Adaptation of Graphic Design for Inclusivity of Diverse Demographic Audiences

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ABSTRACT

Being culturally aware of one's target audience is essential in order to avoid insensitive design choices and communicate more effectively. Through secondary source research, I described design issues impacting populations that are frequently overlooked. I found examples that either lack cultural awareness or inclusivity for these populations. This project analyzes these existing design materials and provides a redesigned version following more inclusive standards.

LITERATURE REVIEW

Historically, graphic design has focused on the design standards of the Western world. This includes adhering to norms such as using specially curated typographic pairings or following design principles (Lupton). Work from non-Western cultures is typically perceived as inferior, while work that has been deemed "good" in the field tends to favor that of American and European male designers (Khandwala). Design solutions have frequently catered to the perspective of a white, heterosexual, able-bodied young male, which leads to the marginalization of a variety of groups, such as senior citizens, people of color, mentally or visually disabled individuals, and the LGBTQ community. It is important to understand that the audience being spoken to continues to broaden in diversity, and the graphic design field must adapt for better representation.

Within the past several years, design has seen a shift in the way projects are approached. Graphic designers have been historically known to work primarily through their intuition and talent (Bennett 16). Now, there is more focus on the issues surrounding their work and the impact it has on society. It is understood that individual choice is influenced by cultural preference, which varies broadly depending on the group. With this understanding, designers have turned to proper research methods as opposed to only using their intuition. This allows them to better understand their audience throughout the design process (Bennett 17).

I will primarily be discussing these research methods used by designers, as well as analyzing particular studies that led to breakthroughs in design guidelines. This includes cultural observations, designing through semiotic theory, and working directly with the target audience. Additionally, I will focus on case studies featuring inappropriate or careless design.

The study of ethnography requires analyzing and participating in a culture to better understand its behavior and significance, which is performed quite frequently in the field of social science (Evenson 231). When designers conduct this research, the goal is to discover cultural experience patterns that can be used to guide their design choices. However, conducting this research is quite time-consuming and expensive due to the necessary travel. Designer Shelley Evenson developed an alternative method to ethnography called directed storytelling, which highlights consistent patterns in experiences.

A directed storytelling session ideally consists of three people: the storyteller, who had an experience directly related to the design concept, the leader, responsible for guiding the story, and the documenter, who keeps track of the session. The leader first guides the storyteller into recounting a particular experience of interest, following with further questions (Evenson 233). As the story is being told, the documenter records one important idea per page. Finally, all the ideas are laid out on a wall and the team clusters them into similar concepts. This allows them to analyze the most frequent themes in the

experience (Evenson 234). This knowledge is useful to understand the perspective of the subject through their personal descriptions.

Cultures can be divided into two communication styles - low context communication, which typically connects to individualistic cultures, and high context communication, which connects to collectivistic cultures. This should be taken into account when it comes to design that allows for the display of groups of people or individuals to effectively reach the target audience (Chu 309).

Semiotics is the study of signs such as symbols and concepts, and how their meanings are interpreted by the receiver (Rousi 1). Signs are not always universally recognized; they can vary across cultures and groups where they are learned. For instance, an owl typically symbolizes education and wisdom in Western culture, whereas in Chinese culture it symbolizes wickedness (Chu 308). These meaning shifts are important to consider during the design process to ensure accurate

message delivery. This is constructed through design elements such as typography, images, and color selections in a piece (Chu 308).

Designers must also pay close attention when dealing with bilingual or language translation projects. Over 40% of the American population consists of immigrants who either do not speak English or use it as a second language (Chu 310). Cultural groups frequently point out that in bilingual publications, the non-English language will likely have translation errors. The higher the error rate, the higher the likelihood of the audience feeling disrespected and refusing to read it (Chu 310). Researcher Sauman Chu performed three studies analyzing the bilingual document preferences of cultural populations. Two of those studies found that the target populations preferred to read their content side-by-side, as opposed to having two separate documents in each language (Chu 311). While this format is easy to follow in printed publications, it becomes a bit more difficult for online content, as differing screen sizes do not allow for the same arrangement. Chu performed a study researching the Latino population and their language preferences for the screen design of a mobile application. The data suggested that the most efficient way to offer both languages was to provide users with an option to view the content either in English or Spanish, rather than having both at once (Chu 311). When working with bilingual publications, designers must carefully consider the format of the piece with modifications as necessary.

In a German study led by Alexander Mertens, elderly subjects were tested on their comprehension of graphical representations. For each topic, participants were shown a pictogram, clip art, a photo of the action, and a photo of the object. Pictograms and clip art led to the lowest recognition rates within this population. Photographs, especially of the action, were responsible for the highest recognition rates (Mertens 3519). Studies like these provide specific context for designing for a population such as the elderly. The natural aging process causes a decline in vision, motor control, and cognitive functions. In addition, there are differences in how the elderly population interacts with technology due to variations in lifestyle. Presbyopia is a condition that arises around 40 years of age which prevents the eye from focusing on nearby objects as easily (Campbell). Depending on the intended screen, using fonts larger than 16px is important for legibility. Decorative fonts and serif fonts are also much less legible compared to a clean, sans serif font like Arial (Campbell).

