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# Ethical Fashion in the Age of Fast Fashion

Sophie Xue

Connecticut College, [sophiexue5@gmail.com](mailto:sophiexue5@gmail.com)

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## Ethical Fashion in the Age of Fast Fashion



Sophie Xue  
Connecticut College  
Art Honor Thesis, 2017-2018









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# Introduction

Among the many industries most changed by globalization, fashion stands out. Fashion is not just a style but the whole industry, including the garment, footwear, accessory, cosmetics, and fragrance sectors. Out of all these sectors of fashion, apparel is the most pervasive and internationalized industry in the world. Fashion has changed dramatically in the last decade. “Fast fashion”, a term that refers to the speed at which clothes are consumed and disposed, is taking over many consumers’ wardrobe and causing the unprecedented environmental crisis. Traditional fashion retailers follow a business model which releases clothing collections two to four times a year. On the other hand, fast fashion companies release much more frequently and deliver lower-priced clothing that reflects consumers’ changing taste throughout the year. Releasing new collections every month, fast fashion conglomerates such as Zara and H&M entice consumers to constantly renew their wardrobes to keep pace with the latest trends.

The most dangerous message portrayed by fast-fashion retailers is that clothes are disposable. An average American tosses out 81 pounds of textiles a year, 95 percent of which could be reused or recycled (Goldberg). Many consumers are unaware of the many issues woven into the fast fashion clothes they wear such as:

- i. unsustainable use of natural resources;
- ii. environmentally corruptive production processes;
- iii. exploitative labor conditions; and,
- iv. business models that result in the low prices on their clothing tags.



Fig. 1. Lance Lee, Greenpeace, Sept. 2017, Digital Image, Greenpeace.com.

The fast fashion industry thrives on mass production and affordability. This combined with rising consumerism has brought about a dangerous mindset for the planet, that being the mindset of disposable fashion. According to the World Bank, 20% of water pollution globally is caused by textile processing, making it the second largest polluter of freshwater resources on the planet. Water pollution directly leads to the scarcity of drinking water which has been the primary cause of conflicts and wars worldwide. In China, 17% to 20% of water pollution is caused by the production of textiles. The world is facing a severe water crisis due to textile manufacturing, a business that feeds today's

fashion industry. Not only does the fashion industry cause water pollution but it also exploits many other natural resources by disposing copious amounts of non-degradable garment waste, and disturbing animal welfare. Sustainability issues in fashion need to be addressed urgently. The responsibility of slowing down the pace of this dangerous mindset and its environmental ramifications not only lies on the fashion industry but on the consumer as well. Through educating the consumer about the truth of fashion and giving them the options of equally fashionable but ethical clothing, one can have the confidence to help change the polluting fashion industry.



As an artist coming from the world's major manufacturer, China, Sophie seeks to be among the pioneers who create art that educates the public about issues and injustices in fast fashion. In this honor thesis, she investigates different ways of making ethical fashion using different mediums such as: garments, painting, printmaking, and sculpture. The range of mediums that she works with highlights her passion for both art and fashion. Thus, the garments she produces are a series of conceptualized fine-art garments to be studied the same way a traditional artwork would be. By placing clothing on a pedestal on par with paintings, Sophie seeks to examine the clothing industry under a microscope-lens in order to unveil the hidden elements of exploitation, environmental degradation, and personal discomfort that are sewn into the clothes we wear.







# **Part I: The Fashion Industry**

# Fashion Before Fast Fashion



Fig. 2. The Metropolitan Museum of Art, Mantua, met.com.

To understand what fast fashion is, one has to understand the history of the garment industry and fashion. The late 18th century marks a turning point in fashion. Before the 1800s, there was no division between haute couture and ready-to-wear clothing because all clothing was custom-made. Styles were measured, cut, sewn and fitted for a specific individual. Without machines and technology, fashion was made in the home and required many hours of handwork. Depending on household income, individuals such as the wife or maid created the clothing for the family. Or, in some instances, major pieces of clothing were made-to-measure by dressmakers and tailors dealing directly with the clients to fit their body shapes. The amount of energy that went into the textiles and handcrafting of garments was extensive and remarkable.

The emergence of ready-to-wear clothing was made possible through Britain's Industrial Revolution, which not only introduced factories, but sewing and textile machines that increased speed of clothing construction and flexibility of sizing system. After the sewing machine was patented in mid 19th century, the scale of clothing manufacturing significantly increased which resulted in the rapid fall in the price of clothing. However, homes and small workshops continued to be the site of most clothing production throughout the beginning of the 20th century. The outbreak of World War II led to an increase in standardized production of clothing due to fabric rationing laws instituted to help support the war effort. After becoming used to such standardizations, middle-class consumers adapted to purchasing

mass-produced clothing after the war (Breward,42). It was in the 1960s when fashion began changing at a dizzying speed as young people desired to differentiate themselves from the older generation by rejecting sartorial traditions and embrace cheaply made trendy clothing. This is the era when fast fashion first made its appearance.

# The Power of Fashion



Fig. 3. Shutterstock/SFIO CRACHO, *White T-shirt*, 2017, MoMa.com

The words “fashion” and “clothing” indicate different aspects of our relationship with what we wear. “Clothing” can be understood as commodities purchased out of necessity. “Fashion,” on the other hand, represents consumers’ subjective choices, which can be driven by personal motivations such as desire, aesthetics, novelty, and conformity (Anguelov, 8). It is important to respect the power of fashion and understand its significance in cultures throughout the world, from the earliest peoples to the present day. Humans, in general, seem to take an interest in the way they dress. Every day and everywhere, the majority of

people wear something of their own choosing. What we wear is closely associated with who we are. MoMa’s recent exhibition *Item: Is Fashion Modern* has guided people to look at fashion in many new ways. The description of the exhibit helps us understand the role that fashion plays in constructing our perception of the individual.

