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American Disposability:
Educating a Throwaway Society

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ABSTRACT

American society is incredibly dependent on, even addicted to, disposable and single-use products. Despite growing awareness of the waste problem from plastic straws to e-waste, the throwaway culture remains largely unchallenged. This paper seeks to trace the development of the throwaway culture in America in order to understand how disposability has evolved into a desirable quality so pervasive in our modern world. From the very first waste management systems to the power of advertisements throughout the 20th century and the introduction of planned obsolescence, people have been trained to value disposability and developed a powerful addiction to the convenient habit of throwing things away with little consideration of what that means or where "away" really is. Perhaps most importantly, this paper seeks to examine the implications of applying this habit to increasingly complex and costly goods. In examining this trend, the paper concludes that the value placed on materials goods and benefits reaped by consumption are declining while the costs of production and distribution continue to rise. As a result, society faces growing environmental consequences for questionable gains. In response, I suggest that public awareness and understanding of our waste and the impacts of our consumer choices as consumers must be prioritized in social studies education. Additionally, it is crucial that the topic is approached in an interdisciplinary manner through curriculum that focus on the environmental impacts, economic implications, geographical extent, historical background and civic responsibilities in a unified and holistic way.

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INTRODUCTION

> *To the extent that we consume, in our present circumstances, we are guilty. To the extent that we guilty consumers are conservationists, we are absurd. But what can we do?*
> -Wendell Berry (2000)

My job as a cashier at the local snack bar largely consisted of watching the water bottles I had unpacked and stocked up in the coolers that morning briefly exchange hands and then pile up in the trash cans just across the way. In the evening men would come and replace the overflowing bags of trash with new ones only for them to be refilled again the next day. The cycle of waste making was endless. Relentless. Never before had I seen so many plastic bottles move from the truck to the store room to the hands of customers and the trash so quickly. Not just once, but every day- over and over again. When I graduated and moved to college I picked up a job in the dining hall where my previous experiences were quickly dwarfed. Hundreds of pounds of food, most of it perfectly edible- thrown out without a second thought. Thousands of clamshell "to-go" containers passed out at each meal- many of which were used by students who sat and ate in the dining hall where a ceramic plate would have served their purpose just as well. It was, and continues to be, devastating to watch and I felt helpless to do anything about it.

As I moved from dorms to apartments and met more and more people I began to see that it wasn't just plastic bottles or leftovers that were tossed away with such little thought. Clothing, kitchenware, furniture, school supplies and even expensive electronic devices were left behind, thrown away or replaced daily. How had we come to view everything as so disposable? So temporary?

And where did it all go? This was a question that neither I nor anyone around me quite seemed to know the answer to. We all knew we put our trash in bins and people came to take it away- but where was "away?" I began to see more and more things being treated as disposable objects to be thrown away and yet realized very few of us had any idea what the implications of this behavior was.

In this paper, I seek to trace the development of our throwaway society to uncover how it came to be and how we might move past it in the future. While garbage is a global issue, I focus my research on the United States of America due to its unprecedented levels of consumption and waste generation in the modern world.

In the first chapter, I discuss a brief history of humanity's waste making from ancient civilizations to the future arguing that while waste making is not new, the rate, environmental and social implications, and mindset around waste in the modern day is vastly different from our ancestors and deeply unsettling. Next, I move on to discuss what I have identified as a major turning point in the American attitude toward waste: the development of single-use items. In an analysis of advertisements for some of the early leading disposable products I track how different appeals over time were used to transform the disposable into something desirable. Further, I compare these appeals to the rhetoric of modern-day advertising to conclude that a similar narrative continues to fuel our desire for the disposable. While single-use products remain a prominent feature of our throwaway society, I argue that they set the stage for the pressing and larger issue of planned obsolescence. In the third chapter I analyze the historical origins of this practice and the justifications given for its use over time. Through a variety of modern-day examples, I explore the pervasive nature of obsolescence in our world in a variety of forms including the three commonly recognized varieties of function, quality and desirability, as well

as a fourth category uncovered in my research which I have coined as “Obsolescence of Origin”. I move on to look at the implications of this practice analyzing the growing costs of production and disposal in comparison to the increasingly short consumer lifespan of these products to ask the essential question of “Is this worth it?” While I review some existing campaigns to cut down on waste and encourage reuse or recycling, I argue that none of them truly address our addiction to the disposable.

Finally, while a solution is unclear, it is undeniable that raising public awareness of these issues through education is a critical first step. The problem of waste is complex and has economic, environmental, historical, geographical and psychological components all of which must be considered in an interdisciplinary curriculum. Social Studies courses, which include aspects from many of these disciplines, are especially well suited to the topic. Again, while the path ahead remains murky, it is essential that the next generation understands our habitual and addictive waste making is not inevitable, and more importantly, is not sustainable. In the final section of this paper I provide a variety of sample educational materials that might be used in such a curriculum.

CHAPTER 1: A BRIEF HISTORY OF WASTE MAKING AND DISPOSAL

A Long History of Waste Makers

When we think of the contemporary garbage crisis we often blame our situation on the explosion of consumerism, advent of plastics and love of disposable convenience that have come to define the modern world. The narrative of human waste-making tends to assume these thoughtless habits and non-biodegradable products are distinct from the thrifty and resourceful generations of people living in the past; But, the truth is, wastefulness is anything but new.

From the beginning of human civilization, wasteful behaviors have been a defining feature of human life. Take the example of Ancient Troy. Archaeologist C.W. Blegen discovered that rather than sweeping waste that accumulated on the floors of households outside, the people of Troy would pour new layers of clay over the debris to create a new clean floor surface (Rathje, 1992, p. 35). This practice caused the city's elevation to rise at a staggering rate of about 4.7 feet per century as the waste of society slowly piled up below them (Rathje, 1992, p. 35). Halfway across the world in ancient Mayan civilizations, wastefulness was even more prevalent. After studying the civilization of Mayan people living in Altun Ha, Belize for nearly a decade, archaeologist David Pendergast found so much non-biodegradable waste indicating the practice of throwing out "perfectly good" objects including pottery dishes and stone utensils he argued: "These people would have traded in a Cadillac when the ashtray was full" (Rathje, 1992, p. 38). Clearly, neither the practice of making waste nor being what we may consider excessively wasteful are new to humanity. For centuries, people have been throwing away "new items" leaving clear evidence of the human tendency towards wastefulness. While the contemporary

garbage crisis is notable in scale, it is important to be aware that this is not an altogether new tendency.

Further, garbage has posed a threat to societies around the world on numerous occasions. For example, even ancient Athens had to create what may have been the first anti-littering law prohibiting the "disposal of garbage within 1 mile of city limits" to prevent garbage from piling up in the city (Humes, 2012, p. 27). In addition to the more obvious concerns over public health and visual aesthetics, accumulation of waste has been cited as a political issue threatening the safety of society itself. In the 1300's, Paris, France declared that the pileup of garbage outside the city was a threat to "national security" because it blocked the view from the city gates of potential invaders and declared the need to create a faraway dump site (Humes, 2012, p. 28). Though quite different than our contemporary concerns, societies around the world have asked the question of where to put their waste for centuries. Waste has presented a range of threats to society for far longer than popular narratives often make it seem; however, the crisis upon us now is unprecedented in scale, speed, and potency.

The American Acceleration

While it is clear that waste has been a constant feature of human civilization, America has risen to a unique position, generating more trash than anywhere else in the world. In 2019, the US represented just 4% of the global population but nearly 12% of global municipal solid waste (Smith, 2019). On a per-person basis, Americans are currently generating 50% more garbage than other Western countries with similar standards of living such as Germany (Humes, 2012, p. 5). In the second half of the 20th century much of the developed world experienced what is now

referred to as the "Great Acceleration," but America, which saw its waste generation double from 1960-2000, still presents as an outlier far beyond most nations of comparable development (Humes, 2012, p. 5 & IGBP, 2015). Along with our solid waste, we see exponential growth in carbon emissions, deforestation, ocean acidification and a host of other natural consequences of economic and industrial development beginning in about 1950 (IGBP, 2015). This turning point is largely the result of unparalleled US economic growth coming out of WWII. In the post war period, more jobs, more disposable income and more free time transformed the American standards of living. As production and consumption have skyrocketed, so too has the waste we create. Compounding the issue, with more disposable income, intrinsic motivation for repair and reuse has largely disappeared for much of the American population. Rather than working to reduce, reuse or even effectively recycle our increasing amounts of waste, the issue has been largely avoided and ignored. Professor of American Studies, Tim Jelfs argues that rapid growth and panic over trash has demanded that our garbage be seen as "a class of matter unmoored from temporal as well as spatial boundaries" and that despite its "durability" remains "ephemeral" in the public perception (2017, p. 553). Once trash leaves our direct possession, its location as well as its very existence is largely forgotten. In other words, rather than acknowledging our waste and amending our production or consumption, Americans have learned to cope by keeping garbage out of sight and out of mind as it continues to pile up at ever increasing rates.

Early History

In early America there was a strong tendency towards thrift which Historian Susan Strasser describes as the "Stewardship of Objects" (1999, p. 21). This "stewardship" was defined

by a strong value of our possessions for their innate material value and a habit of using every resource to its fullest. For instance, Strasser describes the many ways valuable packaging material was reused including everything from making household chairs out of old barrels to patching clothing with flour sacks (1999, p. 66). From bits of food left on dinner plates to articles of clothing with holes or tears, many of the things our society today considers garbage were at this time valuable resources to be repaired or repurposed (Strasser, 1999, p. 32& 38).

One reason for such thoughtful thrift may be that anything deemed true "garbage" had to be disposed of close to home. What was thrown "away" was not thrown very far away at all and remained in the sights and minds of its creators. In fact, up until the mid-eighteenth century in Philadelphia, PA, trash was often thrown directly from windows into the streets. It was not until 1757 that Benjamin Franklin implemented the first municipal street cleaning practice and encouraged people to dig their own "refuse pits" to keep trash contained (Rathje, 1992, p. 40). But trash continued to pile up on city streets across the country presenting a growing problem. Nearly 100 years later in 1842, New York City still relied on the presence of almost 10,000 pigs roaming the streets consuming garbage to keep streets manageable (Strasser, 1999, p. 30). In an excavation of the mall in Washington D.C one archaeologist found a variety of rubbish including bottles, glass, dishes and even a doll in the former backyards of residents and concluded, "[the garbage] they couldn't burn in the cookstove, they threw out back… these people had really messy backyards." (Strasser, 1999, p.119). As late as 1882 the ordinary trashcan was still so novel that household manuals felt it necessary to define what a "waste basket" was and how to use it (Strasser, 1999, p. 67). The process of waste collection and disposal remained under the responsibility of scavenging individuals and small organizations that sorted waste and searched for remaining valuable materials directly on the streets all the way until the turn of the 20th

century (McGowan, 1995, p. 157). Reuse and thrift among early Americans was certainly motivated in part by necessity, however the piles of trash that remained close to the home and always visible to its creators served as a powerful reinforcer of these habits. In these conditions throwing "away" a possession in the crowded streets may have been viewed as a larger burden than simply repairing or reusing it within the home.

Creating the "Away"

"Thrown away where? The world is round."
-Marge Piercy (1976, p. 240)

The twentieth century marks a critical turning point in the history of waste generation and disposal. With the creation of municipal trash collection systems and the construction of incinerators and landfills, garbage was for the first time in history systematically put out of sight and out of mind. As garbage became less visible, so did the everyday reminders of thrift. Slowly garbage was becoming an invisible commodity given little thought, not to mention value.

In 1895, Colonel George E. Waring was placed in charge of the Department of NYC Street Cleaning and established the first systematic and highly effective municipal waste management system (Humes, 2012, p.39). With a crew of sanitation workers all dressed in white nicknamed the "white wings", Waring transformed the streets of NYC (Oatman-Stanford, 2013). His impressive work was recognized quickly as seen in the photographs published by *Harper's Weekly* in 1895 comparing the clean and clear condition of the streets under Waring to their condition of filth and clutter in the years prior captioned "A New Broom on New York Streets: Results of Waring's Work Contrasted with the Results of Tammany Neglect" (*Harper's Weekly*, 189, p. 586-587). While Waring's work helped to reduce disease, lower mortality rates, and

greatly improve the sanitation of the city, it also fueled public fears of garbage (Oatman-Stanford, 2013).

Many "modernized systems" including Waring's were deeply influenced by pressure from a fearful public to treat garbage as a "toxic substance needing to be sanitized" leading to a sharp rise in incineration facilities that were thought to be more sanitary than dumps on land or disposing of trash in the ocean. By the late 1920's most large cities in America were using incineration as their primary disposal method (McGowan, 1995, p. 156). Attempts at "resource recovery plants" meant to extract valuable materials to be recycled and reused by Waring in 1896 were expensive, unpopular and quickly failed (McGowan, 1995, p. 158). This failure illustrates a key turning point in the public perception of garbage as an increasingly broad category of items to be viewed not as a commodity which could be scavenged for valuable material but instead a potentially hazardous substance devoid of any value to be pushed away and contained.

In addition to losing value, increasingly efficient collection and disposal of trash made the "garbage problem" increasingly invisible to the public, beginning a vicious cycle of thoughtless consumption and wasting. The sanitary landfill was created in Europe by Jean Vincenze and brought to America in the 1930s (McGowan, 1995, p. 161). However, with what the public finally considered a sanitary and efficient solution to the garbage problem, waste generation became less of concern and people began giving less and less thought to what they threw "away". Garbage expert Edward Humes describes the landfill as an "invisible tumor" to society which hides our waste and removes incentives for reuse and recycling (Humes, 2021, p. 57). Indeed, waste generation increased in cities across the country as their municipal collection systems were formed and landfills were built to take care of the garbage problem (Strasser, 1999,

124). The invention of the "load packer" truck in 1938 and later the opaque trash bag in 1960 further reinforced the idea that trash was a truly valueless product that could be hidden away from potential scavengers in darkly colored bags and crushed to pieces immediately upon collection (McGowan, 1995, p. 161, & Humes, 2012, pg. 70). Anthropologist Robin Nagle describes how highly effective sanitation departments have been a "victim of their own success" losing public recognition and gratitude as they keep garbage invisible and maintain "the illusion that there's an "away" to which we can throw things" (Oatman-Stanford, 2013, para. 24). In summary, while municipal waste collection systems and sanitary landfills may have temporarily "solved" the garbage problem in a physical sense, their very success created a less visible but much larger problem of thoughtless, carefree waste making.

Recycling

Origins

Of course, not all of our waste goes to the landfill. Recycling has long been, and continues to be, an important part of waste management. The environmental movement of the 1960's and 70's is often credited with the birth of recycling, but as we have seen, the practice of converting waste into usable material has been done for generations (Waxman, 2016). The reuse of old packaging, clothing and food scraps and the scavenging of the streets for items of value in early America all constituted a form of recycling. Additionally, in times of scarcity and crisis, Americans have long turned to recycling. For example, the sharp rise in demand for metal and rubber to support the American war effort in WWII led to widespread campaigns for recycling and reuse. The government encouraged citizens to save anything they could down to tin cans

running pamphlets that stated, “throwing a tin can away represents a waste of critical war materials which is unpardonable” (Strasser, 1999, p. 244). In addition to patriotic calls for recycling, we see a rise in recycling motivated by personal interest in times of economic crisis. In the early years of the Great Depression "dual-use packaging” that could be reused for a variety of new purposes after being purchased became incredibly popular (Strasser, 1999, p. 213). For example, the National Biscuit company packaged their cookies and crackers in boxes meant to serve as a child’s lunch box and The General Pencil Company advertised their ink jars as “cocktail shakers, lamp bases, or refrigerator water jars" (Strasser, 1999, p. 214).

What differentiates these early forms of recycling from the modern system invented in the 1960’s is the underlying motivation: rather than a personal investment in “getting the most” out of our belongings, modern recycling is simply a way to deal with the increasingly large amount of waste we generate. Recycling no longer benefits the individual directly but instead the collective society.

Interestingly then, the burden of recycling in the modern world falls almost entirely on individual consumers rather than large corporations who produce the plastic containers, bottles and bags. While this dynamic has been largely normalized, it is not the result of chance. Throughout the mid-twentieth centuries, large corporations worked tirelessly to shift any and all responsibility for its waste products to the individual consumer. The “Keep America Beautiful Campaign” of the 1950s was created by corporations such as the American Can Company, Coca-Cola and Dixie Cups to shift the issue of trash and littering from corporations to consumers (Dunaway, 2015). The Campaign ran advertisements such as the image of the “Crying Indian” in the 1970’s which depicted a Native American with a tear rolling down his cheek along with the text: “Pollution: it’s a crying shame. People start pollution. People can stop it.” (Dunaway,

2015, Figure 5.1). Environmental Historian, Bartow J. Elmore, cites the work of this campaign as critical in shifting the burden from companies to consumers and inspiring the consumer centered systems of recycling such as curbside programs funded with taxpayer dollars that we see today (Waxman, 2016). Despite the push of recycling for the collective good of our environment and society, the incredible success of this campaign unburdened the largest producers of disposable goods of the responsibility for their products once they left the shelf. The result is a system in which consumers, with no real personal incentives to recycle, are the sole party responsible for an unthinkable quantity of theoretically recyclable materials.

The Modern Crisis

Recycling, like garbage, is often described as a contemporary "crisis"- and rightly so. Despite being made the responsibility of consumers, most individuals are terribly misinformed and uneducated about how to recycle. A survey of 2000 Americans by Covanta found that more than half of respondents felt a lack of knowledge caused them to recycle incorrectly (Waste360, 2019). The self-reported doubt of respondents was confirmed by a multitude of misconceptions about recycling including the belief that greasy pizza boxes (53%) or plastic utensils (68%) could be recycled (Waste 360, 2019). Described as "aspirational recycling", Americans commonly throw contaminated and incorrect materials in the recycling bin with the hope it will be recycled - a practice which in reality makes things much worse by contaminating the entire recycling stream and dumping thousands of pounds of garbage into poor nations tasked with sorting through the contents (GAIA, 2019, p. 11). Even the most well-designed recycling system cannot function if the consumers do not know how to use it. Unfortunately, America's current recycling

system is riddled with problems and the crisis of recycling is far more than just a matter of consumer confusion.

The global network of recycling has recently come into crisis with the huge amounts of recyclables from consumption giants being dumped on developing nations. In 2018, China implemented the National Sword Policy and refused to continue accepting the highly contaminated recyclables of the United States (Corkery, 2019). With one of the previously largest buyers of recyclables out of the picture, the United States has begun shipping its ever-growing quantities of recyclables to some of the poorest countries in the world such as Laos, Bangladesh and Ethiopia where labor is cheap and environmental regulations are loose (McCormick, et al., 2019). A 2019 report found that the pile up of waste in these countries is leading to a host of problems such as "contaminated water supplies, crop death, respiratory illness from exposure to burning plastic, and the rise of organized crime abound in areas most exposed to the flood of new imports" (GAIA, 2019, p. 5). In 2018, these countries, which already mismanaged 70% of their own plastic waste, were inundated with an additional 68,000 shipping containers worth of US plastics (McCormick, et al., 2019). Despite potentially good intentions of American and European consumers hoping to do their part by recycling, a broken system is only hiding away the recycling crisis in poor communities and developing nations. Yet, recycling remains the most popular and well known of the "3-R's". For many consumers, recycling is a feel-good, "green" choice that subdues their environmental guilt without having to consider reducing their consumption or sacrificing convenience for reuse.

The Mystery of Modern Waste

Ironically, despite the development of organized municipal waste systems and the increasing amount of trash produced every day, the average person is largely unaware of what they throw away, how much they throw away and where any of it really goes. Our trash is not only invisible to society as a whole, but, in many ways, to the eyes of each individual who contributes to it.

