principles using unconventional patternmaking methods, which reincorporate all cut-out pattern pieces into the garment design and result in reduced pattern cutting sections and fabric in draped garments (Brown, 2010). Other designers, such as Mark Liu, utilize the intricate hand-cut edge of pattern pieces as design features on the outside of the garment to develop feather-like layered textural effect for fitted woven garments (Brown, 2010). With the application of digital print design, Liu takes the textile print to the next level by hand-cutting outlines of selective textile imagery to form 3-dimentional effects on garment surface. However, the use of minimal waste design concepts incorporating digital print technology with engineered print is still limited in draped silhouettes using knit fabric.

Overall, this design explored ways to apply minimal waste design in patternmaking for a draped silhouette using soy knit. The aim was also to engineer a unique textile design into the garment with digital print technology. The imagery used in the garment was developed from images of the unique striated textural layers of cow omasum (tripe), a traditional and typical food ingredient in Chinese cuisine.

This asymmetrical ensemble consisted of a draped layer stitched with two pattern pieces and a fitted under-layer with a bandeau and skirt. Fabric from the front was draped, folded and inserted through an opening at the left hip and formed around to the back to enclose with a tie at the right shoulder and loop-button at the right hip. The under-layer was intended to balance the proportion of the ensemble through contrasting colors and uneven hemline.

In designing, the process of digital imaging and garment silhouette development occurred simultaneously, to reflect and make appropriate adjustment in various areas of the ensemble. For digital imaging, the cow tripe imagery was photographed and rendered to alter saturation, balance, and contrast with added color using computer-aided software. In the garment silhouette development, draping methods were applied to envision a rough form of the garment that use folds and natural drape of the soy knit to reflect the linear marking of the textile imagery. The image was then reflected and modified in scale to fit the proportion of the garment.

During later phases of digital imaging, the cow tripe print and its color values were engineered into various drapes of the garment and helped finalizing the garment pattern and accentuate the garment folds and silhouette. The outcome resulted in organic curves that mimic the striation in the print and take advantage of the natural softness in soy knit. To help maintain the flow of the garment style line and create visual interest, a seam from the top draped layer was strategically hidden inside the front folded section. Together, the striation from the engineered 2D pattern and the draped 3D style lines visually illustrated a unique diagonal path and uneven volume from various angles of the garment.

For visual interest, this draped garment also is versatile in its multiple shapes, captured from different angles. The left side view accentuates the hip with added folds, whereas the right side showcases the waist and allows the garment to create movement that is complimentary to and exaggerates the natural movement of the body curves.

This design research suggested that applying engineered patterns for draped silhouettes requires more visualization ability in the process of digital imaging comparing to structured garment forms and an understanding of the human body. Future research may continue to explore ways of incorporating engineered prints effectively in the process of applying minimal waste patternmaking methods in draped garment design.

Reference

Brown, S. (2010). *Eco fashion*. London: Laurence King Publishing Ltd.