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## Sustainable Design: Can Eco-Friendly Be Beautiful?

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The University of Southern Mississippi

Sustainable Design:  
Can Eco-Friendly Be Beautiful?

by

Melanie Santiago

A Thesis  
Submitted to the Honors College of  
The University of Southern Mississippi  
in Partial Fulfillment  
of the Requirements for the Degree of  
Bachelor of Fine Arts  
in the Department of Art & Design

May 2016



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## ABSTRACT

Graphic design students and professionals experience an enormous amount of pressure in regards to their final printed pieces. In the effort to produce flawless work, they print several versions of a piece—often comparing dozens of copies for slight differences in ink variation, color saturation and paper quality. While this trial-and-error process undoubtedly accomplishes its intended effects, it also produces outrageous amounts of wasted paper, ink and cardboard among other products.

Graphic design has implemented computers to increase efficiency in the design process while ignoring the impact of obsolete hardware on the environment. In its perfectionism, it has sent countless pounds of paper to the trash and depleted millions of ink cartridges for the sake of beauty. The field's overall lack of consideration for the environment partnered with the growing trend of eco-friendly consumerism calls for questions about the relationship between the environment and graphic design. How do graphic designers actually feel about eco-friendly design?

This research analyzes designers' opinions on sustainable design through an in-depth look at articles throughout two well-known publications in the design community, *Print* and *Communication Arts*. Individual attitudes toward sustainable design lead research's final conclusion that perhaps graphic designers are not moving toward environmentally-friendly practice because they neither want to nor have to.

## KEY TERMS

Graphic design, art, sustainability, environment, paper waste, attitudes, coding literature, *Communication Arts*, *Print Magazine*

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## INTRODUCTION

### Graphic Design Roots

Design's origins begin as far back as art history stretches. The American Institute of Graphic Arts, or AIGA, defines graphic design as “communication design [or] the art and practice of planning and projecting ideas and experiences with visual and textual content” (Cezzar 2015). In short, graphic design is the practice of organizing information so that it is both beautiful and easy to interpret. Early humans' simplistic images and icons on caves show consideration of easy comprehension. Cave painters used the most distinctive animals, poses and colors to relate information to the viewer; these same basic considerations have remained consistent for centuries, and graphic design has become a practice known for its progressively efficient manufacture.

Processes such as printmaking and movable type made exponential progress in the mass-production of print material. Contemporary practice uses the drafting tools of the traditional artist paired with the help of a computer. Though its history encompasses even the very first cave drawings, graphic design as studied in the 21st century is most popularly a software-based practice that includes vector imaging, page layout, and branding, among other duties.

The gradual turn away from print media as a society—the decline of newspapers, tangible mail, magazines, and printed encyclopedias—has resulted in a digital storm of design that adorns LCD billboards, e-readers and computer screens. While it has somewhat reduced paper waste, technological advancement has also overrun landfills with old hardware, leaving behind a massive carbon footprint (Dao, Langella, and Carbo 2011). One could also argue that inconsistencies between digital and print media lead to

more paper waste as artists attempt to achieve through print what they have accomplished on the screen.

Graphic designers acknowledge yet avoid sustainability. While overall trends in sustainable practice between 2000 and 2010 have improved in most of the world (Maps 2012), graphic design continues becoming ever-efficient in information relay without directly addressing the issues that arise from the exponential growth of printed material and obsolete hardware.

Sustainable design is more popular than previously, but there is a distinct divide between that which is typical graphic design and design that is sustainable. While graphic design broadly tackles issues of communication and aesthetics, sustainable graphic design does so in a way that is purposely and consciously less harmful to the environment. Sustainable design prioritizes environmental impact and design success equally, and it works to build both these attributes simultaneously and methodically.