First, most Americans seem to have very little awareness of how much trash they are generating each and every day. For example, a Pew Research survey in 2019 found that while eight in ten Americans reported actively working to reduce their food waste, data indicates that the pounds/person of food waste generated daily has risen from 0.6 to 0.69lbs from 2000-2017 (Desilver, 2019). Another study of American families found that, on average, families throw out 25% of the food and drink they purchase costing a family of four anywhere between $1,365-$2,275 every year (Gunders, 2012, p. 12). Clearly, people's perception of how much food they waste, as well as the potential money that could be saved, is deeply flawed. But these misconceptions are not limited to food waste. In the same Pew research survey, ⅔ of Americans reported using fewer single use plastic items, but EPA waste collection data shows quantities per-person remaining constant over the past 20 years (Desilver, 2019). Again, individuals' claims about waste reduction do not align with the reality. The gap in public perception versus reality is extremely problematic as waste generation continues to grow. As of 2018, the EPA reported that Americans generate a whopping 5lbs of trash per person per day (EPA, 2018). Archaeologist William Rathje has correlated this lack of awareness to the rise of mechanized and municipal collection systems. In what he describes as "Parkinson's first law of Garbage", Rathje argues that with larger home garbage cans and standard collection fees, garbage "expands to the size of the

receptacle" with little notice from its creators (1992, p. 230). Stated differently, when individuals are faced with little worry about the space, time, or cost of their garbage, more garbage is unconsciously accepted.

Perhaps even more disturbing, Americans fail to accurately report what exactly it is that they are throwing away. In the "Garbage Project" conducted in 1970 by Archaeologist William Rathje, household waste was collected, sorted and compared to self-reported logs created by the families participating in the study. In summarizing his findings, Rathje stated:
"What people claim in interviews to have bought and consumed, to have eaten and drunk, to have recycled and thrown away, almost never corresponds directly or even very closely to the actual remnants of material culture in their Glad or Hefty bags" (Rathje, 1992, p.67).

When comparing household trash to the self-reported consumption of families, Rathje and his team found that people consistently reported the types and amounts of foods they consumed inaccurately. In what Rathje has coined "The Lean Cuisine Syndrome" people grossly underestimated their consumption of "unhealthy" foods like chips, candy and sugar while overestimating their consumption of health foods like tuna or vegetable soup (Rathje, 1992, p. 71). The study also revealed many counterintuitive trends such as the tendency to actually waste more of a product during periods of shortage- a habit no one acknowledges or admits to (Rathje, 1992, p. 61). For example, during a beef shortage in 1973 Rathje found that rather than wasting less beef, panic drove people to buy up large quantities of meat, often in unfamiliar cuts and forms, that ended up being improperly stored or prepared improperly leading to increased amounts of beef being wasted (Rathje, 1992, p.61). Whether it be ignorance, denial or simple lack of interest, Rathje's work illustrates just how little Americans know about the waste they themselves are making.

Finally, as our waste system has expanded rapidly, the general population also has less and less of an idea about where their trash is going when they throw it “away”. For many, “away” is a place they have never stopped to think about. As quantities of trash have increased, waste management companies seeking optimum efficiency have shifted towards fewer but larger landfills across the country. For many densely populated areas especially on the East coast such as New York City this means that trash is now packed and shipped thousands of miles away to be buried in places as far as New Mexico (Rathje, 1992, p.108). With such great distances being traveled and so little visibility, it is no wonder that the general public remains unaware of the “away”.

But this only accounts for the trash that actually makes it in the waste management system. It has become increasingly clear that much of our trash is now littering every corner of the planet. In 1999, plastic fragments in the pacific Gyre outweighed zooplankton by a factor of 6 to 1 (Humes, 2015, p. 126). Possibly even more unsettling, deep sea divers exploring the deepest parts of our oceans in the Mariana Trench have now reported finding multiple plastic bags and candy wrappers in these “untouched” corners of the planet (Gibbens, 2019). From these findings one can conclude that the “away” is not really away at all. Indeed, it seems that throwing something “away” means it could end up just about anywhere on the planet.

CHAPTER 2: WHEN DISPOSABLE BECOMES DESIRABLE

Single-Use in the Spotlight

While it is true humans have been wasteful for as long as we can tell, objects have historically been valued for their strength, durability and long-lasting function. In fact, we often measure the advancement of humanity by the durability of its tools; for example, the progression from the Stone to Bronze to Iron age. Yet, in the present day we find ourselves in an age of cheap, flimsy paper and plastic that would likely be seen as a huge step backwards in the thrifty eyes of our ancestors. In a stark departure from a history of thrift and frugality demanded by the perpetual scarcity of durable resources, the throw-away economy emerging in the 20th century embraced waste making in a world suddenly abundant with cheap and replaceable resources.

Two innovations, both of which emerged in 20th century America are central to the creation of a throw-away society hooked on disposability: The single use object and planned obsolescence. Single use objects designed to be used just once before being thrown away introduced us to the habit of disposability, addicting us to its short-term convenience and newness. Once this had been achieved, planned obsolescence simply applied this habit to more and more durable and expensive goods.

Once and Done

The single-use object is the epitome of this new age in which, for the first time ever, the value of durability has been replaced by its very antithesis: disposability. The concept first appeared in America with the creation of disposable paper collars for men's dress shirts in the 1860's (Strasser,1999, p. 175). Even still it was not until the first half of the 20th century that

single use items truly took off in the form of everything from the paper cup to the sanitary pad. Essential to this shift in values was the role of advertising.

Advertisers of many early single use and disposable products in this period faced an enormous challenge: making a product which was of inherently lower quality than most of its durable counterparts and not intuitively modern or advanced in any traditional sense desirable to the American public in a time when much of society was undergoing rapid advancement. In order to sell these products, advertisers had to make disposability central to answering the perceived needs and wants of consumers of their time shifting focus from status and innovation in the roaring 20s, to frugality and patriotism in the depression and wartime and finally luxury and family values in the post-war period. Though advertising appeals were fluid with the times, new disposable products were consistently advertised as a means of rapid and constant self-improvement absolutely necessary for consumers to keep up with the new pace of modern life. Advertisements throughout the 20th century made it clear that "keeping up" with knowledge, proper health, style, home life or simply your neighbor in the modern world would only be achievable through the convenience and "newness" of single use alternatives to everyday items. While single-use product variations all served very different functions, the marketing strategies utilized show remarkable overlap in this time period as disposable was made desirable for the first time in history.

Once taught to treat flimsy paper and plastic as disposable, the founders of the second trend, planned obsolescence, strove to extend this same mindset to just about all material goods and possessions no matter how complex, valuable or durable.

How We Got Hooked: The Advertising Man's New Best Friend

Consumers of the early 20th Century had no reason to see flimsy paper and cotton alternatives to traditional durable objects as an advancement to be cherished. In fact, historian Susan Strasser notes that many of new disposable items such as the Dixie cup, originally marketed as Health Kups, were met with strong resistance from a public who continued to carry their own cups with them and even pull disposable cups from the trash to be used again and again (Strasser, 1999, p. 177). Reuse was a habitual way of life that consumers had learned to value from generations of thrifty and frugal people before them.

The success of disposable products then was a result of advertising agencies' powerful re-education of consumers. In a time period plagued by fears of overproduction and under-consumption, advertisers became respected as "guardians of uninterrupted progress" and protectors of economic growth (Marchand, 1985, p. 2). Tasked with creating an endless supply of demand, advertisers quickly realized the potential of single use products. In many ways, disposable and single use items were the advertiser's, and manufacturer's, best friend; unlike durable goods that a consumer would purchase only one time before needing to be convinced why they should replace it, the single use item was *designed* to be purchased again and again after each and every use. In fact, in 1924, Albert Lasker, the head of the advertising agency in charge of Kotex admitted, "the products that I like to advertise best are those that are only used once" (Strasser, 1999, p. 163).

Determined to teach consumers to desire the disposable, advertisers were careful to promote the single-use item not as cheap or backwards, but instead as the quickest and easiest way for consumers to rapidly move into the modern world and keep up with a new accelerated pace of life. Historian William Leach writes that it was in this period that, "newness and change

themselves [became] tradition in America" (Strasser, 1999, p. 196). At every turn, advertisers made sure that single-use items were portrayed as the necessary means of achieving this new tradition: what better way to keep up with every change and always have the "new" than an object that was cheap, easy to dispose of and designed to be replaced after every use? From the 1920's craze for sanitation to the Depression and War era need for patriotism and frugality and the 1950's race to the "American Dream" single use items were marketed as the key to keeping up to date with the newest health advice, national crisis or fashion trend in a world that was moving faster than ever before. It was this idea of disposability and convenience as a means of constant self-improvement that began America's rapid transformation into a throwaway society. Many advertisements illustrate this phenomenon in action in the 20th century beginning with the roaring 20's.

1920's: Innovation, Sanitation and Status-Seeking

From the beginning of the 20th Century, the nation saw rapid introductions of new products, knowledge and technologies. Due to the highly visible income slope of Americans, people of all classes looked to those above them and strove to increase their status by keeping up with the newest ideas and purchasing the newest products. A 1929 study on social class by Robert and Helen Merrell Lynd describes the scene well: "Everyone lives on a slope from any point of which desirable things belonging to people all the way to the top are in view" (Lynd, 1929, p. 82-83). In an attempt to market disposable items a new means of upward social mobility to the status-seeking crowd, single-use advertisements of this period often stressed the highly innovative "technology" and features hidden within the seemingly simple paper and cotton. In

addition, advertisements specifically took advantage of increasing medical knowledge and widespread fears about proper sanitation by marketing their product as the safest and easiest way to achieve new recommended levels of sanitation. In this way, the "innovative" single-use items became the cheapest way for consumers to keep up with rapidly accelerating ideas of "modernity" based on both status and sanitation.

Many companies boasted of the new technologies and features hidden within their outwardly simple disposable products to intrigue a public seeking modern self-improvement. For example, a 1925 Kotex advertisement stressed that their product was not regular cotton but actually an advanced form of "cellucotton" that could "absorb 16 times its own weight!" (Kotex, 1925, July, p. 209). Scot Paper towels took a similar approach introducing the unique "thirsty fibre" found in only their towels that made "ScotTissue a towel with 165 square inches of drying power- a towel of thirsty fibres each of which absorbs four times is weight it water" (ScotTissue Towels, 1921, *p.* 137). A 1927 Dixie cup ad appearing in *Good Housekeeping* went so far as to say the standard paper cup made by Dixie was actually "amazingly different from anything else you've seen" and could easily be mistaken for a "piece of fine China if you didn't know the secret" (Individual Dixies, 1927, p. 252.). Advertisements for all of these products presented the hidden technology and newness of their product as a way of making disposable seem advanced in function and appearance rather than low quality or cheap. In this way, disposable items became symbols of progress rather than regression for modern consumers.

Additionally, advertisements of the 1920's appealed to consumer anxieties about their class and status by marketing single-use items as a means of cheaply and consistently impressing others with something "new". As opposed to cars or fancy homes which were often quite expensive, single-use items were presented as a cheap way for consumers to identify with the

upper class and make themselves appear modern. For example, Kotex bragged that their product was “surely worth knowing about” based on the fact that it was used by “eight in ten in the better walks of life” clearly implying that Kotex was meant for high class and elite women (Kotex, 1925, p. 197). Advertisements for Dixie cups suggested that Dixie cups were a way for consumers to stand out and impress others as demonstrated by an advertisement picturing several well-dressed women impressed by their friend’s clever idea to serve lemonade in a Dixie (Individual Dixies, 1927, p. 252). Other products such as Kleenex suggested that they could help women achieve higher status by making them more beautiful: “Double[ing] the effectiveness of your makeup” and even making “your skin seem shades lighter than before” (Kleenex, 1926, p. 308). In an appeal to people of color, disposable Kleenex suggested they would allow minorities to compete with the white upper class by making them appear “whiter”. Whether it was innovation, “cleverness”, or beauty, all of these products advertised themselves as a way for consumers to modernize and improve themselves, achieving a higher status with low cost single-use items.

Figure 1 Individual Dixies [Advertisement] Good Housekeeping (1927 September) 85, p. 252 Copyright 2015 by ProQuest LLC.

Finally, new ideas about the importance of proper sanitation were also specifically targeted as something only disposable items could provide to the modern consumer. With the 1918 outbreak of the Spanish Flu, concerns of sanitation grew tremendously and many advertisements argued that the only way a consumer could keep themselves and their families healthy was by switching to single-use. For example, The Stone Sanitary Straw was introduced in this period as a necessity to protect people from the dangers of the drinking glass. One advertisement warned parents about the danger children may face at schools: “Many school dieticians, understanding the danger of infections from imperfectly washed drinking glasses" and

suggested that if the school did not have straws parents should send a package of them with their child to be kept in their school desk (Stone Straw Corporation, 1929, p. 65). Dixie cups were also marketed as alternatives to the dangers of the drinking cup which was greatly exaggerated by advertisements that generated fear by showing death quite literally sitting on the brim of your cup (Lafayette College, 2008, "1920's").

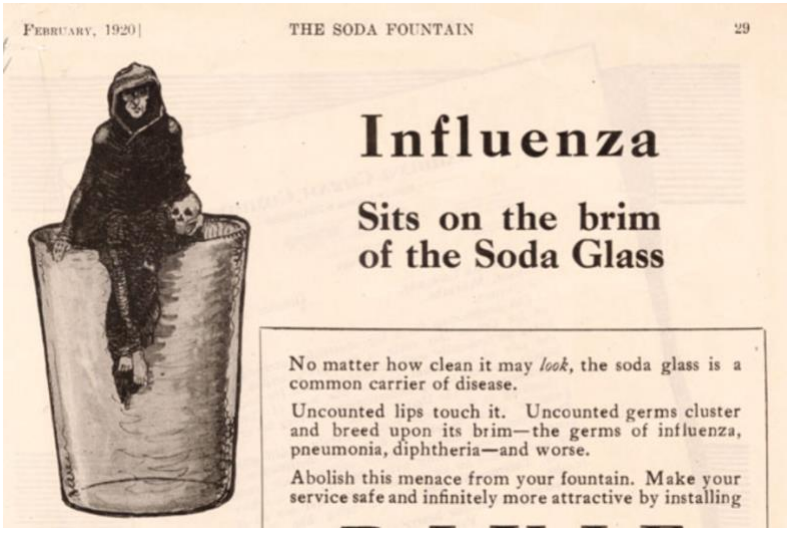

Figure 2 Dixie Soda Service [Advertisement] (1920, February) p. 29 Copyright 2021 by Whistlin' Dixie: Marketing the Paper Cup, 1910-1960

In both cases, consumers were made to feel guilty and fearful about the diseases they and their loved ones might catch if they did not switch over to sanitary single-use items. Kotex similarly suggested disposable sanitary pads were the way forward for young women looking to meet the new levels of sanitation required by the experts: "Every mother should tell her daughter this… A new way in women's hygiene, the scientifically correct way approved by doctors and nurses" (Kotex, 1925, p. 197). Again, this advertisement presented disposable items as the best way for consumers to keep up with rapidly evolving expert understanding of proper sanitation.

Overall, advertisements of the 1920's succeeded in presenting seemingly simple and low quality single-use items as new solutions to new problems. In an appeal to the consumers' need

to keep up with everything from the latest technology, most advanced sanitary practices or simply with their neighbors, single-use and disposable products were marketed as a cheap and easy answer people had been looking for.

1930-45: Frugality and Patriotism

Even after over a decade of advertising, single use products were still used by a very limited number of Americans. In fact, a study done in 1938 found that only 53,000 households had paper towels in their kitchen (Strasser, 1999, p. 179). As the country moved into a period of crisis facing the Great Depression and World War II advertising throw-away products in need of constant replacement certainly did not become easier. However, advertisers of single use products wisely took advantage of an impossible double standard many consumers felt obliged to fill: It was your patriotic duty to spend money and support the economy yet in times of need you needed to make do with what you had and practice frugality wherever possible. In 1930 Richardson Wright, editor of *House and Garden Magazine*, stated "The good citizen does not repair the old; he buys a new", but many found themselves struggling with money more than ever before (Strasser, 1999, p. 203). The advertisements of single use products in this period once again marketed themselves as the solution to a modern problem: cheap and replaceable items allowed for consumers to feel good about themselves by simultaneously fulfilling their duty to spend and yet feel like they were saving all at once. Additionally, advertisements took advantage of existing dependence on their products by emphasizing that giving them up put everything from victory at war to love and happiness at risk.

Advertisers of this period recognized thrifty consumer's reservations about the costs and wastefulness of repeatedly purchasing disposable products in hard times and sought to ease these anxieties by stressing the multipurpose and "waste-saving" nature of their disposable products. For example, a 1934 advertisement for Scot Paper Towels stressed that despite being single use, they were clearly "economical" because there were at least "157 Practical uses" (ScotTowels, 1934, p. 119). Disposable items came at an ongoing cost, but as this ad stressed, it was relatively small considering just how many things they could do. Another ad the following year went further showing consumers how to reduce waste and make "ScotTowels go further" (ScotTowels, 1942, p. 70.). Kleenex employed a similar advertisement that suggested strategies for saving like the "Two Timer!": an idea from a consumer letter describing the benefits of tearing her Kleenex in half to use twice: "saving Kleenex saves me money… saves material necessary to win the war" (Kleenex, 1942, p. 96). The Kleenex box was also described as a waste saving innovation: "The Kleenex Serv-a-tissue box ends waste- serves up just one double tissue at a time so you don't grab two when one will do" (Kleenex, 1943, p. 68). In acknowledging the waste and costs associated with their products, all of these advertisements effectively worked to convince consumers that they should actually feel good about their weekly patriotic spending to replace single-use items and simultaneously maintain a sense of pride with their new frugal, "waste saving" practices. Each of these ads presents single use products as the solution between the dilemma of frugality and patriotic spending by showing consumers how to reduce waste and multitask with a regularly purchased disposable product.

Figure 3 ScotTowels [Advertisement] Good Housekeeping (1942 December) 115, p. 70 Copyright 2015 by ProQuest LLC.

Another strategy used by many advertisers was the manipulation of any existing consumer dependence on their products created in the past decade by instilling fear and anxiety

about the loss and consequences one would face without them. In an economic depression filled with loss and hardship, these advertisements constantly reminded consumers of the status, modernity, happiness and health that single-use products had given them and presented giving any of that up as a sacrifice that simply could not be made. The headline of a 1932 advertisement for Kotex demonstrates this appeal to fear clearly: "She knows it's a dangerous compromise… To experiment with doubtful substitutes for genuine Kotex… hazards, risks, embarrassment, even humiliation. Endangered health" (Kotex, 1932, p. 41). Kleenex used the same logic in 1936 arguing that no one should accept an "inferior substitute" for a Kleenex because it would be "inhuman to let your child catch a cold" (Kleenex, 1936, p. 62). In both cases, Kotex and Kleenex made it clear that without these products the life of the consumer would suffer. In a reversal of the 1920's strategy, advertisers began to focus not on self-improvement, but instead the fear of "self-unimprovement". Another ad published in 1942 took this to the extreme implying that if a wife did not buy Kleenex, which served as the best coffee filters, her husband may have grounds in his coffee and "grounds for divorce" (Kleenex, 1942, p. 12). Not having Kleenex was portrayed as a threat not only to health, but to happiness and love. While similar to past advertising appeals, these advertisements specifically played on larger consumer fears of loss and regression in the Depression.

Moving into WWII, advertisers expanded the consequences of giving up single use items beyond just threats to an individual's health and happiness to a nationwide threat to the war effort and ultimately victory. In an extension of the fear created during the depression, single use items now became essential for both self-improvement and victory as a nation. For example, Dixie cups published an advertisement explaining that sanitary Dixie cups were more important than ever because "work hours are saved when ills do not spread among employees. Reduce

absence due to illness by continuing to buy Dixie" (Lafayette College, 2008, "*1940s*"). Kotex utilized the same strategy appealing to women working in the war effort that needed to do their job "EVERY day of the month" (Kotex, 1943, p. 103). Again, despite their diverse functions, continuing to purchase these products was portrayed as the patriotic thing to do for both your own ability to work hard and the nation's ability to succeed.

