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Shop like a designer: How the mass media perpetuates non-sustainable design

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SHOP LIKE A DESIGNER:

HOW THE MASS MEDIA PERPETUATES

NON-SUSTAINABLE DESIGN

By

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ABSTRACT

This study investigated the perception that mass media perpetuate critique of interior design projects using non-environmentally responsible design (non-ERD) assessment models, based on traditional ideological considerations, as opposed to models based on environmentally responsible design (ERD) philosophies. Using the Delphi technique, thirty keywords were selected, based on educators' and practitioners' content knowledge, then categorized into seven dimensions representing ERD or non-ERD attributes. These dimensions formed design assessment models, which included a distinction between ethical ERD attributes and aesthetic non-ERD attributes. Using content analysis, keywords were identified in randomly selected feature articles from three design magazines. Quantitative statistical analysis documented an unbalanced approach to design critique. Either the models emphasized non-ERD and were deficient ethics, or they emphasized ERD and were deficient aesthetics. However, the design community's portrayal of exemplary design reflects a melding of these attributes; therefore, mechanisms should be explored to persuade media to adopt this holistic assessment model.

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Introduction

The typical mass media scrutiny of interior design seems to be characterized by anecdotal snippets of stylistic interior design considerations that ignore sustainable design principles. Even a rudimentary, cursory read of popular, mass media, interior design magazines reveals, to the trained eye, that a majority of publications are reporting on interior design issues with criteria that ignore the most fundamental principles of environmental responsibility. **Research Problem**

There is a large gap between current interior design practice and educational curricula, both of which have an emphasis on Environmentally Responsible Design (ERD) by inclusion of sustainable and green design criteria, and mass media's perpetuation of interior design paradigms based only on traditional, stylistic considerations. The mass media continue to perpetuate analysis of interior design projects with non-ERD design assessment models, based on traditional, ideological considerations, as opposed to criteria based on current, environmentally responsible design philosophies. Mass media remain fixated on the "star" designer as a lifestyle guru, a design expert who chooses and selects furnishings, color schemes, accessories, and even construction with an eye for style and aesthetics but with little regard for ethical, environmentally responsible design. "Design History shares the shallowness of the popular, public design discourse: '[Fry stated] …The focus of attention goes to iconic structures, objects, images and heroic designers'" (Mickelwaite, 2009, para. 2). The design community needs to confront mass media as to how relevant design criteria are assessed.

Background

Emergence of ERD. Enger and Smith (2004) noted, "Environmental laws are not a recent phenomena. As early as 1306, London adopted an ordinance limiting the burning of coal because of the degradation of local air quality" (p. 463). Since the advent of the modern environmental movement, beginning with advocates of land preservation in the 1920s in the United States, followed by Rachel Carson's treatise *Silent Spring* in 1962, and ensued by the global persuasive grass-roots movements gaining momentum in the 1960s (Goldfarb, 2000), governments worldwide have made ecological concerns of paramount importance.

The federal government of the United States supports environmental responsibility, as evidenced by formation of such agencies as Council on Environmental Quality (CEQ) and the Environmental Protection Agency (EPA). Sutley (2010) noted "The goal is to meet energy, water, and waste reduction targets that will save taxpayer dollars, create clean energy jobs, and reduce pollution" ("Leading by example," para. 2).

Likewise, global initiatives support environmental responsibility. Initiatives tackling environmental concerns, such as ecologically sustainable cities and reduction of planetary carbon footprint, are well documented. Vincent (2009) noted, "Since the late 1980's [*sic*] the necessity and urgency of implementing strategies to achieve a sustainable future have been broadly acknowledged in the United Nations [*sic*] declarations at Rio (1992) and Johannesburg (2007)" (p. 1).

An entire international industry of green building certification supports environmental responsibility. Leadership in Energy & Environmental Design (LEED), a program administered by the United States Green Building Council (USGBC), a non-

profit coalition of private organizations that promote sustainable building practices, was created specifically to deal with sustainability. Likewise, the design community supports sustainable building practices. "We are often reminded of the major role that building construction and operation have on rising global green house gas emissions and the lasting damage they cause. The professional design community has the knowledge and skills to address many ecological challenges" (Hatch, 2010, para. 8). The design community has risen to the challenge of sustainable development and stimulated updated education programs.

As a consequence, interior design programs in the US and Canada are unilaterally forming new curricula with an emphasis on green and sustainable design, mandating knowledge of environmentally responsible design for all upcoming interior designers, in response to Council for Interior Design Accreditation (CIDA) requirements. So how is it that so many popular, current, interior design publications ignore environmentally responsible design principles when interest in sustainable, green-building practice is greater than ever before?

Many builders, architects, and interior designers are looking to build with an eye towards sustainable/green design. In economic terms, USGBC Green Building Industry Facts (2009) projects that "the overall green building market (both non-residential and residential) is likely to more than double from today's $36-49 billion to $96-140 billion by 2013" (p. 1).

Awareness of conservation of natural resources is at an all-time high. Brown (2003) finds "in scale, the Environmental Revolution is comparable to the Agricultural and Industrial Revolutions that preceded it" (p. 247). Moreover, in response both to

persuasive grass-root movements and government policies, in the last few decades, many

institutions of higher learning have established programs of studies on environmental

issues. Vincent (2009), reporting on a survey initiated by The Council of Environmental

Deans and Directors, noted that a "census count of programs conducted prior to the

survey identified 840 degree-granting programs at 652 institutions that offer 1183

interdisciplinary environmental degrees" (p. 1).

Interior design students attending accredited design programs are also being

mandated to include environmental criteria in selection of materials. Current

environmental educational policy for interior design programs is evidenced by a CIDA

(2010) policy statement, which noted, "CIDA-accredited programs assure the public that

interior design education prepares students to be responsible, well-informed, skilled

professionals who make beautiful, safe, and comfortable spaces that also respect the earth

and its resources" (para. 1).

ERD attempts to minimize negative impact of design decisions on the

environment. Jones (2008) noted, "There is increasing recognition that ERD, a

combination of green and sustainable design, has a positive impact on the natural

environment, the global economy, and the people who live, work and play in the built

environment" (p. 4). Kang and Guerin (2009) concurred that many interior design

professionals profess interest in using ERD criteria as a fundamental basis for design

decisions, but in practice, if anything, these numbers need to increase.

Pyke, McMahon, and Dietches (2010) noted, "The Green Building community

has diversified from its origins in the architecture and engineering professions to

encompass the full range of professionals involved in the life cycle of built

environments" (p. 5). Taken as a whole, public policy, as well as policy of non-government organizations (NGOs) such as the non-profit USGBC and the building community at-large, support ERD ideology and recognize and sanction green/sustainable design principles for interior designers. Yet the mass media continue to perpetuate non-environmentally responsible design assessment models, disregarding well-defined ERD development principles propagated by both government and the design community.

Design assessment models. For purposes of this study, a design assessment model is a set of criteria, based on established principles, used to analyze and portray exemplary design. Two design assessment models currently in use by media were the focus of the study. One was a non-environmentally responsible design assessment model, based on traditional design criteria, a perspective based dominantly on aesthetics; and the other was an environmentally responsible design assessment model, based on ERD criteria, a perspective based dominantly on ethics. A third ERD assessment model in use by the design community exists, which combines a more balanced approach including both aesthetics and ethical attributes, but unfortunately, this ERD assessment model has not been co-opted by media.

All of the identified design assessment models are currently in use to describe environments created by interior designers, but each results in a portrayal of a completely different perspective of exemplary design. A portrayal of sustainable exemplary design, based on an environmentally responsible design assessment model, will be a design that describes environments created by interior designers as promoting sustainable principles, an environmental world-view, while a portrayal of non-sustainable exemplary design, based on a non-environmentally responsible design assessment model, will be a design

that describes environments created by interior designers as devoid of sustainable

principles, a non-environmental world-view.

ERD model. In an environmentally responsible design assessment model, design

criteria are based on sustainable principles, an ethical, macro-perspective. *American*

Heritage Dictionary (2010) defined *ethics* as "that branch of philosophy dealing with

values relating to human conduct, with respect to the rightness and wrongness of certain

actions …" Sustainable principles are inherently based on ethics. "Green interior design

(sometimes called sustainable design)…is primarily ethical. Green interior design is

about what is good and what is bad for people's health, for the environment and for

saving energy" (Smartcontentz, n.d., "Ethics not Aesthetics," para. 2).

Using design criteria based on sustainable principles, the rationale for selection of

materials/artifacts for a design project evidences a profound philosophical shift from a

traditional approach. "Rather than focusing on a product's surface, style, or cultural

values, the Sustainable Design discourse looks more deeply at how a product is made,

used and disposed of…" (Mickelwaite, 2009, para. 6). This approach requires

multifaceted assessment skills that incorporate a greater range of criteria than has

formerly been associated with interior design practice.

In an ERD assessment model, materials are chosen with regard for the planet as

well as people. "… all systems and materials are designed with an emphasis on

integration into a whole for the purpose of minimizing negative impacts on the

environment and occupants" (Kang & Guerin, 2009, p. 180). Attributes of sustainability,

such as "… 'non-toxic' 'locally sourced' 'renewable' and 'organic'…" (Smartcontentz,

n.d., para. 2), become the focus of the ERD assessment model. For the ERD assessment

model, judicious acknowledgement of sustainable attributes consistently incorporates a macro-perspective.