Older adults also experience difficulty distinguishing colors with low contrast, as they appear duller with age. High saturation is ideal for maximum visibility. Cool colors such as violets, greens, and blues become harder to see, so warmer colors tend to be preferable (What Colors Should You Use for Aging Eyes?). Designers should pay close attention to colors used with text, ensuring a high level of contrast. The most efficient color combinations are black text on a white background or white text on a black background.

The Web Content Accessibility Guidelines (WCAG) offer guidelines for web content to ensure that they are accessible in terms of vision and legibility. When it comes to text sizes and color contrast, the WCAG provides ideal ratios that change depending on the intended output of the media. The ratio ranges from 1:1, which is white on white, and 21:1, which is black on white. The general minimum requirement for text contrast is 4.5:1 (Contrast and Color Accessibility). For people above the age of 65, the minimum requirement is 7:1 to account for age-related vision loss (Jadkowski).

Many things around the world are based on the use of color, but colorblind individuals may struggle with "easy" things due to a lack of accessibility. The most common types of color blindness are deuteranopia, which is green-blind, protanopia, which is red-blind, and tritanopia, which is blue-blind. There are varying degrees of color blindness, so some people may suffer from one type in a less extreme manner (Huang). Being colorblind can affect common activities that rely on color such as cooking meat, looking at traffic lights or signs, or reading color-coded charts. Many colorblind-friendly palettes can be found online, which include various hues and shades that do not conflict with each other. Adobe Color features an accessibility tool that allows you to make your own palette while

alerting you if there are any conflicts. Monochromatic color schemes are particularly successful, as colorblind people can easily see changes in contrast (Turnbull). Additionally, it is helpful to not rely on color alone to convey information to viewers. Using a combination of colors, shapes, and text is the most efficient way to convey information, but subtle textures can be added over colored items to help differentiate them as well.

Working memory and attention are also impacted by age, so it is easy to be overloaded by information when there are too many things going on at once. Ample usage of white space, which is beneficial to all viewers, prevents visual clutter. It is used to separate items or group them together while adding openness to the overall design (Kingston). Messages should be kept notable and concise to allow for a higher chance of retention. A visual hierarchy is created by emphasizing the most important things in a piece. Bright colors pop out against a dark background or near neutral-colored text. Using a large size or scale brings more attention to an element, as information is typically processed in the order of largest to smallest. Using typefaces with different weights, sizes, or families directs the reader to the most relevant information first (Kingston).

 In advertisements, designers tend to look for the most effective shortcuts they can use to relay their message. One of the frequent methods used for communication is the use of stereotypes (Yavuz 273). Clients frequently request these because they prefer seeing people in their stereotypical social roles. Going against the norm of using non-stereotypical representations puts them at risk of being irrelevant to their intended audiences. Although stereotypes are convenient from a communication perspective, they tend to perpetuate opinions about groups of people that are sometimes wrong or offensive (Yavuz 279). For instance, many ads publicized in earlier decades heavily enforced gender stereotypes. This includes the portrayal of women being the primary caretakers of children and chores while the men are out being the moneymakers of the family.

The usage of stereotypes in design and advertising can end up being harmful to certain audiences who feel they are underrepresented. There is often a lack of diversity in the imagery that designers choose, which prolongs decade-long societal standards. Cisgender, able-bodied, heterosexual, white people are frequently posed as the main subjects in media content. People of different cultures, sexual orientations, or disabilities seldom see appropriate representation in such places. Attempts to diversify this area can be ineffective when the imagery used relies on the stereotypes

of a particular group. For instance, many stock images relating to people in the LGBTQ+ community rely on the usage of rainbow flags and queer people doing stereotypical things. Such images contribute to the objectification of this group since they are not portrayed as real humans living their daily lives. Additionally, some companies only feature certain communities during their dedicated history month which comes off as performative and trend-focused. Designers are subject to subconscious bias that has been shaped by their personal experience in the world. It is important to analyze content to ensure sufficient representation for people of other ethnicities, genders, ages, abilities, and body types.

In the field of brand advertising, companies have historically relied on stereotypes and visual binaries to promote products to a specific gender. However, stereotype-based marketing strategies have become less effective, mainly due to the rise of feminist movements and comfort in expressing gender fluidity. Societal perceptions of gender have led to the categorization of certain design aspects into masculine or feminine. For instance, colors like pink, purple, and fuschia are frequently marketed toward women, and blue, green, and red towards men (Velarde). Feminine-looking fonts tend to be curved and flowy while masculine-looking

fonts are thick and geometric with strong serifs. Such categorizations apply to iconography as well - feminine icons are more rounded, and masculine icons are sharper (Velarde). All of these aspects work together to create a design directed toward the stereotypical perception of the brand's intended demographic.

Recently, brands have begun to explore a more gender-neutral form of advertising that appeals to shared interests and lifestyles rather than stereotypes. A gender-neutral approach allows for more inclusivity, which is especially beneficial when considering a nonbinary, transgender, or gender-nonconforming audience. Gender-neutral design encompasses features that are not associated with a specific gender. For instance, gender-neutral colors include neutral shades (white, black, gray, and brown), medium blues, yellows, and greens. Gender-neutral typography includes classic fonts typically used in body text, such as Garamond or Helvetica (Velarde).