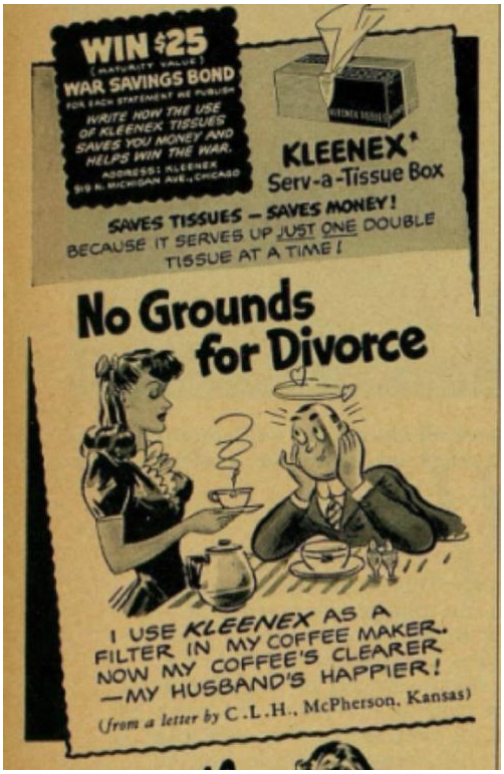

Figure 4 Kleenex [Advertisement] Redbook Magazine (1942 October) 79, p.12 Copyright 2015 by ProQuest LLC.

Clearly, despite the obstacles of depression and war, advertisements of single-use products continued to portray them as essential to keeping up with both the duty to spend and value of household thrift. While advertisements in the depression focused on single-use products as a means of fulfilling this double standard and maintaining status and happiness for individual consumers, advertisements during wartime shifted to a more collective patriotic appeal of disposability as the best way for the nation to work efficiently towards victory.

1945-60: Women's Quest for Happy Families and Luxury Homes

With the conclusion of WWII and the return home for thousands of young men, the country's pent up demand led to an explosion of consumption for reunited families hoping to live "the American dream" (Hine, 1986, p. 10). For many households, it was seen as the responsibility of wives and mothers to achieve this dream through caring for a happy family and bringing luxurious items into the home for all to enjoy. As historian Elaine Tyler May describes in her book, *Homeward Bound*, "Child-centered family took its place as the embodiment of the postwar American dream" (1988, p. 153). Additionally, the rise of Populuxe culture democratized luxury items and led to increasing associations of status with the newest fads and styles in the home. Writer on history, culture and design, Thomas Hine, describes this trend explaining that consumer objects became "symbols of achievement… affirmations that their owners had achieved a life of convenience and prosperity that their parents could only have dreamed of" (1986, p. 12). For busy mothers plagued with time consuming household chores and tight budgets, single use items were marketed as the answer. Advertisements for disposable products appealed to women as a way to both keep up with household chores to maximize time spent caring for the family and cheaply achieve a luxurious home up to date with the latest styles and trends worthy of the "American Dream". This strategy was immensely successful in permanently linking disposability with the American consumer's notion of a convenient, stylish and happy life in the "American Dream".

First, advertisers marketed the convenience of disposability as essential for busy young women and mothers to keep up with housework and spend more time with their significant other or family. For example, a 1955 advertisement for Scot towels that pictured a smiling young mother and child cleaning together claimed that Scot Towels made "summer chores less work"

and “save[d] lots of time” allowing summer to be spent with children and the family (ScotTowels, 1955, p. 92). This appeal of decreased housework was not limited to cleaning supplies. Dixie cups and the new plastic wall dispensers emphasized that, with Dixie cups, there was less “dishwashing drudgery” making them “a big help for busy mothers… for the whole family!” showing yet another happy pair of children with their mother enjoying the convenience of their Dixie cup dispenser (Dixie Cups, 1954, p. 21, Image 170). Kotex went a step further by offering women not only the convenience of disposable hygiene products but the addition of free booklets with “hints on dating, etiquette, grooming and fashion” and “facts your young lady needs to know” that would help keep up with all the latest trends (Kotex, 1957, p. 104 & Kotex, 1956, p. 148). In fact, some advertisements directly invoked young women’s anxieties about dating, fashion and more by running headlines that read “Are you in the Know?” and providing advice about how to handle difficult situations such as being a hostess or dealing with a boyfriend's “flirty friends” (Kotex, 1956, p. 148). Though arguably unrelated to feminine hygiene, these booklets and advice columns created an association between the convenience of their product and the ability to spend more time considering these apparently essential questions about love and family that busy women of the past had overlooked. Clearly, single-use items were presented as the key for women to keep up with not only housework, but also with lovers, fashion trends, and family time.

Figure 5 ScotTowels [Advertisement] Better Home and Gardens (1955 July) p. 92 Copyright 2015 by ProQuest LLC.

Additionally, single-use items themselves were turned into stylized luxury items that promised female shoppers and consumers colorful and fashionable additions to their home at low prices. Despite the apparent ordinary and everyday nature of paper cups, tissues or female hygienic products the advertisers of this period did everything they could to add color and style promising a touch of luxury that would be sure to please the whole family. Like many other ordinary products of the time, these items were given "playful" and "festive" features that "at least suggested luxury" to appeal to dream seeking shoppers (Hine, 1986, p. 12). In the most striking example of this trend, a 1958 advertisement for Dixie cups presented the paper cup as a colorful and trendy Christmas decoration to hang in your home during the holiday season (Dixie

Cups, 1958, p. 16). Advertisers essentially transformed the paper cups into a novelty item that women could purchase at a relatively low cost to bring luxury and happiness into the home.

Figure 6 Dixie Cups [Advertisement] Woman's Day (1958 November) iss. 11., p. 16 Copyright 2015 by ProQuest LLC.

Other companies such as Scot Paper Towels and Kleenex tissues took a subtler route adding color to their products and letting consumers personalize their choices. Scott's colorful paper towels promised to make "your kitchen brighter and your housework lighter" and of course please the family and the children as part of the "dream life" (ScotTowels, "New…", 1956, p. 27, Image 222 & ScotTowels, "Give me Color", 1956, p. 14, Image 196). Knowing that these

single use items were used briefly and replaced often, women caring for the home could rapidly change the appearance of their house with different color varieties of paper towels and tissues. On top of the ongoing promise of convenience in keeping up with new trends and styles, single use items had now become trendy items that required keeping up with themselves. Clearly, both the appeal to convenience and luxury in the home promoted disposability as the key for busy women at home to keep up and achieve new ideas about an "American Dream".

Figure 7 ScotTissue [Advertisement] Evening Star (1956, September 30) p. 14, Image 114. Image provided by the Library of Congress, Washington D.C.

An Ongoing Romance

We may look back at these advertisements as unconvincing or even foolish, but their message was, and continues to be, wholeheartedly embraced by American society. Despite growing concerns about plastic pollution, overconsumption and waste, single use products have only grown in popularity. For example, plastic water bottle consumption has grown from an average of 210 bottles per person annually in 2010 to 342 bottles in 2020 (Bolotnikova & Mi,

2021). One explanation for this irrational habit is that, once hooked, Americans were not willing to part with the convenience of disposability regardless of the consequences- especially given that the consumer does not often directly face the consequences of their own consumption. However, upon closer examination it is clear that ongoing advertising and marketing is key to the success of single use items. In fact, the advertisements for single use items in the present continue to hook consumers on the very same promises, fear generating claims and ideas made in the early 20th century.

For example, numerous companies selling single use objects continue to assure us that their products are durable and can help us reduce waste to ease consumer anxieties about being wasteful or ecologically irresponsible for choosing a disposable alternative. Just as consumers of the 1930's needed to be convinced of using paper towels over rags and Dixie cups over glassware, consumers of the present must be persuaded to actively choose disposable alternatives to existing goods over and over again. In a remarkable emulation of the Scot Paper Towels 1920 claim that "ScotTowels go further", a 2015 advertisement for Bounty paper towels claims that their towels are "2x more absorbent and stronger when wet" and exclaims "just look how much longer Bounty lasts versus one of those bargain brands" (Bounty Brand, 2015). Clearly, the continuing threat of the very durable and reliable rag or dish towel forces the producers of single-use products to continue sending home this message. Perhaps even more remarkable, the "two timer" advertisement by Kleenex in 1940 showing consumers how just one tissue could be torn in two and used twice is replicated and improved upon by Brawny towels who advertise their "tear-a-square" paper towels as a waste saving innovation that allow consumers to use "one little square, not more" rather than wasting an entire sheet for each use (BrawnyTowels, 2021). And

so, humanity's arguably most wasteful innovation, single use products, continue to be advertised as waste savers.

However, even the producers of these wasteful items seem to be aware of this irony and the growing anxieties of increasingly ecologically conscious consumers. As plastic pollution has become a more popularized issue, consumers once again need to be taught why they should continue to use single use items over their more durable counterparts. Take the plastic water bottle for example. Countless reusable water bottles made from plastic, metal and glass are available on the market for a one-time cost that is far cheaper than continuously purchasing single-use bottles on a monthly, weekly or even daily basis. Additionally, reusable bottles create no waste, can be purchased in a variety of colors or styles and often are built to last for years. Yet, even those who claim to make efforts to reduce their waste or make "green decisions" continue to buy single-use bottles which have been effectively green washed through deceptive advertising. For example, Dasani advertises their "Plant bottle" as being made from "up to 30% plants" and, "as always, 100% recyclable" in order to "create a better future" (DASANI, 2013). Similarly, Deer Park claims to be working towards a "better tomorrow" by creating their recyclable bottles from previously recycled plastic waste (Deer Park Spring Water, 2021). While these are certainly steps towards waste reduction, it is too often overlooked that the purchase of any single-use product itself is enormously wasteful and entirely avoidable.

Concerns over proper sanitation or hygiene also continue to fuel the market demand for single use products. Looking again at the plastic water bottle industry, advertisements for bottled water often stress the "natural" and "pure" qualities of their water as compared to possibly dirty or contaminated water from the tap. Fiji water, for example, claims that their water is "untouched by man" prior to the customer opening the cap (Fiji Water Company, 2021). This logic has

worked flawlessly. In my own experience as a waitress, customers often refuse tap water with a disgusted face- even when it is free of charge- and opt for a bottled option. Of course, many brands of bottled water such as Dasani are simply bottled tap water, but their marketing campaigns focusing on the "clean" and "fresh" qualities of their water have convinced consumers otherwise (Bolotnikova & Mi, 2021 and Dasani, 2021). Just as Dixie cups and straws in the 1920's presented themselves as the only "sanitary" way to drink water, Deer Park, Dasani, Fiji and others continue to tell consumers only their bottled water is clean.

Similar to the 1918 Spanish Flu which influenced the growth of these products in the 1920's, the recent COVID-19 pandemic has further fueled and revived consumer fears of germs, viruses and bacteria spreading from person to person. In fact, research published in The *Chemical Engineering Journal* shows that consumer safety concerns in supermarkets has led to an increased preference for single serve plastic packaging (Patricio Silva et al., 2021). Capitalizing on these renewed fears, plastic industry lobbyists have worked to raise doubts with governmental regulators "concerning food safety, hygiene and cross-contamination when using reusable containers and bags during the COVID-19 pandemic". (Patricio Silva et al., 2021 p. 3). Despite the findings that the COVID-19 virus does not spread from surfaces, the work of the plastic industry keeps consumers feeling that disposable plastic is always the safest option. In many places such as California, recently implemented plastic bag bans were suspended, lifted or denied throughout the course of the pandemic as a safety precaution (Glaun, 2021). Additionally, increased production, use and disposal of single-use face masks from April-September of 2020 has led to an 118% increase in CO2 emissions above "business as usual" levels from this industry in Europe (European Environment Agency, 2021, para 6). Research done by Schmutz et al. (2020) shows that when a reusable mask is used just 13 times, it becomes a far more

sustainable option than single use masks (European Environment Agency, 2021). Clearly, single-use remains a popular solution to the public's concerns of sanitation and hygiene even when the science may not agree.

Finally, the sellers of single-use products continue to present their goods as new innovations with new technologies and new abilities that will improve the consumers life. Just as Dixie claimed in 1927 that their cups were “amazingly different from anything else you’ve seen” The Dixie website of the present day describes their new “Dixie ultra” as a modern innovation with new never before seen abilities:

> Dixie Ultra® plates are built strong with Flex-Proof technology – they are 3X stronger vs. the leading store brand paper plate and can hold up to 2 lbs. of food. Every heavy duty, durable paper plate and bowl is microwavable, cut resistant and has a Soak Proof Shield™ to protect against greasy or saucy foods.” (Dixie, 2021, para 1)

The idea of a paper plate or cup is quite literally over a century old, but the advertisements continue to make consumers feel like they are purchasing the newest innovation of the modern world

And so, many of the single-use products first created in 20th century America are still successful products running on the same successful advertising today. Not only this, but the concept of single-use that we have been taught to love so much has expanded to a larger and larger number of products. No longer is it just towels and plates that are disposable but actual Rags and even cutting boards. (Scott, 2021 & Dixie Ultra, 2021).

It seems that the value of disposability no longer applies to just flimsy paper cups and thin sheets of tissue that are meant to be perceived as disposable. Slowly but surely disposability

has become a desired quality in almost any good. In this context planned obsolescence, explored in the next section, begins to make more sense. Even the most physically complex, durable and valued possessions of consumers have become largely disposable and we don't seem to mind.

CHAPTER 3: PLANNED OBSOLESENCE

Life in A World Put Together to Fall Apart

Hidden Complexities and Costs

The products we make and buy today are more complex than ever before. Using resources mined, extracted, grown and formulated with incredible speed and exploiting the labor of communities in every corner of the globe, producing everyday items has global implications for the wellbeing of people and the planet. For example, smartphones which are now ubiquitous in the United States and many developed nations, contain minerals from around the world making them quite literally "global devices" (USGS, 2017, para 13). In fact, the popular and highly demanded iPhone owned by millions of Americans contains components from 200 different suppliers around the world which are all brought to large factories in China where 350 iPhones can be produced in just one minute (Barboza, 2016). While this rapid global assembly line is good news for iPhone lovers today, the non-renewable minerals and metals that make an iPhone possible are being mined away quickly.

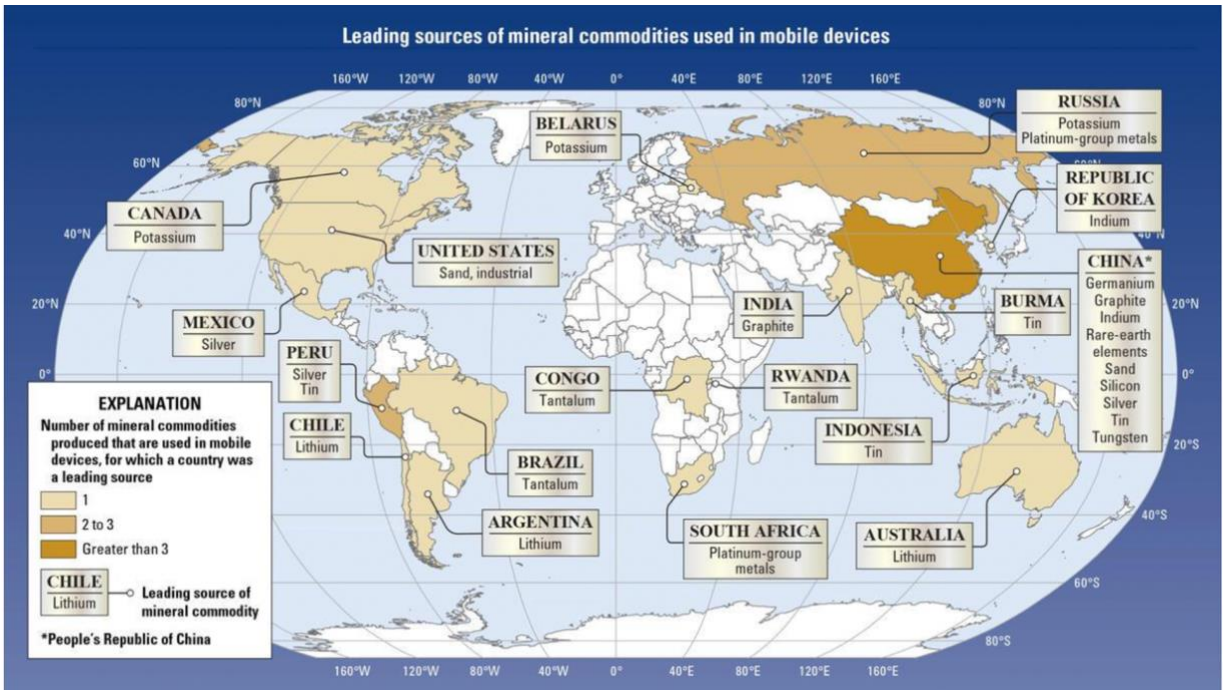

Figure 8 Leading Source of Mineral Commodities used in Mobile Devices. By USGS (2017) "Ordinary Minerals give Smartphones Extraordinary Capabilities" Public Domain.

But it's not just complex, multi-component mobile devices that have a global impact. Even something as simple as a pair of jeans or a hamburger has environmental costs that affect the whole world. True, jeans or a hamburger may not contain components from over 200 countries like smartphones, but both require enormous sums of valuable resources like fresh water to produce. In fact, one pair of jeans takes 8,200 liters of fresh water and a single kilogram of beef 15,000 liters (UNESCO, 2020, p. 2-3). These hidden costs on the environment are concerning, but the cost of production of simple goods to human lives is arguably even greater. For example, in his research on the production and consumption in *Mardi Gras: Made in China*, David Redmon reveals that the fun and festive beads of Mardi Gras come from large factories halfway around the globe in China where teenage girls living like “prisoners in fenced-in compounds” work 16 hour shifts molding styrene- a cancer causing chemical- with dangerous

equipment under grueling conditions for just 10 cents an hour (Kern, 2006, para 3). Beads may seem simple and are often sold for very cheap, but their cost to human lives is immense.

Despite the cost of globalized production to both humans exploited for labor and the wellbeing of the planet exploited for resources, we view the items we buy as less valuable and more disposable than ever. Few party goers in New Orleans have any intention of cherishing their beads for longer than a few hours and have never given a thought to the work or materials that went into making them. In fact, one man interviewed during the celebration and asked about where the beads came from simply responded, “Don't know, don't care -- they're beads for boobs, man" (Kern, 2006, para 2). Similarly, smartphones are dropped, replaced and upgraded frequently and jeans are replaced with each seasonal trend often with little consideration of their true costs to the planet and other people. Only in times of explicit “crisis” when the direct costs to consumers rise do Americans seem to take note of the true costs of abundance. Professor of History at Penn State University, Gary Cross cites the oil crisis of 1974 as a rude awakening for Americans of the “real costs of big cars, overheated houses and energy wasting appliances” (Cross, 2000, p. 161). However, once this “crisis” ended, luxurious lifestyles of abundance quickly resumed.

It is in this context that the practice of planned obsolescence must be given greater attention. Planned obsolescence, or the intentional use of physical and psychological tools to reduce a products lifespan, has been practiced since the early 20th century. However, as the hidden costs and complexities of production have increased so have the true costs of disposing of these products. Indeed, the situation presents a paradox: our possessions are made with more valuable resources and labor than ever, but the value we place on them is at an all-time low. Back in 1947 one of planned obsolescence’s early supporters, J. Gordon Lippincott, a product

designer who along with his partner Margulies created the well-known logos of Champion, Betty Crocker Spoon and General Mills "G" (Kaufman, 1998) eloquently predicted the future of planned obsolescence: "It should be realised that change has momentum, and it has mass. It takes a long time to get mass acceptance of change in motion, but once in motion, as it most assuredly is now, it will keep rolling for the foreseeable future" (Whitely, 1987, p. 6).

Change has not just kept rolling, it has greatly accelerated. Unfortunately, what Lippincott did not consider was the growing exploitation of labor and tremendous environmental costs that would accompany this change.

