SUSTAINABLE INTERIOR DESIGN: ENGAGING IN CHANGE THROUGH USE OF THE INTERNET

Ву

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ABSTRACT

SUSTAINABLE INTERIOR DESIGN: ENGAGING IN CHANGE THROUGH USE OF THE INTERNET

By

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Sustainable interior design is an innovation of our time. A website media project was created utilizing the Diffusion of Innovations research of Everett M. Rogers to serve as a resource to encourage adoption of this innovation. Potential users were profiled to examine design considerations. Post-production surveys revealed that the graphics and visuals were the most compelling part of the website, while there was much desire for content regarding new materials and products. Further research would be beneficial in confirming usefulness of the site and of future improvements.

For little Marjorie

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CHAPTER 1

INTRODUCTION

Background of the Concept of Sustainability

The 1980's saw a confluence of events; the increase in environmental issues and awareness coincided with failures of development including an increase of hunger, lack of safe water, lack of shelter, and a widening gap between rich and poor nations. These issues led the United Nations to establish the World Commission on Environment and Development by the UN General Assembly in 1983. This body created the leading definition of sustainable development and sustainability in the Brundtland Commission of 1987. "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs." 2

Sustainability and the Building Industry

The keyword regarding building use and construction as the population boomed after the Second World War is growth. While the population of the United States has grown steadily, land development has outpaced that growth. In the nearly fifty-year period from 1945 to 2002 while the population doubled, urban land use quadrupled. The land used to

¹ United Nations. (1987). *Report of the World Commission on Environment and Development* (A/RES/42/187). http://www.un.org/documents/ga/res/42/ares42-187.htm

² United Nations. (1987). *Report of the World Commission on Environment and Development* (A/RES/42/187). http://www.un.org/documents/ga/res/42/ares42-187.htm

accommodate this shift is increasingly rural.³ Hence, the urbanization of the land means an increasing burden for food production in the remaining rural areas. At the same time, there is increased pressure on the water supply as public demand for water during this period more than tripled.⁴ A majority of the water demand used for outdoor uses (nearly a third of the nation's water consumption) is allocated to landscaping. In 2006, buildings consumed 39% of the United States primary energy consumption, a figure that is projected to climb.⁵ Buildings contribute a similar amount of the nation's total carbon dioxide emissions, one of the gases thought to contribute to global climate change.⁶

Indeed, the building sector is responsible for a large and growing demand for resources, including land, water and energy. Some are taking a closer look at this phenomenon and projecting that the problem is yet deeper. Architect Edward Mazria, a leader in the growing field of sustainable design and author of "The Passive Solar Energy Book," determined that "architects—together with the building industry—are responsible for just about half of America's energy consumption and half its greenhouse gas emissions, which are produced by burning coal, gasoline, and other fossil fuels." The automobile

³ U.S. Environmental Protection Agency. (2009). *Buildings and the Environment: A Statistical Summary.* http://www.epa.gov/greenbuilding/pubs/gbstats.pdf

⁴ U.S. Environmental Protection Agency. *EPA WaterSense, Why Water Efficiency?* http://www.epa.gov/WaterSense/water_efficiency/

⁵ U.S. Department of Energy. Energy Efficiency and Renewable Energy. Buildings Technologies Program (2009). *2009 Buildings Energy Data Book.* http://buildingsdatabook.eren.doe.gov/docs/DataBooks/2009_BEDB_Updated.pdf

⁶ U.S. Environmental Protection Agency. (2009). *Buildings and the Environment: A Statistical Summary.* http://www.epa.gov/greenbuilding/pubs/gbstats.pdf

 $^{^7}$ Hawthorne, C. (2003, Oct 1). Turning Down the Global Thermostat. *Metropolis Magazine*. 102-107, 149-152

industry, often thought of as the leading culprit in terms of energy consumption and air pollution, is accountable for one sixth as much damage. More specifically, Mazria's calculations indicate that the architectural sector accounts for 48% of total U.S. Energy consumption and 46% of total carbon dioxide production. These figures take into account the additional energy use from industry segments devoted to operation of buildings and their construction.⁸

The average house size has increased, including a nearly 38% increase of square footage during the period from 1975 until 2002. At 2,265 square feet, the average new house in the United States is twice the size of the typical home in other industrialized nations like those in Europe and in Japan, as well as over twenty five times that of the average African. 9 With five billion square feet of building space newly constructed each year in the United States and another five billion square feet renovated, the impact on the environment and the opportunity for change continues to escalate. 10

Sustainability and Interior Design

Interior design is a vital component of the building industry, comprising that which completes the interior of the building shell such as furniture, fixtures, and finishes. The National Council for Interior Design Qualification (NCIDQ) defines the practice of interior design as "a multi-faceted profession in which creative and technical solutions are applied

⁸ Hawthorne, C. (2003, Oct 1). Turning Down the Global Thermostat. *Metropolis Magazine*. 102-107, 149-152

⁹Worldwatch Institute. (2004). *Good Stuff? A Behind-the-Scenes Guide* to the Things We Buy. http://www.worldwatch.org/system/files/GS0000.pdf

¹⁰ Hawthorne, C. (2003, Oct 1). Turning Down the Global Thermostat. *Metropolis* Magazine. 102-107, 149-152

within a structure to achieve a built interior environment. These solutions are functional, enhance the quality of life and culture of the occupants, and are aesthetically attractive.

Designs are created in response to and coordinated with the building shell, and acknowledge the physical location and social context of the project."

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Interior design solutions provide a finished an interior environment affecting the inhabitants in very significant ways in terms of overall health or well-being, functionality, and of course aesthetics. Conversely, like the building industry and other industries in general it can be a source of pollution and waste. With the large amount of pollution produced by the building industry, the necessity to focus on cleaning up becomes more important and the results of such an effort become more significant.

The increase in the amount of built environments also means an increase in the amount interior design that finishes the interior shell. Products used to furnish the interior environment also exact a toll on the natural environment. Consider that according to industry estimates in 2002, more than 4.5 billion tons of carpet was discarded in the United States alone, while less than four percent of the discarded carpet was recycled. Landfills represent not only land lost to more productive uses like housing, farming or recreation and is instead dedicated to storing waste, but landfills also represent lost materials whose value once committed to a landfill can no longer be recovered. Much energy is expended in making products and particularly those used in construction. The amount of energy used

¹¹ National Council for Interior Design Qualification. (2004) *Definition of Interior Design*. http://www.ncidq.org/AboutUs/AboutInteriorDesign/DefinitionofInteriorDesign.aspx

¹² U.S. Environmental Protection Agency. (2010). *Waste Partnerships-Product Stewardship-Carpet*.

http://www.epa.gov/osw/partnerships/stewardship/products/carpet.htm

Institute, it can take the inhabitants of a house ten years before the energy they use in the house surpasses the energy that went into the construction of that house and the embodied energy of its components, from structural elements such as steel beams and cement foundation, to fenestration including the window glass and frames, to finishes like drywall, wood paneling, tile floors and carpeting. 13

Stress on the water supply is a concern that applies not only to the building industry as a whole but specifically to the interior design sector. Nearly a third of U.S. residential indoor water uses is attributed to nearly equal parts sink faucets and showerheads combined, amounting to over 2 trillion gallons annually. The largest source of indoor water use, however, is the toilet, which accounts for nearly 27% of indoor residential use. This is potable drinking water, wasted. Water, essential for life, when used not only taxes our supply of this precious natural resource but its use also taps other resources as well. The energy and resources needed to transport, store and treat water are not insignificant. In the United States, \$4 billion is spent every year on the energy necessary to operate water treatment facilities. The energy needed to heat, treat, and deliver water accounts for about 8% of the U.S. energy demand. This is felt by the individual American