*“What we wear can help us to express pride in belonging to a community, to flaunt national identity, to celebrate newfound independence and emancipation, to render the memory of a faraway homeland, or to recognize the mastery of culturally specific skills.”*

— MoMa, 2017

In other words, in the 21st century, the clothes that hang on people's bodies have become a key identifier of who they are, what music they listen to, what their cultural values and political stands are. With the rise of fast fashion and increased accessibility to clothing, consumers have an easier time switching their identities, friend groups, political affiliations, simply by discarding their wardrobe and purchasing a new one. Not only does fashion help people express their identity and enhance self-esteem, but it also provides livelihoods. The industry employs up to 40 million people worldwide, 19 million of which are employed in China, and 2.7 million in the EU (Black, 9).







**Part II:  
Fast Fashion  
and Its Problems**

# Overview of Fast Fashion



Fig. 4. Jack Taylor, Getty Images, Digital image.

The fashion industry has had many positive influences in the world, yet fast fashion is revolutionizing the entire industry. “Fast fashion” is a contemporary term coined to describe fashion retailers’ business model based on the quick conversion of typical catwalk clothing into affordable ready-to-wear styles. Fast-fashion products are more appealing because they cost less for the consumer, have a shorter production period, and as a result a shorter lifespan. The main retailers shaping the industry are European conglomerates such as Zara and H&M, who offer luxurious clothing styles at an affordable price. It is still debatable who is the first true fast-fashion retailer as many of the leading fast-fashion brands started as smaller shops in Europe around the mid-twentieth century (Idacavage).

Zara is now the world’s biggest fashion retailer, earning 20 billion dollars in revenue, and its CEO Amancio Ortega Gaona is now the second richest person on the planet (Bloomberg). Ortega opened his first store in 1975 and quickly built

his empire on two basic rules: Give customers what they want and get it to them faster than anyone else. Speed is the absolute driving force for Zara. When Zara reached New York in the 1990s, The New York Times used the term “fast fashion” to describe the store’s mission, declaring it would take no more than 15 days for a garment to go from an idea to being sold on the racks (Schiro).

Despite Zara being the largest clothing retailer, H&M is technically the longest running of these retailers. H&M opened its first store named “Hennes” in Sweden in 1947, expanding to London two decades later and eventually reaching the states in 2000 (The Associated Press). With its aggressive speed, H&M now owns more than 500 stores in the United States and almost 5000 stores worldwide while Zara owns 7000 stores worldwide. The successful business models of Zara and H&M have inspired many retailers to explore fast-fashion product lines. Even traditional luxury houses such as Versace now offer fast-fashion options to expand

its market demographic. These products are priced low and therefore purchased by customers who were traditionally priced out from owning a luxury brand. It is the quest for low-prices that fast-fashion retailers successfully deployed, revolutionizing the industry.

However, the rapid growth that defines these brands today goes hand-in-hand with cost-cutting production method. These fast-fashion brands have had to compete with one another in finding ways to provide more affordable trendy clothing, which led to massive textile mills opening up across the developing world. The outsourcing of production and labor abroad have saved these companies millions of dollars, while simultaneously causing an enormous amount of problems.

# The True Cost of Fast Fashion

Before the age of fast fashion, clothes were categorized into low-end, mass-market, and high-end items by price, brand, and quality. Today, the difference between a \$10 dress and a \$200 dress can be undetectable. Items that look high-end in terms of style, design, and quality can be sold for less than the price of a grande latte (Anguelov, 2). As a result, in many places, cheap, readily disposable clothes have displaced more durable garments as the mainstay of dressing (Rosenthal). Few people seem to notice that low clothing prices today result in substantial costs tomorrow. In order to keep prices low for the consumer, clothing manufacturers strive to minimize their production costs in every possible way, which has resulted in increases in both environmental and social costs. Environmental costs grow higher and higher from pollution generated from industrial production every day and the

exploitation of natural resources. Labor exploitation and human health damages sustained from the side effects of unsafe products have led to violence and significant human suffering. When the consumer purchases a fast-fashion product, what he or she sees is a set price on the price tag, but the true cost of the product is usually much higher. So who is paying for the “bargains”?

# Water

While the earth is nicknamed the “blue planet”, usable water is incredibly scarce in comparison—only 2.5% of the Earth’s water is freshwater, and only 0.3% is accessible to humans. A study shows that,

*“Of this fraction, 8% goes towards domestic use, 22% is used by industry, and 70% for irrigation. Humanity’s water footprint will reach a level 40% above accessible water supplies by 2030.”*

— Pamela, Ravasio, 2012





Fig. 5. Sophie Xue, *1000:1*, 2017

Meanwhile, the fashion industry is a massive consumer of freshwater. From growing the cotton, to dyeing the fabrics, to transfer agents, and rinsing, a large amount of water is used at every step of the process. It takes over 1,000 gallons of water to produce a typical pair of denim jeans, amounting to over 450 billion gallons of water every year for jeans sold in the US alone (Reformation.com).

