



RE:GEN-ERATION PODCAST

EPISODE: HISTORY OF LINEAR FASHION

S: Hi everyone, settle in because we've got a lot to cover in this episode, so let's jump right in. We're planning to explain the current state of affairs in the fashion industry by starting with where we came from, and how the textile and apparel waste crisis became so extreme in just the last 50 years. We're going to skim, at some length, through the history, but an even more complete outline is on our website for you history buffs. We also want to acknowledge that this is a very dense episode because we wanted to ensure that we accurately described the historical foundation of future conversations that we'll have. We want you to know what we know, so that as our series becomes more collaborative and forward thinking, we avoid repeating the mistakes of the past. We all should know by now, that the garment and textile industry has created an unimaginably enormous waste crisis. You might be familiar with this statistic that one dump truck of textiles is being tipped into a landfill or incinerated every second of every day. Globally, that amounts to approximately 92 billion tons or 184 quadrillion pounds annually. These numbers are too big to even imagine yet we continue to produce, again globally, 100 billion new garments every year, for a planet of only 7 billion people. And garment production is projected to grow another 63% by 2030.

A: It genuinely makes me so beyond frustrated to fathom the fact that these nonsensical amounts of textile waste are allowed to be produced each year. In my mind, there is absolutely no justifiable reason for us to continue producing Textiles and Apparel at the rate that we do, or even 1% of the rate that we do. This isn't just an environmental crux, global inequity and post colonial exploitation are also consequential pillars of linear fashion. For example, you may have recently read in the New York Post that 59,000 tonnes of clothing waste are dumped into the Atacama Desert in northern Chile, from the global north each year. Essentially, the Iquique port, which is outside the political control of the nation, has become an ideal place to ship used clothing that can't be resold in industrialized markets. And although the locals of this region have been successful in collecting and reselling about 20,000 tons of these massive piles of apparel, the remaining 39,000 of those tons wind up sitting there rotting in the sun, and leaching out hazardous chemicals. And because this area of the country is customs free, the government is not obliged to reduce this waste in any way, leaving the indigenous people in the landscape drowning and fast fashion waste from overly consumptive first world societies who know very little about the environmental impact of their closets.

S: Yeah, Atacama is just the latest locale who's suffering at the hand of the fashion industry's overproduction, especially cheap goods, has been exposed. There are probably hundreds of such locations across the globe, whose data is neither acknowledged nor measured. And the data is something we desperately need in order to accurately measure the extent of our current impacts, indicate the dire need for corrective policies and legislation, and then determine the effectiveness of newly proposed solutions. Without accurate data, the funding and attention this needs goes unsatisfied, and so the system continues and worsens. Alexa, I still can't get past the global 92 billion tons of textiles wasted every year. I had to use a calculator to convert this to pounds. And then I had to learn that quadrillions is what comes after trillions. Just these few statistics and examples alone indicate that we are completely out of control, and that we already have everything we need, and that, with global populations forecast to rise from our current 7 billion to 10 billion by 2050, we must do something about apparel waste now! Many people blame our current situation on fast fashion alone, but that part of the industry evolved from a long history of Capitalism gone awry, without any limits or regulations to protect natural resources, and with no assurances that they'd be sustained for the use of future generations.

A: That's so true. It can be simple for young people like myself to chastise fast fashion giants like H&M, Zara, Uniqlo, and Forever 21 as corrupt companies perpetuating cheaply made trendy resource intensive apparel. As we've often discussed, Sharon, this criticism lacks an acknowledgement and an understanding of the systemic causes and unintended consequences of such business models that offer affordable, constantly new clothing. The truth is that the systemic causes of what we know today as fast fashion date back to technological advancement during the Industrial Revolution. From changes in consumer behavior during post World War II, to changes in the importance of celebrity and runaway culture through the rise of the Internet, all of these things laid the foundation for a fashion economy that relies on selling quickly and cheaply, but simultaneously accelerates the demolition of our environment.