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¹³ Worldwatch Institute. (2004). *Good Stuff? A Behind-the-Scenes Guide to the Things We Buy.* http://www.worldwatch.org/system/files/GS0000.pdf

¹⁴ U.S. Environmental Protection Agency. (2009). *Buildings and the Environment: A Statistical Summary.* http://www.epa.gov/greenbuilding/pubs/gbstats.pdf

¹⁵ U.S. Environmental Protection Agency. (2009). *Buildings and the Environment: A Statistical Summary.* http://www.epa.gov/greenbuilding/pubs/gbstats.pdf

homeowner where heating accounts for nearly a fifth of home energy usage. ¹⁶ It is possible to reduce this phenomenon significantly. Citizens of the United Kingdom, for example, uses almost a third less than even the most conservation minded U.S. citizen. In stark contrast, however, while the average U.S. home uses an estimated 70 gallons per day, several manufacturers of bathroom fixtures have promoted multi-headed shower fixtures that deliver over 80 gallons per minute, in other words more water delivered in a minute than most of the citizens of the world use in an entire day. ¹⁷

Perhaps one of the more compelling details that should focus attention on the interior environment is research that shows that people spend approximately ninety percent of their time indoors and that there is mounting evidence that indoor air can be several times as polluted as the outdoor air of heavily industrialized metropolises.

Negative health effects from polluted air can be experienced immediately and even years after. The average home can contain multiple pollution sources and therefore multiple exposures for its inhabitants. Indoor air pollution sources include building materials, furnishings, carpeting, paint, home cleaning products and even air fresheners. Some products, such as air fresheners, furnishings and building materials, release pollutants continuously. Exposure to these pollutants, which include toxins, can cause immediate effects, such as dizziness and headaches, or symptoms of more long-term disease like

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¹⁶ U.S. Environmental Protection Agency. (2009). *Buildings and the Environment: A Statistical Summary.* http://www.epa.gov/greenbuilding/pubs/gbstats.pdf

¹⁷ Worldwatch Institute. (2004). *Good Stuff? A Behind-the-Scenes Guide to the Things We Buy.* http://www.worldwatch.org/system/files/GS0000.pdf

asthma. 18 Asthma is a chronic disease that can disrupt ones activities such as work and school. Employed adults in the United States miss approximately 10 million days of work each year due to the disease. 19

The toxins that enter the interior of the building through furnishings and the like also impact those at the source of manufacture, including nearby residents, area wildlife, and factory employees. Work done in 1895 by Dr. Rehn, an internist treating textile workers in Frankfurt, Germany, was the first to establish a causal relationship between occupational exposure to chemicals and cancer. The chemicals in the dyes used to color the textiles were causing bladder cancer in the workers, some of the first known chemicals to produce cancer. Today, bladder cancer is the fifth most commonly diagnosed cancer in the United States. Occupational and environmental exposure to chemicals is still a significant problem regarding cancers including bladder cancer. This includes chemicals used in dry cleaning to clean textiles even though safer methods are available.²⁰

A concerted effort to employ principles of sustainability in the interior environment could have positive benefits. A change in the way in which we view, build, and live in the built environment is essential. That change is employing sustainable design. Sustainable design is a design approach that applies the principles of sustainability to the design field.

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¹⁸ U.S. Environmental Protection Agency. Office of Air and Radiation. Office of Radiation and Indoor Air. (2010) *The Inside Story: A Guide to Indoor Air Quality* (6609J). http://www.epa.gov/iaq/pubs/insidest.html

Centers for Disease Control and Prevention. National Center for Health Statistics.
 Akinbami. L. M.D. (2010). Asthma Prevalence, Health Care Use and Mortality: United States 2003-05. http://www.cdc.gov/nchs/data/hestat/asthma03-05/asthma03-05.htm
 Rehm, D. (Executive Producer). (2010, August 2) Raising Awareness About Bladder Cancer. The Diane Rehm Show. National Public Radio. WAMU, Washington, D.C.

CHAPTER 2

SUSTAINABLE INTERIOR DESIGN

Applying Sustainable Design

In the book *Biologic* author David Wann explains "poor design is responsible for many, if not most, of our environmental problems." One important step in preserving and revitalizing the earth's environment and the life on earth is employing sustainable design. "It is a concept that recognizes that human civilization is an integral part of the natural world and that nature must be preserved and perpetuated if the human community itself is to survive. Sustainable design articulates this idea through developments that exemplify the principles of conservation and encourage the application of those principles in our daily lives." Sustainable design differs from traditional design approaches in that it bestows special credence upon the intention inferred from the process of design. As Carol Franklin of the landscape architecture firm Andropogon Associates, Ltd., put it, "Sustainable design is not a reworking of conventional approaches and technologies, but a fundamental change in thinking and in ways of operating—you can't put spots on an elephant and call it a cheetah." 23

How then, does one achieve a design that follows the principles of sustainable design? Nine tenets were put forth for Expo 2000, a World's Fair held in Hannover,

Sustainable Design. http://www.nps.gov/dsc/d_publications/d_1_gpsd.htm

²¹ Wann, David. (1994). *Bio logic: Designing With Nature to Protect the Environment.* Boulder: Johnson Books

U.S. National Park Service. Denver Service Center. (1993) *Guiding Principles of Sustainable Design.* http://www.nps.gov/dsc/d_publications/d_1_gpsd.htm
 U.S. National Park Service. Denver Service Center. (1993) *Guiding Principles of*

Germany. Developed by architect William McDonough and chemist Michael Braungart, these principles provide a touchstone for designers to guide decision-making toward sustainability.²⁴

- 1. Insist on the right of humanity and nature to co-exist in a healthy, supportive, diverse, and sustainable condition.
- 2. Recognize Interdependence. The elements of human design interact with and depend on the natural world, with broad and diverse implications at every scale. Expand design considerations to recognizing even distant effects.
- 3. Respect relationships between spirit and matter. Consider all aspects of human settlement including community, dwelling, industry, and trade in terms of existing and evolving connections between spiritual and material consciousness.
- 4. Accept responsibility for the consequences of design decisions upon human wellbeing, the viability of natural systems, and their right to co-exist.
- 5. Create safe objects to long-term value. Do not burden future generations with requirements for maintenance or vigilant administration of potential danger due to the careless creations of products, processes, or standards.
- 6. Eliminate the concept of waste. Evaluate and optimize the full life-cycle of products and processes, to approach the state of natural systems in which there is no waste.
- 7. Rely on natural energy flows. Human designs should, like the living world, derive their creative forces from perpetual solar income. Incorporate this energy efficiently and safely for responsible use.
- 8. Understand the limitations of design. No human creation lasts forever and design does not solve all problems. Those who create and plan should practice humility in the face of nature. Treat nature as a model and mentor, not an inconvenience to be evaded or controlled.
- 9. Seek constant improvements by sharing knowledge. Encourage direct and open communication between colleagues, patrons, manufacturers, and users to link longterm sustainable considerations with ethical responsibility, and reestablish the integral relationship between natural processes and human activity. 25

²⁴ McDonough, W & Braungart, M. (2003). *From Principles to Practices: Creating a* Sustaining Architecture for the 21st Century.