Everywhere Around Us

Planned obsolescence is pervasive in modern American society. Although often thought of as faulty product designs meant to physically break, planned obsolescence comes in a wide range of forms, some of which are purely psychological. There are three commonly recognized forms of this practice: Obsolescence of function, Obsolescence of quality and Obsolescence of desirability (Slade, 2006, p. 161; Packard, 1960, p. 38 & Pope, 2019). In addition, I argue the existence of a fourth category, Obsolescence of Origin. These forms will each be explored through examples in the world around us which illustrate how these distinct practices work together and overlap to create a world that is largely put together to fall apart.

Obsolescence of Quality

Obsolescence of Quality, also known as "death dating" is probably the most well-known form which describes the practice of physically designing products to wear out or break down "at

a given time… usually not too distant" (Packard, 1960, p. 38). Unique from other forms of planned obsolescence, this practice ensures that the product is made obsolete through physical means.

The best-known example of this practice in the 21st century comes from the tech industry. In the world of technology, lithium batteries are growing in popularity because of the amount of power they can hold in a small space, but they also die very quickly and degrade with each charge (Semuels, 2019). One might ask why we continue to use short lived lithium batteries in otherwise durable and expensive devices knowing this fatal flaw; but, from the perspective of the producers, a short battery life means more product turnover and more sales. A longer battery life simply isn't desirable from the point of view of the producer (Semuels, 2019). In 2017, Apple released a software update intended to help extend the life of the lithium batteries, but at the same time knowingly slowed down all of the older models pushing their owners to replace their phones even sooner (Semuels, 2019). Not only this, but producers like Apple have also ensured that consumers are not able to repair or replace old batteries in their phone forcing them to continue consuming new products. For example, Apple's design for air pods includes gluing in the battery- a method that makes it both dangerous and expensive for even an expert to repair or replace it (Semuels, 2019). Findings from the research of a German Environmental Agency suggest that obsolescence of quality is present in many other electronic devices and appliances as well. For instance, while only 7% of large household appliances like televisions or microwaves were replaced due to a defect within the first 5 years of use in 2004, this number nearly doubled by 2013- in the words of the agency, a "remarkable increase" (Ala-Kurikka, 2015, para 4). The world of digital devices is riddled with examples of planned obsolescence of quality, but upon closer examination these same practices can be found in a wide variety of products.

Fast fashion is another notorious example of obsolescence of quality. Studies have found that products made by popular fast fashion brands like Zara and H&M are designed to be worn less than 10 times before falling apart (Morgan & Birtwistle, 2009, p. 2). Well known fashion journalist Hilary Alexander went so far as to say that when buying clothing from H&M, "you'd be lucky to get two or three wears out of it and then you'd chuck it away" (Morgan & Birtwistle, 2009, p. 2). As of 2015, Americans generated an average of 75lbs of textile waste per person annually- a 750% increase from 1960 and an increase 10 times greater than the population growth in this period (Pierre-Louis, 2019). Once again, while the global costs of producing clothing in dangerous factories and shipping them all over the world have increased, the lifespan and value we place on our clothes has decreased.

Not even the neighborhoods and houses we live in are always built to last. An audit of housing developments in England completed by the Barlett school of planning found that of "140 [housing] developments across England built since 2007... 20 percent of developments should have been rejected outright by planning authorities… and 54 percent… should have been rejected at planning and only built if the developer came back with 'significant improvements' in the design" (Ing, 2020, para 2-3). In an investigation of housing in South Eastern PA published in the *Philadelphia Inquirer* it was found that rushed production during the housing boom of the 2000s led to "undertrained workers, lower-quality materials, and lax oversight by builders and code inspectors" which has resulted in "more than 650 homeowners in at least 55 zip codes in houses so damaged by water that each requires tens of thousands — and sometimes, hundreds of thousands — of dollars in repairs" (McCabe & Arvedlund, 2018, para. 12). Even worse, the Inquirer concluded that in many cases the water damage began from day one and has left thousands of homes "rotting from within" under their pretty exteriors leaving many of these

homes unsafe to live in (McCabe & Arvedlund, 2018). These poorly designed and constructed homes are rushed onto the market and sold for a profit while the creators know full well their homes will not last these new families a lifetime.

Even objects as mundane as a car seat have fallen victim to obsolescence of quality. Car seats come with set expiration dates. This is because they are usually constructed out of plastics which degrade over time in the extreme temperatures inside cars causing them to wear out in around 6 years; while it may seem sensible to use expiration dates to alert consumers of this wear and purchase a new car seat, the real question remains why we continue to build car seats out of these plastics knowing they will only hold up for 6 years or so (Feder, 2017). The intentional decision to continue making car seats we know will not last illustrates planned obsolescence. In all of these cases, faulty design and poor design choices are fueling the cycle of consumption as consumers are forced to replace worn out objects sooner and sooner. All the while, our landfills are growing with lightly used but unrepairable products. Unfortunately, this is just one of many forms of planned obsolescence.

Obsolescence of Function

Obsolescence of function can be described as the practice of making one product obsolete by replacing it with another "that performs the function better" (Packard, 1960, p. 38). In other words, the product is displaced by an improved version or model. Though replacement is not forced by physical means as in obsolescence of quality, obsolescence of function is equally if not more pervasive. For example, Apple is notorious for its frequent model changes and software updates releasing nearly 30 different "improved" models of the iPhone between its creation in

2007 and 2020 (Jones, 2014). From improved cameras, bigger screens and new colors to faster processing and longer battery life each model of the iPhone makes all of those that came before it seem obsolete. In fact, most models are only kept on the market for about 2 years (Jones, 2014). This practice is common among many tech companies and is driving products to become obsolete at increasing rates. While 54% of Americans say that they will replace their cell phones only when it "stops working or becomes totally obsolete", 44% admit that they replace theirs "as soon as the cell phone provider will allow it, usually every 2 years" (Swift, 2015, Table 1). As a result, cell phones meant to last 5 years are now being discarded after about an average of 18 months (Pope, 2017, p. 75). In 2005, around 50,000 tons of cell phones were discarded in America (Pope, 2017, p. 75). But it's not just cell phones that are being rapidly replaced. A study conducted by a German environmental agency suggests that a third of all refrigerator and washing machine replacements are driven by a desire for something better even when the old model continues to function (Ala-Kurikka, 2015). Cell phones and appliances often provide the cover story for obsolescence of function, but the practice can be observed across countless domains of production.

The history of United States defense spending provides another telling example of this practice in action. Beginning with the arms race of the Cold War, author of *Made to Break*, Giles Slade, describes how an obsession with continually improving weapons in the name of "national defense" has increased the rate of obsolescence in defense technology (Slade, 2006, p. 232). In the heat of the Cold War, President Eisenhower was acutely aware of this trend and warned us to be mindful of our defense spending in a world where "obsolescence compels the never-ending replacement of old weapons with new ones" (Slade, 2006, p. 232). Yet, in 2021 the Department of Defense will spend an estimated 107 billion dollars on "new technology research" and 29

billion on nuclear modernization (Amadeo, 2020, *Defense Department Base Budget*, para 4). Despite having attained weapons that are so powerful they ensure mutually assured destruction if they were ever to be used, our country continues- even in periods of relative peace- to spend incredible sums on improving our "security" against far less heavily armed nations even further.

Improved security or safety is a common source of obsolescence of function. Returning to the example of car seats, the expiration dates are not only markers of obsolescence of quality but also function. In addition to physical problems with plastic degradation, expiration dates are often determined in advance to be about the time that new safety features and technology will render the old one unsafe by new standards (Feder, 2017).

Planned obsolescence has also invaded the realm of knowledge and facts. Looking at the textbook industry, research has found that publishers are more likely to release updated or revised editions of their text when the "competition from used textbooks increases" which Toshiaki Iizuka, a professor of economics at Tokyo University suggests is a clear indicator of "the presence of planned obsolescence" (Iizuka, 2007, p. 191). It is rare that scientific breakthroughs or archeological discoveries greatly alter our understanding of science or history, yet textbooks continue to update texts frequently and sell new and improved versions.

Obsolescence of Desirability

The most common, and most insidious form of planned obsolescence, obsolescence of desirability is also known as style obsolescence or psychological obsolescence and can be described as the practice of making products "worn out in our minds" rather than physically (Packard, 1960, p. 38 &46). In the words of leading wall street banker in 1927, Paul Mazur, this

practice has been- and continues to be- incredibly effective because, “Style can destroy completely the value of possessions even while their utility remains unimpaired” (Packard, 1960, p. 46). Indeed, the strongest driving force behind endless and repetitive consumption comes not from the producer, but from consumers who have been trained to embrace change and believe that more is always better and new is always best.

Returning to the example of fast fashion, it is clear that design flaws aside, consumers have learned that frequent change with the trends and seasons are what's in style. Again, in the words of historian William Leach, “Newness and change themselves have become tradition in America” (Strasser, 2000, p.196). No single article of clothing, no matter how intricately designed or personally significant, can be considered fashionable; Instead, it is simply the act of constantly wearing new and different items that has become the standard of style. Globally, we now buy 60% more clothing than we did in 2000 and an astounding 20 articles of clothing are produced per person every year (“The Price of Fast Fashion, 2018). One well known fast fashion brand, Zara, releases 20,000 new designs every year (Pierre-Louis, 2019). This incredible number of new releases are aimed to increase the rate of change in trends and fads and create a growing number of created seasons and occasions like “back to school” or “holiday seasons” that warrant buying something new.

Psychological tools are used within the technology and electronics industry as well. One study on the subject concluded, “Consumers’ mind-set seems to be a limiting factor for the actual lifespan of technical appliances.” For even the most durable electronics it adds, “It appears that lifespan cannot exceed consumers’ expectations” (Hennie & Stemming, 2016, p. 73). Consumers have been taught that appliances have short lifespans and their beliefs have created a self-fulfilling prophecy.

Easily influenced and excitable children have also become a popular target of obsolescence of desirability. Relentless advertising and release of new toys and games has driven the rate of turnover in these industries to increase exponentially. A survey conducted by the British Heart Foundation found that, "nearly 1 in 3 parents (28%) say they have thrown away toys in perfect working order" and, "nearly half (47%) of parents admit that their kids are tired of new toys after just one week" (Charity Retail Association, n.d., para 1). Yet another study found that 20% of parents reported their child losing interest in a new toy after just 11 hours of play time while 8% reported boredom with the toy in under an hour (Spary, 2019). Plastic toys may be safe, sturdy and colorful, but this is of little importance to children taught to constantly seek something new. In fact, more than the toy itself, children seek the thrill of "unboxing" it, or even watching another child unbox it online. Recent growth of online "unboxing videos" which picture children opening and reviewing toy products are watched by more than 78% of American children and, according to professor of Advertising at CU boulder, Harsha Gangadharbatla, are potentially "grooming an entire generation of children to get addicted to highly consumeristic purchasing behavior from a very young age" (Marshall, 2019, *Breeding Consumerism*, para 2). Millions of toys are produced, shipped and sold around the world every year, but it seems that children may no longer interested in having them, just opening them.

Even natural and essential products like food have become a battleground of psychological obsolescence. Here planned obsolescence has been implemented by means of imparting ever increasing standards of quality on natural products and creating fears of safety or decreased enjoyment if "imperfect" or "old" food is consumed. However, unlike most forms of planned obsolescence, here, it is the consumer who has imparted their own artificial limitations on the product which may actually harm the producer. Trained to think in this way by the actions

of corporations in so many other industries, consumer demands have become their own monster. Consumer expectations of "cosmetic perfection" lead to huge losses in the harvesting and retail stages of production (Gunders, 2012, p. 9). For example, culling or the "removal of products based on quality or appearance criteria, including specifications for size, color, weight, blemish level, and Brix (a measure of sugar content)" completed after harvest means tons of completely edible but "imperfect" produce is discarded every day (Gunders, 2012, p. 8). In fact, one citrus packer reported that 20-50 percent of their product is considered "unmarketable but perfectly edible" (Gunders, 2012, p. 8). In addition, the "use by", "best by" and "sell by" dates listed on food products are completely unregulated by law (Gunders, 2012, p. 10). Retail stores often discard food 2-3 days before the sell-by dates due to fear of damaging their reputation leading to the average supermarket losing up to $2,300 dollars a day in edible, but "out of date" food (Gunders, 2012, p. 10). Consumers too remain confused about the role of these expirations date with an estimated 20% of food waste in the UK resulting from confusion over date labeling (Gunders, 2012, p. 12). Just as Paul Mazur predicted in 1927, psychological beliefs can destroy the value of a resource regardless of its true physical condition

Obsolescence of Origin

In addition to these three commonly recognized forms of planned obsolescence, I argue a fourth category has emerged. Obsolescence of origin describes those products which were never demanded by consumers in the first place- obsolete from their very origin. These products often provide consumers with instant gratification and material evidence of a "good life" which is highly valued in our capitalist, consumerist society; however, the purchase of these objects are

often a manifestation of excitement in the moment rather than a true want or need and therefore rapidly lose value in a matter of weeks, days or even minutes. These products may be physically durable, but, due to their lack of value, are treated as disposable. Within this category, some objects may have a very limited lifespan of value to the consumer while others have no value at all depending on the personal preferences and position they hold. In some cases, the practice may be described as unsolicited production which aims to meet the needs of the producer (advertising, increasing consumer goodwill towards a company or just making quick profits) while satisfying only superficial needs, or no needs at all, of the consumer.

Within this practice there is a large category of "event specific" products which provide material evidence of fun and happiness at an event or celebration but fail to provide any real value beyond this. For example, the Mardi Gras beads discussed earlier, T-shirts for a 5k-race or fundraiser event, cheap seasonal decor and souvenirs sold in tourist towns all provide consumers with a blast of instant gratification, excitement and material items to remind them of an experience, but rarely represent something the consumer truly needs or even wants. Consider the free T-shirts that are so often handed out at sporting events, pep rallies and more. Often all of these shirts are a size large so that it will "fit" every guest, but many of the attendees might prefer a smaller size and never touch that oversized shirt again after wearing it at the event itself. Similarly, Mardi Gras beads quickly lose their appeal after the festival has ended resulting in much of the whopping 25 million pounds of beads distributed each year ending up on the streets along with an overall 150 tons of waste generated at Mardi Gras annually (Redmon, 2017). In the words of Dr. Howard Meikle, an environmental scientist at Tulane University, the beads are "part of the waste culture we have where materials pass briefly through our lives and then are dumped some place" (Redmon, 2017, para 32-33). Similarly, giant corporations like Aliaba,

headquartered in China, offer online sales of 1.4 million different Christmas decorations at prices that consumers can justify spending for use in just one holiday season before tossing away (Wainright, 2014). In each of these cases, producers know they can profit from excited consumers looking for a material representation of their participation in an event or travels around the world knowing full well that their product lacks any true value or use and will likely be discarded shortly after the event. In this sense, producers are intentionally creating products that will become obsolete for, not all, but certainly many consumers after the brief event has ended.

Figure 9 Mardi Gras Beads Priced at $1.99 at the Salvation Army, North Myrtle Beach, South Carolina. (Original Photograph, 2021)

Figure 10 2008 Mardi Gras Beads Sitting on the Shelves of a Goodwill in Southeastern Pennsylvania 13 Years Later. (Original Photograph, 2021)

Products created to serve as prizes and rewards that consumers are given, but often do not select with their own free will represent another category of obsolescence of origin. These cheaply made, but sometimes surprisingly durable plastic trinkets and toys intended to be sold as prizes on the boardwalk, traded in for tickets at arcades, or put inside claw machines, gumball machines or even Happy Meals are not selected and purchased based on consumer preferences, but instead are used by producers to encourage spending. While a glass machine stuffed with colorful plastic toys and trinkets is certainly attractive to children, none of the individual items, even if they could be selected according to the child's wants and not by random chance, represent a true want or need. Instead, their appeal as a collective serves the needs of the producer who

hopes to profit off the excitement of these children who want to play the game or buy the meal that will come with a toy. The result: producers profit, and consumers win small toys that are rarely kept around for long.

Finally, promotional items used by companies to advertise or increase customer goodwill towards the company image are designed from the very beginning to meet the needs of the producer rather than the consumer. While they may help consumers fulfill superficial needs, they are not what the consumer ever truly wanted and are therefore obsolete in their mind before it is even attained. For example, while it is true that many consumers may want or need a phone-wallet, pop socket, water bottle or T-shirt, very few of those consumers want any of those items with a large pharmaceutical or financial corporation's logo on it. Producers know that these items are not truly what the consumer wants- it's why they usually give them away for free rather than selling them- yet they continue to produce them in huge quantities for their own purposes. While there is not much empirical evidence on consumer attitudes toward promotional items or their product lifespans, the anecdotal evidence of their disposability or obsolescence is abundant. A trip to goodwill provides hundreds of examples of promotional items given away almost as quickly as they were accepted.

We are truly living in a world full of products being put together to physically and psychologically fall apart. No matter how physically durable something may seem, everything from the homes we live in and food we eat to the clothes we wear and "freebies" we pick up are either made to be or treated as disposable. With landfills overflowing and resources draining it is essential that we ask how it is that planned obsolescence in all its forms came to dominate our world.

Origins

Single-use Sets the Stage

While single use products, discussed in the previous section, introduced us to the habit of disposability and repetitive consumption, the practice of planned obsolescence took these concepts and applied them to even the most durable of goods. The result- a world full of temporary, ephemeral products and dangerously durable garbage heaps.

The invention of both single use products and planned obsolescence can be tied to the imbalance of supply and demand in the early 20th century. For essentially all of human history, the problem has always been ensuring there was enough supply to meet people's basic wants and needs. However, in early 20th century America, improved manufacturing and industrialization gave way to a reversal of this phenomenon: suddenly supply was growing so rapidly the fear was generating enough demand to keep up with it. According to environmentalist Giles Slade, "Deliberate obsolescence in all its forms—technological, psychological, or planned" as well as "the very concept of disposability itself" was a "uniquely American invention" to cope with overproduction (2006, p. 3). Indeed, the driving question for businesses and marketing agencies in this period was how to get consumers to buy their product over and over again rather than keeping their old one or buying a substitute from their competitor (Slade, 2006, pg. 10). The success of producers cannot be overstated. By 1964, an article in the *Sunday Times* wrote:

> Responsible design will be throwaway design ... [people] throw away their paper bags, their television sets and their cars. The public just don't realise how close they are to throwing away their furniture too . . . (Whiteley, 1987, pg. 19)

But of course, the 21st century has seen disposability applied to much more than just furniture.

Foundations

Despite not being named until much later, the origins of planned obsolescence can be traced back to the capitalist economic model itself. In *Theory of Economic Development* (1912) written by political economist Alois Schumpeter, he claimed "This process of Creative Destruction is the essential face about Capitalism" (Slade, 2006, p. 59). While this "creative destruction" is not the same as planned obsolescence, it was the first time that destruction and waste were explicitly recognized as essential to forward progress. Two decades later at the peak of American economic growth in 1928, an investment banker by the name of Paul M. Mazur published his book *American Prosperity: its Causes and Consequences* which took these ideas a step further identifying true planned obsolescence as key to success: "Wear alone… is too slow for the needs of American Industry...If what the consumer market yesterday could only be made obsolete today, that whole market would be again available tomorrow" (Slade, 2006, p. 60). In other words, capitalism demands continuous consumption as a means of economic growth which cannot be achieved without disposable products in constant need of replacement. In fact, French sociologist Jean Baudrillard believed that consumption is "merely an intermediate" between production and it's "fundamental alternative… destruction" (Pope, 2017, p. 30). Endless growth is inextricably tied to endless waste; one cannot exist without the other. Hence, now that the basic "needs" of almost everyone have been met, the role of planned obsolescence in capitalism.