There exist a few different reasons for the lack of sustainable emphasis in graphic design: a lack of education simply keeps designers ignorant, the trend-centered discipline sees sustainable design as a less profitable route, and/or designers just cannot seem to integrate the guidelines of sustainability into already-formed standards of design. Graphic designers see sustainability and its application to design as noble, but unnecessary. CBS Designer Lou Dorfsman said, “Design cannot save the world, but it can make the world worth saving.” Tony Brook, who quotes him, says in the same speech, “I know graphic design isn’t going to save the world. Only architects can do that really” (Montgomery 2014). Similarly, graphic designer Anna Gerber writes in *Creative Review*, “I’m not one of those people who thinks graphic design can change the world nor am I one of those



(design) activists who believes in preaching on a soapbox or, worse, in a muddy field.

But I do think that graphic design plays an important role within a rapidly changing world. An influential one” (Gerber 2008a, 21–22). This defeated approach to sustainable design is the very essence of the graphic design community’s reluctance to tackle the issue at hand. It seems designers feel limited by their field, as if their power is measured by the size or impressiveness of their work. Conversely, sustainable design is about impressing others with the efficiency of one’s work and doing more with less.

Some think that sustainable design will hurt their intended aesthetic or pragmatic goals because it limits the tools, resources and approaches that can be used. Designers are dismissing ideas of sustainability because they simply don’t think their efforts will make a difference; more detrimentally, designers do not even consider applications of sustainable practice because they are inconvenient.

### Sustainable Graphic Design

While industrial and architectural design feature books, courses and entire degrees across the nation dedicated to sustainable development, graphic designers have settled for a less active approach. Graphic design considers sustainable design its own sub-category of design. Greener design utilizes sustainability, securing our basic resources so that our environment can continue to flourish, and features the same goals as any other sustainable effort: reduce, reuse and recycle. Most obviously, graphic design uses an abundance of print materials, ink and paper. Another aspect of the profession, however, is the continuing use of computers as well as digital means of presentation such as projectors and TV displays.

Graphic designer and author of *Sustainability in the Design Process*, Peter Fine emphasizes packaging design as the most relevant means of permeating greener practices in consumer consciousness; he encourages designers to make packaging more functional—giving them the ability to stack upon one another, incorporating facets that serve as measuring instruments on the packaging, etc. This increases the value of a product, not monetarily but fundamentally. When a package is more versatile, a consumer is more likely to keep that product and reuse the packaging in ways that keep products out of landfills (Lehrer 2013). Packaging has a multi-faceted purpose in the sustainable design movement to relieve the consumer of some burden as well as encourage them to use more versatile products or be creative in their own daily lives.

On the other hand, the absence of material covering sustainable graphic design speaks for itself. The very idea of sustainable graphic design and graphic design being separate entities provides an excuse for those designers who identify simply as “graphic designers” to disregard sustainable practices. Graphic designers do not typically consider integrating the ideas and approaches of sustainable design into their problem-solving because sustainable design is its own, unique approach with an entirely different set of rules. This is problematic because it facilitates designers’ inclination to distinctly separate the two forms of design into self-sufficient, mutually exclusive categories—meaning, designers assume that design cannot be both sustainable and aesthetically pleasing; in turn, they further distance themselves from what makes sustainable design sustainable.

The ability to separate themselves from the “others” is a way for graphic designers to shift environmental responsibility onto another group of designers, a group that does not include themselves, and enables a disregard for eco-friendly practice. For

this reason, purely “sustainable designers” encourage “graphic designers” to re-engage themselves with the production process in order to reconnect their goals and their final tangibles. Even small changes like these may work to close the gap between what is considered simply graphic design and what is labelled as sustainable design.

### Consumers versus Designers

Because the design world focuses on trending topics, any ideas that the broad public is currently concerned with, the sudden infatuation with environmentally-friendly product has forced the idea of sustainability into the forefront of the design world’s mind. As the public grows more and more concerned with the environmental impact of packaging and products, its preferences in buying shift toward those products that make them feel better about their purchasing decisions. Simply promoting a product as green typically boosts appeal in a consumer’s mind (Americasmart 2015, 8) and can greatly influence a buyer’s final product-choice. The prospect of helping the environment may encourage buyers to purchase at a premium, more expensive, price or even impulsively purchase a product unsought prior to discovery (Cho 2015, 80–81).