http://www.mcdonough.com/writings/from_principles.htm

²⁵ U.S. National Park Service. Denver Service Center. (1993) *Guiding Principles of* Sustainable Design. http://www.nps.gov/dsc/d_publications/d_1_gpsd.htm

In short, the interior design field should move to provide function, aesthetics, value, and quality of life for the interior environment in a manner that the earth can sustain and is life-giving. Interior design goes beyond decoration aims to achieve the optimal performance of the built environment. Employing sustainable design principles means that the optimal performance of the built environment includes life giving features for the inhabitant such as adequate lighting including daylighting, adequate ventilation, and eliminating exposure to toxins, while specifying materials from manufacturers who also give such benefits to their workers. Specify products from manufacturers who create products and conduct manufacturing operations that are safe for consumers, workers, and nature. This includes eliminating waste, both in manufacture and in product design, so that at the end of the product's life it becomes usable for another technical use or is fully biodegradable. Sustainable interior design employs techniques so that the interior design integrates holistically with the building design to effectively manage energy, water, natural resources and wastes. Sustainable interior design serves to enrich the actual soil, as well as the cultural soil as it achieves a total design with a positive effect on the user.

CHAPTER 3

INCEPTION OF A WEB-BASED MEDIA PROJECT

Creation of a Website

The *EcoInteriors.org* website is built to be a resource for the growing field of sustainable interior design. In order to achieve the goal of increasing the use of sustainable interior design techniques, certain actions need to take place. A fully coordinated campaign to achieve change would aim to build awareness, feature a call to action and provide continual education and training. While these are steps that would be part of a larger directed campaign and far surpass the scope of a thesis, the *EcoInteriors.org* website can serve as a preliminary tool toward promoting the use of sustainable interior design techniques. The creation of an interactive website that allows those interested in sustainable design to access information about the topic and communicate with each other.

Target Audience

The primary audience is the interior designer who may have varying degrees of interior design experience and sustainable design knowledge. Interior designers focus on function as well as aesthetics so necessarily the site must address both. A primary task of the interior designer is to select furniture, fixtures, finishes, and equipment and create a functional and aesthetically pleasing arrangement of those items in a particular space. While interior designers work on a variety of building types, from residential to commercial, they all must complete a programming process to make sure their solutions are based on the clients' needs. A significant number utilize computer applications to

achieve their work goals, including using specialized drafting software and searching the Internet to find and research resources like materials and contractors. Twenty-three states require that interior designers must be either licensed or registered, otherwise professional status is established by membership in a professional organization however, unlike architect, which is a title that is legally defined, anyone in the remaining states can call themselves an interior designer. ²⁶ Nonetheless, the interior designer as defined by the United States Department of Labor, posits that the designer interact well with people, possess math and verbal skills, in addition to possessing technical knowledge. A secondary audience of the *EcoInteriors.org* website is comprised of those with an interest in interior design, such as the non-professional selecting their own materials and decoration and arranging their own spaces. Another secondary audience is comprised of other design professionals in other fields who share an interest in design.

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²⁶ U.S. Department of Labor. Bureau of Labor and Statistics. (2009). Interior Designers. *Occupational Outlook Handbook, 2010-11 Edition.* http://www.bls.gov/oco/ocos293.htm

CHAPTER 4

THEORETICAL FRAMEWORK

Diffusion of Innovations Theory

Creating a website to reach these audiences and disseminate information was influenced by the work of Everett Rogers' Diffusion of Innovations. "Mass media channels are usually the most rapid and efficient means of informing an audience of potential adopters about the existence of an innovation." At the same time Rogers submits that, "interpersonal channels are more effective in persuading an individual to accept a new idea, especially if the interpersonal channel links two or more individuals who are similar in socioeconomic status, education, or other important ways." The Internet allows multiple users to access the site and facilitates interaction both online and in person by allowing like minded persons a way to come into contact with one another and have deeper conversations in person. The *EcoInteriors.org* website is meant to provide access to knowledge related to sustainable interior design, to facilitate the practice of interior design, and to maintain active participation in the movement towards sustainable design. These goals are meant to be facilitated through the site design.

When trying to promote social change, it is not enough to extol the virtues of such change, but rather it behooves those wishing for change to consider and relate how the change would meet the needs of the target group. Diffusion of Innovation theory provides

²⁷ Rogers, E. (2003). *Diffusion of Innovations*. (Fifth Ed.). New York: Free Press.

²⁸ Rogers, E. (2003). *Diffusion of Innovations*. (Fifth Ed.). New York: Free Press.

a framework in which to analyze how the target group perceives innovation and how the group contextualizes it into their own circumstance.

- 1. Relative advantage is the degree to which an innovation is perceived as better than the idea it supersedes. (This can include economic terms, social prestige, convenience and satisfaction.)
- 2. Compatibility is the degree to which an innovation is perceived as being consistent with the existing values, past experiences, and needs of potential adopters.
- 3. Complexity is the degree to which an innovation is perceived as difficult to understand and use. (New ideas that are easier to understand are adopted more quickly.)
- 4. Trialability is the degree to which an innovation may be experimented with on a limited basis. (This ability to experiment lowers the level of uncertainty associated with the innovation and are for the most part adopted more quickly.)
- 5. Observability is the degree to which the results of an innovation are visible to others. The easier it is for individuals to see the results of an innovation, the more likely they are to adopt.²⁹

The advantage of a website is that it can be used to support the potential adopter of sustainable interior design to explore these perceptions. Through the website content, one can compare the new idea to their existing one and evaluate the advantages of each.

Likewise with compatibility, a visitor to a website can access new ideas and assess the extent to which the innovation is in accord with their needs, values and understanding of the world. If successful, the website content can also illustrate an idea clearly, reducing the perceived complexity of the innovation. The factors of trialability and observability are more indirectly addressed by a website. On a given website, a user can try a new innovation virtually, or be introduced to resources which enable them to try the innovation. The same holds true for observing an innovation, one can observe the

²⁹ Rogers, E. (2003). *Diffusion of Innovations*. (Fifth Ed.). New York: Free Press.

innovation virtually through a photo gallery, video, or virtual world construct.

Alternatively, a website can direct them toward locations in which the new practice can be observed. A further advantage of a website is that it can be widely accessible, in that one's access is not limited by time, and should the technology necessary for Internet access be cost-prohibitive, one can access the website through a local library. It can also be accessible to people of different abilities when designed as such. The *EcoInteriors.org* website meets several recommendations of the World Wide Web Consortium.

CHAPTER 5

EXECUTION OF A WEB-BASED MEDIA PROJECT

Layout and Content

The *EcoInteriors.org* website features a large header with the name of the site and tagline. The top menu was configured to accommodate site navigation (the home page, forums, links and a blurb about sustainability), while the left menu was arranged to handle the primary content of the site (products, inspiration, interesting trade articles and a place to view archived articles). The website discusses the definition of sustainability according to the work of leaders in the field under the "What Is Sustainability" navigation button. The



FIGURE 1 Eco Interiors Homepage. For interpretation of the references to color in this and all other figures, the reader is referred to the electronic version of this thesis.

"Talk About It" button provides a link to a forum where site users can interact. Current forums include "Specifying and Selecting Sustainable Materials" where users can find information regarding one of the interior designer's primary activities. The "Places to Go" button takes users to a list of useful websites. Users are also able to do a search of the website from the top menu.

