

Ikat on the Waves

Gwendolyn Hustvedt, Texas State University

Ready to Wear

Sustainability

Functional Clothing

Bust-45", Waist-38"

This women's jacket combines a silhouette evokes the flexible folded shapes of Japanese origami with the surface design features characteristic of the ikat dye techniques. The goal of this project was to take a ready-to-wear garment to a higher level of design sophistication intended for women sized 16-20. With the needs of plus size consumers gaining increasing emphasis in the fashion industry (Ingraham, 2015), there is a natural focus on the flexibility of knitted design to accommodate the variety of fit issues experienced by these consumers. At the same time, with a majority of women at the last national survey wearing a size 14 and the documented steady increase in body size since this time, there is a need for design that can easily translate across the sizing gaps women experience (Christel, 2012). The choice of a multi-size design for the project means that the care taken to correlate the color placement in the yarn with the size of the knitted portions will only need to be repeated once or twice to accommodate the full spectrum of consumers, making this approach ideal for the mass market. While elastomeric or synthetic fibers are often chosen to navigate the challenges of fit issues (Christel, 2012), this project was inspired by the reality that a passion for sustainability knows no size.

Choosing locally produced, natural fibers and a low pollution dye method allows this product to appeal on the basis of sustainability as well as fit. The wool used for this hand-knitted prototype was purchased from a rancher in the Southern US and sent to the Zeilinger Wool Mill in Michigan for spinning into yarn. Less than 5% nylon by weight was included with the wool while spinning in order to increase the durability of the finished product. The resulting yarn was hand-dyed with low-impact acid dyes using a space-dye method. Ikat is a resist dye technique that uses resists dyeing of warp (and occasionally filling) yarns produce geometric shapes in the finished garment. While resist dyeing of a knit could be done after the garment is knitted, the goal here was to recreate the triangular shapes and slight color variations seen in ikat, but in a knitted rather than woven product.

The main challenge was moving from the color spacing in the yarn to the shapes produced in the final product in a somewhat predictable manner. Sampling was used over successive iterations to

determine the proper size of the skeins in proportion to the dye vat in order to produce the desired shapes in the final knit border. A sample garment was knitted from waste yarn to explore the impact of the chosen rib and cable structures on the draping and wear experience of the garment on a size 18 fit model (Bye, Labat, & DeLong, 2006). A larger version of the triangular motif was chosen for the central portion of the design in order to allow the space-dyed border to flow visually around the wearer unhindered. The resulting piece is one that becomes “worth the price” for the locally sourced, sustainable materials considering that it will continue to fit and flatter the wearer through several sizes or across the years (Lee, Damhorst, Lee, Kozar, & Martin, 2012).

References

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