Nebulous

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Mentor Statement

Three undergraduate students as a team developed this look in a fashion pre-production technology course. The mentor was the only instructor of this course. The goal of this course was to equip students with advanced digital technologies for apparel pre-production and to help them understand the apparel pre-production process for mass production. Therefore, the final project of this course was designed to simulate the pre-production process in an industrial environment. Notably, by collaborating with an industrial partner, students were trained to work professionally under constraints.

Accordingly, there were three constraints to the final project. First, a design theme and a color palette for color direction were assigned to students. However, students were required to identify a target market and then develop a mini collection (at least four ensembles) for their chosen market. They had to create at least one full-scale look and complete a technical packet for each ensemble. Second, the use of both 2D and 3D OptiTex was mandatory. Additionally, they had to use at least one additional technology, including but not limited to digital printing, laser-cut, 3D printing, and innovative materials. Third, students were randomly grouped into teams with team leaders elected. They had to work in a simulated industrial working environment.

The collection, Nebulous, was completed with high quality in every design and product development stage. The presented look here clearly demonstrated the apparel pre-production knowledge and digital techniques the design team had acquired. It also showcased the student designers' capability in conducting successful market research and their understanding of textiles. Therefore, the mentor highly recommends this work to the 2020 ITAA design exhibition.

Design Statement

To follow the assigned design theme "Lifestyle Collection: wearing athletic-like clothing every day", the overarching goal of the Nebulous collection was to design garments functional enough for outdoor activities but fashionable enough for daily wear. The design concept centers around reclaimed comfort, versatility, and convertibility. This collection was inspired by the capsule wardrobe movement inspired (Dizik, A., 2016). The main inspiration incorporates tranquil scenery that draws wearers in with earthy colors and warm imagery. It gives the feeling of escaping routine and embracing calm comfort. Accordingly, the designers decided to make a

collection where pieces can be mixed and matched together easily. In particular, they designed some versatile pieces that could be worn in multiple ways.

The selected target market is a group of twenty to thirty years old women called "Urban Athlete". Urban Athletes are the third-largest group to engage in outdoor activities, particularly hiking, and are willing to spend more money to have a better-quality product (Outdoor Industry Association, 2016). They love the outdoors and want to be comfortable and stylish at the same time. They want to express themselves and feel good while engaging in all types of activities. Accordingly, the designers prioritized comfort and versatility to appeal to the target consumers' shopping preferences and highlighted sustainability to echo the target consumers. Thus, this collection emphasizes oversized but feminine designs, the use of ultra-comfortable and sustainable fabrics, and the use of a variety of design and production technologies.

Figure 1 Virtual Simulated Look

One of the four ensembles in the Nebulous collection was constructed fully and presented here. It was designed digitally in Adobe Suite, and then patterned and virtually fitted in Optitex. This look consists of a loose-fitting linen/cotton blend tank top with pocket and belt details and a pair of cotton corduroy cargo pants (Figure 1). The designers selected these fabrics for comfort, durability, and breathability. Besides, the designers designed the plaids and digitally printed it for the tank top. While the belt can be used to cinch at the top when a wearer wants the garment to be close to her body (Figure 2), the belt and pocket can convert into a carrying bag (Figure 3).

Figure 2 Texture Mapped Tank top

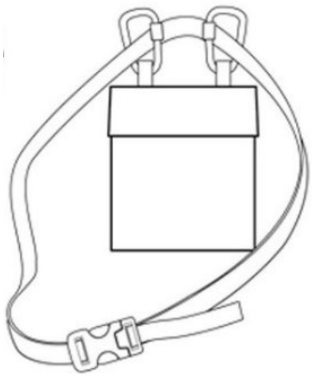

Figure 3 Convertible Carrier Bag

Ultimately, designing, patterning, and 3D fitting this collection allowed the designers to not only design an innovative collection for a chosen market but also learn new technologies. During the product development process, the designers practiced techniques and methods that were new

to them. Additionally, computer-aided pattern drafting, 3D virtual simulation including virtual fabric rendering, and 3D virtual fitting were all completed using Optitex. Optitex accelerated the patternmaking and fitting processes. Furthermore, digital textile printing allowed the designers to produce a custom plaid that would embody the collection's theme while working under time constraints and without access to a woven plaid in the desired color palette. Digital textile printing opened up new opportunities for smaller-scale production and customized design.

References

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