The content of the site currently features a products section, where visitors can read blurbs about new products. In addition to the product description, the product location is given so that users can practice two facets of sustainability, supporting the local economy and minimizing transportation of materials. Tags are utilized so that users can quickly find related items. The content also includes an inspiration section, where visitors can get ideas or just motivating visual images. Users can then observe online the results of an application of sustainability, aiding adoption. The left menu area is also utilized for polls, to get visitor reactions to different questions that test their general acceptance of the concept of sustainability or sustainable design. Below the polls, an area to login to the site was added. The login allows users to post to the forum and deters spam with the use of captchas.



Tags: furnishings furniture sustainability

FIGURE 2 Tags

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³⁰ Rogers, E. (2003). *Diffusion of Innovations*. (Fifth Ed.). New York: Free Press.

Find Products
Get Inspired
Read Articles
Locate Resources
Browse Archives

FIGURE 3 Left Menu

Technology

A content management system was used to enhance the content delivery of the *EcoInteriors.org* website. Utilization of this tool allows for easier navigation of the site for users, due to its quick categorization of data. The content management system allows for the information contained in the website to be displayed relationally instead of just statically as in traditional websites. This means that the web designer can group together data from otherwise disparate pages according to a common thread. This thread could be a keyword or topic, a date, the most visited items, the highest ranked items or even the most shared items.

The ability to build the website modularly is another advantage of the content management system. Components with new functionality can be added in stages. These components need not be designed by the individual web designer, rather, they can be adopted from another designer and utilized. This advantage greatly enhances the website as an individual web designer can put together a website beyond his or her own capability and incorporate another's expertise cheaply and efficiently. With open source content

management systems one gains freedom and flexibility as they can rely on a community of people building and sharing components freely within the group of users.

The content management system utilized for the *EcoInteriors.org* website is Joomla. This system is a free open source content management system increasing accessibility for the both the site designer and the user. Using such a system the website functions like forums and tags are accommodated. One of the primary goals of the website is to provide information and the content management system gives users the functionality of a database and allows quick categorization of the data. This system was chosen over Drupal for its greater ease of use in designing and creating a website. Joomla.org provided a good deal of support in website design. Joomla enables future expansion through its strong web development community. Accomplishing the website themes and design template was found to be easier using Joomla than Drupal for these reasons.

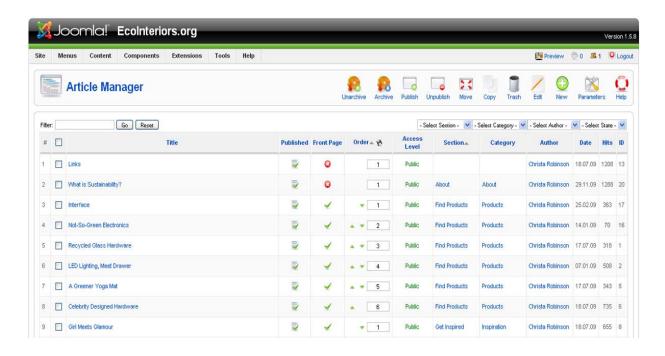


FIGURE 4 Joomla Article Manager

Aesthetics and Design Goals

The look and feel of the site was meant to both communicate the environmentalist motif and have pleasing aesthetics for the design community. Profiles of three designers prior to the creation of *EcoInteriors.org* indicated they were looking for usable information, products, cool projects, networking and face-to-face meeting opportunities as well as a sleek look. Subjects were selected among professional contacts of the author and information was gathered from each subject independently in order to gain insight towards design considerations. Two were interviewed over the telephone; the third was profiled based on previous face to face conversations. Each does work in a different segment of the interior design field, with different professional affiliations.

Designer	Demographics	Employment	Website Requirements	Professional Affiliations
Jeremy M.	•White •Male •Early 30's	Self-employed, part time	Product info Cool Projects Sleek look	Not Affiliated
Cricket B.	•White •Female •Early 50's	Retail furniture employee	General info	ASID
Gail P.	•White •Female •Early 60's	Owner, kitchen shop	Usable info Networking F2F	NKBA

TABLE 1 Interior Designer Profiles

While most of this was accomplished, future design goals for the site include a greater emphasis on networking both online and face-to-face meetings. Utilizing Facebook and Twitter seem to be an effective means to accomplish this task. Anecdotally, a local non-profit, Michigan Energy Options, found that they posted their free CFL bulb program on

Twitter and someone following their tweets in Boston told their friend in East Lansing to pick up a bulb at their demonstration house and he did. Another goal is to incorporate user feedback on products and contractors into an accessible form such as a ranking system or even a wiki based collection of recommended products.

CHAPTER 6

USER EVALUATIONS

Research Method

A survey of prospective users was conducted for the purpose of evaluating the usability, design and content of the website. The survey targeted design professionals, media and marketing professionals, environmentalists, and individuals with a keen interest in design. Subjects were recruited primarily from faculty at the Interior Design and Fashion Technology Program at Lansing Community College, of which the author is a member, as well as from professional networks of which the author is or has been a member, such as the local chapters of the American Society for Interior Designers and the National Kitchen and Bath Association, and other professional and social associations. The author was not in a position of authority over any of the subjects and likewise no coercion was involved in the research. Forty potential participants received an email invitation to complete a survey through the Zoomerang.com website as well as two subsequent reminder emails containing a link to the *EcoInteriors.org* website and to the Zoomerang.com survey website. There were 29 complete responses and three partial responses.

Survey Results and Findings

Section 1: Usability

Participants were asked if they were able to quickly ascertain what the website was about. The majority of respondents were able to quickly determine the purpose of the website, though some needed additional time.

How long did it take you to determine what the website was about?

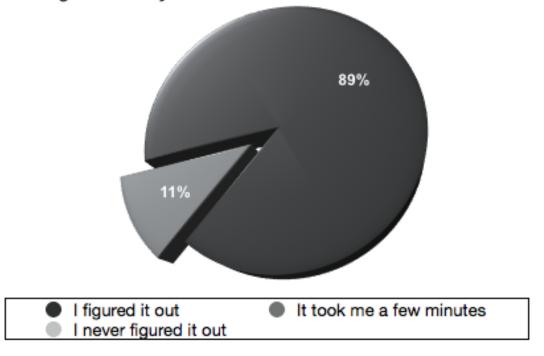
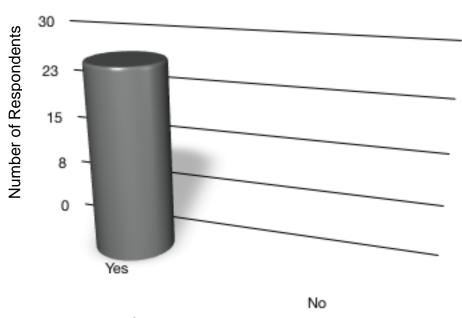


FIGURE 5 Website Concept

Was the EcoInteriors.org website easy to navigate?



All respondents indicated that they were able to easily navigate the website, nevertheless, a few indicated that there was room for improvement. Three respondents provided additional feedback.

I like the top with the title, but would be good if the homepage had a "welcome, this site is about..." message for first timers. The jump into the article links was a little confusing.

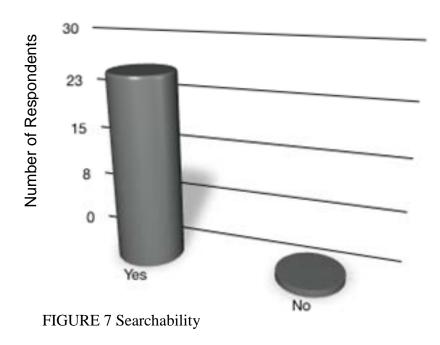
tab titles could have been clearer (i.e. places to go..)