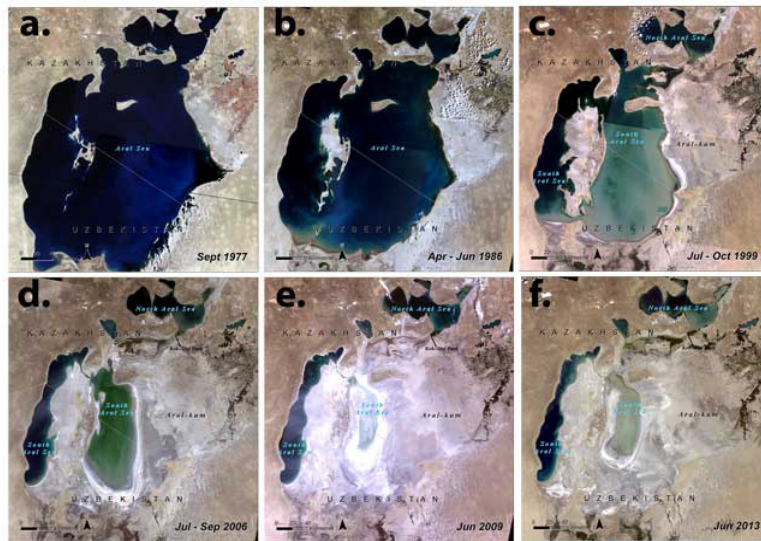


Fig. 6. WWF, Lose of Aral Sea, WWF.com

Apart from consuming vast amounts of water, apparel manufacturing expels millions of toxic chemical additives into waterways, which eventually enters into ecosystems. Unsustainable cotton farming has become one of the biggest culprits of water scarcity and pollution. While cotton only occupies 2.4% of the world's cropland, it accounts for 24% and 11% of the world's insecticide and pesticide use respectively (WWF). This type farming directly led to the loss of the Aral Sea in central Asia in 2014. The Aral Sea was once one of the largest lakes in the world and had provided significant sources of water and food to the civilizations around it. The sea now covers a mere 10% of its former area and exudes massive pesticides daily. The lake has become a hazard to the

surrounding communities whose health and livelihood are deteriorating more and more as the fertilizers and pesticides used in the cotton farming covers the villages in carcinogenic dust.

The wastewater of the textile industry is now a major polluter of the environment, especially in developing countries who have less strict regulations on water waste. In parts of China and India, farmers are predicting the color of the next fashion season by the color of their rivers running out from the textile factories. Since fast-fashion companies are pressured to reduce costs to make cheap products, they cut corners on all environmental matters. They use a significant amount of toxic chemical dyes, the second largest polluter of clean water globally,



Fig. 7. Business Insider, 2015

after agriculture (Perry). The companies compensate the factory owners very little or nothing at all for the processing of the wastewater before it goes into the rivers and choose to use more synthetic fibers that are the ultimate nightmare to the water, the aquatic life, and humans themselves.



Fig. 8. Sophie Xue, *Pocket-sized Textbook*, 2017-2018, informing the viewer of facts of different fabrics

For example, polyester is the most popular synthetic fiber used by fast-fashion brands. But when polyester garments are washed in domestic washing machines, they shed microfibers which are so tiny that water treatment plants cannot catch them all. When these microfibers get into rivers, lakes, and oceans, they act like sponges sucking up other pollutants around them which end up in the bellies of fish, and making their way up the food chain to humans (The Story of Stuff Project).

## Labor

The promise of globalization was supposed to be a win-win for everyone. On the surface, the extremely globalized garment industry has made a positive contribution to the economic development of many countries and generated direct employment for over 40 million people around the world. However, this greedy industry maximizes its profits by abusing workers' rights. Competing with one another for the lowest prices, many fast-fashion companies, pressure the factory owners in developing

countries to produce garments as cheaply as possible. Factory owners who are desperate for more business, have to exploit their workers for greater profits.





Fig. 9. Made in America movement, 2015

Abuses are particularly severe in developing countries. For example, low wages in Bangladesh, child labor in India, and lack of freedom of association in China. However, developed countries such as the UK and the US are also subject to low wages and poor working conditions. Violations of workers' rights are linked to all types of fashion brands and retailers, especially those fast-fashion conglomerates who sell low-priced clothes.

In 2010, two factory fires killed forty-nine workers in Bangladesh, one of the world's top garment exporters. In November 2012, a fire killed around



Fig. 10. Munir Uz Zaman/Agence France-Presse, Getty Images, 2013

120 people at the Tazreen Fashion factory in Dhaka, Bangladesh that had fast-fashion clients like H&M, Walmart, and JCPenney. However, this tragedy did not prompt the industry to improve working conditions for its workers. In April 2013, the Rana Plaza building collapsed and killed more than 1,100 people, bringing global attention to workplace safety in Bangladesh (Stangler). It appears from witness statements and press reports that the emergency exits were blocked, the front gate was locked, and fire extinguishing equipment was either missing or inappropriate. According to one survivor, before the building collapsed, the doors and windows

inside the building were locked and tightly shut by the supervisor to prevent the workers from running away.

After the tragedy, the initial reaction of those fashion companies is often denial of responsibility in that they don't own the factories, and therefore, it is not their problem.



Over the years, the mainstream garment industry has made progress in addressing poor working conditions, but the impact of this is often limited to larger suppliers, where the buyer has greater influence, and to issues that are immediately visible. To bring about more significant and sustainable change, governments need to provide a framework that reinforces an equitable power relationship between the buyer, the supplier, and the worker. Buyers should be fully aware of who their suppliers are and how they treat their workers. Suppliers need to address the causes of workers' rights violations in their supply chain. Most importantly, consumers need to be able to willing to pay the true cost of

garment production. In reality, few people think about the people who have made the clothes they buy. As clothing has become cheaper and more expendable, the value, skills, time, and effort needed to make them are greatly reduced. Addressing this dynamic is fundamental to the rethinking of the garment industry. The consumer needs to recognize garment workers as people with lives and aspirations, whose talent, intelligence, skills, and human rights are vital to a sustainable and ethical industry (Black, 145).

## Textile Waste

The world now consumes more than 80 billion new pieces of clothing every year, which is four times more than the amount people consumed in the 1980s (Hansen). This dramatic change directly results from the rise of fast fashion. Fast-fashion retailers deliver as many as eighteen collections produced in massive quantities every year. Constantly changing of styles at low price points, however, has had a very negative influence on the mentality of the consumer. The affordability of the trend causes excess shopping, therefore, accelerating the speed at which clothing goes out of style and into the landfill.