Racialized artifacts are images or objects that uphold racist systems. Many products with racist imagery created since the early 1900s were in circulation for over a century. Some of the most common products to utilize such imagery include Uncle Ben's ready rice and Aunt Jemima pancake mix which were based on Black archetypes. Uncle Ben received his name from the habits of White Southerners. They refused to use "Mr." and Mrs." for older Black people and instead called them "aunt" or "uncle (Ward)." Aunt Jemima was portrayed as a "mammy" on the box packaging, which is a caricature of a Black female slave who happily tended

to a white family. The packaging on these items was recently updated in 2020 and 2021, respectively. Companies and teams such as Eskimo Pie and the Washington Redskins featured similar racist imagery that was highly disrespectful to Indigenous peoples of America and the Arctic. The terms "Eskimo" and "Redskin" were used as derogatory terms used by colonizers. These names were not considered an official issue until 2020 when the problematic origins were finally acknowledged (Ward). While many brands have begun to update their racist designs of the past, new products still face issues with racism and inclusivity.

Countless mainstream beauty brands cater to the typical white face in terms of shade availability. Darker skin tones are often not considered and excluded unless Black-owned companies release products directed to this demographic. Black-owned brands will often create a product that generates a large amount of consumer attention and regular brands will later release the same thing. Fenty Beauty by Rihanna was launched in September 2017. She released a foundation with 40 shades to choose from, compared to the usual 12-20 from other brands (Wischhover). The launch of the foundation caused the so-called "Fenty Effect," where other brands extended their range to include up to 40 similar shades.

Tru-Color, released in 2014, and Browndages, released in 2018 developed bandages that catered to brown and black skin tones. The most common bandage color up until then was a nude shade that assumed a light-skinned wearer. After the Black Lives Matter protests in 2020, the company Band-Aid decided to release the "Ourtone" line of bandages that was also targeted toward dark skin (McGloster).

Artificial Intelligence (AI) is often deemed as the "future of work." It is used to make the world easier for humans, but it is also created by them. As a result, the algorithms used by AI exhibit the same biases found in their developers. Google Photos was released in 2015 and used an image-recognition algorithm to organize photos by category. Jacky Alciné, a software engineer, noticed that it had categorized 80 photos of his Black friend as a "gorilla." Google's solution for the issue was to block its algorithm from identifying gorillas entirely. Additionally, the algorithm blocked searches from "black man" and "black woman," merely returning images in grayscale (Vincent). In 2016, a risk assessment program used by a US court was found to be biased against black prisoners. They were incorrectly flagged as likely to re-offend at almost twice the rate as white people (Buranyi). The same year, a Black woman tried to use a facial detection system. The program failed to recognize a face until she put on a white Halloween mask (Metz).

Dr. Timnit Gebru, a former computer scientist for Google, commented about her concerns on AI development: "I'm worried about groupthink, insularity, and arrogance in the A.I. community. . .The people creating the technology are a big part of the system. If many are actively excluded from its creation, this technology will benefit a few while harming a great many." Gebru wrote a paper with six other researchers that discussed how Google's language technology shows bias against people of color and women (Metz). Google demanded she remove the names of its employees or the paper altogether. Gebru threatened to resign from the company if it didn't explain its reasoning for their demand. In response, Google accepted her resignation and immediately removed her access to company services (Metz). Gebru later co-founded Black in AI in 2017, a research organization seeking to address the diversity issues in AI.

Developing inclusive content and preventing offensive material easily starts with a significantly diverse creative team. When designing for various audiences, it is essential to work with someone that understands that audience. AIGA (The American Institute for Graphic Arts) routinely releases census reports, offering insight into the demographics of the design industry. The 1991 census concluded that 93% of designers were white, which decreased to 73% in 2016 (Wong). The most recent census from 2019 showed that the number further decreased to 71%. Even at its best percentages, the demographics for people of color in the industry are not as diverse as they should be. The results of the 2019 survey found that the remaining results were composed of 8% Hispanic, 9% Asian, and 3% African-American. However, AIGA acknowledges the need for further diversity in the field.

In their 2021 Design POV release, AIGA stated that more work needs to be done to address the underrepresentation of certain groups in the industry, such as Black people, Hispanic people, older professionals, and military families. They note the underrepresentation in positions of leadership, as well - focusing on women, Asian Americans, and the LGBT+ community (2021 Design POV). The more diversity within the industry, the easier it is to design material that is genuinely inclusive. We have been conditioned to accept White design standards as "good" graphic design. This mentality invalidates the contributions made by designers of color, who are frequently erased in design history. Aiming to decolonize these standards, designer and author Cheryl Miller continuously advocates for more Black voices in the design field. The Cheryl D. Miller Collection of Black Graphic Design, which features the work of BIPOC designers, was developed to showcase and inspire diverse ideas (Cooper Union). Similar efforts aiming to create more diversity in design allow us to move further away from the eurocentric standards and ideologies that have been followed for decades. ■

METHODOLOGY

This project follows the analytical thesis track. I began by researching various groups that are typically overlooked in the field of graphic design, as well as common design issues that stem from a lack of cultural awareness. I evaluated the underlying negative messages presented to the audience through visually weak or inappropriate imagery and text while clearly defining the visual cues designers must be aware of when designing for different marginalized populations.