Besides boosting sales for a particular product, the abundance of advertising for sustainable products keeps consumers mindful of their environmental impact. Though encouraging customers to buy more is counterintuitive to the green movement, one byproduct of this marketing trend is that consumers and the general public become more accustomed to finding, buying and preferring greener alternatives. They, in turn, increase demand for those alternatives and, eventually, build a greener overall conscience. Consumers have become more skeptical of companies and the loose use of ambiguous terms like “natural” that do not necessarily mean that anything positive is happening for

the environment. “Greenwashing”, companies’—usually false—promotion of a product as more environmentally-friendly with ulterior motives or hopes of raising profits, also contributes to quicker adoption of sustainable consumption that challenges normal corporate practice (Orange and Cohen 2010, 29–31).

Designers consider these trends when promoting a product or service, but working within trends means assuming that the public is simply going through a phase. Ecological consideration is a typical duty of large brands whom the government analyzes, and smaller companies are not usually expected to abide by the same rules. This attitude results in the flippant dismissal of sustainable design; if the customer’s identity does not depend on being eco-friendly, companies do not even consider incorporating sustainable practices into their daily practice (Jedlicka 2015, 82–126). Growing emphasis on the assumption of environmental responsibility could possibly affect designers’ apathy toward green design, but designers are constantly faced with positions, products and attitudes with which they do not necessarily agree—doing the necessary work for it anyway and moving on (Kim, et al. 2015) Green design may be received similarly.

While consumers experience a drastic shift in purchasing decisions affected by environmental consciousness, designers remain on the fence. Cynthia Smith’s *Design for the Other 90%* discusses a movement of artists who put on an exhibition of purely sustainable design. While the participants of *Design for the Other 90%* promote low-cost solutions to growing problems prevalent in third-world countries, they gained notoriety within the design world as extremists. With roots in the counterculture of the 1960s and 1970s, the movement aimed to combine the ideas of architects, professors, engineers, designers and entrepreneurs to devise unconventional methods of solving the problems of

insufficient living situations, lack of irrigation, undrinkable water, etc. (Smith 2007).

Though the movement remains one of the most prevalent modern-day examples of green design, its ideas never seemed to catch on within the general practice of graphic design.

Similarly, flashy practices such as “Reverse Graffiti” in which the artist pressure-washes designs onto concrete are eye-catching and uncommon, evoking interest in the consumer through their novelty. These gimmicky design strategies can also bring together different demographics because of their reaction-focused approach. When the value of a product is tied to the immediate, natural response of a buyer—such as an appeal to sympathy or an impressive opening—it can boost memorability and intrinsic worth (Polak 2009, 65–79). More importantly, however, these unusual approaches to production remind designers that design does not solely consist of a finished product; the making of the product—down to the materials and methods used—are fundamental to the value of the object, so why have designers seemed to have forgotten that the medium helps to convey the importance of the subject?

Designer William Morris stressed process and production as fundamental value-formers of finished design. Though he rejected mechanical process, Morris aimed to make design universally accessible and beautiful without removing the role of a designer as the actual maker of an object. In a time where mass-production is common and expected, designers create a blueprint of sorts for a designed object and send it off to be made elsewhere. Sustainable designers suggest that reverting to more engaged consideration of the processes that directly influence the creation of a designed object may be the key to changing graphic designers’ rejection of sustainable design.

“Graphic designers are faced with a responsibility now, a responsibility to fully integrate environmental criteria into the design/production process. And the way to do this is to start rethinking how we approach production, to re-engage with the idea of making as part of our design process, to reconsider ourselves as producers, all the while setting the foundation for an environmentally responsible design future” (Gerber 2008b, 33).

Graphic designers tend to view sustainable design as a valiant effort at best (Montgomery 2014). A large obstacle in the way of widespread implementation of sustainable design is the common attitude amongst designers that sustainable design will not make a significant enough impact on the environment to warrant their care. Susan Szenasy, editor of *Metropolis Magazine*, elaborates upon the effects of designers’ apathetic approach to environmental harm.