Since it is meant as an informative consumer site, the site would benefit to offer links to direct retail or something more than the "find products" section could be expanded to include this. No resources listed to find products.

TABLE 2 Ease of Navigation

The majority of respondents were able to find what they were looking for in the website.

Could you easily find what you were looking for on the website?



Did you notice anything missing from the website you expected to find?

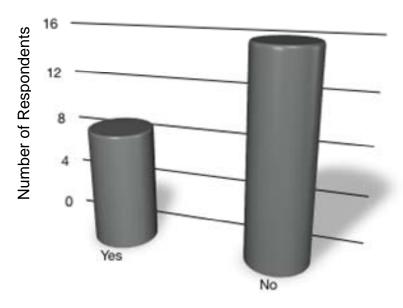


FIGURE 8 Missing Features

Though two-thirds of respondents found the *EcoInteriors.org* website to be adequate, nearly a third indicated that they thought something was lacking.

Participants provided input as to what was lacking in the website.

I think an "about me" or a "who we are" section would be good...and a way for people to submit questions or blog post ideas. The forum is a good start point but it would be neat to have an "ask the blog author" section...

(I think the comment area should read "if yes...") I found it to have a lot of good information.

Contact info

Specific manufacturers of product

Stuff for rookies such as: simple things to do / principals of sustainable design to follow / Top 10 worst things to do...

TABLE 3 Missing Features

TABLE 3 - Continued

I did not know what to expect, in advance.

An "About Eco-Interiors" section.....whenever I go to a website I like to know the source of the information. Who made the website? What is their angle/motive? Are they motivated to sell products or are they a non-profit. e.g.? This info would be helpful and add credibility

I think that you meant to say "yes" was the qualifier for this question :)

Direct resources and a reason to stay like tutorials on how to make a certain project... currently the site is really only a blog. Give us a reason or a "catch" to stay on the site

Perhaps videos from a industry website

Definitions of what's included/excluded in "interiors"

Given the opportunity to provide open-ended feedback regarding the usability of the website, several of the survey participants gave constructive feedback as to how what they found could be improved.

I think its super usable. I really like it - especially the ability to change font size and the colors of it.

The site feels very intuitive and smart. It's such a necessary resource -- presented well -- for the important ideas around sustainability and environmental building.

It was really well laid out easy to find things. I like the design of the menu bar.

It was very easy to use which is something very nice. You were not overwhelmed with choices

See #4 above. overall, it looks really nice!!

Note: Refers to earlier comment which reads "Stuff for rookies such as: simple things to do / principals of sustainable design to follow / Top 10 worst things to do..."

TABLE 4 Usability Improvements

TABLE 4 - Continued

Clearer directions

It looks inviting.

This is such a new topic, ANY new information is welcome. The site is beautiful, and refreshing in its simplicity.

I am just beginning the study group for Green Associate so I feel I will be able to contribute when I have completed the certification.

I noticed the forum option. Is there a certain time or date that someone is chatting and passing on info or answering questions? Inviting people to chat or post at a certain time so a group would be formed online...just a thought!

It seems like the "find products" tab is an important part of the site and could use a more prominent tab at the top

The front page could have an overview of what you can do on the website and perhaps guide people to what they are looking for.

Usability was great; a more extensive list of products/resources would be helpful though.

I think that once consumers/interested parties find the site they will become participants by adding articles and products that they have found.

In the meantime you can continue to add really special items that will help attract the individual to explore the site.

The content was well written and easy to read.

No suggestions. This is a nice website.

See comments above.

Note: Refers to earlier comment which reads "Direct resources and a reason to stay like tutorials on how to make a certain project... currently the site is really only a blog. Give us a reason or a "catch" to stay on the site "

Section 2: Design

Participants were asked to rate the look and feel of the website on a scale of one to five, one indicating the appearance was very poor and five indicating the appearance was excellent.

Rate on a scale of 1 to 5 the overall look and feel of EcoInteriors.org.

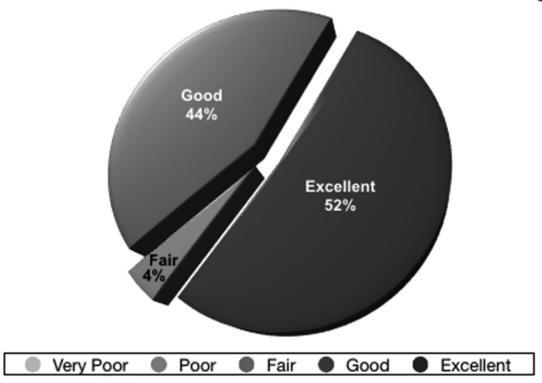


FIGURE 9 Look and Feel

The majority of respondents found that the website fit correctly on their screen, while all respondents found that the website loaded correctly on their web browser.

Did the website fit on your computer screen?

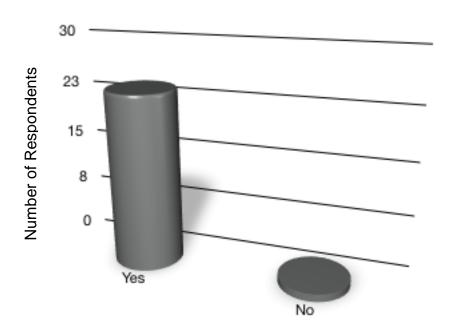


FIGURE 10 Screen Fit

Did it load properly in your web browser?

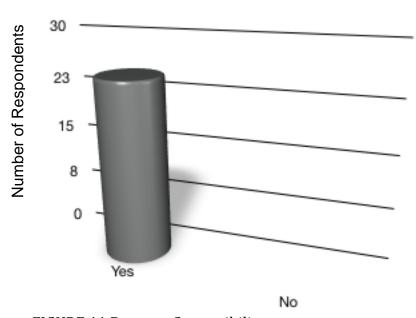


FIGURE 11 Browser Compatibility

Participants asked an open ended question to elicit feedback regarding how the design of the website could be improved. Many responded.

Loved how every piece of copy had a visual to draw in the reader. I like the straightforward and "clean" design of space. Don't change it. I like it! I am not that tech savvy to evaluate/discuss the site design None I don't have any suggestions at this point. Looks so good!! The header graphic is great, and it works well on the front page. For space reasons, you could have a header that isn't quite as tall on the inner pages. Also, the Archives section could have some canned (pre-made) choices, such as: view all articles from the past 3 months, past year, etc. Everything looks great. The layout was good, but stretching the horizontal size/layout of the site would improve the overall feel and readability of the site. Perhaps change the home image to suit a theme for the month or season. Another way to keep things new and interesting. I think it was design pretty good and is kmore [sic] than adequate in its current form. Add more dimension, color, and graphic Add links to projects and articles in academia

TABLE 5 Design Improvements

Section 3: Content

Largely, respondents indicated that the content offered at *EcoInteriors.org* was on par with similar websites that they have encountered.

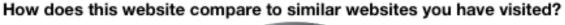




FIGURE 12 Content Comparison

A question asking the participant what they would like to see yielded several requests for more information on materials used in interior design.

It already has the things I'm most interested in.

Current research and new products.

It has a lot of information already. I can't think of anything else to add.

Maybe an area to link to any current topics or links

TABLE 6 Content Suggestions

See # 4

Note: Refers to earlier comment which reads "Stuff for rookies such as: simple things to do / principals of sustainable design to follow / Top 10 worst things to do..."

