

Spiraling into Design Inspiration

Colleen Moretz, West Virginia University, USA

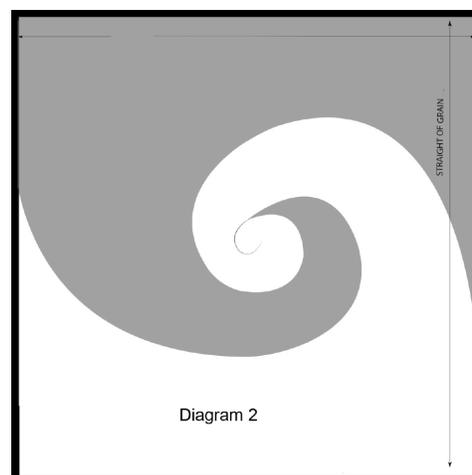
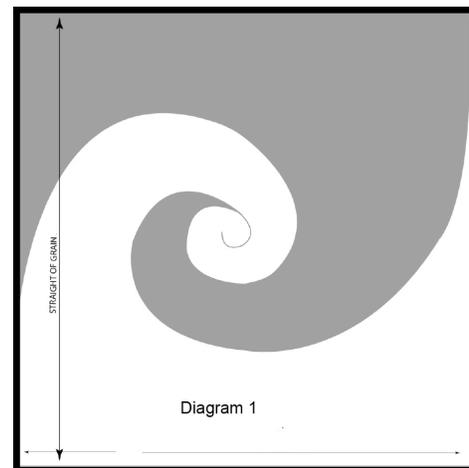
Sustainability, Spiral, Zero Waste

Contextual Review and Concept: The fashion industry is in the current state of over production and over consumption of fashion that has resulted in a proportionate increased use of resources, particularly textiles (Niinimäki, 2013). Traditional garment production methods of cutting fabric pieces from patterns and constructing them into a garment yield approximately a 15% fabric waste. Zero waste fashion design treats textiles with integrity by producing garments with little or no fabric waste (Gwilt & Rissanen, 2011). The pattern making stage needs to be an integral part of the design process, rather than a stage that follows it (Rissanen, 2005).

This design, *Spiraling into Design Inspiration*, is an outcome of a continued investigation of the use of the zero waste pattern in Diagram 1 & 2. This pattern indirectly resulted from the investigation of *Sanah Sharma's Planar Flux Hybrid Clothing Technique*. Patterns that are developed from a spiral reduce the amount of fabric needed to develop a garment, (Shama 2015). Looking for an innovative technique that would provide a sustainable solution to address pre-consumer textile waste, a double spiral pattern was developed that resembles a yin-yang (a linked double spiral) cut apart, but leaving the square edges intact to the bottom areas of each spiral (See Diagram 1 & 2). This pattern was used in several previous designs and the only vision for this design was to use the same basic pattern to create a jacket with voluminous sleeves accompanied with a skirt. There was no other preconceived concept for the design outcome prior to the draping of the separated spirals onto the half-scale form.

Aesthetic Properties and Visual Impact: To emphasis the spiral that angulates around the sleeves, the fringed edge of the selvage is sewn into the seams of each sleeve. The fringe selvage is also used around the collar. The right side of the jacket was created by utilizing the pattern in *Diagram 1* and the left side was created using the pattern from *Diagram 2*. These two patterns are mirror images of each other.

Cohesion: *Spiraling into Design Inspiration* successfully meets the needs of the environment, the industry, and the individual by creating a flexible, creative design that speaks to the form and function of the body in a responsible way.



Process, Technique, and Execution: Due to Covid 19 ordering fabrics and receiving delivery quickly was not available. Fabrics were purchased at a local interior fabric outlet store. An upholstery weight fabric (54" goods) was selected first with the preconceived idea to design a jacket with large spiral sleeves and a drapery weight silk (48" goods) was selected for the skirt. The spiral pattern (*Diagram 1 & 2*) has stayed consistent by adjusting the original pattern to the width of the fabric. A half scale version of the pattern was used to drape on a half scale form. Since the final outcome of the garment was not predetermined, preliminary design decisions were made as the fabric was being draped and wound around the form. The commitment was made to cut the full-scale pattern out in the final fabric due the weight of the fabric and draped directly onto the full-scale dress form using the half-scale drape as a guide. Changes were finalized to adjust for the drape of the fabric on the form. The traditional rule of the grainline running parallel to the center front and center back is not followed in this design. The garment was constructed using couture sewing methods. The skirt was made of numerous French seams.

Design Contribution and Innovation: The outcome of the *Spiraling into Design Inspiration* garment was unexpected, creative, and liberating. The designer had to deviate from her traditional design methods to develop this zero-waste garment by bringing the pattern into the design process. Further experimentation using the spiral to inspire and create zero-waste garments will continue. The outcome of zero waste design practices and research is usually accidental and intuitive (Gwilt & Rissanen, 2011).

References

Gwilt, A. & Rissanen, T. (2011). *Shaping Sustainable Fashion: Changing the Way We Make and Use clothing*. New York, NY: Earthscan.

Niinimäki, K. (2013). *Sustainable Fashion: New Approaches*. Helsinki, Finland: Aalto University publication series.

Rissanen, T. (2005). From 15% to 0: Investigating the creation of fashion without the creation of fabric waste. <http://www.scribd.com/doc/51833062/Timo-Rissanen>.

Shama, S. (2015). *Planar Flux, A Hybrid Clothing Technique*. Retrieved August 20, 2017, from <http://planarflux.wixsite.com/design>