“...I say that you—collectively, as graphic designers—are starting other fires, metaphorically speaking. You are responsible for helping to create 40% of North America’s solid waste; paper accounts for 81 million tons of waste annually, according to the Printers National Environmental Center. Furthermore, the pulp and paper industry is the third largest industrial buyer of elemental chlorine. Chlorine is used to whiten paper, a process which is linked to a proven cancer-causing chemical called dioxin...” (Szenasy 2003)

She discusses the misinformation amongst clients, consumers and designers alike; the public’s general conclusion is that graphic design has become more sustainable because it has inherently shifted toward more digital means of reproduction. This

misunderstanding is fortified by designers' refusal to confront the subject of their role in the sustainability movement.

### Practicality of Sustainable Design

Another large obstruction in the path of sustainability in designers' eyes is the issue of practicality. Graphic designers' median salary in the U.S.A. as of 2015 is forty to fifty thousand dollars a year. Companies hire on designers with few resources; designers free-lance for companies and individuals who commonly under-value the process and ideation that goes into designing. Because of dependence upon the client's cooperation, a designer must work around a budget as must any other profession; however, the overwhelming focus on green lifestyle leaves designers having to approach an already costly project further in debt because sustainable practice is simply expensive in the short-run.

Brian Dougherty encourages "designing backwards" to combat the issues that come with budgeting and costliness. This entails starting from the destination and reducing a project to its most meaningful and memorable state; from here, a designer may begin to implement more eco-friendly practices (Dougherty 2008, 48–101). This method allows the integrity of a project's impact to remain intact from the very beginning; it also gives room for designers to strategize approaches to the issues of sustainability in smaller, individual components. Dougherty has joined a handful of other designers in publishing guides to making their practice more eco-friendly, but—like most other resources on green graphic design—their material is just beginning to surface in the past three to five years and only slowly being adopted into school curriculums and everyday reading for designers.

More easily adopted are the efforts of type designers who tackle topics such as ink and paper waste. Because of the proliferation of web articles and shared links, designers can view and download more eco-friendly typefaces like Ecofont and Ryman Eco. Slimming down individual characters and reducing ink usage through a “Swiss cheese” design, Ecofont was not exactly popular amongst the design community because it seemed to disregard attractiveness in favor of sustainability. Ryman Eco is perhaps the more successful of the two because it doesn’t compromise aesthetics for functionality. The typeface scales nicely, remaining legible and beautiful at any size, and it is a variant of a serif typeface that is easier to read in print. Studies like those of the young teen encouraging the U.S. government to use Garamond instead of Times New Roman show micro-scale considerations of attributes like font-weight to ink usage (Stix 2014), though the teen’s findings disregard, yet again, basic design principles—like the differences of legible scale in a sans-serif typeface with a tall x-height (the distance between the line upon which the type sits and the top of a flat-topped lowercase letter such as “x”) versus a serif typeface with a relatively smaller x-height—a fatal flaw that forces designers to shy away from sustainable design or spend hours re-imagining solutions to these problems (Brownlee 2014).

Practicality extends to the consumer as well as the producer. Convenience for buyers can greatly affect purchasing decisions, and buyers are less likely to follow through with a complicated recycling process if it is cumbersome. They are even less likely to embark on a relationship with a well-designed, thoughtful package if it is unjustly—to them—expensive (*Eco Design* 1995). Though a designer cannot change the distance or utility of the nearest recycling facility, he or she can consider designing



packages to be multi-functional (Gibson et al. 2013, 12–16) or reusable, facets of sustainability.

Sustainable designers view design as a resource that should be accessible to all, and Polak argues that its adoption will bring the world together as brothers—because graphic designers’ major function is universal communication. Though this is a nice goal in words, designers William Morris and Massimo Vignelli (among others) had similar feelings on the neutrality and universality of design. Morris looked to nature as an equalizer and a guide for creating beautiful work that would be accepted by all. Vignelli was a proponent of Modernist design, using basic geometric form and flat color to communicate to a broad audience. The Modernist movement looked to sans-serif type as neutral text, flat blocks of color and photography as mutually understood throughout cultures. However, it is highly improbable, as seen through contemporary movements associated with either designer, to be ahistorical and disregard the attitudes and cultural inflections of societal standards. This truth further discourages designers from embracing sustainable design as it re-enforces that trends die, and designers must be constantly ahead of the curve.

