

## Honors Essay in Global Studies

### Eco-Fashion: A Global and Historical Perspective

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Spring 2012

Hofstra University

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The purpose of this paper is to review the development of sustainable fashion brands, otherwise known as ecofashion, in a global and historical context. While ecofashion is a distinctly western development, it has its roots, in part, in traditional clothing manufacturing and evolved as a broader critique of the globalized and industrialized garment industry. There are many people in this world with hardly an outfit, while many others engage in indulging high fashion consumption habits as a personal hobby. Additionally, there is a problematic lack of transparency in the fashion industry. This inhibits one's ability to weigh the complexity of the modern supply chain and the varied degrees of social and environmental impacts that each step may cause. The vast majority of shoppers need a very basic set of clothing staples which can often be purchased from the cheapest retailer available. All over the world, however, what is measured to be basic depends on social and cultural values. Clothing is considered by the United Nations<sup>1</sup> to be a basic staple of human dignity, along with shelter, food, and other necessities. When placed against the scale of the human population, the amount of clothing needed on the planet and the subsequent burden on the environment is massive, and is being driven even higher every year. The clothing and textile industries combined were worth about \$527 billion in world exports for 2009, according to the WTO<sup>2</sup>- up from \$479 billion in 2006.

Clothing is a uniquely human development, meeting survival needs on the same level as food, water, and shelter. Garments made from nearby animal and plant sources have logically developed as a supplement to mitigate a lack of natural biological defenses against the elements and as a form of social rank indication and cultural identification. From the early human

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<sup>1</sup> UN General Assembly, *Universal Declaration of Human Rights*, Article 25.1, 10 December 1948, 217 A (III).

<sup>2</sup> World Trade Organization, International Trade Statistics 2010, available at: [http://www.wto.org/english/res\\_e/statis\\_e/its2010\\_e/its10\\_merch\\_trade\\_product\\_e.htm](http://www.wto.org/english/res_e/statis_e/its2010_e/its10_merch_trade_product_e.htm) [accessed March 27, 2012.]

invention of needles and weaving techniques like knitting, the material production and manufacturing processes used to make clothes have been gradually developed after time into a science. The means used to make clothing have changed over time and affect the forms and functions of pieces produced, and even now, new techniques and textiles are being researched and fine-tuned in order to achieve our world population's varied needs. The vast amount of fabric being produced, plus the high demand for clothing, requires a great many resources. The ecological burden of the garment-building process is swiftly gaining attention, and environmentally friendly clothing is one of the green trends sweeping consumer societies. There is no doubt that a lesser degree of demand would ultimately have the best outcome, but other business and personal interests come into play on a large scale, so eco-fashion has presented itself as a distant compromise.

Ecologically responsible fashion has always been around in a sense, but its modern incarnation as a clothing trend is no longer the rough eco-dress of the past<sup>3</sup> - instead of unisex and drab, new eco-fashion is interesting, diverse, and sexy. Whether or not the consumption of sustainable fashion is enough to turn the tide remains to be seen, but it is undeniable that every retailer has significant reason to project an image upholding these trendy values. This paper explores the historical beginnings of fashion and early production methods' inherently sustainable practices and their influence on ecofashion. This paper also addresses themes of ecofashion. In many ways, ecofashion is similar to other emerging cultural developments, such as the slow food movement or buy local initiatives that serve as alternatives to globalized consumptive habits in the developing world. To limit their damaging ecological impact,

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<sup>3</sup> Winge, T. M. "Green is the new Black": Celebrity Chic and the "Green" Commodity Fetish, 2008.

emerging eco-fashion brands are looking to change the standards of fashion production in several ways. These standards and some of the early responses to ecofashion are reviewed.

### **Historical Background: Early Fashion's Worldwide Experiment in Drapery**

The advent of fashion has formed firm footholds in society since long before technology existed to manufacture clothing for the masses. Many if not all primitive cultures had a need for bodily protection, and therefore clothing was necessary in some form. Still, historical clothing styles vary throughout time and space in form, fiber, and function, acting as an early symbol in cultural differentiation. Depending on the availability and use of tailoring equipment, raw materials for fibers, and labor, clothing took form as needed by the people wearing it and the social norms to which they conformed.

For example, many simpler pieces in Europe were worn by the lower classes, while more elegant materials and intricate tailoring were used for tunics and robes worn by nobility. Western outfits of the elite were elaborately tailored and cumbersome as seen in the portraiture of the upper classes that had greater resources to command and more time to spend to manage movement in wild, impractical, or sometimes downright dangerous fashions<sup>4</sup>. Some European and American women, in pursuing the unrealistically tiny waist of the late 19<sup>th</sup>/early 20<sup>th</sup> century Gibson Girl look, risked their internal organs when wearing corsets so tight that their ribs would slowly become deformed by long-term wear. Fashion's path, in terms of aesthetic evolution, is very frequently illogical. Buyer attitudes, while predictable and heavily influenced today by marketing theories and technology, can be indulgent and self-interested to the exclusion of many other, perhaps more important, factors that will be discussed.

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<sup>4</sup> Rublack, 2011.

The nature of human expectations of ancient times, while perhaps dirty or unhealthy by today's standards, meant that most people worked (or were forced to work) at the peak of their productivity with the technology available. Once a garment was created, use of the full woven product without unnecessary tailoring limited textile waste and saved time that could be used for other life-sustaining activities. Dying clothing with naturally found pigments limited the damage to surrounding ecosystems. If there were risks to one's health, as was the case with, as an example, medieval green dyes made of arsenic, common knowledge was too limited at the time to understand hazards of dyes or other clothing manufacturing chemicals. In addition, common hygiene standards and the labor-intensive nature of weaving and dyeing, mostly by women, limited the volume of the average acceptable wardrobe by class. Natural limitations and the threat of social obstacles or non-survival motivated their conduct and clothing choices, as did demands on agricultural lands. Ecologically friendly fashion, for all these reasons, could be construed as having its origins in the very first staples of clothing around the world and many lessons can be found from earlier discoveries. Two, the sari and the kimono, are reviewed here to demonstrate the significance of some of these non-western garments to the ecofashion movement.

### **The Talkative Sari**

Most developing countries have had relatively less time to learn to rely on polluting processes or mass-production technology for clothing needs before the west began the global trend toward environmental awareness. They might therefore be in a better position to lead or inform the market on sustainable fashion.

One of the best-preserved clothing traditions born of simplicity include the Indian *sari*, a single piece of fabric draped about the body. Sometimes considered to be too old to accurately cite an approximate invention date<sup>5</sup>, the subtleties of the sari lie in its details, with messages of self-expressive preferences built over generations. Some sources estimate its invention as approximately 2,500 years ago, according to a mention of the garment in writings by Ptolemy.



However, other sources<sup>6</sup> list its emergence closer to 2,500 BC based on evidence of what they consider to be its male garment forbear, the dhoti. There are relatively few resources documenting the recent evolution of the sari; indeed, many eastern clothing staples and trends have few thorough English or Western resources on their modern development and sometimes even less on their history. Some changes to an overall outfit, such as the addition of the blouse and petticoat, reflect international influence based on historical foreign opinions on modesty. However long the sari's history is, attachment to classic silhouettes, the cultural explosion of Bollywood films and other Indian media, and fashions within various cultural diasporas keep it as fresh as ever worldwide.

Some contemporary sari trends, in addition to being flashy, luxurious, or eye-catching, show that the cloth and complexities in how it is worn has a lot to say. Both the fabric's materials

<sup>5</sup> Balasubramaniam, Chitra, PAITHANI SARIS. *Ornament*, 2008, Vol. 31, Issue 5

<sup>6</sup> Avadhani, Ramesh, Saris: India's Timeless Gift to All Women. *World & I*, Feb2007, Vol. 22, Issue 2

and accessories to the outfit itself indicate local trends and traditions, and also convey a youthful or mature image. Sometimes the style, motifs, or opacity of the fabric subtly indicate whether one is married or unmarried, and a major factor in its usefulness is its one-size-fits-all flexibility. A sari can be worn time and again through some height growth, weight gain or loss, and pregnancy. The garment itself communicates regional or socioeconomic class differences in the length of fabric, how it is wrapped about the body, and the locations and styles of pleats made if at all. Someone, if they know where to look, can learn some basic demographic information about a person, on top of recognizing a woman's preferred method of creative self-expression through fashion.

