

Sustainable Fashion Development: Applying Transformational Design

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Introduction

Fashion is like the high-speed rotation of a tire, where styles with a particular set of aesthetic characteristics that are adopted by a group of people during a limited period change frequently (Ruppert-Stroescu & Hawley, 2014). Participating in the fashion system involves selective human behavior influenced subconscious desire and social needs; people represent their self-identity, social order, self-emotion taste, hobbies and social habits by their clothing preferences (Wilk, 2002). Consumers in the United States change styles rapidly to keep up with fashion (Lang, Armstrong, & Brannon, 2013), and apparel overconsumption is depleting both renewable and non-renewable natural resources (Cao, Frey, Farr, & Gam, 2006).

Contemporary fashion designers employed transformational methods in three different ways: utilizing technology, integrating design details, and diversifying fabric characteristics to discourage garment disposal (Sykes, 2000; Hourani, n.d; & Lemuria, n.d). Engaging the sustainable design theoretical frameworks of Cradle to Cradle (McDonough & Braungart, 2002), Empathic Design (Niinim Niinimäki & Koskinen, 2011), and Transformational Design (Zhen Wang, Wang, Lian Yu, Sun, Liu, & Min Wei, 2014), I developed *The Moment* line (Figure 1). The purpose of the research was to address the problem of overconsumption by creating garments that can provide more styling options for consumers. The study encourages to build a long-lasting relationship with customers to increase the wearing frequency and ultimately reduce the rate of new purchases and subsequent waste.

Method

A design process that included discovering, incubating, prototyping, and building. The discovering phase of the design process included interviewing members of the college-age target market and observing consumer behavior in three stores known to attract that target market: Madewell, Forever 21, and Urban Outfitters. A customer profile was developed and product characteristics were defined: utilizing second-hand jeans, employing a pastel color scheme, and including dresses, separates, and overalls. It is important to keep jeans out of the landfill as the 1.5 pounds of cotton used in one pair of jeans needs time to biodegrade (Khalil, 2015). Incubating included determining inspiration, developing a theme, sketching, and exploring transformational methods. Prototyping included testing four possible transformational methods. Eyelets and lacing were chosen based on time to make, ease of use, style options, aesthetics, and uniqueness. Over 80 sketches were developed, and from them, four were chosen for realization based on principles related to aesthetic cohesion and transformability. Sample patterns were made, fit to a

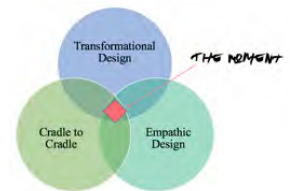


Figure 1:
Intersection of
Theories



Figure 2: Photo documentation of making pattern for Style 001

fit model, and adjusted until the optimal fit and aesthetic properties were obtained (Figure 2). During the building stage, the patterns were strategically cut from the second-hand denim, components were assembled, and grommets added.

Results, Conclusions, and Future Study

The specific transformational method for this sustainable fashion collection was to separate each piece of the garment in a modular system where consumers can rearrange and restyle their clothing (Baldwin & Clark, 2006). Also, the metal and denim components can be recycled (Tuncuk, Stazi, Akcil, Yazici, & Deveci, 2012, Urbanchuk, 2011). For example, the long dress (Figure 3) can be transformed into different lengths and can be separated into a skirt, top, bandeau, and tote bag. Offering different styles from one garment increases the use and relevance of the garment.

This garment of *The Moment* collection encourages to build a long-lasting relationship with consumers to encourage consumers to reduce the frequency of purchase. Users can style different looks by combining various items of *The Moment* line. Further study will determine to how and what extent these transformational designs will build a strong relationship between the consumer and the garment, Discourage garment disposal, and reduce waste.



Figure 3: Style 001 transformation

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Figure 4: Front view



Figure 5: Back view



Figure 6: Side view



Figure 7: Details