The Environmental and Social Responsibilities of the Graphic Designer

Cynthia Phillips

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SAMy Anderson, Major Advisor

Committee Members:
Alden Cavanaugh
Fran Latanzio
SAMy Anderson
“Design creates culture. Culture shapes values. Values determine the future. Design is therefore responsible for the world we live in.” -Robert L. Peters

“Go Green”, “Reduce-Reuse-Recycle” these are terms and slogans that we have been hearing for years. But what do they really mean? Are we as a society becoming numb to the true meaning of this concept? Although our culture has made adjustments to the way that we view our environment, is it really enough? Society as a whole may be making attempts to be more environmentally active, however, most consumers have only considered what they are purchasing, not the amount they are purchasing. We are called consumers because that is what we do - consume, a lot. But what if what we continued to consume was actually good for the earth as well as the economy?

Most people would blame the corporate world and their desire to make a profit for this injustice. Although that may be true to an extent, we must view the issue a bit differently. Products are packaged within packages, sometimes multiple times. Is this because of the corporate greed or just bad design? It may be a bit of both, but ultimately it starts with design. There are many facets to this issue, certainly no one design, business, or concept is at fault. We as designers have the power to change over-consumption by really examining what we are designing and how we are designing it.

It has been the job of the designer to create the look that “sells” the products pushed in marketing. We glamorize them so that we are promoting a lifestyle that the buyer believes can be obtained just by purchasing the newest, hottest item. We have become a society focused on getting and spending. Americans are the leaders in this practice, and as a whole, we “rent 1.8 billion square feet of storage space outside our homes, and almost a third of Americans store an obese amount of extra mass on their bodies” (1). When 9/11 occurred, the government told Americans to “go shopping to
fight terrorism”. We are our own worst enemy, but how we begin to control this issue starts with the designer. “The new meaning of green is as much about doing the right thing for business as it is about doing the right thing for the planet” (10)

According to Do Good: How Designers Can Change the World, by David Berman, there are steps that we can take to help create better sustainable design practices.

1. Insist that every project starts with a written strategy, whose measurable objectives include a “triple bottom line.”

2. Choose designers who have made a public commitment to minimum standards of performance and social responsibility, and will keep you informed of what’s new.

3. Plan products that will be designed to last

4. Consider solutions that start with eco-friendly materials that reuse existing things, or that can result in things that can be reused or recycled.

5. Offset any unavoidable carbon footprint of your project.

6. If you can’t find a promise to make about your product that you’d feel comfortable making to your children or best friend, redesign your product.

7. Tell the world about your great process: lead by example, and take the credit you deserve.

8. Don’t just do good work, do good. (16)

I have personally chosen to follow these guidelines in my daily design ventures, starting with my thesis project. I believe that we can’t control how people spend, but we can control the packages that those items come in. Therefore, we can make better choices in packaging that will have direct impact on our environment.

One of the biggest areas of waste in our society is a direct result of gift giving. Every holiday, anniversary, graduation, birthday, baby shower, wedding, etc., results in a pile of waste that just gets added to our landfills. Enter wrapping paper. The gift-wrap industry now accounts for $2.6 billion annually in retail sales.
As much fun as wrapping paper can be, it is also a wasteful part of gift giving. As much as half of the 85 million tons of paper products Americans consume every year goes toward packaging, wrapping and decorating goods. Wrapping paper and shopping bags alone account for about 4 million tons of trash annually in the U.S. My goal is to help lessen that amount of waste.

What is sustainability?

By definition, sustainability is the capacity to maintain or endure. However, to help understand what sustainability means in everyday practice, it can be defined as: The balance and use of natural, social, and economic resources for the betterment of the planet and the continued growth and health of our environment for future generations.

Sustainability focuses on the management of consumption of resources. For humans, sustainability is the long-term maintenance of well-being. This maintenance has environmental, economic, and social dimensions. It encompasses the concept of union and an interdependent relationship and mutually responsible position with all living and non-living things on earth. This philosophical interpretation moves well beyond definitions driven by progress oriented economic perspectives that see humans as providing stewardship, the responsible management of resource use.
How does sustainability affect graphic design?

Eric Benson, assistant professor of Graphic Design at the University of Illinois is also the founder of re-nourish.com, an online site advocating awareness & action for sustainable systems thinking in the graphic design community. Benson says, “Because designers are both makers and consumers, our power to incite change is compelling. If we help to change the way our world is designed, it will allow for a better quality of life and a continuing viable economic future.”

