Digital Dilemma

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Digital tools make it easier to create an engineered or placement print that feature continuous designs strategically placed to flow over seams and fit the garment exactly (Bowles & Isaac, 2012). However, not all designers have the most up to date digital textile printers, resources, or patternmaking software; some do not have printers, resources, or software of any kind therefore more independent designers are using services that provide use of the technology (Kight, 2011).

The purpose of Digital Dilemma was to create a woman's ensemble designed to (a) explore alternative methods to access the technology of engineered digital textile design and (b) create complex engineered digital textile designs through varied processes to work with the sculptural seamlines and silhouette of the ensemble. Although the finished ensemble is presented as full scale garments, the entire design process of flat patterning, mocking up the muslin, digitizing the pattern pieces, and engineering the textile print were created completely in half scale. New possibilities of how traditional half scale use can be reinterpreted to suit the needs of the digital user are of interest, especially to those involved in online design studios.

Without access to CAD programs, such as Optitex, Lectra, and Gerber, careful attention was paid to the practicality of the 11" x 17" scanning size therefore the three garments were designed with strategic seaming inspired by creative patterning techniques (Nakamichi, 2011) to reduce pattern piece size. The skirt front, side front, and side back started as one pattern with darts at the side front and side seams. The dart were manipulated (Armstrong,) by intersecting curved seams that travel around the body. The upper skirt is comprised of 16 separate pattern pieces that require a specific sewing sequence of sections to enhance the overlapped effect. The lower skirt was divided and slashed and spread to create three

flounces that feature contoured hemlines to follow the shapes of the images. The bustle also features the same hem treatment but provides a much bigger a field for textile design. The repeated images are enlarged and arranged to create a "bustle of bustles".

The left sides of the half scale jacket pattern pieces were collaged by hand with magazine images. The images travel flawlessly over the seams the same way digital images are manipulated (Parsons & Campbell, 2004). The collaged pattern pieces were then scanned into Photoshop and placed on the fabric marker in Illustrator. The right side of the garment was simply created by reflecting the left side images creating a perfect mirror image on the design.

The skirt and shirt pattern pieces were treated differently than the jacket. The half scale pattern pieces were scanned and imported into the computer program Adobe Illustrator. They were placed as a layer and digitally traced with the pen tool. The digital prints were created from a collection of manipulated photos, scans, and digitally created repeats. Each pattern pieces was a combination of clipping masks, layers, effects, and images. The digital files were sent online to a digital textile design and printing facility. The fabric was printed full scale using a Mimaki TX2 – 1600 wide format printer and processed in a bullet steamer, mailed back to the designer, treated, cut, and constructed.

The significance of this design comes from the practical application of the digital textile design techniques and low-tech digitizing of half scale patterns without industry patternmaking software in order to facilitate online designer capabilities.

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