This was supported by researching and identifying relevant examples of existing historical and contemporary design solutions lacking cultural awareness as found in advertisements, illustrations, publications, web design, information design, and/or packaging design. I selected an example for each topic of discussion which was subject to in-depth design analysis. This included an explanation of why the existing design doesn't work for a particular audience based on its visual, cultural, or communicative aspects.

Once these examples are chosen, I developed and presented a redesign that more closely aligned with modern inclusivity and cultural standards. I utilized a combination of techniques, including Adobe Photoshop, Illustrator, and InDesign to produce alternative solutions. After I completed the redesigns, my research and supporting illustrations were formatted into a booklet resembling an academic textbook. I delivered a completed PDF file to TYCO Print in New Haven, where my report was printed and bound.

CASE NO.1
Designing for Elderly Audiences

Original

The first redesign aimed to improve the legibility of a vitamin bottle marketed for 50+ adults by Target's brand, Up&Up **(Fig. 1.1)**. The original bottle has a light teal background with white, gray, and green text. The color scheme of the bottle made it extremely hard to read, especially from a distance. Since the bottle is marketed toward older adults, it would likely be more difficult to read for someone with age-related vision issues. The large use of teal in this product is also not ideal, as it is more difficult to see cool colors with age.

I used a contrast checker that works in accordance with the WCAG ratios to analyze the ratios of certain products. Using the contrast checker I compared the white text on the front of the label and the deeper teal color on the bottom, as they were the most prominent. These two colors failed to meet the ideal ratio value of 7:1 for adults over 65 or even 4.5:1 for normal text, coming in at 2.28. The information on the rest of the bottle was also difficult to read due to the extremely small font sizes used.

Redesign (Fig. 1.2)

The supplement facts label was redesigned to span almost the entire height of the label to be able to increase the size of the fonts. The FDA (Food and Drug Administration) has nutrition label guidelines that identify the minimum font sizes for certain parts of the label as well as the format. Although this product is not FDA-approved, most of the guidelines were followed to make it familiar for a typical consumer. I moved the FDA statement that was originally on the front of the bottle underneath the supplement label. Lastly, the ingredients and additional information were reformatted to fit entirely to the right of the supplement label. The font size for the "Suggested Use" instructions was increased to make them pop out from the surrounding blocks of text.

The front of the label was modified to include only the essential information. The "Adults' 50+ Multivitamin" moved to the center of the label. The subheading and number of tablets were moved to the bottom and made larger. Choosing a good color scheme was important for visibility. An orange to white gradient was used for the background of the label. The Up&Up logo, 50+ label, and tablet number were recolored in dark teal and white. Dark teal was used as a secondary color because it is complementary to orange, and the color combination is colorblind-friendly. I also made the cap color the same dark teal color for a cohesive look. The contrast checker ratio for the orange and black colors gave a ratio of 10.42, which successfully meets the WCAG guidelines for 65+.

Fig 1.1 | Original Bottle

Fig 1.2 | Redesigned Product

Compare to Centrum® Silver®*

up&up

Adults' 50+
Multivitamin

Essential nutrients to help promote the health of adults 50+†

220 Tablets

ACTUAL SIZE

Supplement Facts

Serving Size | 1 Tablet

Amount Per Serving	% DV	Amount Per Serving	% DV
Vitamin A 50mcg (40% as beta-carotene)	83%	Iodine 150 mcg	100%
Vitamin C 60mg	67%	Magnesium 50 mg	12%
Vitamin D₃ 25 mcg (1000 IU)	125%	Zinc 11 mg	100%
Vitamin E 22.5 mg	150%	Selenium 19 mcg	35%
Vitamin K 30 mcg	25%	Copper 0.5 mg	56%
Thiamin 1.5 mg	125%	Manganese 2.3 mg	100%
Riboflavin 1.7 mg	131%	Chromium 50 mcg	143%
Niacin 20 mg	125%	Molybdenum 45 mcg	100%
Vitamin B₆ 3 mg	176%	Chloride 72 mg	3%
Folate 680 mcg DFE (400 mcg folic acid)	170%	Potassium 80 mg	2%
Vitamin B₁₂ 25 mcg	1042%	Silicon 2 mg	**
Biotin 30 mcg	100%	Vanadium 10 mcg	**
Pantothenic Acid 10 mg	200%	Lutein 250 mcg	**
Calcium 220 mg	17%	Lycopene 300 mcg	**
Phosphorus 20 mg	2%	**Daily Value (DV) not established.	

† THIS STATEMENT HAS NOT BEEN EVALUATED BY THE FOOD AND DRUG ADMINISTRATION. THIS PRODUCT IS NOT INTENDED TO DIAGNOSE, TREAT, CURE, OR PREVENT ANY DISEASE.