### Where Does the Design Community Stand?

At least twelve colleges in the United States offer entire degree programs focused on sustainable graphic design. The courses under these curriculums include focus on sustainable packaging as well as concepts such as biomimicry, a movement defined as "the new science that studies nature's models and then imitates or takes inspiration from these designs and processes to solve human problems" (Davies 2014, 14). Even this small list of courses focuses on the impact of architectural design and what disciplines outside

of print design are doing to alleviate the pressure humans exert on the environment. This demonstrates a schism in design: graphic design simply does not talk about sustainability at length.

The vast majority of published books combining topics of graphic design and sustainability typically begin to surface around the years 2012 and 2013. Most of those are textbooks by designers such as Peter Fine and Wendy Jedlicka—which presents at the very least an initiative toward educating a young design population about tools and attitudes concerning sustainability. However, the adoption of sustainable design programs is slow and reluctant, unlike the adoption of gradually greener practice in the workplace. Without the constant pressures of social responsibility, designers do not sense motivation to move toward eco-friendly design. Is this because they simply do not see it as an issue?

## **RESEARCH**

### Methods

This research attempts to analyze and summarize the design community's response to sustainability in the last five years. For the purposes of this study, the terms “sustainable design,” “green design” and “eco-friendly design” are used interchangeably. Referencing popular journals that specifically target graphic designers, the research categorizes responses to sustainable design and/or sustainability as positive or negative through grounded theory coding (Strauss and Corbin, 273–284). The study focuses on two American print sources that target the graphic design community: *Communication Arts*, a magazine founded in 1959 by Richard Coyne and Robert Blanchard, which covers graphic design as well as advertising, photography and illustration; and *Print*, a bimonthly magazine founded in 1940, which comments on social, commercial and environmental design. These magazines were chosen because of their similar purposes,

methods of communication, general founding time periods and their target audience of designers.

Research considers key words from each line of data that indicate designers' feelings on sustainability. Coding indicates a separation between those feelings given by designers who either exclusively practice sustainable design or do not. This indication is simply to delineate the feelings of the general design community versus those who are dedicating themselves to the sustainable design subculture.

This study ascertains whether graphic designers' reluctance to adopt standards for sustainability stems mostly from their negative attitudes toward sustainable design. The print material targets the general design community, i.e. the part that is not necessarily dedicating their work to the sustainability movement. The magazines specifically target the graphic/ visual arts community and the articles have been published no earlier than January 2011; this measure keeps the data relevant and recent so as to gauge a response from the design community that is still helpful and accurate.

Research aims to consider a comprehensive list of articles from *Communication Arts* and *Print* that discuss sustainability. Data collection takes the form of one to three paragraph summaries—corresponding to article-length— that give a context and general summary for each sample article. Qualitatively coding for positive and/or negative phrasing line-by-line, research quantifies such responses and ultimately deduces the prevailing attitude toward sustainability in graphic design (Saldaña 2009).

Negative phrasing may include “limiting, ineffective, difficult, inefficient” as well as any apathetic attitudes, while positive phrasing would include the opposite: “freeing, responsible, efficient, clean.” Phil Hamlett encourages the design community to construct

a “basic checklist that directs the conversation back to the principles themselves” in response to integrating sustainability and graphic design. His article “Getting the Conversation Started with the Living Principles” in *Communication Arts* speaks victoriously and positively of green design. Positively coded words and phrases include “sustainable solutions, ideas and visions”, “the defining attributes of a vibrant culture is lively dialogue”, and “By creating the visions of the future to which we can all aspire, designers can create scenarios in which all other conversations revolve around their efforts” (Hamlett, 1). In contrast, *Communication Arts*’ Carolyn McCarron Sienicki writes “Are these efforts too little, too late? It can sometimes feel impossible to alter the course of the world’s destiny. The values are there, but enacting them seems to be another issue” in her article “Inch by Inch Making Sustainable Changes in Design” (Sienicki 2008, 4). These few lines are considered negative responses to sustainable design despite their acknowledgement of sustainability as valuable. Sienicki, perhaps inadvertently, pushes that sustainable design is nice, yet futile in effort.

