

Changing Perspectives
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Ready-to-wear, Sustainability, New technologies, textile innovation

The title of this piece relates to the new perspectives knitwear brings to the design process when the designer has large background in cut-and-sew woven and is looking to explore in the world of knit technology. Often the work I do in my creative scholarship is very focused on the one-of-a-kind approach. In this piece, the focus was on making a sustainably produced garment for the ready-to-wear market that uses the technology available to create a reproducible garment. It may be pushing it to call this textile innovation, but it is important to see that the development of design needs to happen with the knowledge of the technology used to make it. It is my motto that new discoveries happen through experimentation and this dress was definitely created in a place of experimentation.

Focusing on this design, I realized that to me the process and the understanding of the technique was the natural continuation of my work. I have worked in knitwear for a very long time in the classroom. However; in my creative work, I have not felt that I could reach a high enough level to call it scholarship. In this piece, my goal was to challenge the technical boundaries of ready-to-wear production.

Design purpose: this design started from the idea of creating a garment with very limited seaming that still had a silhouette with a lot of shape and limited amount of waste. What made this possible was a Stoll ADF-3 7.2 gauge knitting machine. Although this dress was knitted on a machine and only took 2 hours to knit, the total development time behind the dress was elaborate. The challenges I have had to overcome in the design process are many and the things I have learned through the process I have already shared in the classroom. In order to knit on the industrial knitting machine the design has to be programmed using Stoll's M1+ software. In knitwear, the programmer is the patternmaker and to be able to understand the construction of knitwear in the pursuit of sustainable practice I believe we need to have a greater understanding of programming, just as a zero-waste designer needs to understand patternmaking. It takes experience and dedication to one technical challenge for a long time in order to push the field forward. This is evidenced through Holly McQuillan's work in zero-waste (Rissanen, McQuillan, 2016). Her approach to the technique is inspiring and it is great to see someone dedicated to a technique in the way she is. It is my hope to continue in a similar path as it relates to programming sustainable knitwear.

When discussing knitwear and innovation the first thing that comes to mind is seamless knitting. In this design, I kept that concept in mind but used a technique that is not typically referred to as seamless knitting. In order to knit this net back jacquard in a very shaped garment I decided to knit the dress sideways with only one seam at center back. Just this simple turn of the pattern opens up opportunities on the machine for shaping that I would not have otherwise. This turn also forces me to change perspectives on the pattern. This kind of change in perspective is a very healthy challenge. It gives the patternmaker, programmer, designer, the opportunity to re-evaluate what you are looking at. There are a couple of very successful researchers in patternmaking who discuss this approach and the value of not being locked in our traditional approaches to front and back, side seams and shoulder seams. In Rickard Lindqvist's dissertation we can see how the most basic starting point of hanging the fabric from the shoulder without the shoulder seam creates the start for a new perspective on the foundations of patternmaking (

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(Lindqvist, 2016). Similarly, Julian Roberts challenges us to think differently about the negative spaces through subtraction cutting (Rissanen, McQuillan, 2016). Although this design does not use cutting at all having practiced these approaches to patternmaking impacts my ability to think creatively when looking at a pattern shape. In knitting this dress, I looked at the body as a cylinder rather than a front and back, considering where I wanted fullness and where to slim. Through this process, I created a pattern that would never make sense to create using a cut-and-sew approach. This is the main point of this piece, and one of the biggest challenges in knitwear, it is natural for us to think in the cut-and-sew mindset since that is where most designers training starts. In order to make successful knit designs we need to step back and think as knitters. Short rowing or goring as industry calls it gives the opportunity to knit different parts of the garment more than others do. This dress was knitted from center back, then shaped through goring to create the flare of the skirt and the raglan looking sleeve (there is no seam at the sleeve). By creating the armholes in the middle of the piece, I have eliminated all seams except for combining the start and the finish at the end at center back. This successfully created a design that uses a limited amount of waste in production both in respect to material and hands on work on the garment.

When creating ready-to-wear designs it is important that the design can be produced within a reasonable amount of time in a consistent fashion. In knitwear that means that, the program that knits the garment has to be perfected to a degree where all flaws have been worked out. This takes expensive sampling and several muslins but once the proper file is developed, I have piece that could be sent to any factory that houses the same machine the design was developed on as long as the same yarn is used. This opens up the idea of localized production and a more sustainable and on-demand opportunity for production (Fletcher, 2014). This dress is one in a group of my work that focuses on the experimentation of shaping in knitwear while limiting waste and seaming, it is a process of experimentation but this is just the starting point. The dress is knitted in three different yarns that were donated from overstock knitting mills two are cotton and one is a polyamide blend.

Fletcher, K. (2014). *Sustainable Fashion and Textiles - Design Journeys*. Routledge.

Lindqvist, R. (2015). *Kinetic Garment Construction – Remarks on the Foundations of Pattern Cutting*. *University of Borås, Studies in Artistic Research No. 13*. The Swedish School of Textiles, University of Borås

Rissanen, T., McQuillan, H. (2015). *Zero Waste Fashion Design*. Bloomsbury.