INGREDIENTS: Calcium Carbonate, Potassium Chloride, Dicalcium Phosphate, Magnesium Oxide, Ascorbic Acid, Gelatin, dl-Alpha Tocopheryl Acetate, Microcrystalline Cellulose, Maltodextrin. Contains 2% or less of beta-carotene, biotin, calcium silicate, carnauba wax, cholecalciferol, chromium picolinate, croscarmellose sodium, crospovidone, cupric sulfate, cyanocobalamin, D-calcium pantothenate, FD&C blue no. 2 lake, FD&C red no. 40 lake, FD&C yellow no. 6 lake, folic acid, hydroxypropyl methylcellulose, lutein, lycopene, magnesium stearate, manganese sulfate, medium chain triglycerides, niacinamide, phytonadione, polydextrose, polyethylene glycol, potassium iodide, pyriodoxine hydrochloride, retinyl acetate, riboflavin, silica, sodium metavanadate, sodium molybdate, sodium selenate, stearic acid, thiamine mononitrate, titanium dioxide (color), zinc oxide.

Suggested Use: Adults, take one (1) tablet daily with food as a dietary supplement.

094 02 1123 R00 C-001472-01-112
Distributed by Target Corporation
Minneapolis, MN 55403
TM & ©2021 Target Brands, Inc.
Questions? Call 1-800-910-6874

*Centrum® Silver® are registered trademarks of GlaxoSmithKline Consumer Healthcare Holdings (US) LLC.

KEEP OUT OF REACH OF CHILDREN.
Store at 15º - 30º C (59º - 86º F).

CAUTION: Pregnant or nursing women, individuals taking medication(s) or persons who have a health condition should consult their physician before using this product.

SAFETY-SEALED, DO NOT USE IF PRINTED SEAL UNDER CAP IS CUT, TORN, OR MISSING.

NO ARTIFICIAL FLAVORS + GLUTEN/LACTOSE FREE
Tablet color may vary.

Empty & Replace Cap

PLASTIC BOTTLE

CASE NO.2
Designing for Disability: Color Blindness

Original

For this example, I wanted to redesign a product that heavily relies on its use of color. The blood collection tubes that phlebotomists use for lab work come in a variety of colored caps. There is a specified order of draw that must be followed to avoid cross-contamination between the tubes (**Fig. 2.1**). Each vacuum-sealed tube contains different chemicals which eventually mix with the blood. The tubes have small labels on the side stating each chemical, but the font is typically very small. Phlebotomists rely on the cap colors to quickly choose what they need for their tests.

The range of colors in these test tubes poses an issue to colorblind individuals working in a lab because several shades start to mesh together. **Fig. 2.2** shows the colors as a person with normal color vision would see them. **Fig. 2.3** is a simulation of deuteranopia, which is green-blind, and **Fig. 2.4** simulates protanopia, known as red-blind. **Fig. 2.5** simulates tritanopia, or blue-blind. In both of these instances, the blue and lavender almost become the same color, with little contrast between them. The red and green colors blend together as well, with the protanopia simulation turning the red a slightly darker shade of green.

Blood Draw Order	Tube Color	Description
1	Color Varies	Blood Cultures
2	Light Blue	Sodium Citrate
3	Red	Clot Activator
4	Gold	SST
5	Light Green	Lithium Heparin
6	Dark Green	Sodium Heparin
7	Lavender	EDTA
8	Gray	Sodium Floride

Fig 2.1 | Order of Draw

Fig 2.2 | Normal Vision

Fig 2.3 | Deuteranopia (Green-Blind)

Fig 2.4 | Protanopia (Red-Blind)

Fig 2.5 | Tritanopia (Blue-Blind)

CASE NO.2 (continued)

Redesign (Fig. 2.6)

In redesigning these caps, the original colors were left since the color meanings are standardized throughout the US medical system. Instead, I wanted to add something simple that would aid a color-blind individual without disrupting the original design. Noting the similarities between blue/lavender and red/green was the first step in redesigning the tube caps. A black line was added across the blue cap since it provided the most available contrast. For the red/green conflict I first put a line on the red cap, but there was not enough visual contrast between that color and the black. The green was a better option in terms of contrast so it was moved to that cap. After analyzing the tritanopia simulation, I noticed that the lavender and gray became very similar shades in addition to the light blue and green, which were already addressed. Because the light blue already had a single line going across, a cross was added on the cap instead. The single line on the green cap was changed to three lines once all the caps were marked. This way, the lines add another level of separation while being viewed in sequential order.

Fig 2.6 | Redesigned Version

CASE NO.3
Designing for Gender Neutrality

Original

Gendered products are widely used for marketing purposes, although many times they are unnecessary if they serve the same purpose. Q-tips features a men's and women's version of exactly the same product. However, they are marketed quite differently to their target audiences. The men's box (Fig. 3.1) features a diamond plate background, a metal material typically used in construction. The advertised uses are cleaning electronics, car or motorcycle detailing, model building, or cleaning household fixtures. The description states that they are the perfect tool for taking care of a "man's possessions." The shapes featured on this box are primarily sharp-edged rectangles that hold images and text.