A woman does not wear one sari in the same way through her life, which is a great part of the appeal of the garment. It opens itself up to many methods of re-use in numerous ways. As a long span of beautiful material, a sari makes itself flexible to interpretation in a woman's hands depending on her needs and goals. The *atchol* can be draped across the head (called *gomta*) for an additional degree of modesty in situations she feels are necessary, to protect from harsh sunlight or a bit of rain, or perhaps as an elegant mask for a bad hair day. The sari can be hiked up in the waistband of the petticoat or wrapped multiple times around the body and between the legs to allow for greater mobility for hard work or play. It is currently a topic of some debate as to whether or not the sari can be a fully functional dress despite these methods of wear, or if it is the most suitable garment for women to choose if they desire fully independent movement. It has been criticized in an article by Mahender Singh Poonia as being confusing to wear, high-maintenance in relation to Western garments, and perhaps even dangerously restraining in the



case of a sexual assault<sup>7</sup>. For those reasons as well as others the sari could be thought of as both inhibitive and expressive; however, it seems like it is here to stay, evolving as the people wearing it do. Women in saris, like women in controversial garments the world over, defend their cultural and aesthetic preferences by wearing what they choose while innovating what they can to mitigate normal inconveniences that come with their fashion choices. A long-dominant garment like the sari inspires a deep-seated attachment in many women, and fashion is rarely re-invented with defensive manoeuvres in mind.

In terms of the material's own handiness, its long history of use among Indian women has contributed greatly to its suitability to its environment. Ruth Vanita's response to Poonia's article cited above reflects upon this, and praises the sari for its versatility and organic development as not only a comfortable and useful garment, but one that makes her feel beautiful and truly comfortable in embracing her Indian identity<sup>8</sup>. The sari's fabric was born from the needs of Indian women, and developed deliberately to suit specifically Indian weather conditions. This means that the fabric needs to stand up to weather conditions while providing modesty and comfort to the wearer in India's climate. For example, in a place like Chennai,



A candid photo taken of a woman working in Andhra Pradesh. Used under Creative Commons.

<sup>7</sup> Poonia, Mahender Singh. "Political Economy of the Saree." *Manushi: Forum for Democratic Reforms*, 28 February 2008. Web.

<sup>8</sup> Vanita, Ruth. "The Sari: A Garment for All Seasons." *Manushi: Forum for Democratic Reforms*, 20 March 2012. Web.

Tamil Nadu, India, where the picture in Figure 2 was taken, current forecasts<sup>9</sup> for the week of May 14, 2012 predict temperatures of 84°F... as the average low. Recorded highs for the week consistently hit at least 100°F and humidity, an important element in the functionality of this garment, hovered around 75 percent on a sunny, drier day. Despite these fever-hot temperatures, work of all kinds still needs to be done and clothing still needs to be worn during it. The material of a sari, such as that of the woman at the construction site in Chennai, would need to be able to wick away moisture. Many saris, as an essential matter of being a comfortable piece of clothing, are made of fibers that wick away moisture to cool the body. Cottons and flax/linen would be a better choice for the woman in Figure Two over animal fibers like wool, which are meant to trap heat. If the fibers were not able to support a person's homeostasis in these tasks, the sari might not have survived quite this well as a work-functional as well as beautiful staple in one's wardrobe. A woman wears a sari not only for the appeal of its elegance or creative potential, but also because they have confidence in the fabric working hard when their body needs to.



Figure 3: Global Girlfriend, Layers Upon Layers Recycled Sari Dress, 2012.

When a sari is exhausted from work, or it has become frayed or faded from being loved so well, it can be re-used. Many applications of this fabric are fit for classification as an eco-friendly garment, even though their initial production is complex and requires work and heavy dyes. The great expense of particularly ornate sari fabrics might also invoke a particularly strong guilt response in some buyers; clothing buyers have been shown to feel more lingering attachment and attribute greater value to more expensive material. The great size of sari fabrics lend flexibility to interpretation once again in the use cycle of a

<sup>9</sup> Weather Underground BestForecast. Weekly forecast from weather station: Nungambakkam, Chennai. May 14 to 18, 2012. Web. 14 May2012.

piece of clothing, where instead of going into the waste bin it can be re-used in the innumerable ways that a wide bolt of several meters of soft, pretty cloth can. Regardless of price, it can still be used for household tasks and crafts, like quilting a bedspread or clever upholstery. Re-using cotton or linen fabrics can produce comfortable baby swaddles to protect from the heat and humidity without having to buy new lengths of fabric. Design labels with sustainability goals have re-designed used sari scraps into western-style fashion pieces that catch eyes with the attractive shades and patterns of a sari, but a woman does not need to know how to carry the whole garment. The sari's great potential for re-use makes it not only a high-value purchase, but

Figure 4: Silly Yeti, Layered Recycled Sari Skirt, 2012.



also an attractive clothing option to green-minded shoppers looking to buy pieces they can wear again and again without becoming stale.

The sustainability trend in this case manifests itself alongside a desire for attractiveness— to be lovely morally and physically. The grace required to carry a sari well in a woman's daily work might not be noticed if the fabric itself does not demand attention. Since culturally significant colors or motifs in the fabric provide symbolism, beauty, and insight into one's self-expression, an eye-catching fabric is bound to be a hot commodity. Previous domestic advancements in the weaving and dying process led many manufacturers to use chemicals in order to make a desired contrast between hues. Considering the fact that saris can be up to twenty-nine feet long, that much chemical dye in many garments, if sent to a landfill, can be grossly damaging. However, modern environmental awareness has led many socially conscious Indian women to purchase more garments made with vegetable dyes rather than these chemicals.

With a rise in flexible income and educational competitiveness in India's metropolitan areas, so has social and ecological awareness<sup>10</sup>, which is characterized by the rise of some successful brands like Fabindia to fill this niche, however small the green market currently is.

Other modern concerns surrounding Indian textile industries involve the influx of international corporate influence on producers of cotton. Cotton's path to becoming one of the world's most popular textile materials originated in India, according to the Columbia Encyclopedia. Cotton has been cultivated as a textile fiber since the development of prehistoric human clothing production, and "it clothed the people of ancient India, Egypt, and China. Hundreds of years before the Christian era, cotton textiles were woven in India with matchless skill, and their use spread to the Mediterranean countries."<sup>11</sup> Cotton's popularity caught on worldwide, and consumer desires for cotton in excess around the Industrial Revolution was a major cause of many labor abuses where it was cultivated for profit. In the American Deep South, for example, slave labor or less often indentured servants were used to maintain high yields, and the invention of the cotton gin in 1793 mechanized the process to a degree. The demand for cheap cotton workers, rising due to market demand for cotton products, had a profound effect on not only the immediate communities from which these slaves came, but also the future social and economic landscape of many African and American populations. Heavy damages were sustained to many plantations' soil, particularly in the Deep South but also in some locations worldwide, since the greedy use of the land for only one crop depleted the soil's arability.

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<sup>10</sup> Balasubramaniam, 2008

<sup>11</sup> "Cotton." *The Columbia Encyclopedia*, 6th ed.. 2011. *Encyclopedia.com*. Web. 14 May 2012.

India is one of the largest modern producers of cotton, and the same labor and environmental difficulties may be repeating itself and contributing to social ills in cotton farming communities. There are decisions that a farmer must make, such as whether or not they wish to grow organic or genetically modified cotton. The strenuous nature of the labor requires many cheaply-paid (or perhaps even enslaved) hands. The nature of the work at hand is costly due to the need for mechanical aid in order to farm large tracts of land, and many farmers go into debt in order to purchase and repair these means of production. Many farmers additionally take on debt in order to purchase expensive Monsanto cotton, the genetically modified (GM) variety which is designed to be poisonous to pests on its own without pesticides. In a cost-benefit analysis, the cost of re-purchasing the expensive seeds every year may have narrowly won out over the cost and risks associated with pesticides and the labor cost required to spray them. This kind of forced labor, where a worker forces themselves deeper and deeper in debt in order to survive, produces a highly damaging psychological state that one may take desperate measures to escape. In an International Food Policy Research Institute (IFPRI) paper from 2008, researchers searched for a possible correlation between the introduction of supposedly Indian-engineered Bt cotton products, a genetically modified cotton plant designed to increase yields, and farmer suicides in Indian farming communities. A contamination of the seeds with Monsanto's patented gene not only made the use of the seeds a legal gray area, but also made them unreliable for long-term use. In some cases, they noted that not only did there lack a correspondence<sup>12</sup> between the national (not local) adoption rate of Bt and farmer suicides, but between 1997 and 2006 the increased adoption rate in some places accompanied a lower suicide rate. However, in the 2011-

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<sup>12</sup> Gruere, p.27

2012 year a spike in farmer suicides was connected to the failing Bt seeds.<sup>13</sup> Indian farmers in the past year had purchased Bt seeds which both lost their vigor after one growing season and, this year, their relied-upon ability to fight pests. This required the farmer to purchase more pesticides, or risk losing more cotton. This vast increase in the cost of growing cotton paired with falling profits drove many farmers deeper into debt, and tragically over the brink.

