



Architectural Reflection

Claudia Geissler, Moore College of Art & Design, USA

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Design Mentor Statement: This student possesses high levels of creativity, intellectual curiosity and technical skills. She is forward thinking yet open to suggestions and direction. She conducted many experiments with the completion of numerous samples to achieve the desired outcome for this design. With the combination of her conceptual thinking and apparel skills, she created an innovative, cutting-edge design.

Statement of Purpose: The purpose of the reflective coat was for growth, experimentation, and precision; while incorporating elements of math, problem solving, and technical skill. The concept and theme of this piece is derived from the Brutalist and High-Tech architectural movements. The Gherkin in London, England was the direct inspiration in terms of form, pattern, and the buildings own ideas surrounding innovation and risk. The Gherkin is described as “unusual in form, construction, appearance ... [required a] multidisciplinary team of experts.” (Massey, 2013) Similar to the Gherkin, I applied a multidisciplinary approach to this garment through incorporating technology, pattern making, geometry, and engineering approaches. The combination of diamonds and triangular pattern from the Gherkin inspired how I could obtain the silhouette I wanted, however, I needed to experiment with a different pattern made up of only triangles in order to get a geometric shape, instead of the smooth, curvilinear shape of the Gherkin. Like the Gherkin during its time, this design exudes modernism and innovation. The coat not only visually reads as architectural, but also includes safety elements similar to what you may see on a construction site of a building. 3M Scotchlite reflective material reads as metallic silver in the daylight, however, in dim or direct light, it shows as a white glowing reflection. Another element which ties back to construction are the 2” black anodized metal, side-release buckles.

Aesthetic Properties and Visual Impact: Aesthetically, the coat is strong, bold and architectural in nature, while interesting and exciting in detail. It exemplifies a simplistic feeling from a highly complex process. The monochromatic straight stitching holds the acrylic in place while the eye notices the pattern, which is created as a result. The overall weight, hardness, and density of the acrylic gives the wearer a feeling of safety; meanwhile, this idea is backed up by the black, anodized metal side-release safety buckles which are used as closures. The visual impact of the coat is immense due to use 3M Scotchlite Reflective material. In the daylight, it shows as a metallic silver color; however, in low lighting, on a runway, or in a direct light source (ex: car headlights) the whole garment turns white and gives a glowing presence. This effect comes from the micro glass beads, which make up the material and in turn, reflect light back to the original source.

Process, Technique, and Execution: The approach taken to achieve the desired silhouette was that of a textile investigation even before the garment sample. Experiments incorporated; laser-cut acrylic, rip-stop, reflective material, and thread to create a new textile manipulation. Extensive experimentation was required in order to create this garment; no prior patterns or steps were available to execute this technique. In the beginning, the intension was to use magnets at the meeting points of the triangles to achieve the geometric silhouette of the coat. However, because of the weight of the acrylic, the magnets would not hold. This option also lends itself to limited adjustability in terms of creating varying extreme geometric

form. The solution to this problem was to use manual pulls attached to the inside of the coat that can transform the bottom silhouette of the coat based on the tension of the pulls.

Patterns were drafted and a muslin was created to ensure a correct fit. The digital triangle patterns were developed in different sizes to determine which scale was appropriate for the coat. A pattern of the stitching lines and placement of the decided triangle size were generated in Adobe Illustrator. Then, over 250 triangles were laser-cut out of acrylic. The multiple layers of materials were cut out from the final pattern. The stitching placement lines that contain the acrylic triangles were printed and transferred to the 'rip-stop' material. The multiple layers were basted together and the final stitch lines were completed, one stitching line at a time while being careful not to close the entry for the triangles between the layers. The triangles were slid in between the two layers and stitched into place for each pattern piece. The coat was assembled to include: creating a support at the interior of the neckline to brace the weight of the hood, lining the hood with Black Wonder Mesh, attaching the 2" anodized metal buckles to the center front, and attaching the adjustable cording systems to create the desired geometric silhouette.

Cohesion: From concept to completion, there are numerous elements, which form the final product; such as: aesthetic properties, process, techniques and experimentation. All of which are essential to creating a successful design. All of these elements as a whole inform the finished reflective coat. Through multidisciplinary approaches, like the approach taken for the Gherkin (Massey, 2013), elements from different areas of design are used in tandem with the use of technology to allow this design to reflect back its original inspiration and concept, just as the reflective material reflects back to its original light source.

Originality and Innovation: The finished product lends itself to originality and innovation due to its separation from something already available in the marketplace. The garment required extensive experimentation and problem solving, something which is not applicable to a ready-to-wear garment in the fashion forum. Through my work I strive for innovation; therefore, incorporating technology such as laser cutting was essential. By creating a process and incorporating new technologies, this garment sets itself apart from something in which already exists.

References

<http://www.archdaily.com/445413/the-gherkin-how-london-s-famous-tower-leveraged-risk-and-became-an-icon>

