

# Environmentally Friendly Design: Ethnographic Research for ECOMOTO

A Report for Motorola  
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ANTH 4610/5610 Design Anthropology, University of North Texas  
Professor Christina Wasson

Class Members: Debra Anderson, Laura Easterling, Charlotte Gleason, Diana Harrelson, Gary Howerton, April Kelly, Matt Lamb, Andrea McCoy, Kelly Moran, Shay Olivarria, Michael Tribble, Mick Weldon, Simo Zolfagharian



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# 1. *The Project by Christina Wasson*



## The Project

This research was conducted for Motorola's ECOMOTO group by a class in design anthropology at the University of North Texas. Our clients were Bill Olson, Fellow of the Technical Staff & Director, International and Environmental Research and Development, Motorola Labs, and Crysta Metcalf, Senior Staff Research Scientist/Anthropologist, Motorola Labs.

ECOMOTO is in the process of developing cellphones that will be targeted at "green" consumers. This has already been shown to be a rapidly growing market for other products. Although Bill Olson's group has extensive technical expertise in how to create more environmentally friendly cellphones, they were interested in obtaining ethnographic information about the potential audience for ECOMOTO.

Our project was therefore exploratory in nature. It was designed to elicit new ideas for ecologically friendly Motorola products, ideas that would appeal to the hearts and minds of "green" consumers. We investigated what motivates people to purchase "green" products, the relationship between features of "green" products and consumer self-representation, and what makes a product "green" in the eyes of the consumer. Are consumers purchasing "green" products because they are environmentally conscious, health conscious, aesthetically conscious, or some combination of these and other kinds of sensibilities? How do they use "green" products to represent themselves to others? What makes people purchase a "green" product and not another product? Answers to these questions can then be used to brainstorm innovations in the design and development of ECOMOTO products.

The project involved a partnership between Crysta Metcalf, who developed the initial research design, and myself, the teacher of a course in design anthropology.

Findings were presented to Motorola in two forms: through this report, and through a verbal presentation.

## The Research

Our study involved research with thirteen "green" consumers in the Dallas/Fort Worth metroplex. We gave study participants a disposable camera and instructions to take pictures of all the products in their homes that they consider "green." Then, we conducted in-depth interviews with the study participants, lasting about 2½ hours. They were video and audio taped for analysis purposes. The students conducted fieldwork in pairs.

The class shared their interview experiences with each other by showing video clips from the interviews, and circulating fieldnotes. Much of the analysis process was done in class, as a group. We followed a trajectory of identifying instances, patterns, and then models; in other words, our analysis was bottom-up or inductive. The patterns and models we identified then resulted in design implications for ECOMOTO.

Toward the end of the semester, students developed a list of topics that should be included in the final report. Then they each chose a topic to write about. They carefully reviewed the fieldnotes from all thirteen interviews in order to describe their topic in a detailed and balanced way. One of the students, Michael Tribble, designed the PowerPoint slides for the verbal presentation instead of writing a report chapter.

## Organization of Report

The two chapters that follow present the overall framework we developed to understand the ethnographic information we collected.

Then, chapters 4 through 8 present specific themes and their design implications. The design implications are always described at the ends of the chapters, and are organized into these four categories:

- Product
- Packaging and labels
- Production
- Marketing and advertising

Finally, chapter 9 provides quantitative information about our findings as a concluding summary.

## 2. *Active versus Passive Environmental Activities by Simo Zolfagharian*



### Our Framework: Active versus Passive Activities

In the course of our research, we found that environmentally concerned people varied greatly in the level of their commitment to environmentally friendly activities. We conceptualized this as a continuum from passive to active behaviors. At one end were activities that were convenient and opportunistic, for instance throwing a soda can in a recycling bin that was already placed in the environment. At the other end were activities that required significant initiative and conscious effort, for example driving some distance to deposit items at a recycling center.

Of course, technically no activity can be completely passive; it always involves some degree of action. So what we are terming “passive” is more precisely an activity that is “minimally active.”

It’s also important to note that we did not categorize *people* as passive or active, but rather their *activities*, because often one person displayed a mix of passive and active behaviors. At the same time, there were some people who mainly engaged in passive behaviors, and others who engaged in active environmental practices in most areas of their life. But our research also included a number of people who seemed to fall in the middle, displaying a more complicated mix of passive and active behaviors.

### Our Visual Model

We have visually represented the active versus passive continuum as a radial image or series of concentric circles. The most passive behaviors are located in the middle of the circle. As one moves out from the center, the behaviors become more and more active. The model is presented in Figure 1. The three rings of the circle represent

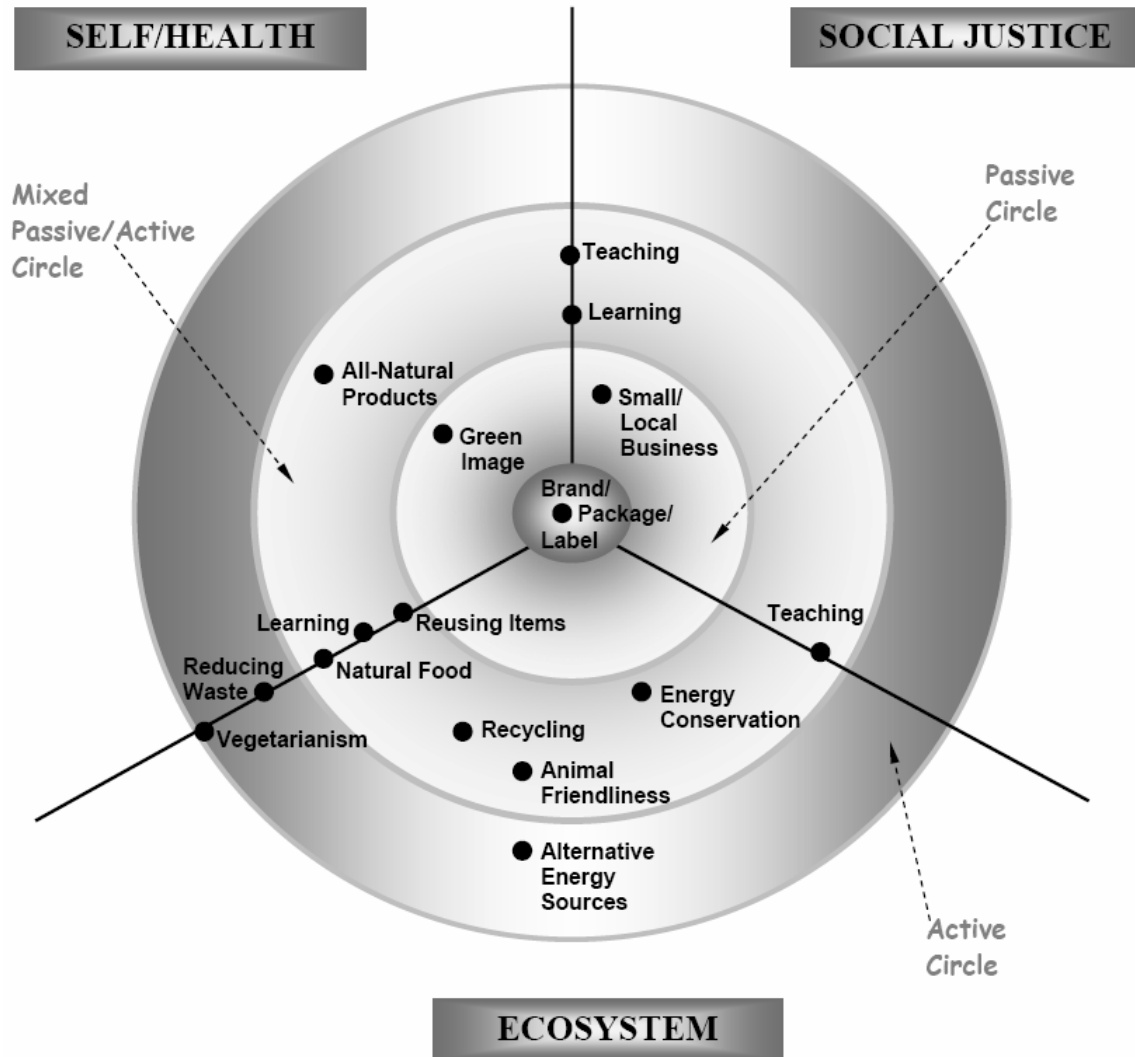
- Passive behaviors
- Mixed passive/active behaviors
- Active behaviors

In addition, the model also illustrates the reasons that people have for engaging in green activities. We found that these reasons fell into three overall categories:

- Concern for social justice
- Concern for the ecosystem
- Concern for self or a loved one (including pets)

These categories are represented in the model by the three pie-shaped wedges that the circle is divided into.

Figure 1. Our Visual Model.



The dots on the diagram refer to particular green activities. The placement of each dot shows how passive or active the activities are, and what kinds of reasons people have for engaging in them. In practice, we found that people often have multiple, overlapping reasons for their behavior. Therefore, many of the dots are placed on the boundary lines between different types of concerns.

The model is dynamic, in the sense that over time, people may move outward along the passive-active continuum with regard to their environmental activities. Often, the



changes in their behavior are triggered by particular catalysts. Chapter 3 describes the catalysts that we found in our research.

## Activities in the Passive Circle

Almost all of our study participants engaged in passive activities. Compared to other green behaviors, passive activities are convenient and palpable. They require little effort. As stated previously, what we are calling “passive” activities are more precisely activities that are “minimally active,” in other words, they require the least amount of effort and inconvenience.

### 1. Basing Purchase Decisions on Package and Label Claims

Many of the study participants do not appear strongly loyal to brand names. Instead, they tend to base their purchase decisions more on the advertising claims found on labels and packaging. They are attracted to claims in areas such as vegetarian foods, organic foods, environmental friendliness, social friendliness, pet friendliness, and recycling. For example, Cat Woman is drawn to the energy-star seal because she believes “energy-star products are so consciously designed that they consume less energy in providing the same function as other competing brands and models.”

At the same time, some study participants are very loyal to brand names. Lady Bug and Shamrock, for example, are loyal to Aussie hair products because these products enjoy high quality in addition to environmental friendliness. In making their purchase decisions, they simply look for the Aussie brand label.

The reasons for these purchase decisions may fall into any of the three categories identified in our visual model. Sometimes the consumer’s purchase decisions come from his/her concern for him/herself or for a loved one. For instance, Rudy compares vegetarian burgers based on the number of calories and fat that they contain because she closely watches her weight.

Secondly, the consumer may be driven by his/her concern for the ecosystem including plants and animals. For example, Deco inspects product packages primarily to ensure that they are “recyclable.”

Thirdly, the consumer may be motivated by his/her concern for social justice. More specifically, several informants consciously look for evidence on the package of products to ensure that they are produced and/or marketed in a socially friendly manner (i.e., the workers involved are not exploited and the marketer is not a large organization representing “Corporate America”). For instance, Auckland stopped wearing his Converse shoes because they were made in sweatshops.

Finally, the consumer may be motivated by a combination of self-centered and ecosystem-related concerns. Our interviews provide abundant instances of such combinations. For instance, Rudy's choice of an energy-star house is driven by her desire to save on utility bills as well as by her intention to help reduce energy consumption, which ultimately translates into less pressure on the ecosystem.

Chapter 8 provides more information about how people shop for products from an environmentally friendly perspective.

## 2. Choosing to Purchase from Small/Local Businesses

As Chapter 8 describes in more detail, our study participants unequivocally blame large firms for restraining society on its quest towards a green life on Earth. These firms are referred to as "corporate demons" (Lady Bug). Small and/or local firms, on the other hand, are always given sympathy and supported. These firms are seen as "more responsible" businesses (Bryn Mawr), "people just trying to make a living" (Cleo), suppliers that "put more time and effort into making sure everything's done properly [and that...offer] off-brand, all natural, neat products" (Lady Bug), at "fair prices" (Shamrock).

Therefore, it is an easy decision for many environmentally conscious people to purchase items from local producers rather than multinationals, given a choice.

Both social justice and ecosystem concerns were voiced as reasons for avoiding products from multinational firms. In terms of social justice, the interviews reveal that these consumers posit cause-and-effect relations between large businesses and the many daunting problems our society faces today. Problems such as wealth and income gaps, workforce exploitation, bad working conditions, and corruption and waste at different layers of corporate management justify green consumers' crusade against "corporate demons." Auckland, Cat Woman, and Traveler, among others, are dissatisfied with the ways large firms treat their employees and Jade turns her back to large firms for "economic and social responsibility factors." In addition, two study participants touched on the adverse impact that large firms have on the natural environment.

## 3. Displaying a Green Image

As Chapter 4 describes in more detail, our research revealed a tendency for people to display a green self-image. Verbal communication in one's social network is one way of conveying a green image. Cat Woman's conversations with others, for example, sometimes revolve around her non-toxic cosmetics, all-natural pet products, and hybrid car. Jade finds a nostalgic value in her use of cloth diapers, reminding her of her parents and grandparents. She gets comments all the time, especially from older people. According to her, "Others often wish they could use cloth diapers, too."

People display their environmentally concerned identity in other ways as well. Rudy objects to animal cruelty and non-vegetarian diet by wearing activist tee-shirts, promotes the adoption of rescued animals by sticking magnets on her car, and participates in organized advocacies on the Internet. One of her tee-shirts shows a cute baby pig and reads, “No, I don’t have a spare rib.” Traveler persistently tries to promote herself as an expert in green ways of living.

For all of these activities, the primary motivation is centered on the self. As South Park said, “my concern for the environment is about ME.”

## Activities in the Mixed Passive/Active Circle

Activities in the second circle are a mix of passive and active behaviors.

### 4. Teaching

Teaching others about environmental issues occurs in both passive and active ways. As a passive behavior, the consumer indirectly encourages others to adopt green habits. Educating others at this level does not cause inconvenience or extra effort for the educators. In fact, it might enhance his/her convenience and save him/her some efforts or “headache.” A typical audience for passive education on greenness appear to be family members, relatives, roommates, and friends. For instance, Bryn Mawr has influenced her roommates to eat healthy food and behave more ecologically responsibly. She states, “I eat seafood and shellfish and most of the other people in the house eat meat. [Since] I do most of the cooking...it kind of passes off onto them.” Lady Bug thinks she has converted her ex-roommate into a vegetarian just from living with her. She refers to her influence as “Not on purpose, she started to see the benefits of it.”

By contrast, active educators consciously engage in teaching others, and are willing to sacrifice their convenience or expend extra effort to inform and influence others. Active educators’ typical audience includes neighbors, schools, and the community at large. As Chapter 6 explores in more detail, Jade and Traveler are very active in educating others.

The interviews indicate that each of the three types of concern (ecosystem, social justice, and self/loved one) can underlie both passive and active forms of teaching. Jade’s “biggest issue as far as being socially and ecologically responsible is education.” She does not think that it should be left up to schools because she has big issues with public schools. She finds it to be everyone’s responsibility, especially those who run schools, businesses, and governments, to educate people. Otherwise, people will be “wandering around in a stupor.” Beyond the social and ecological motivations, some of the informants educated and/or influenced others primarily for personal reasons. Bryn Mawr’s influence on her roommates, for example, is not because she intends to educate them but because she wants to continue eating seafood and shellfish. More interestingly,

Traveler has generated a somewhat steady source of income through educating others on greenness.

## 5. Learning

How do green consumers take the initial steps towards a green lifestyle? How do they receive relevant information? How do they further educate themselves on the more advanced issues? The first two questions pertain to a passive involvement with greenness. The interviews suggest that initial interest in greenness might come from passive exposure to one's family, relatives, roommates, friends, school, employer, travel, special events, and/or purchase experience. Familial background is probably the prominent passive source of inspiration since most informants mentioned it. Friends also emerged as an important influencer.

The third question evokes the active ways in which consumers educate themselves on green issues. Because they involve conscious self-education and extra effort, these ways are usually associated with an active preoccupation with greenness. Cat Woman, Cleo, Rudy, Shamrock, and South Park purposefully and regularly look for interesting ecosystem- or health-related articles and news in grocery lines, in various magazines, and on the Internet. Chapter 6 explores these behaviors in more detail.

Each of the three sources of motivation (ecosystem, social justice, and self/loved one) can underlie both passive and active forms of learning. Cat Woman, for instance, cites social and environmental reasons for her membership with Green Mountain and nature-related magazines. Jade believes, "It is an individual's responsibility to learn about the ways to help the environment, improve the society, and keep one's family healthy." Rudy find it both economical and environmentally responsible to learn how to use electric and electronic products more efficiently.

## 6. Energy Conservation

The attempt to conserve energy emerged involves both passive and active behaviors. At the passive level, energy conservation might translate into a variety of actions such as using energy-efficient light bulbs, turning off unnecessary lights at night, buying energy-star home appliances, consuming cloth towels instead of disposable paper products, replacing electric dryers with clotheslines and drying racks, and using ceiling fans. At the active level, the consumer accepts greater degrees of inconvenience and/or finds creative ways of saving energy. Rudy, for instance, took an enormous amount of time looking for an energy-star house in the area she was planning to move to. She went into much detail disparaging the construction industry for building too few energy-star houses and making it hard for consumers to lead a green life. Chapter 7 explores these behaviors in more detail.

A large majority of the informants seem to be motivated by their concern for the ecosystem far more than their self-centered concerns. Deco, for instance, views “artificial means of creating warm or cool air as harmful to the environment [because] they use up natural resources [such as] wood, coal and oil just to create energy.” By using less energy, she knows that she can do her part in helping to conserve the natural resources. Rudy is one of the few to talk about “savings for the household in addition to reducing the pressure on the environment.” She is happy that her “utility bills have always been less than half compared to [those of her] colleagues and friends.”

## 7. Recycling

Recycling is one of the few recurring activities that informants (e.g., Cleo, Lady Bug and Rasputin) include in their definition of “green.” To some informants, recycling is an essential component of green ways of living. Cleo, for instance, emphasizes the phrase “reduce, reuse, recycle” as the philosophy she lives by. Similarly, Cat Woman refers to her recycling habits as “a philosophical issue.” Other informants view recycling as simply another way to preserve nature. For more on recycling, see Chapter 7. Recycling can be a passive behavior, involving minimal effort, or it can be an active behavior, involving considerable inconvenience.

Concern for the ecosystem was the only cited reason for recycling. Deco and Cat woman, for example, feel that recycling was an “ecological responsibility” in the face of rampant consumerism. Cleo thinks, “Recycling is the very basic thing you can do to help the environment.”

## 8. Animal Friendly Behaviors

Although the term “green” is more frequently associated with the concepts of recycling and green diet, a few informants (e.g., South Park) view animal friendliness as a defining theme of greenness. Animal friendly behaviors could be both passive and active. An example of a passive expression of concern for animals was the way Shamrock decorated her house with knick-knacks which centered around an animal theme in response to her concern that “we are ruining our planet and encroaching on the habitat of animals.”

More active animal friendly behaviors included a range of activities. Four of our study participants got pets from the pound rather than breeders in order to save animals’ lives. Rudy proudly promotes rescued pets by car magnets and activist tee-shirts. Cleo, Cat Woman, and Rudy purchase animal- and insect-friendly fertilizers and Deco prefers animal-friendly antifreeze for her car.

At the extreme active end of animal friendly behaviors was a strong stance against animal cruelty. It was often expressed in vegetarianism. In addition, during the home tour, Rudy pointed to her walk-in closet and proudly called it a “leather-free closet.” She stopped buying and wearing leather several years ago due to her concern for animals,

which stood out in the interview as a determining factor in all of her shopping behaviors. Auckland does not like Japanese Kobe meat because “they first get the cows drunk, then massage them for hours until they are beaten, and then kill them to make their flesh tender.” Bryn Mawr likes Tom’s of Main dental products because “they are very explicit that there is no testing on animals.”

The interviews indicate that concern for the ecosystem was the primary reason for both passive and active forms of animal friendliness. Deco, for instance, defines environmental responsibility as “taking care of animals [because] animals are a part of nature and we should be stewards to nature as well as animals.” She has recently joined the ASPCA. She feels very satisfied that she could rescue an animal from certain death in a city pound.

## 9. Reusing Items

Another environmentally friendly behavior that many of our study participants displayed was the reuse of products. This included the adoption of secondhand clothing, used furniture, used media, saving things from the garbage, rechargeable batteries, and giving new life to used containers. Sometimes this behavior was passive, as when young adults received hand-me-down furniture from their parents. At other times it was active, as when Cleo turned old computer keyboards and mice into a sculpture.

