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Environmental design for the real world

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Northern Illinois University
Environmental Design for the Real World
A Thesis Submitted to the
University Honors Program
In Partial Fulfillment of the
Requirements of the Baccalaureate Degree
With University Honors
Department of Art
By
Kari Maass
DeKalb, IL
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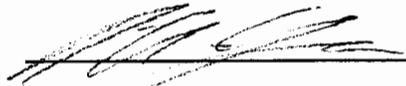
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Honors Thesis Abstract

Our environment could be saved if the public began to take responsibility for their actions. The purpose of this project was to design a campaign to start a movement towards environmentalism. I researched products that were environmentally safe because they conserved resources like energy and water, or were non-toxic and I researched effective in store marketing techniques. Finally, I designed packaging to go on these products to inform the public about their benefits and set them apart from their competitors. I also designed in store signage to inform the public about other actions they could take. Photographs of the finished product labels and signage are included.

HONORS THESIS ABSTRACT
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ABSTRACT (100 - 200 WORDS):

Environmental Design for the Real World

The first time I heard about earth day, I was in the fourth grade. My school had a booth at the Earth day fair at the local high school and my class started a compost bin with our lunch scraps. I remember thinking that saving the earth was so simple; all you had to do was let the worms do the work. Since then my views on the environment have changed considerably and I've learned that there is a hole in the ozone that worms are not going to fix. I've learned that most people don't compost their food scraps, and that landfills all over the country are overflowing. I've learned that the polar ice caps are melting, that air quality is getting worse, that people are burning the rain forests and that most people don't care enough to do anything about any of this but it is too big for the environmentalists to solve on their own. Fortunately, these problems may be solvable if a majority of the population was doing their part.

The average citizen probably wouldn't attach solar panels to the roof of their house or live entirely off wind or waterpower or build reservoirs to collect rain water to be purified for use inside the home. All of these environmental solutions are too extreme for most people to do. On the other hand, the average person might recycle or take a shorter shower or turn down the heat in their home.

Why could the average person be convinced to do some environmental tasks while not even considering others? The difference between the tasks on the lists is simple. The first list costs a lot of money in the initial stages (although these solutions would save the consumer a considerable amount of money over time) or are difficult to implement because the consumer would have to change their routine. The second list is much simpler; the tasks can easily be adapted into a normal routine and save the

consumer money right away. In the long run, getting a million people to start conserving water in small ways saves much more water than getting several people to collect rainwater anyway.

Goal:

To start a mass environmental movement by informing consumers about environmentally safe versions of products they already use. It will be the first step in a greater movement: if large numbers of consumers can be convinced to pay attention to the environment on the small scale hopefully they will begin to think about environmental issues on the large scale. For example: if a consumer starts to check for environmental safety in the small products they buy hopefully they will think twice before they buy a Hummer for their next car. The solution would have to be very simple, reach consumers in a familiar place where they already go, cost effective, and environmentally sound (it should hurt the environment to save it).

One familiar place where consumers have to go is the grocery store. Most American's will go to the grocery store this week. They will shop for food, cosmetic, cleaners, medications, etc. They will buy the one that they always use or the one that is on sale or perhaps a new product they just wanted to try. They probably will not check to see whether these items are safe for the environment, they probably aren't even thinking about the environment, they're just trying to decide which detergent cleans the best. Currently, environmental solutions are hiding on the shelves of these stores, overlooked because of slightly higher prices while, "The average household contains between three and ten gallons of materials that are hazardous to human health or to the natural environment" (Sewerage and Water Board). Most consumers will not take the time to

figure out why these products are more expensive, instead they will grab the cheaper product that kills marine wildlife and hurry out of the aisle.

Target Audience:

Males and Females, 18 to 50. I know this is a huge market area but everyone goes to the grocery store. The group starts at 18 because this is when most Americans will leave for college and start buying their own groceries. The younger end of the spectrum has grown up with earth day and is more aware of environmental issues, so they may be easier to convince, however they are tighter on cash. It ends at 50 because after this point the consumer is probably so set in their ways that they will be incredibly difficult to convince and after that point their family size begins to decrease and they are buying less and less groceries.