S: Yeah, Alexa, it's so clear when we look back at the history of this industry, where we began veering into an unregulated space, of both free enterprise, how Capitalistic!, and myopic production endeavors without anticipating unintentional consequences. This is what really paved the way to where we are now. That's part of the intergenerational knowledge exchange we're getting at. Without younger generations needing to investigate and analyze the causes all over again, that's a waste of valuable time. And it's so important to cover that ground so we can try to avoid these types of unintended consequences, as we plan and redesign for a circular, regenerative system. There's a ton to take into account and even predict when designing with the end in mind. Okay, so let's talk about what transpired in the US. Economically speaking, in the 60s we produced, on-shore, 95% of the clothing Americans wore, and we spent about 10% of household income on our wardrobes. I'll skip over the decade by decade decline; you can find that on our website, but fast forward to today: only 2% of our clothing is made in America and we spend just 3.5% of our income on our wardrobes.

S: This downward spiral can be blamed on systemic overproduction and orchestrated overconsumption, fueled by profit wars fought in poverty wage countries. As we'll discuss later, the cost of making domestically produced clothing soared, and fewer Americans sought to become garment workers. Meanwhile, factories in South America and China had grown a cheap talented manufacturing labor force and a growing textile mill presence. Factories in these regions offered Western manufacturers impossibly low prices, in exchange for enormous order quantities that far exceeded a brand's reasonable consumer demand. In effect, this scenario continues to create billions of cheaply made garments annually that will never be sold. And these clothes travel from factory to warehouse to landfill without ever being worn.

A: How incredibly frustrating! As you know, Sharon, I am very invested in the Zero Waste movement, as you might be able to assume from my authorship, and this perplexing situation of garments that are sent directly from warehouse to landfill violates every principle in the book. Zero Waste, as defined by the Zero Waste International Alliance, is the conservation of all resources by means of responsible production, consumption, reuse and recovery of products, packaging and materials without burning and with no discharges to land, water or air that threaten the environment or human health. In no way, shape, or form, can current linear industrial practices continue while simultaneously achieving these end goals. But you'll notice that in the frame of Zero Waste, it's not just the way things are produced that warrants attention. Consumers are also implicated in this problem, and I'll admit that I was once guilty as charged. I used to be a closet cleaning enthusiast, pre-Marie Kondo by the way. I used to get a rush out of clearing the old dirty clothes piled on my floor and shoved to the back of my shelves. I thought decluttering was the perfect opportunity for me to start my style anew and purchase more to fill the void. However, when I started writing my book, I delved into some research that I included in my "Tipping The Scales" chapter, and I quote, "After donating these mounds of clothes to a local consignment shop, I embarked on an adventure to educate myself on the causes and implications of fashion waste. Initially, I stumbled across an article from the Ellen MacArthur Foundation titled, "One Garbage Truck of Textiles Wasted Every Second." Even the title was grotesque. To contextualize its message, while just reading this paragraph, so far, five to seven garbage trucks of textiles have been landfilled or burned somewhere in the world. Reinforcing that concept, a TED Talk by fashion enthusiast Amit Kalra, revealed to me that 85% of garment waste ends up in landfill every year, averaging about 200 t-shirts per person for a total of 13 million tons in the United States alone. Kalra also disclosed that the fashion industry trails only the oil and gas sector in globally polluting industries. These devastating environmental effects correspond with economic implications with an estimated \$500 billion value lost every year due to clothing that's barely worn and rarely recycled.

A: And so, I'll note, and Sharon you may have more to say on this, that some of these statistics have been misconstrued as they had been passed along the telephone line, but the underlying premise is true: there are too many textiles, and the large amounts of clothing that we donate from our closets are indicative of a much larger waste crisis.