Fig. 11. *The True Cost* film, Andrew Morgan, 2015

According to the United States Environmental Protection Agency, an average American tosses out 81 pounds of textiles generating over 15 million tons of textile waste every year. Of this amount, 17% was recycled, 20% combusted for energy recovery, and the rest of the 63% was sent to the landfill (EPA). Of the 17% of recycled textiles, only 0.1% was given a second life and made into new fabrics. A large amount of the recycled textiles went to charities who end up selling only 20 percent of donated goods to the public. The “millions of tons” of unsold clothing are then sold by charities to recyclers as a way of generating revenue (Council for Textile

Recycling). Even at the hands of the recyclers, less than 50% of the textile waste is fully recycled and reused because of the complex textile recycling system—clothing is not only composed of fabrics but metals like zippers, and plastics like buttons, which are almost impossible to remove.

If one is to calculate how much clothing waste will eventually end up in landfills, it is over 10 million tons in the United States alone, which adds up to more than 126 million cubic yards of landfill space and occupies nearly 5% of all landfill space (RecycleNation). When textiles,

especially those made of synthetic fibers, go into landfills, it will take hundreds of years for them to decompose. In the meantime, they release harmful greenhouse gases, including methane, a destructive substance that is a significant contributor to global warming. Besides generating toxic gases, textiles treated with dyes release poisonous chemicals into the soil, contaminating both the surface and the groundwater.



Fig. 12. H&M.com, SS15 Conscious Collection campaign, H&M.com

In recent years, fast-fashion conglomerates seem to realize their responsibilities in reducing the environmental footprint of the fashion industry, but it is not enough to reduce textile waste substantially. In 2016, H&M launched its initiative called World Recycle Week, a garment collecting program that calls the customers to bring in their old clothes of any brands and put them in bins in H&M stores worldwide. In return, the customers will receive 15% off coupons for their next purchases. H&M also produces a Conscious Collection made from sustainable and recycled materials. Multiple advertisement campaigns and a music video in collaboration with rapper M.I.A. were created to encourage garment recycling. Indeed, these efforts raise awareness in recycling clothes, but it misleads

the customers into believing that all of the clothing they donate will be given a second life. The truth is while H&M produces thousands of tons of clothing using brand new fabrics every day, it would take the brand 12 years to create recycled clothes using just 1,000 tons of clothing waste due to the limitations of current technology (Siegle). The customers are tempted to buy more products having the mindset that their old clothes will be recycled so they are not destroying the environment. This mindset ends up bringing more and more textile wastes in the world.

# Future of Fast Fashion

The present is not working, but there is a way out. Since its beginning, the fashion industry has acted on consumers' priorities. Fast fashion was created under the demands of the consumer who desires affordable and trendy clothing. If consumers become more knowledgeable of the industry, they will start to care about the environmental costs of their clothing, and change their purchasing behavior. Not everyone is going to care, but if enough people do, fast-fashion companies will have to respond to it.



Fig. 13. *The True Cost* film, Andrew Morgan, 2015

One way that people began to gain awareness is through films. Thanks to the release of the documentary film *The True Cost* by Andrew Morgan, issues embedded within the fast-fashion industry were brought to global attention. The film was shot in different countries around the world, from the sweatshops of Dhaka, Bangladesh, to the organic cotton fields of Lubbock, Texas. Through interviews with factory workers and owners, cotton farmers, and fashion designers, *The True Cost* reveals the harsh reality of the fast-fashion industry and showcases the actual cost of cheap chic. When

the film debuted in 2015, traffic to fast-fashion retailers significantly dropped. The consumers showed a conscious and direct response through the fashion products they purchased. Rising consumer concerns have pressured many fast-fashion companies to adjust their marketing strategies.

In response, Zara released its first sustainable collection named “Join Life” in fall 2016. The products labeled “Join Life” have to meet multiple qualifications required by Zara. The majority of the materials used must be



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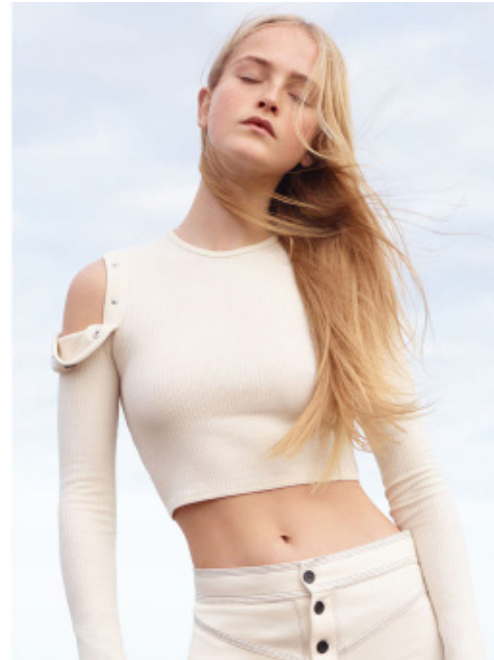


Fig. 14. Zara, Join Life campaign, Zara.com

organic cotton, which has to be approved by Better Cotton Initiative who “trains farmers to use water efficiently, to care for the health of the soil and natural habitats and to promote decent work” (Zara.com) Recycled materials are widely integrated into the collection as well. Zara cooperates with Lenzing, the pioneer ecological fiber company to develop REFIBRA™ Lyocell which comes from recycled cotton and converts textile scraps into new fabrics. Zara also guarantees the transparency of its supply chain that informs the shoppers of every step of their clothing being made— where it has been cut,

dyed, washed and manufactured. In addition, Zara promises to only work with factories that respect workers’ labor conditions, product safety levels, and the environment.

Though the sustainable actions of these fast-fashion companies are argued to be self-beneficial, they to some degree, also educate their consumers about a new era of fashion that is both environmentally and socially sustainable. Not only have multinational fast-fashion corporations taken action in helping to shape a greener future, governments in recent



Fig. 15. Kim Hong Ji, Getty Images

years have also been intervening in establishing a more sustainable industry.