Ideas:

1. Make a website with tips on being more environmentally safe. It should be very informative while still being visually stimulating. While this idea might be good on some levels it has issues in that the consumer would have to be searching for environmentally friendly solutions to get to the website. Also, the type of people who would be searching for environmental solutions do not fit in my target audience. They are generally school age children looking for information for projects or a niche group of environmentally interested people who would already be thinking about environmental solutions and probably attaching solar panels to their homes. Neither of these groups hold massive buying power so this solution is probably not the best one.

2. Make a kiosk in the store that gives customers a simple quiz and then informs them about which environmental options would work well within their current lifestyle. Although this idea gets closer to the consumer than the website did by entering a space that the consumer is already familiar with, it does not meet the person. The customer still needs to be interested in environmental issues to use the program. Also most shoppers won't want to spend their time at a kiosk. This idea might work slightly better if there was an incentive offered, like a coupon, for customers who used the kiosk but there is still probably a better way to get people informed and interested.
3. Make an in store display that has details about environmentally safe products and an array of these products. While this gets closer to the public than the website or the kiosk, it won't necessarily draw new customers because the display would only contain environmental products. It seems that it would be easier to get a consumer to buy environmentally safe Windex if they were already planning on buying Windex and were informed about a safer version when they saw it on the shelf. Also, with so many in store displays, most people do not notice them anymore; they just blend in with the visual noise.

Solution:

Make environmental products more visible on the shelves of these stores. This will make it possible to change the mind of the consumer who was going into the store to buy a specific product. Most shoppers who go into grocery stores, go into them with a list (Underhill). Placing comparable environmental products next to their unsafe peers and drawing attention to the environmental products with special labels could potentially

convince consumers to purchase the safer product. When they become aware of the products and notice the tiny price difference, the consumer will realize that they can afford to save the environment. This solution solves the problems that were inherent in the previous ideas because the average person would come into contact with these labels, it wouldn't be very time consuming for the consumer, and it place the products next to ones that fulfill the same tasks. Also, in store signage would be used to further raise awareness.

Execution:

For the month of April leading up to Earth day, stores would be sent promotional materials to put on environmentally friendly products. The labels would be made out of 100% recycled paper and adhered to the products without the use of glue. The labels would be very modern and clean looking to avoid references to hippies and tree huggers since the average American does not belong to either group. The promotional materials would also include advertisements for inside the carts because most consumers will come into contact with carts during their shopping experience and signs for above the registers with information about other ways to help save the earth. The signs will hang above the registers because this is when shoppers are most interested, according to Paco Underhill in Why We Buy, "Customers perceive waiting time to be much shorter if there are signs to read. . . In fact smart retailer view waiting time as a kind of intangible asset, it's one of the few opportunities when you have your customers standing in one spot, facing one direction, with nothing much else to do" (192). He was talking about signage as a way to keep customers from getting angry but the point is clear, people will read while they are in line.

The next step was to decide which products deserved the extra attention. Some products, like paper plates, which are safer than Styrofoam, are in the long run not environmentally sound because using ceramic plates and washing them is more environmentally safe, so paper plates would not receive the special packaging. Also, some products are environmentally safe simply because they can be used. Nalgene bottles fall into this category because although they do help the environment by getting people to stop throwing away disposable bottles they don't really do anything for the environment so they wouldn't get the packaging either. The products that would get the extra packaging would save the consumer from some danger that is inherent in the original product or conserve a natural resource, such as energy or water.

The products:

Compact Fluorescent Bulbs: One of the simplest things that anyone could do to save energy is to change their light bulbs. According to The Student Environment Action Guide, "A normal incandescent bulb is extremely inefficient; 90% of the electricity it consumes becomes heat; only 10% is used for light" (SEAC 24). Compact fluorescent light bulbs (CFL) use 66% less energy than a standard incandescent. Although they cost more money initially, replacing a 100 watt incandescent bulb with a 32 watt CFL will save the consumer at least \$30.00 over the life of the bulb. CFL's also use less watts for the same light output. While halogen bulbs offer similar benefits because they are also more energy efficient than incandescent bulbs they are very dangerous because they heat up to around 1,000 degrees Fahrenheit and often cause fires. CFL's are cool to the touch even when lit. Also CFL's reduce pollution, "If every household in America replaced one regular bulb in their home with a CFL, "it would prevent enough pollution to equal

removing one million cars from the road.” (Energy Star/ CFL). Also “fluorescents last longer in general than incandescents, so you don’t need to buy and replace them as often.” (Westerman 100). Saving energy by changing light bulbs is so simple that the only time consumers would have to think about ecology is when they were in the store.