To pinpoint exactly when planned obsolescence as a practice began is difficult, but two foundational instances regarding cars and lightbulbs were hugely influential in the business

world and paved the way for planned obsolescence's domination of the market. The better-known example arose from the battle between Ford and General Motors (GM) beginning in the 1920s. By 1920, 55% percent of American families already owned a car; leaving Ford and GM with a dwindling market of buyers (Slade, 2006, p. 31). Henry Ford was old fashioned and insistent on producing durable, long lasting and consistent cars like the Model-T, however, his competitor, Alfred Sloan at GM was an early proponent of disposability and change. In his autobiography, *My Life at General Motors*, Sloan reflects on his strategy: "When first-car buyers returned to the market for the second round… they were selling basic transportation and demanding something more than that in the new car" (1963, p.163). When Sloan became president of the company in 1923 he tested his luck creating a new superficially improved version of the Chevrolet and won big. Sloan began offering annual model changes with largely stylistic upgrades that made consumers eager to ditch "last year's style" and buy something new regardless of how well the old car still functioned. This not only pushed Ford out of the competition but allowed GM to continue to defeat competition from its own earlier models and induce repetitive consumption in the market. In addition to stylistic changes like tail fins, lower and longer bodies and a wide array of colors all meticulously planned out by the Arts and Color (Styling) Section created in 1927, Sloan created a graduated product line which encouraged consumers to "upgrade" as their incomes increased. In Sloan's words, "regularizing change" was a "necessity" because "appearance was selling cars" faster than ever before (1963, 167). And indeed by 1927, Ford and the reliable, but admittedly plain and static Model-T were pushed out of the market (Sloan 1963, 272). This battle of durability vs. disposability represents one of throw-away culture's early victories and marks a fundamental shift in how disposability and change were seen in America. Historian Susan Strasser identifies automobiles as the successful

test case for planned psychological or stylistic obsolescence: “if people could learn to discard cars that still worked, for reasons of style or new technologies, they could certainly come to think of anything else as disposable” (Strasser, 1999, 193). Yet, at the very same time planned obsolescence was making a more subtle and secretive appearance in the lightbulb industry.

Although lesser known than the case of cars, the so-called “lightbulb conspiracy” presents an even more blatant example of functional planned obsolescence. Despite the fact that it was not labeled as such at the time (the term “death dating” would not be recorded in writing until 1953), it is believed to be the first significant case of intentional obsolescence of function (Slade, 2006, p. 79). At the same time Ford and GM were butting heads in the car industry, all of the world's largest lightbulb manufacturers including GE from the United States were convening to establish the 1924 Phoebus Cartel (Krajewski, 2014). In an effort to increase sales, the cartel agreed upon a 1000-hour lifetime limit for household light bulbs despite previous models working for 1500 to 2000 hours (Krajewski, 2014). The manufacturers realized that the shorter lifespan meant bulbs died faster and consumers bought replacements more frequently. Their plan worked brilliantly with sales increasing from 335.7 million light bulbs worldwide in 1926-27 to 420.8 million in 1930-31 (Karjewski, 2014). The plot went largely undetected until the latter half of the 20th century when archives revealed the “systematic efforts” of the corporations to enforce planned obsolescence including fines for any manufacturer who produced bulbs that lasted too long (Karjewski, 2014). The cartel was not just aware their bulbs' lifetime was decreasing, uncovered documents from cartel facilities reveal that they were carefully tracking the decline in lifespan and corresponding rise in sales (Karjewski, 2014).

While these events provide clear evidence of planned obsolescence in action, the official invention of planned or “progressive obsolescence” is credited to Justus George Frederick, the

editor of *Printer's Ink Magazine* in his 1928 article, "Advertising and Selling" (Slade, 2006, p. 58 & Strasser, 200, p. 197). Frederick saw what was happening with cars and argued that people must be "induced to buy a greater variety of goods" through a belief in the principle of "buying goods not to wear out, but to trade in or discard after a short time" (Slade, 2006, p. 58). He went on to say that, "the progressive obsolescence principle… means buying for up-to-dateness, efficiency, and style, buying for… the sense of modernness rather than simply for the last ounce of use" (Slade, 2006, p. 58). Two years later in another article entitled *"*A Philosophy of Production", Frederick clarified his earlier work: "What do I mean by 'progressive obsolescence?... I mean our readiness to scrap half worn goods for new." (Strasser, 1999, p. 198).

The battle between Ford and GM, the Phoebus Cartel and the writing of Justus G. Frederick all arose in the 1920s leading into the 1930s which raises the question of, why then? According to Giles Slade, author of *Made to Break,* "so much of the world was in transition" in the 1920s and 30s that "ordinary people were becoming familiar with the need to discard not just consumer goods but ideas and habits that had suddenly become obsolete" (Slade, 2006, p. 62). Returning to Lippincott's prediction about the unstoppable nature of change set in motion it seems that this period marks a critical turning point in the acceptance of change. Additionally, the onset of the Great Depression incentivized manufacturers to cut costs and encourage consumption more than ever before. Planned Obsolescence was simply a newer version of the adulteration that struggling businessmen had been practicing for centuries (Slade, 2006, p. 78). However, planned obsolescence has persisted long past the transitory decade of the 1920s and the economic hardship of the thirties and continued to thrive in even the most prosperous of times. While the practice was not blatantly advertised to consumers such as with single use

items, this strategy was adamantly defended for countless reasons among manufacturers who saw an opportunity to profit. Their successful arguments has led to the continuance of the practice over time and hooked the public more deeply on the habits of change, newness and disposability.

Justifications

Planned obsolescence is neither intuitive nor inherently desirable to the average person. Simple logic and reason would tell us that durable, long lasting products are more desirable than fragile and ephemeral ones; yet, throughout the course of the 20th century we have again and again chosen the latter. Like single-use items, disposability through planned obsolescence had to be taught, justified and learned by consumers. However, unlike the advertisements for single use products which specifically aimed to glamorize disposability and convince consumers of its virtues when applied to cheap paper and plastics, disposability through planned obsolescence remains an elephant in the room. No one actually thinks of their homes, phones or cars as disposable *per se*, but we have been conditioned to accept shorter and shorter lifespans through the justifications of the manufacturers. Something that can be used just once is disposable, but a shirt that can be worn 6 times or a phone that lasts just 18 months is not- where do we draw the line? Throughout the 20th century, planned obsolescence was passionately defended by its founders and supporters not by glamorizing disposability but rather by justifying its costs as the line between disposable and durable shifts further and further towards disposability.

Economic Growth

The first and most fundamental defense of planned obsolescence that has been cited from its founders to the present is that it is a tool for economic growth. When products wear out faster, the cycle of buying, using, tossing and replacing speeds up and production can increase. The waste produced in the process was simply a necessary feature of growth- a negotiable goal and ideal in the capitalist system. Often credited with coining the term "planned obsolescence", real estate broker Bernard London was possibly the first to explicitly defend obsolescence on the grounds of economic growth (Slade, 2006, p. 72). In his 1932 essay, *Ending the Depression through Planned Obsolescence*, London suggested that government regulated "death dates" enforcing artificially short lifespans of consumer products would ensure ongoing consumption solving the crisis of the depression (Pope, 2017, p. 49). Although the government never adopted such a strategy, struggling manufacturers and advertising agencies desperate to increase sales jumped at the proposal.

For the producers and sellers, an increase in waste from rapid product turnover was just a necessary part of economic success. Ernest Calkins, head of one of the first modern advertising agencies and a leader of its time, Calkins and Holden, described this perspective in 1932: "Does there appear to be a sad waste in the process?... Not at all. Wearing things out does not produce prosperity but buying things does. Thrift in the industrial society in which we now live consists of keeping all the factories busy" (Strasser, 1999, p. 205). In other words, increasing demand through planned obsolescence, regardless of its costs, was essential to stimulating economic growth, which was the only measure of "prosperity". Roy Sheldon and Egmont Arens who led the design department at Calkins advertising agency published their book, *Consumer Engineering: A New Technique for Prosperity* in the same year defending planned obsolescence

on the grounds of economic growth more directly. In their work they described the waste produced in "obsoletism" not as a negative externality or cost but instead as "progressive waste" or "creative waste" that was essential to economic prosperity (Whitely, 1987, p. 3).

The infamous industrial designer, J. Gordon Lippincott was also an avid supporter of economic growth through planned obsolescence. In his work *Design for Business* (1947) he wrote that planned obsolescence had the potential to solve the problem of "continually stimulating the urge to buy" and defended it bluntly:

> Any method that can motivate the flow of merchandise to new buyers will create jobs and work for industry, and hence national prosperity... Our custom of trading in our automobiles every year, of having a new refrigerator, vacuum cleaner or electric iron every three or four years is economically (Whitely, 1987, p. 5).

By the 1950s, several industrial leaders followed in Lippincott's footsteps continuing to cite obsolescence as the key to economic growth and slowly beginning to admit their more selfish motives. For example, Harley Earl of the styling department at GM unabashedly admitted that it was "[his] job to hasten obsolescence" as far towards disposability as possible (Whitely, 1987, pg. 6-7). Indeed, Earl wrote about his work like a race in which disposability was the finish line: "In 1934 the average car ownership span was five years; now it is two years. When it is one year, we will have a perfect score' (Whitely, 1987, pg. 6-7). Another prominent industrial designer, Brooks Stevens, reported in a 1958 interview: "Our whole economy is based on planned obsolescence and everybody who can read without moving his lips should know it by now. We make good products, we induce people to buy them, and then next year we deliberately introduce something that will make those products old fashioned, out of date, obsolete.". But

Stevens didn't stop there. He went on to admit, "We do that for the soundest reason: to make money" (Slade, 2007, p. 53). In the same year, editorial director of *Design News,* M.E.S Stafford published the article, "Product Death Dates- A Desirable Concept?" in reaction to Sony Radio's recent public statement that their radios were manufactured to last only 3 years. In his piece, Stafford defended their practice of planned obsolescence stating that "Planned existence-spans of products may well become one of the greatest economic boosts to the American Economy since origination of time-payments" (Slade, 2006, p. 165). The idea that planned obsolescence can stimulate economic growth has clearly served as a major justification for the practice throughout the 20th century. The waste produced was nothing but an inherent part of the process of making profits and making money. Indeed, this justification continues to be used into the present. In a 2009 article by Joseph Guiltinan published in the *Journal of Business Ethics* he writes that planned obsolescence has served as the solution to the "durables problem" which slows the "repeat purchase cycle and sales growth… in any [and all] market structures" due to the fact that it allows firms to, " stimulate revenue through faster replacement", "reduce competition from any used goods market" and "By making used or owned goods less competitive, increase prices for the replacement product" (p. 21). Once again, disposability is not necessarily highlighted as virtuous or glamorized as it is in the case of single use objects, but it is presented as a necessity for growth.

While economic growth clearly served as a strong motivator and clear justification for any costs of planned obsolescence for producers, this alone was not enough to convince consumers to rapidly replace their durable possessions. For consumers to buy into such an unintuitive practice, they too needed to believe that they would personally benefit.

Quality of Life

The second most common justification for planned obsolescence aimed more directly at the consumer states that this practice allows for improved quality of life, enjoyment and happiness for consumers. Christine Frederick, wife of the aforementioned Justus George Frederick, published her own book, *Selling Mrs. Consumer,* in 1929 in which she described the benefits of obsolescence to her readers. Frederick wrote,

> It is the ambition of almost every American to practice progressive obsolescence as a ladder by which to climb to the greater human satisfactions through the purchase of more of the fascinating and thrilling range of goods and services being offered today. (Slade, 2006, p. 62)

Not only did Frederick present obsolescence as a means of self-improvement and "greater satisfaction" but she scolded those who were resistant to it:

> Why be an old frump and cling to an old necktie or old dress until it wear through?... [this] will discourage designers from designing new ones, discourage inventors from making fast machinery, and discourage business men from offering new things. There is nothing civilized or cultured in this. (Strasser, 1999, p. 198).

According to Frederick, only an "old frump" would resist planned obsolescence that cleared the way for better goods and better lives. And Frederick was certainly not alone in this claim. Sheldon and Arens also cited improved quality of life as a justification for obsolescence. In their writing on the topic they argued obsolescence was the "thrusting force which clears the way for more desirable products, the more convenient article, the more beautiful object" releasing consumers from the "shackles of tradition" and "outworn ideas" (Strasser, 1999, p.

206). Again, this line of argument flipped the benefits of obsolescence from the producer to the consumer, telling Americans that this was the way to a better life. In fact, Sheldon and Arens went on to conclude that, “In America today we believe that our progress and our chances of better living are in positive earning rather than in negative saving” (Whitely, 1987, p. 4). Stated differently, a better life was no longer the result of careful thrift and frugality; in the modern world, a better life was all about new, better and more.

While the expansion of planned obsolescence was, in reality, largely forced upon the consumer, it was presented as a choice of free citizens in a democratic society. In M.E.S Stafford’s writing on Sony Radios he admits the forceful nature of planned obsolescence: “The consumer might well object to the fact that in a ten-year period he has had to buy three portable radios rather than one. Although he would admit his last radio was more attractive, lower priced and performed much better than the first… in this instance… ‘forced feeding’ has contributed to progress.” (Slade, 2006, p. 165). Yet, in the public sphere, obsolescence was presented as the consumers choice. Brooks Stevens often wrote about obsolescence as a sign of “freedom of choice” and J. Gordon Lippincott even called it “democratic” (Pope, 2017, 51 & (Whitely, 1987, p. 6). In 1959, Historian John A. Kouwenhoven described the relationship concisely: “A commitment to democracy- and a certain indifference to waste and untidiness- are prerequisite to abundance” ... waste is “as much a result of democracy as abundance” (Strasser, 2000, p. 269). Clearly, planned obsolescence was presented by its supporters as a choice available to free citizens and consumers to improve their own lives. New was better and consumers were free to upgrade at will or suffer as “old frumps” stuck in the “shackles of tradition”.

However, for consumers and producers alike to buy into planned obsolescence they also had to believe it was actually possible. Rapid replacement cycles and infinite production don’t

just produce a lot of waste, they also require a lot of natural resources, physical capital and human labor. For planned obsolescence to take hold, people had to believe that these resources existed and that we had the right to take them (and use them as quickly as possible).

Resources as Ours for the Taking

Hence, a third common justification for the practice of planned obsolescence addressed any fears of scarcity by assuring skeptics that we had an abundance of resources at our availability that would be silly not to use up. In 1932, Sheldon and Arens pioneered this argument in their 1932 book *Consumer Engineering: A New Technique for Prosperity.* The designers admitted that resource scarcity was a limiting factor in Europe but insisted that "on this side of the Atlantic the whole set-up is different. Not only are our resources greater; they are unsounded, unmeasured, many of them almost untouched" (Whitely 1987, p. 4). They went on to admit that we may one day run out of resources but pointed out "that time is not yet… We still have tree-covered slopes to deforest and subterranean lakes of oil to tap with our gushers" (Whitely, 1987, p. 4). The partners even recognized that their plan was "perhaps unwise and enormously wasteful, as our conservation experts tell us" but argued that we could not let concerns of the future stop us from achieving prosperity now (Whitely, 1987, p.4). Sheldon and Arens may have been the first to blatantly call for this type of wasteful production, but they were certainly not the first to assume nature was ours for the taking.

The subordination of nature to humans can be traced back to the growth of Monotheistic religions which assume nature was put there by a creator to be used for human benefit (Pope, 2019, p. 14). Today even the way we speak of nature assumes that it is subordinate to and in the

ownership of humans. Environmental Lawyer and author of *Understanding Planned Obsolescence*, Kamila Pope, notes that even the name itself, "Natural Resource" implies that natural elements are meant to serve as a resource for humans to use freely (2019, p. 12).

This is why so many of our discussions about the environment today are really about us. Take the 2020 presidential debate segment on global warming for example. In the discussion of a Green New Deal (GND) neither President Biden's support nor former President Trump's opposition are based on environmental conditions and the well-being of every other species on the planet. Instead, the GND is praised by President Biden for "creating good paying jobs" and attacked by Trump for putting "airplanes out of business" and "taking out the cows" (It is worth noting that cows- largely viewed as a source of food rather than a living being- are the only other species mentioned in the debate) (Biden & Trump, 2020). It is this belief that has allowed planned obsolescence and its enormous resource budget to exist. According to Biologist Mercedes Bustamante, nature in the capitalist system has been portrayed as both an "endless provider of natural resources" and an "infinite sink" for waste (Pope, 2019, p. 37). Under this assumption, planned obsolescence makes perfect sense. As we are becoming increasingly aware nature's resources are not endless, and its sinks are not infinite, yet we continue to rely upon planned obsolescence to stimulate economic growth while waste piles up and resources drain.

Critics

Of course, planned obsolescence is not without its critics. Throughout the 20th century a number of designers, scholars and activists have protested this practice on environmental, ethical and social grounds. Unfortunately, the warnings of these voices were largely overshadowed and

many of their pessimistic predictions are now a reality. As early as 1953, author Ray Bradbury was writing of our problematic relationship with disposability in his novel, *Fahrenheit 451*: "Well after all, this is at the age of the disposable tissue. Blow your nose on a person, wad them, flush them away, reach for another, blow, wad, flush" (p. 51).

One of the loudest voices of opposition came from a journalist by the name of Vance Packard in late the 1950s. Packard is best known for publishing three enormously successful works back to back all of which critique American consumerism, social organizations and waste: *Hidden Persuaders* (1957), *Status Seekers* (1958) and *The Waste Makers* (1960). It is in *The Waste Makers* that Packard first named Planned Obsolescence and categorized it into Obsolescence of function, quality and desirability (Slade, 2006, p. 161). In addition to identifying these categories of obsolescence, Packard writes with incredible foresight about the future of America: "The great challenge in the United States- and soon in Western Europe- is to cope with a threatened overabundance of the staples and amenities and frills of life" (1960, p.10). He goes on to say "Historians, I suspect may allude to this at the Throwaway Age" because "wastefulness has become a part of the American way of life" (1960, p.10). In an eerily accurate prediction of the future Packard writes about a dystopian future in the Cornucopia City:

> One fourth of the factories of Cornucopia City will be located on the edge of a cliff and the ends of their assembly lines can be sung to the front or rear doors depending upon the public demand for the product being produced...
>
> As we peek in this Cornucopia City of the future, we learn that the big, heartening news of the week is that the Guild of Appliance Repair Artists has passed a resolution declaring it unpatriotic for any member even to look inside an ailing appliance that is more than two years old.

> The heart of Cornucopia City will be occupied by a titanic push button super mart built to simulate fairyland. This is where all the people spend many happy hours a week strolling and buying to their heart's content. In this paradise of high-velocity selling, there are no jangling cash registers to disrupt the holiday mood, Instead the shipping couples- with their five children trailing behind, each pushing his own shopping cart- gaily wave their lifetime electronic credit cards in front of a recording eye.
>
> (Packard, 1960, p. 8-9)

For possibly the first time in modern Western society, Packard called into question our consumerist habits and love of disposability. But perhaps most importantly, Packard asked his readers to consider whether new is really always better and growth is always the answer:

> But how much should we rejoice when a company introduces a toaster with nine buttons, which makes it possible to obtain a piece of toast in any of nine shades?... Whether growth is particularly needed to promote the well-being of the American people is rarely even considered (Packard, 1960, p. 13 &18).

While Packard was the first to popularize this critique, he was certainly not alone. American Industrial Designer Victor Papanek wrote about similar fears in his book, *Design for the Real World* (1971). Similar to Bradbury, Papanek worried that the habits around disposable goods would soon be applied to people and places: "Throwing away furniture, transportation, clothing, and appliances may soon lead us to feel that marriages (and other personal relationships) are throw-away items as well and that on a global scale, countries, and indeed entire sub-continents, are disposable like Kleenex ... That which we throw away, we fail to value" (Whitely, 1987, p. 23). While this spirit of opposition has persisted in the form of lawsuits against Apple and other companies who practice planned obsolescence and movements such as

the “Right to Repair” movement, planned obsolescence remains alive and well in our society (Pope, 2017, p. 198). Most recently, President Joe Biden passed an executive order encouraging the FTC to regulate and prohibit producers from limiting the reparability of their products, however this has not led to the creation of the nationwide, enforceable laws that are necessary to truly enact it (Duffy, 2021).

With an understanding of how our throw-away society has come to be, from the intrinsic and age-old habit of waste making to the intentional efforts of corporations to turn the disposable into the desirable and ongoing rhetoric that new is always better we must begin to confront this reality rather than ignore it. If we are to address the modern garbage crisis we must reflect upon our consumption more critically and question the costs of abundance.