Maybe more discussion about Interior Design fabrics and how they are chemically treated and for what reasons

LEED certification information

More companies that provide "Green" materials for purchase and reviews of items.

More information on fabrics.

New info about green products or listing those companies who need to change or those who are changing...you did list a few!

Even more examples of how sustainable products are being used.

Green tips and materials

Project-specific information.... for example, have a section for "home construction" which gives info about sustainable design for home construction.....have a section for "flooring", etc.

The website provides excellent information as is.

More product/resources info.

More products. Can't get enough of them. Love to search for and compare them in my spare time:)

More green product links...

New introductions of green products

I like the section on Articles and I would like to see more of the same.

More information about interiors.

TABLE 6 - Continued

TABLE 6 - Continued

Add a DIY section... the green movement is big on personal recycling and using your own creativity and talent to re-purpose items for the home. Also, by adding architectural salvage and design resources, you would create pathways to further the reader's inspiration.

Local projects, etc.

Most of the participants provided feedback regarding what they enjoyed most about the *EcoInteriors.org* website. Some liked the website in general; many liked specific aspects of the website, such as the articles, the inspiration section, and the aesthetics.

The inspiration section!!!!!
I liked browsing the product page.
The "What is Sustainability" section.
The explanation of the different words
Get Inspired, Find Products
"Get Inspired"
All of it.
The graphics were inviting
The look of the site and as I suggested, the simplicity is refreshing.
Having a place to come to find out info about being greener. I am frustrated with products that say they are recyclable yet there is no place nearby to recycle them!
Great photos!
The "Get Inspired" section

TABLE 7 Favorite Content

TABLE 7 - Continued

The articles are very interesting.
The forum looks like it would be a great feature once it has more topics.
Articles are really good.
The interiors focused website
I really like the "Get Inspired" and "Find Products" sections.
The pictures and the information about eco-interiors
The idea
Blog articles

All of the respondents would refer others to the website.

Would you recommend this website to others?

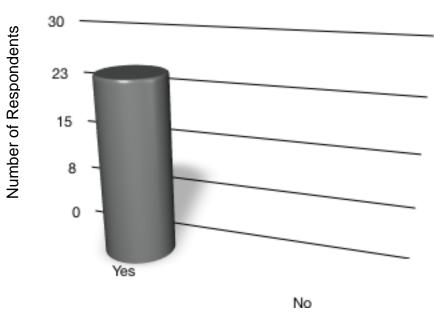


FIGURE 13 Referrals

Respondents largely approved of the *EcoInteriors.org* website, though some suggested improvements.

see #4

Note: Refers to earlier comment which reads "Stuff for rookies such as: simple things to do / principals of sustainable design to follow / Top 10 worst things to do..."

I enjoyed what I saw. I did not know what to expect and to compare it too.

I would like to be able to maneuver around without necessarily developing an account.

I can't think of anything at this time.

Keep up the good work! It is important to have a site that is trustworthy and reliable for those of us who are trying to be good stewards of the earth!!

Perhaps a photo gallery of sustainable design spaces

The content of EcoInteriors.org is organized and easy to navigate.

More specific product resources.

Same as I suggested in the other sections. It's a great effort and I look forward to more.

Grow the site...

The content is excellent as is.

No suggestions.

The logo on the lander page reads "too green" and does not reflect a feeling of interior design or design elements. Using a logo that is representative of eco-friendly interior elements such as a patterned piece of furniture made from natural elements (bent wood, leaves etc) may lend better to the information presented. It looks more like a color scheme and logo for a save the rain forest promotional site rather than for interior design purposes.

Perhaps a little more content?

TABLE 8 Content Improvements

CHAPTER 7

RESEARCH ANALYSIS

Much of the feedback regarding the usability, design and content indicated that the *EcoInteriors.org* website is off to a good start. This could have been influenced by the fact that most of the respondents were colleagues, however, none had anything to gain from taking part in the survey or from any positive feedback offered. Nonetheless, further research would benefit from the time and the budget to solicit feedback from a broader pool and a larger study to see if any sustainable interior design was adopted over time by the subjects.

There were omissions pointed out that would improve the site, a section about the website, author and contact information. The aesthetics, layout and graphics were pleasing to most and graphics were the favorite part of the website for some. For many, this was enough to garner what the site was about, although a few noted that they would like more information. It was interesting to note the contrast in critiques, one thought that this was "obviously" a site for consumers, another wanted more academic articles, while another still wanted more basic information, feedback correlated to their respective backgrounds. The impression that the site was just for them perhaps was contributed to by the limited scope of the site content and by the simple graphic and color scheme.

Favorite aspects of the site included the "What is Sustainability" section, the "Get Inspired" section and the photos. More than one liked the concept of the website and gave feedback to expand upon the site. Expansion of the website would accommodate many of the suggestions offered, such as areas for audiences such as newbies, DIYers, and

academics, as well as adding more media like videos and more articles. The overwhelming response, however, was to include more materials and products, including information about them, what is new, where to obtain them, and more specific product resources.

CHAPTER 8

COMPARATIVE ANALYSIS

To gain a sense of comparable websites the top ranked results using the Google search engine were reviewed. The phrase "sustainable interior design" (entered without quotes) drew a top hit from *Interior Design Solutions Green* at www.idsgreen.com by Susan Aiello, ASID, LEED AP, and New York State Certified Interior Designer. The stated purpose of the blog is to "provide a balanced, holistic view that includes advice about sustainable sites, indoor air quality, environmentally responsible design and construction, selection of materials and minimizing waste."



FIGURE 14 Interior Design Solutions Green Website

The site is very basic, featuring only a series of blog posts, a side panel with the author's name and credentials, a link to her design firm, a link to an earlier post, and a list of four useful sites. The blog entries feature a smattering of topics, with occasional but often weak illustration without citations. There is little site organization. Without tags or subject headings, using a tool outside of the website is necessary to locate specific advice regarding a topic, for example keyboard shortcut CTRL F to search the page, or using a search engine tool like using Google to search within the site.

Surprisingly, the largest interior design organization, ASID, was not the top hit for the sustainable interior design Google search. The second ranked hit, www.asid.org/designknowledge/sustain, is linked to a page within their Knowledge Center area of the site, not their top page. Content includes a brief paragraph equating sustainable design and green design. There are additional brief notices within the content of this page: White papers which might give practitioners access to information are available for members only. Site visitors are invited to join a Sustainable Conversation, but there is no interactivity in this section of the site, merely four two or three minute videos. A video PSA from a non-profit on energy use and climate change is embedded. A presentation on wallcoverings is available from the ASID Sustainable Design Council in the form of PowerPoint slides, utilizing a large amount of material from the USGBC PowerPoint slides and REGREEN materials. In addition, there are blurbs and links to exterior sites, the REGREEN guidelines, the 2030 Challenge, and the Hospitality Industry Network Resources *Directory.* Though there are some helpful areas, such as the FAQ's, bibliography and glossary, the content is not very deep and is fairly static, the appearance is text heavy and the site feels somewhat disjointed and not as engaging.