Regardless of whether or not one actively chooses to grow a genetically modified plant, however, many organic farmers in countries that allow GMO agriculture find themselves in a testing legal situation when plants, being plants, pollinate one another. This is usually a good thing, and in otherwise normal agricultural cases results in seeds and the framework for the next growing season. However, in organic fields bordering others which have undergone genetic modification, the very DNA code snippets encased in those new seeds is patented, making a farmer liable for damages due to an unintentional theft that another farmer's plants caused by merely existing. A pollination scenario like this, according to the Indian Council of Agricultural Research<sup>14</sup>, is likely the cause for the contamination of the 2008 release of the Indian-made Bt seed by Monsanto-designed genetic codes that had a similar intended effect. Ultimately, while having short-term gains in initial growth trials, this Bt/Monsanto cotton would, with long-term usage, have possibly exhausted arable lands due to the resulting monoculture's burden on the soil, and also damage its rural communities. Choosing to grow a crop designed by a company comes with its own risks that many farmers calculated, but the influence of a multinational company claiming to offer a scientific miracle to farmers (for a risky price) ended up having a more predatory effect.

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<sup>13</sup> Haq, Zia. "Ministry blames Bt cotton for farmer suicides." *Hindustan Times*, 26 March 2012. Web.

<sup>14</sup> Jayaraman, K.S. "India investigates Bt cotton claims." *Nature*, 14 February 2012. Web.

### The Kimono Aesthetic

The Japanese kimono, too, communicates much in the motifs, fiber construction, overall shape, and associated accessories. Adapted from Chinese fashions around two thousand years ago, kimonos are made mostly of rectangular pieces sewn out of a single bolt of fabric. This is especially striking when hung up, viewable here from Victoria and Albert Museum's "Silk kimono for a young woman"<sup>15</sup>.



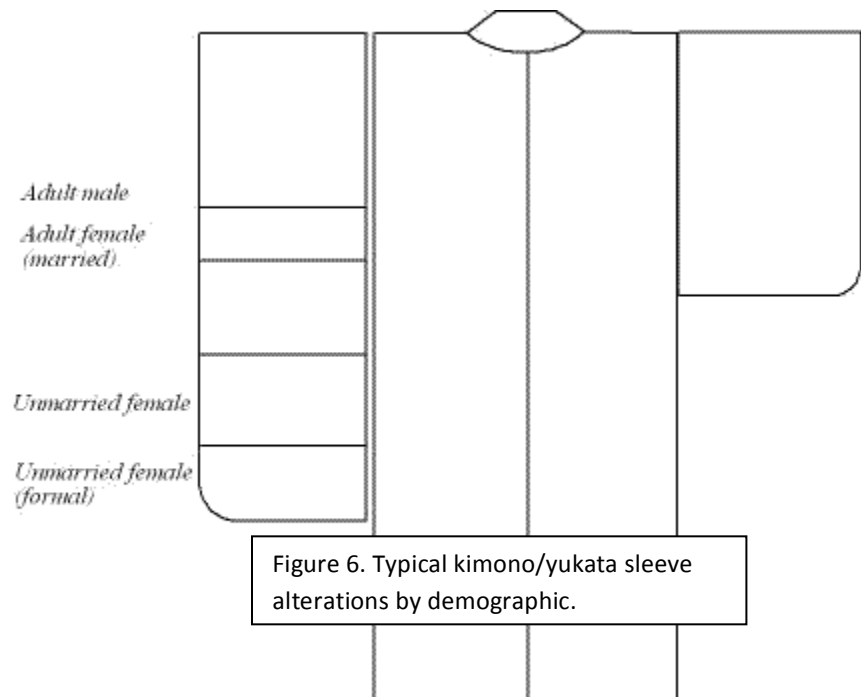
Figure 5. Silk Kimono for a young woman.

Traditional kimono maintenance and washing involves removing all the seams, washing the individual pieces, and re-sewing the entire garment. This lengthy process may have limited one's wardrobe, since not only weaving but washing was a labor-intensive ordeal. Gender-specific alterations include length of sleeve as well as color and motifs. Many youth kimonos and especially *yukatas* for men and women for casualwear or festivals carried bright and bold colors that are not only seasonal but correspond to age. Just as an elderly woman wearing a miniskirt might attract stares, women of married age may prefer a set of muted colors like navy, beige, or maroon. The motifs would be more subdued to convey a quiet dignity or practicality as they consider appropriate. This garment's shape and forms could be considered thoughtfully constructed in the same way as a sari by limiting waste of a painstakingly woven and dyed

<sup>15</sup> Victoria and Albert Museum, Silk kimono for a young woman, 1790-1830. Museum no. FE.32-1982.

fabric. In addition, like the sari, the emphasis on drapery allows for many if not all body shapes and heights. Essentially, this means that kimono makers and suppliers did not need to carry extra-small through extra-large sizes of any given garment, unlike suits and dresses which require intricate alterations and produce textile scraps. If a kimono is too long, all the wearer has to do is fold and bind the extra length under the wide belt called the *obi*, an important part of the overall traditional outfit. The obi is also a long but stiffened length of reinforced fabric that can be folded and tied many ways to subtly convey one's socioeconomic class, station in society, or locality through observance of one trend or another. It, too, can be made of many materials to suit the appropriate social and environmental conditions.

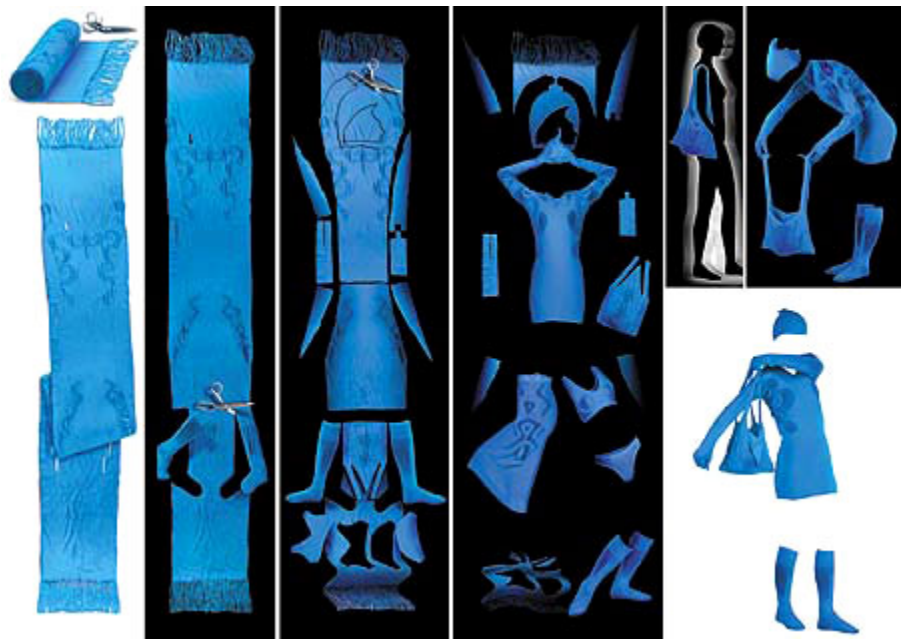
Early sumptuary laws intended to limit the buying power of successful merchants attempted to limit the production (or at least purchase) of rare items and sometimes wasteful excess. This may have applications in consumption patterns in modern richer classes, but at



the time intentions towards this limitation were social, as an exercise in forcing deference and maintaining appearances of social rigidity. Lavish clothing in certain mediums was restricted to higher classes and select theater productions. Many pieces used in *Noh* or *kabuki* theater productions that were particularly lavish were sometimes passed down or bought by admirers of



computer process turns a tube of fabric into a piece of clothing with a patented process that minimizes textile waste; it also hypothetically includes the consumer in its customization and final design step. Limitation of



waste in the production process is accomplished more thoroughly with this technology, though recycling textiles in patchwork or quilting is also a viable option. Miyake's particular message echoed exactly what processes retailers use to limit leftovers when tailoring garments from

<sup>16</sup> Picture from Computational Culture, “ISSEY MIYAKE + DAI FUJIWARA /// a-poc \_ a piece of cloth /// 1997 – €,” October 18 2006. April 3, 2012.

patterns placed on a length of cloth, and made it fascinating to minds outside the industry. In this way, the most striking part of his innovations, that he could construct a thing of beauty from a single unified element without wasted pieces, hearkens back to the time of the kimono, which too is born from an aesthetic that values deliberate style choices and commitment to the image they convey.