Implications- Is it Worth it?

The pervasive presence of planned obsolescence in the modern world has unthinkable consequences for the wellbeing of people and the planet. While economic growth is glorified, some of the biggest costs of an ever-increasing GDP are largely ignored as externalities. It is true planned obsolescence increases the rate of buying cycles and growth, but with this comes an increase in the relative costs of both production and disposal of goods- especially as products become globally sourced and complex. At some point we must ask ourselves if the benefits of the increasingly brief period of consumption are worth the increasing costs of production and disposal.

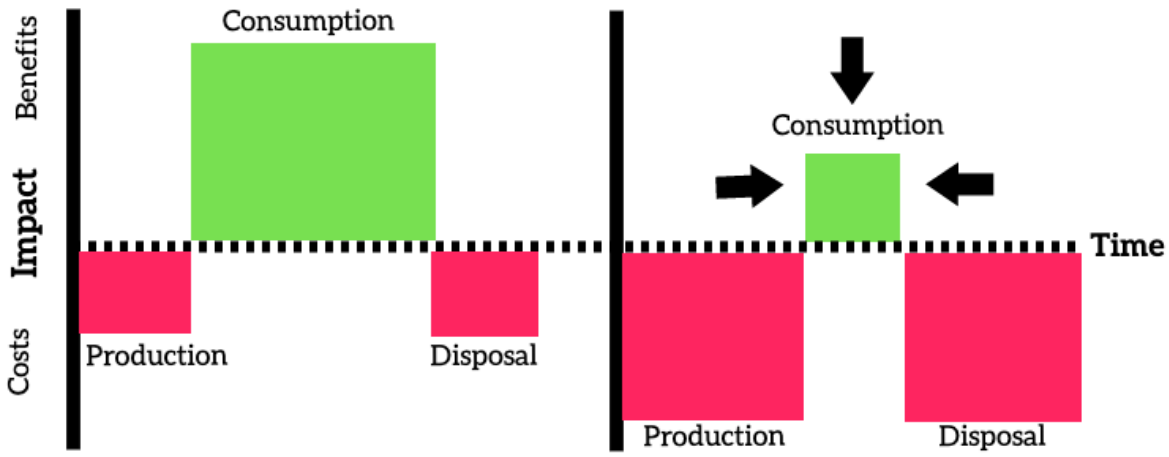

Figure 11 Evolution of Product Lifespan as Altered by Planned Obsolescence: A Relative Compression of Consumption Related Benefits and Expansion of Production/Disposal Related Costs.

Returning to some of the examples presented in the beginning of this section, I lay out a sampling of the social and environmental costs that come with the mindset of disposability required for planned obsolescence to illustrate our precarious position. We cannot go back and change the way our throw-away society has developed, but we can decide when enough is enough.

Perhaps the most notable example of this trend comes from the technology industry. The nearly $1000.00 price tag on some of the newest smartphones may seem expensive, but the true cost is much greater. To produce such a smartphone, hundreds of natural minerals and metals are mined from the earth. This process is not without its consequences. For example, more than half the world's supply of lithium, used to produce the batteries in most mobile devices, is found in the dry climates of Chile, Argentina and Bolivia. In the arid environment of Chile's Salar de Atacama where local farmers and indigenous groups already struggle with water scarcity, mining of lithium and other resources now accounts for 65% of water use and has led to "groundwater depletion, soil contamination and other forms of environmental degradation, forcing local communities to abandon ancestral settlements" (UNCTAD, 2020, para. 8). Other elements used

in the battery of smart devices like graphite often require the use of explosives which blow harmful dust and particulates into the air and water sources of local communities (UNCTAD, 2020). In 2018, artist David Maisel began his photographic project *Desolation Desert* which illustrates the incredible transformation of the landscape into a checkerboard of vibrant blue and yellow mining pools in Atacama (Maisel, 2018).

Unfortunately, the costs of production do not end here. In factories that produce mobile devices such as Apple's iPhone in China, human lives also take a toll. After being warned of potentially hazardous conditions in one of their plants in Chengdu China and neglecting to respond, a series of explosions in an Apple Factory producing iPads killed four and injured 77 (Duhigg & Barboza, 2012). Another 137 employees of an Apple supplier were injured after being forced to clean iPhones with poisonous chemicals and improper protections (Duhigg & Barboza, 2012). Employees of Foxconn Technology, one of Apple's key production and manufacturing partners, report a variety of abuses and violations including excessive overtime work, being forced to stand for so long that their legs begin to swell and living in overcrowded dormitories, sometimes housing up to 20 people in 3-person apartments, where nets had to be installed to prevent employee suicides (Duhigg & Barboza, 2012). An iPhone does not just cost $800.00 dollars. It costs the ecosystems of the Atacama Desert and the lives of hundreds of workers in China.

Even if one decides these costs are all worth it, a smartphone continues to carry costs for years after it is disposed of. Commonly referred to as e-waste, electronic waste from technological devices and appliances presents a growing problem. In fact, the amount of E-waste generated annually has increased 21% in just 5 years setting a new record of 53.6 million metric tons in 2019 (United Nations University Bonn, 2020). Presented differently, this means the e-

waste of 2019 has more mass than all of the adults of the European continent (United Nations University Bonn, 2020). It is not the quantity, but the quality of E-waste that is truly damaging. E-waste "contains high levels of persistent biological toxins (PBTs), ranging from arsenic to antimony, cadmium, beryllium, lead, nickel and zinc" (Pope, 2017, p. 76). The 2020 Global E-waste Monitor estimates reports a total of 50 tons of mercury, a powerful neurotoxin, is found in undocumented and unregulated e-waste streams every year (Forti, et al, 2020). In America, only 9.4% of e-waste is documented as being properly recycled, but recent investigations have revealed that even this portion of e-waste is largely being exported to developing countries where it is improperly dismantled and stored causing harm to workers and the environment. In 2014 Researcher Jim Puckett of the Basel Action Network worked in collaboration with MIT to attach 200 GPS trackers to devices dropped off at reputable e-waste recycling centers that advertised themselves as "green" and "sustainable" (Campbell, 2016, para. 7). Approximately ⅓ of these devices ended up overseas in China, Mexico, Thailand, Kenya and more (Campbell, 2016). After following the devices, Puckett reported workers in the New Territories of Hong Kong dismantling LCD TV's containing mercury with no protections in place, nor knowledge of the dangers, and fenced off regions labeled "farmland" piled fifteen feet high with old printers and workers covered in carcinogenic toner ink (Campbell, 2016). In mainland China, the region around Guiyu has the highest rates of cancer-causing dioxins in the world due to the e-waste industry which has polluted its air and water (Campbell, 2016).

And so, we must ask ourselves: Is a new iPhone worth it? Or perhaps more accurately, is a new iPhone that can or will only be used for 18 months, worth it? While cell phones are arguably an essential part of life in the developed world, the question is not if cell phones at all are worth this cost, but if the frequent upgrading for style and slight technological changes are

worth it. Exploitation of human labor and natural resources have occurred for centuries from deforestation of the Americas to the triangle shirtwaist factory, but never before has the end product been so ephemeral and undervalued.

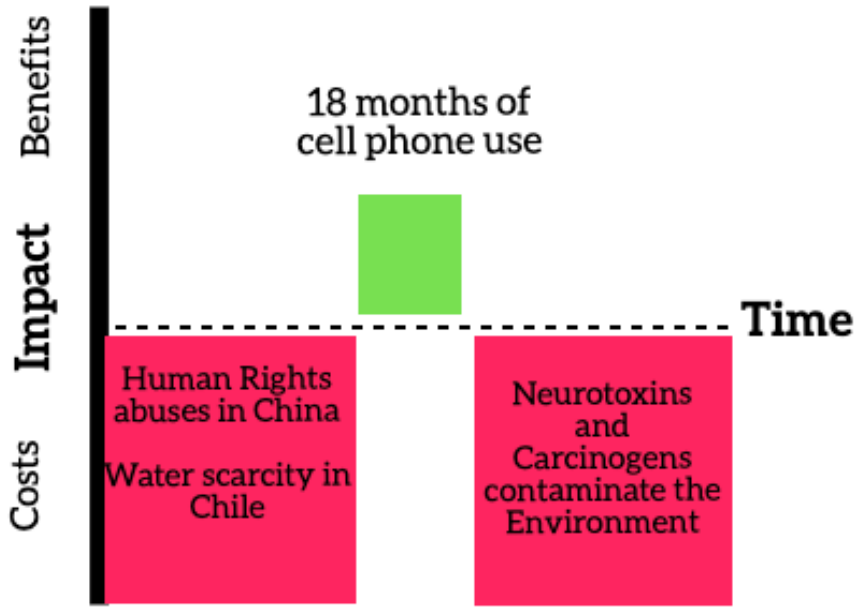

Figure 12 Is the New Cell Phone Worth it?

Of course, this question of costs versus benefits must be asked of far more than just our cell phones. The insidious trend of increasing costs to people and planet and shrinking product values has penetrated nearly every market. Another less publicized, but incredible example of this comes from the nuclear weapons industry. As previously mentioned, the department of defense will spend an estimated 29 billion on nuclear weapons modernization in 2021 (Amadeo, 2020). The opportunity cost of this spending is enormous in a country with grossly underfunded public education, infrastructure and healthcare. Further, the production of nuclear weapons results in dangerous radioactive chemical waste which must be safely handled, stored and disposed of. Currently, this waste is kept in large metal storage tanks at the “Savannah River site in South Carolina, the Hanford site in Washington State, at Idaho National Laboratory in Idaho,

and at the Nuclear Fuel Services site at West Valley in New York State" (Feldman, 2018, para 3). However, these tanks are old and outdated and several have corroded and leaked releasing radioactive material into the environment (Feldman, 2018). In addition, cleanup from the Manhattan project and arms race of the cold war is ongoing. Daniel Ellsberg, famously known for leaking the pentagon papers, also served as an advisor to the air force and White House on nuclear policy. He reports that at the time of the Cold War, "I don't think one person gave one moment of thought to [disposal of the weapons] .... no one thought that the Cold War would end" (Paltrow, 2018, "A Radioactive Peace Dividend", para. 3). Only when peace treaties were signed agreeing to limit their nuclear arsenals did the US and Russia consider how to deal with all the excess plutonium. (Paltrow, 2018). In 2001, the two countries agreed to each dispose of 34 metric tons of the plutonium- a difficult task given that it has a half-life of 24,000 years- which has cost the US billions and puts thousands of workers in the precarious position of dismantling potentially disastrous cores of old weapons. There remains no plan for the permanent safe disposal for all of this excess plutonium, yet at the same time new weapons continue to be developed (Paltrow, 2018).

Will these new weapons ever actually be used? Most of us would certainly hope not. Of the just 9 countries who possess nuclear weapons, the United States ranks second and possesses far more than all of the countries below it combined (Kristensen & Korda, 2021). Additionally, research published in the *Journal of Safety* in 2018 suggests that an arsenal of any more than 100 nuclear weapons is not practical due to the fact that an attack involving any more than this, no matter how strategically placed or deployed would cause "unacceptable damage" to the aggressor's own country (Pearce & Denkenberger, 2018, p. 1). Despite this finding, the US maintains 5,600 nuclear weapons in our arsenal today- more than 50 times the practical limit.

So again, we must ask ourselves if incredibly dangerous weapons in quantities far above a practical supply that we have no intention of using are worth billions of dollars of federal spending and ongoing radioactive pollution that threatens the safety of the environment and local communities.

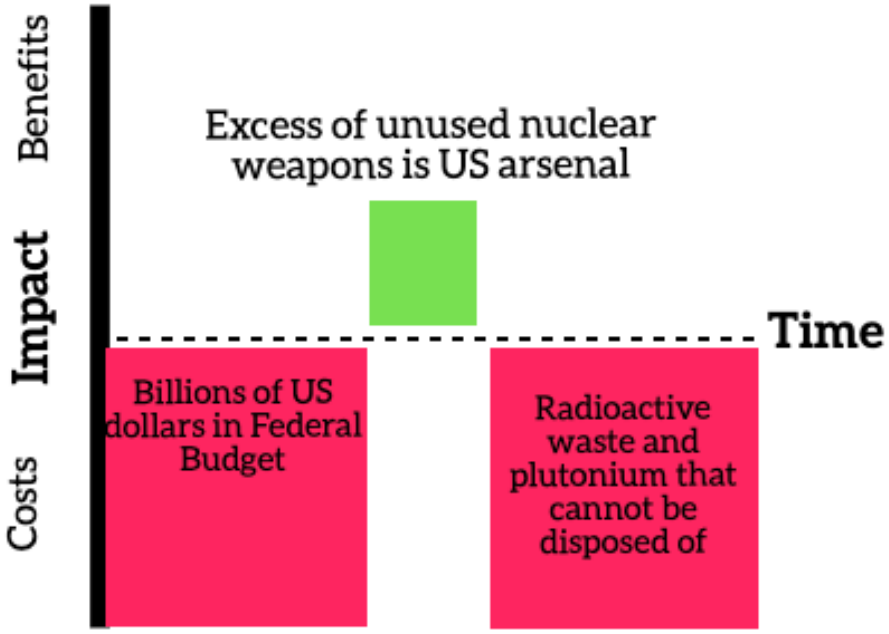

Figure 13 Is Another Nuclear Weapon Worth It?

While cell phones and nuclear weapons may seem like rather complex products that cost more to produce or dispose of than the average good, even the simplest everyday items have surprisingly large costs to society. Take clothing for example. The cheap and trendy clothing from retailers like H&M and Zara designed to be worn just a handful of times before falling apart or going out of style may seem like inexpensive and harmless fun, but in reality, could not be farther from it. Globally, the fashion industry is responsible for 5% carbon emissions ("The price of fast fashion", 2018, p. 1). 90% of clothing sold in the United States is made from polyester, a material derived from oil, and cotton, a water and land intensive crop often requiring

the use of toxic pesticides (Bick et al., 2018). Dyes used to color these textiles also contain heavy metals and other toxic chemicals which contaminate local water sources and pose health threats to workers and the environment (Bick et al, 2018).

While safety regulations and worker protections may exist in the United States, most textile production occurs in low income countries like Bangladesh, India and Vietnam where the minimum wage is low (32 cents an hour in Bangladesh) and safety regulations are practically nonexistent (Thomas, 2018). Garment factory workers in these countries face the dangers of "respiratory hazards due to poor ventilation such as cotton dust and synthetic air particulates, and musculoskeletal hazards from repetitive motion tasks" and suffer from "debilitating and life-threatening conditions such as lung disease and cancer, damage to endocrine function, adverse reproductive and fetal outcomes, accidental injuries, overuse injuries and death" (Bick et al., 2018, p. 2). Even after preventable disasters like the collapse of the Rana Plaza garment factory in Bangladesh in 2013 which killed over 1000 people, worker exploitation continues (Thomas, 2018). In 2019, an article published in the *New York Times* revealed that popular fast fashion brand *Fashion Nova* was paying workers in Los Angeles sweatshops illegally low wages of just 4.22/hr. (Kitroeff, 2019).

On the disposal end, textiles account for 5% of all landfill space in the United States (Bick et al., 2018). An additional 500,000 lbs. Used garments are exported from the United States to low income countries annually to be sorted by low-wage workers and resold or more often left to sit in piles that clog rivers and pollute the environment of countries where no municipal waste system exists (Bick et al. 2018). There is a strong case that no T-shirt or pair of jeans are worth the pollution, worker exploitation and carbon emissions of the current fashion industry, but the case for a piece of clothing designed to be worn just 10 times is simply

undeniable. Whether it be a trendy top for the latest fashion micro-season bought online for a few dollars or a large t-shirt handed out for free by sponsors at a sporting event, the true costs of these items is exponentially greater than the price on the tag. If the tag had the true price, would it still be worth it?

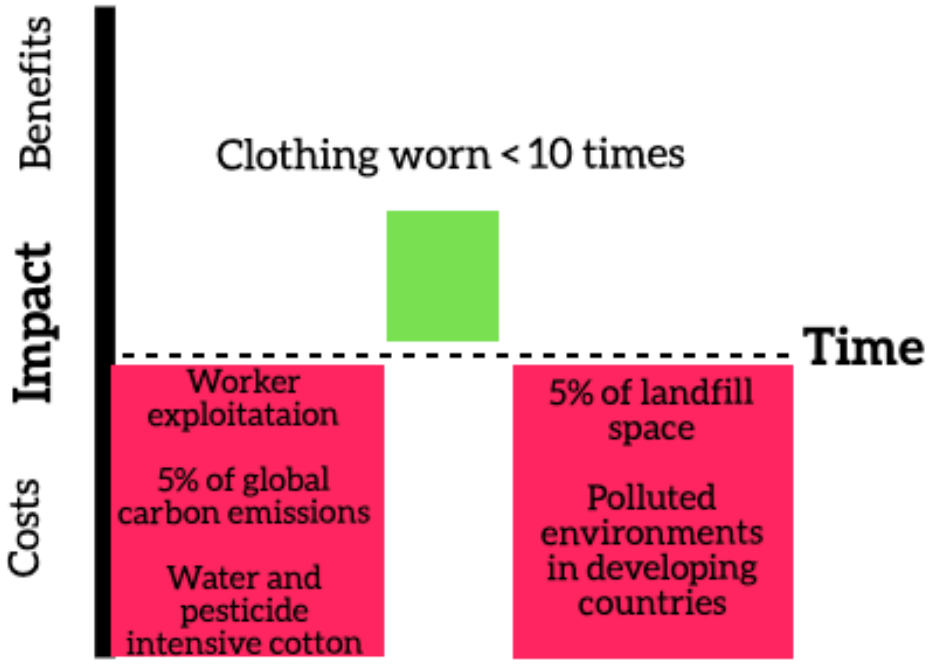

Figure 14 Is the New T-Shirt Worth It?

Seasonal and holiday decor and trinkets like Christmas ornaments, New Year's Eve party hats, Easter Baskets or Mardi Gras beads present a similar story. Many of these items can be bought for very cheap and are used for just one day or event before they are lost, tossed or forgotten. The plastics used to create holiday trinkets, decorations and beads are created from polystyrene and polyethylene which are produced from oil and petroleum mined in the Middle east (Redmon, 2017). These materials are then often transported to South Asia where a lack of regulation allows for cheapest production possible. For example, Yiwu China is home to over 600 factories that produce 60% of the world's Christmas decorations (Wainwright, 2014). The

work done in Yiwu is what allows us to buy pretty plastic snowflakes and Santa hats in America for a dollar or less, but again the price tag is deceiving. Workers in Yiwu are often migrants who are forced to work 12-hour days for a pay of as low as just 1 dollar an hour (Wainwright, 2014). One 19-year-old worker, Wei, reported he spends his 12-hour days making over 5000 sparkly red snowflakes for a holiday he has never heard of (Wainwright, 2014).

Similarly, in Fujian China young girls work in large Mardi Gras bead factories where they are told the "beads are valuable and given to important Americans, that beads are given to royalty" and are treated, in the words of researcher David Redmon, as "mules" forced to work 16-hour days with toxic chemicals and improper safety precautions for just 10 cents an hour (Redmon, 2017, para 33&14). Redmon's film, *Mardi Gras: Made in China,* includes interviews with bead factory owner Roger Wong who employs 95% females in which he plainly states, "It is more easier for us to control the lady workers" (Redmon, 2005). The film blatantly calls attention to the question of "is it worth it?" with side by side frames of the exhausted young workers in China creating the beads as quickly as possible and drunken party goers in New Orleans trampling over them on the streets. Again, even the cheapest of goods in America come at an extraordinary hidden cost to people and places all around the planet.