S: You are completely correct. Kalra's statement about fashion being only second to oil gas as the most polluting industry is likely a fake fact unsupported by any research. While it's true that the fashion industry is responsible for about 5% of global greenhouse gas emissions, and uses a staggering number of toxic chemicals in the textile creation and apparel finishing processes, the "second most polluting" statement was likely miss quoted from a comment made by Linda Greer, during her 28 years at Natural Resource Defense Council. It's been debunked repeatedly but continues to be cited by many working in textile waste and climate change space. The New York Times published an article by Vanessa Friedman in 2018, trying to dispel this fake factoid, but it continues to be repeated, probably because it's so easy to believe, given the overwhelming statistics we've already mentioned. But, back to your overarching point on overproduction, I personally detest buying garbage bags because it feels like I'm only purchasing something -- a single use heavy plastic sheet film -- just to throw it away. And I have trash cans that can do that. In my opinion, fashion waste in the form of overproduction is worse, because we are deliberately and knowingly manufacturing, on a global scale, excess clothing that goes directly to a waste heap, poisoning the earth, air, and water, destroying natural habitats and threatening the mass extinction of about a million species according to the United Nations, all for absolutely no reason beyond economic gain and competitive pressure.

A: As much as we like to degrade the fashion industry for their ignorance on these issues, more and more designers have begun to wake up to this issue and make tangible changes, which I think goes to show even more how dire our circumstances currently are. For instance, during the pandemic, Alessandro Michele, Gucci's Creative Director, released a series of Instagram posts called "Notes From Silence", where he revealed his renewed understanding of the environmental implications of the Gucci brand. He began to acknowledge the tangential issues associated with the fashion industry, including water depletion, land degradation, labor exploitation, and health and well being violations at the factory level. In doing so, he also committed to reducing the number of runway seasons from five annually to just two. For environmentalists and human rights activists, these issues have been apparent for decades. But for an end of life consumer or a designer at the beginning of the garments life, these behind the scenes externalities are not always understood.

S: But there are too few designers who are seriously examining their supply chains, and the implications of their business activities on climate change, environmental and social justice, slave labor, heat and sea level rise, amongst many other enormous impacts caused by irresponsible business practices. Even today, media outlets across the globe are reporting the supply chains of dozens of brands, from fast fashion through high end couture, are still connected with the direct deforestation of the Amazon. The Amazon's lost 20% of its area in the last 30 to 40 years, and we've cleared more trees, mostly for cattle grazing in the last 40 years than in the previous 450 years. The Amazon's trees have been a traditional resource for the wood pulp that is used to make rayon, a favorite manmade natural textile since the 40s. And the increased grazing of cattle in cleared Amazonian lands is the source of leather for so many of our consumer goods: shoes, jackets, wallets, handbags, furnishings, and even car interiors. This has turned the Amazon into a carbon emissions producer where previously was the Earth's greatest CO2 sink. We are clearly over consuming irreplaceable natural resources, and, in this case, one that controls the carbon dioxide levels accelerating our climate change emergency. I'm not saying that this will be easy to change. Designing ethically from the start while keeping the entire end of life circularity goals supply and production chains in mind, is extremely hard without legislation and alternative resources in place, but it is essential to reducing fashion's, unregulated impacts. So let's get back to the history of how we got here picking up post Civil War leading up to the Industrial Revolution. We're doing this because, as they say, history repeats itself if you ignore the lessons it tried to teach the first time.

A: Right, so we'll start off by recalling the pre linear slow fashion period how simple and sustainable it was. In the 1800s, during the era, we'll call a subsistence clothing period, women typically owned fewer than five outfits, and seamstresses were paid to sew tailored, durable pieces. Southern plantations also produced high quality cotton or raised while using slave labor to create an inexpensive domestic fiber supply. Due to the unrealized development of indoor plumbing, people also washed themselves and their clothing less, which helped fibers, and therefore their few clothing pieces, last longer. The late 19th century ushered in advancements in electricity and plumbing, reigniting the 2nd Industrial Revolution. This made mass textile and apparel manufacturing possible. Assembly lines and automation further increased speed and efficiency, unleashing exponential sales growth, while lowering production costs. Cheaper manufacturing and labor costs of so called unskilled work enabled companies to offer affordable fashion to formerly excluded low socio-economic groups. This middle class, which was exploding in size during this era, was willing and eager to consume more in the name of bourgeois status seeking. Unfortunately, this boost in status for the middle class did not translate for the lowest socio-economic groups, who continued to experience systemic economic inequity.