A key player in fast fashion, China is responsible for 30 percent of world apparel exports (Claudio). Being the biggest supplier of polyester and manufacturer of the world's textiles, China has been suffering from severe air pollution, water contamination, and land degradation in the past decade. However, things have changed significantly with Xi Jinping's "New Era" reinvention. In 2017, nearly 40% of China's factories have been shut down, the majority of them being textile factories, with more than 80,000 factories face punishment for their roles in violating environmental regulations (Pabon).

With policies like "Made in China 2025", China has shifted focus from cheaply-made goods to be more technologically advanced and innovative in its manufacturing industries. Many manufacturers have since invested in high-tech equipment and aim to produce fewer units but with better quality and higher profit margins. Having decades of experience producing fashion products, China has the most mature and efficient production system. Very slowly, China's fashion production industry is rebranding its image, changing the impression of "made in China" from cheap and low quality to technologically-advanced and well-made products. Many manufacturers have terminated contracts with large corporations and have

begun collaborating with smaller fashion designers in Europe. Perhaps Chinese manufacturing is on its way to becoming a conscious supplier of goods.

Although fast fashion will always have a market, consumer concerns and governmental pressures are undoubtedly forcing the fast-fashion industry to adjust its current mode to be more ethical and environmentally conscious. With the rapid increase of labor cost, strict factory regulations, and the demands of consumers empowered by knowledge of the industry, fast-fashion brands will eventually provide affordable yet chic clothes that are chemical-free and ethical.



# **Part III: Can Fashion Ever Be Sustainable?**

# What Is Sustainable Fashion?



Fig. 16. Lauren Young, 2017

When consumers push for more sustainability in the fashion industry, it is important to understand the meaning of sustainability in the context of fashion. According to Freya Williams, the CEO of the sustainability consultancy Futerra North America, sustainability in fashion has to encompass both environmental and social aspects. Every stage of making a garment needs to be considered—from sourcing non-energy-intensive materials, to providing safe working conditions and a fair wage to workers, to thinking about the end of the garment’s life whether it can be recycled or is biodegradable in landfills (Cheng). However, currently, very few products in the fashion world are truly sustainable. The two biggest barriers are the limitation of existing technology and the speed

with which the consumers are transitioning to a more sustainable society. Nonetheless, there are clear possibilities for ones to believe that the industry is moving incrementally in the greener direction and will produce more sustainable products in the near future.

# How To Attain Sustainable and Ethical Fashion?

The responsibility of building a sustainable fashion industry lies with designers, governments, and consumers. As mentioned in the previous chapter, the most important role of governments in supporting sustainable fashion is to regulate and supervise the entire industry. The following pages will focus on investigating what can be done by two of the above groups to attain sustainable fashion.

## **Designers—**

The Art of Combining Aesthetics, Ethics, and Innovation



## **Aesthetics**

Design is the soul of fashion. When pondering whether fashion can ever be sustainable, one must acknowledge the importance of maintaining aesthetics in sustainable fashion. Having sustainability solutions in mind, designers have to keep the creativity running. When people think about sustainable fashion brands, Stella McCartney is surely one of the first names that pop up in their minds.



Fig. 17. Stella McCartney, 2017

Celebrated for being a fashion designer with a conscience—refusing to use fur or leather when designing first for Chloé, McCartney continues her philosophy with her own-name label established in 2001. Over the past years, McCartney has collaborated with many other companies including Adidas, Target, and H&M to launch capsule collections that are ethically made and affordable to the public. The success of those collections helped to make the notion of ethical fashion familiar to the consumer.

At first, people were attracted by the beautiful designs, but the ethical side of the Stella McCartney brand distinguishes it from among its competitors. For her Fall/Winter 2017 collection, she elected to shoot the campaign on a Scottish landfill site, which intended to condemn the wasteful fashion industry. During an interview, McCartney further explained the importance of aesthetics in making ethical fashion,

*“I don’t think you can ask a consumer to compromise. You cannot say ‘Here is this jacket that looks terrible but it’s organic, and here is a really beautiful jacket that is cheaper but don’t buy it because it is not organic.’ My job is to create beautiful things.”*

— Stella McCartney

Stella McCartney's remark advises ethics-driven designers that the consumer demands aesthetics, therefore, ethical fashion brands have to create products that are based on a strong understanding of the elements of design principles.

## **Ethics**

The designer has the strongest voice and power to bring about ethical changes to the brand, from using fabrics that are recycled and eco-friendly to choosing suppliers who are environmentally conscious of their production methods. Crucially, the designer has to address social issues in the supply chain and build long-term growth opportunities by working with artisans and manufacturers to develop ethical and sustainable fashion.



Fig. 18. Edun, edun.com

Edun, a high-end sustainable fashion brand, is the epitome of ethical fashion and creates beautiful clothes that benefits Africa. In 2007, Edun launched the T-shirt sub-brand Edun Live: a 100% African product “grown to sewn” on the continent from cotton seed to manufactured garment. The company not only focuses on building skill sets and creating volume work for factories that produce the clothes in Africa, but it explores partnerships for sustainable communities (Black,35). In 2008, Edun started the Conversation Cotton Initiative, together with the Wildlife Conservation Society, working with small-scale cotton farmers to rebuild communities (Edun.com). In Edun’s Autumn/ Winter 2008 collection, inside the pockets of jeans, African poetry was printed, which gives the garments authenticity. The swing labels

prints “We carry the story of the people who make our clothes around with us.” In 2010 Edun began a collaboration with Made, a jewelry producer that uses local artisans based in Nairobi, Kenya, to produce Edun jewelry. Together with Made’s non-profit Made Africa, Edun also supports the Bidii School located in Kibera, Kenya, one of the poorest urban communities in Africa, by launching a series of T-shirts designed by students, with all sales profits going to the school. By using the proceed made from sales, the company is able to invest it back to the community making the product. This is an important philosophy for attaining sustainable fashion.