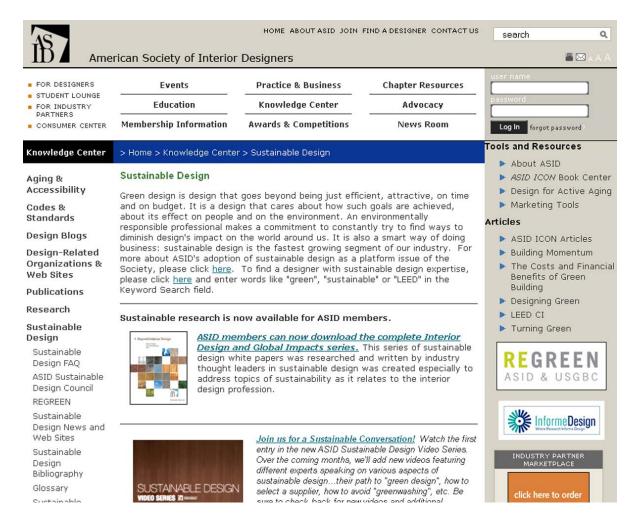


FIGURE 15 ASID Knowledge Center Sustainable Design Website

The REGREEN guidelines site, www.regreenprogram.org, does a better job of disseminating knowledge and incorporating interactivity than the ASID site. There is a much better balance of graphics and text and the graphics themselves are more colorful and visually interesting. REGREEN is a joint project of the ASID and the USGBC offering guidelines for residential remodeling laid out according to the ten most common remodeling types, rather than by category such as water or energy conservation. Because the site is focused on guidelines, it offers strategies that designers can employ. The site offers the REGREEN strategy generator widget, allowing the site visitor to select the project type, scope and goals and view related strategies, issues and reference sites.

Case studies are also offered. The website is better conceived than the ASID site and offers strategies, but rather than highlight products it offers a document with list of considerations and a list of product directories that would prove unwieldy when specifying a product. The REGREEN home assessment offers a place to catalog features of the structure primarily and the interior secondarily. The REGREEN site does offer webinars online training for a fee; this is not unlike the USGBC LEED program which offers certification and training for a fee. In both cases, the fees required quickly add up to larger sums of money, though the REGREEN being less extensive than LEED is also less expensive.

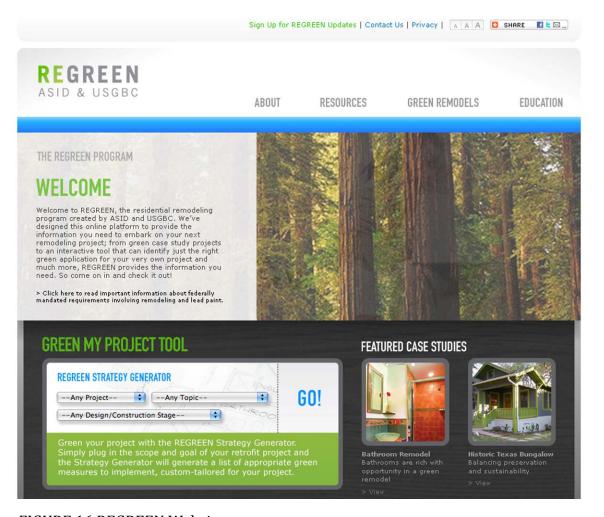


FIGURE 16 REGREEN Website

The Sustainable Style Foundation (SSF) *Interior Design Sourcebook*, www.sustainablestyle.org/ssf-sourcebook, was ranked number three. The content of the sourcebook is simply a list of companies according to category. It has not been updated for over three years even though two of the 2010/2011 board members and featured bloggers are interior designers.

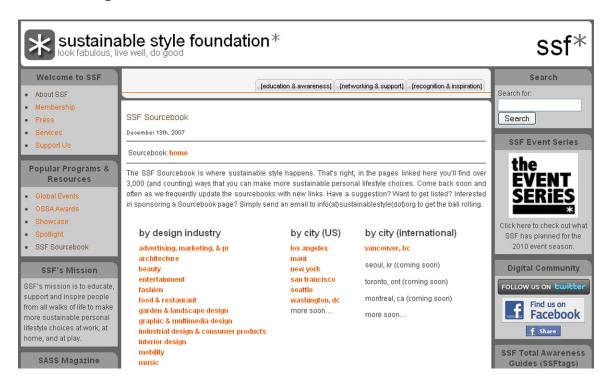


FIGURE 17 Sustainable Style Foundation Interior Design Sourcebook Website

The strength of the SSF *Interior Design Sourcebook* is its categorization so that site visitors can quickly find topics. The main site offers a blog highlighting items that focus on style, yielding a diverse set of topics, though the majority of them are not specific to interior design. Events are also included. Stylistically, the main site is comparable to the *EcoInteriors.org* website utilizing black, gray and white with pops of color coming from illustrative photos. SSF is mainly Seattle based and uses site sponsors to finance some of

the site. Sustainable web hosting, as identified by their web-hosting company, is an interesting but somewhat hidden feature.

The *greenzone* section of the website from the magazine *Interior Design* was by far the most impressive website of the top ranked sites, though it ranked seventh (www.interiordesign.net/channel/Greenzone.php). The entire website is well conceived, attractive and navigable. The *greenzone* offers a list of blog entries with title, attractive

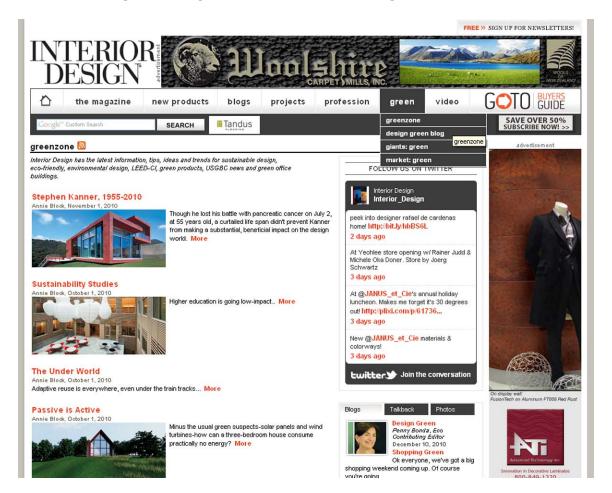


FIGURE 18 Interior Design Magazine Greenzone

photo and blurb which work together to capture interest. Below the blog entries is box containing web news, though some are tangential to interior design. To the right a box directs site visitors to follow on twitter. Below that is a box highlighting current blogs,

current comments, and photos with an additional link to all photo galleries. One of the contributing editors is Penny Bonda, perhaps the biggest name in sustainable interior design. An adjacent site to the *greenzone*, part of the *Green* section of the *Interior Design* site, is the new products section. Each product leads with an eye-catching photo, and offers a minimal description and source for the product. It can be browsed by category. This website offers the status of a well-known magazine along with a green section overseen by a top name in interior design. The layout and graphics of the site also lend credibility. Though an educational component is lacking, such as definition of terms, best theories or practices, the site does promote design by highlighting interesting related topics and products. The sleekness of the site makes the self-promotion of the Interior Design magazine, evident in top three sites, significantly less noticeable. The site features advertisers to help finance the site.

The remainder of the sites that the sustainable interior design Google search yielded was primarily business sites offering design services. Additionally reviewed were other sites that were devoted to green topics, such as *treehugger.com*, which made the top rankings of the sustainable interior design search. Most of these sites offered products or blogs featuring products that were not specific to interior design. Of those interior design related products, most were consumer goods, rather than items of the quality an interior designer could specify. On the other hand, a site like *homeportfolio.com* which offers many products that an interior designer could specify is lacking when it comes to its green products. In this case, the green products are lumped all together, whereas in the general section, one can do a detailed search by feature such as number of seats or types of joints, but not green attributes.

