

Owl

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Design statement

Contextual review and concept

Designs inspired by nature have been a source of inspiration for design activities for a long time, for example, primitive human beings who used bone harpoons was likely inspired by animal teeth (Versos & Coelho, 2011). When nature is considered as a source of inspiration, designers may create novel design concepts (Versos & Coelho, 2011), for example, imitate a shape of a natural object to achieve a functional purpose (e.g., optimizing the shape for a greater stability) or an aesthetic purpose. The current design was inspired by an owl's body shape: big eyes and a rounded body. The purpose of the design was to create an aesthetically pleasant novel dress shape based on the owl's body shape.

Aesthetic properties and visual impact

This design's top and bottom have a contrasting effect (an upside-down triangle shape vs. oval shape), but the left and right have a symmetrical effect. The focus points are the owl's black eyes, which were contrasted with the entire white dress. Hundreds of feathers with gradually changing shapes were placed on the left and right wings, creating a rich layer's repetition and rhythm pattern. Visually, this design created an overall harmonic effect.

Process, technique, and execution

Sketches and ideas were created. One sketch was chosen to make a final garment. The top's patterns were a jacket patterns, which were created on a Modaris file and then printed through JustPrint. The hem of the jacket reaches to the widest part of the hip and there is a center back zipper that can be opened until the widest part. This method makes sure once the zipper is open, the dress can be easily put on the dress form. At the same time, the bottom skirt does not need to have a zipper. The bottom is a long gathered skirt with two curved round wings on the left and right sides. Two yards of fabric were gathered on the waist line and the waist line was attached with the top's hem.

The top jacket was covered with white round feathers (front) and white hail feathers (back). Several steps were used to create the owl's head shape on the top. First, circles were used to represent the owl's rounded eyes. Second, around the eyes, a total of six sizes of feathers were shaped as the owl's head. The feathers' sides were from 0.8 cm to 9 cm. Four layers of feathers were folded in the middle to create 3D effects. Third, the head of the owl was attached to the top front's abdomen part.

The bottom is the owl's body. To achieve the desired 3D-shaped curved wings' skeleton, flexible wires were cut, shaped, and attached together. White fabric was used to cover the skeletons. After that, various lengths of white fabric, from 0.5 cm to 15 cm, were cut and attached to the curved skeletons, creating two feather effect wings. The two wings were attached on the gathered skirt's left and right sides. The long gathered skirt was also fully covered with feathers, of the same size, 5 cm.

Cohesion

Based on the natural inspiration, the current design imitated the owl's body shape to fit with a human body shape. To transform the owl's body shape to a dress, the proportion and silhouette of the dress were manipulated, for example, the small head (the top) and big body (the bottom), and the expanded wings were supported by an inner structure, rounded wing skeletons. To imitate birds' feather effects, various sizes of fabric were cut and attached to the dress. In the process of making the dress, design principles, such as symmetry, rhythm, balance, etc., were used to create an overall harmonious and unifying effect.

Design contribution and innovation

This design amplified and refined what is known: it uses nature as the design inspiration. The design is novel with respect to the existing academic creative scholarship in terms of how it aesthetically transformed the owl's body shape to a human dress. The owl's shape and proportion, from the head to the body, are significantly different from a human being's body shape and proportion. To keep the owl's body shape and at the same time, to keep a dress's proportion, several necessary modifications were made in the execution process. For example, the waist line was decreased to the widest part of the body shape, the owl's head was placed on the abdomen area, and the bottom was expanded to have left and right wings.

Reference

Versos, C. A., & Coelho, D. A. (2011). Biologically inspired design: methods and validation. In D. A. Coelho (Ed), *Industrial Design-New Frontiers*, (pp. 101-120), Rijeka, Croatia: InTech.

