

Zero-Waste Barrister Cocoon Coat

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Contextual Review and Concept:

Sustainable practice is an increasing concern in the fashion industry that produces roughly 60 billion square meters of fabric waste per annum (O'Connor, 2018 as seen in Carrico et al., 2022). Zero-Waste (ZW) design is a progressively popular method in which pattern cutting is considered during the fashion design process to entirely eliminate the approximately typical 15% fabric waste (Rissanen & McQuillan, 2016). Previous designers have successfully used the ZW method in their designs, such as gradable designs in ZW (Stannard, 2021; Carrico, 2020) and spiral pattern methods and ZW (Moretz, 2020). Additionally, academic inquiries such as aesthetic preferences and purchase intention have also been investigated in regard to zero waste (Michaelson & Chattarman, 2017).

Building on the momentum of design scholarship in ZW methods, the purpose of this design was to create a ZW design inspired by a blending of the volume of 1930s cocoon coats and the visual aesthetic of British barrister robes. This design contributes to the designer's body of work that investigates innovative draping and patternmaking techniques to create contemporary garments with historical inspiration (Bernardoni, 2021; Bernardoni & Ruppert-Stroescu, 2020)

Aesthetic Properties and Visual Impact:

The prevailing formal aesthetic properties used in this design are shape, line, and color. Color and line are important factors as they are "the predominant aesthetic components of dress perceived by consumers" (Sproles, 1981, p. 123). The black color was chosen to evoke the British barrister robe. Although the pattern is rectangular (see figure 1) the overall formal aesthetic property of shape is round and circular. The front bands are twisted at the hemline and sewn to the back panel to give continuity of line and a mobius effect evoking circularity and movement. The fluidity of motion is accentuated by the formal aesthetic quality of line in the front folds and bands expressed most notably using "shadow structuring," where a shadow provides a different light value on homogenous surfaces (DeLong, 1987, p. 64). Therefore, the overall visual impact of this design is created using color, shape, and shadow-structured lines to achieve the barrister and historic cocoon inspired contemporary coat.

Process, Technique, and Execution:

The design processes began in the ideation phase, where the 1930s cocoon coat concept and the barrister inspiration could be combined to create a contemporary ZW design using a deadstock remnant of black wool pongée fabric. The draping process began in half-scale with a muslin rectangle cut to recreate in half-scale the 58" X 84" remnant. The rectangle was folded in half, the one half for the front and the other for the back. A 8" rectangle was cut from the center of the front portion to create the back yoke, the pocket bags and the sleeves (see figure 1). The remaining fold line was cut until the shoulder width measurement was reached. The fronts were hemmed and folded back to create the front panels and finished along the top edge. The cut fold line for the back was gathered and enclosed into the back yoke. The cocoon effect was achieved by cutting mirrored "L" shapes at the bottom back hemline (see figure 1) which were then stitched together at the bottom back hemline. The interior portion of the of the back hemline was gathered and enclosed into the previously stitched "L" pieces. The front hem was turned in the mobius configuration and stitched into the side seam allowances along with the pocket bags. The rectangular sleeve panels were gathered along the top to form the barrister inspired sleeve cap and stitched to the side seam. The process was repeated in full scale and two 7" x 9" rectangles were knitted in 1 x 1 ribbing on a Brother KH-970 knitting machine with a KR-850E Ribber attachment and surged to the sleeves to create sleeve cuffs.

Cohesion:

The current design achieved its intent of furthering creative scholarship in ZW, while creating a ZW design using conceptual inspirational elements from the historical 1930s cocoon coat silhouette and aesthetic qualities of British barrister robes. The resulting design was simple to cut and to construct departing from difficult assembly operations which is often synonymous with ZW designs.

Design Contribution and Innovation:

The current design advances knowledge in ZW design and pattern principles and offers an example of the use of combined and varied design inspirations that can be applied to ZW methods while maintaining simplicity of garment construction often inherent with ZW patterns (Rissanen & McQuillan, 2016).

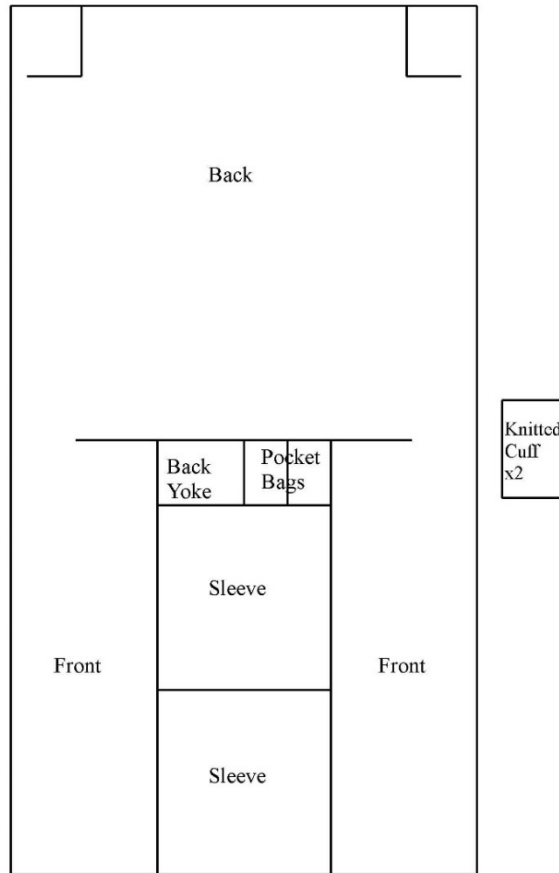


Figure 1. *ZW Barrister Cocoon Coat Pattern Layout*

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