The non-ERD model. According to the *Columbia* dictionary (2010), *aesthetics* is "the branch of philosophy that is concerned with the nature of art and the criteria of artistic judgment…. The major problem in aesthetics concerns the nature of the beautiful." A non-ERD assessment model is based on traditional, stylistic principles and criteria that focus on aesthetics. A non-ERD assessment model uses criteria that either exclude ethics altogether, or that give more weight to aesthetics than ethics. In a non-ERD model, the focus is on how things look.

An aesthetic perspective has to do with "…making choices about what is beautiful and what is ugly, about what 'works' visually and what doesn't" (Smartcontentz, n.d., "Ethics not Aesthetics," para.1), and whether or not artifacts conform with current standards of beauty. Kang and Guerin (2009) concurred, "in the traditional interior design approach, research indicates that interior materials are selected primarily according to the client's preferences, needs, aesthetics and cost" (p. 180). Emotive attributes of fashionability, attributes historically not commonly associated with sustainability, frame the prevailing, non-ERD micro-perspective.

Phases of the design process. Significantly, the phases of the design process do not change for the traditional interior design approach as opposed to the sustainable approach (Kang & Guerin, 2009), but criteria for selection of materials do. For either an environmentally responsible design or a non-environmentally responsible design, interior design practitioners utilize the same steps to program the design of an interior, including space planning and selection of furniture and fixtures.

ERD vs. non-ERD choices. When programming the design of an interior, interior designers incorporate stylistic factors to enhance surroundings for the client; stylistic considerations are customarily culled from a recognized lexicon of design styles and eras, such as, Art Deco, contemporary, or mid-century modern. For example, an interior design practitioner would be correct in assuming, based on established stylistic criteria, that selection of an Eames chair is the perfect, aesthetic accoutrement for a mid-century modern themed room. This is an example of using criteria based on an aesthetic, non-ERD assessment model.

However, an environmentally responsible designer, basing criteria on non-traditional considerations, that is, ethics of impact on the environment, will go one step further and be concerned not only with the aesthetics of how the chair looks but how well it conforms to sustainable criteria. The ERD designer, making an effort to incorporate sustainable criteria, will inquire whether or not the chair is manufactured in a LEED certified facility, or whether the manufacture uses: "…leather from an organic source, whether the wood is from a sustainably managed forest… and what was [sic] the carbon output involved in shipping …" (Smartcontentz, n.d., "Ethics not Aesthetics," para. 2). Based on sustainable principles, the environmentally responsible designer may decide that the Eames chair does not meet sustainable criteria and opt for a sustainable alternative. Conversely, the non-environmentally responsible designer may opt to keep the Eames chair, because this is what works visually, as well as reflecting the client's aesthetic and budgetary preference.

This dilemma points out the exact nature of the problem—the "either/or" dilemma that often confronts today's designer—and the dichotomy perpetuated by media. The

distinction between an ethical perspective, using ethical criteria, and an aesthetic

perspective, using aesthetic criteria, is unquestionably the present-day root of differing

perspectives of opposing media design assessment models. This is an unbalanced

approach that current design education seeks to remedy and that the ERD designer seeks

to mitigate.

Environmental aesthetics. Historically, for non-ERD assessment models, scant

attention has been paid to ethics, and if ethical considerations do enter the picture, these

considerations are often considered incompatible with aesthetics. Conversely, an ERD

assessment model has often paid scant attention to aesthetics, or has been considered

incompatible with aesthetics. This has been a stumbling block to the perpetuation of ERD

in general. For example, Kho (2010) stated:

> The idea of integrating solar power with building materials has
>
> been an attractive concept for decades, but one of the biggest
>
> challenges, according to Anna Dyson, director of Center for
>
> Architecture and Ecology, or CASE, has been aesthetics….Most
>
> applications thus far, Ms. Dyson said, "are pretty ugly and impede
>
> your view. ("Overcoming the Ugly Factor," para. 1)

In other words, if it's good for the environment, it must be ugly. This limiting

perspective may partly explain why popular media, taken as a whole, seems to resist ERD

and perpetuate non-ERD. Yet, contemporary designers, who are now educated to give

weight to ERD criteria, seek to synthesize ethics and aesthetics. Berleant and Carlson

(2008) noted:

In fact, the human environment is the domain in which some of the

most pressing ethical issues in contemporary society arise from

obvious ones caused by different forms of pollution, to more

intangible problems that result from loss of open space and

congestion of people and vehicles…..[then] there is the task of

promoting public attention to the aesthetic implications and

probable consequences of proposals and actions that affect the

environment. (p. 28)

The pressing task of alerting public attention to not only ethical but also aesthetic

considerations of ERD is precisely the perspective being ignored by media. Nevertheless,

this perspective is unerringly what contemporary professional designers hope to realize

by inclusion of ERD criteria to describe exemplary design projects. The goal of ERD is

not the abandonment of aesthetics but rather the fractional addition of the dimension of

ethics, so that the outcome of exemplary interior design is not only projects that are

emotionally and aesthetically fulfilling to the people who populate the built environment,

but projects that are conducive to environmental concerns. Today, aesthetic

considerations are not discarded for the ERD model, but interior design decisions do

involve "… more than just the visual or ambient enhancement of an interior space"

(American Society of Interior Designers [ASID], n.d., "Definition of Interior Design,"

 p. 2).

Purpose of Study

Members of today's design community are evidencing concern with the impact of

their decisions on the environment. Kang and Guerin (2009) noted "Sustainable interior

design is defined as interior design in which all systems and materials are designed with

an emphasis on integration into a whole for the purpose of minimizing negative impacts

on the environment and occupants" (p. 180). Nonetheless, professional interior designers

continue to be perpetuated exclusively as fashionable arbiters of taste and style. Editors

do not seem to make the connection that contemporary, educated designers have the

education and knowledge to seriously influence environmentally responsible design

selections that may be of potential benefit to clients, the planet, and society at large. The

gap between the mass media perception of interior design practice, as evidenced in many

popular design magazines, and the reality of current interior design education and

practice needs to be addressed**.**

The purpose of the study was to examine how the mass media perpetuate a non-

environmental world-view, that is, design principles that do not promote environmental

responsibility. Luxury lifestyle reporting by the mass media on the topic of interior

design proliferates, yet this reporting evidences environmentally irresponsible design,

which in turn undermines current educational curricula for interior designers. Non-

sustainable mass media design assessment models, that is, assessment models that do not

include environmentally responsible design criteria run rampant, or, at the very least,

criteria that run counter to current educational guiding principles are evident.

Research Design and Methods

The research method used content analysis of popular interior design publications.

A study population of interior design periodicals was selected. Ten back-copies, of three

interior design publications, for a total of 30 artifacts, formed the sampling frame. Fifteen

randomly selected feature articles, from each of the three publications, for a total of 45

feature articles, formed the sample.

Keywords, used as indicators of ERD or non-ERD, were identified using

qualitative analysis, specifically, the Delphi Method. Frequencies of keywords from the

randomly selected feature articles were tabulated using word count software. Descriptive

statistical analysis and correlational statistical analysis were then used to examine

pertinent comparisons. Design assessment models were compared in terms of quantity of

ERD or non-ERD keywords and as to the weight given ERD criteria.

Research Question

The research hypotheses explored the use of ERD and non-ERD criteria in the

design assessment models used by mass media:

- Design assessment models used by mass media do not include ERD
  criteria.

- Design assessment models used by mass media do not include non-ERD
  criteria.

- Design assessment models used by mass media do not include both ERD
  criteria and non-ERD criteria.

- There are no statistically significant differences in the quantity of ERD
  criteria in design assessment models currently in use by mass media.

- There are no statistically significant differences in the quantity of non-
  ERD criteria in design assessment models currently in use by mass media.

- There are no statistically significant differences in the proportion of ERD
  to non-ERD criteria in design assessment models currently used by mass
  media.

Delimitations of the Study

The Center for Alternative Development Initiatives (CADI), utilizing threefolding
principles based on the teachings of Rudolf Steiner, a noted German philosopher as well
as architect ("Rudolf Steiner and Architecture," n.d.), visualized a threefold concept of
society consisting of three active agencies—the cultural, the political, and the economic
(CADI, n.d., "But What is Civil Society"). This study focused on the cultural sphere of
society as opposed to the political or economic.

The cultural agency of society not only encompasses *civil society,* but civil
society is "the key actor in the cultural sphere….In its modern form, civil society means
the active and organized formations and associations in the cultural sphere. These would
include, for example, NGOs, POs, academia…" (CADI, n.d., "But What is Civil
Society," para. 6). Civil society is voluntary and, as such, belongs neither to the realm of
the political or the economic (CADI, n.d.). Likewise, Perlas (2003) stated "Culture
emerges as an autonomous realm of society worthy of serious consideration, because
cultural concerns and actions are embedded in the advocacy and initiatives of civil
society" ("Threefolding in Essence," para. 6).

Perlas (2003) postulated that comprehensive sustainable development can only
happen by the enlightened and cooperative interplay of all three agencies of society, that
is, the cultural, the political, and the economic. However, given that academia and mass
media, both NGOs, are situated in the sphere of culture/civil society, this study focused

on the cultural realm. An examination of the interplay of the cultural, political, and economic spheres was beyond the scope of this study.

Significance of the Study

By examining current, popular, mass media perceptions of interior designers and interior design practice, light may be shed on the dimensional gap between the typical mass media environmentally irresponsible paradigm, that is, non-environmental world-view, and the reality of the last few decades of contemporary, environmentally responsible interior design education and professional practice.

This research project could enable practicing interior designers, as well as educators, to understand what needs to be done to close this gap and could elevate designers' professional status, as well as facilitate designers' impact on ERD development. Educators might begin to explore how new, mass media assessment models of interior design criteria might take root and might promote new, relevant design critique standards for environmental journalism.