While the women's box (Fig. 3.2) offers a similar color scheme and typography, the elements in this design are substantially different. A soft gray and white gradient serves as the background, while the shapes used for the featured images are ovals. The description illustrates the swabs as the "Ultimate Home and Beauty Tool." Additionally, the advertised uses on this box are beauty, first aid, baby care, and home/electronics. The design and marketing of these two boxes are quite sexist, as it implies that men would only use cotton swabs for masculine things like construction, repair, and cars and women for things related to beauty, childcare, and their home.
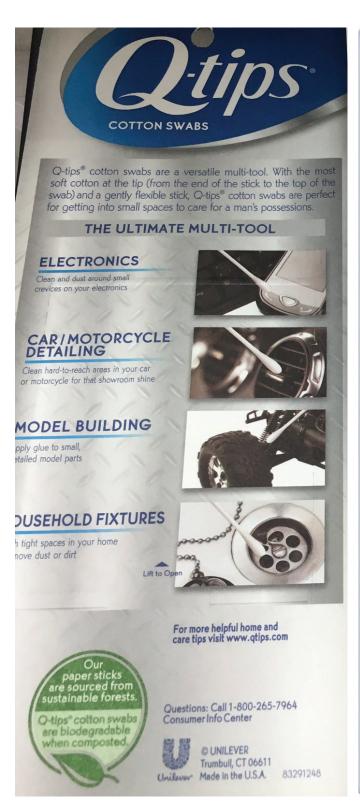
Fig 3.1 | Q-tips Men's Pack

Fig 3.2 | Q-tips Women's Pack

CASE NO.3 (continued)

Redesign (Fig 3.3)

Upon analysis of the two boxes, I concluded that the original design on the "women's" box is fairly gender-neutral. The gray and white gradient was kept as the background and made the Q-tips logo smaller. The description was modified to focus more on the versatility of the swab as opposed to gendering its ideal purpose. As for the image shapes, rectangles with rounded corners were used to incorporate the straight lines from the men's box and the curved lines from the women's box. Similarly, usage ideas from both boxes were included in addition to new ones to be able to market this product to all genders.

THE MOST SOFT COTTON AT THE TIP
from the end of the stick to the top of the swab

Q-tips®

COTTON SWABS

Q-tips® cotton swabs are a versatile multi-tool. With the most soft cotton at the tip (from the end of the stick to the top of the swab) and a gently flexible stick, Q-tips® cotton swabs are perfect for a variety of uses.

VARIETY OF USES

SKINCARE
Apply lotion or spot treatments

AUTO DETAILING
Dust around tight spaces

CRAFTS
Create fun art projects

BEAUTY
Wipe away makeup mistakes

ELECTRONICS
Keep keyboards dust-free

SMALL AREAS
Clean tiny areas with ease

Lift to Open

Our paper sticks are sourced from sustainable forests. Q-tips® cotton swabs are biodegradable when composted.

For more helpful tips visit www.qtips.com

Fig 3.3 | Redesigned Packaging

CASE NO.4
Redesigning Racist Products

Original

Cawy Bottling Co. was originally founded in Cuba in 1948, but eventually moved to Florida in 1962 after Castro's nationalization of the country. The company is now based in Miami and produces various fruit-flavored sodas. One product in particular is a cause for concern - Cawy's "Watermelon" soda. The packaging has a green and red color scheme with the product name and description in bright red letters. However, both versions of this soda feature racist caricatures of children holding a large watermelon. The first version **(Fig. 4.1)** depicts a brown-skinned girl with braids and red lips, and the second version **(Fig. 4.2)** shows a light-skinned boy with squinted eyes, an upturned nose, and large front teeth. Both graphics are reminiscent of the racist cartoons produced throughout American history which primarily targeted African Americans and Asians in the 1800s and 1900s.

Fig. 4.3 shows a postcard of a young Black girl holding a watermelon from the early 1900s. The stereotype surrounding Black people and watermelon became widely popular after the slaves were freed during the Civil war. Watermelons became a symbol of freedom for these Black Americans as they grew, sold, and enjoyed the fruit on their own terms (Black). This freedom threatened the Southern whites, and they turned the fruit into a symbol of dirtiness and laziness. **Fig. 4.4** shows a political cartoon drawn by Dr. Seuss in 1942. The image was meant to depict Emperor Hirohito, and Seuss incorporated the usual exaggerated Japanese stereotypes into his image. The drawing has a snout-like nose, squinted eyes, glasses, and buck teeth, features that eventually evolved into a stereotype for all Asians (Cho). These two images bear a strong resemblance to the images found on the Watermelon cans. The version with the Black girl is no longer sold, but the one with the boy can still be found in Miami.

Fig 4.1 | Original Can #1
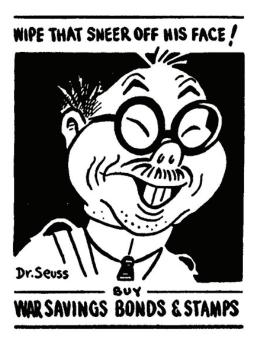

Fig 4.2 | Original Can #2

Fig 4.3 | Vintage Postcard

Fig 4.4 | Dr. Seuss Cartoon

23

Redesign (Fig. 4.5)