### **Technological Extension of Production Methods and the Emergence of Tailoring**

From the decline of loose drapery in the Western world until the Industrial Revolution, clothing was tailored to fit someone specifically if they were of a high class and could command frequent clothing changes. Alternately, they could be fitted loosely to allow for other purposes like allowing growth, re-use by others, or easy movement when laboring. Fashion trends after the Renaissance emerged on a previously impossible level and their rate of change began to rapidly pick up speed in the mid-15<sup>th</sup> century, when peacocking by the upper classes spurred competition amongst the wealthiest European royal courts<sup>17</sup>. Copying by the lower classes was somewhat limited relative to the high fashion accessibility of today. Much European nobility was comparatively more unreachable in a geographical and communications sense, cloistered at court away from the masses they ruled. Limited resources in materials and the technology to quickly produce finery was still out of reach for many of Europe's lower classes. Social barriers constructed of policy, an example being sumptuary laws, kept the wardrobes of many economically successful merchants out of the league of blue-bloods.

The laws restricting the form of fashion expression could be attributed to the desire of the higher classes to maintain long-standing social boundaries in the face of change. Richer

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<sup>17</sup> Rublack, p8.

merchant classes began to overcome many socioeconomic barriers to success, essentially finding ways to purchase the social symbols that the upper classes possessed or could inherit by birthright. Sumptuary laws were therefore most often used as an enforceable reminder of the privileges of the elite. In many cases, certain garments or features of garments were designated as a token of rank that one could not be allowed to purchase. Many moral arguments were also made on the topic, supporting this social divide by encouraging the pious rich to spend most of an extravagant clothing budget on charities rather than imported extravagances<sup>18</sup>. Some of these banned features were anything from a specific fiber to a significant color, generally rare or labor-intensive to make. This is a significant indicator as to the power of the perception of luxury in certain aesthetic points that, all things considered, may not really be all that important in a practical sense. Paradoxically, exceptions were made for lower class people who needed to manipulate that aesthetic sense in order to maintain social order, since fashion, though restricted, became socially indispensable. Unmarried women, who were expected to look their best for suitors, were allowed some banned material for use in accessories regardless of class, in order to ensure that they become married.<sup>19</sup> The demand and need of the lower classes for these materials ended up influencing ruling classes, since to deny them access to the social tools for natural advancement of life goals could cause unrest. Regardless of the true motivation behind these enforced standards, the restrictions on consumption to excess slowed the advancement of rampant waste, since many trendy items were then passed to grateful others through reused, tailored or secondhand purchased clothing.

The fashion industry, due to the industrial revolution, had a number of growing pains. Fabric weaving and dying was increased to a level of efficiency causing other materials to be

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<sup>18</sup> Muzzarelli, p597-617, Pp. 598-599

<sup>19</sup> Rublack, 2011

shipped from producers in order to utilize the machinery to full efficiency. The high concentration of chemicals used in the manufacturing process polluted the areas surrounding the factories. In addition, workers were needed to meet the demand for emerging production. Communities built based on the textile industry were urbanizing in this time. Workers were housed in tenements near the factory, and the drop in housing and food costs pushed productivity. The lack of limits as to how far a worker could legally be pushed increased profit margins, expanding the wealth of textile companies as a whole. Worker protection lagged behind technological advancements, and garment factory workers were frequently injured by machinery or abused by superiors without legal recourse<sup>20</sup>. By the 20<sup>th</sup> century other highly publicized tragedies, such as the Triangle Shirtwaist Factory fire near New York University in 1911, resulted in the founding of the International Ladies' Garment Union. Neglectful upkeep of the building and machines, locking of fire exits, and upper story locations of factory workhouses and tenements caused the deaths of 146 employees, the majority of whom were girls and women from the ages of 13 to 23 years old (Pence, 2003). What resulted from the public outcry from the deaths was the creation of New York's Factory Investigating Commission, which developed a series of broad reforms pertaining to factory conditions until its disbandment in 1915.

### **Sewing Machines and North American Homemade Fashion**

Other means of increasing production capabilities contributed to the modern developed world's paradigm of consumption to the point of excess. The home sewing machine, another significant invention, brought the means of clothing manufacturing and tailoring back to the individual by providing power sewing technology— heretofore only available in factories— to

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<sup>20</sup> Pence, p. 407.

get work done swiftly. One could produce higher quality garments at home faster than one previously could by painstakingly hand-stitching or knitting. Eventually, customizable finishes and details added an additional degree of customization that struck a chord with imaginative garment-makers. Those who could not afford a fully-manufactured garment and its cost, but had the skill and will to make their own could make fashionable tailored garments. It was a return, in a way, to the traditional roles of the woman<sup>21</sup> in the family to make clothing for her family—repair it, tailor it, and customize it to suit their needs and personal tastes. Around the same time, Ebenezer Butterick<sup>22</sup> and his wife invented the modern incarnation of sewing patterns, altered from those of professional tailors, with the goal of increased convenience for the layperson. The size-customizable lengths of tissue paper were marked with the shapes necessary to sew together to form a fashionable whole. Men’s fashions were translated at first, and then expanded into children’s and later women’s fashions after expansion to a workshop in New York City. Butterick’s patterns initiated the democratization of the sewing process in that they included directions as well as suggestions as to the fabric and accessories necessary to complete a set, thereby teaching amateurs how to produce better-than-amateur products. In addition, many later patterns stretched their value to appeal further to their main demographic by providing a basic core shape, and offering several add-ons according to trends or creative preferences. Enabling customization put broader creative potential in the hands of a certain class of people who would not otherwise be able to afford a professionally-made outfit and had no means to make one of that level. The effect this had on the wardrobe and attitude of the average sewer and their family was immense. Middle-to-lower class “women could make their own clothes<sup>23</sup>” or alter them instead of relying on a shop, which is depicted rightfully in the source as a development in a

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<sup>21</sup> Walsh, Pp. 305-306.

<sup>23</sup> Walsh 1979, p305.

positive direction for American and European women. It is important to note that in reality, this is only coming back to these individuals' hands and influence once again. Elsewhere in the world, people have already been making clothing for their extended family and woven or knitted to build their role in societies, obviously long before the sewing machine and long after. Bringing this power back to a personal level was most significant in that the output of an individual with their own sewing machine could allow for increased clothing creation outside immediate or sustenance-level needs or their previous ability.

During this era, clothing construction on the individual and factory level took less time and wardrobes expanded due to decreased costs. Closets and fashions were more accessible through patterns and catalogues. For example, *Vogue*, founded in 1892, is both a top-ranking fashion magazine worldwide and was also a publisher of *Vogue* sewing patterns until 1961. The pace of clothing change and trends accelerated as the number of influential voices and channels of communication grew. Trends, generally following an upper class of fashion innovators, kept designers, tailors, and home sewers in a game of catch-up. Purchasing of the latest trends, previously a prohibitively expensive practice for most people in the developed world at this time, became accessible, affordable, and possible on an individual scale. Fashion developed into a more subtle exercise in civil sociability rather than an expression of outright wealth<sup>24</sup>, making external decoration a progressive social tool. Some contemporary men and women of this segment of society took the opportunities given to self-produce and mend in the place of external services, to make their clothes uniquely their own.

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<sup>24</sup> Rublack, 2011.

## **Advent of Eco-Fashion and Social Responsibility as an Image-Builder**

Eco-fashion, as it is called, carries behind its modern incarnation a longer history than one would expect. The original styles of human clothing could be considered unintentionally green or minimally polluting out of necessity, not out of principle or intent. More recent eco-dress<sup>25</sup> carries an unfortunate and incorrect connotation of rough clothing texture, a rebellious image, and sometimes even drug use or associations with the social fringe. The ecologically Puritanical lifestyle led by the 1960s' Hippie counterculture movement rejected fashion in the same way it would reject wasteful consumerism-based values. The eco-dress of the mid-20<sup>th</sup> century generally consisted of secondhand clothing, hand-made clothing and accessories, and unisex garments found outside of the retail-dominated sphere of influence. In the recent environmentally-conscious wave of awareness, however, many celebrities, established fashion entities, and entrepreneurs of every size started to understand the economic as well as moral benefits to limiting their carbon footprint or saving water through their fashion design and manufacturing.