Target Audience

Design educators, practicing and student interior designers, practicing and student architects, anyone associated with the building industry, environmental studies faculty and students, mass media professionals and environmental journalists, will all benefit from identification of the differences between environmentally responsible design practice and the media's portrayal of exemplary design.

Chapter 2: Literature Review

Criteria For Inclusion

A multi-disciplinary approach has been applied to the selection of literature. Disciplines reviewed include the recent field of environmental studies, the fields of interior design and design history, and the field of environmental journalism. Functions of contemporary mass media were explored. Texts were chosen as much as possible for relevance to all disciplines, including the most current definitions. Academic books and published journals, as well as more populist texts and on-line posts, were explored. Most texts, with some historical exceptions, concentrated on the last two decades of relevant thought.

Theoretical Framework

Human ecology. The underlying theoretical framework for this study was based on a perspective that all life is interconnected and that there is a symbiotic relationship between people and their environment. This perspective is based on a theory of *human ecology.* Marten (2001) noted "Ecology is the science of relationships between living organisms and their environment. Human ecology is about relationships between people and their environment" (p. 1).

In *human ecology theory*, the "person and the environment are viewed as being interconnected in an active process of mutual influence and change" ("Human-Ecology-Theory," 2010, para. 2). Further:

Early home economists were major proponents of this theory as

their field developed in the early twentieth century…the theory has

since been used by sociologists, anthropologists, political

scientists, and economists. This work continues, with the human

ecological framework being a major perspective in research and

theory development in the twenty-first century. ("Origins-Human-

Ecological-Theory," 2010, para. 1)

Significantly, the discipline of interior design is partially rooted in the field of

home economics. ERD practice is fundamentally based on human ecology theory.

Therefore, human ecology theory was an appropriate perspective for this study.

Systems theory. Additionally, "the application of *systems theory* [emphasis

added] is a basic tenet of human ecological theory" ("Human-Ecological-Theory-Family-

System," 2010, para. 1). In systems theory, originally posited for biological processes, the

processes of input, throughput, and output are what drive various agencies ("Theory

Clusters/System Theory," 2010, para. 2). In a closed system there is no feedback, so the

system is stagnant. In an open system, there is feedback, so the system is dynamic.

Systems theory has since been appropriated for other disciplines, including *informational*

systems theory.

Informational systems theory. In informational systems theory, input is

information. Throughput is a transformational process that transmutes the input. Output is

the tangible result of the transformative process, and feedback is the critical response to

the output, which in turn impacts either the original input or the throughput ("Human-

Ecology-Theory-Family-System," 2010). The systemic process nests within the greater

context of human ecology theory.

 The systems process is the key to understanding the agencies being acted upon.

The process is continuous. The system will loop in perpetuity, without change, unless one

part of the system is changed, that is, if the content of the input is changed, the output

will change. For purposes of this study, in this system, the identified design assessment

models were the containers of the informational input, that is, the design

criteria/principles constituted the information contained in the design assessment models.

Media, and to a lesser extent ERD practitioners, are throughput, interpreting the

information contained in the assessment models to create output, that is, portrayals of

exemplary design. Feedback, from laypersons and others who diligently study these

portrayals of exemplary design, perhaps by contact with an ERD practitioner but more

likely by reading a design publication, in turn become part of the loop.

Sustainable Design Principles

The ERD perspective encompasses sustainable design principles. Jones (2008)

defined the realms of green and sustainable design and articulated the inclusive nature of

the ERD perspective:

ERD [is] a comprehensive perspective that addresses both the

health and well–being of people in the built environment and the

health and well-being of the global ecosystems that support life for

both current and future generations....Green design [is] a micro-

perspective that addresses the health, safety, and well-being of

people in the built environment….[whereas] Sustainable design

[is] a macro-perspective that addresses the health and well-being of

the global ecosystems that support life for both current and future

generations. (p.4)

According to Jones, ERD is a combination of green design, a micro-perspective, and sustainable design, a macro-perspective; together, they form an inclusive, comprehensive macro-perspective. Overall, however, there is a lack of consensus on the definition of sustainable design.

According to the U.S. General Services Administration (GSA):

Utilizing a sustainable design philosophy encourages decisions at

each phase of the design process that will reduce negative impacts

on the environment and the health of the occupants, without

compromising the bottom line. It is an integrated, holistic approach

that encourages compromise and tradeoffs. Such an integrated

approach positively impacts all phases of a building's life-cycle,

including design, construction, operation and decommissioning.

("Sustainable Design Program," 2010, para. 3)

LEED criteria. An integrated, holistic approach is reinforced by LEED criteria. "The core mission of LEED is to encourage and accelerate global adoption of sustainable green building practices through the development and implementation of universally understood and accepted standards, tools and performance criteria" ("State and Local Government Tool Kit," 2002, p. 12). The LEED® Green Building Rating System is widely acknowledged as the global premier standard for rating architectural projects for sustainability. Referencing the USGBC LEED® Green Building Rating System, Hatch (2010) confirmed, "To understand the power of design to alleviate environmental

degradation while creating healthy spaces, look no further than the USGBC's LEED

Platinum projects . . ." ("A Sustainable Process," para. 8).

Since its inception in 1998, the LEED® Green Building Rating System, a third-

party accreditation program developed by USGBC, has overlapped with interior design to

provide a working knowledge basis for criteria used in Environmentally Responsible

Interior Design (ERID). The five environmental categories by which buildings are

evaluated for LEED certification are sustainable sites, water efficiency, energy and

atmosphere, materials and resources, and indoor environmental quality. An additional

category addresses innovation and design process (GSA, 2010). LEED building

categories are transferable to ERID (although sustainable sites may have less relevance to

interior design).

Significantly, USGBC and American Society of Interior Designers (ASID) have

recently formed a joint sponsored partnership, REGREEN. This new program for

greenresidential design and certification promotes ERD ("Green Home Guide," 2011,

para. 1) by emphasizing sustainable design criteria pertinent to residential remodeling.

REGREEN embodies a major expansion, by well-regarded proponents of ERD, towards

the standardization of sustainable design criteria for residential interior applications.

Sustainable criteria for interior design. Kang and Guerin (2009) noted, "An

important part of interior design is the specification of suitable materials for the various

components that make up a particular indoor space" (p. 180). Amatruda (2010)

confirmed, "With "green" or environmentally preferable products, these traditional

selection parameters are expanded to include both health and environmental impacts"

("Evaluating and Selecting Green Products," para. 1). Commonly understood sustainable

attributes specific to specifying materials for environmentally responsible interior design, and routinely put into practice by ERID practitioners, include a working knowledge of:

1. Relevant health and environmental impact issues associated with different material types;

2. Government, industry, and third-party standards for green products, where they exist; and

3. Available green products in the marketplace, including their specific green attributes, performance characteristics, appearance, and costs. (Amatruda, 2010, para. 3)

Additionally, interior designers have the working knowledge to educate clients as to the benefits of sustainable design and help them understand why sustainable choices are better choices (GSA, 2011).

Mass Media

Primary functions of the mass media are to disseminate information and sway public opinion (Metzler, 1986). Mass media are highly stylized, specific forms of communication. This discussion specifically concentrated on interior design magazines, a subset of mass media.

Design magazines are a branch of journalism known as "service journalism." Metzler (1986) defined the term as meaning "simply the reporting of information that helps people cope with their daily lives" (p. 219). He also pointed out that "service journalism is the bread and butter of magazines" (p. 200). In other words, service

journalism deals more with "how-to-do-its on leisure, fashion, food, home and garden, child care, family health, and the like" (Metzler, 1986, p. 221).

One of the ways a "service journalist" might gather information is to keep in touch with experts in their field of interest. For example, someone covering "home and garden" might keep in touch with architects, designers, and landscapers (Metzler, 1986). This is relevant for future discussion because, when examining media as a throughput of the information contained in a design assessment model, it then becomes logical to explore the sources of media input.

Mass media as throughput. Likewise, it was also relevant to this discussion to have a rudimentary understanding of how media processes information. The editing of informational input by media, that is, mass media communication, is done through a combination of processes/techniques. These techniques include *agenda setting, gatekeeping, priming*, and *framing:*

> Agenda setting describes a very powerful influence of the media –
> the ability to tell us what issues are important….Gatekeeping
> regulates the flow of information….Priming is a process that
> primes our expectations as to what "good" is….what a credible
> person looks like, etc… framing is the frame in which the news is
> reported….the basis of framing theory is that the media focuses
> attention on certain events and then places them within a field of
> meaning…. ("Theory Clusters/Mass Media," 2010)

In summary, headlines set the agenda for a topic. Gatekeeping regulates how much information is released, priming cues expectations as to what is desirable, and framing provides commonly understood metaphors that put things in perspective. "…[Frames] elicit widely shared images and meanings…[such as] 'war on drugs', or a person's 'battle with cancer', or the 'cold war'" ("Theory Clusters/ Framing," 2010, para. 10). Editing is a function of the processes of agenda setting, gatekeeping, priming, and framing, all of which work in tandem.

An example of media throughput on a design topic. The front cover of a recent issue of the popular, well respected architecture and interior design publication, *Architectural Digest* (2010, April), headlined "Shop Like A Designer—Where They Go, What They Buy, Where They Stay…Their Secret Sources Revealed," and likewise the September 2010, cover of *Architectural Digest* headlined "Special Section: Shop Like a Designer—200+ Shops, Galleries, Hotels, Restaurants & Websites." An examination of the headlines revealed that the magazine dealt with "service journalism," that is, how-to feature articles relevant to personal consumerism and human interest. Second, the headlines set the agenda for the topic, in other words, how designers lived and shopped was of utmost importance.