People engaged in this practice for two kinds of reasons. On the one hand, it reflected their concern for the ecosystem and their desire to minimize waste. On the other hand, they sometimes did it as a personal statement about their image and identity, for instance when Deco created a “vintage” look for herself.

## 10. Consuming Natural Food

The consumption of green food is also an important theme in all of the interviews and is referred to in a variety of terms including organic food, natural food, all-natural food, whole food, alternative food, veggie food, decomposable food, real food, health food, cruelty-free food, and chemical-free food. Although there are signs that the informants know the distinction between at least some of these terms, they tend to use them in loose and interchangeable ways. Organic food is the most popular of all and is used in a versatile manner.

A preference for natural food could be either passive or active. It was passive when our study participants only ate organic food when it was little trouble for them to obtain it. It was active for people who went to great lengths to obtain organic products and to avoid any foods that were not organic.

In terms of shopping, a majority of the informants indicate preference for green food over regular food even at higher prices. However, this preference is bound within a price-

tolerance zone. Several informants (e.g., Cat Woman and Rudy) would buy green food if they were 10% to 20% more expensive but would avoid them if they were “twice as much.” Some informants hope that they can afford shopping all-green food once they graduate from school (Lady Bug) or change to a better-paying career (Deco).

Interestingly, those with pets try to feed green food to their pets as well. Traveler stood out among the informants as the most knowledgeable and active in terms of green diet. She produces green food, which she consumes, sells, and even barter for other products. She spoke in great detail about the processes involved in agriculture, green food preparation, and chemicals involved.

There seems to be a strong association between consumption and shopping activities. The informants tend to think of food retailers known as whole- or health-food stores as the right place to shop for green food. For example, Shamrock patronizes a whole-food market for organic orange, honey, potato, and pet food because they are “known to be truthful” and she is “confident” that they use “no chemicals on the food.” In some instances (e.g., Cleo and) the informants start buying (more) organic food just because they happen to visit whole- or health-food stores.

The interviews suggest two sources of motivation behind the consumer’s green diet: either self-centered concerns or a combination of self-centered and ecosystem-related concerns. Whereas concern for health and longevity is omnipresent throughout the research, only few informants think of the ecosystem when commenting on green diet. For instance, Cat Woman views organic food as “healthy because it is better for the person’s soul and body and contributes to his/her longevity.” Rudy and “South Park are willing to drive a little out of their way” to buy food that is good for them. Cleo remembers that “her mother’s ‘green thumb’ was passed onto her and helps her to better understand the importance of organic and all natural food... because she doesn’t want to get chemicals like antibiotics that she unknowingly gets with regular food.” Jade “notices a real taste difference” between natural and regular food and tries to “buy natural food although sometimes she can’t afford them.”

The common thread that weaves these attitudes together is the consumer’s deep-seated care for his/her own or a loved one’s health and longevity. Beyond eating and drinking, it entails numerous other changes in consumption habits. Cat Woman, for instance, consumes toxin-free beauty products. Jade uses natural cleaning products. And Traveler uses rugs only outside her house if they are not made of cotton. All of these behaviors are due to health concerns.

The motivation behind a green diet can also relate to preserving the ecosystem. Deco, for instance, thinks of green food, in addition to being healthy, as “something that will decompose if you throw it away.” Further, Bryn Mawr uses a nalgene and avoids bottled water because it “is not only healthy but cuts back on the amount of disposable plastic you would trash otherwise.” Note that none of the informants was *solely* driven by concerns for the ecosystem.

## 11. Purchase and Use of All-Natural Products

The importance of all-natural products to green consumers is evident with the fact that some informants (e.g., Cleo and Deco) integrate it in their definition of the term “green.” The informants split in terms of their behavioral commitment to purchasing and using all-natural products. The first group, consisting in the main of passively green informants, is characterized by relatively low degree of involvement with all-natural products. These informants made numerous mentions of a variety of all-natural products such as food, pet food, grooming products, dental products, and cleaners.

By contrast, actively all-natural consumers have a greater behavioral commitment to products that contain no non-natural ingredients. Again, they would be willing to take extra efforts and pay higher prices for all-natural products. Rasputin, for example, goes out of his way to buy all-natural brands, especially when it comes to personal hygiene items such as toothpaste, deodorant, shampoo, and month wash.

Similar to that behind a green diet, the primary motivation behind the green consumer’s preference for all-natural products is the concern for self or a loved one’s health. In a few interviews, this motive coalesced with the concern for the ecosystem. Whereas the concern for health and longevity was omnipresent throughout the research, only few informants thought of the ecosystem when commenting on all-natural products. For instance, Shamrock’s sickness was probably the strongest contributor to her belief in the power of all natural remedies.

## Activities in the Active Circle

Active concepts are those behaviors that represent a high commitment to green ways of living. They are usually accompanied by significant changes in lifestyle and require extra efforts on the side of the consumer.

## 12. Minimizing Energy Consumption and Using Alternative Forms of Energy

Thinking about alternative sources of energy is associated with an active involvement in green ways of living. This concept was not present in all of the interviews and only a fraction of the informants displayed relevant behaviors. Cat Woman, for instance, is registered with Green Mountain, an organization aiming to save energy by promoting alternative energy sources such as giant wind-energy equipment. She “prefers to use wind energy over other traditional energy types because wind is infinite and we never run out of it.”

The motivation behind seeking and incorporating alternative sources of energy is a concern for the ecosystem. Cat Woman, for example, attributes her intention to purchase



a hybrid car to her green philosophy, which in turn encompasses genuine care for the finite natural resources.

### 13. Reducing Waste

Some of our study participants were careful to minimize the amount of waste that they produced through their everyday routines. For instance, they replaced disposable items with more durable, multiuse items.

The concern for both self and the ecosystem might underlie the green use of technology. For instance, Cleo used canvas bags for grocery shopping because it was simply easier, and some stores gave her a five cent discount. In addition, our participants voiced ecological reasons for reducing waste.

### 14. Vegetarianism

Being vegetarian involves a significant level of effort and commitment.

The interviews suggest that those who become vegetarians have two sources of motivation: concerns for oneself or for a loved one and concerns for the ecosystem. For instance, Cat Woman attributes being vegetarian to “her philosophy of life.” She finds it “good for one’s soul and body” as well as “an ecologically responsible attitude and behavior.” She points to the fact that “to produce a pound of red meat, we have to use up a lot of natural resources like water and land field.”



### 3. Catalysts by Gary Howerton



#### What is a Catalyst?

*Merriam Webster's Collegiate Dictionary* defines “catalyst” as “an agent that provokes or speeds significant change or action.” Our study suggests a catalyst provides a change of behavior along a continuum from a strong impact to a weak impact. It appears from review of the thirteen study participants that people revisit the catalysts they had identified many times over in their lives, maintaining or increasing the strength of the catalyst. This is demonstrated by the number of responses to the self-reflection on life styles (16) and reflections on family and childhood influences (24) comments in the catalyst categories. The number of responses referring to formal and informal educational experiences was 17, indicating education was used to reinforce earlier catalyst's impact. Our research subjects told us that new educational experience changed their behaviors and so these acted like a catalyst. The data from our study participants indicated they credited educational experiences that validated earlier catalysts and/or served to give direction to these earlier experiences (catalysts). We developed the following definition based on data from study participants: **Catalysts can be single experiences, but are more commonly a combination of events, family, friends and ongoing educational experiences with varying degrees of emotional impact from strong to weak.** See Table 1 for the frequency of responses by category of catalyst.

The responses in the interviews suggest that catalysts are active. No examples of passive catalysts were identified.

Table 1. Frequency of Catalysts Reported by Study Participants

Catalyst	Number of References
Family (in reference to childhood)	24
School experience/self education	17
Self reflection on lifestyle	16
Cost of “green” products	13
Health and safety	8
Traveling	8
Friends	8
Media/shopping	7
Technology	7
Diet	6
Frightening, cruel, sad or gross experiences	6
Greenie trends	4
Small companies vs. big corporation	4
Moving to different city	2

## A History of Catalysts

According to most of our study participants, their “green” self-image emerged during childhood in response to some event or from the influence of others, in other words, due to some catalyst. The respondents stated that catalysts throughout childhood reinforced their environmental protection behaviors. Almost all of the respondents report their parents as the catalyst for their environmental consciousness and development of their “green” self-image. Most of the respondents are children of the “baby-boomer” generation. Environmental awareness peaked in the 1970’s as the “baby boomer” generation came of age. No interview responses suggest the influence of another model.

The respondents report education as the main catalyst supporting their ongoing “green” self-image. Answers to the questions about self-reflection on lifestyle suggest educational experience more than any other catalyst promoted environmental protection behaviors in the outer layers of the model. Impacts from all other catalysts appear with about the same frequency in affecting behaviors except for cost of buying organic or “green” products. Although purchasing organic or “green” products was a desire, some study participants did not or could not due to the higher cost of these products.

## Education as a Central Type of Catalyst

Considering a continuum of strong catalyst to weak catalyst, the data from our study participants suggest educational experiences that result in moving a person into a basic level of environmental awareness, or if they already had a basic “green” self-image they begin more active environmental protection behaviors. Although education is not identified as often as family as a catalyst, it is still identified more often than any other catalyst reported.

## Detailed Examples for Each Catalyst

### Moving to Different Cities

- Deco was shocked by the amount of smog when she used to live in Houston...”when you get outside the city you should be able to see it clearly but you can’t see it all because there is so much smog.”
- Deco “got interested in recycling because she didn’t want to create as much trash. No one really influenced her decision except moving to a city where they actually did recycle.”

### Traveling

- Shamrock reports her “mindset was influenced through traveling throughout Europe.”

- Deco learned to reuse items when she made a skirt from a pillowcase. “When she first went to Austin City Limits it was so hot and so she got an idea about making clothes out of things that weren’t clothes before.”
- South Park’s “ motivating factor for reusing items was spending time in the Peace Corps and abroad in Trinidad.”
- South Park learned about organic cleaning products while working the Peace Corps there he reports he sort of just got acclimate to them.
- South Park first got turned on to Good Will while in the Peace Corps. He also explains about his time he spent in Trinidad and how people there made complete use of the things that were shipped in because it was a closed eco-system.
- Natural Woman “did missionary work in Africa and she went in great detail about how much Americans have to learn in regards to their modest lifestyles, and behaviors of reuse.”
- Natural Woman said, “we are a consumer nation and we are consumer driven.” Everything is the newest fad. We live for pleasure and the Africans live for survival. That drives your mind sense in why you do the things you do.”

## Media/Shopping

- Jade started using her own reusable carrying bags when she started going to health food stores and saw some there. The health food store was one of the first places she stopped when she moved to Denton.
- Shamrock states the food cans that appeal to her displayed a banner stating old fashion. She later explained that labels such as these are indicative of products that have been around along time and were less synthetic.
- Shamrock “cited the appearance of the label as an indication of the products’ environmental friendliness.”
- Shamrock says the label indicates its longevity as a product, like the example of a label that said made since 1899.
- Deco saw a documentary about PVC and vinyl siding that had a big impact on her sense of what was safe for the environment.
- South Park says he finds a lot of information about natural products online and it’s his primary source.
- Lady Bug says being vegetarian influences just about everything she buys.

## Family (in Reference to Childhood)

- Jade reports the practice of using organic foods is left over from her childhood on a farm.
- Jade said her interest in organically grown fruits and vegetables started about when she was 6 or 7 years ago when her mother took a nutrition class. Additionally, she used to buy from a co-op but since having her children that hasn’t worked out. Jade reports she is also a vegetarian, as a response to the literature her mother brought from a nutrition class.

- Jade said, “being a mother is a big impetus in her choices for healthy and environmentally correct choices.”
- Jade says, Her choice of purchasing organic and free-range food also comes from the taste of the products that reminds her of her childhood.
- Jade says she was not raised with these beliefs, although her mother was health conscious but her mother ‘gave up’ organic foods due to an unsupportive spouse.
- Jade uses a drying rack inside her apartment because she thinks its better than an electric dryer. She used to use a cloth lines when she lived on the farm.
- Jade said I like to be one with nature. She used to go camping as a child.
- Jade reports she got into sewing as a child.
- Shamrock acquired her environmental consciousness from her mother.
- Cleo said being raised on a farm in a small Texas town help to give her a better understanding of the need to care for the environment.
- Deco said, “Her first dog she got was from the pound.” Her parents used to raise Brittany Spaniels and they would always sell them to people as hunting dogs.
- Auckland reports, “My dad is always reminding me to shut off the lights.”
- Rasputin found out about borax from his mother.
- South Park described himself as “born to upper middle class Indian family that moved to Texas in the late ‘60’s.”
- South Park likes to make use of the sun whenever he can. He doesn’t know what led him to do that but he can remember as a child using the sun for drying things.
- South Park “says he got the natural bug from dad.”
- Lady Bug says her family knows she’s a vegetarian and the ‘Miss Green peace ‘ of the family.”
- Lady Bug said my “mom always made tea in the morning. I always drank tea with mom.” This was a major influence in her still drinking tea.
- Lady Bug my “mom is really environmentally aware.”
- Byrn Mawr says, “my aunt lives in Austin, she let me stay her for eight months...she buys a lot of organic products and that is where she learned a lot about them.”
- Byrn Mawr said, “when I was growing up we always had a compost pile”
- Natural Woman said, “this product is from Holland, where my mother is from, and it is quite a bit more expensive. It’s all natural and it’s from another country, but I would much rather buy this because it is natural.”

## Friends

- Jade said that, “someone once told her that non-organic milk has a consistency like ‘snot’. Organic milk has a better texture and flavor and lasts longer.”
- Jade said, she gets comments all the time, especially from older people, about using cloth diapers; it is a nostalgia thing for older people.
- Jade said, “she was thrilled when gas prices went up because it will encourage others to think about public transportation and alternative fuels.”

- Shamrock said that local honey was good and she was informed of this by one of her friends, many of whom are environmentally conscious.”
- Auckland said, “he found out about how converse shoes are made by child labor from a friend that read it in a magazine.”
- Rasputin said he found out about more natural cleaning product from a girlfriend.
- South Park mentioned that his girlfriend uses more natural cleaning products.
- South Park said he was very impressed after his girl friend rearranged his living room to be in accordance with feng shui principles.

### School Experience/Self-Education

- Jade said she learned about greasel in her perma-culture class.
- Jade says she uses the internet for educational purposes.
- Jade says, “I think my biggest issue as far as being socially, ecologically responsible is education.”
- Cleo said she reads articles in grocery lines and does research online about natural products.
- Cleo said she reads the contents off the label and the statistical promise that it makes about health.
- Deco said, “When she was in high school she noticed that other people had dogs that were not pure breed dogs.” This influenced her to get pets from the humane society.
- Auckland said, “The school he attended had a mix of attitudes about the ‘green’ mindset.”
- South Park says he uses lots of magazines to learn about natural products.
- South Park said he bought an “old school desk. He said it reminded him of the desks he had while he was in school...”
- South Park said, “his girlfriend was the one that clued him into the natural food options for animals.”
- Cat Woman said she bought a book on organic gardening book because she was fascinated with the idea of growing plants.
- Lady Bug said she kept the poster from a music festival because it was a pretty picture and a good memory.
- Lady Bug said she “bought a specific green tea since she was in the 8<sup>th</sup> grade.”
- Byrn Mawr feels that her feminist based education has led her to this viewpoint that adults should live communally.
- Byrn Mawr said she became socially aware of products that she was exposed to in college and how they may affect her health.
- Byrn Mawr said she learned of the diva cup in college when she read a book called *Cunt* and that turned her on to them.
- Natural Woman said the product Kiss My Face is pretty well known in natural circles and first started using it in college.

## Self-Reflection on Life Styles

- Traveler said she decided to start on the wild crafting path after she noticed so much ‘conspicuous consumption’ was going on around her.
- Traveler isn’t a purist. She thinks of herself as a minimalist.
- Traveler referred to Scott Nearing’s book called *The Good Life* about living off the grid and she reports her daughter lives off the grid.
- Traveler uses her lifestyle to create income instead of having her income create her lifestyle.
- Auckland says he is a romantic about films.
- Rasputin says he does not think of himself of a ‘greenie’ he just tries to do a little to help the environment. He says a ‘Greenie’ is someone who may live away from the city and is active in protecting the environment and goes to related events.
- South Park said he had an idea of how he wanted to live but magazines like Dwell gave him directions to follow.
- South Park says that Whole Foods reminds him of Dwell Magazine, you have an idea of what direction you want to go in and it helps direct you.
- South Park says he is a big believer in the oriental schools of thought.
- South Park says wooden hangers look so much better. He feels like a grown up when he uses wooden hangers.
- Cat Woman says her big concern is for the environment and animals, according to her, this concern is rooted in her philosophy of life.
- Cat Woman says she attributed her search, purchase and use of her hybrid car as an action that is inspired by and well represents her philosophy of preserving nature and supporting socially friendly practices.
- Lady Bug says she can throw stuff away but she likes to recycle. It makes her feel good to reuse things.
- Bryn Mawr says she has come to view communal living as the responsible thing for adults to do.
- Bryn Mawr says, “I think that veganism is a defining element of our generation.”
- Natural Woman says that, “People always ask why I eat so healthy and I say its part health wise and part I just want to be good.”

## Frightening, Cruel, Sad and/or “Gross” Experiences

- Rudy says she likes the taste of meat but her decision to become a vegetarian has to do with cruel treatment of animals and protein production is environmentally wasteful.
- Shamrock said she felt sadness upon witnessing the effects of urban sprawl on the habitat of the local coyote population.
- Auckland stopped wearing converse shoes because they were made in sweatshops.



- Auckland made a point of explaining how the animals that are raised for meat were ill treated. Even relating stories of cows being beaten so their flesh would be tender when they were killed.
- Rasputin told a story about growing up in a small town with large cattle industry with a local slaughterhouse and he had a friend that worked there, who took him on a tour of the place and he was sickened by what he saw.
- Rasputin told a story of how his cell phone broke in his pocket when he fallen asleep one day and upon waking he discovered that there was a liquid that had seeped out onto him. He wondered was it going to kill him or give him super powers.

### Cost of “Green” Products

- Jade said she would make sacrifices of time and convenience to be ‘green’ and healthy but admits that money can be a deterrent in her choices.”
- Rudy said that cost was the main determining factor for purchasing higher priced products that are organic.
- Deco said her house didn’t have central air conditioning so they have to use fans and window units. Electric dryers are also expensive. It came to be more saving money rather than an environmental tool but it does cut down on the electricity cost.
- Rasputin likes buying use furniture because it is more affordable for him. Rasputin goes to use bookstores so that he can buy more books for less money.
- Lady Bug said since she’s unemployed so it’s important to her to have a means of getting around without gas so she uses a skateboard or bike.
- South Park shopped at thrift stores to save money.
- Traveler says she has to shop at co-op and garage sales to stretch her income and support local businesses.
- Auckland says organic costs more but his parents are the ones to buy the food.
- Bryn Mawr says the cost of natural food is a factor in her food budget.
- Cat Woman says she is aware of the extra cost of natural foods.
- Natural Woman remarked that cost is a factor in buying natural foods.
- Shamrock says the cost of natural food is a consideration.
- Cleo says organic food costs more and can be a factor in her budget.
- Lady Bug is unemployed and the cost of natural products is an important factor.

### Technology

- Jade reports she started using rechargeable batteries with her digital camera and now she is switching all the kids’ toys to re-chargeable batteries.
- Rudy says she likes the convenience of being on an activist organization listserv.
- Shamrock cited the manual pump nozzle as the most noticeably ‘green’ feature of the hair product she uses due to its elimination aerosol.

- Shamrock related the importance of her internet usage for the education of herself and others on environmental topics.
- Cleo said that science is telling us more and more about what is and is not good for us as far as health and food products go.
- Auckland reports being impressed with the new type of technology coming from Japan especially in cameras.
- Natural Woman reports having had a small cell phone but read that they give off more radiation so she doesn't use it.

## Greenie Trends

- Rudy calls her dog a recycled dog because she got it from the human society.
- Rudy says, "she likes the convenience of the city recycling bin."
- Rudy prefers to refurbish furniture then letting them go to the dump.
- Deco "considers vintage clothes to be environmentally friendly."

## Diet

- Jade is a vegetarian and she has since her conversion sought out more literature on healthy/environmentally friendly eating.
- Rudy says she became an activist when she became a vegetarian in her early twenties.
- Auckland reports liking organically grown vegetables and his family gets it from a place in Plano.
- Rasputin says he has been a vegetarian for over 10 years.
- Cat Woman says the high cost of meat captures her stance as far as ecological contribution of vegetarianism.
- Byrn Mawr says she became a vegetarian because of health reasons.