Along with coding individual articles, this research includes a tally of the amount of articles from *Print* and *Communication Arts* since January 2011 that explicitly address sustainability. This number will serve as a ratio to determine how much exposure that issues of sustainability are getting as well as record any increases in interest toward the topic (Engward 2013).

In conclusion, this study attempts to assess a temperament from the American graphic design community toward the practice of sustainable design. The magazines *Print* and *Communication Arts* were chosen as a small sample of the graphic design community because of their similar agendas and audiences. Coding every article from

both bodies of work from January 2011 until January 2016, research aims to summarize attitudes toward sustainable design and determine whether its overall reception is more positive or negative. With this information, research attempts to support the hypothesis that negative responses to sustainable design prevent adoptions of its fundamentals across the graphic design community.

## Themes

During coding, several themes arose:

### **1. Sustainable design is noble, but impractical.**

Many designers agreed with the notion that sustainable design itself is a great cause and desirable effort; however, they noted that its application was not yet practical for their daily practice. This was typically coded as a negative response to sustainable design, as it contributes to overall pessimism within the field.

### **2. Graphic design can't save the world.**

Still many others argued that no level of effort or call to action would be significant enough to make true, monumental changes in the world. This was usually prefaced by a statement along the lines of the first theme and quickly followed by a swooping generalization that design is, in itself, too inconsequential to make a difference.

“Change the world? Design can't even change the design industry.” - Jennifer Daniel, Medium (featured in *Communication Arts*)

### **3. I didn't ever think about it because we're on the computer so much.**

There exists a common misconception that shifting most of one's work to the computer alleviates the environmental burden of a practice. Graphic designers' switch to computers has deposited more and more outdated hardware to landfills. This misconception causes

designers to remain content with their current carbon footprint, leading to a neutral—albeit ignorant—view on sustainable design.

#### **4. We work sustainably for companies who are sustainable.**

Many of the responses concerning packaging discussed brand/image building of companies who valued sustainability in their business practices. Designers chose to feature more eco-friendly practices in design solutions targeted toward these firms to fit their image. This theme illustrated a consideration of sustainability, but it also represents a dangerous theme in design: graphic designers are only using sustainable means when asked or when it directly relates to the prompt.

“This is the world’s first water-soluble annual report; it dissolves completely when it comes in contact with water. We created it for Long Point Waterfowl, an organization committed to reducing human impact on wetlands. After all, why would an organization dedicated to keeping garbage out of wetlands create something that could end up as garbage in wetlands?” *Communication Arts* September-October 2015, p 93.

This project serves as an example for said concerns. The designers suggest that the chosen medium is important because of the client’s background. Sustainability is an appropriate solution in this particular case because it is compatible with the brand image of the client’s business. This theme was the largest nuisance because although designers are practicing sustainable alternatives within these limitations, they are not doing so for the sake of the environment but for the sake of clarity between the brand and its audience.

#### **5. Sustainability limits design’s aesthetic.**

This popular view leads back to the title of this paper. Many designers claim that “foil stamping, die cut, thermal prints, technical folds and many other treatments [were] relegated to the back burner by environmental concern” (Anne Telford, reviewing *Print Matters*). Concerns for the environment call for lesser production quality and hinders the design process. The speaker laments the rise of environmental concern and its hindering more process-oriented production methods that require many test-runs and materials. Because the environment takes precedence, art suffers. This response received a negative code.

#### **6. Being sustainable is too hard.**

Commentaries sometimes included an anecdote averring the difficulty or inconvenience behind sustainable causes. These include a nod to sustainability, usually in the subjunctive sense, preceding a statement that challenges the ease of adoption toward said alternative.