The headlines were also a gatekeeping device by which the editor decided how much confidential information to reveal. The information was presented as an insider's guide, another gatekeeping device, and the gatekeepers, in this case, were designers. The headlines also primed and cued the reader that these shopping and lifestyle experiences were something to aspire to, the assumption being that it was desirable to emulate these designers. Finally, the topic was framed as "Shop Like a Designer," something that

"elicits widely shared images and meaning" ("Theory Clusters/ Framing," 2010, para. 10).

Portrayals of Exemplary Design

      Environmental world-view. The ASID/USGBC, REGREEN Residential Remodeling Guidelines (2008), promoted an environmental world-view, noting "ASID believes that, whenever feasible, interior designers should endeavor to practice sustainable design. Interior designers should meet present-day needs without compromising the ability to meet the needs of future generations" (p. 5). Residential design is no less significant to the sustainable discourse than commercial design.

      REGREEN residential remodeling guidelines featured case studies that promoted examples of exemplary ERD design. Each case study included pictures and strategies for a successful, environmentally preferable, design project. For example, a REGREEN strategy for kitchen or bath remodel, along with comments about potential client resistance, stated:

> …install environmentally preferable countertops in kitchen or bath,
> and examine the merits of using products with a higher
> environmental toll, such as exotic granite, versus those typically
> considered not very green, such as plastic laminate….It is difficult
> to find green countertops at the lower end of the price range, and it
> is very difficult to dissuade clients from ordering granite which is
> often Italian and far from local. (REGREEN, 2008, p. 115)

The complete case study was published along with photos, that is, a portrayal of exemplary sustainable interior design, using an environmentally responsible design assessment model, which promoted an environmental world-view. However, although REGREEN guidelines evidenced a form of "service journalism," this manual nonetheless remains a specialized, technical publication, for homeowners and builders of residential properties. It is more difficult to find portrayals of sustainable exemplary design, modeled like these case studies, in non-technical interior design publications, where the focus is on antiquated design assessment models.

Non-environmental world-view. A feature article in *Architectural Digest* (2010), describing materials a top designer used for a residential design project, noted that:

Ertegun selected all the materials and put them to ravishing use:

for the entrance gallery, marble floors and parchment panels

framed in mahogany; for the library, Brazilian rosewood; for the

dining room, Venetian stucco; for the master bedroom, reeded

plaster; for the kitchen, Jaguar-green lacquer, bamboo and textured

glass; and for the interiors of the fireplaces, long, narrow, 19th-

century bricks imported from France. (Architectural Digest [AD],

2010, p. 64)

This portrayal of exemplary design, based on aesthetic attributes, certainly described an elegant and beautiful environment yet lacked information about sustainability of the selected materials. The reader was not informed of potential issues with sustainability. In other words, unfortunately, this portrayal of exemplary design,

albeit a visually and aesthetically appealing description, is antiquated and portrays a non-environmental worldview. *Ecological truth* is therefore masked under the façade of style.

Content Providers for Media

Content providers for the informational input that informs media on design issues includes design historians. Yet even formal design history, a contemporaneous field, has lagged on issues of sustainability. Massy (2009) noted, "Design History emerged during the 1970s as a fledgling discipline, very much in the shadows of the more established, Art History" ("Emergence of Design History," para. 3), In its earliest form, the incipient discipline of design history did not include issues of sustainability. However, Massey (2009) [quoting from her own book], continued:

> As awareness about issues such as scarce resources and global
>
> warming is raised, so government policy in the developed world
>
> calls for a more responsible use of precious materials and energy.
>
> This has led to a change of emphasis from fashionability to
>
> building usage and careful use of resources….I would argue that
>
> Design History does now consider the issue of sustainability,
>
> particularly more recent work. ("Emergence of Design History,"
>
> para. 5)

This upgraded perspective is significant because design history helps frame the sustainable design dialogue for media.

The Design Community

      Shortcomings of design critique. It is possible that the design community itself is remiss in sharing with media meaningful developments about design and that this shortcoming is partially responsible for the apparent lack of meaningful design critique. Lasky (2001) noted that a lack of true design critique has "long shaped the relentlessly positive way most interiors are represented in U.S. media…. It is difficult to obtain photographs of interiors without the designer or client's involvement, and often with the tacit understanding that they [the journalist] will not write anything negative about it" ("Gaining Critical Mass," p. 30). Referencing current portrayals of exemplary design as a "curatorial model," Lasky (2001) argued, "…that interiors are not viewed as a distinct subject worthy of regular attention, however, reflects a sad lack of design criticism in general. For all the newspaper and magazine pages devoted to homes and lifestyles, how often does one see critiques of decor?" (p. 30). Media, of course, rely heavily on advertising revenue for survival, which certainly impacts editorial content and the nature of design critique.

      Nonetheless, critiques of décor could theoretically be improved by implementation of newly defined design assessment models issuing from the design community itself. Lasky (2001) suggested that media design critique encompass "defining a range and hierarchy of values (beauty, adaptability, efficiency, economy, to name just a few) and using such terms to assess specific cases" ("Gaining Critical Mass," p. 30). Thus, an ERD assessment model should incorporate decisive factors thatpromote a more advantageous state of affairs for design critique, and, further, the platform needs to be delivered to media in such a way that media will embrace the new context/input.

Media perception. Media perception of interior design, based primarily on earlier iterations of design history, remains stubbornly focused on content that references interior decoration, for example, the aesthetics of soft furnishings and finishes and the pulling together of schemes. Even the *American Heritage Dictionary*, as recently as the year 2003, continued to define interior design as synonymous with interior decoration. *"Interior decoration n.* The planning and execution of the layout, decoration, and furnishing of an architectural interior. Also called *interior design*. interior decorator *n.*"

The "curatorial approach," coined by Lasky, perpetuates the archetypal image of the interior(s) practitioner as an individual design hero, carrying a bolt of fabric, pillows, and paint swatches, not as a person who is an integral member of the environmentally responsible building team. Yet, delegates to the Design Futures Council, who developed the sustainable policy agenda for architecture and design firms: *Nantucket Principles;* voiced hope that the professional design community will become active participants in sustainable design. "…It is time to operate under a new paradigm, a new set of values, a new set of ethics, and with new awareness of the impact of design" (Design Futures Council, 2002, para. 7).

Conclusion

Hopefully, the melding of aesthetics and ethics, based on an inclusive ERD assessment model, is on the horizon, not merely as a trend for the design community and soon to be discarded in the landfill of history, but rather as a trend ready to be integrated by mass media as the herald of a new, long-lasting era of design. This is the challenge facing interior design educators and practitioners today.

Chapter 3: Research Design and Method

Research Design

The research design for this project was an empirical observation conducted as an exploratory study. The intent of this study was to examine how the mass media perpetuate non-environmentally responsible design.

Research Method

The research method was content analysis. Keywords were identified using a qualitative method, the Delphi technique, that is, a decision-making tool that allows a group of experts to reach consensus without bringing the group together, thereby eliminating the potential problem of "group think." In this case, the group who identified relevant keywords for the study was composed of interior design practitioners and educators, who reached consensus on thirty relevant keywords. The keywords were then categorized into seven dimensions representing ERD or non-ERD attributes. These dimensions formed design assessment models, which included a distinction between ethical ERD attributes and aesthetic non-ERD attributes.

A study population of interior design periodicals was purposefully selected using operational indicators. Frequencies of keywords in randomly selected feature articles were determined, tabulated, and condensed using descriptive statistical analysis. Correlational statistical analysis was then used to examine pertinent comparisons. Appendix A defines operational definitions for this study.

Research Questions

The research hypotheses explored the use of ERD and non-ERD criteria in the design assessment models used by mass media.

- Design assessment models used by mass media do not include ERD criteria.

- Design assessment models used by mass media do not include non-ERD criteria.

- Design assessment models used by mass media do not include both ERD criteria and non-ERD criteria.

- There are no statistically significant differences in the quantity of ERD criteria in design assessment models currently in use by mass media.

- There are no statistically significant differences in the quantity of non-ERD criteria in design assessment models currently in use by mass media.

- There are no statistically significant differences in the proportion of ERD to non-ERD criteria in design assessment models currently used by mass media.

Study Variable, Attributes, and Operationalization

Variable is design assessment models; attributes are ERD criteria and non-ERD criteria (see Table 1).

Table 1.