For this case, a complete rebrand of the packaging that avoids reminders of its racist tropes seemed appropriate. The only item that remained was the soda's "Watermelon" name, as it is an unsuspecting name of a common flavor. I was inspired by the current designs of seltzer and craft beer cans for their creative packaging. My goal was to end up with a product that looks fresh, fun, and contemporary. I knew I wanted to incorporate green, red, and black into the design to represent the colors of the watermelon. A bright red to green gradient was placed across the height of the whole can. The Cawy name was not visible in the original packaging, so a white 3D-style logo was added to the upper middle side of the can. A casual sans-serif font was used for the flavor, description, and size. A black text color served for better contrast against the bright green color on the bottom half of the can. Lastly, I created small black seeds and added them around the circumference of the can above the Cawy logo. The redesigned version is also easily adaptable to new flavors by changing the gradient, flavor name, and design around the top.
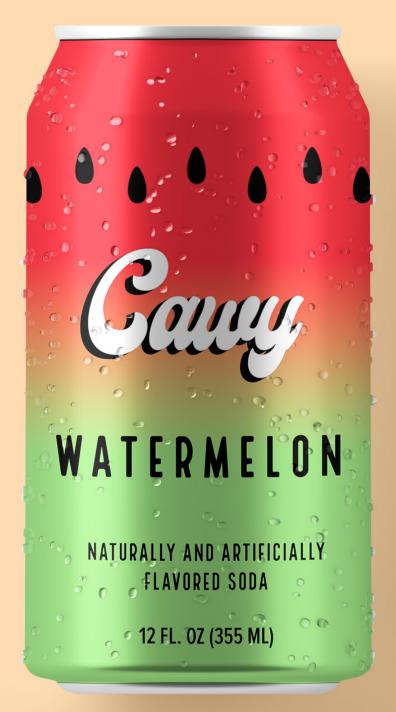
Fig 4.5 | Redesigned Packaging

CASE NO.5
Designing for LGBT+ Inclusivity

Original (Fig. 5.1)

Keepsake Diamond Rings were very popular from the 1940s to the 80s, with countless magazine mail-order ads for engagement rings. The illustrations featured in all of their advertisements show either a young white woman, often in a wedding dress, or a straight white couple looking at rings. Keepsake makes it clear that their engagement rings are timeless symbols of a husband's love for his wife. The ads are not very inclusive of queer or interracial couples, as such marketing was not common in vintage ads.

Fig 5.1 | Original Advertisement

CASE NO.5 (continued)

Redesign (Fig. 5.2)

Because the Keepsake advertisements were designed for magazines, I wanted to keep the redesigned version as a magazine advertisement. However, the vintage look was ditched for a modernized version that could be seen in a magazine today. Engagement ring advertisements today tend to be quite minimalistic, focusing on a single ring, a close-up of a couple, or a combination of both. I wanted my design to focus more on the relationships between people instead of the jewelry. The first priority was finding images of gay and lesbian couples exchanging rings. It was difficult to find content where it was clear that it was a same-sex couple once cropped. The pictures chosen showed the brides and grooms on either side, wearing similar outfits. Once those images were added, I decided I wanted to make the ad even more inclusive. I found photos of an interracial couple and a couple with tattoos, since most ads portray couples as clean-cut and "proper." The same caption was added in a modern serif font and added the Keepsake logo with a modified slogan underneath. The background of the ad features a blurred photo of a silk texture to maintain an elegant look.

IT'S SUNSET ON MILLENNIAL
PINK. THE KIDS HAVE A
NEW FAVORITE COLOR.
BY BRENNAN KILBANE

It's difficult to say for sure what Eden looked like, but it was probably green. Jan Brueghel the Elder's "paradise landscapes" from the European Renaissance expressed his vision of Eden in every chlorophyll variant naturally possible, in seas of trees stretching to infinity, in ultramarine surfaces of swan-flecked lagoons, and in some blues and golds. But mostly greens. The Tree of Knowledge is painted in what appears to be hundreds of shades of green, including moss, olivine, and sunlight on broadleaf, each one watching Eve commit the first recorded act of conspicuous consumption.

And today? Refined with time and technology, our greens have gotten better, cooler, richer, lusher, and more attention-grabbing than ever. Eve would flip at the gardens of Versailles or Spotify's Stockholm headquarters. We can't know how she would react to the current beauty and wellness market—where a new, Generation Z green has begun to sprout in packaging and branding—but it's safe to say she would probably lose her mind.

It's eucalyptus, but fernier. It's Granny Smith, but younger. It's Pharrell's Humanrace Skincare, packaged in plasticine emerald, and the waterlogged kelp of OffCourt's Performance Body Spray.

Larkly Suncare, a new-to-market antioxidant-packed powder sunscreen, parks its packaging hue in a pastel corridor of the lime family, ensuring a cool distance from its more radioactive cousins over at Monster Energy and Xbox. Lower the volume a little bit and you have a universal crowd-pleaser—a shade that everybody is happy to see. Blue may be the most popular color in the world (according to some psychologists, apparently), but if you're being honest, you'd rather see green. Green is secure. Green is good. Green means go—and good luck! Green is a leafy side salad, humming with nutrients.

Your average green-loving person has probably "been called a 'do-gooder,'" wrote Leatrice Eiseman, executive director of the Pantone Color Institute, in *The Complete Color Harmony, Pantone Edition*. "You are a caring companion, a loyal friend, partner, and family member, and are supersensitive about doing the right thing and embracing a cause you feel is right." (For more of Leatrice Eiseman's color wisdom, turn to page 80.)