## Health and Safety

- Jade says the decision to use natural cleaning products is largely a health and safety issue and she talks about the residue left behind by non-natural cleansers.
- Jade reports that her kids have never been to the doctor and it is because she has read too much to trust the medical system and she says she is much healthier now.
- Shamrock said her health concerns affected her eating habits.
- South Park said that after visiting the dentist and finding out he had periodontal disease he looked online for an organic solution.
- Cat Woman reports buying organic food as beneficial and healthy.
- Lady Bug said since she is a vegetarian and she reads the labels of food for possible hidden meat products.

- Natural Woman reports growing up in California and that contributed to her exposure to smog and now for her being more environmentally friendly.
- Natural Woman reports starting to drink soy about four years ago when she started having stomach problems.

### Small Companies versus “Big Corporations”

- Jade reports getting some clothes from uncle’s trip to Tibet that is all natural materials. She said by buying these it supports people who probably don’t make much money. She prefers to buy things with more sentimental value and that have been touched with somebody’s hands, as opposed to machines.
- Cat Woman stated that the people who actually work on and create the rugs like hers are usually exploited by small and large businesses, which purchase their rugs.
- Byrn Mawn reports buying honey that is local.
- Natural Woman cited she got a coat rack that she purchased at a thrift store was made by elderly people who need financial support.

### Design Implications

#### Marketing and Advertising

Table 1 shows the strong effect of family influence and childhood experiences on a person’s “green” self-image. Product advertising and marketing that taps those emotional feelings and memories or reinforcing those sentimental behaviors may produce higher returns in this population. Additionally, education/media influences reinforce these behaviors, since children today are still informed by the “less-bad” environmental model identified in *Cradle to Cradle*.



## 4. *The Importance of Image and Identity by Matthew Lamb*



It is thus with most of us; we are what other people say we are. We know ourselves chiefly by hearsay. -Eric Hoffer

While the words of the American author and philosopher Eric Hoffer ring true for many Americans, individuals associating with a Green mindset or lifestyle define themselves not by the adoptions of socially imposed standards, but by the promotion of personally developed ideals.

### Defining Identity and Image

To understand the implications of identity and image on the practices of an environmentally conscious person, it is important to understand spectrum of applications these ideas possess.

At its most basic level, identity exists simply as a self-ascribed set of characteristics based on background, associations, practices, ideologies, or lifestyle choices. Beyond this though lie a number of variable elements that assist in solidifying an individual's identity, for instance, an individual's understanding of their own strengths and weaknesses, and the instinctive tactics of self-preservation. In addition, individuals define themselves through an evaluation of differences between their actual and desired actions or thoughts, as well as their concept of The Ideal, and its implications on their thoughts and actions.

More abstract than identity, image is affected by a number of perceptions on a given appearance or action. There is the individual's perceived external presentation of self as well as their introspective reflection of themselves. In other words, who they show to the world and who they see in themselves. There is also the individual's notion of the ideals by which they ought to live their life and a desired reputation based actions or attitudes they possess which are congruent with these ideals. However, often times it is not the individual, but perception of others that defines their image.

### Passive and Active Formation of Identity and Image

The manifestations of these two concepts in our research displayed a minimal number of passive aspects. Only three distinct elements of passive activity contributed to the development and promotion of Green identity and image by the participants. The first example of identity and image being affected by passive activity existed in the participants' understanding and subsequent incorporation of Green practices learned or developed during their upbringing. Passivity also took shape in the form of participants

philosophizing on The Ideal, a perceived notion of what it is to be Green, and the acknowledgement of their own shortcomings or limitations in thought or practice when compared to The Ideal.

Contrary to passive activity, there exist in the research an overwhelming number of active activities that contributed to the formation, application, and passage of Green identity and image. These activities included the groups or causes the individual associates with and preservation of health through the use of natural remedies or products. In addition, the participants exhibited a number of environmentally practices that were actively pursued because of the positive image they received, or in spite of the negative image of their actions caused. Furthermore, participants actively defined their image through a purchasing preference for goods with a vintage or retro appearance. The greatest active practice that assisted in the development of Green identity and image was the incorporation of creativity and problem solving in environmental practices, such as making art out of junk.

## The Sources of Identity

Similar to the catalysts described in Chapter 3, there exist influences that individuals assert as a source of the environmental practices, mindsets, and lifestyles.

The locale of the individual's upbringing was cited as a source. Bryn Mawr associated her activist practices to growing up in Syracuse, New York, "an activist town." Not only relevant in the geographic sense, the physical nature of the home in which the individual grew up also holds relevance. Cleo ascribes her "thinking Green" philosophy with her upbringing on a self-sustaining family farm, while Jade cited her practices came from the same circumstances.

More important as a source than the location of a person's upbringing is the relationships they have or had with individuals they viewed to be environmentally conscious. Lady Bug said that she became more environmentally aware and began avidly recycling after meeting Green peers at a music festival. Bryn Mawr partially attributes her mindset to a number of vegans she came into contact with during high school.

The most prevalent source of Green thought in the participants stemmed from the norms they inherited from their family. Bryn Mawr cited her preference for vegetarianism came from her aunt who champions organic food. She also said that her care for the environment could be due in part from the fact that her father has a forestry degree. Auckland said that his liberal viewpoints were learned from his parents, while Cleo stated that her "thinking Green" philosophy stems from the fact that her family possesses a "respect for nature" and "environmental awareness."

## Identity through Association

Among the participants, there existed a sense of identity that was rooted in their association with various groups, causes, or publications. These associations are both formal and informal, and range from associations based on membership with a Green group or publication to the immediate associations made between an individual's social circle, both actual and virtual.

More formal though, was the participants' association with established groups and publications as a source of identity. South Park used subscription Green publications to augment the practices and ideals he had established, and Cat Woman said that her membership in Sierra was a source of her environmentally conscious identity.

At the informal level, participants associated their Green practices with their association with other individuals who shared the same mindset. Bryn Mawr valued the lifestyle of communal living she and her immediate friends practiced. Beyond the physical associations made with others, the utilization of technology mediated the formation of identity. Rudy identified herself with virtual groups she belonged to, while Shamrock cited participation with Yahoo groups as a source of Green identity.

## Health and Identity

Many of the participants utilized Green practices for the purpose of addressing health concerns. In this way, many people acted with Green intentions but the primary reason for these actions arose from a desire for self-preservation. For instance, a number of participant utilized bicycles as a means of environmentally friendly transportation, but Deco, Auckland, and Cleo cited health and exercise benefits as a primary reason for using the bike.

When purchasing products, many participants chose Green alternatives to prevent or cure health concerns. After being sick for a year despite the best efforts of western medicine, Shamrock began utilizing the services of Naturopaths and eastern medicine to cure her ailments. Lady Bug said she began drinking natural green tea because it possessed antioxidants that were beneficial to health. Bryn Mawr said that she utilized a homeopathic flower remedy as a Green alternative, and furthermore had become a vegetarian for the health reasons alone.

Many of the participants said that conventional products caused allergic reactions and they looked to Green products to provide alternatives. Lady Bug said she started using Burt's Bee's products when she got an eye infection from mascara. Shamrock said that her pollen allergies were combated through the consumption of locally harvested honey. To Rasputin, the most important products he purchased were the ones that concerned his health, specifically non-irritating natural deodorant and mouthwash, similar to Jade who uses natural toothpaste, and South Park who said that the development of periodontal disease was the reason he sought organic solutions and holistic remedies.

## The Ideal

Between identity and image lies the incorporating concept of The Ideal. Participants not only stated what they believed Green to be, but also its effects on their mindset or philosophy of life. Many of the practices and thoughts of the participants stemmed not from practicality but from a dedication to a higher purpose.

Some participants said that their Green actions were small ways in which they could help larger problems. Lady Bug said she was a vegetarian because it was environmentally friendly in the agricultural sense, and Cat Woman said that her vegetarianism had a positive ecological benefit.

Oftentimes, a principle or practice is ascribed to be a facet of a larger ideal. Two participants, Cat Woman and Shamrock, stated a desire to protect and preserve animals resulting from such an ideal. Cat Woman said that all of her Green practices were rooted in her “philosophy of life,” very similar to Shamrock who said it was her “mindset” that drove her environmentally consciousness. At the extreme would be Traveler, who molded the standards of her Green lifestyle to follow strict minimalist guidelines.

## The Positive External Image

Many of the participants perceived the reception of a positive image as a result of their Green practices. These actions, while Green in practice, were ascribed more value as a result of this positive image than the environmental benefits they possessed.

The most basic of these positive images is a self-declared statement of purpose. The clearest example of this is the pride in which Rudy purchased and wore pro-vegetarian t-shirts and brandished his car with animal preservation magnets. Beyond stating Green tendencies directly, participant discovered and appreciated positive image that resulted from their actions and possessions.

While it serves as a Green transportation alternative, Lady Bug stated that it was because she looked “cool” riding her skateboard that she continued to utilize it as a means of transportation. In addition, Auckland used a bicycle as his primary means of transit during college, not because of the environmental benefits, but because when he rode it adorned with a top hat and pirate flag he made people laugh, an action which he places high intrinsic value.

Often times, it was an object that the participant possessed and showcased that created the perception of positive image. Lady Bug made it a point to show guests her promotional flyers for environmentally conscious music festivals. She felt a sense of pride in attending these festivals not only because of their educational value they possess but also the causes they champion and the personal associations she established. She feels that by showing her attendance to others, the positive aspects of these festivals are



ascribed to her. Similarly, Jade, who uses cloth diapers for her baby, feels that this action is the epitome of a “greenie,” and revels in compliments of others for this practice because she feels as if she is doing something right.

In the same light Cat Woman showcases her rug as a source of positive image because it was individually made purchased at a co-op arrangement in which she helped the poor artisan maintain a “steady stream of income.” Again it is the possession of a Green product that yields a sense of positive image on the individual. She also takes a great sense of pride in her ownership of a hybrid car and the wide range of compliments she receives from it. She asserts that she is the only person in her neighborhood to have one, this uniqueness and the positive image that results from her ownership are reflections of her “philosophy of life.”

In these ways, Green practices and products are valued equally or greater for their positive image rather than their environmental benefits.

## Acceptance of Negative Image and Personal Limitation

A number of participants addressed the negative ramifications some of their Green practices had on their image. In addition, participants confronted both the sacrifices and their own perceived limitations as they relate to the ideals they wish to uphold.

Ranging from very simple actions to lifestyle choices, participants found that some of their Green tendencies resulted in a perception of negative image. A clear example of this can be seen in the interview of Bryn Mawr. During the interview she saw a piece of newspaper in the trash, and after expressing her embarrassment, she removes it and places it in the recycling. Because she values the principle of recycling, she overcame the taboo of digging through waste in order to uphold her ideals. Another example can be found in Lady Bug who disregards friends “freaking out” over her vegetarianism, and accepts the imposed labels of “crazy” and “neurotic” when referring to her recycling practices.

The prevalence of image sacrifice also became apparent during the course of the research. Some participants were willing to accept possible negative image perceptions in order to uphold Green practices. Deco, who advocates against the use of Styrofoam, was willing to risk a negative image by toting a gallon jug of beverage offered as the only alternative to Styrofoam at a local fast food restaurant. Furthermore, Auckland placed no value on the image of an automobile in light of efficient gas mileage, and Rasputin said he would rather smell bad than use a non-natural deodorant. Again, these highlight how individuals were willing to sacrifice image to maintain their Green practices.

While negative image is highly subjective on the opinion of others, equally important is an individual’s understanding and acceptance of their own limitations as they relate to The Ideal by which they wish to live their lives. Rasputin acknowledged that he was not a “Greenie” because he didn’t live away from the city and wasn’t active in environmental

and social events, but did feel that he was less bad than most other people. Similarly, Shamrock felt that although she was financially unable to be involved in activist groups, she was better than most people because she did her little part. Rudy admitted that while he portrayed himself through his clothing as socially conscious, he was not an “extreme activist.” In addition, South Park said that he felt good about buying clothes from Goodwill, but would only shop at ones in affluent neighborhoods because of their selection of nicer merchandise. In these ways, the participants understood the dichotomy between the actual and ideal aspects of their environmental consciousness.

## Vintage

A number of the participants stated a preference for “vintage” or “retro” clothing and products. In the words of South Park, the individuals are “attracted to older eras” for one reason or another. These participants would shop at resale and thrift stores for clothing distinctive of previous time periods. Deco liked not only the style of the clothing but the fact that she was reusing something that might have otherwise been thrown away. Rasputin made it a point to show a Pan-Am bag, which he saw as a “collector’s item,” that had been purchased at a resale store along with “some ironic t-shirts,” “retro boots,” and a “stylish sofa.” However, the most expressive example of this can be found in Cleo who purchases and reuses old clothing to patch her jeans. This is important because it draws the connection between vintage clothing and the most distinct feature of Green image, creativity and problem solving.

## Creativity and Problem Solving

More than any other feature of image, creativity and problem solving was practiced and valued greatest among the Green participants. Much of this creativity and problem solving resulted from the environmentally friendly practice of reuse, and as discovered through the research, held significance in both how others and the individual viewed themselves.

This creativity expressed itself in a number of examples throughout the research. Many participants viewed themselves as “creative,” “artists,” or simply possessed “artistic tendencies,” Bryn Mawr displayed a jar of seeds as a decoration, while Jade utilized the creativity of her children to decorate cloth grocery bags. Not only applied towards objects, Bryn Mawr also utilized creativity in the development of her vegan diet.

More adamant about their creativity, some of the participants incorporated this practice onto a wide range of objects in their lives that would be otherwise discarded. Cleo takes old paint that the University of North Texas Art Department would otherwise discard, and uses it for texture in her own paintings. Furthermore, she took old computer keyboards and mice and created a sculpture for an art exhibit, but rather than disposing of it when it was done, she disassembled the sculpture and saved the pieces for later shows. South Park custom tailored clothing he purchased from thrift store. In addition he

refurbished an old nonworking fan that he liked the look of and painted an old school desk to match the décor of his home on which many conversations have been focused and compliments bestowed.

The greatest example of creativity comes from Deco who avidly practices reuse as a form of expression. She has many glass jars adorned as decoration, and reused old tiles for multiple functions. In addition she refurbishes furniture she finds on the street, and has combined a fish tank and old TV as a piece of functional art. She also takes pride in a dress she hand-tailored from a pillowcase and sheet, a piece of clothing that has brought her compliments. While she appreciates the praise, it is the fact that the dress was created through creative reuse to solve the problem of discomfort resulting from heat that is her source of pride

## Design Implications

There exists a set of characteristics a mobile device could possess that would solidify an individual's and product's Green identity as well as exhibiting the image of environmental consciousness.

### Product

There are a number of features that could be incorporated into new designs that would establish the product and user as Green by image alone. The most important feature would be a logo or label distinguishing the product as EcoMoto. This application, along with packaging, marketing, and advertising also promoting the name EcoMoto as a Green product will provide for product and user to be associated with environmental and social consciousness by sight of logo or brand label alone.

In addition to the establishment of a correlation between the EcoMoto name and the Green mindset, there are a number of aesthetic features that could assist in distinguishing the image of the product and user as environmentally conscious. Along with the EcoMoto name, the creation of a distinct EcoMoto ring tone, much like the well recognized generic Nokia ring tone, would serve to announce the owner's Green tendencies.

A number of possible visual design features exist that would further establish an association between EcoMoto products with the identity and image environmentally consciousness. To visibly distinguish the user as socially conscious, the replacement of the generic blue or white back light keypad with a hue of green would noticeably mark the image of the user and product as EcoMoto, and therefore Green. To capitalize on the preference for vintage image, the product could exhibit more curvaceous features like a 1950's car fender, or time dated prints or patterns such as tie-dye. Another possibility exists in wall papers, both preloaded and those made later available, that display environmental images such as nature scenes, grass, trees or endangered animals.

Furthermore, the product must provide the user with the option of personalization through association with a cause or group. This can be accomplished by allowing for special casings or wall papers that feature the logo or name of an environmentally or socially active organization or cause, and could be further developed and promoted with a contribution on the part of the manufacturer to the organization upon purchase. An example can be seen in Chase Bank, who allows users to personalize the credit cards with organizations they wish to support such as Save the Whale. This design feature can be further utilized in the packaging and production processes.

## Packaging and Labels

Again the primary design feature of packaging and labeling that would establish the product and subsequent user as Green would be the overt display and distinction of the EcoMoto name as well as information as to the Green characteristic the product possesses.

If implemented, the placement and support of environmental or social organizations on the product could be coupled with a packaging display of all the groups and causes that are available to support through the purchase and use of the phone.

The packaging itself must exhibit no characteristics or feature that could be deemed wasteful, and could possibly benefit from a minimal and vintage appearance. It also must allow the user the opportunity for reuse in a creative or problem solving way. Since many of the participants made it a point to showcase their creative reuses as both sources aesthetic pleasure and creative pride, a packaging that promotes these activities creates an association between EcoMoto and Green practices. For instance, since a number of the participants reused glass jars as decoration, make a packaging that can be planted in a jar's worth of dirt, and provides all natural nutrients to grow a flower or plant from seeds included in the packaging.

## Production

Only one truly distinct design feature promoting Green image exists in the production process, the allowance for individual creativity and personalization. Allowing users to intricately customize the features, such as casing, wallpapers, body shape, ring tones, and potential sensory accessories prior and after purchase would closer associate the product with the image of Green thought. This can be accomplished through users purchasing products on a website that allows them to customize every feature much in the same way Nike provides for individualization of shoes on their website.

## Marketing and Advertising

In order to solidify the identity and directive of Motorola's Green projects, marketing and advertisement must initially champion the name EcoMoto in order to define the products as new and environmentally conscious by separating them in name from what could be perceived as an old and non-conscious company or product, Motorola. The repetitious use of EcoMoto can solidify through name recognition the identity and image of the product and the user as both cutting edge and Green.



## 5. *Sensory Aspects by Kelly Moran*



### Introduction

The value associated with an object's sensory aspects was a significant theme noted in our research. People placed a high level of importance on how products smelled, tasted, and felt. Different visual styles were appreciated by different subjects, and less often mentioned was how something sounded, but all five of the basic senses did emerge as part of an overall "green" appeal. Interestingly, a sixth sensory experience was attributed by some respondents when they spoke about wanting their objects to have had some type of past and when they emphasized the importance of purity in, on, and around themselves. In numerous instances the appeal of an item overlapped with several of the sense categories, demonstrating a linkage among the sensory experiences.

Products which provided a good sensory experience were definitely preferred over similar products which lacked these aspects. These were often actively expressed preferences. Passive behaviors are seen in subjects who chose a product over its competitors because of its sensory aspects after arriving at the place of purchase. Sometimes however, respondents would actively seek out a product, making special trips to stores that provided it or even creating it themselves.

Many of the respondents expressed an ardent predisposition to share their sensory experiences. They stated that they actively invited friends and family to join in smelling, touching, and seeing, and were emphatic about how much better a certain environmentally friendly product tasted. Some respondents firmly encouraged the researchers to participate in sense perception activities. The need to share is strongly connected to many of the respondents' enthusiasm to teach or learn more about the green lifestyle, an aspect covered more fully in another chapter.

### Scent

Many subjects stated that they actively sought out products that appealed to their sense of smell. This was by far the most powerfully noted sense. Fresh, natural scents were highly valued. The desire to share this sensory experience was a common occurrence. South Park raved about the lavender scent of his cleaning products and how it transferred to his own hands during use. He even invited, rather insistently, the researchers to sniff the containers. He enthusiastically stated that he pointed the products' aromatic virtues out to others also. Another respondent, Cleo, went as far as to place her own hands, which had picked up the smell of herbs in her garden, under the researchers' noses. Here she was actively displaying her sensory values and encouraging others to share in them. Previously she had encouraged the researchers to both feel the smoothness and enjoy the fresh scent of her lavender-mint goat's milk soap.

Other scents that were enjoyed include South Park's all organic peppermint pesticide which is also safe for use around pets. Scent was extremely important to this respondent. He also had the researchers smell his clean laundry. He himself enjoys smelling cedar hangers (which he laments that he does not own) and fresh pencil shavings. Cleo spoke about the clean scents of the natural beauty products which her mother and sister make at home.

## Touch

The way a product felt was also highly important to the respondents. Both a rough texture and smooth feel were seen as desirable assets. Bryn Mawr wanted to share her sensory experience of touch, and poured her tapioca starch product into one of the researcher's hands. She stated, "I find so much pleasure in this. It feels so incredible." Here she is displaying active behavior. South Park said his girlfriend's cat was fed organic food and this resulted in it being "unreal soft." He said the experience of petting it was so pleasing that he "can't stop touching it."