Study Variable, Attributes and Operationalization

Variable	Attributes	Operationalization
Design assessment models	**Environmentally Responsible Design (ERD) dimensions**	Inclusion of ERD keywords indicates design assessment models perpetuate ERD, that is, ethics more than aesthetics.
		Commonality/ERD
		Eco*
		Nature
		Natural
		Organic
		Indigenous
		Local
		Ethical/ ERD
		Energy
		Solar
		Sustainable
		Environmental
		Green
		Environment
		Efficiency
		Generic/ERD
		Small
		Spaces
Design Assessment Models	**Non-Environmentally Responsible Design (non-ERD) dimensions**	Inclusion of non-ERD keywords indicates design assessment models perpetuate non-ERD, that is, aesthetics more than ethics.
		Aesthetic/non-ERD
		Art
		Style
		Luxury
		Exclusive
		Beautiful
		Elegant
		Taste
		Furnishings/non-ERD
		Furnishings
		Fabric
		Pillows
		Emotive/non-ERD
		Wanted
		Like
		Look
		Generic/non-ERD
		Room
		Designer

* Note: Keywords are in italics and are listed under each dimension

Concept Model

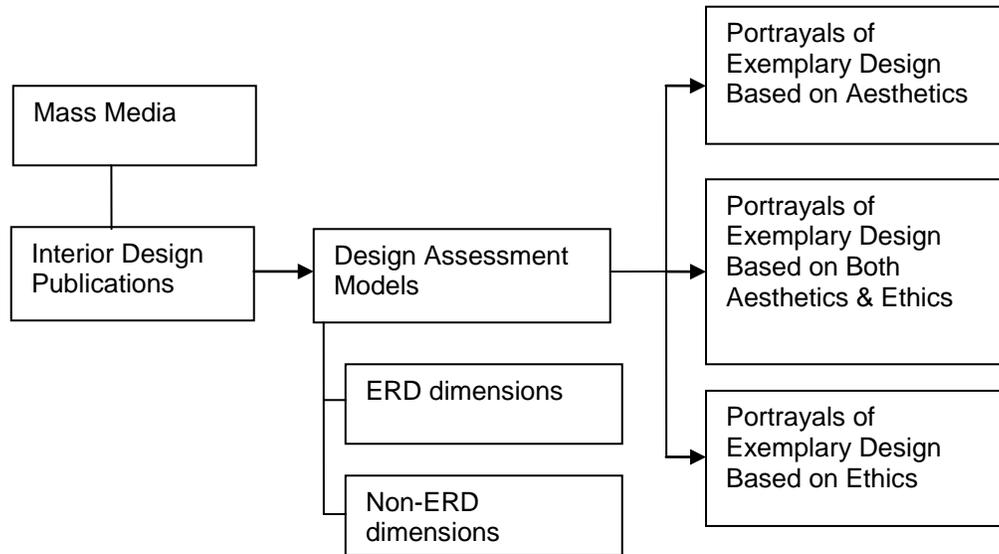The research investigation can be modeled by mapping the concepts (see Figure 1).

```
┌──────────────┐                                    ┌──────────────────┐
│  Mass Media  │                                    │ Portrayals of    │
└──────┬───────┘                                    │ Exemplary Design │
       │                                            │ Based on Aesthetics │
       │                                            └──────────────────┘
┌──────┴───────┐      ┌──────────────────┐
│ Interior Design │   │ Design Assessment │          ┌──────────────────┐
│ Publications    │──▶│ Models            │          │ Portrayals of    │
└──────────────┘      └──────────────────┘          │ Exemplary Design │
                              │                      │ Based on Both    │
                      ┌──────────────────┐           │ Aesthetics & Ethics │
                      │ ERD dimensions   │           └──────────────────┘
                      └──────────────────┘
                                                     ┌──────────────────┐
                      ┌──────────────────┐           │ Portrayals of    │
                      │ Non-ERD          │           │ Exemplary Design │
                      │ dimensions       │           │ Based on Ethics  │
                      └──────────────────┘           └──────────────────┘
```

Figure 1. Concept Model

Population and Sample

The theoretical population was all magazines about interior design. The study population of magazines was determined by using operational indicators to identify a sampling frame of feature articles from which a random sample was selected.

Study population. Existing publication statistics were researched for six well-known design magazines: *Architectural Digest, Dwell Magazine, Elle Décor, House Beautiful, Interior Design,* and *Veranda*. A matrix of operational indicators was created, including 1) the publication was primarily a service journalism publication, 2) the majority of content in feature articles was relevant to interior design topics, 3) the magazines were available on public newsstands and by subscription, 4) each publication had a minimum subscriber base of at least 200,000 subscribers, and 5) each had digitized back copies available. Ultimately, three publications were selected for the study and

formed the study population. Final selections were *House Beautiful*, *Dwell Magazine*, and *Architectural Digest*.

Sample. Ten back copies of each of the three selected publications, from 2006-2010, for a total of 30 artifacts, were compiled for the sampling frame. From the sampling frame, 45 feature articles, representing fifteen feature articles from *House Beautiful*, fifteen feature articles from *Dwell Magazine*, and fifteen feature articles from *Architectural Digest*, were randomly selected to form the sample. Each feature article had a minimum of 500 words; the total word count for all feature articles combined approximated 30,000 words, about 10,000 words per publication.

Method for Data Collection and Analysis

The study used content analysis to collect information about the magazines that constituted the study population--do they perpetuate an antiquated image of the practice of interior design as being devoid of ERD criteria? Human subject approval was not required, as the unit of observation and of analysis was an artifact.

Data Collection. The unit of observation was an artifact. The data collection method required the researcher to count frequencies of designated keywords from the randomly selected feature articles in the popular interior design magazines that constituted the study population. The keywords were selected from published design studies based on content knowledge from experienced design educators and practitioners using the Delphi Technique. The keywords were then categorized by dimensions representing ERD or non-ERD attributes (see Table 1).

Data analysis. The unit of analysis was an artifact. Algorithmic word count software was used to count and tabulate frequencies of keywords. A database was created

of the keyword count. Qualitative data were collected, based on content analysis, and then coded quantitatively to facilitate analysis. Statistical analysis was conducted using EXCEL and SPSS software.

Descriptive statistical analysis, including frequencies and comparison of means, was used to summarize the data (i.e., to describe the sample). The three selected publications (*House Beautiful, Dwell*, and *Architectural Digest*) were also compared using descriptive statistical analysis (i.e., frequencies and comparison of measures of central tendency) to discern if some publications were more inclusive of ERD criteria than others. Total quantities of non-ERD criteria and ERD criteria, based on keyword frequencies, were compared using chi-square statistical analysis to test the hypotheses. The intent was to explore how defined media assessment models may, or may not, include ERD criteria (indicated by keywords), in order to determine if the identified design assessment models perpetuated non-ERD design.

Validity and Reliability

The face validity was checked by asking experts (i.e., interior design faculty) if the concept model was logical and rational. The keywords were confirmed by interior design educators and practitioners (using the Delphi Technique) to help ensure the content validity of the indicators. Construct validity was checked by documenting a relationship among the variables, attributes, and indicators in the literature. The reliability of frequency counts of the designated keywords was checked by running two different keyword analytic software programs, from two different vendors, TextAnalyzer and WordCount software. This triangulation helped to ensure consistency of data (i.e.,

verification of keyword frequency). The researcher was a neutral administrator. The data

collection and statistical analysis were objective with no opportunity for bias.

Study limitations

There were several limitations to the scope of the study. Only magazines

published from 2006 to 2010 were examined; only magazines printed in English were

considered; and the publications had to have digitized versions in order use the software

to determine frequencies of keywords. In future studies, the study population could be

expanded to include a wider range of publications. The research team was limited to

design practitioners, rather than a team of cross-discipline personnel (e.g., architects,

facility managers, media specialists, etc.). Media were limited to mass media

publications, to the exclusion of other channels, such as television or internet

publications.

Chapter 4: Presentation and Analysis of Data

This chapter reports the statistical analysis results of the research study. Prior to data analysis, two design assessment models were identified. One was the ERD assessment model, based on ERD criteria as indicated by keywords; the other was the non-ERD assessment model, based on non-ERD criteria as indicated by keywords. The objective of the research was to explore the frequency of ERD or non-ERD criteria in design assessment models, as defined by the study, to determine if the mass media perpetuate a non-environmental world-view. Descriptive statistical analysis included frequency of distribution and other descriptives, including measures of central tendency. The hypotheses were tested using chi-square tests. From this data, conclusions were drawn about the state of ERD as perpetuated by mass media.

Characteristics of the Sample

Characteristics of the design assessment models were broken into categories/dimensions in order to provide a more comprehensive analysis of keyword density, complexity factor, and meaning. Altogether, seven dimensions were identified: three dimensions representing ERD categories and four dimensions representing non-ERD categories. Within this breakdown, there were a total of 15 indicator keywords for ERD criteria and 15 indicator keywords for non-ERD criteria.

ERD Dimensions

Commonality/ERD. Characteristics of the dimension of commonality/ERD keywords were evaluated as words commonly in use by media as sustainable/green design "buzzwords." These words have become so universally prevalent that it was deemed necessary by the researcher to include them in a separate category, as an ERD

dimension, even though in context they may not represent the comprehensive nature of ERD.

Ethical/ERD. Characteristics of the dimension of ethical/ERD keywords were evaluated as ERD criteria that interior designers are now taught to consider for interior design selections.

Generic ERD. Characteristics of the dimensions of generic/ERD keywords or generic/non-ERD keywords were evaluated. Rationale for selection of generic/ERD keywords, which became evident during the process of content analysis, was that the focus on *spaces* (cognizance of the relationship of the outside environment to the interior space), and/or *small* (as used in the context of scale, i.e., small is better when it uses fewer resources), were noteworthy indicators of ERD as used in context by ERD practitioners; these keywords represented a point of view that was inclusive of global macro-concerns.

Non-ERD Dimensions

Aesthetics/non-ERD. Characteristics of the dimension of aesthetics/non-ERD keywords were evaluated as the current media focus on beautiful interiors, that is, focused more on art and decoration than sustainability.

Furnishings/non-ERD. Characteristics of the dimension of furnishings/non-ERD keywords were evaluated based on the traditional historical perspective of interior design practice, that is, based on the artifacts that interior designers traditionally have specified, without the added, ethical dimension of ERD.

.

Emotive/non-ERD. Characteristics of the dimension of emotive/non-ERD

keywords were evaluated as the current media focus on the client's personal wants,

desires, and preferences foremost, deficient the global macro-eco perspective.

