Couture for Oceans: A Call for Action

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Mentor Statement

The objective of this mentorship was to support undergraduate students in the Draping course by facilitating the development and mastery of advanced design capabilities essential for professional success in the fashion industry. The student designer aimed to create an original design that incorporated multiple design techniques, such as advanced draping skills, a bustier structure with boning, dip dye, applique, and computer-aided design, while also addressing environmental issues. Due to the design's complexity, two semesters and extensive testing were required to achieve the best visual and construction effects. This design was selected for sponsorship due to its high-quality construction, integration of various design techniques, and sustainability focus.

Statement of Purpose

In recent years, apparel design has increasingly been used to raise public awareness about marine ecology (Jiang, 2024) and endangered marine species (Jiang, 2022). This project highlights the issue of water pollution that harms marine life and advocates for a sustainable environment through wearable art design. Inspired by the photographic series *Spill* (Beltrá, 2010), which depicts oil pollution in the ocean (see *Figure 1*), this design aims to communicate its message through apparel and textiles to a broader audience. The detachable flared hem ensures the garment's functionality, allowing it to serve multiple occasions. The design serves the following purposes: a) Showcasing the detrimental impact of water pollution on marine life; b) Employing innovative techniques such as computer-aided design, dip dyeing, and laser cutting in wearable art; c) Connecting wearable art with sustainability by using fashion as a medium to raise environmental awareness; d) Inspiring action to protect and preserve the oceans through the powerful message conveyed by the design.

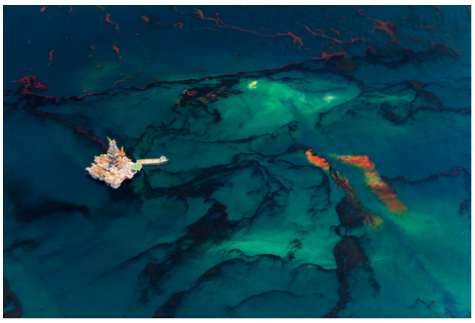

Figure 1. Beltrá (2010) captured a striking image in "Oil Spill #4".

Figure 2. Engineered prints on digital flat patterns

Aesthetic Properties and Visual Impact

Using computer-aided design software, two original motifs were created and developed into engineered print patterns (see *Figure* 2). The first motif features ripples and hands reaching up, symbolizing marine life calling for help. The curve line at the bottom matches half of the hemline, creating a cohesive engineered print. The second motif, an octopus, represents the suffering of ocean creatures as pollution encroaches upon their habitats (Dawicki, 2008). The

prints on each flat pattern are engineered and connected. The sheer organza on the flared hem and intricate applique motifs create a strong contrast, drawing attention and evoking a sense of depth and mystery. Additionally, the dip dye technique was applied to create a gradient from blue to black, symbolizing the polluted ocean. The motifs were laser-cut on dip-dyed fabric and attached to a mermaid dress using the applique method. The silhouette was created by draping and modified multiple times due to the complexity of combining print and applique techniques. The design includes a corset bodice that supports the heavy strapless dress and a flared hem that mimics fishtails, representing marine life.

Process, Technique, And Execution

This design demonstrates a rigorous process and mastery of technique, exhibiting the designer/author's commitment to craftsmanship and innovation. The journey began with the traditional method of draping the dress on a size six mannequin, providing the initial form and shape. The draped pattern was then meticulously traced and digitized using Lectra Modaris CAD software. This digitization enabled precise modifications to fit the original motifs onto the flat patterns in Adobe Illustrator.

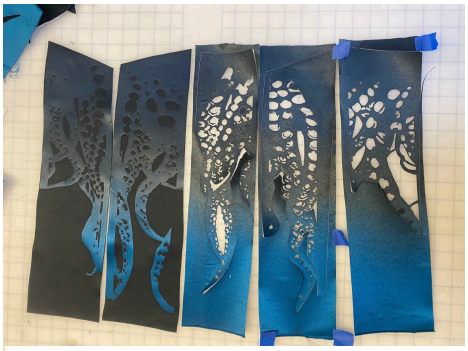

Figure 3. Laser-cut applique pieces

The luxurious blue satin fabric was subjected to an ombre dyeing process, carefully transitioning from blue to black. This labor-intensive process involved hours of attention to the dye bath, ensuring a flawless gradient effect. The dyed fabric was then prepared for laser cutting, with heat-and-bond interfacing applied to ensure the applique pieces would securely adhere to the organza without stitching (Denyer, 2020). The laser-cutting process transformed the fabric into intricate applique pieces (see *Figure* 3), which were then meticulously attached to the organza dress piece. This step required precise alignment and placement, demanding exceptional attention to detail. Due to the complexity of matching all details perfectly, one garment was unsuccessful, leading to the creation of a second version with improved results.

The final touches involved hemming the hemline with ribbon to create channels for inserting plastic boning, imparting a wavy shape to the garment. The skirt and flared hem were seamlessly connected using a detachable Velcro closure, ensuring both functionality and aesthetic appeal. This comprehensive process demonstrates the designer/author's ability to integrate traditional craftsmanship with advanced digital techniques, resulting in a high-quality, innovative design.

Cohesion

The integration of traditional and digital techniques reflects the designer's commitment to craftsmanship and innovation. The garment exudes elegance and sophistication, with a seamless blend of luxurious fabrics and intricate applique motifs. The ombre dyeing process adds depth and dimension, enhancing the visual appeal. Thoughtful construction techniques, such as ribbon channel hemming and a detachable Velcro closure, ensure functionality and aesthetic integrity. The silhouette allows the applique detail to take center stage, showcasing the designer's attention to detail and skilled craftsmanship.

Originality And Innovation

This dress represents a departure from conventional fashion norms by integrating sustainable principles and combining traditional craftsmanship with innovative techniques. The use of ombre dyeing, engineered prints, and laser-cut techniques results in a unique and visually stunning aesthetic. The emphasis on sustainability extends beyond the garment itself, challenging established fashion paradigms and promoting environmentally conscious practices. This approach paves the way for a more sustainable and ethically conscious future in the fashion industry.

Reference:

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Image A: Front view

Image B: Back view

Image C: Side view

Image D: Detail