Some respondents enjoyed products with a deeper texture. Traveler pointed out a preference for things with a natural feel. She owns a couch made from non-organic materials, which she covers with another piece of cloth because, "I don't like lying there on those fibers." She asserted that the natural materials feel different. Cat Woman also prefers an organic feel and uses natural fiber socks.

Some respondents enjoyed products which included a dichotomous smooth/rough consistency. Cleo, as previously mentioned, liked her sister's organic soaps because of both their scent and their silky but natural feel. Many other respondents used natural body products which contained pieces of organic items.

Related to physical touch was the way a product affected a feel-sensation on its user. Auckland commented that things, such as cell phones, which "add more weight in my pocket" are disliked and this represents a negative touch-type sensation. The feeling of something pulling on the body, or adding unnecessary weight, is not appreciated. South Park also mentioned a preference for cell phones that would fit easily in a pocket.

## Taste

Taste was commonly linked with texture and purity in food products, and can be largely attributed to the subjects' appreciation of organic foods. Jade stated that the consistency of non-organic milk was comparable to "snot" and said this made her willing to spend significantly more for the organic version. The stronger, fresher taste of organic eggs was valued by Bryn Mawr as well as several other subjects, Jade included. Bryn Mawr also asserted that she preferred the fresher produce of Farmers' Markets. Auckland valued the "farm grown" taste of deli meats and compared it to the "crap" from larger stores.



Jade did mention that the flavor of some organic products, such as toothpaste, are not initially superior. However, she has since acquired a taste for them and can no longer tolerate the sweeter tang of other oral hygiene brands. She believes that people can get used to products and that it is important to do so. South Park also uses natural toothpaste and is even willing to pay more for it.

## Sight

The way a product looked and how it appeared to feel was important to respondents who wanted to create a visible texture in their homes. Wood was commonly appreciated, and we think this satisfies many sensory requirements; South Park and aromatic cedar hangers for example. The wood's visual appeal is of course the most immediately obvious aspect. Auckland had many wood pieces incorporated in his home, including recycled wood flooring, and mentioned that "all the décor in the house is made from natural things... ." Natural walkways were also present outside his home and he expressed a dislike for concrete. An exception to his appreciation of the warm natural look emerged in Auckland's approval of his white, sleek, and lightweight iPod. This is probably attributable to his need for that product to not weight him down.

Natural Woman liked items in her home that weren't so "shiny" but rather had a used or rustic look to them. She contrasted her roommate's sleek bronze coat rack with her own wooden one from the thrift store. It had a texture to its appearance and wasn't pristine. She said she also likes wood and natural fibers and appreciated a look which was "not so formal." She had several candles and art pieces that had bits of natural items inside (leaves, coffee beans, twigs, etc) and often used baskets in her decoration as well as for containers. These instances represent a textural sight/touch appeal.

Lady Bug also likes a simple, natural look. She bought rice that came in a burlap sack just because of its packaging. She likes its appearance as well as the fact that it will break down once discarded. She admits that packaging does influence her purchasing. Another respondent who considers packaging in her purchases is Deco. She refuses to buy eggs or anything else which comes in a Styrofoam carton. She prefers the more natural looking and biodegradable rough cardboard. She will even spend more money on something packaged in a more natural way. Her aesthetic values are consistent with the nature/non-wasteful mindset. Deco loves to decorate her home with used things that need work or recovering and that she can personalize.

South Park expressed a like for metal objects, pointing out a self-restored brushed aluminum fan. It is a clean look with the illusion of texture. This also satisfies an urge for visually nostalgic objects. The fan is old and makes him think of times past. But this did not negate his appreciation of wood. As with the touch-sensation, a combination of "feels" are a positive thing in the visual sense. He thought that wooden hangers looked better and made him feel like a grown up. The appreciation for visual things extended to South Park's own appearance as well and he would go so far as to have t-shirts which

were purchased from thrift stores tailored to fit. Again, a dichotomy is expressed here: a previously owned item that is made for him. South Park commented that if given a selection of phones that all do the same basic thing, he would choose one based on how it looked.

A counterpoint here is Cat Woman, who stated that aesthetics “wouldn’t really influence my decision” about purchasing a product. Her personal emphasis seemed to be more on purity and integrating natural components.

## Sound

Sound was unfortunately not pursued by the researchers. What was noted was the presence of an indoor water fountain which brought the sounds of nature into Cat Woman’s home and provided a calm atmosphere. Looking beyond the research however, we think that the widespread sharing of music in our culture demonstrates a way in which people commonly express themselves. Since sharing was such a large part of the other sensory aspects explored here, it follows that “earth friendly” sounds would be an easy way for a person to share her green mindset.

## Extra-Sensory Experiences

The sixth sense of “greenies” might well integrate purity and sentimental value. Shamrock’s use of Bag Balm skin ointment because it was made “before chemicals” demonstrates the need for purity on things used on the body. Jade, Cleo, Rasputin, Natural Woman, and Lady Bug also used a variety of natural hygiene products. Shamrock used organic foods and other organic body products to cure illnesses. She valued green foods because they were “fresh,” “raw,” and “unfiltered” and these represent key words for Shamrock in the satisfaction of her sensory needs. She felt these needs so strongly that she admitted that a perceptible taste difference might not exist, but that she was “psychologically attuned” to the difference and to eat non-organically would “assault” her. Lady Bug used Burt’s Bees skin products which she described as “so natural...so good.” She dramatically asserted that it was important that she put stuff on her skin that she knew wouldn’t “eat it alive.” Examples like these that highlight the importance of purity in and on the body are numerous:

- Jade used filtered water to avoid the leaching of plastics
- Cleo felt that filtered water tastes better and said the city water hurts her throat
- Cat Woman only used filtered water
- Cat Woman felt that natural food was better for both the body and the soul.
- Cat Woman, an active label reader, used natural cosmetic products free of toxins or other harmful chemicals
- Lady Bug checks labels for anti-oxidants in organic products to clear out toxins
- Rudy also likes organic foods because they have less chemicals

- Natural Woman sought out organic food which was not machine-made or processed
- Natural Woman drank detox tea to cleanse her system

Rasputin said that he would rather smell offensive than buy a non-natural deodorant. Further demonstrating the active pursuit of natural products, he asserted that he would drive farther to get organic soy milk and explained that products that affect his physical health are his first priority. He once had a cell phone with a leaking battery and wondered what that might do to him. He hopes future batteries will be safe if they leak.

Creating a pure home was also a need expressed by the participants. Cat Woman created a yard that was a natural system rather than a managed yard with pesticides and chemical fertilizers. The following instances further support the need for a pure home space:

- Jade was concerned about the residues left behind by non-natural cleansers
- Auckland commented that he would rather use cleansers that were green but not as effective as standard chemically based products
- Cat Woman wanted to buy toxin-free paint with good smelling scents
- Traveler preferred cotton and other natural textiles over other manufactured materials which off-gas into the home

Moving from the body, to the home, to the surrounding area we see a broadening clean living ideal. Auckland spoke about a feeling of space when he expressed distress that the city was encroaching upon his “forest” home. The air in his area is cleaner and more beautiful than in more developed areas and the rural setting lends a sense of privacy. Traveler also mentioned the idea of pure space, noting that her home and its surrounding land was a chemical free zone. She would not allow the city to spray for weeds. A natural living space was also appreciated by Rudy with her oxygen producing houseplants. Cat Woman incorporated nature in her home with a rock fountain.

The “feel” of a person’s space and objects also includes an emotional facet. Jade stated that, “I prefer to buy things with more sentimental value...touched with somebody’s hands, as opposed to machines.” Here touch is both actual and symbolic. Jade commented that the taste of organic and free-range foods reminded her of her childhood, thus attributing a sense of time to the product and fulfilling this sensory value. Memory and reflection are important in the green mentality. The use of cloth diapers represented a “nostalgia” for Jade. Lady Bug purchased organic dog treats because they looked like they were cooked by an old lady and “filled with love.” South Park liked his old fan and wanted cedar hangers for the feeling they would give him.

Linked with this sense as well as with physical touching is the act of involving yourself in a physical process. This is seen in Shamrock’s enjoyment of one of her “very favorite products,” self-ground peanut butter, which is available at a local health food store. The act of producing an item for your own use is constructive and satisfies a want to be physically involved. Deco liked to fix up old objects to adorn her home, and Cleo as an artist, often modified things other people had thrown out.

## Design Implications

### Product

These findings lead to some very exciting design ideas. Beginning with the phone casing there should be some texture involved. The cold and sterile plastic feel should be replaced with materials that evoke the warmer qualities of the natural world. The possibility of hemp plastics should be explored for both their recyclable properties and the textures they provide. Since the soft and silky feel was also appreciated by some subjects, and others seemed to like a combination of feels, the phone should incorporate a variety of touch sensations. A grainy feel could be added with real wood components, perhaps from harvesting reclaimed wood. The parts need to be durable however, since as Traveler says “what’s the point of buying something that’s not gonna last?” To appeal to the sentimental side of the user the product could feel as if it had been worn down by human hands. This could be done through the use of smoother surfaces around the key pad and rougher surfaces along parts not handled during normal dialing. It should remain small and light to accommodate the needs of male users to keep it in their pockets without weighing them down.

Two options should be explored to satisfy the sense of smell. Both offer the user the opportunity to personalize and change the product to suit their changing needs or moods. The first option is to create a small area of the phone casing that can hold small, removable scent beads. The beads do not need to be something that can only be obtained from Motorola. They are already available on the market and providing a place for them on the phone is the easy way to construct a scented phone. The second aromatic phone option would require Motorola to launch a new product line: removable scented face plates. This would allow the user to change scents quickly and easily and could include natural flavors such as lavender-mint, orange blossom, and pine fresh. Deciding on and altering the scent of the product would also allow the user to be involved in its perpetual recreation.

Since the sharing of sensory experience was often encouraged by respondents, the phone should provide this opportunity. Sound is an easy, minimally invasive way to let those around you undergo your sensory experience. Earth-ly ring tones offer several possibilities. Offering phones with themed sounds would allow users to choose a product that represents themselves. For example, the weather phone might offer wind, rain, and thunder ring tones, while the jungle phone could use tiger, monkey, and parrot calls. Other natural sound possibilities which we draw from Cat Woman’s indoor fountain are ocean waves, water fall, and running stream.

An easy visual way to announce the “green-ness” of the phone involves the backlight. Make it green. Another way to visually remind the user of her commitment to the environment is to shape the main menu key as a small leaf.

To appeal to the users’ sense of purity the battery needs to be as non-toxic and as chemically safe as technology allows. Residues and toxins were a common concern.

## Packaging and Labels

The packaging of the product also needs to address the sensory needs of the users. Natural fibers, for example recycled cardboard paper with visible natural components in it such as leaves or petals would fulfill sight, touch, and nostalgia requirements. Scratch and sniff areas on the scented face plate packaging would allow users to sample the flavors before purchase.

## Summary

Respondents used their senses to experience, appreciate, assert, and share their approach towards an environmentally sound lifestyle. A cell phone that aims to fit into this lifestyle needs to address the sensory needs of its target consumer. Thinking beyond the traditional cold, plastic, un-imaginative model will allow Motorola to reach these consumers.



## 6. *Teaching and Learning by Diana Harrelson and Laura Easterling*



### It's Not Always Easy Being Green

Living ecologically and socially friendly is a lifestyle choice, one that requires actively pursuing ways to make complicated decisions about every product purchased and item used in day-to-day life. For some, it is simply a personal decision made in an effort to be more health conscious. For others, it extends beyond the personal realm into what they can do to make a difference in their community. For all, it is necessary that they find ways to educate themselves on products, as well as ways of living, in order to support their lifestyle choice.

As they learn, people who make this choice also tend to want to share their experiences and knowledge with others. While the knowledge of our subjects varies from misinformed (Shamrock) to extremely well informed (Traveler), they all seemed to take pride in and enjoyed sharing what they knew with us as we interviewed them.

We found people in our study tended to fall into two groups, either those who were influenced by other people with more knowledge or those who were influencers extending their lifestyle and knowledge to the people around them as they continued to educate themselves. In the following two sections, we give examples of those who participate in this lifestyle as influencers in the way they exchange information, and those who do so as recipients.

### Exchange of Information as an Influencer (Active)

Jade, a housewife and mother of three is an advocate for sustainable living and enjoys sharing her knowledge on how to live a more ecologically friendly lifestyle with others. After first becoming interested through her desire to learn more about organic foods and vegetarianism she sought to learn more about environmentally friendly eating. Literature provided by her mother's nutrition class as well as books became important sources of information.

Jade's education of others begins at home with her children, whom she home-schools.

“I may not be able to do everything now, but if I raise them [the children] with these beliefs I can make a difference now and it will be easier for them to make those choices later”

She refers to teaching her children as having a snowball effect and believes it will get easier with each new generation. Jade explained that her four year old has completely grasped the concept of organic products and that her seven year old educates her friends about her food choices. Jade involves the children in learning projects like decorating cloth shopping bags and camping, where she encourages responsibility for the earth.

Jade bought a water testing kit for her home-school science class, which she and her children used to test the local pond water. Finding the water to be very unclean she continued the lesson by running the water through her water purifier and testing it again. The water tested clean the second time giving her faith in the product she purchased and showing by example the difference between the two water sources to her children.

For Jade, her lifestyle is a constant topic of conversation with family and friends. She felt successful when she convinced a few friends to switch to organic milk. She has also taken an interest in her neighborhood by talking with her neighbors about getting permission to start a community garden. While noting that not all are receptive to her opinions and ideas, she believes those with small children tend to be the most readily influenced.

Jade's interest in ecological living goes beyond just her families day-to-day life as she also took an interest in permaculture and natural building techniques. After taking a class on the subject, she participated in a Native American Pow-Wow, where she operated a booth and passed out literature on the topic in hopes of educating others. In addition to her permaculture booth, Jade is working with others to try to set up natural housing for low-income families. Jade believes education is very important for people who want to make this change in their lifestyle.

“I think my biggest issue as far as being socially [and] ecologically responsible is education. People need to learn to educate themselves”

She believes it is up to those who are knowledgeable to share their knowledge because people really do want to know. This mindset encourages her to continue to look for ways to get information out to people and to participate in different projects such as our interview.

Traveler is another participant who not only feels strongly about the environment but also feels it is important to share her knowledge with others. Just as Jade is currently doing with her children, Traveler also home-schooled her now grown daughter. What is impressive about this is that her daughter retained her mother's lifestyle and continues in Traveler's words to “live off the grid”.

Traveler makes a point of using her lifestyle and knowledge to earn an income rather than being tied to a 9-5 job. She sits on several boards that teach the community at large about organic gardening, conservation, and creating less waste as a means of conserving rather than relying on recycling the waste in the end.



“Our western culture, the United States, we’re 5% of the world population, but we consume the majority of the natural resources. [...] People always saying so you want my plastic bottles? No! You start collecting ‘em. You start using ‘em, or you stop buying that stuff.”

In addition to her board positions, she teaches yoga, using her class to pass on information about living organically, and she gives a lecture called “Gardening Naturally: Utilizing your natural resources” to youth groups and ladies gardening clubs.

Traveler uses her home as a teaching tool by sharing how she takes advantage of natural things, like harvesting rainwater and having a compost pile, to make her life better. She finds other ways to educate and earn a living by selling and teaching about the organic things she makes and uses around her home. These things include products such as manure and compost teas sold to people for use as fertilizers. She also uses her property to teach others how to live chemically free and as an added benefit she allows members from a local Raw Food Group to harvest dandelions and others weeds for consumption purposes.

Traveler is very knowledgeable about how products have different effects on the environment. During the interview she shares information about polymers and how they gas-off, she explains how Diatomaceous Earth is used as an alternative to poisons, she also speaks on the economy of wood and how companies are reclaiming it to make things such as fences out of it. She explains how Co-ops work and why they are the shopping choice for environmentally friendly people. She even shares how the company 7<sup>th</sup> Generation got its name, explaining that it was a native folklore term and that when discussing how some present action was going to affect later generations, the question became ‘how it will effect the 7<sup>th</sup> generation?’

Traveler also makes it a point to research things she sees being marketed in a way that is less than 100% truthful. If she finds a particular product that falls short of its claims, she will make it a crusade to educate people about the product and its misrepresentation. The example she provided us was Dyno-Dirt, a product that was being sold as fertilizer but was in fact nothing more than sludge from the municipality, loaded with high amounts of heavy metals.

These two women have fully embraced their lifestyles and have made it a point in their lives to share their knowledge. Others we interviewed were just as passionate about their lifestyles but their influence did not go as far as booths at Pow-Wows or holding lectures on organic gardening. However, they did prove to be influential with roommates, friends, and family. In these situations, we found most share their values and lifestyle by example and explanation for the reasons why they do the things the way they do.

For many people their way of life and choices are common topics with friends, family members and acquaintances. Their excitement is contagious as they share their love for environmentally friendly things. Natural Woman shares her excitement through missionary work and her religion. This stems from a lifetime of being interested in the

environment as in 7<sup>th</sup> grade she started a neighborhood-recycling program. Cat Woman frequently gets into conversations with people who take notice of her hybrid car and she takes that opportunity to promote it and educate others about making environmentally friendly choices. South Park is also a good example of this, as he was very happy to share the experience of his recently purchased used clothing drying rack and how it has made a big change in his day-to-day living. He goes so far as to introduce people to it when they come over and has even influenced a friend into purchasing one as well.

Things that excite their senses also tend to be things they enjoy sharing. Examples of this can be seen in South Park having his interviewers smell his organic laundry detergent and how Bryn Mawr had her interviewers place their hands in a bowl of tapioca starch so they could feel it.

Each of the participants had at least one ecologically or socially friendly thing they agreed they have or would voluntarily share with others. Though some were a lot more active than others in how they shared their knowledge, they all did so in some way.

## Exchange of Information as a Recipient (Active/Passive)

Although sharing information about their choices is important to those who live an ecologically friendly lifestyle, the ways they attain information is just as important as how they share it. We found this begins for most people with self-education. Books, magazines, and the internet are all common places people in our study looked to find more information on how to be “green”. Products claiming to be green also became a valuable source of information, from the labels and literature they provided in their packaging, to where they were purchased and what products were found in the same location. Other people including parents, significant others, as well as past and current roommates also proved to be a great source of inspiration and information.

### Books (Active)

Jade is a big believer in the benefits of books and even uses them as a medical reference and means of diagnosis and treatment instead of going to the doctor.

“My kids have never been to the doctor. [...] I’ve read too much to trust the medicinal system ... and I’m much healthier now.”

Jade also makes use of her local library to increase her learning resources, believing it is ecologically responsible to share and borrow books and that it has the added benefit of saving money as well. Although Jade did not grow up in this lifestyle her mother has always been interested in it and in turn has served as a source of information for Jade both through the classes her mother takes and the books her mother reads.

South Park refers to his Feng Shui book as a source of inspiration for better living and uses practices he learned from it to help him reduce things he finds he doesn't use anymore around his home. He takes the things he no longer uses and donates them to places like Goodwill and Half-Priced books. By relieving himself of the clutter in his life he believes he lives a more positive life and is happy to give to others what he can no longer use himself. He also uses the books as a source of direction from things like decorations to arrangement of furniture. He explained as a man living alone these were important things to learn.

“It's a 6000 year old culture and we call it a developing nation, I think it's done by now. Where the West is focused on technology and that's where our advancements are, the East is concerned with spirituality. Just because you don't understand how something works doesn't mean it doesn't work, [take] acupuncture for example.”

Cat Woman cares a lot about the natural surroundings on her property. In order to keep them as natural as possible she purchased the book Organic Garden in order to find what plants are native to Texas as well as what plants grow best in native Texas conditions. This allows her to save on things that she would use to acclimate nonnative plants to grow well, such as fertilizers and heavy watering, thus allowing her to be more ecologically friendly.

### Magazines (Active)

Natural woman reads magazines such as Self, Shape, and Good House Keeping. She uses these magazines to get information about healthy living and natural products. Traveler's use of magazines stems from those her friends give her that have articles on gardening in them. Organic living magazines such as Dwell and Natural Living have become a great source of information and guidance for South Park.

“If you have no idea what direction to go in, you can be led in any way. I want to be responsible, [but] how? I can come up with a few ideas on my own but there are experts out there.”