Finally, although it differs slightly from the prior examples, food in America is often treated with a mindset of disposability. The American diet relies heavily on the globalized industrial food system which often exploits its workers and the environment in order to produce food at the cheapest possible price. In fact, in a report published in 2020 by the Centro de los derechos del Migrante which includes interviews with 100 Mexican Migrants working in US Agriculture found that 100% suffered at least one serious form of abuse while 45% were forced to overwork and live in unsanitary conditions, 35% were not provided proper safety equipment,

43% were not paid the wages they were promised and 0% were given a contract in their native language (Bauer & Sanchez, 2020). Additionally, family owned farms and rural children suffer from higher poverty rates, disproportionate hospital closures, lack of access to healthcare, and even greater opioid deaths than urban children (Mitchell, 2020, p. 3). Environmentally, the production in the global food system has also caused irreversible environmental damage. In 2012 the accounting firm at KPMG identified the food industry as the sector of the economy with the largest environmental damages estimating that the cost of its externalities were roughly 224% of its revenue (Patela and Goodman, 2019). Further, agriculture dominates use of important resources accounting for 70% of global freshwater use and 50% of global habitable land use (Ritchie & Roser, 2020). Perhaps most damaging of all, the livestock industry alone accounts for 18% of global greenhouse gas emissions, 30% of global land use, and 8% of human water use (Steinfeld, et al., 2006, p. xxi-xxiii).

Some may argue that while this process is certainly costly, the ends justify the means in a world with a growing population of hungry people. Unfortunately, the foods grown and produced in this manner are rarely given to the people who need it most and are often grossly undervalued. In America, 40% of food goes uneaten and ends up in landfills where it is the single largest contributor to municipal solid waste and accounts for 25% of US methane emissions (Gunders, 2012)**.** Food waste has many drivers, but one major source is the oversized portions presented by grocers and restaurants that are meant to please the eye of the consumer but are far too much food for the average person to eat. According to Dana Gunders, a former senior scientist for the food and agriculture program at the NRDC, the surface area of the average dinner plate has grown by 36% from 1960 to 2007, and from 1982 to 2002 the average pizza slice more than doubled in calories and the average chocolate chip cookie more than

quadrupled (Gunders, 2012, “Super-Size, Super Waste”). This may be an effective marketing strategy but the people packaging and plating the food are well aware that, statistically speaking, much of that food is destined for the trash can. Portion sizes today are often 2 to 8 times the FDA recommended portion size and people's actions verify this (Gunders, 2012, “Super-Size, Super Waste”). The average restaurant diner leaves 17% of their meal uneaten and 55% decline to take the leftovers home (Gunders, 2012, “Super-Size, Super Waste”). In other words, even our portions of food are now designed to be disposable.

The same logic can explain much of the food waste in the retail setting as well. Displays are overstocked to please the eye despite the fact that much of this food will likely go to waste, ready to eat food is made available all the way until closing when 25% of the food is often thrown away, and unregulated “sell by”, “best by” and “use by” dates cause stores and consumers alike to throw away food that very well may be perfectly edible (Gunders, 2012). So, it is not a question of whether food to feed the hungry is worth it, but rather if the oversized portions and cosmetically perfect foods we consume and throw away are worth such great environmental and social costs.

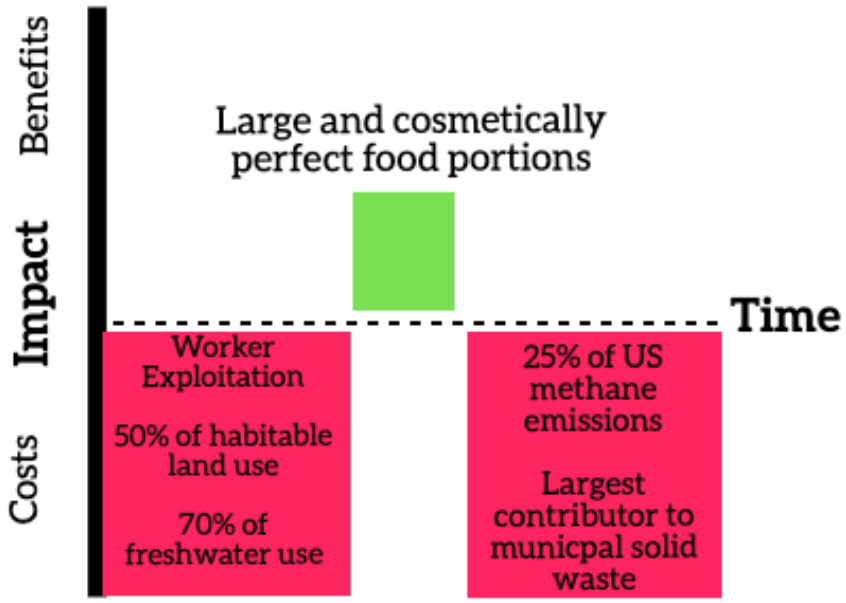

Figure 15 Is the Extra-Large Portion Worth it?

Perhaps most importantly, we must stop and ask ourselves if all of these things- new cell phones, trendy clothing, large and "perfect" looking food portions, or convenient and time saving disposable goods- are even benefiting us at all. There is a strong argument to be made that simply having a cell phone or comfortable shirt does benefit us; but, is having a new cell phone every 18 months and a new shirt every other week necessary? Are all of these choices and goods making our lives better, happier or easier? In *The Paradox of Choice*, Barry Schwartz explores how too many choices actually reduces happiness and wellbeing. For example, he suggests that while the average of 30,000 different items carried by grocery stores and 20,000 brand new products appearing every year might appear to be a peak of choice and autonomy for consumers that could only improve their well-being, it actually does quite the opposite:

> As various assessments of well-being tell us, increased choice, and increased affluence have been accompanied by decreased well-being (see Diener, 2000; Diener, Diener, and Diener, 1995; Diener and Suh, 2001; Diener, Suh, Lucas, and Smith, 1999,

> Inglehart, 1997; Lane, 2000, and Myers, 2000). And not only do fewer people judge themselves to be happy than in previous generations, but the incidence of clinical depression and of attempted suicide have increased dramatically in this same period (Eckersley, 2002; Eckersley and Dear 2002, Lane, 2000, Myers 2000, Rosenhan and Seligman, 1995). (Schwartz & Ward, 2004, pg. 7-8).

Further, just as having more choices does not equate to more happiness neither does simply having more. According to Bill McKibben, author of *Deep Economy*, for possibly the first time in human history, more is no longer better. McKibben describes how as GDP grew in the post war years during the Great Acceleration Americans were able to consume more of just about everything, but their satisfaction with life remained stable or declined (McKibben, 2007).

Solutions

A question cannot be answered before it is asked. When it comes to whether the benefits of economic growth, consumerism, disposability and planned obsolescence are worth the costs, the question remains largely unasked. We often wonder how we can maintain growth and our current lifestyles without changing our consumerist habits, but rarely do we consider what a more fundamental change away from these products and habits might look like.

Mass consumption is a central part of the American economy, society and culture and will not be easily displaced. In fact, 70% of the United States GDP depends on consumerism (Kelly, 2021, para. 18). According to historian and professor of American History at Harvard University, Lizabeth Cohen, it was the economic depression the 1930's and concerns over supporting a postwar economy in the 1950s established consumerism as the standard solution to

crisis (Kelly, 2021, para. 4). From this point on, we see consumerism emerge as a constant and powerful symbol of revival and success. For example, when Cold War leaders President Richard Nixon and Premier Nikita Khrushchev met to debate in 1959, it was a model kitchen provided by Sears that the debate took place and Nixon's claims that Americans had more consumer power and choices that he used to establish American superiority (Kelly, 2021, para 9). Nearly 50 years later in the aftermath of 9/11, President Bush responded to the tragic event by reminding the public that "We cannot let the terrorists achieve the objective of frightening our nation to the point where we don't conduct business, where we don't shop…" (Kelly, 2021, para 15). In a time of tragedy, President Bush's focus on how it might impact "shopping" is telling.

In the present, the COVID-19 pandemic has again led many to turn to consumerism as the answer. For many, public health concerns were outweighed by an apparent violation of the individual's freedom to consume in stores, restaurants, shops or even at hairdressers and the restrictions put in place to prevent the spread of disease were harshly criticized for their economic impact. In fact, the Trump Administration lists the "reject[ion] of crippling lockdowns that crush the economy" as a major accomplishment despite the effectiveness of similar lockdowns in many other nations at saving lives and controlling the coronavirus (Trump Whitehouse, 2020). While many companies are beginning to recognize growing environmental concerns associated with economic growth and endless consumption, the centrality of consumerism to America remains essentially unchallenged.

Many companies are beginning to search for alternatives to disposable goods tossed away after just one consumer uses them. For example, Patagonia is well known for their "worn wear" campaign that allows customers to return old, used items to the company for repair in return for credit (Patagonia, 2021). Patagonia also has a "waste not" collection which focuses on using

leftover fabric scraps to create new goods (Patagonia, 2021). More recently, Taco Bell has announced a new campaign encouraging their customers to return their used sauce packets to be recycled and made into new products (NPR, 2021). Taco Bell claims that over 8 million of these packets end up in landfills each year and hopes that their partnership with Terracycle to recycle packets shipped to the company for recycling can make a difference (NPR, 2021). Although Taco Bell has attracted the attention of the media with their new campaign, many other companies have similar partnerships with Terracycle that allow their customers to ship back used packaging for recycling: Bimbo bakeries, the makers of Thomas and Arnold's Bread products, Entenmann's Little Bite pouches, Aussie Hair Care, and Bic writing tools among many more (Terracycle, 2021). Similarly, Nature Valley is promoting their new store drop off recyclable granola bar wrappers and asking customers to bring back their wrappers so that they can be made into something new (Nature Valley, 2021). While these campaigns all focus on recycling, others have begun to move towards actually reducing. For example, McDonald's recently announced that they would "significantly reduce" the use of plastics in their happy meal toys, opting for paper alternatives (Wiener-Bronner, 2021, para 1).

These campaigns represent a critical shift, but they are far from being a final solution. For one, most of the existing recycling campaigns place all of the burden on the consumer who must collect their trash, store it, and then ship it to Terracycle or bring it to a store drop off location. Additionally, notice none of these campaigns actually involve an alternative to single use products, just a new way to create or dispose of them. Even the pledge of McDonald's to reduce plastic avoids the problem of handing out single-use toys in the first place. Indeed, paper toys may be even more likely to be thrown out after just one or two uses as they are far less durable, and, despite common misconceptions, evidence suggests that paper may not truly be a "greener"

choice. In the 1990 Roper study only 6% of respondents cited paper as a "major cause of garbage problems" but garbage excavations have found that it made up more than 40% of the volume in landfills at that time (Rathje & Murphy, 2001, p. 106). To make things worse, researchers in Rathje's Garbage project found that paper does not always biodegrade as one might think; In fact, newspapers actually served as a useful marker of the dates of strata in landfill dating over 20 years back (Rathje & Murphy, 2001, p. 113). Despite possibly good intentions, all of these programs maintain the use of single-use packaging or products and continue to reinforce the values of disposability. Whether they are made of paper or plastic, recycled or not, these products are still disposable. Further, all of these campaigns are still marketing campaigns based around the idea of promoting consumption. In the current environmental crisis, consumerism is seen as both a primary cause and a popular solution.

Perhaps the largest issue however remains the lack of public awareness. Few people see throwing out a sauce packet, bread bag or happy meal toy as a problem in the first place and even fewer are aware of the alternative options. While there is no one solution to this issue, it is clear that public awareness is a critical first step to any type of meaningful change.

Before we can address solutions to the environmental and social costs of disposability we must stop and ask ourselves an essential question: are the benefits of disposability and planned obsolescence worth the costs? To do so requires greater education in this area in order to provide the next generation with adequate information for making an informed decision. For nearly a century, the idea of disposability has been glorified by marketers, economists and the media and many of us have developed strong and deeply ingrained consumerist habits and disposable mindsets that are difficult to change; however, wastefulness, at least in its current form, is not natural, it is learned. Therefore, it follows that it might also be unlearned by future generations.

Some have even defined our “insatiable consumption” as a “global addiction” which cannot be addressed by just a few “behavioral adjustments”, but rather requires “a paradigmatic shift that breaks completely from deep-seated values, habits, and structures associated with neoliberal capitalism” (Perez & Esposito, 2010, p. 84). Such a shift is not an easy achievement and the path forward is unclear at best. However, educating our nation’s youth early on about the costs and consequences of consumerism within our economic system undoubtedly provides an opportunity for informed collaboration and cooperation towards a reimagining of what a prosperous economy looks like.

CHAPTER 4: EDUCATIONAL IMPLICATIONS

Good Citizens are Good Consumers

While market enthusiasts often identify unrestricted consumerism as a key facet of good citizenship, the reality is that good citizenship requires thoughtful and informed consumer choices. The Goal of Social Studies Education is defined by the National Council for Social Studies (NCSS) as "to help young people make informed and reasoned decisions for the public good as citizens of a culturally diverse, democratic society in an interdependent world" (NCSS, n.d, *what is Social Studies?).* With this goal in mind, social studies education should strive to prepare students to analyze and interpret information, come to their own well-reasoned conclusions, and take meaningful action to create what they believe to be a better world. Unfortunately, as a student and pre-service social studies teacher, I have observed that many social studies classes fail to examine the interdisciplinary complexities of what this might mean.

In the classroom, "informed and reasoned decisions for the public good" are often limited to solely civic acts such as voting, volunteering or writing to elected officials. While these decisions are undoubtedly important in our democratic society, the significance of our everyday choices or decisions, including what we buy, how long we keep it and if, when or how we throw it away is too often overlooked. The biggest issues of our modern world cannot be classified as solely civic, economic or social issues, but instead represent complex interdisciplinary issues that must be evaluated from a number of perspectives. In a civics class, meaningful analysis of consumerism cannot ignore that Americans spend an average of $165.00 and generate an average of just under five pounds of trash each and every day (Dickler, 2019 & EPA, 2021). Nor, can we attribute this to consumer choice alone, but to the types of choices that

are being offered by corporations. We must be aware of the choices we make, but also dare to demand different types of choices. The impact of our collective consumer choices has economic, civic, social and environmental consequences that require integrated consideration. It is more important than ever that young people are taught to think about their everyday consumer choices as more than an economic act or personal decision. Even small decisions have an impact on the "public good" and must be made with proper information and reasoning.

Unfortunately, As I have demonstrated, it is abundantly clear that our nation's citizens are largely unaware of the impacts of their consumer choices or their role in the crisis of modern waste. As I have illustrated, few of us know where our goods are produced, who makes them or where they end up beyond the curbside trash bins and therefore cannot possibly make an informed decision. Indeed, according to Garbologist Edward Humes, the "biggest, costliest, dirtiest secret about our garbage" is "our ignorance" (Humes, 2012, *Grappling…*, para. 3). This is a crucial failure which our social studies education provides a unique opportunity to address as a part of a larger movement towards a sustainable society. While it is true individual consumer choice alone cannot solve the garbage crisis (hence the reason citizenship is not simply another form of being a consumer), political action on the part of informed citizens and engaged local communities able to make "reasoned decisions for the public good" is crucial to creating change on the corporate and societal levels.

While many young people may not be aware of the power of their collective consumer habits, corporate leaders certainly are. In 2015, corporations spent 2.6 billion dollars on lobbying efforts attempting to change or maintain government policy in their favor (Drutman, 2015). Take for example the lobbying efforts of the meat industry which led the USDA to release their 2015 Dietary Guidelines with no suggestion to reduce consumption of red or processed meat despite

clear scientific evidence proving the health risks associated with these foods. Indeed, Marion Nestle, a former expert in food sciences who was consulted by the USDA in the making of these guidelines reported "I was told we could never say 'eat less meat' because USDA [and its stakeholders] would not allow it." (Heid, 2016, *The debate over meat* para. 7). These manipulated guidelines proceeded to be taught by educators in schools and taken at face value by the nation's youth. Consumer choice matters, and corporations are actively working to make sure we make the "right" one. In fact, many companies today have over 100 lobbyists working for them in their Washington offices (Drutman, 2015). Lobbying efforts aside, the constant bombardment of advertisements on billboards, TVs, radios and internet sites are also aimed to control consumer choice. The largest obstacle of progress then is not ignorance, but a sea of misinformation and illusion of knowledge among the general public. In addition to learning about the Courts, Congress and the President, this growing power of corporations must be considered as a notable part of our political system, democracy and society.

It is therefore the clear responsibility of social studies educators to teach students how to make "informed and reasoned" choices as consumers and as voters and how these choices might affect the "public good" including impacts on our culture, health, environment and even politics. Young people must be taught to critically analyze the information they see in advertisements or even government guidelines, gather evidence about the true implications of buying such a product, and make an informed decision about what they need and want or if a product is truly "worth it". By examining the history of disposability in our country, students can begin to understand why we have the products we do, how we came to create so much trash, and how we might do things differently. Throughout history, Americans have been trained to love the disposable; In the present crisis, we must begin to teach kids to think differently. While there is

no easy answer to this problem, an educated public who is aware of the facts and are able to apply them to their everyday decisions, whether that is a consumer choice, a vote, or a discussion is critical. If we cannot discuss and negotiate solutions from an informed perspective, a solution will be impossible to reach.

Throw-away Culture in Education

Consumerism and its consequences are not absent from existing Social Studies standards and curricula; however, rarely are the impacts of consumerism's full lifecycle - from sourcing and production all the way to disposal - critically examined. Widespread ignorance among the American public of where goods come from and where they go beyond our own households serves as clear evidence that these existing curricula are problematic. For example, the NCSS lists "Production, Distribution and Consumption" as one of the ten central themes for Social Studies Education (NCSS, n.d., *Chapter 2*). Notice however that the chain of production ends with consumption rather than disposal. This crucial flaw furthers the illusion that the lifecycle of a good ends when it is purchased and used, hiding the long and dirty afterlife of so many products. If the national guidelines push this illusion, it is not surprising that curricula developed by individuals and smaller organizations do the same. Similarly, the UN Sustainable Development Goals include the issue of consumerism under goal number 12: "Responsible Production and Consumption" (UNESCO, 2021). Again, while a closer look at these components may reveal disposal and waste as part of their considerations, the headline presented to the public frames the issue in a way that ignores a product's afterlife. Leaders in the field of social studies and sustainability must not only acknowledge our problems with trash, but clearly present them

as part of their mission to the public. An NCSS theme that reads, “Production, Distribution, Consumption *and Afterlife*” or an SDG that says “Responsible Production, Consumption *and Disposal*” would provide a more realistic and well-rounded perspective on this issue.

Further, creating more conscious and educated consumers cannot be done within the confines of isolated school subject areas. Consumerism and its effects are interdisciplinary by nature and must be taught as such in schools. Social studies, which includes the disciplines of Geography, Economics, History, Civics and Psychology is well suited to this topic. However, educators must not be afraid to push the boundaries of their course objectives to include a more well-rounded examination of the subject. An economics class cannot solely look at consumerism and its role in GDP, labor relations or job creation; it must reach into the discipline of geography to understand where resources come from and how production impacts the natural world, to the field of history to understand how our economy came to be so reliant on disposable products in the first place and why their use has been justified over time, to civics to think about what government policies affect this issue and how we might change them in the future and to Psychology to determine if this consumption is actually making us happier. No longer can we dismiss and ignore environmental consequences as “externalities”- a term from economists' own focused discipline. Similarly, the decision to buy a plastic water bottle cannot be confined to solely economic thinking. This decision has economic, environmental, social and political implications all of which must be considered in tandem. In a highly complex and interdependent world, social studies educators must teach in an interdisciplinary way allowing students to see the connections between their economic consumer choices and the worldwide environmental, social, and political effects.

Perhaps even more important, an integration of environmental science, geography, economics and politics must strive to teach students that scientific fact is not political. As it stands, our nation is more politically polarized than ever before. While the best policy mechanisms to solve our current challenges are certainly open to political debate, the basis of these policies in scientific fact is apolitical and must be treated as such. In other words, while political decisions and policies based on facts may be debated for their merit, Scientific fact itself is not up for debate. When these subjects are taught in an isolated way in schools, children are not taught how to properly integrate scientific findings and political beliefs leading to a constant misuse of information and overwhelming presence of denialism. An approach to social studies which helps students to apply geographical and environmental knowledge to their political, economic and civic actions or beliefs is the first step towards progress. Youth are entitled to their own beliefs, but they must be taught the critical thinking and evidence-based reasoning skills to analyze new facts, amend their beliefs when necessary, and negotiate with others.

