

Delicate Target: A Multi-Dimensional Representation of Woman using RIP Digital Printing Software to Enlarging  
Half-scale to Full-scale

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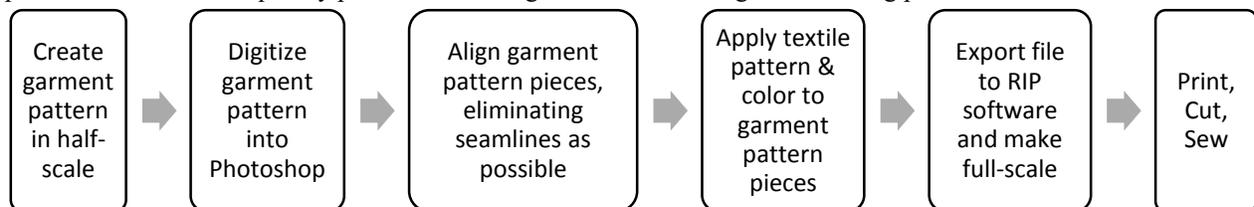
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Measurements: Bust: 34½ Waist: 25½ Hip: 35½

**Background.** The **halfscale** Forum (Halfscale, nd) was a multi-week online program in summer 2015. Participants explored the apparel design process in half-scale. Participants were loaned half-scale forms and provided with half-scale sloper patterns. Participants engaged in online design discussions, designed to a brief, and provided feedback for each other's designs. The use of half-scale forms in the apparel design process is not new, with at least 50 design scholarship publications mentioning it. The benefits and challenges of working in half-scale from both a design and technical standpoint have not been a scholarship focus. **Halfscale** Forum participants collaborated to present their work at a Symposium in April 2016. While the presentation focus was how working in half-scale made it easier to look at the body and patternmaking from an entirely new angle, some concerns were raised. Uncertainty about methods to scale up pattern pieces, as well as how the fabric hand and print selected for half-scale would translate to full-scale were discussed (Schofield, Ruppert-Stroescu, Salusso, Stannard, et. al, 2016).

**Inspiration.** The author previously investigated the use of flowers in advertisements targeting women. This connection between women and flowers implies that the ideal woman is delicate and beautiful like a flower. The exploration outcome was a gown that made the wearer look like a rose (McKinney, 2006). The current design's purpose was to create a multi-faceted representation of the female target market. The visually strong black and white *target* side exterior was juxtaposed with a delicate floral side collaged from apparel, makeup, perfume, and jewelry advertisements. The wearer's self-representation may be controlled by how the reversible vest is worn. Whether she chooses to show her strong side or her delicate side, the other side will always be peeking out from the inside.

**Garment Pattern Development.** The designer of this piece participated in the **halfscale** Forum, attended the presentation, and subsequently produced the design in full-scale using the following process:



The **halfscale** Forum brief was to design by looking at the body from a different point of view. To create the vest, the designer elected to center the design on the left back shoulder blade. The first patternmaking step was to cut the right front and back bodice slopers on folded paper to create an entire bodice, allowing for the development of an asymmetrical design. The next step was to join the existing seams (bodice shoulder and side) and “flatten” the joined pieces so the designer could draw different seamlines, while maintaining neck and armhole placement to create a wearable garment. Fullness from all bodice darts (back shoulder and front bust) was transferred to the waist. The front and back were slashed from the waist up to the neck in several places and spread enough to allow the front and back shoulders to be connected, while remaining flat on the table. Next, the pieces were slashed from the waist to the armholes and spread to allow the side seams to be connected, while remaining flat on the table. The next step was to draw the new garment pattern seams. To start, the designer drew a rounded square shape over the left shoulder blade. Concentric shapes were drawn around it until they touched the waist in the back. A grain line was drawn

through all pattern pieces through the center front and center back. An additional line was drawn perpendicular to the grainline through the neck opening. Notches were drawn where seamlines intersected these lines, using single, double, triple, and quadruple notches to distinguish the locations and aid in sewing. The garment pattern pieces were cut out. The subsequent step was partially closing the darts and spread slashes in the pattern pieces along the hemline. The areas were not completely closed, as the designer desired to maintain volume in the silhouette because of the inspiration source. The visual goal was that of a target that had landed on the shoulder and was melting over the body. The designer did not anticipate the difficulty of this step. Many of the style lines were far from matching when the darts or spread areas were closed or partially closed. Closing these areas created some jagged lines in the neckline and armholes. Extensive truing and blending was required to create smooth edges to the pattern pieces. The half-scale process made creating an innovative design easier due to cutting and taping smaller pieces of paper. The pattern pieces were cut and sewn in muslin, then in fashion fabric. Alternating black and white was selected to highlight the innovative seamlines and support the *target* concept. Sewing the differing curved shapes together was challenging.

Digital Textile Printing. Because a custom designed floral print fabric was needed, digital textile printing was incorporated. The half-scale patterns were digitized and brought into Adobe Photoshop. Black and white color was applied to the pattern pieces in the shape of a target. The designer aligned the pattern notches to check digitizing accuracy and seam walking. In doing so, it was discovered that if the line angles of one of the pattern pieces was changed, therefore the individual pattern pieces could be nested and joined into one large pattern piece. This discovery, caused by incorporating digital textile printing, resulted in fewer difficult-to-sew curved seams lines and less fabric waste. This, in turn, made the design more suitable for mass-production. The resulting pattern piece was mirrored to create the inside pattern and the collaged advertising images were applied to it. The half-scale pattern pieces were arranged in a file that was half the width of the 100% cotton percale they would be printed.

Outcomes. Parsons and Campbell (2004) documented that the problem of large digital printing files can be solved by reducing the image size by half in Photoshop, saving as a jpg, and then importing it into raster image processor (RIP) software where it can be scaled up and printed full-scale. This process was used for the current design; however, because the patterns were half-scale, the image size reduction step was eliminated. Because the patterns were moved from half-scale to full-scale in the RIP software, it was not necessary to have a patternmaking software perform this function. Another interesting outcome of this method is the potential for creating multiple sizes from a single digital printing file by varying the % increase or decrease of the file prior to printing. Future research will be conducted on this possibility. Printed garment pieces were cut and sewn by machine and hand. The garment shell was interfaced to give the desired volume. Shoulder pads were applied between the shell and lining to contribute to a visually strong silhouette. A knee-length dress with a minimal design that would enhance and keep the focus on the vest was flat-patterned, cut from black 95% cotton 5% spandex jersey, and machine sewn. Neck, armhole, and back openings were designed to coordinate with both sides of the vest.

Halfscale (N.D.) Cornell University College of Human Ecology. [www.human.cornell.edu/fsad/halfscale.cfm](http://www.human.cornell.edu/fsad/halfscale.cfm)

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