

Helical Iterations

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Measurement: bust 34", waist 25", and hip 36"

Design Statement

Fashion designers using art as their inspiration have a long history. For example, for decades, artists such as Piet Mondrian, Andy Warhol, Yayoi Kusama, Gustave Klimt, etc., have influenced designers, for example, Yves Saint Laurent, Versace, Marc Jacobs and Alexander McQueen, etc. ("Can You Guess", 2015). According to Mete (2006), using a source of inspiration increases the overall quality of the design, originality, and creativity. This design was also created using art as its inspiration and incorporated sustainable design developments through its materials and design process.

The purpose of this design was to develop a sustainable design through the use of re-purposed and post-consumer materials inspired by an Op-art artist. The inspiration of this design came from the art of Bridget Riley, a British painter and designer whose work is generally known for being one of the foremost experts of Op-art. Her distinctive style of black-and-white optical art paintings uses simple geometrical shapes including circles, squares, or stripes to set out intricate and repetitive patterns to create movements as well as other optical illusions (Biography of British, 2016). Six pairs of post consumers' khaki pants in two different hues with different sizes and shapes were hand-cut and sewn together to create a fabric surface for the top and the skirt. Alternate placement of tan and black color khakis in mathematically decreasing angled stripes were sewn together to emulate Bridget Riley's Op Art.

The pattern pieces for a top and skirt were developed into flat pattern and digital patterns using Adobe Illustrator, a 2D patternmaking software called "OptiTex" and a 3D garment simulation software called "CLO3D." First, the designers created the basic top and circle skirt patterns using hand drawn lines and then digitally re-created renditions of Bridget Riley's Op Art work. Angled lines, decreasing in linear progression were connected to its adjoining tiers corresponding strips with an offset of three strips in a decreasing and opposing angle. For the second part of the skirts construction, the individual sections created by each set of lines were cutout and traced onto another piece of paper and where seam allowances were added to each

strip manually. For the top piece, three different programs were used in conjunction for sustainable purposes. The following lists explain how the different programs were used throughout the design process: 1) the general shape of a top was created with using OptiTex. 2) The bodice was then exported to Adobe Illustrator to draw the Op-art pattern inside the bodice shape. 3) The Image / pattern created in Adobe Illustrator was again exported back into OptiTex in order to trace and re-create the individual pattern pieces. After all the pieces were traced and re-created, a ¼” seam allowance were added to all of the pieces all at once through the use of the software. 4) After the pattern pieces were created from OptiTex, a marker was then created to minimize the use of paper. 5) The garment was sewn virtually in a CLO3D for the fit check. 6) After fit checking, a marker was printed with a wide format printer. Finally, each of the 391 different strips for the skirt and 135 strips for the top were cut by hand and sewn together creating the fabric surface for the skirt and top. Linings for both the top and the skirt were added later.

Three pairs of tan colored khaki pants and three pairs of black khaki pants were used in this sustainable design approach that contributes to the exploration of innovative ways to use post-consumer recycled clothing. Furthermore, designers for this project increased the overall quality of the design, originality and creativity by using inspirations from an artist’s painting (Mete, 2006) as well as the use of software technology as a design tool. Incorporating a sustainable design approach, art inspiration elements, and the use of software technology as a tool in the design process, this design differs from other up-cycled designs and demonstrates a unique look that changes with different angles of view.

Reference:

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