## Innovation

Far from simply utilizing and continually improving technology for the clothing manufacturing process, the fashion industry is entering an age where technology and fashion are coming together as one to create clothing that is far more sustainable, yet fashionable at the same time. One renowned pioneer is Hussein Chalayan who not only consistently challenges the boundary between fine art and fashion, but brings technology into his sustainable designs.



Fig. 19. Hussein Chalayan, fashion show in 2000

Known for his unconventional methods in fashion design, Hussein Chalayan integrates advanced technologies with traditional tailoring to challenge our perception of what a garment is, or can become (Flippa K Circle). Chalayan has twice been named British Designer of the Year since launching his own label in 1994. His pioneering approach to fashion draws on fields as diverse as anthropology, science, and technology. His fashion shows, installations, and film collaborations are memorable spectacles

that often comment on the human situation and political issues (Black, 77).

He created many transformative multifunctional garments such as the sofa-cover dress which transforms from sofa covers to elegant dresses in a split second. For his Spring/Summer 2016 collection, Chalayan created water-soluble garments that dissolve in water. On the runway, the coats of two models completely dissolved under the shower, revealing the





Fig. 20. Hussein Chalayan, fashion show in 2016

crystal-decorated dresses inside. It was a spectacle that combined innovative fashion technology with performance art. The disappearance of the garments left the viewer with important questions regarding the life cycle of a garment. Through his experimental and intellectual approach to fashion, Chalayan raises questions among the consumers regarding the functions of a garment. Conjoining the technology with ready-to-wear with his groundbreaking ideas, Chalayan

explores possible solutions to sustainability issue in fashion. In the future, if the technology as such will be applied on a mass scale, it would help the fashion industry in becoming more sustainable.

## Waste management strategy

Chalayan's dissolvable coat demonstrates one great way to diminish the environmental cost of post-consumer garment waste. Another common approach to tackling waste is to implement the "reduce, reuse, and recycle" waste management strategy. The aim is to extract the maximum benefits from products by extending their lives, either as whole products, fabrics or fibers, before throwing them away. It is the designer's job to implement waste management strategies in his or her designs. Two approaches recommended for designers are

Design for Recycling (DFR) and Design for Disassembly (DFD). DFR promotes reuse by developing products that are easy to take apart. For example, avoiding glue or other strong adhesives in clothing. DFD promotes recycling by using pure non-composite materials that have a high resale value (Black, 127 ).



Fig. 21. VAUDE, vaude.com

A German company called VAUDE, developed the Ecolog system— an example of DFR principles in action, which puts together a palette of materials allowing their designers to develop garments that are made from 100% polyester. Not only the fabric, but zippers, labels, threads, cords, etc. This totally homogeneous product could then be recycled as easy as a PET bottle to make polyester resin for new products, and involves no sorting for metals or other recycling contaminants (Fletcher, 23).

## Mass Customization

Since the early 1990s mass customization has been emerging as one leading idea for creating more customer-centric products, which is another avenue for sustainable fashion (Black, 289) The goal is to provide the customers with what they want, when they want it. In this way, customers have a much better chance of finding an ideal product that perfectly fits their needs, and the better a product fits the specific needs of a customer the more valuable the customer will deem this offering. The sportswear company Nike is often cited as an impressive example of a successful implementation of mass customization. The growth and success of NikeiD are based on the firm's ability to produce

custom sneakers on demand, meeting precisely the needs of each individual customer (Team). Additionally, producing these items only after an order has been placed eliminates the risk of an unsold inventory of finished goods which generates textile waste. Successful mass customization business models are not limited to large global companies, but thrive among many smaller companies and startups.

Similarly, Belgian-based start-up Bivolino has created a successful custom-shirt business by setting up its own supply chain to efficiently produce customized shirts at affordable prices. Bivolino also enables large retailers, such as

Marks & Spencer, to offer custom products under their own brand names with minimum effort. Bivolino has become one of the first dedicated integrated suppliers for custom fashion.

# **Consumer—** The Power of Purchasing

Many consumers are unaware of the ultimate power they possess in changing the current fashion industry—the power of purchasing. As mentioned previously, the fast-fashion industry was born with the consumer demands for affordable clothing and will continue its success unless consumers' preferences change. For consumers, clothing choices most often derive from considerations of identity and economy rather than of sustainability impact (Nottingham Trent University). But once the consumers start to learn about what they are wearing, their purchasing behaviors are very likely to change, therefore influencing the industry to change. It is evidenced by the fact that consumers in recent years avoid buying plastic water bottles when they learn about the ills of those bottles. While more and more designers, industry professionals and activists start to advocate the importance of sustainable fashion, it will soon occur to the consumer that most of their fast-fashion products are made from non-biodegradable materials and are as bad for the environment as those plastic bottles. According to the 2015 Nielsen Global Corporate Sustainability Report,

*“66% of Global Consumers Say They’re Willing to Pay More for Sustainable Brands—Up 55% From 2014. 73% of Global Millennials Are Willing to Pay Extra for Sustainable Offerings—Up From 50% in 2014.”*

— AndrewMcCaskill, 2015



As consumers are increasingly more health-conscious and concerned about the state of the environment, it only makes sense that fashion is making its way into the consumer's eye and become more ethical.

Here are a few ways that consumers can help in reshaping the fashion industry to a sustainable and ethical one.

## **Learn more before purchasing**

Consumers can learn more about the brands, their policies, and where and how their clothes are made. With the help of the internet, that information is not hard to access.