CHAPTER 9

CONCLUSION

The goal of this project was to create a resource for sustainable interior design. A website proved to be a useful medium for this resource as it need not be distributed as with other media, and can be accessed at a variety of locations and can be designed to be accessible to a number of people. The nature of the website, interactivity, ability to demonstrate techniques, etc., make it a reasonable fit for the theories outlined in diffusion research on how innovation spreads.

An informal preproduction profiling of potential users was helpful in determining design decisions for the *EcoInteriors.org* website. The insights gathered informed the look and feel of the site, as well as the content. Additional revisions would move the site forward, according to the survey results and review by thesis committee. The Inspiration section gained the most favored reviews. Survey participants were also very interested in the green products section, and there is widespread agreement that the content in this section should be expanded. A postmortem review of other websites that focus on sustainable interior design yielded some inspiration. Incorporating a resource list organized by category like the Sustainable Style Foundation Interior Design Sourcebook would quickly add function. The Interior Design magazine green: market page provides inspiration for expanding the scope of the new products section as those surveyed requested. The interactivity of the site was unsuccessful, due to the restrictive nature of the current forum which kept spammers out but also provided barriers to would be forum contributors. Finding an alternative to the current forum would be beneficial. Work is

needed to incorporate a feature that fosters networking and face to face meetings which interested one of the profiled designers. Perhaps utilization of Facebook or Twitter might be of use to promote discussion, networking and or facilitate face to face meetings. An interactive widget like that found on the REGREEN website might be another option for an interactive feature.

The author is inspired by changes in technology, specifically smartphones and QR codes. A librarian friend and colleague who works for a library software company

demonstrated the new uses of these two technologies. What the author would like to see is library management software that can catalog interior design materials that incorporates QR codes. *EcoInteriors.org* could include QR codes that accompany products highlighted on the site that visitors could scan and input directly into their materials libraries.

Additionally, *EcoInteriors.org* could use the QR codes on



FIGURE 19 QR Code for ecointeriors.org. (Scan with your cell phone)

promotional materials to guide smartphone users directly to the site. Perhaps scanning of QR codes by site users could be a way they could quickly get information about products they would like to see featured on the website, thus increasing the interactivity of the site.

Sustainable interior design is an innovation facing today's design world and the *EcoInteriors.org* website, it is hoped, can help facilitate that change. First, however, it had to be appealing to the audience in terms of aesthetics, content, and accessible to the audience. The survey conducted for the purposes of this thesis indicated that website largely achieved these goals, however, there is room for improvement. After the changes are made suggested by the survey, it would benefit the site to do more extensive studies on

their effectiveness. Increasing the amount of content would reflect the changes indicated by the survey, however, perhaps by increasing the educational aspect of the content, the website could serve as a learning tool for those new to sustainable design as well as a refresher for those already practicing. Longitudinal research would be beneficial in determining whether the website aided in adoption or deterred discontinuance of sustainable interior design.

APPENDICES

APPENDIX A:

RECRUITING ADVERTISEMENT

INITIAL SURVEY E-MAIL:

To:

Subject: Christa Robinson--Survey Request by 4/28/10

Hello,

Can you spare a few minutes? I need your help to finish my thesis. Please review the website that I created http://www.ecointeriors.org/. Then complete the survey as soon as possible. Your feedback is important. Please click the link below to begin the survey.

Thank you,

Christa

http://www.zoomerang.com/Survey/?p=U2EZQR5UWLKF

OPT OUT | Learn More

If you do not wish to receive further survey invitations from this sender, click the link below. Zoomerang will permanently remove you from this sender's survey invitation mailing list.

I do not want to receive any more Zoomerang survey invitations from this sender.

FOLLOW UP REMINDER E-MAIL:

To:

Subject: THERE'S STILL TIME: Christa Robinson--Survey Request by 4/28/10

I know you have been busy but this will only take a few minutes and every response counts! The survey is brief, only 14 quick questions!

Can you spare a few minutes? I need your help to finish my thesis. Please review the website that I created http://www.ecointeriors.org/. Then complete the survey as soon as possible. Your feedback is important. Please click the link below to begin the survey.

Thank you,

Christa

http://www.zoomerang.com/Survey/?p=U2EZQR5UWLKF

OPT OUT | Learn More

If you do not wish to receive further survey invitations from this sender, click the link below. Zoomerang will permanently remove you from this sender's survey invitation mailing list.

I do not want to receive any more Zoomerang survey invitations from this sender.

APPENDIX B:

WEBSITE SURVEY QUESTIONS

Page 1 - Heading					
Tell us about the usability of EcoInteriors.org					
Page 1 - Question 1 - Choice - One Answer (Bullets)					
How long did it take you to determine what the website EcoInteriors.org was about?					
○ I figured it out right away					
It took me a few minutes					
I never figured it out					
Page 1 - Question 2 - Yes or No					
Was the EcoInteriors.org website easy to navigate?					
O Yes					
O No O If no substantial had improved?					
If no, what could be improved?					
Para 1 O catta 2 Varia Na					
Page 1 - Question 3 - Yes or No					
Could you easily find what you were looking for on the EcoInteriors.org website?					
O Vog					
YesNo					
Page 1 Question 4 Vec or No.					
Page 1 - Question 4 - Yes or No					
Did you notice anything missing from the EcoInteriors.org website that you expected to find?					
mu:					
Yes					
O No					
 If yes, please explain what you would have liked to see. 					
Page 1 - Question 5 - Open Ended - Comments Box					
Please provide your suggestions on how the usability of EcoInteriors.org could be					
improved					

	Page 2 - Heading							
	Tell us about the design of EcoInteriors.org							
,								
	Page 2 - Question 6 - Rating Scale - One Answer (Horizontal)							
	Rate on a scale of 1 to 5 the overall look and feel of EcoInteriors.org.							
	Very Poor	Poor O	Fair O	Good O	Excellent			
	•	•	•	•				
	Page 2 - Quest	tion 7 - Yes or	· No					
	Did EcoInteriors.org fit on your computer screen?							
	YesNo							
	O 110							
	Page 2 - Question 8 - Yes or No							
	Did EcoInteriors.org load properly on your web browser?							
•	Q 11							
	YesNo							
		If no, can you note your web browser type and version?						
Page 2 - Question 9 - Open Ended - Comments Box								
	Please provide your suggestions on how the design of EcoInteriors.org could be improved.							
ĺ	Page 3 - Heading							
	Tell us about t	the content of	f EcoInteriors.	org				
					_			
	Page 3 - Question 10 - Rating Scale - One Answer (Horizontal)							
	Overall, how does EcoInteriors.org compare to similar websites you have visited? Rate on a scale of 1 to 5 the overall look and feel of EcoInteriors.org.							
		Poor	Fair	Good	Excellent			
	•	O	O	O	O			
	Page 3 - Question 11 - Open Ended - Comments Box							
	What kind of information would you like to see available on EcoInteriors.org?							

Page 3 - Question 12 - Open Ended - Comments Box					
What part of EcoInteriors.org did you enjoy the most?					
Page 3 - Question 13 - Yes or No					
Would you recommend EcoInteriors.org to others?					
YesNo					
Page 3 - Question 14 - Open Ended - Comments Box					
Please provide your suggestions on how the content of EcoInteriors.org could be improved.					
Thank You Page					
Thank you for participating in this survey! I appreciate your feedback. http://www.ecointeriors.org/					

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