S: You know, Alexa, the situation you're describing is similar to the staggering economic disparity between workers and C suite executives in companies today. At the time, American wardrobes were predominantly made from cotton and wool, both time and labor intensive to manufacture.

S: As competition for the American market soared amongst fashion manufacturers, the allure of low cost labor couldn't be ignored. This came about around 100 years after slavery was abolished, and there was suddenly a much higher cost of cotton and wool fiber production. As Americans prospered, wages increase with the start of unionized labor in the mid 19th century. During that time, transportation improvements and expanded foreign trade also fueled the movement of production to low cost third world labor and textile markets, while the sheer volume of American consumers, with increased consumption aspirations, made the US the biggest market for many categories of goods, including fashion. Let's also mention here the role of invention and innovation in manufacturing during the Industrial Revolution. Products like Washington's cotton gin, Hargreaves', spinning jenny, Jacquard's loom and Singer's sewing machine, all accelerated apparel production and lowered manufacturing costs. All of this novel machinery laid the mechanical foundation for a later rise in fast fashion.

A: While there were certainly developments in textile consumption during the roaring 20s and the Great Depression, the post World War II time period really defined a permanent movement towards quickly consumed and quickly disposed of clothing. During wartime, conservation efforts at home were enacted to support soldiers abroad. I actually remember quite recently, I was looking through a scrapbook that my grandmother crafted several years ago, and I was able to see the food stamps and ration tickets, which served as a token of her reduced wartime consumptive lifestyle. In the realm of fashion, specifically standardized production and functional styles were often used due to fabric restrictions during the war. For a long time, the Federal calls for sacrifice during a period of rising prosperity pre Pearl Harbor were nothing more than written or verbal pledges. In April of 1942, however, formal textile restrictions covering fibers, facilities, and labor, as well as certain dyes and metal used for zippers and other adornments, were instated. When these policies were first introduced, a period of panic buying ensued, as people began to stock up on clothes, particularly nylon stockings, and other restricted items. As the years passed, a rising desire to live less frugally, exhibit prosperity and express oneself uniquely through clothing emerged. At the same time, marketing of new consumer products was linked with patriotism, which guilted individuals into purchasing non necessities in order to support the recovering economy. As a result, after this prolonged period of restriction, there was a shift in consumption habits from practical saving to justifiable spending of disposable income.

S: I think I compare it to the itch we've all recently experienced as locked down eased this summer, and everyone craved a return to normalcy, which now includes excessive shopping and over consumption. Let's call it retail therapy. The luxury market has absolutely boomed in the last two quarters. Similar to the pandemic, post World War II also saw the rise of plastic usage, as well as the affordability of modern appliances. The introduction of discount stores expanded direct-to-consumer marketing, and marketing messages around wealth and convenience tied to rapid consumption. There was an increasing collective aspiration to achieve a level of wealth that one could buy disposable goods and throw away after just one use. Just think of single use plastic cups, plates, and utensils.

S: Even today, they continue to be marketed as a way to avoid washing dishes or even needing to put them into a dishwasher. In the 1970s, economist Milton Friedman came up with what is now referred to as the Friedman Doctrine, which simply states that business's sole purpose and main focus is the pursuit of profit and creation of added shareholder value by any means. The emphasis has become one of showing quarterly profits to investors on Wall Street, and that can twist the moral compass of how businesses operate. This fit well into the consumptive mindset begun in post World War II. Widely adopted, this meant businesses and their C suite teams' new focus, rather than building durable, quality products domestically, using well compensated labor and charging a fair price, were now praised, and economically rewarded, for creating cheap, replaceable products with built in obsolescence.

A: Sharon, thank you so much for sharing your enlightened perspective on this. As a young person who grew up in a world packaged in plastic with single use and replaceable products, it is really fascinating to hear about how this was not always the case. You used the term "built in obsolescence", and I don't want to just skim over it because I think it's really critical, as a concept, that has gotten us to the point that we're in today in the fast fashion space. So what exactly is "built in obsolescence"?