Towards the end of his interview Rasputin remembered an article he had read in the indie-music magazine Arthur about the dangers of mobile phones on the environment. After a few minutes of searching he produced the magazine and article that had been published over a year before our interview. This article left enough of an impression on him that he not only remembered it a year later but he also kept it for reference.

Bryn Mawr reads Mother Jones magazine, “a nonprofit whose roots lie in a commitment to social justice implemented through first rate investigative reporting” (from their website <http://www.motherjones.com/about/>); as well as The Nation, a socio-political magazine; and mainstream news outlets such as The New York Times and Internet News.

“I am interested to read about environmental concerns because that reflects how mainstream society feels about these concerns. I think it is great to have a small audience reading Mother Jones and you know, We “Heart” Whales, but you know if you aren’t hitting more people you aren’t making enough of an impact.”

## Shopping (Active/Passive)

Shopping and packaging has proved to be an invaluable source of information and learning on natural living for our study participants. Many participants commented on how they only shopped at certain stores because they trusted those stores and the products they sold. South Park brought up Whole Foods as the store he shops at for his organic products and had this to say about it:

“Whole foods is like this Dwell Magazine, you have an idea of what direction you want to go in, I didn’t want to be told what to do, but if I want to do something that’s responsible I know I can buy stuff there and it will be responsible, it will be the direction I want to go in.”

We noticed a few similarities in the ways people educated themselves while shopping for new products. For some, the place where they purchased it was an important learning tool as in South Park’s case. He feels a sense of security in anything he purchases at Whole Foods because of the store’s reputation as an organic product provider. Shamrock was another Whole Foods shopper who equated her purchases there with confidence in the fact they were organic just because that’s where she bought them. Traveler, on the other hand, made a point of not shopping at stores and instead traded things she grew or made and was intent on only purchasing things from co-ops.

Once they were in the store they still had decisions to make. We found two things prompted their decisions to learn more about new products, proximity of the product to other products they normally purchased and/or what the packaging said about the product. Packaging awareness included product statements, stamps or symbols such as the recycling symbol, the USDA stamp, and or FDA certification; and the list of ingredients (especially for food or healthcare products), as well as Energy Star labeled and energy friendly rated items.

- Proximity (passive)
  - Rasputin – already purchased natural products such as Tom’s Toothpaste and Tom’s Natural Deodorant. He found “Kiss My Face” mouthwash because of its proximity to the other products he purchased.
  - Rasputin – found his recyclable tooth brush the same way
  - South Park – found his organic dishwasher detergent because of its proximity to the other natural cleaning products he normally purchased.

- Packaging (active/passive)
  - Aukland – the packaging on organic trash bags and other 7<sup>th</sup> Generation products helped him decide on them as an organic product choice.
  - Deco – specifically read the packaging on anti-freeze bottles looking for one that was safe for pets, was sold on one with animals on the cover stating it was safe for pets. She avoids purchasing items that can't be recycled, pays special attention to the recycle logo.
  - Natural Woman – will not buy anything without first becoming educated about the product by reading the packaging, USDA stamps are important
  - Shamrock – reads the label of products to become more informed about them and to make sure they are made from natural ingredients
  - Cat Woman – reads detailed information on the labels of products in order to choose the one with the least hazardous chemical toxins and ingredients.
  - South Park – Reads the labels of his products to learn more about them. He feels those products that don't list the things they “do or don't do” probably aren't as good as those products that do.
  - Rasputin – Chose his toothbrush after reading the packaging realizing the product came with an easy way to recycle it.
  - Bryn Mawr – checks labels to make sure the products are natural/organic.
  - Ladybug – educates herself about the products looking for those who list natural ingredients over chemicals. Looks for FDA certification.
  - Rudy – bought an Energy Star rated home
  - Cleo – bought an Energy Star rated washing machine after being educated on how much electricity it saves and how some states even offer tax cuts for buying those type of appliances
  - Cleo – picked 7<sup>th</sup> generation products due to the information contained on their labels. Such as the following which she provided in her interview:

“[If] every household in the U.S. replaced just one bottle of petroleum-based dishwashing [liquid] with our vegetable-based product, we could save 230,000 barrels of oil, enough to heat and cool 117,000 U.S. homes for a year.”

## Other Methods

Other methods of learning about the lifestyle and various products most often included word of mouth from friends and family members as well as learning by example. (Passive)

- Shamrock – learned of health benefits of natural honey from her friend.
- South Park – did not grow up in an ecologically friendly environment but feels he got the “natural bug” from his father although it was by example more than sharing of knowledge. Having come over from India his father prefers to treat himself homeopathically rather than to visit a doctor. This made quite an impact

on South Park who now searches for natural ways to cure ailments rather than relying on modern medicine, which he feels is a producer of a lot of waste.

“Road to medicine is paved with garbage, plastic garbage wasted things, 1000 Petri dishes and you’re looking for the one that works, the rest are thrown away.”

- South Park – also learned about products such as natural cat food, and things like feng shui from his girlfriend.
- Rasputin – learned about Tom’s products initially from his girlfriend.
- Rasputin – was introduced to 7<sup>th</sup> generation dish soap by his mother.
- Cat Woman – initially got introduced to being ecologically friendly by a friend who influenced her by being very pro-environment going the extra mile to rescue animals, save energy, and promote socially friendly businesses and non-traditional business practices.
- Auckland – trashed his Converse tennis shoes after hearing from a friend that they were bought by a company who uses sweat shop labor

Some people were a little more proactive in their learning by taking classes or watching documentaries. (Active)

- Jade – took a permaculture class because it interested her and now wants to use that knowledge to help provide low cost living accommodations to under privileged families via natural building practices.
- Deco – watched a documentary on Styrofoam that has changed her product purchases dramatically. This involves everything from egg containers to house siding made of PVC. She would rather be inconvenienced, (purchases eggs in packages of 18 because they come in cardboard, purchasing a 1 gallon container of tea because the to-go cups were made of Styrofoam) than buy anything with Styrofoam in it.
- Bryn Mawr – took a seminar on reproductive rights and environmental concerns.

Social situations and memberships with certain associations as well as traveling and life experiences are utilized as learning opportunities. (Active)

- Ladybug – witnessed groups actively trying to clean up and recycle while at a music festival and this left quite an impression on her. She found it interesting that kids her age, that you would consider slack-offs and hippies with dreaded hair, were making this effort. The music festival also had booths set up advertising things like hemp for fuel and Tibetan Freedom. She refers to the music festival in general as a learning experience.
- South Park – was in the Peace Corps and picked up a lot of his organic start from there
- South Park – lived in Trinidad, which he referred to as a closed eco system. Due to the fact they did not have many natural resources everything had to be imported and therefore was not just thrown away.

- Natural Woman – completed missionary work in Africa. Her religious views play an important role in how she treats the earth. She once belonged to several green groups including Sierra Club and World Wildlife Federation.
- Cat Woman – belongs to the Sierra Club and Nature Conservancy as well as the Natural Resources Defense Council. She also uses Green Mountain as her electric provider.
- Bryn Mawr – grew up in the activist community of Syracuse.
- Cleo – grew up on a farm in a small Texas town with a family that had a high respect for nature and attributes this to her environmental awareness.
- Deco – belongs to the ASPCA

Health issues as well as a preference for Vegetarianism also proved to be great learning tools for ecological living. (Active)

- Shamrock – got into organic foods because of health issues; she takes suggestions of certain types of foods from her friends.
- Natural Woman – prefers organic and natural foods because of health issues; she educates herself on different types of foods paying special attention to the labels.
- Rasputin is a Vegetarian because of a tour through a meat packing plant given by a friend while in High School.
- Cat Woman – is a vegetarian as a result of her philosophy on life. It is this philosophy on life that also contributes to her being socially and ecologically friendly.
- Bryn Mawr – is a vegetarian due to health reasons but she is also sympathetic to the allocation of resources that goes into meat products as opposed to produce.
- Jade’s choice of becoming a vegetarian made her seek out more literature on health/environmentally friendly eating.
- Ladybug –is a vegetarian stating that one of the biggest turn-ons for vegetarianism for her was that it was environmentally friendly after educating herself on the fact that agriculturally growing animals is really environmentally destructive. She learned that it requires more land to grow food for the animals, and factory farming has a lot of waste/runoff. She explained that being vegetarian influences everything she buys and that it taught her to start looking at labels and to start caring about animals. If it weren’t for becoming vegetarian she wouldn’t have thought twice about it.
- Rudy – became a vegetarian after learning about the cruelty to animals in the meat packing industry as well as environmental concerns.
- Auckland – disliked purchasing meat from regular stores after he became educated on how the animals were treated.

Transportation concerns was another interesting pattern we found among our study participants. Many of them went out of their way to educate themselves on their current and or future modes of transportation as well as new and interesting methods people are creating to make transportation more ecologically friendly. (Active)

- Deco – bio-diesel was something she had a lot of knowledge of and felt very passionate about. She mentions how the Denton Recycles trucks (those trucks used to empty the recycling bins) are fueled with this fuel that is created from garbage. She spoke of how Willie Nelson is a big supporter of it and how Denton had a ribbon cutting ceremony centered around it because they were one of the first cities in the world to embrace it.
- Deco – test drove a hybrid, mentioned that they get twice as many miles to the gallon so you don't have to buy as much gas and that less gas meant fewer emissions.
- Deco – bought a used bike 9 months ago, explains to people that biking is better than driving because it “helps the air and saves you money at the same time”.
- Natural Woman – dad works for a hybrid company and on his advice she will be buying one in January.
- Cat Woman – owns a hybrid and talks about it all the time to friends, family, neighbors, and strangers who take notice.
- Jade – purchased a used van after doing research on its gas mileage and emissions, she eventually wants to get a diesel car so that she may convert it herself into one that uses “greasol”. She learned about greasol in her permaculture class. Greasol is run off of used vegetable oil that you can get from restaurants that usually have to pay for it to dispose of it properly.
- Jade – loves her bike and would ride it more often if it was safer for the little ones in the bike lanes.
- Ladybug – would have preferred a hybrid car but couldn't afford one, purchased the car she owns now after researching its gas mileage. She is very much against SUVs and the fact that they aren't gas efficient/eco-friendly, went so far as to print out fliers about how bad SUVs are and distributed them at a local mall.
- Ladybug – uses her skateboard as an alternative form of travel. Feels that people are too dependent on their cars.
- Auckland – loves his bike, said he would use it more if he lived closer to town, and used it all the time while in school.
- Auckland – in reference to his Hyundai stated, “It gets good gas mileage and has an excellent warranty”. Having good gas mileage and putting out fewer toxins into the air were both important to him.
- Rudy – purchased her Honda after learning about its gas mileage and cost
- Cleo – lives about two blocks from work so she takes her bike, and rides it almost everywhere because it saves money

## Use of Information/Communication Technologies for Environmental Purposes (Active)

As you can see by the previous examples, there are several methods people use to learn more about living an ecologically friendly lifestyle. The internet has proven, for many of our study participants, to be a valuable tool in learning about products, practices, and associations/groups. Nobody in our study seemed to be tech-phobic and many seemed to



embrace the ease at which they could gather information from the internet. Although many use the internet as a learning tool others (Jade) also use it as a teaching tool.

- Rasputin – mentioned going to the website of Tom’s of Maine to look up product information because he wanted to learn more about the company after his girlfriend introduced him to the toothpaste. He now purchases Tom’s Deodorant after finding it on the website. <http://www.tomsomaine.com/>
- Rasputin – when looking to purchase new electronics, he asks friends about different products and does his research on the web
- South Park – researched organic products on the web, especially health products. Found on the web both Dr. Bronner’s Peppermint Oil and GSE as organic solutions to assorted problems he was having.
- South Park – mentioned that he always goes to the web when researching new electronic purchases like cell phones or digital cameras. <http://www.cnet.com>
- South Park – mentioned visiting sites like Craig’s List and eBay when looking for deals on services and products. <http://dallas.craigslist.org/> <http://www.ebay.com>
- Rudy – uses her computer to research and keep informed on activist issues. She mentioned the ability to send form letters through the internet to your State or U.S. Representative on ecological issues through various sites and enjoyed how easy it was.
- Rudy – uses her computer to buy refurbished (recycled) products.
- Ladybug – researched cars on the internet before purchasing one
- Cleo – researches products online, she explains that there is plenty of information online and that unless you are illiterate or too poor for the products that are good for you there are “no excuses” for not being environmentally friendly.
- Shamrock – uses Yahoo Groups and Care2.com as well as search engines using keywords to stay environmentally active online. <http://groups.yahoo.com>  
<http://www.care2.com>
- Jade – uses the internet for education purposes, especially since she home-schools her children. Not considered a cost issue because there is so much available on the internet and everyone uses it.
- Traveler – views her computer as a teaching/communication tool, uses her daughters old computer to send messages to several people at once cutting down her work (calling each person) every month.

## The Wish to Learn More and Still Learning (active)

Throughout the interviews it became apparent that even those who seemed to be well versed in the ways of living an ecologically friendly lifestyle still felt there was room to learn more. It was not uncommon for someone to voice concern over just starting out, or taking baby steps in the beginning before fully embracing the lifestyle. Many felt that any little bit a person can do helps and that there was no action too small to start one’s road to sustainable living.

- Auckland – stated that he is not as “green” as he would like to be and feels that he is just a novice in the lifestyle but he is open to exploring all aspects of environmental consciousness in his product buying.
- South Park – is active in his search to learn more about living a way that is in harmony with his mind, body and environment through the use of magazines, friends, and products that are environmentally friendly. He thinks the more convenient something is the more people would be prone to taking advantage of it.
- Rudy – participates in online activist groups trying to learn and make a difference any way she can. She enjoys the fact she can use the internet to stay up to date on environmental awareness.
- Jade – continues to educate her self and has made it a priority to educate her children in an ecologically friendly home-school environment. Her family’s health and welfare comes first and she chooses this lifestyle to provide that for them, while at the same time having benefits for the world around her.
- Bryn Mawr – makes a point of keeping up to date with socio-political and environmentally friendly topics via seminars and magazines.
- Cleo – said that it is a collaborative effort among all her family members to be environmentally responsible and that the more information that is available, the more responsible they become. She gains insight from magazines while in line at grocery stores, from the internet, and books she reads.
- Rasputin – learns a lot from shopping, from purchasing new products and researching their manufacturers for other products if he likes them.
- Cat Woman – after being turned on to the lifestyle by a like-minded friend, she has joined several groups that help keep her informed about activist topics.
- Ladybug – Continues to be involved in the music festival scene, feels that it is both educational and fun.
- Deco – enjoys becoming knowledgeable about environmentally friendly things such as bio-diesel as well as non-environmentally things such as Styrofoam. Using her knowledge she educates others and makes better decisions for herself.
- Shamrock – Shamrock’s main sources of education are the Care2.com website and Yahoo! Groups. Where she can read about environmental news and information, health, human and animal rights news along with shared with interest groups to join and sign petitions just by the click of a mouse.

Though many of our participants would never consider themselves teachers, they all taught us many valuable things throughout the study. They were all willing to invite us into their homes and share with us their lifestyle choice, why they made it, and how they continue to make it on a daily basis. Throughout this chapter you will notice we made annotations of Active or Passive next to many of the headings and subheadings we’ve discussed. Our purpose in doing this was to establish an overall pattern in active and passive actions people engaged in while ascribing to this lifestyle. You may notice some people never show up under the passive annotation (Traveler) while everyone else shows up under both annotations depending on the circumstances. The importance of this is that it shows, though they all make some sort of active effort in becoming more educated on their own, many of them are open to new things that come their way.

## Design Implications

Using the trends we saw in how people educate themselves as well as how they share information we put together the following list of design implications.

Some of the items below are not directly related to the environment, but they relate to important things we learned about the lives and needs of our interview subjects.

### Product

#### *Calendars That Separate Life Areas*

Dealing with the product itself we feel with the busy lives many of the study participants lead a great calendar option would help make the phone invaluable. Though many phones today come with scheduling features what we came up with would be a bit more robust.

As the user enters a particular task, to-do, or appointment we feel they should be able to put it under a certain life category, i.e. Work, School, Home, Social. Then allow the user to view the life categories separately or as a single life category with all of the separate lives chosen.

The key to making this work is ease of use. Allow the phone's scheduling program to be compatible with standard calendar applications (iCal, Outlook), and/or provide them with a new desktop application. With a USB or blue tooth connection the user can update their phone from their home computer instead of manually typing everything in since this can be a cumbersome job with small screens and buttons.

As an added benefit allow them to also publish what they want out of this calendar to the web so that they can share parts of their lives with co-workers, and/or friends and family. This could also allow people who are not in front of their home computer where they have the desktop software to send information to their phone via the internet. If someone must update from their phone we suggest providing them with a QWERTY keyboard to make it as easy as possible.

For people who take advantage of all three options (having the information on the phone, the home computer, and the web) they have an added benefit of a great back up system. This will allow them if one of those goes down or they purchase a new compatible phone to continue to have access without having lost anything. Utilizing the web interface it may be an added benefit to allow key people to add items to the calendar from the web. This feature would then send the user a text message alerting them to an upcoming event they've been invited to.

#### *Camera Phones*

We feel if EcoMoto chooses to put a camera on the phone this would be a great idea for *some* users but not all. Because of current restrictions implemented on cell phones with camera such as, not being allowed into locker rooms or concerts with them, we believe

there is a user base out there that would prefer to purchase the phone camera free. However, for those people who would enjoy having a camera phone, allowing them to share the photos they take on the web in the same place as their calendar and even allowing them to link the photos to certain events in their calendar would be a great added benefit.

## Packaging and Labels

### *Packaging as a Learning Tool*

Packaging is one of the most used ways to gain knowledge about potential product purchases. People want to learn more and are encouraged when they see the packaging contains in depth information about the product provided. They are looking for more than features listed, they want to know about the product itself, in addition to what it can do. This is what matters most.

Having a statement about EcoMoto's vision and commitment, emphasizing what makes the phone ecologically friendly including materials, as well as a statement about recycling of the customer's current or old mobile phones would be a great step in the right direction. In addition to providing consumers with great information, the packaging should also be made of recyclable material as well as organic based products and should say so. More packaging discussion is available in several of the other chapters.

## Marketing and Advertising

### *Personal Web Pages*

While several of our participants used the internet to do research and to stay alert as to common trends or innovative ideas we understand that not everyone has access to the internet. Although web capability is a standard function on phones today, for many it's just too cumbersome to try to navigate. We think providing users with a customizable webpage, as their start page when they connect via their phone, would be a great idea. On a personal level web page would house their web enabled calendar as well as their pictures but it could also be used to provide them with the latest news and trends for living an ecologically friendly life style. They could pick and choose what is important to them such as different clubs and association newsletters, RSS feeds of publications they subscribe to, organic product companies, and recycling locations.

By teaming up with the right people this could allow for great brand marketing as well as collaborations with well respected companies who now have a captive and willing audience to market to. With purchase of the phone you could offer some interesting packages allowing members to donate some of the cost to organizations of their choice. With their donation customers could chose to receive free literature and or subscriptions to the specific organization's newsletter that they could opt to receive electronically by phone and/or email allowing for the reduction in paper, giving EcoMoto one more way to call their phone ecologically friendly.

### *Collaborations with Like-Minded Companies*

Collaborations with well respected ecologically friendly companies, magazines, and associations not only gives credence to the EcoMoto brand but would also allow customers to have direct access to what is important to them as well as provide them with a continuous learning tool. These may be advertising avenues for EcoMoto as well as people who would be interested in a partnership with the custom web portal and/or trial subscriptions with purchase of the phone. It would be a two way street with EcoMoto getting its name out to the people who care, and for the other companies to be introduced to new people who may have never heard of them before.

### Conclusions

What we can say after this study is that ecologically friendly people want to learn more but don't always know how to get the information they are looking for. By providing them with a phone that not only fills their communications needs, but also their need to learn, as well as making it easy to use and packing it with great features, they will now have an invaluable tool that they will learn to count on and feel good about using.



