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Sustainable Bridal & Beyond – Using Design to Extend Garment Life & Eliminate Waste

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Fast fashion has become the norm for most trend-focused consumers in North America, Western Europe and beyond. The rate at which these garments are disposed – after only ten uses (Ghemawat & Nueno 13; Morgan & Birtwistle, 191) – is information that is not readily shared with the public. According to the International Fair Claims Guide for Consumer Textiles Products, the average life span of daywear garments (not including underwear, accessories, or outerwear) is 2.93 years (“International Fair Claims” 24). While a bridal gown is not typically considered fast fashion, it is arguably the ultimate disposable garment on the market; a gown has “substantially fulfilled its intended purpose after the wedding,” that is, after only *one* use (“International Fair Claims” 24).

This research explores non-traditional design techniques as a method to extend garment use and eliminate waste. It expands on original research focused on mitigating the environmental impact of single-use bridal gowns. The paper seeks to demonstrate that the innovative techniques employed for sustainable bridal design can be transferable to the design of other types of garments.

Using non-traditional design approaches, including modular design, wherein the garment or ensemble is designed to be restyled or modified for additional “looks” to extend use, and Zero Waste

Pattern Cutting, wherein every scrap of fabric from a designated yardage is used in the construction of a garment, the sustainable bridal design research sought to develop design philosophies that would increase sustainability (extending garment use and minimizing waste) from the initial design stages of product development. These non-traditional approaches typically produce garments with unique or avant-garde aesthetic properties. This added a central challenge to the project, as it was of the utmost importance to adhere to an iconic bridal silhouette in order to satisfy consumer preferences and expectations of what a wedding gown “should” look like. Popular bridal silhouettes include fitted waists, full skirts, and open necklines. As the desired silhouette became increasingly fitted to the body, the challenge to eliminate waste and increase re-styleability became exponentially more difficult to achieve.

The application of Split Cloth Technique (SCT) (Wang & Montgomery, 2013) enables the creation of form-fitting silhouettes and garment components. By splitting the cloth in sections (without cutting through the yardage and separating into individual pieces), these openings become armholes, neck openings, and side seams, allowing adapted draping techniques and enabling full yardage use with body-contoured results. Experimenting with SCT under the influence of pre-determined design goals (i.e fitted waist and bust) fostered creative design results despite significant limitations. It also proved successful in achieving the “iconic” bridal silhouette of fitted waist, open neckline, and full skirt. Through prototype development, modular elements were incorporated, producing a garment design that was fully transformable (resulting in a full length bridal gown that transformed into a short cocktail dress with modifiable neckline, a floor length skirt, a knee length wrap skirt, and a reversible vest), and produced zero fabric waste in the process.



Based on the success of this study it can be inferred that if a bridal gown – with all its style restrictions – can be designed in a sustainable manner, this philosophy can be applied to designing garments for almost any occasion. Many prototypes developed in the process of this study met the modular and zero waste requirements of the design challenge, but did not quite adhere to the iconic bridal aesthetic. While these were not selected for further development for a bridal prototype, they are suitable for other wear considerations, including daywear. The zero waste, modular construction and multiple re-styling options developed through this research can be transferable for contemporary ready to wear design.

Future developments of the study may include taking designs to mass production: adapting patterns for multiple sizes, working with textile mills to acquire different fabric widths in the same fibre content, and designing to create a cohesive collection using often unpredictable methods.

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