



Transformational creases: Collaborative teaching project

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Transformational Creases was a Cotton Inc. sponsored collaborative project. The goal of this advanced digital textile design teaching project was to develop textile prints for 100% cotton fabric which are designed specifically to either hide the naturally occurring wrinkles or work with the fabric wrinkling. The outcome incorporated integrated multiple surface design techniques which embrace the natural wrinkle/creasing qualities of cotton fabric.

The initial design portion of this project included the use of custom developed step by step video tutorials to allow students to individually work to advance creative and technical skills with the initial design process at their own pace. The video tutorials include initial research, photography, development of seamless raster backgrounds, development of vector repeats, merging raster backgrounds with vector repeats, recoloring repeats and preparing repeats for fabric printing. These textile prints are designed to strategically integrate with and/or camouflage wrinkles on 100% cotton fabric.

First, sections of 100% cotton fabric were crushed by hand to obtain wrinkling on the fabric. These wrinkles were allowed to relax somewhat but were not ironed, thereby creating a slight 3D effect. Each sample was photographed and imported into the computer. Students then created a seamless raster repeat using this image. This repeat would be used as the background for the textile print – incorporating printed wrinkles in order to minimize the appearance of actual wrinkles. Students researched design elements and gathered inspiration to determine initial shapes which would be the basis of their designs. They were especially encouraged to take photographs in order to make their designs more personal.

The photographs and images were imported and the students used Illustrator and Symmetry Works to manipulate the image. The chosen image was first extracted from the background in raster format and then placed into Symmetry Works. Students use this software to

Page 1 of 2

develop individual designs from the single vector repeat. Once the student has decided on their final design, it would be saved in the altered format.

The single vector repeats would then be merged with the raster background – the inspired design would be placed in front of the wrinkled background and merged in to a single design. Students researched the color forecast for their textile prints and chose different colorways. These colorways were then incorporated in to the merged design so that each student learned how to recolor their designs. Each student created a minimum of three different merged designs in three different colorways. The final designs were compiled into a Powerpoint presentation and students voted on their favorite design and colorway combination. This concluded the first phase of the project.

Once the textile designs were chosen, it was time to learn fabric printing. The fabric printing phase consisted of each student printing 2.5 yards per print design that includes file setup and testing, color profiling and printing and heat setting of fabric. Students were required to prepare their files for printing, print a test swatch to determine any color issues or variation and finally to print off their fabric and heat set it.

Separately, three garment prototypes were developed through a combination of hand drafting and computer manipulation. These garment styles were printed out as paper patterns for an Industrial Apparel Assembly class to construct a series of fifteen garments. Students in both classes were able to work collaboratively to determine the textile design/garment style, assembly process and finishing techniques.

The goal of the Transformational Creases project was three-fold: first, to teach students to use a series of advanced tonal and vector based textile design techniques to develop textile designs that will integrate with and/or camouflage a wrinkled fabric; secondly, to teach students how to properly use the fabric printing technology and equipment and finally, to prepare students for future careers in the textile and apparel industry. This project will be followed by another advanced textile design project in the fall of 2014 titled Strategic Illusions that plans to integrate wrinkles into specific targeted areas of a garment pattern.