## *7. Practices that Reduce Consumption by Mick Weldon and Debra Anderson*



In this chapter, we describe four main ways in which our study participants reduced their consumption. They are:

- Reusing products
- Reducing waste
- Recycling
- Minimizing energy consumption

### The Reuse of Products

Throughout the interviews conducted, a common trend of the reuse of products and waste reduction became vividly perceptible. The majority of the interviewees shared similar values about simple methods to reduce his or her consumption through the reuse of items, most of which required little change in his or her lifestyle. Regardless of the reasoning, whether it is for environmental concerns, monetary motives, or a sense of fashion, nearly every interviewee expressed his or her interest in secondhand products. Clothing, furniture, appliances, literature, music, and movies were all familiar items used and purchased. Several of them also appreciated the simple beauty in objects that could easily be considered garbage, while others even went so far as to create art out of materials that were to be thrown away by friends, family, or themselves. Another prevalent belief among the subjects was that rechargeable batteries are far superior to disposable batteries due to their reusable nature. A concluding trend with the individuals was the reuse of items such as grocery bags as trash bags, plastic water bottles refilled and reused, plastic containers for storing leftover food, and glass bottles living a second life as cigarette butt containers. Each of these actions exemplified how the participants saw new life for ordinary products that could easily be salvaged for a second, third, or even tenth application.

### Secondhand Clothing (Active/Passive)

Several of the participants expressed satisfaction for buying used items from thrift, second-hand, or vintage stores. South Park explained that during his time in the Peace Corps, he was turned on to the idea of shopping at Goodwill, and now is a frequent customer because a Goodwill store is right across the street from his apartment complex. He continued to say that this store was central to several more affluent areas in the metroplex, and often reaped the benefits by finding higher quality and name-brand merchandise that in other thrift stores. Often he finds clothing that was never even worn and probably donated because it was the wrong size for the previous owner. Although he

buys t-shirts for small amounts of money, he often has them custom-tailored to fit his build, which some may feel defeats the purpose of buying inexpensive, secondhand clothing.

Deco also purchases clothing from thrift stores for monetary purposes, and marveled at the idea of paying hundreds of dollars for a jacket when she was able to buy one for just sixteen dollars. Most of the clothing she owned was secondhand and came from various thrift stores or garage sales. Her parents also save clothes and try passing down “timeless” articles of clothing to their children. Several years ago, her father tried to get her to try on a jacket she has now, and she did not like it at the time. So it was replaced in the closet, and years later, when Deco returned home she asked if she could have it. Her parents said to her, “Remember when we tried to make you take that the first time?” Deco replied, “Yeah, I didn’t like it then but I think it’s cool now.”

In a similar fashion, Rasputin is the owner of a Pan Am travel bag that he uses to store items in while on the move, instead of a new backpack or other carrying bag. He also has a pair of 60s style ankle boots that were handed down from a friend’s father that he enjoys immensely. The retro style is appealing to him, and he shows the desire to reuse items rather than throw them away. The boots may also be difficult to find today, as well as costly to buy.

Natural Woman also shared these views about clothing, though most of her ideals on the matter came during her religious mission that took place in Africa. She explained,

“Instead of spending \$60 on a pair of jeans, I can but the same thing for \$2 at a thrift store; I do go to richer areas for thrift stores because I know they will have nicer things. Before Africa, if I got a stain on a piece of clothing or scuffs on a pair of shoes, I would be like ‘I’m not going to wear that,’ but now I think how I can make that better so I can spend my money more wisely, like sending money back to Africa.”

### Used Furniture (Active/Passive)

Furniture was another possession that the interviewees commonly felt was unnecessary to purchase brand new. South Park purchased an old school desk from an upscale resale shop for a more sentimental reason; it reminded him of the desk he had at the age of six. His reasons for owning the desk also include:

- It satisfies his apartment’s vintage theme
- The desk stores his magazines well
- After using the attached pencil sharpener, a stimulating aroma is present in the air

Deco received much of her chairs, couches, and other furniture from friends and family that no longer needed the pieces. She also mentioned that dumpsters were often treasure troves for usable furniture. Since she does not have a lot of money, new furniture is almost out of the question for Deco. Nevertheless, she does enjoy antique and free



pieces; even if she does not need something that she finds interesting, she will more than likely take it home and keep it.

Natural Woman noted a coat rack in her home that had a rustic, natural look, which actually spawned her pseudonym. Her attraction to things that have a natural look or feel to them often constitutes the purchase. The coat rack in particular was purchased inexpensively from a thrift store and she got the idea that “it was made by grandmothers,” and “would rather have a product like that than from a corporation such as Target.”

### Used Media (Active)

South Park was able to obtain a vintage 1950s electric fan from his parents’ house, and replaced old parts to revitalize the fan. He also felt it unnecessary to purchase brand new media such as books, music, and movies. Half-Price Books often satisfies his craving by offering used media at, well, half the price of new retailers, or even sometimes much less. He explained that if he buys a VHS tape for one dollar, views it as much as he pleases, and sells it back to the store, even if he only gets a penny back, he still got substantial use out of the product for just a dollar. This saves perfectly good products from the dumpster and gives a form of cheap entertainment that one does not have to feel guilty about.

Similarly, Rasputin collects books, records, and compact discs from used book and music stores; he explains that the main reason he shops at these stores is because he can buy more books and music for a smaller amount of money.

All of these actions are comparable in nature and demonstrate the acceptance for secondhand products, with the most common reasons being environmental concerns, monetary motives, or a sense of fashion.

### Garbage Salvation (Active)

A second similarity that reoccurred during our studies was the idea that certain items that were to be thrown away could be salvaged due to their natural beauty, and other participants were artists that revitalized items, giving them a second life as pieces of art. Bryn Mawr, for example, stored a glass jar on her windowsill that contained numerous fruit pits and lemon rinds. She said that she found them very beautiful and would rather keep them in her home than dispose of them.

In Cleo’s home, she had old picture frames and a vintage sewing box, and stated that reused things have become part of her vintage style. She also said that taking in previously used products was a way for her to prevent there being too many things simply thrown away.

Much like Cleo and Bryn Mawr, Deco cleans and saves the jars of food products once they are empty. In one case, she was able to obtain large amounts of broken stained glass

from an old factory, and she placed the broken shards in the jars and they sit on the windowsill in her kitchen. The sunlight reflects through and displaces an array of colors throughout her house. She is frequently complimented on her utilization of old jars and her friends always say how they never would have thought of that. The compliments obviously encourage her creativity and originality to continue using products that would once be trash in new and exciting ways. This could definitely be considered art, and Cleo did something in a similar fashion as well: she used old computer keyboards and mice to create a sculpture called “Uzumaki,” which is Japanese for “spiral.” Electronics are extremely disposable and often obsolete after just a few years, or even less. The creative use of these products is one way the study participants gave a second life to products that could just as easily be piling high in a landfill.

### Rechargeable Batteries (Active)

A few of the informants expressed a strong approval of rechargeable batteries. The obvious reasons being their longevity, lack of waste as with disposables, and saving money in the end. Cleo displayed her battery charger during her interview and explained that batteries contained acids that should not be thrown away, and only should be taken to places such as Radio Shack that will properly dispose of them. Again, money factors into the purchase when she states that it is much cheaper to buy rechargeable batteries in the long run. She stated, “Rechargeable batteries are simply easier.”

Bryn Mawr also feels the same way, and when asked about a hand-held game in the house with rechargeable batteries, she explains:

“That is not my GameBoy; it belongs to the boys in the house, but they are very conscientious about using reusable batteries. I hate when there aren’t clear recyclable guidelines. I was happy to come to a household where they were in use. So far I have used these and Ikea batteries that I got for two dollars; they aren’t good batteries. I would prefer to buy rechargeable batteries at a good price though.”

Again, monetary issues come into play here where Bryn Mawr is forced to buy the lower quality disposable batteries simply because they are inexpensive and she cannot afford a set of rechargeable and a charger.

The interviewee Jade is married with children, and she and her husband can afford to spend a little more money on certain items they feel are necessary. Jade explained, “After I started using rechargeable batteries I can’t stand to use the other ones.” She initially purchased them for her digital camera but after seeing the benefits to rechargeable batteries, has since replaced all her children’s battery-operated toys in the house. The same goes for South Park; he first bought rechargeable batteries for his digital camera, but now specifically looks for electronics that use AA batteries because he owns those type of rechargeable batteries.

All of these participants understand the need for quality rechargeable batteries, because they use them in electronics that consume batteries very quickly. Instead of buying disposable batteries over and over again, they would prefer to have one set of superior rechargeable batteries that would benefit them in the long run. The reasons for doing so include the ability to reuse one set of batteries for multiple charges, not using batteries that would end up in a land fill leaking acid into the environment, and saving money by not buying something disposable when there is a better alternative.

### New Life (Active)

A final trend relating to the reuse of products by saving containers and giving them a second life was very common with the participants. For example, items such as grocery bags were used as trash bags, plastic water bottles refilled and reused, plastic containers for storing leftover food, and glass bottles revived as cigarette butt containers. Almost every trip to the grocery store results in a pile of plastic grocery bags, and Cleo demonstrated a creative way to reuse the bags. She explained how she uses them as garbage bags for trash cans in her home because “it is simple,” and they already have handles attached. Her motivation is that it is good to reuse them rather than throw them away, and it is better than buying real trash bags when these work just fine.

The participant Auckland did purchase trash bags, however he did make the decision to go with bags made from recycled plastic. He was knowledgeable about the product and clearly took time to research before buying. This showed that the participants were willing to look into a product and their decision to buy would be based on the item’s credibility.

Although they are not trash bags, Rudy explained how she would reuse gift bags from presents she gave and received. She saw no point in throwing them in the garbage when they could easily be reused again and again.

Jade, Cat Woman, and Bryn Mawr all expressed the importance of reusing plastic water bottles instead of buying new ones all the time. They said how it was simple to just refill a bottle they already had, so not just one use is obtained from a water bottle. Bryn Mawr even said how much she appreciated her indestructible Nalgene bottle while in college. She stated,

“...having a Nalgene as your own water source is not only healthy but cuts back on the amount of disposable plastic containers you would use otherwise. I remember in college it was a very big thing; everyone had a Nalgene, the entire rugby team, trucking around with their Nalgene’s in the dining hall. It was a very socially aware product I was exposed to in college.”

Bryn Mawr also boasted a refrigerator stocked with reused cottage cheese, yogurt, and other containers now storing leftover food. She said, “There is no reason to throw out or even recycle when you can use it for your own purposes.” Her cabinets were stockpiled

with several types of containers that could be reused at any time. She had another interesting use of a product that would easily be considered trash, which was a beer bottle used as a cigarette container. “Cigarettes are disgusting and bad for the environment, which is why they should be contained.” These simple practices show the imagination of the participants when it comes to creatively reusing products in unintended manners; they all were interested in the reuse of products to extend the life of the item.

## Waste Reduction

In respect to the process of reusing items for waste reduction purposes, the participants explained how they made slight changes in his or her actions that reduced the amount of waste he or she produced. For example, a congruency present with the subjects was the ability to simply replace unnecessary, disposable items like grocery bags, paper towels, and single-use diapers with more durable, multi-use items such as reusable canvas bags, linen towels, and cloth diapers, respectively. A few participants explained how they prefer digital camera because they do not have to waste paper and developing chemicals when their photos can be viewed and shared on a computer. Finally, there was mention of certain materials used in packaging, like Styrofoam, that some respondents avoided altogether. (active)

As previously stated, Cleo’s reuse of plastic bags was also a reduction of waste produced. She and other participants opted to use canvas bags whenever possible to do his or her grocery shopping with. Cleo says it is just easier this way, a shopping cart is not necessary, and some stores will give a five cent discount on one’s total. She also was handed down a set of cloth napkins which greatly reduces the waste of napkins and paper towels. She said, “When they get dirty, we wash them, and reuse them.” Bryn Mawr preferred to use towels and rags in place of paper towels for the very same reasons as Cleo. “I prefer rags in comparison to paper towels because they are reusable,” she stated. Similarly, Jade was able to wash and reuse cloth diapers for her children which greatly decreased the waste produced by disposable diapers. She receives comments about them all the time, and her friends say they “wish” they could do this as well, but are often resistant, probably due to the inconvenience.

## Digital Cameras (Active/Passive)

Digital cameras were popular among the interviewees because of their practical nature; they took photographs but avoided the production of unnecessary waste by printing, unless desired. South Park said that his digital camera was the best purchase he has ever made. It helps save him money, and saves cost to the environment in photo developing by only getting prints of the pictures he really wants, or even just portions of photos. Jade especially feels this way also, even though she did not truly think of environmental considerations at the time of purchase. Her children are able to take pictures and load them on the family computer in an instant without any type of waste.

While Deco was on a lunch break from work, she stopped in a restaurant to buy a cup of iced tea. Unfortunately, the only cups the store had were made of Styrofoam. Deco asked if the store had anything else, and they did: a large, pail-sized container that was made of plastic. She was willing to pay more for this monstrosity and be teased at work just so she was not using Styrofoam. This instance illustrated just how dedicated some people are to their values, and will go far out of his or her way to avoid a packaging product believed to be evil. (active)

Certain respondents expressed his or her environmental concerns relating to the products he or she uses, and how each is interested in reducing waste whenever possible. Most of them were okay with making slight changes in his or her normal actions to do so, and their explanations are relevant to the design implications for the cellular phone.

## Recycling

The concept of recycling is something that has been emphasized to consumers throughout their lives. It is ingrained in their minds and, whether they do it or not, they know that they should. The act of recycling, however, is a complex thing, of which several questions arise. What can be recycled? How do you recycle? How do you know if something is actually getting recycled or not? These questions, and many others, are asked by all consumers. Based on the responses of our 13 interview participants, recycling has been divided into a three-step process; buying recyclable products, recycling products rather than trashing them and buying already recycled products.

### Buying Recyclable Products

Consumers want to recycle. Therefore, they want to buy things that would allow them to do so. As our participant, Jade, put it simply, “We like to buy stuff that can be recycled.” But a common question arises as to what can be recycled. Paper can be recycled. Plastics can be recycled. Aluminum, cardboard, and glass can be recycled. People buy products made of these substances because they can do their part in saving the environment by recycling them. Some consumers will go out of their way to avoid products because they are not able to be recycled. Deco, for example, said that she pays attention to the bottom of products looking for the recyclable symbol. She also said that sometimes she buys larger drinks at the store even though she won’t drink it all just because they come in a plastic cup rather than Styrofoam. Deco also said that she would buy eggs in larger quantities than she will use just to avoid Styrofoam. So, how do people know what is recyclable, or not? As I will discuss shortly, many people know what they can recycle by what their city recycling programs will take. Beyond that, however, few know what to do. Do consumers know that Motorola will recycle old cell phones? The answer to that, unfortunately, is no. Only one participant, indicated that she recycled her old cell phones and she did so by giving them to shelters and people in need. Would consumers be more inclined to buy cell phones if they knew the company recycles old ones? Without hesitation, I would say yes. One of our informants, Rasputin, for example, will buy

toothbrushes for slightly more than the regular price because it comes with packaging that can be mailed back to the manufacturer for recycling when the toothbrush's use is complete. The list of commonly recycled items described above is important to keep in mind. But, what about the other substances people purchase and discard on a daily basis? How do you recycle them? Or, do you just throw them away?

### How Do You Know If Something Is Actually Getting Recycled?

Consumers need information about recycling if they are going to do it, but few will spend the time researching which companies recycle their products and which ones use recycled materials to make them. It all comes back to convenience. While there are exceptions, most people like the idea of saving their environment without giving up leisure or time. They want it to be easy. This includes getting their information and the more information the better. As Rasputin said, he would like to know what happens to products once they are sent back to the manufacturer. How are they recycled? The behind-the-scene is an intriguing mystery that consumers would like to solve. And knowledge, in general, is something that environmentally friendly consumers seek with vigor.

### Recycling Rather Than Trashing

Environmentally friendly consumers hate being the cause of companies producing more waste that accumulates in landfills. In response to this, recycling has become one of the most convenient ways for consumers to participate in saving the environment. Many cities in this country offer recycling programs to their residents and other cities are quickly following suit. These programs vary from city to city, but most provide recycling bins or colored bags for residents to fill with specific recyclables that a city-paid truck will pick up from each doorstep. This service has made an enormous impact on the number of products being recycled today. 77% of all our participants recycle in some fashion or another. Those who do not recycle, live in areas where recycling is not provided by the city. There are two types of recycling that has appeared in our research: a passive approach- city-provided recycling and an active approach- taking recycling to centers. While most participated in the former, only a few took their recycling to centers where they must personally divide recyclables into separate dumpster-like bins. Informants continually indicated that the city-provided recycling was easy and convenient. Cleo told us that the city provides not only a bin or bag for recyclables, but also a short and concise information sheet describing exactly what they will recycle. The system is so convenient, said Cat Woman, "You just have to throw your recyclable trash into [the bag] and leave it outside your home. The rest of it is taken care of by the city." Rudy agrees with the system. She said, "...It just makes you feel good to...just chunk it in that blue bin and you're, like, ok, good, at least it's gonna be recycled. So, it just...gives you piece of mind [knowing] that, you know, you're doing something environmentally friendly." The concept of saving your planet in an easy and convenient way is a reoccurring and important theme in the lives of all our participants.

## Buying Recycled Products

As our informant, Cleo, demonstrates, consumers know that each time they buy a product, it increases the demand for that product and more must be produced to meet that demand. They also understand that an increase in production yields more waste that will eventually be sent to landfills. This cycle of production and waste has been taken to an extraordinary level in America and if nothing is done to slow the process, the planet will come to (has come to) a time when there simply is no room left to accommodate all of the waste. So, we recycle. But recycling isn't enough by itself. What is the point in recycling trash if you don't see the cycle come back around to you again? People want to know that the bins they fill for the city to take are actually being recycled. They want to see recycled products. They want to see that the cycle continues. Rasputin's recyclable toothbrush described earlier, for example, was also made from recycled materials. The cycle continues. As Auckland boasted, "this is the floor and the wood is taken from old barns." The cycle continues. More and more products promote being made of recycled materials because consumers like to see that their efforts to recycle are making an impact on the environment and by advertising a recycled product, companies do just that. It is another very convenient and "passive" action to buy something (that you were going to buy anyway) that is made of recycled material. It's easy and you get to save to world in the process.

## Minimizing Energy Consumption

With just as much importance as on the act of recycling, participants emphasized minimizing their energy consumption. While this is a rather broad phrase, I have characterized its meaning into four specific areas: reducing unnecessary energy use, using natural resources, alternative transportation and energy-saving products. Because nothing listed is the most convenient thing to do, all of these actions are considered to be active rather than passive.

### Reducing Unnecessary Energy Use and Using Natural Resources

The concept of reducing unnecessary energy use is rather straight forward. Several participants expressed the importance of not taking advantage of energy just because it is available. For example, many of the participants use alternative forms of lighting. Traveler, Rudy, Lady Bug and others prefer to use indirect lighting such as lamps or candles rather than direct over-head lighting which uses more energy. Beyond this, as well, the inclination of participants to use natural and renewable resources was extremely strong. Such resources vary depending on the activity being practiced. For example 30% of our informants preferred to use drying racks or clothes lines for drying their clothing rather than a drying machine. Some participants do so despite the fact that they have immediate access to a drying machine. And some, such as Traveler, gave away their drying machine because she said she doesn't want one when all you need is a clothes

line. This is an astounding percentage of people who choose to forego their convenience in an attempt to reduce their energy consumption. While, our environmentally-friendly informants varied in their participation of saving energy, they all expressed the importance of its necessity. Rudy said that he opens the blinds allowing sunlight to heat and provide light for the room. While Traveler said that during the summers she turns off the water heater and showers outside using water collected in a suspended bag and heated by the sun. Again, regardless of the ways in which informants utilize their natural resources, all consider it important to do so.

## Alternative Transportation and Energy-Saving Products

One of the key aspects participants discussed with regard to saving energy focused on transportation. 30% of all informants used bicycles as their main form of transportation despite having cars. Lady Bug, in particular, began to use her skateboard when her bike broke. This practice of sacrificing convenience and leisure to reduce their consumption of gasoline only further indicates to what extent people will go in search of environmentally friendly living. For those participants who did not take to riding bicycles, most boasted owning a car with great gas mileage. Cat Woman, for example, bought a hybrid car. Of this she was very proud and promotes continuously to those she meets. The hybrid is only one of the many energy-saving products participants purchased. There are two important products that arise here and, of them, one is energy star. Informants possess a variety of energy star products from washing machines to water heaters, televisions, computers and even an energy star house. They love energy star products because they know, just by the name, that they are minimizing energy consumption just by using them. Cleo was so excited about her energy star washing machine that, though she didn't even pay attention to the savings accrued by using it, she said that she loved it and felt as though it was her "first adult purchase." The idea that purchasing energy-saving products such as energy star is a responsible adult thing to do provides insight when trying to understand the mindset of environmentally friendly consumers. The other important product that has been discovered was Green Mountain Energy. Some participants preferred to use this energy company because it promotes using wind energy to supply its energy grid. As Cat Woman said, it is important to use "unlimited resources" such as wind as oppose to others. For those who do not have the option of using Green Mountain, like Cleo, they can opt to spend extra money and sign up for Green Cents which promotes the use of wind energy.