These particular leaders in the garment industry are in a better position financially and socially to make an ethos appeal to mass markets to create a trend. For example, Ali Hewson (with husband Bono of U2) formed the all-organic eco-fashion line Edun, and U2's concert tees soon began to be comprised of 100% organic, fair trade African cotton. Missi Pyle, star of the 2012 Oscar frontrunner "The Artist," caused a sensation on the red carpet by wearing a gown whose eco-friendly design of recycled polyester and organic silk hand-dyed with natural minerals won Suzy Cameron's Red Carpet Green Dress competition. Many Fashion Weeks in

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<sup>25</sup> Winge, 2006

major metropolitan fashion centers throughout the world set up an additional showcase for up-and-coming eco-friendly fashion designers. This was done most notably in London in 2006.

Gucci Group, which contains brands like Bottega Veneta, Gucci, and Stella McCartney, has taken time to focus on and advertise its social responsibility initiatives in its more recent corporate ventures. Gucci Group became the largest corporate sponsor of UNICEF'S Schools for Africa program by donating a fraction of its massive profits. Luxury brands, according to Patrizio di Marco, President and CEO of Gucci, "are rightly judged today not just on the quality of their products and services, but also on the way they act in the community and towards the environment. Since 2004 Gucci has volunteered for assessment to qualify for the certification of Corporate Social Responsibility across its entire supply chain."<sup>26</sup> These actions firmly stamp the brand's social relevance. Other established design houses and designers, including Oscar de la Renta, have established images of being willing to delve into eco-friendly high fashion. In addition to providing an additional creative curiosity in luxury markets, eco-fashion is a new frontier in which prominent names in fashion to make their mark upon the industry's history of evolution.

Other organizations use a vintage philosophy in order to bring fashion to the mass market. Combined with an updated supply chain there is great interest in this hybrid approach for long-term sustainability. One company using this approach is Fabindia, which is an India-based brand located in 5 countries spanning Europe, the Middle East, and Central Asia. This particular brand carries a value chain that could be best characterized by a loop, because it plans for artisans in rural areas to be rewarded and employed consistently<sup>27</sup>, then hopefully buoyed by the overall

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<sup>26</sup> Gucci America, Inc. "new packaging is 100% better."

<sup>27</sup> Fabindia, "About The Company."



success of the company. In addition, workers receive shares in the company, thereby motivating higher standards. Factors for its success include reliable employment in its Community Owned Company (COC) supply chain model, with a percentage of shareholders being rural employees and producers. Governmental organic certifications are advertised on the pieces which apply. Certified craft policies open the supply chain of 40,000 rural producers to a curious customer and also ensure that the benefits behind every product are proudly on display. To shoppers who want to learn, the story is apparent and informative without being preachy, and that the clothes are well-made and beautiful certainly does not hurt. A global green trend, in developing regions that are hungry for worldwide acclaim, may provide an additional foothold in their ascent- provided that labor values and compromises with businesses can be reached. These initiatives are a stark contrast to the fast fashion movements.

The difference between slow and fast fashion sources lie in the speed required of its supply chain and the requisite waste that each produces. The majority of fashion-forward thinkers and therefore buyers come from a demographic of 18-25 year old fashion innovators<sup>28</sup>, who are affluent by global standards. In the early 2000s, this age group had an increasingly expendable amount of side income. As they grow in means and realize their newfound power to shape their own wardrobe, fashion retailers learn to provide for that growing niche. A fast fashion retailer like H&M, TopShop, or Forever 21 is valued by young consumers for a quick turnaround time between the catwalk and the store racks. What makes it characterized as fast is the perhaps reckless speed at which clothing is made, purchased, worn, and disposed of, all in a season or less. Some design houses put out new lines and trend ideas a few times a year, most prominently at Fashion Weeks worldwide. A lot of those lines are categorized by the seasons in

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<sup>28</sup> Morgan/Birtwistle 2009.

which they will be released: for example, Fall/Winter 2012, or Spring/Summer2011. However, many companies following this faster fashion model are trying to hurry consumption and disposal of clothing by rushing demand. To rush demand, more material needs to be produced and released more often. In some cases, this results in some bizarre mid-season fashion shows or made-up season intervals. Since the industrialization of the entire garment building process from the fiber's plant/animal/mineral start to finish has seen a degree of technical and labor optimization for cost efficiency, more clothing is made now than at any point in history. Of course, this also makes a lot of waste. Most clothing is purchased fully-furnished with trimmings and sometimes sold with suggested accessories. Depending on the retail goals of the distributor, they may not be meant to last.

Within two weeks of a collection's debut and the emergence of a particular trend, production chains get to work: dyeing fabrics in seasonal palettes and designing patterns. This process requires long hours and a high volume of cheaply paid labor to provide products to retailers quickly. Cheap labor is unavailable in the US, and therefore must be sought abroad, thereby increasing transportation needs and pollution. The World Trade Organization's Multifiber Agreement was discontinued in 2005, resulting in dissolution of a quota system mandating many supply chains to use labor in specific protected economies; many businesses moved their manufacturing from higher-cost countries to lower-cost ones. Brands like Forever 21— who were already attracting bad press attention with the friction between management and their labor force in LA— moved their manufacturing arm to low-cost countries with significantly less oversight into their practices.

Such a rushed production process results in many pieces that have flaws in the structure: loose threads, torn or flimsy/flawed fabric, maybe missing beads or buttons. The clearance

section of many of these stores frequently contains worn-out pieces, usually frayed just from in-store shifting of inventory. That is a direct indicator of the inability of some of these clothes to maintain their value, however low it is; but then again, these pieces never promise or try to, and therein lays the problem. As a comparison, a mid-to-high level brand at the average department store has relatively few flaws for a variety of reasons (perhaps related to labor, materials quality, or production speeds), and one can infer from the increased quality that those garments are prepared to be worn for a longer period. A high price does not necessarily correspond to increased utility, quality, or sustainability. The WTO Secretariat's discussion papers on the global textile and clothing industry do, on the other hand, note that the higher quality clothing supply chain is more likely to be marked by "modern technology, relatively well-paid workers and designers, and a high degree of flexibility"<sup>29</sup>, generally located in developed countries to serve consumers in the Global North, though outsourcing to nearby lower-cost producers is becoming a trend. Lower-cost mass market materials, like those seen in a fast fashion source, are likely to have been made by females who are either semi- or un-skilled, and the WTO secretariat mentions that household fabrication is also common in lower-end production<sup>30</sup>.

Purchasing clothing in the most responsible way can be a complex activity to consider for this reason. Many adept shoppers, for example, are well-practiced in common cost-benefit analysis techniques. Someone can ask themselves, "If this knit sweater from Brand A has a high quality standard at \$50, but I can get two Brand B sweaters for \$30 that are not known for quality (but they look fine for now), what should I do?" Many of these young shoppers described in Morgan and Birtwistle are stopping the analysis right there, and choosing variety at a low price over reliability. Instead, an appropriate hypothetical follow-up question involves calculating a

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<sup>29</sup> Nordås, p7.

<sup>30</sup> WTO, 2009.

rough Price-Per-Wear. It can be helpful to add the number of times that someone would wear Sweater A (30+ uses) versus Sweater B ( $2 \times 7 = 14$ ) before it wears out. The utility of one item over another can be reflected in the value found after the price is divided by that value. Sweater A, in the long run, would cost \$1.67 per wear, and each Sweater B might cost around \$2.14 per wear before it falls apart and would need to be replaced. Many fast fashion items are worn about that often before falling into shabbiness. A fashion buyer could hypothetically use basic thriftiness to ascertain the value they receive in moderating their purchasing, but perhaps the best solution involves not purchasing at all if it can be helped. If a person has already bought a sweater or received it as a hand-me down, the Price-Per-Wear is \$0.00.

If some pieces go out of style, they can be put away until later and re-emerge as interesting as ever. People who believe in the cyclical nature of trends not only save money by preserving their old clothes, they are holding back a bit of fashion consumer demand that propels a wasteful manufacturing process. An emphasis on individuality based on a mix-and-match style also contributes to a high-waste mindset, where a high volume of various cheap goods must be on hand to complete an outfit that achieves the overall goals of flattering the body and impressing others with its originality. Pieces in many fast fashion sources have a very strong aesthetic value and have strong, memorable concepts, generally meaning that repetitive wear would certainly be noticed and fashion-anxious personalities perceive the judgment of others.