Fig. 22. BuyFair, app icon, buyfair.com

BuyFair is a platform that provides consumers with information on a brand's production methods. By scanning the barcodes of products, consumers can easily find out which brands guard against abuse and which do not, from the food industry to the fashion industry. This application is set to be released in May 2018. In phase I, users can petition their favorite brands to disclose more information about their supply chains. In Phase II, after the petition is requested and sent, the company will have 90 days to respond and provide the information. Upon receiving their responses, their profile will be created in the app's database and graded on a scale from A to F so that app users can avoid buying products made from forced labor. If the

company does not respond, the app will spread the message on all of the major social media platforms, encouraging users to help pressure these companies to be more transparent about their supply chains (Buyfair.com).

Similar to BuyFair, aVOID is a downloadable plugin for Internet browsers to inform consumers whether products are associated with child labor while they shop online. It works with major shops such as ASOS, Target, and Amazon (Wong).

## **Buy Less, buy better**

While a high price tag is no guarantee of ethical practices in fashion, selling clothing that is the same price of a sandwich is questionable without a doubt. Not only are fast-fashion garments produced in unethical ways, but they are likely made of harmful materials scoured in chemical baths. Instead of buying ten different poorly-made dresses that look and feel cheap, invest in a dress that is timeless, comfortable, and will last through years of wear.

## Take care

It is estimated that,

*“If the consumers can extend the lifecycle of their garments by nine months, they can reduce the water footprint of their clothing by about 5-10%”*

— Bethany Noble, 2018

Consumers should pay attention to care labels— wash, dry and store clothing the way it is instructed to make the garments last longer. At the same time, it is important to learn about different types of fabrics, what they are made of, how they are made, how much energy is required to produce them, and what sustainable alternatives of fabrics there are.



# **Part IV: My Endeavors**

Studying at the Parsons School of Fashion taught me that there is a distinction in the responsibilities that consumers and producers of fashion hold in their symbiotic relationship. My experience at Parsons solidified my passion for fashion and opened my eyes to environmental and social issues that are sewn into the clothing we wear. After realizing my own bias as a consumer, I assumed that most consumers are also not aware of the entangled web from which their clothes spin from. My liberal arts background at Connecticut College encouraged me to combine my passion for art, art history,





Fig. 23, 24. Jack Beal for Soflié, 2017



and fashion, and inspired me to put my knowledge into action and create a movement that will help educate the consumer and change mindless shopping trends.

In the summer of 2017, I established the clothing label Soflié with my business partner Emily Zhang. After working as a production manager for fast-fashion companies like Zara, C&A, and H&M for more than a decade, Emily verified the ills of fast fashion and bore witness to the true cost of fast fashion—the unbalanced relationship between the labor force and the

industry, along with the tremendous environmental costs. This motivated her to join Soflié, a small brand that emphasizes the importance of sustainable fashion. All of the clothing under the Soflié brand uses ethically sourced and toxic-free materials that are safe for both the environment and our health. Working with a local and ethical workshop in Shandong, China, Soflié launched its winter collection featuring two styles of goose down jackets. To stay true to our mission, the down jackets are made of cruelty-free goose down and recycled fur from second-hand jackets.

My passion and aspiration to help influence a more sustainable fashion industry has also motivated me to create artworks that invites people to think about the importance of sustainable fashion. My art addresses the most critical issues in contemporary fast fashion including the unsustainable consumption of natural resources, animal cruelty, textile waste, and labor abuse.





**1000: 1**, Sophie Xue, 2017  
Mini jeans in fish tank

Research reveals that making one pair of jeans requires one-thousand gallons of water (Reformation.com). Wanting to share this information with my audience, I created a mini pair of jeans that is 30 times smaller than a traditional pair then hung and suspended them in a 30-gallon fish tank filled with water. The tiny size of the jeans juxtaposes with the vastness of the water, creating a strong visual impact. By placing a mirror behind the fish tank, I place the viewer to in the installation and hope they might have a new perspective on the jeans they wear.





***Natural Selection***, Sophie Xue, 2017-2018  
Cyanotype on silk

Researching the silk industry and the process of producing silk, I discovered that in order to get soft and continuous silk threads, silk reelers place cocoons in boiling water killing the pupa living inside the silk cocoon. The true color of silk as defined by natural selection is yellow because silkworms instinctively disguise themselves among dead leaves. Over the centuries, silkworm farmers selectively bred only the white silk cocoons until they created the pure white silk we are familiar with today. Farmers selectively bred white silk because white cocoons can be easily dyed any color without having to bleach them first.

As a child in China, I received silkworms from my grandma every year. I kept them in a shoebox and fed them with fresh mulberry leaves

that I picked up every day on my way back from school. Silkworms are associated with my happy childhood, my memory of home, and my Chinese identity. After learning that the natural life cycle of silkworms is manipulated in order to create fabrics that decorate our bodies, I felt complicit in the murder of silkworms and empathized with these harmless and beautiful insects.



Detailed image showing the life cycle of a silkworm and the inside lining of butterfly prints

In this piece, I emphasize the cruelty of the silk-making process by printing the life cycle of an industrial silkworm on the outside of the silk garments using cyanotype, a printing process known for its vibrant color and history of scientific documentation of nature. The style of this outfit is reflective of the traditional Chinese Qipao dress complete with a matching jacket and shoes, which conveys and exposes the history of silk farming. On the inside linings of the garments, dozens of beautiful butterflies, who never get a chance to emerge from the cocoons are printed.







**100% Silk**, Sophie Xue, 2018  
Silk cocoons

Working through the idea of the life cycle of a silkworm in the manufacturing of silk-clothing, I used real silk cocoons to construct this shirt. The harvesting of silkworms in the garment industry should be a crime because every silkworm is boiled alive. The natural color of silk is commonly yellow, not white. However, because of selective harvesting we are only family with the silkworm that produces white colored silk. The fashion industry does not only pollute the environment with its byproducts and exuberant amounts of waste. But it also meddles with the process of natural selection and kills billions of silkworms. This piece shows us what our silk shirts are really made of—thousands of formerly living, breathing, and eating silkworms.