## Design Implications

### Product

In the previously described trends of reusing materials whenever possible, a new telephone composed of salvaged parts that can be disassembled and reused *again* would seem to suit the desires of the interviewees. Some people are impressed by top-of-the-line electronics, but others would be more interested in purchasing a product that had a



more respectable production process. If guidelines were clear on how to make use of an obsolete cell phone, more people would be interested in returning a product that would just be sitting in a drawer or a closet. The phone should include a package where the consumer could easily return old phones, perhaps with an incentive such as a free ringtone download, or rebate of some sort. Another topic that could be addressed is the elimination of extra synchronization cables, when infrared Bluetooth technology could be incorporated into the phone. By doing so, cables could be abolished and connecting two devices or the device to a computer could be done in a simpler fashion.

The phone should be made entirely out of recycled materials.

The phone should be entirely recyclable.

A phone's battery should be rechargeable via natural resources such as movement (like the Rolex watch) or by using solar energy.

### Packaging and Labels

Waste reduction will also play an enormous role in the buyer's interest in the product. As stated by Jade when talking about buying food in bulk, "I don't like packaging. And it's cheaper." She repackages food from larger containers into her own, thus eliminating a great amount of waste from packages. If the phone boasted minimal packaging with fully recyclable materials, more environmentally conscious people would become interested. Styrofoam should be avoided at all cost. The story of Deco and her disgust toward the material illustrates how some people will avoid a product altogether if Styrofoam is included, and spend more time and money seeking an alternative.

Basically, minimal packaging and the phone's ability to be reused in the future would seem to be the most intriguing, based on the explanations of the informants. There is an infinite amount of ideas that could be taken into consideration with these topics, such as recycling booths in cellular service providers' stores and kiosks, the possibility of rebates or something similar if a customer were to donate his or her old phone, and the option to have the store keep the phone's packaging for reuse and offer the customer a free ringtone, or something similar in return.

The packaging should clearly indicate the recyclable symbol.

There should be information about Motorola's process of recycling on the back of the package along with a web address to get further information.

### Marketing and Advertising

Focus on the fact that you use entirely recyclable materials.

Focus on the fact that it is easy to recycle old phones.

Promote the extra information that you offer online and the steps you take offer a completely “green” cell phone.

The process of recycling should be made convenient and easy. The idea of providing a bag with the purchased cell phone in order to send it in to be recycled when finished has its flaws. Cell phones are not disposable items. They are used over a long period of time and, because of this, people are likely to lose the bag it came with and/or forget that it can be recycled. It would be a better idea if, along with this process, a system were set up so that customers were given an incentive for turning in their old phones to store clerks, etc. when they come to purchase a new one. That way they don't have to bother with searching for the packaging a phone came with and mailing it off. It is more convenient and customers will also see an immediate return for their efforts in the incentives. And as we know, convenience is key.

## 8. *Choosing Products from an Environmental Perspective* by April Kelly and Shay Olivarria



In this chapter, we describe the factors that our study participants used in selecting products. We consider

- A preference for all-natural products
- A preference for small business
- Shopping behaviors

### Preference for All-Natural Products

A major theme with most of the participants was their preference for products that were all natural, or “made from the earth.” The concern for health and safety was a big issue that had a great impact on what kinds of products people chose to buy. Another apparent impression of some of the participants was that products from other countries were more natural than ones that were made domestically. If a product was made in another country or looked foreign to them, they automatically assumed that it must be natural and good for the environment. Packaging was another issue that many of the participants showed concern over. If a product was packaged in a material that was natural, it would be easier to dispose of and less harmful to the environment because it would have the capability to naturally dissolve or biodegrade quicker.

### Examples of Choosing All Natural Products (Active)

Lady Bug was one that showed great interest in natural products. When she was growing up, her mother’s make-up products were all natural. She learned that you can dump those products directly into your backyard and it won’t harm anything. She mentioned that sometimes companies make things seem natural when they are not and they sucker her into buying that product. For this reason, Lady Bug checks the labels on the back of all the products that she buys. She looks for evidence that it is organic on the back of the package. Sometimes it is only ten percent organic and other times she finds that it is indeed FDA certified organic. Lady Bug checks the labels and ingredients to make sure they are telling the truth on the front of the packaging. This shows her being active in her environmental approach.

Jade’s main reason for choosing natural products was for health and safety reasons. All of her cleaning products were natural because she felt they were safer around her children in case one of them ever got into the products. She was willing to spend a substantial amount more to get natural cleaning products than to buy products that were unnaturally made and could be harmful to her children.

Cleo describes natural and organic products as being less harmful for other reasons. She explained that organic foods are good for you because you don't get chemicals like antibiotics that you unknowingly get with other products. When you buy something that is natural, you are not getting any added substances in it. It is pure and untouched. Knowing what is in certain products shows that she is actively choosing them.

Cat woman shows an interest in organic and natural products as well. She feels that they have no chemicals or harmful particles in them. They lack dangerous toxins and are cruelty free. She had a pair of environmentally friendly socks. She considers them to be environmentally friendly because they were made of natural fibers produced in a socially responsible way. Cat woman believes that buying organic or natural foods helps support the better marketers and avoids the marketers that offer non-natural food that is unhealthy and produced in a non-environmentally friendly way.

Natural woman is another participant that claims she purchases products based on if the labels say it is organic or not. The labels stick out to her. She would much rather buy something that is organic or naturally made than buying something that is machine made and processed. If it says organic she believes it and will buy it over the other products that are not.

### Choosing International Products Over Domestic (Passive)

There is an understanding by some of the participants that products that are international are natural and better for the environment. They believe that because something came from another country, it must be made naturally and is less processed. This approach would be considered passive because the participants have an assumption of international products that may or may not be true.

Natural woman tends to choose products based on this understanding. She tends to shop for foods on the "ethnic" isles instead of the domestic isles.

Bryn Mawr believes that ethnic products are of a higher quality. By choosing these products she feels like she is being responsible because she is supporting non-chain markets. The products she has bought that are from another country are all kinds of tea as well as turmeric powder that she purchased at a Vietnamese restaurant. She says we need to venture out of capitalist controlled socioeconomic groups and choose products that are made straight from the people instead of a large corporation.

Lady Bug is another one that is highly supportive of international products. She had a bag of rice that came in a burlap sack, imported from the Himalayan Mountains. The burlap sack made it seem to her like she was getting something natural. She believed that the sack was biodegradable and could be broken down easier than other packaging. The fact that it was imported made it more natural and better for the environment. Lady Bug

had the impression that if something was imported then it must be from a smaller business and she would purchase it just to support that business.

## Support of Small Businesses (Active)

Support for small businesses is an overall idea that most of the participants practice. They believe that if a product is made from a small business than it is less harmful to the environment. There is less manufacturing that goes into it and there is a smaller amount of harmful substances being released into the atmosphere. Another reason for supporting small businesses was that it is helping someone who doesn't make much money, to be able to make a profit from their products. It is a support for the local economy and companies with less money. Knowing their money is not going toward a major corporation who is only around for profit, makes them feel better for helping someone who is more likely to give the product more care and attention. The participants are actively supporting small businesses by not buy large corporation products.

### Examples of Smaller Business-Based Choices

Auckland was a major supporter of smaller businesses. All the décor in his house came from natural things and were made by local people. The family likes to support the local economy and not the big corporations that have enough money. Auckland and his family buy water from a small company that purifies the water themselves. They like the fact that it is not processed with all kinds of chemicals that a larger corporation uses.

Traveler was another supporter of small businesses. She told us how she did not go to stores to purchase things that she needs for her home. She shops at co-ops that reduce packaging and advertising. When you shop at a co-op you are supporting the local economy.

Jade was very opposed to big businesses as well. She likes supporting the small businesses for environmental, economical and social responsibility reasons. She had some children's toys that she had bought to stimulate the mind instead of video games. She bought the toys at festivals and craft shows and that is an example of how she supports the small businesses. It is supporting people who probably don't make much money. She feels that she is buying things with more sentimental value because they have been touched with someone's hands as opposed to machines.

Cat Woman's favorite photo was the one she took of a South American hand-made rug that she bought because it was produced in a socially responsible way. The people who actually worked on and created the rugs like hers are usually exploited by large businesses, which purchase their rugs at very low prices and are solely driven by a profitability mentality. By purchasing these rugs she is helping the impoverished producers make ends meet and improve their living conditions. It is helping the poor and financially vulnerable segment of society have a sort of "steady stream of income."

Rasputin feels that smaller companies have better quality control and care more about the products they are producing. He is willing to pay more for a product if he thinks it is produced by a smaller business than buying something that is mass produced and made by a larger corporation. He describes how he purchased Tom's Natural deodorant and toothpaste because they are not a mainstream company. He says that he would rather go smelly than buy another deodorant from a big business.

## Corporate Demon

The majority of our participants believe that big corporations are bad and they have an undying support for small businesses. Lady Bug describes it well when she uses the term "corporate demon" to convey the message of mass production and support the small businesses. She explains to us her reasoning behind purchasing a certain kind of tea. The label advertises antioxidants and has a gold seal of approval. If something looks like it is mass-produced or from some major company, she is completely turned off. If it looks like it is from a small company it is more appealing to her. She feels like they put more time and effort into making sure everything is done properly. When she browses the aisles at the grocery store, she can tell which products are mass-produced and which ones are not. Manufacturing is bad for the environment and even if a major corporation claims to be environmentally sound, she doesn't think the factories they produce their product in are.

Rudy mentions how the mass production of cows is cruel and environmentally wasteful. Based on this information she chooses meat products that are from small businesses and not as well known. Boca burgers are her preference as an alternative to buying meat that has been processed and mass-produced. By doing this she is not only supporting small businesses but she is practicing animal advocacy.

Cat Woman believes that big businesses create more waste by their manufacturing methods. She shows a picture of a water jar with a built in filter. Using this helps the environment because she is not buying bottled water from big corporations. She is not contributing to more plastic containers that will just get thrown away after using them. This results in less pollution and production that is typical of manufacturing companies. When she chooses products she looks at the detailed information of how it is produced to make sure there are no hazardous chemical toxins or ingredients. Production and marketing of large corporations does not result in environmentally friendly procedures.

## "Filled with Love" (Passive)

There is an overall "Mom and Pop shop" mentality when choosing small business products. The participants believe that smaller shops and companies should be supported more because they give more care and attention to their products. They spent more time on them to make them just right and it is almost like they are "filled with love," as Lady

Bug mentions. The participants feel like smaller businesses are better but this is a passive idea. They are again, making an assumption that could be true in some cases and could not in others.

Lady Bug showed us a picture of a bag of dog bones that she had purchased from Petco. She was browsing the isles and this particular brand caught her eye because it looked like it was from a “mom and pop shop.” They did not give the appearance that they were mass-produced. She thought they looked as if they were “filled with love” in their production process. With a larger company she doesn’t believe that their products would make her feel that way. Smaller businesses usually do not do animal testing with their products either. They care more about the environment and are less likely to produce their products in such a way that would be harmful or unfriendly.

Bryn Mawr feels that with the “mom and pop” mentality it is being more socially and environmentally responsible. With a smaller company there are less levels of administration that the money is going through and she feels like you can get a much better quality product on a smaller scale. The purchase is much more appreciated than with a big company that sells hundreds of the product without valuing each individual purchase.

Natural Woman believes that the quality of these “mom and pop shops” is much greater than the quality of a big business. She discussed certain pastas and food products that are much better quality on a lower level of production. She does not shop by brand name but instead looks for things that look like they were handled by a person and handled with care. When she sees the brand name products she pictures a big factory and thinks that the quality of the product is lower than with the small companies. The quality is greater with the small companies because they are trying to make themselves bigger so they are going to work harder for that finished product.

## Shopping

Shopping was a recurring theme in interviews. Respondent’s attitudes regarding shopping for environmentally friendly products fell into three general categories: labels, brand loyalty, and price concerns. Some of the respondent’s specific concerns regarding shopping were:

- Labels as educating tools
- Labels as indication of quality
- Branding as a way to trust a company
- Price must fit within the customer’s budget
- Social price must also be low

Opportunities for EcoMoto growth are divided into four sections: production, product, packing, and marketing. Some opportunities for EcoMoto include:

- Using materials that have been up cycled or recycled
- Using labor that is being paid fair wages

- Creating a web portal for EcoMoto customers
- Labels should be straightforward and educate about the product and company
- Building EcoMoto as a brand to create a small company within Motorola
- Placing the EcoMoto phone near other phones to attract customers concerned with features
- Connect with organizations that already have a strong brand in the green arena
- Price the phone within the range of phones with similar features

## Labels

Labels were very important to the respondents. Labels are one of the passive ways that customers educate themselves about products. Labels were a way of educating the consumer about the history of the company, the materials used in the production of the product, and the product itself. The labels that attracted consumers were labels that stressed the 'green' ideals of the company. Buying products from companies that were known to treat workers fairly and use products that were not, or at least less, harmful to the environment are all ways that consumers expressed their ecological views. For instance, one of our respondents, Shamrock, purchased them because the label boldly states "100% Natural Oats" from which she drew the conclusion that no chemicals had been added. The can also displayed a banner stating "old fashioned." She later explained that labels such as these are indicative of products that have been around a long time and were less synthetic, both of which she found desirable in a product she would be consuming. This is a passive attitude, because she wasn't actively involved in searching out the information contained in labels through the internet or some other more active activity. Labels are a key factor in the customer's perception of the product. The psychology of the words and wording used had been studied by the marketing world, however it is being pointed out here to stress that EcoMoto customers are also influenced by these things.

Many consumers aren't well educated on the materials that go into the creation of the products that they use. Reading labels is a way that consumers educate themselves. For example, South Park noted that he didn't pay much attention to how chemicals were used in production of products until a 7<sup>th</sup> Generation label pointed out how and why they don't use certain chemicals in production. This is a classic passive endeavor; labels are used to confirm or deny the environmental and/or social consciousness of the company and product. Many times labels are also used to educate the customer about things that may not have occurred to the customer to look for. Companies are in the position of authority, and customers look to labels to express the ideas of the company. Natural Woman said:

" I've seen this at Whole Foods. It doesn't say USDA, but it is certified something and it makes you feel....you can read on the back, it tells the whole story. If you can read the label it says low fat, yeast free no added oil, no artificial flavors, and you can say O.K. this is something I want. They even recommend you drink soy milk. These people know what's going on".



Labels are also used by consumers to understand the quality of a product. Quality was emphasized several times by all the respondents as something that not all ecologically friendly products had, but an ideal that should be strived for. Natural Woman makes a point of preferring small companies, "...and I just think the quality is better with the smaller companies because they are trying to make themselves bigger so they are going to work harder for the quality". Another respondent named Lady Bug explains one of the labels she is drawn to: a green tea package. The label advertises "antioxidants" and has a gold seal saying it's organic. She's drawn to labels that don't look like they're mass produced, if they look like they are mass produced or from some major company she's totally turned off. She believes that smaller companies put more time and effort into making sure everything's done properly. The quest to find small companies because of the presumption that smaller companies will provide better quality can be both active and passive.

The passive consumer will look at the label try to ascertain visually, usually through the 'polish' of the label, if the company is a small company or not. The active consumer will take into account the look of the label and will try to find out more about the company. The difference between the two is that the passive consumer stops at the label, while the active consumer will use the label as a starting point.

## Brand Loyalty

Respondents tended to be very brand conscious. Once a company has a solid reputation of being environmentally and/ or socially conscious consumers are happy to use their products, recommend those products to others, and use the original product as an educating tool to find out about other products. The difference of actions involved with branding can be described in the passive or active sense. Southpark mentioned that some of the products he only buys for the brand name, such as 7<sup>th</sup> Generation. A lot of the stuff he bought because he was really impressed with one product he bought from 7<sup>th</sup> Generation and that made a strong enough impression on him that he figured the other stuff they had would be just as good. The brand has a friendly reputation and that is a selling point for him. This is an example of passive consumer action. South Park is purchasing the brand because of his experience, but he is not sharing his knowledge of the brand with others. An active action would be if a consumer were to buy the brand and make an effort to tell others about it.

If the brand has a strong following, then customers will pay more. Many times it's because the brand is seen as having good quality as well as a eco-friendly bent. EcoMoto should still try to be within the lower range of cell phone costs though. Natural Woman pays \$5.50 for a bar of soap at Whole Foods because, "It's pretty well known in natural circles. You pay for quality". She is willing to pay for quality, however Natural Woman tells the interviewers that she doesn't have a bar of the soap on hand because it's too expensive for her to buy! A different way of looking at brand loyalty is shown from Bryn Mawr's perspective as she talks about Trader Joe's, "They have low prices, good quality-gourmet food, a very good store". That's what EcoMoto should strive for: low price,

good quality, eco-friendly from materials through packaging, a very good brand. SouthPark is indicative of the type of “green” customer that we are looking for. He wants to believe in the brand that he buys, but not be forced into a direction. “Whole Foods is like this Dwell Magazine, you have an idea of what direction you want to go in...I don’t want to be told what to do, but I want to do something that’s responsible. I know I can buy stuff there and it will be responsible.”

## Price Concerns

Cost is a major concern for most of our respondents. However there are two types of price concerns. The first is concern for the price of the product to be within the purchaser’s budget. The second is that the overall price of the product is not “too much” in terms of social justice issues; respondents want the *social price* to also be low. Customers want to feel that they are helping societies that produce goods, not taking advantage of them. Both the monetary cost and the social cost are important to ‘green’ consumers. Buying a ‘green’ product with a low cost is a passive action. Buying a ‘green’ product that has a low social price is an active action. Finding products that are ecologically friendly and have a price within the range a consumer is willing to spend does not take a lot of initiative. Finding a product that is ecologically responsible as well as *socially* responsible takes work on the part of the consumer.

Consumers are willing to pay more for a quality product with clear environmental considerations, however not more than double. Several of our respondents mentioned that they would not pay twice as much for an environmentally sound product as for a mainstream one, however as with most consumers, they would prefer to pay as little as possible. Cat Woman mentions that cost is an important consideration, especially on electronics. She is willing to pay a bit more for an environmentally and socially friendly product, but definitely not twice as much as regular prices on big ticket items. Rudy says, “Cost was the main determining factor for purchasing higher priced products”. She also says, “I look for products that are recyclable, however, price is sometimes a factor when purchasing products”. Jade is also willing to pay more, however price is a large consideration. If she feels it’s worth it she’ll get a more expensive healthy product. When pressed she said she would buy a more expensive item as long as it wasn’t “twice as much as I would pay”. The passive consumer isn’t going to make a lot of effort to make sure that the products being purchased are ecologically sound if they are within the consumer’s budget. The active consumer will search out products that are good for the planet, responsible to the people producing the product, and if they don’t fit their budget, the consumer will adjust the budget rather than buy a product they don’t believe in.

Most of the respondents have social concerns that are espoused through the products that they choose to purchase. Respondents mentioned being socially conscious for a few different reasons. Bryn Mawr believes, “it is responsible because of the price and because you are supporting non-chain markets”. She is making an active choice to purchase items that fulfill both qualifications for purchase. Another aspect of being socially conscious is not supporting large companies. It is important to Bryn Mawr that she not support large

corporations. Auckland makes a point of mentioning that he buys water and organic meat from small companies. He also found out that his favorite shoe company was recently purchased by a company that uses sweat shop labor, so he stopped buying the shoes. He has now found a company that makes shoes that look like the shoes he likes, but they cost more. Auckland says that he will buy the higher priced shoes anyway. This is a great example of the social cost being too high for a consumer to support.

## Design Implications

### Product

The cell phone itself should be made out of some kind of material that is not harmful to the environment. If plastic must be used, then it should be from recycled plastics that have been previously used or made out of partly natural plastics such as hemp plastics. This plastic would also meet the needs of those who are drawn to textures and a “natural look” to the phone casing or packaging. In regards to the need for an environmental or natural look you could have different phone casings with some kind of environmental symbol so other people know that person has a “green” mentality. Some symbols might include leaves, trees, flowers, or maybe a catchy phrase like “I’m green and proud of it” or “Just call me Greenie.” Using soy-based ink is another idea for the labels or logos of the company. The cell phones need a clean production process. In addition to the production process, the cell phones should be small and light weight and have the ability to fit into your pocket. Many male participants expressed an interest in small cell phones that do not weigh them down when they are carrying them. The start up menu of the cell phone should have a link to the EcoMoto website so the consumer has access to every piece of information on the cell phone that they would need. It should have icons and screensavers of a “green” nature and should include the ability to download tips on how to become more environmentally friendly.