#### **7. Design isn't sustainable, so I am making an effort to change that.**

Most of the designers who chose to be sustainable in their methods acknowledged that graphic design was blatantly lacking in environmental concern. These tended to be entrepreneurs, designers who were able to demand their own approach to work because they were their own bosses. They would dedicate their practice as a sustainable branch of design. In *Print* July 2015, an interviewer recorded:

“...Webb described Wanderite as ‘an eco-friendly, sweatshop-free screen-printing design studio that features my hand-drawn illustrations on responsibly made apparel using water-based inks and solvents.’ In addition to Webb’s running and creating wearable design for this ambitious business, we learned at

the time that she was also teaching others on her campus about how to start their own design business. ‘I’ve always known that I’d do my own thing as a designer and illustrator, so I made the decision from the beginning that I’d do it in the most responsible, sustainable, eco-conscious way possible,’ she said.”

#### **8. Designers have a negative approach to sustainability.**

Mat Hunter states in *Print Magazine*,

“The greater opportunity is to ask, ‘How can my discipline—whatever it is —help change the world in which we live for the better?’ If I’m an engineer, how can I work on clean tech? If I’m a financier, how might I explore carbon trading? Designers too often see sustainability as something driven by the sustainability police—a bunch of rules that I have to conform to that will constrain my creativity—as opposed to the spark, an opportunity, a catalyst, to use my creativity for much greater gain.”

He comments that designers tend to see a set of rules that limit the creative mind instead of a challenge to produce greater work. Much of the concerns with adopting sustainable design was simply the lack of education surrounding sustainable methods of production. Designers felt limited because they understood they could not use certain tools but were never given the knowledge to encounter a suitable substitute. This segues into the final theme.

#### **9. Designers do not know how to design sustainably.**

Another great obstacle to adopting sustainable design is that environmental concerns are so relatively new that many of the solutions designers actually muster are innovative, new and absent in any kind of curriculum that designers could adopt. Therefore, it is up to



individual designers to deduce ways to combat environmental terrorism while still retaining their styles. This is a challenge that most designers do not have the will or time to persevere.

### Comparing the Publications

*Communication Arts* is divided consistently as follows: a section covering the awarded artists for the previous month's contest; a section including one-to- two page articles on Advertising, Design Culture, Typography, Design Styles, Emerging Media, Business, Creativity, among other topics; and sections of pages filled with captioned illustrations that fall under very specific categories.

The *Communication Arts* publications between January 2011 and January 2016 contains an average of 189 pages. Between January 2011 and December 2011, there were four full articles—with articles ranging from one to three pages —and 26 outside mentions—averaging approximately one third of a page—of sustainable design or eco-friendly alternatives in action. In pages, this amounts to approximately 1.31% of print material covering sustainability.

Between January 2012 and December 2012, there were three full articles and 25 outside mentions of sustainable design or eco-friendly alternatives in action. In pages, this amounts to approximately 1.21% of print material covering sustainability. This year remains fairly consistent with the previous.

Between January 2013 and December 2013, there were three full articles and 28 outside mentions of sustainable design or eco-friendly alternatives in action. In pages, this amounts to approximately 1.25% of print material covering sustainability. Between January 2014 and December 2014, there were three full articles and 29 outside mentions

of sustainable design or eco-friendly alternatives in action. In pages, this amounts to approximately 1.32% of print material covering sustainability.

Between January 2015 and January 2016, there were four full articles and 32 outside mentions of sustainable design or eco-friendly alternatives in action. In pages, this amounts to approximately 1.47% of print material covering sustainability. In five years of publications, *Communication Arts* experienced a steady, though small increase in yearly discussion on sustainability. This trend conveys a growing interest amongst readers about sustainability. However, amidst the 70+ pages between January 2011 and January 2016 anent sustainability, 67.3% of coded discussion reflected a negative perspective on sustainable design, 9.3% represented a neutral, or undefinable attitude, and 23.3% equaled a positive response. This illustrates that increasing discussion may not necessarily equate to increasing concern.

*Communication Arts* does feature a section on environmental graphics toward the back of their publication. This section usually focuses on pieces whose message is to promote sustainability without actually being sustainable themselves. Research did not surmise whether the development of this section is recent or has been in place since the birth of the publication.