As graphic designers, creating sustainable design is a choice we are faced with every day and is both simple and honorable in theory, but somewhat difficult to practice. Graphic designers have the potential to play a powerful role as change agents and market leaders, guiding sustainable design practices. At a meeting of the Wal-Mart Sustainable Value Networks, Wal-Mart CEO Lee Scott said: “A working family shouldn’t have to choose between a product they can afford and a sustainable product.” (12)

Things to Consider...

Sustainable Packaging Design

Set a more sustainable course for packaging by incorporating the following guidelines into your next project. Ideally, sustainable packaging should:

- Eliminate excess or unnecessary material.
- Be made as light as possible without sacrificing durability.
- Be made with nontoxic, renewable materials
- Be designed for intentional reuse, and for longevity.
- Be compostable or recyclable. (6)
Sustainable Print Design

- Reduce the amount of paper and other materials used overall by designing smaller pieces.
- Reduce wasted paper and other materials through clear decision-making during production.
- Aim for 100% post-consumer waste (PCW) recycled content paper.
- Use vegetable-based, low Volatile Organic Compound inks.
- Avoid additives or excess finishing like foil stamps, varnishes, and laminates.
- Design the piece for extended use, or intentional reuse.
- Include verifiable information about the environmentally aware aspects of the piece. (6)

PAPER: Paper production/recycled paper

The paper manufacturing industry is the world’s third largest consumer of fossil fuels. As graphic designers, we use a lot of paper. Half of the paper America consumes is used to wrap and decorate consumer products. (14) Nearly half of the trees cut in North America go to papermaking (8). According to Wood Wise Magazine’s “Green America”, an area the size of 20 football fields is lost every minute to paper production (9). More than 95% of all magazine paper is made from virgin tree fiber requiring hundreds of dangerous chemicals and threatening both forests and the health of communities. Every second one tree is logged to produce magazine paper—about 31 million trees each year (9).

Although the raw material for making paper is predominantly trees, it is a common misconception that recycling waste paper saves trees. Trees are grown for commercial use and harvested as a long-term crop with new trees planted to replace those cut down. Nearly all newly made paper is made from wood grown in these "sustainable" forests.

As the demand for paper has increased, more timber has been needed to meet the demand for wood pulp. In some cases this has meant the loss of valuable wildlife
habitats and ecosystems, as managed plantations, have replaced old forests. The lack of tree species diversity in managed forests has a direct impact on the biodiversity of the whole forest.

By using waste paper to produce new paper, disposal problems are reduced. Recycled paper produces fewer polluting emissions to air (95% of air pollution) and water. Recycled paper is not usually re-bleached and where it is, oxygen rather than chlorine is usually used. This reduces the amount of dioxins that are released into the environment as a by-product of the chlorine bleaching processes. Paper is a biodegradable material. This means that when it goes to landfill, as it rots, it produces methane, which is a potent greenhouse gas (20 times more potent than carbon dioxide). It is becoming increasingly accepted that global warming is a reality, and that methane and carbon dioxide emissions have to be reduced to lessen its effects.

Once designers learn what is involved in making paper, they can start looking for more sustainably viable options. Some things to look for when considering what paper you want to use in order to design sustainably:

• Look for paper made from non-wood sources when feasible
• A minimum of 50% post-consumer waste (PCW) content.
• Processed chlorine free (PCF).
• Uncoated.
• Certified Ancient Forest Friendly Certified by the Forest Stewardship Council (FSC).
• Manufactured using renewable energy (15)
Ink: Biodegradable/non-toxic

Even though there have been many innovations in ink reformulation over the last 20 years, sustainability efforts in the ink industry are still behind other industries in many ways.

There are now environmentally friendly inks on the market such as water-based ink and those made from renewable and bio-derived raw materials (10). The biggest advancement that has been made is that North American manufacturers no longer produce ink with heavy metals. This “toxic ink” was harmful to the environment, manufacturer employees, and consumers. Solvent, eco-solvent, and UV inks are all gaining in popularity as well.

Still, each year, commercial ink manufacturers and printing presses use millions of pounds of chemical ingredients that find their way into the environment. (11)

Recycling /Recycled

The importance of using materials that can be recycled:

•! Recycling saves 3 to 5 times the energy generated by waste-to-energy plants, even without counting the wasted energy in the burned material.

•! Making a ton of paper from recycled paper saves up to 17 trees and uses 50 percent less water than does creating paper from virgin pulp (13)

•! In 2007, about 360 pounds of paper were recycled for each person in the U.S.