I strongly advocate for amendment to the secondary school social studies curriculums around the country to allow for such interdisciplinary education. In his book, *Teaching Social Studies that Matters*, Professor of Social Studies Education at the University of South Florida, Stephen Thornton, describes how while a more traditional camp of educators defines social studies as a "federation" of isolated social sciences, he sides with a new group of educators who advocate for viewing the field as a unified and interdisciplinary "social education" (Gelber, 2006, para. 2). Thornton as well as other leaders in the field such as Harold Rugg (1947), Maurice Hunt and Lawrence Metcalf (1955) and Walter Parker (1966) have all advocated for a more interdisciplinary approach throughout the twentieth century justifying their call to action with evidence from the work of educational reformer John Dewey (Fallace, 2016, p. 177). While

my call to action is by no means new, I offer insight into some of the currently existing resources that may make such an interdisciplinary approach possible and present a variety of my own resources that may guide educators towards this goal.

Some existing educational goals and materials are quite effective. For instance, *Buy, Use, Toss?* is an interdisciplinary curriculum published by non-profit organization Facing the Future that presents a two-week unit for high schoolers that is highly effective in exploring these topics (Skelton & Jacob, 2010). The curriculum meets nine of the ten national social studies standards and seven of the national science standards. While this type of unit may not fit neatly into one social studies course specifically, the topic cannot be truly explored without pushing these disciplinary boundaries. Again, educators must not let the artificial divides between subject areas in school prevent them from providing an interdisciplinary education that is more representative and relevant to the real world.

Additionally, the curriculum examines the implications of our consumer choices throughout the entire product lifespan from production to disposal through not only the economic supply chain perspective, but also the geographical and historical perspective. Finally, throughout the unit, students are consistently asked to apply what they have learned to their own decision making and their impacts on the "public good" whether that be the cleanliness of the environment, wages of workers or community policies. By using the Three-pronged definition of sustainability including society, economy and environment, students gain a fuller picture of the topic that could not be achieved in just one subject area (Skelton & Jacob, 2010, p. 35).

On the other hand, implementation of even the most effective of interdisciplinary, relevant and well-rounded curricula does not necessarily translate to a change in student behavior. While some studies have shown that increased awareness does lead to a change in

consumer behavior among younger populations (Watkins & Aitken, 2020, pg. 172) many researchers have identified a persistent "Attitude-Behavior Gap" or "Intention-Action Gap" (White et al, 2019 & Zralek, 2017). This means that even those who are aware of certain environmental issues and state that they are concerned do not necessarily follow through with acting to improve the situation. For example, one survey conducted in 2019 found that while 65% of respondents said they wanted to buy products with "purpose-driven" and sustainable brands, only 26% actually did so (White et al., 2019). One study attributes the gap to "a lack of knowledge, doubts about one's own influence on climate change, and a lack of time to gather information" but this could also be the result of the fact that the alternative is more expensive, less convenient, and more time consuming (Kreuzer et al, 2019, p. 2). In order to address the disconnect and help students to align their actions with their beliefs, educators must focus on what intrinsically motivates this population and provide concrete guidance on the actions they can take in their own lives and, more importantly, to advocate for change on a larger scale from politicians and corporations. Research conducted in 2021 found that young people were most often motivated to reduce their individual consumption by money saving, avoidance of debt and embarrassment and the goal of a stable future rather than anything related to sustainability (Ziesemer et al., 2021). Further, they found that emotional appeals such as the appeal to "freedom and autonomy" against persuasive advertising were more effective than appeals related to sustainability (Ziesemer et al., 2021). Raising awareness of garbage on a personal level such as having residents use clear garbage bags has also been shown to decrease the amount of garbage people produce by up to 30% (White et al., 2019). So, while increasing awareness of the problem at large is a good first step, it is clear that it is not enough. In addition to generating awareness about the environmental and social costs of our throw-away society, students must be

shown the relevance of these implications to their own lives. It is not the role of educators to tell students what they should do or how they should think, but they can give them the tools to critically examine their role in our throw-away society and make more informed decisions in the future.

Even so, behavioral changes of the individual level, while important, will not solve this problem. The larger goal must remain widespread education that focuses on connecting people with why these issues matter in the context of where they are and what they do and helping them to internalize the personal and collective benefits of sustainability. Only with this new awareness and motivation among individuals will humanity as a collective be able to begin to work together to reimagine a more sustainable world.

If done correctly, education can be an essential piece of the transition away from our self-destructive throw-away economy. Disposability has become habitual, but education at the right time and in the right way may be part of the solution. According to the Harvard Business Review, people are significantly more likely to "consciously evaluate and experiment with their routines" including "environmentally friendly behaviors" at the time of a major life change such as a moving, starting a new job, or joining a new social circle (White et al., 2019, "Shape Good Habits"). Secondary education occurs in a time when students are moving through adolescence, some of the most tumultuous years of life, and preparing for the move to college where many reestablish their identities completely. For many, the late adolescent years also represent the first time they begin to make independent consumer choices and form their own consumer habits. This may therefore be one of the most promising and powerful times to help the next generations question their role in the throw-away society and culture before these habits are too deeply

engrained. That being said, there is a valid argument to be made that even secondary education is too late. Perhaps this kind of education must begin in the primary school years.

Intended Outcomes

It must be acknowledged that education alone cannot be expected to solve this problem. While schools and educators can deeply influence young children, they cannot always compete with the advertising, lobbying, and misinformation campaigns of multimillion-dollar corporations. Advertising has a powerful and unique role in American society and is rarely criticized for its manipulative efforts. On the other hand, political calls to action involving consumer choices are fiercely attacked as sources of propaganda and violations of freedom. For example, Michelle Obama's anti-obesity campaign aimed to create healthier school lunches was harshly criticized by many such as Sarah Palin who responded, "get off our back and allow us as individuals to exercise our own God-given rights to make our own decisions" and Fox News Host Glenn Beck who said, "Get Away from my French fries Mrs. Obama" (Fisher, 2010, para. 2-3). Yet, these same individuals express no problem with the thousands of advertisements from fast food companies' children are exposed to each and every day in and out of school. The power of education can only go so far in a world where pervasive advertising holds unchecked power.

Further, while education is a prerequisite to critical thinking and informed action, the time to learn and care about these issues is a privilege. Until sustainable practices are made to be affordable and accessible, it is impractical and unfair to suggest that individual action can solve this problem. The burden must also fall on larger corporations. As long as disposability remains the keystone of our economic system and the default, and often cheapest option, it will continue

to thrive. No one person can possibly create a catch-all solution to this problem or tell people around the world what they should do. In an ideal world, one might say that we should stop the production of all these disposable goods now. While that would potentially be great for the environment as it would reduce carbon emissions, plastic production and resource extraction drastically, those who depend on the jobs producing these goods in factories or in sorting through parts of the disposed goods may be devastated. On the other hand, some may say an ideal world would involve continuing on with business as normal allowing our economy to prosper and consumers to have what they want. In this case, jobs are maintained, but human rights continue to be violated and environmental disaster looms closer. I do not claim to know where the best path forward lies, but I do know there are certain truths about disposable products and environmental and social costs that are not being addressed. Educating youth about these truths and giving them the skills to make informed decisions, have educated conversations with each other, and come to compromises is the only way any progress will be made. The collective power of educated individuals able to work together cannot be understated.

Finally, regardless of an individual's belief about how the world should look, it is the role of social studies education to create an awareness that the current state of affairs is not inevitable or unchangeable. The way our world works is not the only way it can or must work, and the collective action of ordinary people are the ones with the power to change that. Disposability has become pervasive and habitual, but this is not how it always was nor how it must to continue to be. Implementing interdisciplinary curricula such as the *Buy, Use, Toss?* will help students to answer the essential question of "is this worth it?" making more informed decisions for the public good. By examining the history of disposability in America in tandem with its economic,

environmental, social and political implications, we can help new generations to question the throw-away society of today and evaluate more sustainable alternatives for the future together.

Sample Materials

In the final section, I present sample educational materials designed at the culmination of my research in which I employ all of my findings to illustrate what a successful interdisciplinary approach to raising awareness of these issues may look like.

Waste Audit Activity

1. Collect all trash you create for 24 hours in a large plastic bag. For "dirty trash" (ex. Toilet paper, tissue) put the equivalent amount of clean product in your bag as a representation and throw the dirty items away. Keep food waste in its own container to minimize mess. (be sure to note the weight of the empty container beforehand to subtract from your total later!).
2. At the end of 24 hours, record the total weight of your trash in the table below.
3. Assuming this was an average day, calculate what your weekly and annual trash would likely weigh.

I. Mass of Waste:

	Daily Total	Weekly (x7)	Annual (x365)
Weight (lb.)			

4. Next, you will estimate the cost of each item you threw away. For example, a water bottle may cost $2.19. Because you threw away the entire water bottle when you were done with it, $2.19 is the total cost. However, for something like paper towels, divide the total cost by the approximate percentage you used and threw away to calculate the cost.
5. Calculate the annual cost of each item (assuming you threw away the same things every day) and then find the total personal cost of your trash every year by taking the sum of the annual column.

II. Personal Economics of Waste:

Item "Wasted"	Total Cost ($)	Approximate money spent on waste ($)	Annual Cost ($) *(x 365)*
Ex. Dasani Water Bottle	*2.19*	*2.19*	*799.35*
Ex. Paper Towel (3 sheets)	*1.50 (40 sheets)*	*0.11*	*40.14*
		TOTAL	

6. Now we will think about how much water it took to produce each item you threw away (virtual water) and the amount of carbon dioxide emitted to produce each item you threw away (carbon footprint). Research each item type and record an approximate amount of water in gallons and carbon in lbs.
7. Similar to the last table, calculate the annual totals (again assuming each day your trash is the same) and find the sum of this column to calculate your yearly "virtual water" and "carbon footprint" associated with your trash.

III. Virtual Water

Item	Water to produce (gallons)	Annual (gallons) (x 365)
Ex. Dasani Water Bottle	*1.4*	*511*

Ex. ⅓ Hamburger	*217*	*79,205*
	TOTAL	

IV. Carbon Footprint

Item	Carbon (lbs.)	Annual (lbs.) (x 365)
Ex. 1.5 Liter Dasani Water Bottle	*0.5*	*182.5*
	TOTAL	

8. Finally, do some research to find out where these items are originally produced, grown or manufactured. If they are made in multiple places, try to figure out which place was most likely to manufacture yours or which place is the largest manufacturer.

V. Place of Origin

Item	Place of Origin (Country, City)

Ex. Pepsi Bottle	*USA, NY*

9. Complete the summary table below with the approximate data for your overall annual waste.

My Annual Waste:

Mass (lbs.)	Financial Cost ($)	Virtual Water (gallons)	Carbon (lbs.)	# of Places items in my trash come from	Cost of Waste removal in my town or township

Reflection Questions:

1. What was most surprising about your waste?
2. After conducting this audit do you think you will change what and how much you throw away? If so, why?
3. What are some ways you could reduce your waste? (ex. Use a reusable water bottle avoid throwing out plastic ones each day).
4. As you can see, your waste costs you personally a certain financial amount. However, waste is also costing the planet water, landfill space and carbon emissions. Who is responsible for paying these costs? Who do you think *SHOULD* be responsible?

At the conclusion of this assignment we will also gather **class data** to determine what our classroom's impact is as a whole.

Planned Obsolescence: Driver of Progress or Creator of Waste? [Debate]

1. To begin, introduce students to the concept of planned obsolescence and ask them to think of any examples they know of from their own lives.
2. Define each of the four main types of planned obsolescence (function, desirability, quality and origin) with examples of each (See planned obsolescence section of paper above).
3. **Debate:** Divide the class into two groups and assign one side to be proponents of planned obsolescence and the other to be the opponents. Provide each group with a selection of sources to read and create an argument from. Suggested primary sources include:

For:	Against:
● Roy Sheldon and Egmont Arens *Consumer Engineering: A New Technique for Prosperity (1932)* ● Christine Frederick *Selling Mrs. Consumer (*1929)	● Vance Packard, *The Waste Makers* (1960) ● Victor Papanek, *Design for the Real World (1970)*
Additional secondary sources that include both perspectives: ● Giles Slade, *Made to Break* (2006) ● Nigel Whitely, *Toward a Throw-Away Culture. Consumerism, 'Style Obsolescence' and Cultural Theory in the 1950s and 1960s* (1987) ● Kamila Pope, *Understanding Planned Obsolescence* (2017)	

4. Hold an in-class debate allowing each side to present an opening argument, rebuttal the opposing sides claims and a closing argument.
5. At the conclusion of the debate, students complete an individual exit ticket reflection answering the following question: "What is your opinion on planned obsolescence? Do the benefits outweigh the costs?"

Lesson Plan: Disposable = Desirable?

Springboard: In your waste audit you saw how much disposable, single-use products cost us financially as well as the world environmentally… So why do we still use them? What is appealing about an object that is used just once before being thrown away?

Historical Analysis [Think-Pair-Share]:

Stone Age → Bronze Age → Iron Age → *Plastic Age?*

- From durable to disposable… How did this happen…What might explain this historical trend? What time period do you think this transition occurred?

Role of Advertising: [Direct Instruction]

- Introduce the origins of single use products
- Review 1920's need to increase demand, idea of repetitive consumption and role of advertising as a means of creating new demand through the focus on new needs and wants.

Primary Source Analysis [Small Groups]

Break students into small groups of 3-4. Allow each group to view a historical advertisement (See Figures above or Advertisements from the 1920-60s may be found in the ProQuest Database of Women's Magazines.*)*

1. At a station answering the following questions for each ad.
    - What product is being advertised?
    - What positive features of the product are emphasized? What negatives does the ad claim the consumer might avoid with the product?
    - How does the advertisement work to convince its audience that this disposable item is desirable/ more desirable than a durable alternative (ex. Handkerchief, glass cup, cotton towel etc.)?
    - Is the advertisement convincing?

2. Now have each group search for a modern ad (TV, print, radio etc.) for a given product. Have students work with their group to compare and contrast the historic and modern advertisements.
    - How similar or different are the advertisements?
    - Do they talk about the same features of the product?
    - Do you find the modern advertisement more convincing? Less convincing?

Reflection:

Why do you use disposable products? What aspects of them do you value? Do you think these advertisements have successfully convinced you?

Activity: Worth the Cost?

Think about a product that you (or your family) recently bought. This could be anything from a T-shirt, iPhone, car, home appliance or phone case. Write down the name of this item below.

Product: _____

We will be examining the lifecycle of this item from production and distribution all the way to disposal in order to determine the true "costs" of the product to not just to your wallet, but to human lives and the environment as well. We will then compare these costs to the benefits reaped through consumption.

Production → Distribution → Consumption → Disposal

Production and Distribution

Benefits	Costs
Economic: Did the creation of this product create good paying jobs? Benefit the economy? Support a local business?	
Social: What people are involved in the production of this product? What are their lives like?	

Environmental: How did the production of this product impact the environment? Use of water? GHG emissions? Toxic chemicals? Air pollution? Does it help the environment in any way?	

Consumption:

Benefits	Costs
1. Why did you buy the item? 2. What did it do to make your life better, easier or happier? 3. Did your purchase of this item do anything to improve the life of others in any way? 4. How long do you expect to use it for? When you do get rid of it, do you expect it to be unusable/broken or still usable but unwanted?	1. How much did the product cost you ($)? 2. How necessary was the purchase? (was it a want or a need?) 3. What other purchases did you give up or decide not to make as a result (opportunity cost)? 4. Was this purchased with your own money or someone else's (ex. parents)? Did this affect your decision to buy it?

Disposal

Benefits	Costs

Economic: Will the disposal of this product create good paying jobs? Benefit the economy? Create any additional economic costs to society?	
Social: What people are involved in the disposal of this product? What are their lives like?	
Environmental: How will the disposal of this product impact the environment? Will it decompose? Where will it end up? Can it be recycled? … will it?	

Reflection:

Based on your life cycle assessment, write a paragraph comparing the costs and benefits of this product. Would your decision to purchase this product have been different if you had known this information beforehand?

Whose Responsible?

Springboard: Who should be responsible for all of the costs (social, financial, environmental) of humanity's waste? The Individual? The Government? The Company?

Small group research: (Assign one campaign/law to each group and have them research how it works and who is held responsible) Who is the burden placed on in these campaigns? Who does it benefit? Who does it burden? Who has to do the work?

- Statewide plastic bag ban in CA
- Taco bell sauce packet recycling campaign
- Maine's new (2021) recycling law
- Patagonia "Worn Wear" Campaign
- Others that you know of?

Each group should prepare 3 slides about their campaign that:

1. Describes what the campaign is and how it works
2. Whether or not the campaign has been effective (if information is available)
3. Who it burdens, who it benefits and who has to do the work
4. Whether or not you think this is a good law/campaign and what changes you would make.

Students will present their campaign/law to the class and discuss the similarities and differences

CONCLUSION

Humans have always been wasteful, but the costs of our dirty habits have grown tremendously. Throughout the 20th century, Americans have been taught to love the disposable and have learned to see even the most complex, expensive and intricate consumer objects as temporary. While many have argued that it is all in the name of improved quality of life and economic prosperity, the reality is that we are not happier in this consumerist throwaway society. The environmental and social costs of producing and disposing of modern goods like electronics or even a t-shirt has increased exponentially, yet the time we spend enjoying these products continues to shrink.

How to fix this problem is one of the world's most pressing questions and I do not claim to have the solution. However, we certainly cannot address a problem that we are not aware of. Very few Americans are conscious of how much trash they generate, where it goes or what went into making those products. More troubling, the very act of consuming and disposing have become habitual and addictive in American society. An interdisciplinary social studies curriculum which examines the problem from an environmental, geographical, economic, historical, social and political perspective is therefore essential to understanding the far-reaching implications of our consumption and waste, and the wide range of possibilities for the future.

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ACADEMIC VITA

Lucy Udell

[redacted]

Education

The Pennsylvania State University, University Park, PA
College of Education & Schreyer Honors College | May 2022

- *Bachelor of Science in Secondary Education, Social Studies*
- Minor in Geography and History
- ESL Certification

Downingtown STEM Academy High School, Downingtown, PA
International Baccalaureate (IB) Diploma recipient | 2018

- Suma Cum Laude,

Teaching Experience

State College High School
Student Teaching Experience | Spring 2022

- Educational Portfolio: https://sites.psu.edu/lsu22portfolio/
- Experience in a block schedule
- Planning and collaboration in a Professional Learning Community and interdisciplinary cohort
- Implementation of an original unit on Cities and Urban Land Use (AP Human Geography)
- Use of data from a variety of assessments to guide and differentiate student centered instruction
- Effective classroom management and consistent routines

Pre-Service Student Teaching Experience | Fall 2021

- 6-week experience in 9th grade World History and AP Human Geography classrooms
- Designing and Teaching of 6 original lessons
- Use of Canvas LMS for grading and course organization

Octorara Area School District, Penn State Early Field Experience
Student Job Shadow | 2018

- 40 hours of observation in 9th Grade World History classroom

Additional Experience

Penn State Intensive English Communication Program (IECP)
SAT Tutor | Fall 2021
Weekly individual tutoring sessions with international students from Saudi Arabia in the Kaust Gifted Student Program (KGSP)

Lionville YMCA
Camp Counselor | Summer 2019
Created and supervised activities for children ages 5-13 at the YMCA

Harrison's Gymnastics Studio

Gymnastics Coach | 2016-2018
Teaching kids ages 5-15 basic gymnastics skills and choreographing routines for show

Awards

Nominee for PSU College of Education Outstanding Student Teacher of the Year Award
Nominated by university supervisor and cooperating teacher. Results announced in June.

Gamma Theta Upsilon Geography Honor Society Member

Phi Alpha Theta History Honor Society Member

Skills

Excellent communicator with people of all ages from years of experience in food service and customer service positions. Experience and interest in the visual arts including the completion of three murals in State College, PA and Knoxville, TN. Creative thinker and well organized.