The analysis of *Print magazine* only covers bimonthly issues and disregards non-canonical supplements. *Print Magazine* features a tab on Sustainable Design and Social Responsibility on their website. In its “about me” section, *Print* boasts, “To fulfill its mission, *Print* focuses on a broad stroke of visual culture today, covering everything from publication design to interactive work, motion graphics, corporate branding, exhibitions, illustration and socially conscious design.”

*Print* is divided as follows: a section of ads in the front followed by several articles broken up by full-page photography. The publications between January 2011 and January 2016 average 99 pages.

Between January 2011 and December 2011, *Print* featured three full articles—with articles ranging from one to two pages—and nine outside mentions—averaging three-fourths of a page—of sustainable design or eco-friendly alternatives in action. In pages, this amounts to approximately 2.02% of print material covering sustainability.

Between January 2012 and December 2012, *Print* featured five full articles and thirteen outside mentions of sustainable design or eco-friendly alternatives in action. In pages, this amounts to approximately 3.03% of print material covering sustainability. In one year, *Print* denotes a 1% increase in exposure to sustainability.

Between January 2013 and December 2013, there were three full articles and sixteen outside mentions of sustainable design or eco-friendly alternatives in action. In pages, this amounts to approximately 2.52% of print material covering sustainability. This decrease in exposure precedes another growth. Between January 2014 and December 2014, there were six full articles and fourteen outside mentions of sustainable design or eco-friendly alternatives in action. In pages, this amounts to approximately 3.53% of print material covering sustainability. This is a full percent increase from the previous year and a half percent increase from 2012. Between January 2015 and January 2016, there were four full articles and twelve outside mentions of sustainable design or eco-friendly alternatives in action. In pages, this amounts to approximately 2.34% of print material covering sustainability.

In five years of publications, *Print Magazine* fluctuated in its exposure on sustainable design. By percentage, *Print* performs better than *Communication Arts* in regard to sustainability coverage; however, *Print* consistently features at least 90 less pages than *Communication Arts*. *Print* performed remarkably better in coding, per page. This is complicated to quantify because *Print* typically features less body copy than *Communication Arts* overall. Coding found that 16.7% of discussion reflected a negative perspective on sustainable design, 4.9% represented a neutral, or undefinable attitude, and 78.3% equaled a positive response.

*Print's* vast difference in attitude toward sustainability suggests that its audience is more enthusiastic toward the adoption of sustainable design. Therefore, it features more generally optimistic views on the subject matter. Also, *Print* features goals of sustainability throughout its mission statement, so the magazine does have a motive for keeping its social responsibility and attitudes positive.

## CONCLUSION

Despite the qualitative research methods employed in the mentioned study, one can clearly see that the absence of sustainability in the discussion in design throughout recent years of publication influences the public design sphere. If designers are not talking about environmental impacts, said designers do not find it a problem worth tackling. In both magazines' instances, less than 5% of yearly publication is dedicated to a trend that is endemic to any other field. This blatant ignoring of a societal shift coupled with mostly negative attitudes in a large, designer-targeted publication suggest that designers are late adopters of the sustainability movement and do not care about its adoption yet.

Publications such as *Print Magazine* dedicate a fragment of their mission statement to social responsibility. This adoption positively colors sustainable design positively, but delineation still exists, dividing sustainable design and graphic design as different fields. Unless designers are staking their claim as eco-friendly proponents, they are usually responding negatively to sustainability. For example, *Print* performs better than *Communication Arts* by ratio concerning articles on sustainable design, but it is a smaller publication aimed toward a broader designer audience. *Print* also maintains that they are committed to the environment in some respect and must write pieces accordingly to maintain this image.

Fortunately, there is a growing, albeit slow, acceptance of more sustainable practices in graphic design as demonstrated by the publications *Print* and *Communication Arts*. As sustainability trends, the graphic design sphere responds with products and solutions that sell, but overall attitudes toward sustainable design convey a dismissive outlook that confines it to an extremely specific set of solutions that is inferior to traditional graphic design. However, a small group of sustainable designers pioneer more eco-friendly ways to approach design, and their exposure in magazines is on the rise. With companies adopting efforts toward social responsibility, marketing, advertising and design must inevitably adopt strategies toward environmental consciousness.

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