S: So, to keep it brief, companies that build sturdy, long-lasting products, unless they come up with new features and a complete redesign, risk not capturing the value of customer loyalty in the form of new sales to the same customer, because the original product was so well made. Alfred Sloan, the CEO of Volkswagen, introduced the concept of planned obsolescence in 1959 by engineering breakage into their design, and also ensuring the design went out of style. More recently, Apple settled a class action suit in Chile over accusations that iPhone programs its devices to fail as a means to get users to upgrade to new models. Each complainant only received \$50, but this explains why there's an enormous e-waste crisis. The same is true for cheaply made, fleetingly trendy fast fashion. But note, the idea began in the late 50s, as a means to increase sales and repeat business. It feeds directly into the concept of Capitalism and likely inspired Milton Friedman and his doctrine of creating shareholder profit by any means.

A: Yeah, I think that Apple example that you provided is so relatable and we can all attest to the fact that we constantly need to buy new phones in order to keep up and make sure that they're still functional. But while "built in obsolescence" was one critical production strategy arising during the post war era, the quick response strategy was another business tactic developed during the 1980s. Essentially, this allowed retailers and suppliers to collaborate in order to pump out designs as quickly as possible in response to market trends. Rather than the timeframe from design to production taking several months, the pipeline was mastered and compressed to just a few weeks time. Knock-offs from runway shows, which could be seen online and immediately copied, would appear at a retailer ahead of designer brands. So you could bet that the runway designs you saw during fashion week could be found at your fast fashion outlet of choice in a jiffy.

A: This concept was refined and universalized throughout the 90s and 2000 to a point that rapid prototyping, small batches with large variety, and efficient transport and delivery became the norm.

S: In the fashion world, we never called it the Quick Response System. It was copying or knocking a brand or a designer off. Truly creative designers and their companies guarded their designs like diamonds, zero transparency. There were trend forecasting services that published books of seasonal inspirational silhouettes, and pictures of runway shows, but long after the show's took place, and it generally took a year to go from design concept to arriving in stores.

A: This transformation was something you experienced during your career as an apparel designer, right?

S: Oh, yes, indeed. In 1998, however, a service from London called WGSN began. Their "snoops", attended coveted designer runway shows and took photographs in real time of every designer and every outfit. Access to WGSN was online and subscriptions to this service were exceedingly expensive, with the introduction of subscription access codes for specific employees and brands bought separate subscriptions for each designer and their assistants. Everyone in the industry suddenly had access to the same inspiration and market insights into the styles, colors, prints and looks created in Paris, London, Tokyo and New York, and copying, or "knocking-off" went completely mainstream. Buyers went to showroom appointments and bought whoever had the best version of Chanel, Prada, Calvin Klein, etc. Companies like Zara and H&M saw the opportunity to take this new mode of designing and decided to master speeding the process to market in the name of democratizing access to middle and lower classes by offering extremely trendy fashion at an extremely affordable price point, and by changing deliveries from four seasons per year to 52 seasons per year by introducing new, limited-run styles on a weekly basis. Being that items were so inexpensive and abundant, consumers began buying new clothes weekly, or perhaps monthly, and then began throwing out barely worn styles, due to limited closet space and the accelerated pace things became obsolete and out of style. Thank you, Volkswagen!

A: That's right. Something I wanted to add on to that, Sharon, and something that we have talked a lot about is that fast fashion companies didn't necessarily set out to be environmental villains. They didn't start with an intent to destroy the planet. Like you said, many of them had a somewhat admirable initial mission of providing runway-esque fashion to those who couldn't afford it. ZARA was built on the idea of frequently updated fashion at affordable prices. H&M was founded in 1947, after its founder was inspired by the idea of selling women's fashion in a new way on a trip to New York City. The environmental catastrophes and resource exploitation were originally unintended side effects, but they are nonetheless still very apparent and, at this point in time, cannot justify the current state of affairs.