In contrast to the smaller but more frequently repeated wardrobe of the pre-industrial fashion period, most fast fashion brands command a very high inventory turnover rate. Most clothes that are produced are worn or washed less than ten times before being disposed, a woefully low number considering the trip most average garments have already taken around the world. The proportion of textile waste in the UK, according to a study by the Environment Select

Committee, has increased in the past five years from 7% to 30% of all waste being discarded at council refuse collection points<sup>31</sup>. The cause is attributed to the glut of disposable clothing made by many fast fashion sources, and especially those suppliers that use synthetic fabrics that do not biodegrade well or maintain their quality over many washes. Such poor quality bars re-use or donation to a secondhand shop. Rather than recycle their textiles, many of these consumers prefer to buy whole new looks. It is easy and inexpensive to buy very frequently and dispose just as much as one buys. Random polling of young adult female fashion consumers in the United Kingdom by Morgan and Birtwistle found that, in December of 2005, 88% of them made at least one fashion purchase a month, and a quarter of them went shopping around once a week. This translates to a high degree of High Street consumption, followed by waste consisting of natural materials, synthetic textiles, and chemical dyes.

In response to this trend whirlwind, a movement has emerged to promote the ideals of slow fashion, the opposite of the current business model. Much like its parent movement born in 1989, slow food, slow fashion aims to preserve and promote brands with interesting or well-thought out design processes<sup>32</sup>. Thrust into prominence in 2006, the values that formed the foundation of this particular brand of slow living include independence from multi-billion dollar clothing supply chains and its encumbrance on the environment, not to mention the abuse of many employees of the process<sup>33</sup>. Kate Fletcher followed up on this particular manifesto with her book Sustainable Fashion and Textiles: Design Journeys<sup>34</sup> in 2008. For many reasons, some slow fashion sources encourage bringing the production process back to the individual, insisting that

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<sup>31</sup> Moles, 2007.

<sup>32</sup> Tran, 2012.

<sup>33</sup> Holt, Tim. "The trend to Slow Fashion." Christian Science Monitor 10 Feb 2009: 1 Academic Search Premier. Web 8 Feb 2012.

<sup>34</sup> Fletcher, Kate. Sustainable Fashion and Textiles: Design Journeys. Earthscan, 2008.

homemade is better for the entire world. Other times, the same sources offer handmade clothes at higher prices from external sources. These more expensive items generate a degree of emotional value and attachment that ends up leading to more reuse, sometimes even being passed down to another generation rather than being thrown away<sup>35</sup>. Cheaper clothing generates a certain price-per-wear that basically allows a consumer to calculate a reasonable expectation of wear before disposal. More expensive products, therefore, require more wear and are kept longer in order for the average consumer to avoid guilty feelings upon throwing away a sizeable investment. If anything, they are also less likely to go into the trash but instead are donated, sold, or handed down to a relative to ensure future use rather than a waste of their money<sup>36</sup>.

The slow fashion lifestyle, when viewed from a distance, shares many relevant similarities to other slow initiatives for which it might be criticized. For example, the extent to which its nebulous viewpoint and values are mottled is an issue. Just as slow food concerned itself with the disappearance of the public interest in the origin of their meals; slow fashion is characterized by a heightened focus on the supply chain, a rewind of the production process to a smaller scale, and interest in the life of a garment after purchase<sup>37</sup>. Not all brands are therefore slow in the same way, and may be critiqued as having principles that are *à la carte*. It is up to the consumer to decide if the aesthetic and philosophy compel them to make a purchase. The less is more aesthetic is applied by some designers, and a more standard set of fewer but solid timeless garments are sold to act as a wardrobe's anchor rather than a toss-away piece. In these collections, clothing is likely to be pricey, thereby motivating re-use. Other brands prioritize labor issues and give their workers company shares, while others make donations to charities

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<sup>35</sup> Holt 2009.

<sup>36</sup> Morgan and Birtwistle, 2008

<sup>37</sup> Tran 2008

from a percentage of their profits. Interestingly, some make clothes that need to be washed in a cold-water cycle rather than dry cleaned with chemicals. Clearly the slow factor in fashion manifests itself in a variety of ways.

### **Green Goes Luxurious**

High fashion brands that advertise themselves as going green have the visibility and popularity to convincingly sell responsible products at a price that appears to guarantee fair labor costs and closer to carbon-neutral production conditions. In a relatively new phenomenon, haute brands like Hermès are presenting lines with a slow fashion twist as well. The value in the story behind a garment presents itself again in their autumn/winter collection for 2011, which was well-received by the *New York Times* for subtly utilizing “the secret of today’s stealth luxury”<sup>38</sup>. Hermès is not a brand that cuts corners on materials. The house caters to a very exclusive base of customers, which is why its expensive goods may have benefited from the appeal of a guilt-free angle. The *New York Times* notes that designer Christophe Lemaire’s preferred piece is a coat made by a Mongolian artisan in a bright orange hue. It is crafted from a single piece of fabric, hearkening back to those times of simpler construction in fashion’s early history in which waste was limited by using the whole piece of fabric. This show might otherwise be a typical high fashion exposition in its strong concept complete with allusions to folk patterns of animals that contributed to the garment with feathers or fur. The sacrifices inherent in the supply chain are always kept at a respectable distance from a buyer, however, so they never are burdened with the very real details of the trade-offs inherent in every garment’s construction. The average slow movement supporter (and perhaps a purchaser of this orange coat) could be stereotyped as being out of touch with the process behind each product, only copiously purchasing food items as

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<sup>38</sup> Menkes 2011

conversation pieces or focusing on the flavor or look, and the consequences of their excess as an afterthought. In this case as in many others, the very indulgence offered is not just the garment itself, but the psychological luxury.

As bad as that may sound because it involves avoidance tactics, it is indicative of a changing paradigm in modern consumption. Luxury can and has held a connotation of having the rarest items that required the most sacrifice by others in order to make or obtain them. What Hermès offered in its March runway show, however, was targeted towards a more charitably-minded upper-class client; the design house offered their take on what was the best, both for their style and for the earth. For example, in a consumer environment like the New York metropolitan area where an average student holds more student debt than the worth of twelve Rolexes, the final frontier of luxury is predicted by fashion epicenters to be in subtle external displays of internal morality. The World Wildlife Fund's "Deeper Luxury" report rated Hermès a C+ in social and ecological responsibility among the ten largest publicly traded luxury labels<sup>39</sup>. Out of these ten companies, none achieved higher than Hermès' score, which is great for the brand's standing, but not good in general. This runway show sold what the report called "shifts in the luxury paradigm, emerging from major changes in social dynamics"(p.8), and the eco-fashion pieces themselves appealed to consumers' desire for "time, personal energy, and connectedness"(p.33) that they otherwise may not have.

Criticisms of the slow movements depict its core values as a series of nebulous principles which people can identify with or reject at their leisure. Many people respond well to the guilt-free exclusivity and social superiority that these items provide. Even while enjoying the comfort

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<sup>39</sup> Bendell, Jem/ Kleanthous, Anthony. "Deeper Luxury Report," WWF-UK, Panda House, Surrey. November 2007.



of shopping online, eating, and cuddling into a warm Hermès coat, a consumer can have it all without much sacrifice or inconvenience. The principles and philosophies behind green fashion are present on their websites and in their fashions, and yet the self-representation of high-end fashion brands does not often outright reflect those values. In an industry that sells an aspirational image to influence modern views on eco-friendly fashion, high end fashion has the power to create more change than it currently does.

### **Modern Eco-Fashion Brands, Certifications, and Self-Concept Presentation**

It is important to note that the green fashion movement could be seen as advocating values piecemeal since sustainability is prioritized in various ways. Certainly garments may claim a green name using many different advertising angles, but the basic truth is clear; consumerism and manufacturing will never be truly green or waste-free. Austerity measures and de-emphasis of the importance of profit margins, while beneficial to a green company's philosophy, run counter to the basic ideal on which the fashion industry thrives. As U.S. companies are required to produce profit for shareholders, there is a limit to how sacrificing they are allowed to be for their cause. Nearly every company can claim a special greenness with effort, and they make that effort often. Then, the consumer can consider what appeals to them based on their personal strategies or preferences. Slow fashion is all at once promoting both luxury and sacrifice in a variety of ways, and perhaps the hardest truth to accept is that, because of the changes, transport, and waste required in manufacturing, no one item is ever truly environmentally neutral. Still, there are plenty of ways relating to labor or environmental sensitivity to make a garment closer to that distant goal of "neutral".