Generic non-ERD. Rationale for the selection of generic/non-ERD keywords,

was that content focused on *rooms* and/or the *designer,* as read in context, evidenced an

individualistic, fractional micro-perspective that was deficient macro-concerns.

Keyword Frequencies

Table 2 displays a summary of the total, individual, keyword count for the sample.

Table 2

Summary of keyword frequency by design assessment model and publication total scores

	House Beautiful	*Dwell*	*Architectural Digest*
TOTAL WORD COUNT	10334	9939	10318
Commonality/ERD			
Eco	1	9	0
Nature	2	1	1
Natural	8	8	7
Organic	4	1	1
Indigenous	1	0	4
Local	6	9	5
TOTAL SCORE	**22**	**28**	**18**
Percentage	32%	41%	26%
Ethical/ERD			
Energy	0	35	4
Solar	0	38	0
Sustainable	1	17	0
Environmental	0	21	2
Green	7	38	7**
Environment	1	6	5
Efficiency	0	6	0
TOTAL SCORE	**9**	**161**	**18**
Percentage	5%	86%	10%
Generic/ERD			
Small	13	32	2
Spaces	1	4	12
TOTAL SCORE	**14**	**36**	**14**
Percentage	23%	56%	22%
Aesthetic/non-ERD			
Art	14	4	10
Style	36	1	22

	House Beautiful	Dwell	Architectural Digest
Luxury	0	16	24
Exclusive	0	0	1
Beautiful	28	2	4
Taste	2	0	2
Elegant	10	0	4
TOTAL SCORE	**90**	**23**	**67**
Percentage	50%	13%	37%
Furnishings/non-ERD			
Furnishings	0	0	9
Fabric	11	1	26
Pillows	12	0	7
TOTAL SCORE	**23**	**1**	**42**
Percentage	35%	2%	64%
Emotive/non-ERD			
Wanted	0	10	35
Like	107	29	44
Look	51	11	13
TOTAL SCORE	**158**	**50**	**92**
Percentage	53%	17%	31%
Generic/non-ERD			
Room	117	19	86
Designer	10	6	41
TOTAL SCORE	**127**	**25**	**127**
Percentage	46%	9%	45%

Note: *Totals may not equal 100% due to rounding.

**Of note is that the keyword "green," as used in the context of ERD (green/sustainable design), may be prejudiced because, as read in context in two publications, the word "green" consistently indicated the hue green, i.e., "the room was painted green," as opposed to the third publication, where the keyword "green" consistently referenced "green design."

Descriptive Statistics

Comparison of keyword frequency for design assessment models. Table 3 summarizes the total keyword frequencies for each design assessment model, as well as total scores for each dimension by publication. Table 3 also references the total scores for all ERD and non-ERD criteria.

Table 3

Summary of keyword frequency by design assessment model and publication total scores

PUBLICATION	NON-ERD* KEYWORDS				
	Aesthetic	**Emotive**	**Furnishing**	**General**	**TOTAL**
House Beautiful	90(23%)	158(40%)	23(6%)	127(32%)	398(40%)
Dwell	23(23%)	50(50%)	1(01%)	25(25%)	99(12%)
Architectural Digest	67(20%)	92(28%)	42(13%)	127(39%	328(40%)
Sub-Total	**180(22%)**	**300(36%)**	**66(8%)**	**279(34%)**	**825(100%)**

PUBLICATION	ERD** KEYWORDS			
	Commonality	**Ethical**	**General**	**TOTAL**
House Beautiful	22(49%)	9(20%)	14(31%)	45(1%)
Dwell	28(12%)	161(71%)	36(16%)	225(70%)
Architectural Digest	18(36%)	18(36%)	14(28%)	50(16%)
Sub-Total	**68(21%)**	**188(59%)**	**64(20%)**	**320(100%)**

Note: *non-Environmentally Responsible Design

   **Environmentally Responsible Design

Of note, as shown in Table 3, the total frequency of keywords for the ERD/ethical dimension (188—59% of ERD keywords) was more than the total frequency of keywords for the non-ERD/aesthetic dimension (180—22% of non-ERD keywords) —although each constituted 16% of the total keyword count for all criteria. Overall, however, there were more than 2.5 times as many non-ERD keywords (825—72%) than ERD keywords (320—28%).

Table 4 summarizes the minimum, maximum, and mean range of scores by design assessment models for all publications.

Table 4

Means and standard deviations of design assessment models

ERD	*n	Minimum	Maximum	Mean	Standard Deviation
Commonality	3	18	28	23.00	4.08
Ethical	3	9	161	85.00	62.05
General	3	14	36	25.00	8.98
Non-ERD	*n	Minimum	Maximum	Mean	Standard Deviation
Emotive	3	50	158	104.00	44.09
Furnishings	3	1	42	21.50	29.70
Aesthetic	3	23	90	56.50	27.35
General	3	25	127	76.00	41.64

Note: *n=3 publications: *House Beautiful, Dwell, Architectural Digest*

Table 4 describes the prevalence of the individual dimensions in each publication.

Overall, the largest mean (104) was for a dimension, *emotive*, from the non-ERD

assessment model, and the second largest mean (85) was for a dimension, *ethical*, from

the ERD assessment model. Likewise, the largest mean from all of the non-ERD

dimensions was *emotive* at 104; the *emotive* dimension was used, on average, 104 times

in each publication. Whereas, the largest mean from all ERD dimensions was *ethical* at

only 85; the *ethical* dimension was only used, on average, 85 times in each publication.

This difference in the size of the means highlights the higher frequency of non-ERD

keywords used by mass media, compared to ERD keywords. Table 4 also shows the

large standard deviations associated with the means. For example, *ethical* has a mean use

of 85 times, but a standard deviation of 62.5, indicating large differences in the number of

times the *ethical* dimension appears in each of the three magazines: 9 times in one, 161

times in another.

However, of note, the mean (23) of the ERD dimension *commonality*, which indicated "buzzwords" used by media, was less than the mean (85) of the ERD *ethical* dimension. This suggests that upon closer examination, ERD criteria may be more than just "buzzwords" and more prevalent than appeared upon first observation.

Comparison of publications' use of ERD and non-ERD dimensions. In Figures 2 through 8, bar charts graphically demonstrate the varying weight given to the dimensions by each of the three magazines. Visual graphs by publication showed that different publications gave varying weight to different design assessment models. It is clear that the assessment models used by *House Beautiful* and *Architectural Digest* focused on the non-ERD dimensions. They are more similar to each other than either is to the *Dwell* assessment model, which focused much more on ERD dimensions than either of the other two magazines.
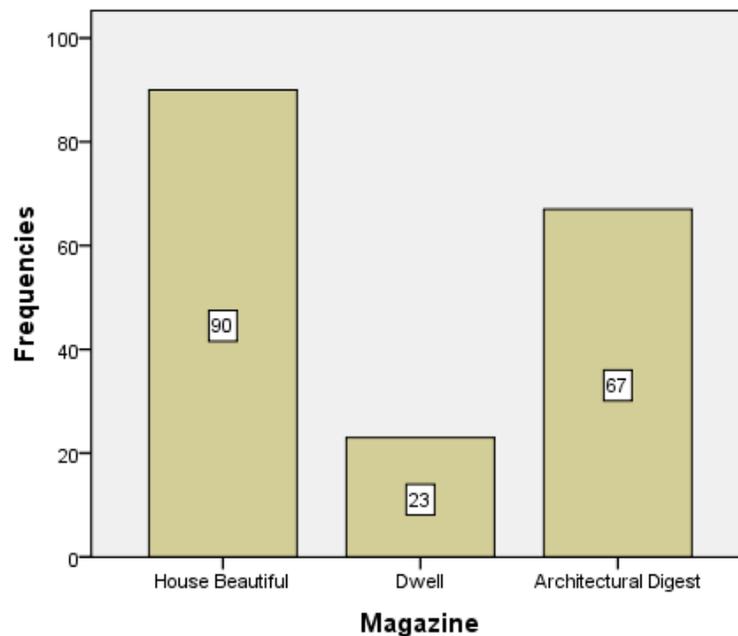