•! For every ton of paper used for recycling the savings are at least 30,000 liters of water, 3000–4000 KWh electricity; this is enough to power an average 3-bedroom house for one year. (14)
The Project

“Think Twice” is a thesis project that explores how the concern of sustainability can be integrated into the graphic designer’s everyday work, specifically in the field of packaging and design that relates to gift giving.

This thesis project summary outlined the challenges faced by the individual graphic designer trying to create sustainably. The thesis suggests that each individual designer can have a positive impact approach and act as a catalyst for greater change towards sustainability.

Project Objective

To establish a company that would design and produce a line of sustainable gift packaging. This company is:

2Birds
Eco-friendly Designs

Within this company, I created a brand line that focused on sustainable packaging and eco-friendly design. The brand’s focus was to create a series of packages using sustainable materials suitable for gift giving, as well as reusable/recyclable/biodegradable wrapping paper. This brand became:
Process:

In order to create the various lines of packages, I had to start with creating patterns that could be manipulated on various package templates and on wrapping paper. After creating various patterns, I narrowed them down to seven and then applied them to package templates.

I intentionally created a wide-ranging group of patterns in order to target a diverse group of consumers. The package templates were chosen to be such that the boxes, envelopes, and bags would be unique but also that they would be reusable, keeping in line with my sustainable practices image for the company and product line created.

Once all of the patterns and templates were established, I printed on a large format HP design jet Z6100, using HP Budget Heavy Poster Paper – Recycled and Biodegradable 24”x150’ roll. (The paper was ordered through The Wide Format Company and will last up to a year if kept out of direct sunlight.) After printing, each template was then attached to a non-coated poster board for better stability. The packages were then hand cut, scored and glued together.

Some packages included accessories such as ribbon, which is 100% recycled cotton & biodegradable and was purchased from a company called Cream City Ribbon. Others had recycled cotton buttons, which are composed of recycled cotton fibers. Sustainable gift tags were also created using recycled labels with the “Think Twice” logo on it and the biodegradable ribbon. All packages include the “2 Birds Design” label as well as the “Think Twice” logo.
As a part of this process, I created informational boards to hang with the project display to better the understanding of the average person for the reasons behind the need for sustainable packaging and design. Smaller boards that were placed on pedestals were printed on recycled cardstock. The larger informational boards that hung from the ceiling were printed on the same paper as the packages and attached to BIOfoam, a biodegradable foam core.

In order to reinforce to the audience and the consumer that recycled, biodegradable, and sustainable practices are fast becoming the norm, I set up my final project display as a finished product by including gifts within my packages that were eco friendly. These gifts covered all aspects of the consumer spectrum, from dog toys, to clothing, accessories and shoes, to stationary and writing instruments.

The finished project was successful at showing that an entire product line of gift packaging can be made using recycled/recyclable and biodegradable materials with sustainable design as the ultimate goal.
Summary

“Graphic design is a wasteful business.” - Sophie Thomas

Sustainability is associated with everything we consume and make. It is part of every aspect of print and media design; from the paper we print on, to the energy used to generate the electricity to power our machines and studios (15).

So much of what graphic designers produce in the form of printed material is actually thrown away, and today there is a growing awareness of the direct correlation between waste, diminishing resources and climate change. As a graphic designer, I feel that I must ask myself about my roles and responsibilities towards society as an individual, as well as a graphic designer for the world community.

The goal of sustainable design is merely a stepping-stone towards more permanent eco solutions. The ultimate goal of an eco conscious designer is to minimize their environmental footprint with their final product. It is our job to design a better future.
Resources

1. The Living Principles  
   http://www.livingprinciples.org/


5. Sustainable Design: Waste the Rainbow  
   http://www.livingprinciples.org/sustainable-design-waste-the-rainbow/

6. Sustainable Minds-Design Greener Products Right, From the Start  
   www.sustainableminds.com

7. Dan Lockton’s Design with Intent Toolkit  
   http://www.danlockton.com/dwi/Main_Page

8. Printers National Environmental Assistance Center Fact Sheet. “How to Read and Use an MSDS die Environmental Purposes”.  
   www.pneac.org/sheets/all/msds.cfm

   http://www.greenamerica.org/programs/woodwise/consumers/whatyoucando/wwmags.cfm


11. The State of Ink: Insiders Perspectives on Large Format Inks. Digital Output  
   http://www.digitaloutput.net/content/ContentCT.asp?P=2039

12. Sustainable Packaging Coalition, “Definitia of Sustainable Packaging”  
   www.sustainablepackaging.org


15. www.Re-nourish.com