Brands:	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
Factors																		
Fair trade or labor	X		X	X	X	X	X		X		X						X.5	X
Made in USA/local					X				X			X	X	X	X			
Small/Indie artist							X	X	X									
Charity	X	X			X			X	X	X	X			X			X	
Rural employ.	X	X					X	X								X		x
Women	X		X				X	X	X									x
sustainably farmed	X	X	X		X	X	X	X	X	X	X	X	X	X	X.5		X.5	
Fuel planning		X			X				X			X	X	X	X	X	X	
Awareness/charity		X	X		X	X			X		X					X		
Alternative materials		X	X					X	X	X		X	X					X
Recycled			X	X		X		X	X				X	X	X			
Reused Textile				X		X			X			X	X	X	X	X	X	X
"green" office						X				X					X	X		
Total	5	6	6	5	5	5	5	7	11	4	4	4	6	6	5.5	6	4	5

Frequency of us
10/17 58.82%
6/17 35.29%
4/17 23.53%
10/17 58.82%
6/17 35.29%
6/17 35.29%
15/17 88.24%
9/17 52.94%
8/17 47.06%
7/17 41.18%
8/17 47.06%
9/17 52.94%
3/17 17.65%

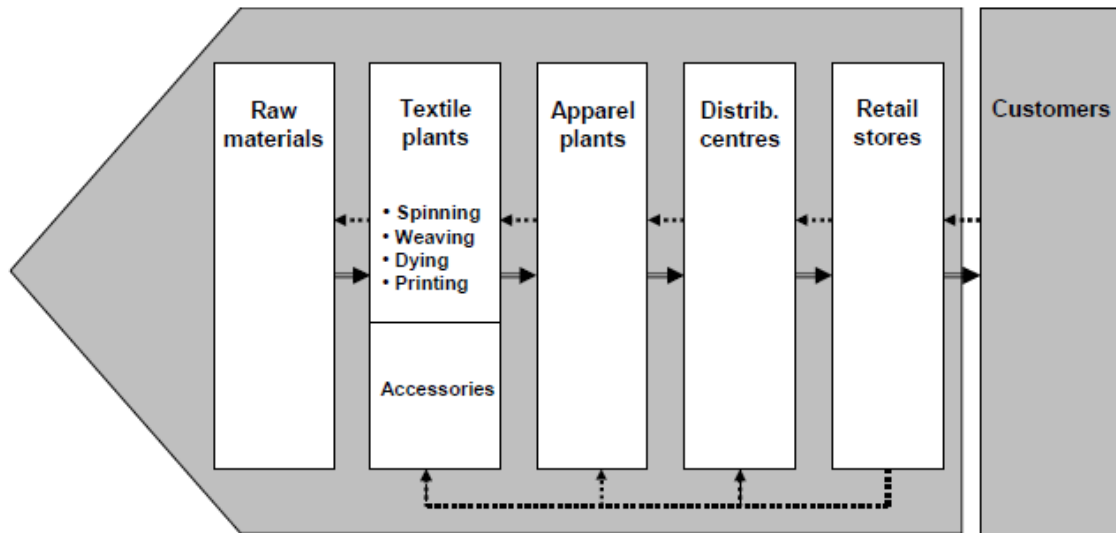
**About the data:** The brands in this chart represent a set of factors used to represent green product lines' emphases in their advertising. A brand or designer's collected factors are arranged horizontally, and the factors' frequencies are set in a column. This particular graph's samples are predominantly taken from the websites of brands sold by one specific e-retailer which is based out of a home in suburban Massachusetts, generally serving New England. Every brand sold by this e-retailer, in order to match its values, is required to not only have an aesthetic appeal, but do business as both a responsible brand in terms of labor standards, and also an ecologically sustainable one. Because many companies prefer to blend a responsible image (or failing that, a charitable image) with a green one, factors were separated into the two subsets; human/labor interest appeals were denoted by the blue columns, and an environmental claim was denoted by green factor columns. To identify representation factors, I only used brands with 1: A website managed directly by the company or a representative rather than a second party retailer, and 2: An emphasis on these factors on a specifically devoted page of the site. The results of every site's impression included a consultation of its "About" page or biography, and an analysis of their offered products. The self-representation factors of these companies follow their personal practices, as required by the retailer and outside certification agencies. Some of the brands labeled in this chart were additionally described in the WWF *Deeper Luxury* report and other coverage, but the data recovered from outside research, or even press releases noted on the website, were not used in data collection so as to emulate the experience of the new casual shopper.

Items D, P, and Q are noted fast fashion retailers, whereas F, G, and O are all larger nationwide clothing chains that differentiate themselves by advertising their green policies and amenities, such as low-cost repair facilities.

A factor is counted if it is explicitly stated on an expository or “About Us” page, noted on particular items, or identified on the website’s items with a certification seal. Factors marked as a “X.5” received half credit for having a single subordinate line of clothing that adhered to some standard of Organic or Fair Trade certification, indicating that the rest of the brand may not. Sometimes the website provides an additional education page for background on this particular issue, in which case it is also counted, as it forms a mental connection with a cause. Not every feature of every brand is noted; some companies, for example, may certainly be all-organic or use recycled materials for products, but do not assert it. Only the factors prominently impressed upon are listed, in order to capture an image of how the organizations portray themselves to their customers. As a general observance, larger brands of fast fashion producers advertise fewer green initiatives more strongly when they apply. When they do, it usually pertains to using modern conveniences (for example, emailing statements rather than mailing them) and encouraging a guilt-free shopping experience to encourage demand. Luxurious brands had a tendency to use more creative, more understated means that someone interested in green retail would appreciate, such as using mannequins and displays made from biodegradable or recycled materials. It is sometimes presented in a proud yet understated way, as if fearing the consumer would be burdened by the message. Brands of all sizes with a strong green philosophy, however, had a very strong educational element in the purchase pages and garment profiles in addition to the essential “Responsibility” or “About Us” page on their websites. Many of these green brands represented their values throughout across the board, appealing to a shopper’s sense of social and

ecological responsibility in learning about the values and path of a product. For a shopper willing to do their research, the brands with a strong philosophy have made that path very clear

Figure 1: The supply chain in the textile and clothing sector



Nordås, Hildegunn K. "The Global Textile and Clothing Industry post the Agreement on Textiles and Clothing," WTO Publications 2004

and unmistakable.

**About the supply chain:** Eco-fashion can be, in many ways, a return to the beginnings of clothing production history. The path of the production process is simplified by certain WTO discussions on textile production into five parts: producing the raw materials, making the textile, sewing the textiles into a garment, distributing them to retailers, and finally making the sale. This particular process, the supply chain, takes many forms but ultimately brings every garment to store racks in a measurable way. With many larger brands, this can mean that several hundred subsidiary facilities are responsible for handling the various goods a store carries. Many fashion brands, especially others who engage in greenwashing, prefer to hide the details of the origins of

their clothing. Using organic farming methods with what is considered the standard sources of American textile materials (for example, synthetic fibers derived from petroleum, cotton, or wool rather than the more productive hemp, Fletcher, 2008) means that significant amounts of land would need to be cleared for this growing need for agriculture. After having grown and produced the fibers and fabric, products require fuel and packaging for shipment around the world, all impacting the environment.

Transportation is required between every step except in very special cases. One brand, for example, combined the textile production, tailoring, and distribution processes into one combined facility.

**Table 1.5** Average natural fibre production per hectare

	Average fibre production (kg) per hectare
Cotton	300–1100
Flax	800–1150
Hemp	1200–2000
Wool	62

**Figure 6-** From Kate Fletcher's *Slow Fashion*, 2008, p.69

Many sources that consider themselves green also tend to limit or optimize their travel routes in order to limit not only fuel emissions into the atmosphere, but also expenditures on shipping, fuel, and vehicles. The retailer from which the majority of the data is produced is listed online. It ships international purchases regularly (about 20% of its sales go to international customers primarily in nearby Canada, but also Australia, the UK, and Asia), but currently is refocusing its efforts on local production and consumption, while supplying to local retailers in order to develop a business more in line with its philosophy. In this way, many smart-planning initiatives benefit both the company's bottom line as well as the earth. The fuel planning factor on the chart draws a close correlation to the green office and awareness factors in that it is an inexpensive or even cost-saving strategy. In addition, it is frequently marketed to add a feel-good angle to any brand or service, without significantly sacrificing internal efficiency.