Figure 2. Non-ERD keyword frequency for aesthetic dimension by publication.
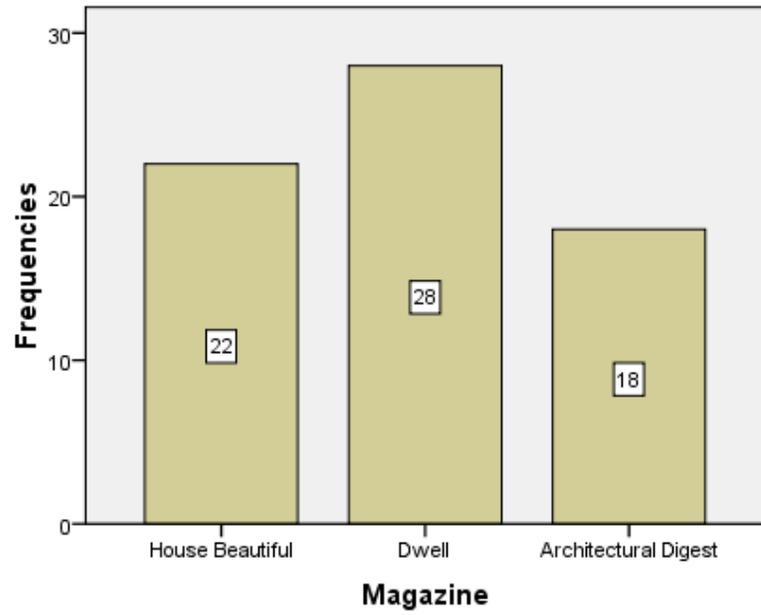
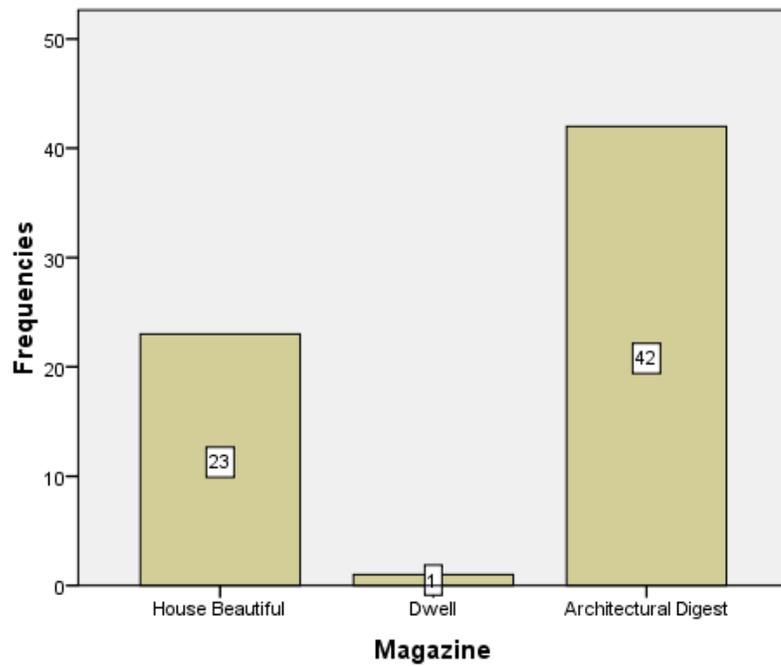*Figure 3.* ERD keyword frequency for commonality dimension by publication

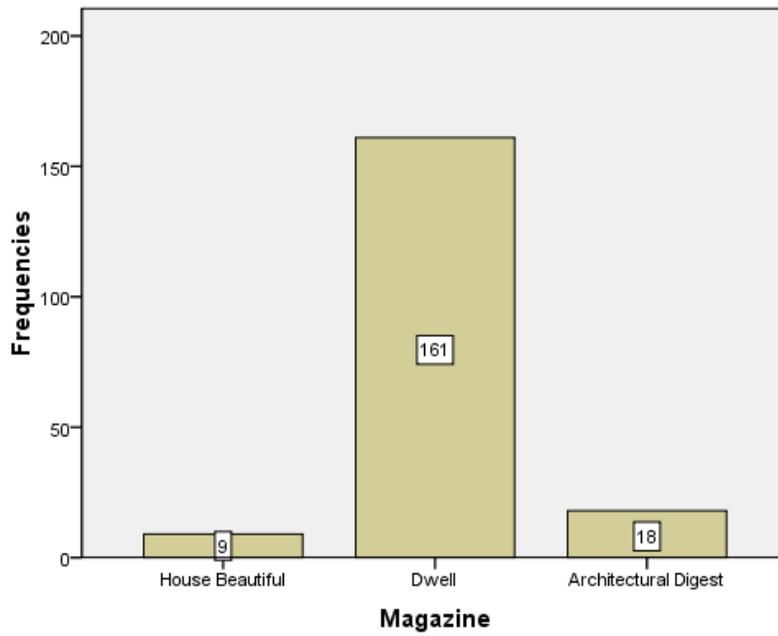*Figure 4.* Non-ERD keyword frequency for furnishings dimension, by publication

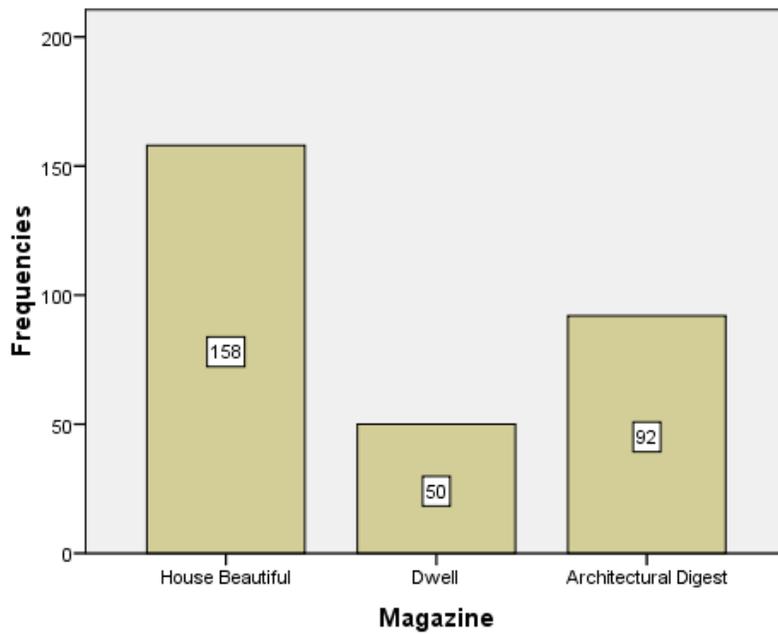*Figure 5.* ERD keyword frequency for ethical dimension, by publication

Figure 6. Non-ERD keyword frequency for emotive dimension, by publication
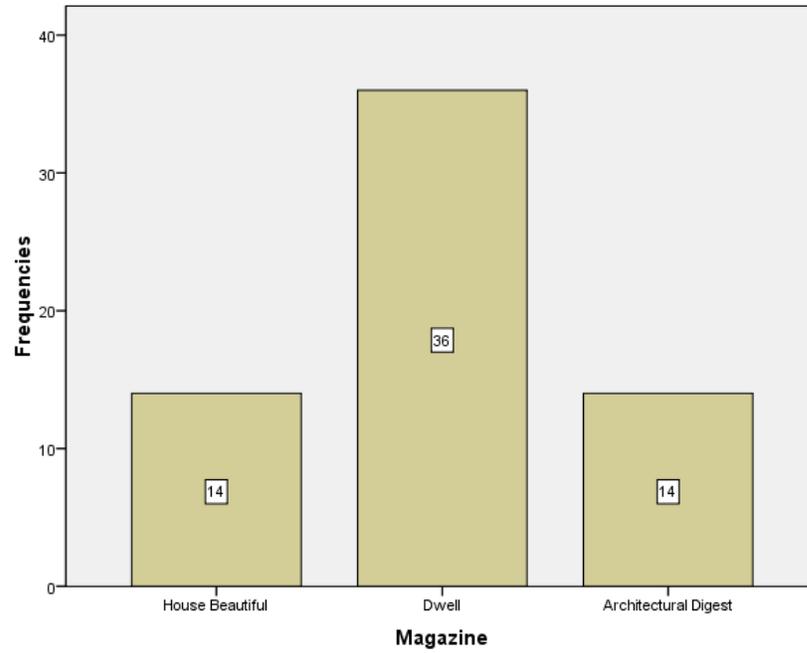
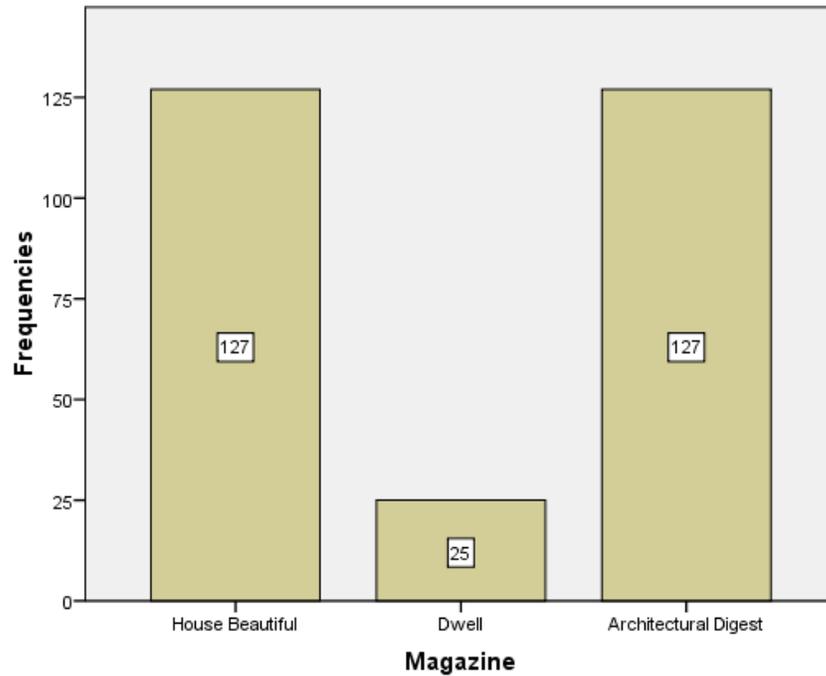*Figure 7.* ERD keyword frequency for general dimension, by publication

Figure 8. Non-ERD keyword frequency for general dimension, by publication

Hypothesis Testing

The following statements represented the hypotheses that were tested for the study.

1. Design assessment models used by mass media do not include non-ERD criteria.

2. Design assessment models used by mass media do not include ERD criteria.

3. Design assessment models used by mass media do not include both ERD criteria and non-ERD criteria.

4. There are no statistically significant differences in the quantity of ERD criteria in design assessment models used by mass media.

5. There are no statistically significant differences in the quantity of non-ERD criteria in design assessment models used by mass media.

6. There are no statistically significant differences in the proportion of ERD to non-ERD criteria in design assessment models currently used by mass media.