***Repurpose***, Sophie Xue, 2017  
Recycled T-shirts

As a sophomore at Connecticut College, I attended a friend's Debutante ball in Jackson, Mississippi. I was happy to find that certain places in America are motivated by traditions and still maintain a deep sense of heritage. The gown that I designed is styled after the gowns present that evening. It also represents a pillar of American culture and traditional ethics of clothing, which celebrate craftsmanship and quality. However, the gown also represents the extravagant and excessive culture of one-time-use couture clothing. Meanwhile countless landfills overflow with fast-fashion produced waste. The fast-fashion clothing materials that I use are fast-fashion T-shirts either donated by Connecticut College students or purchased in pounds at a local GoodWill outlet. The reason I use recycled material is because I

want to demonstrate the importance repurposing. The clothes that I use were destined for the landfill but now they can be worn at a Debutante ball. It is a great example zero waste theory, which can be achieved by two methods i) using post-consumer garments and giving them a second purpose and ii) during the design stage of the clothing, the pattern is made in a specific way in order to absolutely minimize clothing waste. In this piece, I applied both aspects of the zero waste theory when putting together the Debutante-gown, which demonstrates how clothing waste can be reused and given a second life.



***Pockets***, Sophie Xue, 2017-2018  
Recycled fabrics with wash labels

I have researched many kinds of natural and synthetic fabrics—where they are from, how they are made, and what impact they might have on the environment. Some of the information I found is shocking and I feel the urge to share them with my audience.

The fabrics used for the project are cut out from second-hand clothes. On the outside of every pocket, I transferred photocopied images found on the internet and in books. Some of the images are from advertising posters of fast-fashion companies while others reveal key composite elements of the fabrics, such as water, oil, and silkworms. I stitched the name of the fabric and the care labels that I collected on every pocket. On the inside of the pockets, I attached a layer of lining with information about

the fabrics printed. When presenting these pockets, I will have the pockets folded on the top so that the viewers will know that they can turn the pocket inside out to view more information. I hope this project gives the viewer pertinent information about the clothes they wear and inform their future buying choices.





*Fitting Room*, Sophie Xue, 2018  
Wood doors with clothing waste





Detailed image showing the clothing waste reflected in the mirrors

The fitting room is the place where consumers make major purchasing decisions with little regard for where their clothes will end up. I made this piece after learning that, “An average American tosses out 82 pounds of textiles generating over 15 million tons of textile waste every year.” With the help of the infinite mirror effect, the clothes on the ground of the fitting room are reflective of the large sum of clothing waste that we add to landfills each year. Standing inside of the Fitting Room, the viewer

will be immediately overwhelmed by the amount of textiles reflected in the mirrors. By piling clothes on the ground and forcing my audience to trample them as they step inside, I hope that they will think twice about buying that second pair of jeans. In order to ensure that the message of the piece sticks with my audience I take the physical place that represents comfort while shopping and disrupt that comfort by turning it into a clothing landfill.



*The Discomfort Behind Our Comfort*, Sophie Xue, 2018  
Recycled clothes

All successful clothing brands invest a significant amount of money on brand-recognition by investing in label design, advertising, and the interior design of their stores. Each label design is unique and easily recognizable. While the purpose of high-end and fast-fashion advertising is to trigger a reaction that will cause us to buy whatever it is they are selling. The triggers are usually sensual, relaxing, and even exciting.

However, the physical layout of any clothing store is always meant to be inviting and create a unique shopping environment that will keep you coming back. High-end brands offer us drinks while we shop and provide us with our personal shopping assistant, making us feel comfortable, special, and eager to shop. While most

fast-fashion brands have large 2-3 story stores with an open and inviting lay-out and dozens of employees buzzing. With the exception of a few high-end luxury or couture brands, most clothing brands do not remind us of the many hands that touched our clothes during the manufacturing process. Even though some of us know about the terrible labor conditions in clothing factories across the developing world and the exploitation of child labor. We do not have the opportunity to reflect on this knowledge when we are distracted by so many aspects of the shopping experience which only focus on positive vibes. The purpose of this piece is to highlight the people behind the curtain that help make our clothes. I want to help my audience understand that the true cost of the comfort our clothing gives us is not \$19.99. Our

clothes made it on the racks of Zara, H&M, and Aldo because factory workers across the developing world produced them in terrible working conditions. The clothes that help represent our personality, make us feel comfortable, and keep us on trend are a result of many sacrifices and tremendous discomfort on the part of the workers who are sometimes children.





***Indigo Blue***, Sophie Xue, 2018  
Recycled clothes, indigo dye on muslin

The fast-fashion clothing that we purchase is made by a combination of man and machine and the synergy between factory and laborer is the main topic of this piece. Historically labor exploitation for the manufacturing of clothing dates back to slave-labor in America a time period during which slaves picked cotton and harvested Indigo. Cotton and the Indigo dye were considered a luxury but the work producing these products was life-threatening. The Indigo dye worker's jumpsuit is suggestive of the millions of uniforms that blue-collar factory workers wore to work everyday. These workers too worked in unsafe conditions to produce the clothes we wear. This piece highlights what is

now is easily forgotten—the hard work of these factory workers who produce clothes that shelter our body and bring us comfort.

By stretching out fast-fashion clothes, made of cotton, into a canvas, I suggest that the slaves that made cotton in the past and those workers exploited in factories across the world today are in fact the artists that created this piece. Additionally, by stretching the fabric I create the visual effect one would see when looking at fabric under a microscope. I invite the audience to examine the details of their clothes thinking back to their history and asking themselves, where did this cotton come from? When asking

this question I hope the audience understands the sacrifices made every step of the way by those living in factories and working terrible hours for little to no pay. When we wear our clothes, we should be thankful of the people who made our clothes and be concerned about how they are treated. This piece reminds us that if we can pressure manufacturers to become transparent about their supply chain, we can help solve labor abuse in the fashion industry.





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