S: Besides disruptive business models, the rise of celebrity culture and reality TV exacerbated consumer demand. At the beginning of MTV, there were segments that highlighted the extravagant lifestyles of musicians, sports icons and celebrities. This evolved into the TV show MTV Cribs and sparked an unattainable interest in expensive goods and excessive consumption, almost as a right, influencing youth to buy \$300 sneakers and boldly logo-emblazoned designer casual wear. Another program at the time, Lifestyles of the Rich and Famous, featured possessions of the wealthy 1% like yachts, private islands, personal chefs, and diamond-encrusted jewelry. Aspirational consumption became the norm and lowered the general public into credit card debt just to keep up. Closets grew and shopping became a competitive sport.

A: In my generation, these influencers have transcended traditional media and become laced in our social networking. On Instagram, Youtube, and Tik Tok, beauty gurus and fashionistas flaunt their outfits of the day and Fashion Nova overhauls, which goes to perpetuate fast fashion consumption and encourage shopping online of their followers, who can conveniently click through to links to purchase on their mobile devices. Young people, especially on social media, see these influencers and want to look like them. With fast fashion brands, it has become so much easier to wear the exact same outfit that your favorite web celeb is wearing, and feel like you're emulating them through your clothing.

S: Yeah, Alexa, it's incredible that how the speed of the Internet has translated right along with the speed of fast fashion. So that's right, the growth of social media was just another unnecessary gateway for the growth of fast fashion. And there you have it from colonial subsistence and slavery's tie to cotton and wool, to the changes brought by the Civil War, the Industrial Revolution, a rededication to Capitalism, and the influence of the digital revolution and its greatest asset, the internet, this was the path to fast fashion. Slavery aside, I don't think anyone in this evolution had the goal of destroying the environment. They were savvy business people navigating, change and adapting in order to make a living. As you mentioned, Alexa, how could they have known where this would lead or the impact they were making at every level and turn? It's now our task to reinvent the systems, slow down our crazy wasteful pace, be conscious of our footprint, and work within our planetary boundaries.

A: At its very core, the fast fashion formula consists of a quick design to distribution process and an uber trendy model, which results in a higher profit. These cycles of production and consumption, which entirely violate Sustainable Development Goal number 12, Responsible Production and Consumption, have become normalized and ingrained in our day to day life. Consumer culture has run rampant, shopping has become a part of our stress relief, and self sufficiency is a concept so far removed from our modern realm of possibility that we have started to lose touch with what goes into the making of things that we use and consume on a daily basis.

A: Instead, the majority of us choose, and it is a choice, to turn a blind eye to the social and environmental travesties that all stem from our daily choices and the products that we use. And when the scale of population growth is factored into that equation, we can no longer afford to plead complacency for the state of our planet depends on our informed understanding and conscious changes.

S: Alexa, it seems we just haven't learned from the lessons of the past. The Triangle Shirtwaist Factory Fire in New York City on a Saturday in 1911, is being repeated now, out of sight, on foreign shores that make much of the clothing on our backs. The Triangle Factory's, owners blocked access to fire escapes and exits, a way of controlling their workers and preventing them from taking breaks. A fire broke out, and within 30 minutes 146 of the 500 workers had jumped to their deaths. One cannot help but compare this to the Rana Plaza building collapse 100 years later in 2013 were 1034 garment workers, locked into factories on eight floors of a structurally unsound building in Bangladesh, died when it collapsed. And another 2500 workers were rescued from the rubble many incurring severe injuries and the loss of limbs that eliminated their chances to earn a living. In so many instances, we have ignored the lessons from the past. We have less than eight years to meet the first of our greenhouse gas reduction targets that, we hope, will reverse the climate change trajectory we are on. As generations we need to work together in earnest to capitalize on intergenerational knowledge exchange, and the passion and energy of youth to secure a sustainable, regenerative future.

A: Thank you all so much for listening to our first substantive episode. It was a pleasure to delve into this topic and we hope you learned something about the origins of fast fashion as we know it today. Also, please follow us on our LinkedIn page which is: @Re:Gen-erationpodcast and visit our website: www.re-generationpodcast.com to learn more and sign up for our newsletter. Please also share this episode with family, friends, colleagues or anyone you think would be interested in following along our journey. We are looking forward to hearing your comments and we'll catch you in our next episode.