The start-up menu should have some environmentally friendly logo or information with EcoMoto’s official “seal of environmental responsibility”. When the phone is turned on a choice of logos, some with sound, will appear. Ringtones and wallpapers will also have choices of environmentally and socially conscious options.

Within our sample there were some common themes, and there were some glaring differences. A great way to reach a broad audience might be to create an EcoMoto web portal with options to read updated environmental, animal rights, and vegetarian information and articles, create your own cell phone, and partner-in-business information.

The web portal could have links to articles about subjects important to our customers. It could provide health information and information about how EcoMoto phones are not a danger to the environment or the animals (including human) on the planet. Another option on the web portal could be to design your own cellphone. Options could include changing the faceplate, the buttons/keys, the choice to have, or not have, a camera, QWERTY keyboard, etc. There could also be options to have seeds inside the casing to

plant the phone when the user was done with it. The seeds could be customized regionally, e.g. state flower, so that people who are interested in this feature could grow plants suited to local conditions. The web portal could also have information about businesses and organizations that have partnered with EcoMoto.

## Packaging and Labels

Packaging of products has been a major concern among all of our participants. Many of them feel that current packaging of products is very excessive and wasteful. We have come up with some ideas as a solution to this problem in regards to making environmentally friendly cell phones.

The phone should have minimal packaging but what packaging it does have should contain literature about the phone and how it is environmentally friendly and what that really means. There should be information about the history of EcoMoto and the strategy of the brand with directions to the web portal and a mail in postcard to request information similar to what is on the web portal. Have information about the upcycling of the packaging on the box, in the store, and on the website. Explain that the materials are being upcycled, not recycled. The packaging to mail in the phone to an upcycling plant could be included with the box, as well as information regarding offers to return the phone to the store.

One idea is the use of natural fibers. Using natural materials in the packaging of the cell phones would be a major selling point to the consumers. If the cell phones had packaging made of natural materials, it would be easier to decompose and would contribute to less waste once it has served its purpose and is thrown away. Using as little plastic as possible would benefit the company a great deal in marketing to the consumers. Absolutely no Styrofoam or bubble wrap should be used in the packaging because they are substances that have little or no ability to biodegrade and are very harmful to the environment.

The labels on the sides of the boxes should emphasize the ecological aspects of the phone including: the use of up-cycleable materials, non-toxic inks and dyes, and the up-cycleability of the phone, its accessories, and packaging. Have a pamphlet that can be handed out in the store or downloaded filled with ecological facts about the phone.

## Production

Regionalizing the company would be a very good selling point for any environmental product. Based on the research that we have conducted, the participants support the local economy and smaller corporations. It would benefit the company to have many local manufacturing facilities as well as recycling areas available. By doing this, the local operations could be customized to the needs and concerns of the local population.

EcoMoto should seem like a local company and the only way to do that is to have many EcoMoto operations in many different areas.

Probably the most important concern for any type of product, including cell phones is the small business mentality. Every participant showed great interest in supporting small businesses and the local economy. Emphasis should be placed on the EcoMoto label instead of using the large company name of Motorola. Using EcoMoto would give the impression that the consumer is buying the cell phone from a small company as opposed to a “corporate demon.” It is very important to the participants that they do not support large corporations when purchasing environmental products. If the EcoMoto label were to be used, the consumers would be more inclined to buy the cell phones because it is not well known as a major company. Even though it is a part of Motorola, just using the name, EcoMoto would be an eye-catching title for the environmentally friendly consumer.

Furthermore, respondents care about social responsibility as well as environmental. Cat Woman mentioned that among other reasons for buying the rug she chose, the rug was produced in a socially responsible manner. It was produced in Peru through a co-op business. Cat Woman thinks that co-ops provide better prices for such rugs, and in so doing, helps the impoverished rug producers make ends meet, thereby improving their living conditions. She believes that co-op arrangements are beneficial for social purposes because coops help the poor and the financially vulnerable segment of the society. Again, EcoMoto needs to be the *small company* that thinks globally and acts locally.

During production, the phone should be made of materials that have been up cycled or recycled, don't need to gas off, are ecologically friendly, and if possible the process should not create waste. Materials should not harm the environment by cutting down trees, pulling finite resources from the earth, or releasing dangerous chemicals into the air and/or water.

The labor pool should be paid fair wages and treated with respect. We should also try to create regional up cycling centers that will create local jobs. The social cost of the phone, packaging, and accessories should be low.

## Marketing and Advertising

Labels should have information about why the EcoMoto brand was created, to show the vision and commitment of Motorola. Consumers like the feeling that a small company provides. Part of that feeling is knowing something about the company and the people running it.

Use the term “EcoMoto” on all packaging and advertising. This will help customers identify with the brand EcoMoto. Most of our respondent's attitudes can be summed up by Cleo, “small business is better, or more important to support, than big business”. You need to build EcoMoto as a brand, creating a new *small* business within the larger

Motorola franchise. A customer like Bryn Mawr would buy an EcoMoto phone a large cell phone retailer. She says, “marketing helps me identify it as an organic product, and it may be somewhat of an attraction, but it is not my sole attraction to the product. When I was living in an apartment Kroger was very close, and they do have a lot of organic foods”. She would be willing to buy a product that she likes from a corporation that she doesn’t particularly like.

Phone should be near other phones with similar features, not in it’s own Eco-space. This will drawn new customers that may not primarily be concerned with eco-friendly ideals, and new customers that have a specific focus on eco-friendly issues. Shamrock said that when she shops at conventional grocery stores, it seems that all the organic products are isolated and even exotic by comparison due to their often-isolated location. Although the product has features that are beneficial to an environmentally conscious lifestyle, the participant admitted that she had originally purchased the product due to its reputation of quality. It was only after she began using the product that she became aware of its “green” characteristics, a “perk” in the words of the participant. Contrary to her other budgetary habits, Shamrock said that because of the high quality she would always pay extra for this product even if a cheaper alternative existed.

EcoMoto should connect with an eco-friendly company because branding is important and EcoMoto doesn’t have a strong brand yet. Respondents pointed to Whole Foods particularly as a brand that they trusted, though it has moved from a small organization to a global one. If EcoMoto can align itself with organizations and companies that are already known for being environmentally and socially conscious, customers loyal to that brand will trust EcoMoto. To build a relationship with environmental organizations, the customer could receive a rebate from the purchase of the phone that could be used by the individual or could be donated to a favorite environmental charity. Phones could even be customized as the Greenpeace Phone or the ASPCA Phone.

Price should be comparable to other cell phones. People are willing to pay a little more, but not much and will actually go against their ideals if it costs too much. EcoMoto needs a low end phone that comes with basic features such as call waiting, memo, and address book as well as a higher end phone that comes with QWERTY keyboard, downloadable ringtones, and a camera. EcoMoto needs to create a phone that is equal in quality to other phones, but made with regard to laborers and the environment and presented within the price range of comparable phones. Once the customer is ready to purchase another phone, the original phone could be returned to EcoMoto for a fixed percentage off on a new phone or some other incentive, for example a free ringtone download or wallpaper.

## 9. *Quantitative Summary by Andrea McCoy*



The purpose of including a quantitative summary in this report is to take the common themes presented in the previous chapters and measure these themes in regards to the informants interviewed for the study. Not only does this chapter illustrate the demographic information for each of the informants, but it also quantifies the occurrence of each of the themes that were produced as a result of our fieldwork. By doing this, we can look at how prevalent and important the themes were in regard to our informants, and rank these themes and possible design implications accordingly. Also, we are able to look at the relations between each of the themes and infer whether or not they are significant.

### Methods

A list of themes were created during the brainstorming phase of our project, which were subsequently divided up into main themes and sub-themes. These ideas were then quantified into bivariate variables, in a survey of yes/no questions. The idea behind this method was to take the themes that were presented during our project and quantify them into questions that could be answered for each of the informants, referring to the field notes and videos. By using this method, we were able to take qualitative data from the interviews and turn it into quantitative data, preserving the integrity of the project and the general questions we were trying to answer. The questions were phrased to express the interest or preference of the informant for each particular theme. For instance, “did they express brand loyalty for “green” products?” Once the questions were developed to reflect the themes presented in the brainstorming phase, they were then answered in regard to each of the thirteen informants. Questions that could not be answered utilizing the field notes and videos (in other words, were not mentioned by the informant) were entered as a response of “no.” Demographic information from the screener was also added. SPSS statistical software was used to analyze the data and produce the following results.

### Limitations

An important detail to keep in mind is that the sample size for our study is small, only thirteen informants. Therefore, quantitative data will reflect our sample, but is not necessarily an accurate description of the entire target population. One of the biggest limitations of our study is the sample population interviewed. First of all, the sample was limited to the Dallas/Fort Worth metroplex in Texas. Also the informants procured by the screener produced a bias towards people located in the cities of Denton and Dallas, as well as more female subjects than male. Also, the sample group was skewed towards

younger informants. The final limitation to acknowledge is the bias towards informants in the lower and middle income brackets.

## The Study Sample Population: Demographics

Figure 1: Study Sample

Pseudonym	Age	Gender	Location	Income
Auckland	24	Male	Denton County	\$30,000 or below
Bryn Mawr	22	Female	Denton	\$30,000 to \$59,000
Cat Woman	51	Female	Dallas	\$90,000 to \$119,000
Cleo	27	Female	Denton	\$30,000 or below
Deco	25	Female	Denton	\$30,000 or below
Jade	27	Female	Denton	\$60,000 to \$89,000
Ladybug	22	Female	Denton	\$30,000 or below
Natural Woman	33	Female	Dallas	\$30,000 or below
Rasputin	27	Male	Denton	\$30,000 to \$59,000
Rudy	28	Female	Collin County	\$60,000 to \$89,000
Shamrock	49	Female	Dallas	\$60,000 to \$89,000
South Park	32	Male	Dallas	\$30,000 to \$59,000
Traveler	55	Female	Denton County	\$30,000 to \$59,000

Figure 1 represents our sample population and the demographic information for each person.

### Location

The majority of the people in our study were located in the city of Denton (six people) and Denton County (two people). This was followed by four people from our sample located in the city of Dallas, as well as one person living in Collin County (north of Dallas).

Figure 2: Gender

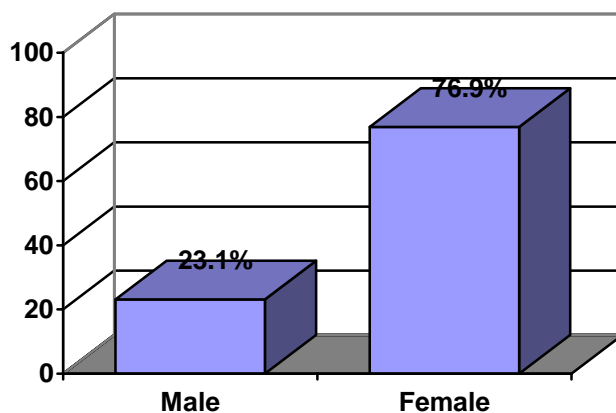




Figure 2 represents the percentage of people in our sample who are male versus female.

The skew of our sample towards females is illustrated by the above graph. Ten of our informants were female, as opposed to only three males.

Figure 3: Age

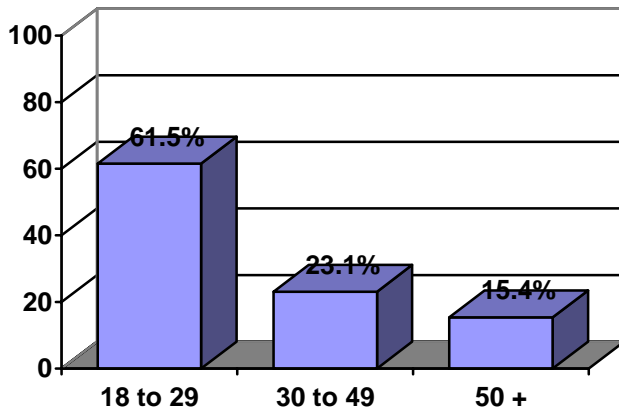


Figure 3 illustrates the percentage of people in each age group.

There is a noticeable bias for the variable age towards people age 18 to 29. Eight of the people interviewed were in the 18 to 29 age group, while three people reported being age 30 to 49. Only 2 people in our sample population were age 50 or older.

Figure 4: Income

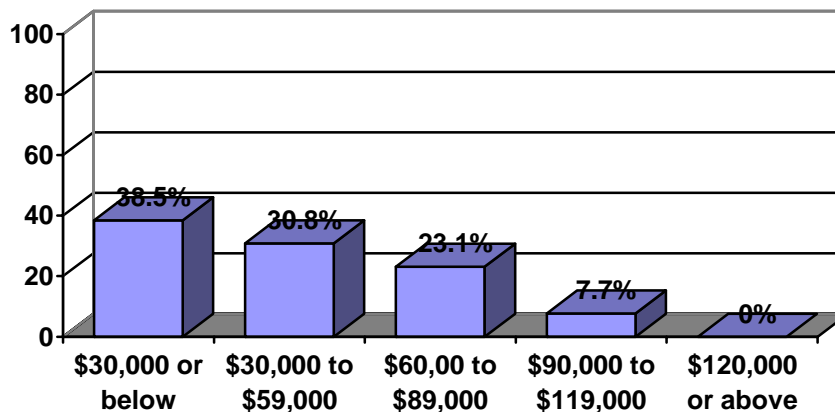


Figure 4 shows the percentage of our respondents in each income bracket.

The bias towards the lower income brackets is illustrated in the graph. Five of our informants reported being in the lowest income bracket, \$30,000 or below. This was followed by four people in the \$30,000 to \$59,000 bracket, and 3 people in the \$60,000 to \$89,000 bracket. Only one person reported being in the \$90,000 to \$119,000 bracket and there were no informants who had an income of \$120,000 or above.

## Results

### Themes

The general themes and trends that were identified as a result of the interviews have been broken into main themes, same as the previous chapters. The greater themes that make up the quantitative chapter are:

- The importance of image and identity
- Sensory aspects
- Teaching and learning
- Practices that reduce consumption: recycle, reduce, reuse
- Choosing products from an environmental perspective
- Catalysts

Some chapters in the quantitative summary contain more themes than others, as some topics showed more significance during statistical testing.

### The Importance of Image and Identity

#### *“Thrift” or “Vintage” Products*

One of the first trends apparent among our informants was the “thrift” or “vintage” trend. While each informant gave this category a different label, seven out of the thirteen people interviewed expressed an interest in products purchased second-hand. Not surprisingly, the same people who mentioned that they buy “thrift” or “vintage” clothing also said they purchase other second-hand products such as furniture and household accessories.

#### *Sacrificing Convenience for Environmental Concerns*

While the ideas of image and identity seemed important to all of our informants, a little over half were willing to sacrifice convenience for their environmental concerns. Seven of the thirteen either directly or indirectly expressed that they would sacrifice their own convenience (and sometimes even their dignity) for an environmental cause.

## Sensory Aspects

### *Products That Touch the Body (Food/Hygiene Products)*

Another interesting concern that our environmentally conscious informants expressed involved the products that came into contact with their body. This was mainly food and hygiene products, although it is not limited to those two categories. Ten out of the thirteen people interviewed expressed concern for the products that touched their bodies. These concerns are further addressed in the sensory chapter.

### *The “Look” of Products*

A minority of the people interviewed expressed interest in products that had a “natural” look. Five people showed interest in products that looked (specifically) natural, while four people wanted products that looked homemade. An interesting distinction to be made is that there was not an emphasis placed on the product actually *being* natural or homemade, the informants just wanted it to *look* that way.

## Teaching and Learning

### *Environmental Clubs and Groups*

While all of our informants expressed concern for environmental issues, only four people interviewed mentioned being a member of an environmental club.

### *Researching Products*

When it comes to the products that the informants purchased (or were thinking about purchasing), eleven mentioned doing some sort of research about the product. Informants researched topics such as animal testing and the environmental consciousness of the company manufacturing the product in question. Ten people used the internet to gather information or educate others about environmental issues.

### *Educating Others*

Eight of the eleven informants expressed an interest in educating others about environmental issues. Also, ten of the eleven were responsible for influencing other people about environmental issues. In other words, they were responsible for (at least partially) converting others to the “green side.” On the flip side, ten people had someone else influence their environmental practices and beliefs. This information expresses a continuum in environmental ideas. A person is influenced, and in turn, they influence someone else.

## Practices that Reduce Consumption: Recycle, Reduce, Reuse

### *Recycle, Reuse*

Recycling was another common trend among our sample population. Ten of the thirteen people interviewed reported that they engage in some sort of recycling practice. Seven of these ten mentioned that their town offers a curbside recycling program, which they use

to recycle goods. In addition to recycling, an equal amount of people said that they reused products.

### *Alternate Forms of Energy*

Only six people reported using an alternative form of energy. This includes but is not limited to: using drying racks instead of dryers, and using rain and well water.

### *Minimizing Consumption*

Minimizing consumption in different forms was much more common than alternative forms of energy. Eleven of the thirteen people interviewed tried to minimize consumption in one form or another. Nine people expressed that they tried to avoid “unnecessary consumption.” An example of this was the people who purchased second-hand products instead of new ones. By purchasing second hand, they were not creating a need for new products to be made, as well as saving an existing product from being disposed of in a landfill. Seven people were interested in avoiding unnecessary production, such as putting digital pictures on their computer instead of printing them. Additionally, four people reported using rechargeable batteries instead of regular ones.

## Choosing Products from an Environmental Perspective

### *Product Preferences*

Ten of the thirteen informants expressed a preference for products that came from a small business. This coincided with a distaste or distrust for large businesses and their products. Only three people, however, expressed an interest in free-trade products. Additionally, only five people preferred locally made products over others. This suggests an interest only in the size of the business, not where it was produced or how. More importantly, people were more concerned about purchasing products from a non-big business or corporation. Another trend among our sample population was a preference for organic or all-natural products. Ten of the thirteen people interviewed said they preferred organic or all-natural over other products. Finally, eight of the thirteen informants expressed brand loyalty for “green” products. An example of this is the company Seventh Generation.

### *Checking Labels*

Checking labels was the most frequent practice among the sample population. All thirteen informants reported checking labels for organic or all-natural ingredients. This was followed by seven people checking labels for the recycling sign, and six people checking labels for vegetarian ingredients. Checking labels is a materialization of the ideals and practices of the “green” population, specifically our informants.

### *Paying More*

Many “green” products cost more than non-green products. Seven of the thirteen people interviewed were willing to pay more for a “green” product. Even more significant, ten people were willing to pay more for products containing organic or all-natural

ingredients. This coincides with the concern people expressed for products that come in contact with their bodies, versus products that do not.

## Catalysts

As for the reasons people became interested in “green” practices and lifestyles, travel was one of the major themes. Seven of the thirteen informants suggested that travel influenced their decision to become “green.” Additionally, vegetarianism was a catalyst for environmentalism. Six people interviewed reported being a vegetarian. Environmentally conscious friends and family member were also an influence, with twelve people reporting that they had “green” friends or family. Concern for non-environmentally products harming family members also had an affect on the informants. However, this was a less prevalent theme, with only two people expressing concern for non-green products harming their children. This may be explained by the fact that few people interviewed had children, but since data on number of children was not gathered for the informants, this can not be known for sure. More common was concern for animals. Ten people were concerned with products harming either their pets or wildlife. Animal rights were also an issue, with eight people expressing concern for animal testing and animal rights.

## Conclusions

Although many themes were identified during the brainstorming process, some themes proved to be more common among our informants than other according to the quantitative analysis. The most common sub-themes presented were (in order of prevalence):

- Checking labels for organic or all-natural information
- Having environmentally conscious friends or family members
- Researching products
- Minimizing energy consumption
- Willingness to pay more for organic or all-natural products
- Influencing others
- Being influenced by someone else
- Using the internet to gather information or educate others
- Expressing concern for animals (products harming animals)
- Expressing concern for products that touch the body
- Reusing products
- Recycling
- Preference for organic or all-natural food
- Preference for small business

While qualitative research is most helpful in identifying themes and topics regarding environmentalism, quantitative research helps define how prevalent these ideas are within our sample population. Since the sample size is so small, it is difficult to make correlations from the data and suggest that these trends are significant. Further research and possibly surveying would provide a better idea of how common these ideas are, not only in the “green” community, but also with the American consumer. It is important to realize the limitations of the small sample size, although the quantitative analysis helped to reveal which themes were more common among the sample population.