# Strata

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Keywords: reuse, fiber, sustainability, textile design, upcycling

According to the EPA nearly 10.46 million tons of clothing went into the landfill in 2014, emphasizing the need for fashion designers to explore methods of creating new garments from post-consumer waste (EPA, 2016). Design scholars have explored the use of felting, deconstruction, and textile repurposing to transform discarded clothing into designs that can continue to be used and appreciated (Lewis, Park, Netravali, & Trejo, 2016; Ohrn-McDaniel, 2014; Hwang, 2013; Doty, 2012)

The purpose of *Strata* was to (1) explore using shredded cotton, linen, and silk from secondhand Eileen Fisher garments and (2) create a fully biodegradable garment using only natural textiles and threads. Inspiration was taken from layered rock formations that can be seen along the roadsides in the Flint Hills of Kansas and the cyclical nature of life, decomposition, death and rebirth.

Previous designs have focused on utilizing the textiles from secondhand clothing as the integral fabric of new designs (Ohrn-McDaniel, 2014; Doty, 2012). For this project, the aim was to create new textiles from shredded post-consumer clothing by combining them with new fabrics, allowing for novel textile designs from stained and damaged garments. Cotton, linen, and silk garments were shredded using a fiberizing machine, which feeds cloth through revolving steel brushes to take second hand garments back down to their original fiber state (Lewis, Park, Netravali, & Trejo, 2016). Clothing was also shredded using a rotary cutter and hand cards to generate different textures and effects. Shredded fibers were placed between layers of 100% silk organza and 100% silk gauze and bonded using heat set fusible web. For the final design, these textiles were layered with ruffled silk organza, inspired by the look of striated rock. The cut edges of silk organza were left raw and purposely frayed to add visual texture. The base garment is 100% linen which has been designed to crisscross over the back to eliminate the need for metal or plastic closures and all the thread used is either 100% cotton or 100% silk.

*Strata* contributes to the knowledge of how to process post-consumer textiles into new and interesting fabrications by fusing shredded fiber between layers of sheer silk. The goal of creating a fully biodegradable garment was not met due to the use of synthetic fusible web to encapsulate the shredded textiles. Future design exploration will investigate the use of quilting fiberized material between layers of silk organza as a solution to this problem.

This piece is part of a fashion design installation that explores techniques using post-consumer waste from discarded clothing and food scraps. White, cream, and gray secondhand

garments are deconstructed and recreated into new textiles through fiberizing, felting, hand spinning, weaving, knitting, sewing and by combining reclaimed clothing with new textiles for stability and improved aesthetics.

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