Cold Water Detergent; Another simple way to save energy is by washing clothing in cold water. Traditionally cold water was thought to clean clothes more poorly than warm water. With new products on the market made specifically for cold water washing, this is no longer the case. The main benefit of washing clothes in cold water is that it saves a energy, “On average, the thermal energy required to heat water using either gas or electric energy constitutes 80–85% of the total energy consumed per wash in conventional, vertical-axis (top-loading) washing machines” (Petkewich) Also, washing clothes in full loads can help conserve energy because washing machines are most efficient when they are full, also clothing will be cleaner when washed in a full load because it increase friction (Energy Star/ Washers).

Water Based Paint Thinner: Ordinary paint thinner can cause headaches, drowsiness, brain damage, impaired motor response, hearing loss, reduced muscle tone and strength, bone marrow damage, liver damage, kidney damage, chemical intoxication and blurred vision when inhaled, and dermatitis when touched (Van Horn). It is also a carcinogen. Besides the dangers it causes for humans, it is very toxic to aquatic and terrestrial animals and reacts with the upper ozone layer. Water based paint thinners are not considered to be environmental hazards, so they are easy to dispose. They also don’t have the fumes associated with regular paint thinner while still doing the same task as a regular paint thinner.

Ammonia Free Windex: Ammonia is a common ingredient in household window cleaners. In small quantities, it does not cause problems in humans because of an adaptation in the body that disposes of it but, “in larger quantities, such as those found in household cleaners, ammonia fumes can pose an immediate hazard to the lungs and skin. Ammonia can cause even greater damage if it is mixed with chlorine bleach (or cleaners containing bleach). This mixture forms highly poisonous chloramine gas that cause coughing, choking and lung damage”(CHEC’s HealtheHouse). Ammonia-Free Windex replaces ammonia with non-toxic vinegar which is safer for everyone and still completes the same task.

Home Air Filters: Indoor air is often shown to be 25 to 100 times more polluted than outdoor air and consistently ranked in the top five environmental risks to public health by the EPA. It has been linked to an increase in asthma attacks and has been known to cause allergies in humans. Changing your indoor air filter can greatly reduce indoor air pollution as it removes many allergens from the air.

Zero VOC Paint: VOC’s are volatile organic compounds, they are found in most paints and stains. VOC’s are what give paint its smell and a form of indoor air pollution that can stay in the air for up to seven years after the room was painted. Zero VOC paints do not contain VOC’s, they are water based and work as effectively as regular paint. Due to their water-based nature, they are not dangerous to the environment, contain no ozone depleting chemicals and are easy to dispose of because they are not labeled as hazardous waste. They also don’t require dangerous paint thinners for clean up and are able to be cleaned up with soap and water (Earth Easy).

Insecticidal Soap: Insecticidal Soap kills insects by drying out their exoskeleton instead of poisoning them like traditional insecticides. This means that the product contains only fatty acids instead of poisons and is safer for humans and the environment (Insecticidal Soaps).

Organic Baby Food: Residues left on food from chemical pesticides have been shown to cause some forms of cancer. The risks associated with genetically altered vegetables are still unknown but the dangers fully outweigh the benefits. Organic food does not contain genetically modified vegetables or pesticides and is safer for everyone.

DEET-free Insect repellent: DEET is a dangerous chemical found in most insect repellents. Although it is effective in keeping bugs away, with heavy exposure humans can experience memory loss, fatigue, tremors, headache, weakness, muscle pain and joint pain (ETHANS). Also, these symptoms might not be evident right away. Months or years after the exposure, the symptoms can begin to occur, as they did for many soldiers following the first Gulf War. DEET-free insect repellent keeps consumers safe from the dangers of insects (West Nile Virus, Malaria, etc.) while keeping them safe from the harmful effects of DEET as well.

