

## Oxford Lattice

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With swelling textile waste in the fashion industry, it is increasingly important for designers to explore new ways of reuse and upcycling. As one of the sustainable design strategies, reusing existing materials could provide designers with the opportunity to reassess the real worth and value of a waste material (Gwilt & Rissanen, 2011). In the work from fashion designer Cloed Priscilla Baumgartner, men's trousers were transformed into thoroughly modern pieces for women, under the label "MILCH" (Brown, 2013). In addition, scholars have also practiced new ways of upcycling by combining different surface techniques, such as knitting several second hand t-shirt strips into a cocktail dress (Ohrn-Mcdaniel, 2014).

This particular design was a collaboration between two apparel designers who have different research and design backgrounds. One of the designers has previously explored upcycling with the use of secondhand men's garments to re-create eveningwear, while the other designer has been practicing innovative hand weaving techniques. Utilizing the strategy of upcycling, combined with a traditional strip pattern weaving technique, the purpose of this design was to develop a sustainable garment through refashioning and adding significance to secondhand men's dress shirts, while also creating an origami flower-inspired outfit with innovative surface designs. The limitation and repetition of the structure and materials of men's dress shirts allowed the designers to innovatively explore the use of construction and details such as collars, plackets, and cuffs. The arrangement of the different stripe widths was also exploited to create the organic flower details on the dress and surface design for the cape. All dress shirts that were used in this design were made out of quality cotton fabric, despite damaged or worn out areas. One result was that the designers were able to prolong the life, and increase the value, of these post-consumer materials by redesigning and making use of previously underused items.

The process began by deconstructing six men's dress shirts that were made out of 100% cotton shirting fabric. All six shirts were blue striped with different stripe widths. Since most of the construction details were faced, or double layered, from the original shirts, they were kept as whole components for reuse. Arranged from dense stripes to loose stripes, some of the collars, plackets and cuffs were layered to create origami flower patterns on each side of the dress as pockets for the purpose of both functionality and aesthetic. Two collar pieces were used to form a V-neck design on the front of the dress. In this way, the plackets, cuffs and collars were used without the need to discard. The rest of the dress was finished with different shirts cut into 3 to 4 inch strips lengthwise and sewn together to fit the curves of the body shapes. An invisible zipper was used on the center back of the dress for closure.

A weaving technique was used to create the cape. First, a flat pattern was used to create a cape pattern and a woven surface was developed based on that cape pattern. All the back pieces from the dress shirts were hand cut crosswise into half-inch strips. Then the cape surface was created by weaving together every strip in a progressive order from two separate axes, progressing from dense stripe to loose stripe patterns respectively. After weaving was completed, the edges of the cape were finished with the bias tape.

This design demonstrates a reassessment of the value of waste materials, while also encouraging the consideration of distinctive surface techniques that can be combined into upcycling. While designers can re-manufacture fragments to create original garments by making use of this post-consumer waste, one challenge is to standardize one garment into a conventionally designed and produced clothing as material supplies are irregular and quantities are unpredictable (Gwilt & Rissanen, 2011). Choosing traditional men's dress shirts with common patterns and colors such as blue stripes, allowed the researchers to continuously create cohesive pieces to coalesce into a collection and provide possibilities for reproduction. Future design research will continue to analyze and combine the concepts of upcycling and surface design techniques, as well as promote standardized fashion collection production by upcycling post-consumer materials.

Brown, S. (2013). *Refashioned: Cutting-edge clothing from upcycled materials*. London: Laurence King Publishing.

Gwilt, A., & Rissanen, T. (2011). *Shaping sustainable fashion: Changing the way we make and use clothes*. London: Earthscan.

Ohrn-Mcdaniel, L. (2014). T-shirt dress. *ITAA Proceedings 2014 Creative Design Professional: International Textile and Apparel Association*. Retrieved from <http://cdm16001.contentdm.oclc.org/cdm/compoundobject/collection/p16001coll5/id/18679/rec/169>