Gen Z is nothing if not green as they organize to save the planet they hope to inhabit through adulthood. They are more engaged in matters of climate change and the majority factor "greenness" into their purchasing habits. Gen Z, aged 9 to 24, is also green, as its members are currently joining the workforce and bringing their value systems with them.

Whether Gen Z is too green is up for debate, but the amount of green its members are predicted to possess is undeniable: Trillions, according to the Bank of America; they'll surpass millennials in income by 2031. In 2019, McKinsey estimated that Gen Z would soon comprise 40 percent of the world's shoppers.

Thus, the market grows greener by the day. Observe the foliage at your local suburban Target, where it blooms between twee pink moisturizers and clinically white moisturizers. Even a glimmer of green is refreshing to behold. Nature is healing! Megababe's The Green Deo smells like lemons but is the color of chlorophyll, its star ingredient. When R+Co launched Bleu, a diffusion line designed to use less plastic packaging, the brand ignored the product's own name ("blue" in French) and went with a saturated shade of mint for many items.
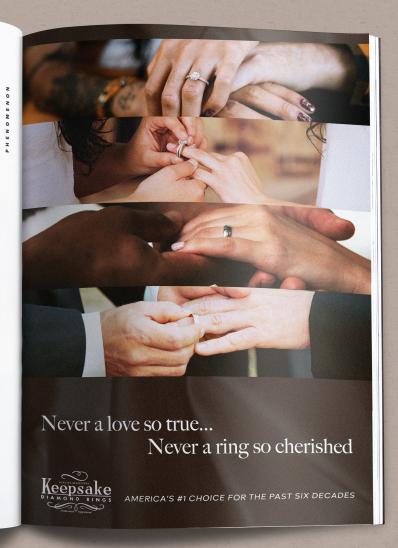
Over a decade ago, green was used frequently enough in marketing to draw public ire. "Everybody wants to be green," a branding executive told the *New York Times*. British Petroleum had recently rebranded from the BP monogram to an abstract green-yellow supernova; shortly after, it caused one of the most catastrophic environmental disasters in human history.

But Gen Z green isn't the green of BP, or Hulu, or Excel. It runs a much shorter spectrum, from Emerald City spires to Caribbean tide pools. "I know it sounds cheesy, but it feels fresh and alive," says Helen Steed, a creative director who works on consumer brands. "And it's natural. But the trends today are these hyped-up versions of what you would find in nature."

"I would almost call those tones 'digital' greens," says Jane Boddy, another trend forecaster at the Pantone Color Institute. "If you look at colors on your phone, they're enhanced by the lighting you get from the screen." The saturation makes sense, says Boddy, considering how many humans are opting to connect in online spaces, rather than terrestrial ones. In 2018, when the *Times* asked Boddy what color might succeed millennial pink in the coming decade, Boddy cast her lot on bracing shades of "neo-mint," which connoted a "cool, futuristic, tech feel, but also connects with plant life and nature as we become more and more focused on preserving our planet."

Today, millennial pink feels increasingly like a palette from a bygone era, when pussy hats were on march and Wings spread far and wide, when the future looked female. Where the millennial color family is more obviously gendered, Gen Z's floats outside the binary. Blue might be for boys, but green is barely for humans. It's in our eyes and sometimes our hearts. We eat greens and we play on them. In Japanese antiquity, a single word could describe the color of the land and sky in unison, erasing the horizon into a seamless field of *ao*, which might evoke the sublime aqua of Urban Skin Rx's Hydrabalance Instant Moisture Infusion. Heaven and Earth, in one hopeful little jar.

photographed by josephine schiele

PROP STUDY ALEX SILVA

Fig 5.2 | Redesigned Advertisement

CONCLUSION

This thesis originated from a general awareness of the lack of inclusivity in the design field. As my research expanded, I became even more aware of the scope of this issue. The need for inclusivity has always been important, yet some designers and organizations fail to meet such standards today. Numerous designs and advertisements continue to be produced without fully considering the implications of the work. Those unaffected by careless design do not consider it to be an issue, disregarding the negative impact on those affected.

Inclusive design caters to the largest number of people with differing perspectives. This provides more opportunities for business growth, as more people can successfully use or understand it. Designing for inclusivity begins with recognizing the areas that are excluded. Assessing these needs allows for the development of solutions to address them. Designs that cater to one marginalized population can potentially benefit universal audiences (Fuso).

Inclusivity not only benefits potential consumers, but work environments as well. Developing an inclusive work environment is essential to having a team that feels fully comfortable and satisfied. Higher levels of engagement lead to an increase in employee satisfaction and job performance (Napell). Design teams with diverse perspectives contribute to a wider range of creativity and ideas. This can also avoid potential controversy, as they can easily recognize exclusion or inappropriate design concepts.

My research for this project in addition to the time spent developing the new pieces greatly influenced my design mindset going forward. Previously, I would not give much consideration to certain elements as I primarily designed with aesthetics in mind. Now, it feels almost second nature to ensure that my decisions are purposeful. Regardless of a specific target audience, I remain mindful of populations that may be excluded by the design. Designing with an inclusive mindset allows me to feel more confident in the impact of my work, as I am helping address a substantial need in the industry.

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