### **Green Factor: Education, Certification, Evaluation**

The majority of businesses advertised an organically grown inventory, with the majority offering certifications to back up their claims. The three brands who do not advertise a wholly organic line-up alternately use recycled, secondhand, or scavenged materials. Because these materials are found or re-used instead of freshly manufactured textile or accessories, it is compellingly argued by one brand's representative that despite the conditions of their creation, their continued use rather than waste is just as environmentally neutral if not more. This is especially powerful because of the transformative properties of art on what would otherwise be waste; it changes the image of coke-bottle-made clothes from an oddity to a wardrobe anchor.



As for verification of these factors, communication and certification are key. Communication to the customer and transparency sets them apart from others. This is an approach not only used by small-brands but also by large retailers of ecologically sustainable clothing like Patagonia and American Apparel which have educational links, maps of their supply chain and premises, or charity initiatives intended to use their big-money powers for good causes. A fashion brand's PR team must strike a delicate balance in considering the danger of turning a customer away; one would do that by "sounding too preachy or negative"<sup>40</sup>. However, the most effective tactic sometimes is to carry across the message of how damaging the fast fashion industry really can be. Unfortunately, the negative generates more interest than a pamphlet on the benefits the initial producer gains from a Fair Trade purchase, or showing a consumer how much softer an organic hemp shirt can be. In a niche requiring more education and critical thinking than fast fashion, the company must present accurate resources and comprehensive




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<sup>40</sup> From an interview with Mary Savoca, Director at nancysgonegreen.com, 2012

details about products without appearing condescending – or worse, being unclear and appearing out of touch, a cardinal sin in style. Of course, as one is unable to visit each step in the supply chain on one's own, various certifications are in place to verify sustainable practices. The retailer from whom most of the designer data was derived is certified by Green America. As such, they are held responsible for providing accurate information on the sustainability and fair labor practices of all its suppliers. Many of its large brands are also certified under the same criteria by Green America in their own right. Other reliable certification agencies consulted by this retailer include but are not limited to the Fair Trade Federation and the Organic Trade Association. Fabindia inspires confidence on its website by displaying its own shorthand symbols for growing processes/official certification or status in the long process, or a stamp indicating approval by



India's National Programme for Organic Production. Certification for many smaller brands is prohibitively expensive, sometimes costing thousands of dollars<sup>41</sup>, so for them the process may still be pending. In these cases, open

communication by this retailer is emphasized as to maintain accurate information for the consumer. The retailer is in charge of asking the big questions, and verifying records based on specific criteria such as proof of charitable donations, checking the tags of products, and maintaining open and frequent communication with the designer or employees, if applicable.

The common factor in all these companies is the communicative nature of their self-representation and the transparency with which their goods are presented. Smaller brands have little need for a large and complex supply chain, meaning that it is generally easier to share that information to a casual consumer on their website. H&M, to contrast, has need for a supervised network of over 700 factories and workshops to maintain its high volume inventory, many of

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<sup>41</sup> Interview with Mary Savoca, Director at [nancysgonegreen.com](http://nancysgonegreen.com), 2012.



which are contracted by other clothing producers. Recently, H&M came under fire by Greenpeace International<sup>42</sup> for the use of factories in China that dye clothes with a chemical that disrupts the ecosystem by polluting the rivers into which the factory pours its waste product. It is possible for a retailer to advertise that they contract their work out to companies whose labor and environmental standards comply with the laws of their location, which sounds quite responsible. An average consumer with only a casual interest will not realize the implications of that claim. H&M's workshops in China used a harmful chemical that changed the genders of the fish in nearby rivers, but the chemical's use was technically legal in that locality. International textile standards and enforcement are not necessarily as stringent as the ones in the United States or the European Union which may be more familiar to mass-consumption markets. Just because someone is purchasing a garment in the US from a company with an all-American advertising image does not mean that American labor standards or environmental standards were maintained or even set in the first place. Harmful chemical dyes that have proven to be harmful to the environment can be and are used in many locations throughout China and India in clothing factories, which then pollutes the local area while the products are shipped elsewhere for consumption. Laborers in these factories then face additional risk factors for disease from factors like but not limited to handling dangerous chemicals, breathing vapors or dust, or developing long-term muscle and joint issues from repetitive movements. Assertions about the legality of a company's international vendors' practices leave a lot unsaid, and because of that reliance on vague wording a properly responsible purchase requires research on the part of the consumer. A degree of oversight is possible from official sources and was attempted by the company, and yet these suppliers were independent contractors and therefore not directly under the H&M name.

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<sup>42</sup> Greenpeace International, "Detox."

Therefore, the company itself can claim little responsibility for how their factories are run on a daily basis outside of what they consider to be due diligence in supervising and inspecting them.

A focus on transparency and education indicates a comfort in the level at which many brands presented their efforts to limit their impact upon their local environment. Stripping away most aesthetic factors, there remains an overall sense of a very strong personal philosophy according to their focus- regardless of brand or degree of utilization of “green” factors. This ideal sets further improvement and awareness as a loftier goal, which is depicted as being able to be achieved along with growth of the business.

Ecologically friendly fashion was certainly possible on a smaller scale in days long past, and yet even with the massive population the world carries now, modern applications can be learned and utilized. The modern human population, with increased knowledge of production technology, places a burden on the planet’s environments that makes pollution unavoidable but at a level that is unnecessary. Indeed, there are contemporary successes to draw inspiration from: entrepreneurs are currently finding great uses for small-scale producers or local natural dyes in their supply chain, and scientists are discovering new applications for renewable fibers outside the realm of what the world considers to be typical textile fibers. It is hard to say whether or not a re-wind of clothing production practices will adequately provide for such a great demand, or ideally if this high demand can be mitigated and slowed, but the benefit of democratizing the clothing system may provide lasting relief to the fashion industry’s ecological impact.

The development of clothing manufacturing technology has had a profound impact on how people see each other and visualize success. With the evolution of labor conditions and the rise of the middle class, not only necessities but luxury items were more accessible than ever.

This required an overhaul of what exactly defined exclusive in an industry already described as one of the most capricious and fluid in the world. When people in a wealthy region can save up or volunteer to take on debt to afford a brand-name suit jacket or purse, it becomes the job of the top couture houses to present the next luxury to the minority— and their next step went green. However, the high fashion industry, thanks to communications technology, commands trends and the modern fashion climate more than ever. They can certainly command a larger paradigm shift and facilitate greater social change than they currently have.

### **Conclusion**

This paper reviewed a number of issues associated with the development of ecofashion while highlighting some of the problems of the globalized industrialized fashion industry. Ecofashion, like the flow food movement, emerged as a critique of the modern capitalist system that promotes consumption over communities and profits over people. Emerging out of the western fashion tradition, the fast fashion industry is highly productive and allows for continuing innovation of style, specialization, and design. In contrast, traditional garments, notably the sari and kimono discussed here are used for years.

There are attempts being made to develop transform the western fashion world. New benchmarking tools have been created and there are a number of certification organizations that seek to improve the manufacturing process and those involved with the production of clothing. However, the scale of these innovations is still small and requires an educated consumer seeking to purchase sustainable clothing.

More frequently, the role of eco-fashionista is played by the buyers of smaller artists and production houses with charitable or educational philosophies. It is a rapidly growing industry as

more people catch up to trends set by high fashion and set aside old stereotypes about wearing hemp fibers or the necessity of tie-dye. Clothing shopping can sometimes be seen as a vapid pursuit, but most retailers in this niche are trying to maintain the opposite sentiment for its customers. A meaningful experience, in this modern competitive environment, increases demand and appeal. It takes a caring consumer to look past the price tag and into the path each garment takes through the supply chain. Each garment has a human element to it that appeals to the buyers in many demographics; the damage to human living environments, human cost, human labor. Some do more damage than others. Seeing the environmental impact on people in other regions is no longer so distant a concern as it used to be in the past, and in this constantly connected world, it has previously been accepted as truth that the consumer is speaking while the market listens. However, the fashion industry encourages a degree of demand that is unsustainable and overall bad for the planet-- and many consumers blindly follow. Thus, while there is hope that global fashion at large will become more sustainable, the current reality is that fast fashion rules the western mindset.

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