"Send Me All the Flowers"

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A reflective, responsive making process is established as an important method to finding solutions to design challenges. This approach to the design process produces scholarship that is part creative practice, part research through practice. (Bye 2010) In this design research, reflection and response to waste and fabric layout challenges posed by a larger body of work were addressed by designing a garment that would incorporate a solution. The industry currently averages leaving 15% of fabric as waste after cutting, with even greater inefficiency when layouts require specific piece placement to match stripes or prints. (McQuillan 2011) This design incorporates digital textile printing, repeated motifs, and laser-cutting to utilize smaller, wasted areas left on printed yardage designed for other garments. Digital printing has been established as a technology that uses fewer resources than traditional screen printing. (Bowles and Isaac, 2012) Additionally, it also uses accessible technology in the design development process, and design alterations can be made easily on-screen. These qualities of digital printing were explored from several different perspectives in a multi-garment body of work, but while multiple patterns and designs could be efficiently printed on the same yardage, wasted space remained. Designing a flexible, innovative use for these areas became the goal for this ensemble.

Upon identifying the waste problem in this work, design ideation and research led to a component solution. To use these areas, the repeat pattern being used in the larger body of work was de-constructed into the base flower motifs. Four of these motifs were selected and "pulled" from the repeat to print individually and were used to fill the wasted space on the layout for the previous garments, resulting in multiples of flowers that could be used to create layers of texture, embellishment, or accessories. Instead of hand-cutting each individual flower motif, the laser-cutter was used to cut each one. Paper was cut into rectangles the size of the laser-cutter bed, the pieces of motif-printed fabric affixed, and an Adobe illustrator laser-cut file developed from a traced photograph. (Figure 1, 2, 3)

Figure 1

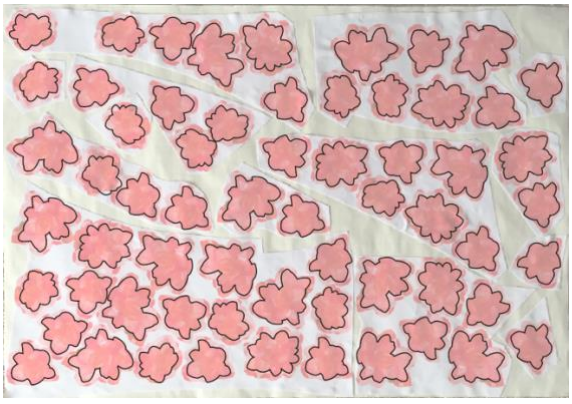

Figure 2

The cut-out motifs were sewn in layers onto a base fabric creating a new textural fabric. A boxy cropped jacket was designed to highlight the new textile's texture and carry the flowers. Each jacket piece was cut and applied with the flower motifs separately, then joined. A wide-legged jumpsuit was designed to accompany the jacket to balance the full volume. The result is a playful yet sophisticated look that would not have been imagined if the need to use the waste fabric had not been considered important, or if the garment pattern pieces had nested more tightly.

The merging of digital textile printing with sustainable practices are contemporary thematic areas that demand attention. (Hwang, Shaheen, and Chawla, 2018). This work addresses that and is rooted in the hands-on approach to problem-solving described by Bye. The work could be expanded upon for wider application; for larger-scale production runs, the waste could be repeat-printed areas cut in the motif shapes cut without careful matching, creating multiples of flower shapes randomly filled with the repeat print. The effect would remain similar and aesthetic appeal would be minimally sacrificed. The use of digital printing and widely accessible tools makes this approach to using wasted areas of a nested layout viable for a variety of applications.

References

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