Native Plants: Few people would disagree with the fact that trees and other plants help the environment. They help diminish global warming, exchange carbon dioxide for oxygen, and shade buildings to encourage cooling (Steger 242). However, planting native plants instead of exotics can have even more benefits. By planting native plants you preserve the ecosystem for the area and help promote wildlife. Also, native plants take less fertilizer, water, and effort to grow because they have already adapted to your areas

climate (Earth Works 58). Overall, you can conserve water, natural habitats and time by planting native plants over exotics.

Conclusion: These ten items are helping the environment by reducing pollutants and saving energy. This campaign would be the first step to further the use of these products, while helping reduce to use of toxic and energy wasting products. Hopefully, bigger environmental ideas would grow from this small step. Instead of being labeled for just the month of April, manufacturers would begin to broadcast their products environmental safety year-round. Also, in the future, consumers would begin to think about how their lifestyles effect the environment. The sooner we start to take action for the environment the better its fate will become.

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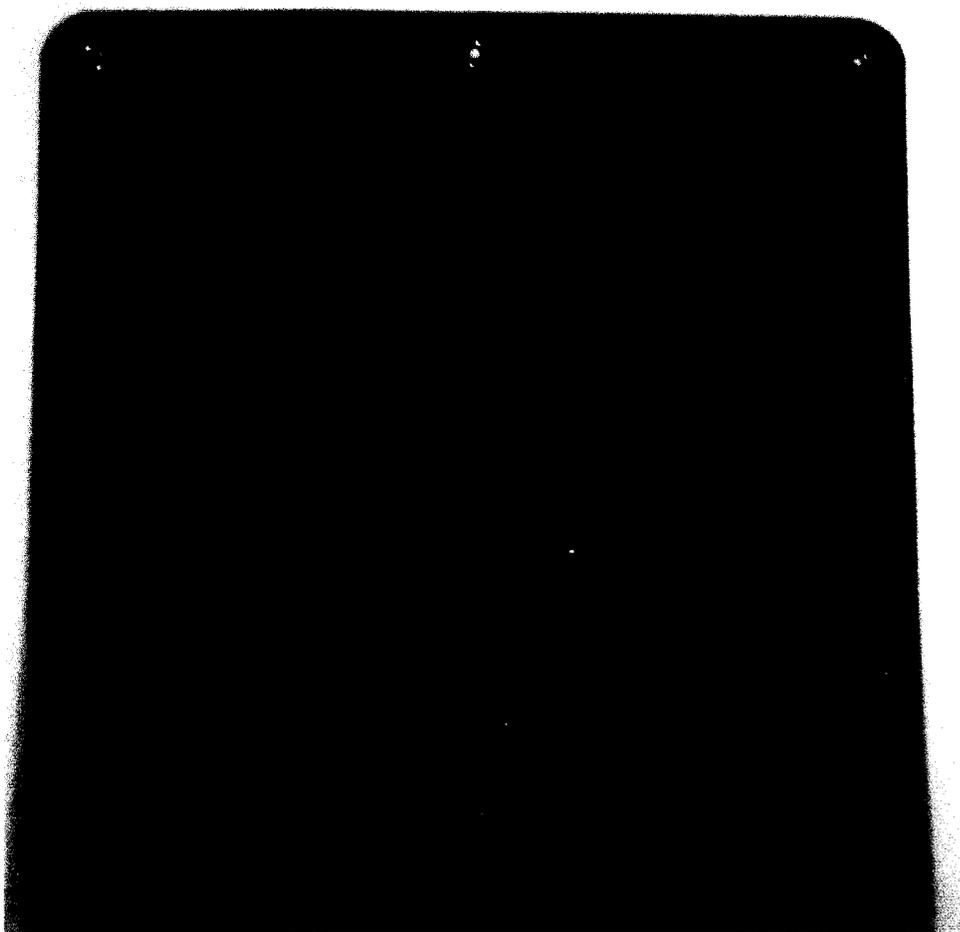
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the entire line of earthday products, with their packaging



in store signage