Hypothesis One: Design assessment models used by mass media do not include non-ERD criteria. As shown in Table 2, the design assessment models included non-ERD criteria, as evidenced by the four non-ERD dimensions that represent 15 keywords. Therefore the null hypothesis was rejected; design assessment models included non-ERD criteria.

Hypothesis Two: Design assessment models used by mass media do not include ERD criteria. As shown in Table 2, the design assessment models included

ERD criteria, as evidenced by the three ERD dimensions that represent 15 keywords.

Therefore the null hypothesis was rejected; design assessment models included ERD

criteria.

Hypothesis Three: Design assessment models used by mass media do not

include both ERD criteria and non-ERD criteria. As shown in Table 2, design

assessment models in use by media included both ERD and non-ERD keywords, as

evidenced by the use of all seven dimensions, representing 30 keywords, by all three

magazines. Therefore the null hypothesis was rejected; design assessment models

included both ERD and non-ERD criteria.

Hypothesis Four: There are no statistically significant differences in the

quantity of ERD criteria in design assessment models currently used by mass media.

A chi-square test of independence was performed to examine the differences in the

quantity of ERD criteria in design assessment models used by different periodicals. As

shown in Table 5, for ERD keywords, $\chi^2(2, N = 3) = 35$ $p = .000$; p is less than or equal to

.001, so the null hypothesis was rejected; there were statistically significant differences in

the quantity of ERD criteria in design assessment models used by mass media.

Table 5

Differences in criteria in assessment models used by mass media

Criteria	Frequency	Publications			
		HB	*DW*	*AD*	Total
	Count	45	225	50	320
	Expected Count	172	126	147	444
	Count	398	99	328	825
	Expected Count	319	233	272	824
Total	Count	443	324	378	1145
	Expected Count	491	359	419	1269

Note: HB= *House Beautiful*, DW= *Dwell*, AD= *Architectural Digest*

Differences in quantity of ERD criteria

	Value	df	p value
Pearson Chi-Square	35	2	.000*
Valid cases	3		

Note: df=degrees of freedom
*p=<.001

Differences in quantity of non- ERD criteria

	Value	df	p value
Pearson Chi-Square	.001	2	.000**
Valid cases	3		

Note: df=degrees of freedom
**p=<.001

Hypothesis Five. There are no statistically significant differences in the quantity of non-ERD criteria in design assessment models currently used by mass media. A chi-square test of independence was performed to examine the differences in the quantity of non-ERD criteria in design assessment models used by different periodicals. As shown in Table 5, for non-ERD keywords, $\chi^2(2, N = 3) =.001,\ p =.000;$ p is less than or equal to .001, so the null hypothesis was rejected; there were statistically significant differences in the quantity of non-ERD criteria in design assessment models used by mass media.

Hypothesis Six. There are no statistically significant differences in the proportion of ERD to non-ERD criteria in design assessment models currently used by mass media.

Table 6

Differences in proportion in assessment models used by mass media

		Publications			
Criteria	**Frequency**	*HB*	*Dwell*	*AD*	**Total**
	Count	45 (14%)	225 (70%)	50 (16%)	320 (100%)
	Expected Count	172 (39%)	126 (28%)	146 (33%)	444 (100%)
	Count	398 (48%)	99 (12%)	328 (40%)	825 (100%)
	Expected Count	319 (39%)	233(28%)	272 (33%)	824 (100%)
Total	Count	443 (39%)	324 (28%)	378 (33%)	1145 (100%)
	Expected Count	491 (39%)	359 (28%)	418 (33%)	1268 (100%)

Note: HB= *House Beautiful*, DW= *Dwell*, AD= *Architectural Digest*

Differences in proportion in assessment models used by mass media

Differences in proportion of ERD to non-ERD criteria

	Value	df	p value
Pearson Chi-Square	408	2	.000***
Valid cases	3		

Note: df=degrees of freedom

***p<.001

A chi-square test was done to see if there were statistically significant differences in the proportion (percentage) of ERD to non-ERD keywords in each publication. As shown in Table 6, for proportion of ERD to non-ERD criteria, $\chi^2(2, N = 3) = 408$, $p = .000$; p is less than or equal to .001. Therefore, the null hypothesis was rejected; there were significant differences in proportion of ERD to non-ERD criteria in design assessment models in use by mass media.

Chapter 5: Summary, Conclusions, Implications, and Recommendations

Summary

Research problem. The research problem explored the gap between common portrayals of exemplary design evidencing a non-environmental world view, as currently perpetuated by mass media, and portrayals of exemplary design that promote an environmental world-view, as evidenced and put into practice by both current educational policy and contemporary interior designers.

Study design. The study design incorporated qualitative content analysis to cull pertinent data from mass media interior design publications. Based on a matrix of indicator criteria established by the researcher, three interior design publications were selected for the study (*Architectural Digest*, *Magazine, and*). Keywords were identified in the randomly selected feature articles that constituted the study population. The keywords had been selected from published design studies based on content knowledge from experienced design educators and practitioners using the Delphi Technique (i.e., consensus from experts). The thirty keywords were categorized into seven dimensions representing ERD or non-ERD attributes. Design assessment models were identified based on parameters of the study, which included a distinction between ethical environmentally responsible design (ERD) attributes and aestheticnon-ERD attributes. Data, in the form of frequency of ERD and non-ERD keywords, were then coded and tabulated for quantitative statistical analysis.

Findings

Design assessment models. As evidenced by frequency of keyword count as well as comparison of keyword means, the results indicated that all design assessment models

in use by media included both ERD and non-ERD criteria. Overall, taken as an industry, mass media included both ERD criteria and non-ERD criteria, to some degree, in current design assessment models.

However, there were statistically significant differences; there were more non-ERD criteria, which would seem to indicate that mass media perpetuated non-ERD. Conversely, there were fewer ERD criteria, which also supported the supposition that mass media perpetuates non-ERDThere was some overlap of ERD and non-ERD criteria. Of note, ERD "buzzwords," in the commonality category, were used less frequently by mass media than ERD keywords in the aesthetic category. This finding suggested that, at some level, the mass media industry as a whole was aware of the impact of ERD and included ERD criteria, even if in a very limited context. Overall, however, more non-ERD than ERD criteria were included in design assessment models, indicating that, taken as a whole, mass media perpetuated design assessment models that focused on non-ERD design. By and large, results suggested that antiquated design assessment models were in use by mass media.

Publications. There were statistically significant differences in the frequency of ERD and non-ERD criteria among the three publications as well as in the proportion of non-ERD to ERD keywords. One publication, *Magazine*, was substantially skewed to ERD, while two publications, and *Architectural Digest*, were substantially skewed to non-ERD. *Magazine*, the newest of the three publications, which targets the youngest demographic of the three selected publications forming the sampling frame, had consistently higher scores in frequency of ERD keywords. and *Architectural Digest* scored consistently higher in use of non-ERD keywords; *Architectural Digest*, the oldest

and most esteemed of the selected publications, seemed to place the most emphasis on use of non-ERD criteria.

It was noteworthy, however, that no publication was devoid of both ERD and non-ERD criteria, that is, all publications used some combination of both ERD and non-ERD criteria, even if weighted to one perspective or the other. This finding suggested that, overall, sustainable/green design, recognized in the design community as environmentally responsible design, had some over-reaching arc of meaning to mass media; however, mass media demonstrated a wide-ranging lack of balance in how the topic was approached. Therefore, an important problem that surfaced during analysis was the manifestly unbalanced approach to sustainable/green design pertinent to portrayals of exemplary design.

Conclusions

The contemporary field of interior design is trifurcated from art (decoration), architecture, and home economics; that portion of interior design that is co-opted from the field of home economics, and thus historically associated with human ecology theory, is now the dominant thrust of environmentally responsible design practice. Media remain fixated by an antediluvian tension between ethics and aesthetics, as if the two notions are eternally incompatible; consequently, the design assessment models employed for design critiques are antiquated and do not promote a balanced environmental world-view. Yet contemporary interior designers diligently seek to balance attributes of both aesthetics and ethics.

Media, perhaps partially due to a shortage of meaningful input from the design community, design educators, and design historians, have not kept pace with the evolving

field of interior design, remaining more in sync with interior decoration than human

ecology. The results of this study seemed to evidence a lack of balance in current mass

media design critique. In other words, the overriding perception seemed to be that

aesthetics and ethics remain incompatible attributes, instead of complementary parts of a

holistic design approach. Yet it is the very melding of these attributes that enhances

modern portrayals of exemplary design for the design community.

This research supported work by Lasky (2001), Mickelwaite (2009), and Massey

(2009) that modern design critique, as evidenced by mass media, lacks meaningful

criteria for assessment of design projects. Likewise, this research also supported

curriculum of current interior design education that foster the contemporary field of

interior design as an important component of sustainable development.

Implications

       Contributions of this study. It is critically important for upcoming interior

designers to understand how media regards the state of ERD. This study contributed to a

better understanding of this topic. The study collected information about the designated

magazines—did they perpetuate an antiquated image of the practice of interior design as

being devoid of ERD criteria? This study revealed that the designated publications were

not totally devoid of ERD criteria, but that some publications, by virtue of their minimal

coverage of ERD, did perpetuate an antiquated image of the practice of interior design.

Further, this study revealed, as related to ERD, that an unbalanced approach to

design critique is currently prevalent in mass media. Either design assessment models

emphasized ERD and were deficient aesthetics, or they emphasized non-ERD and were

deficient ethics. Either way, the perspectives were skewed and, as such, detrimental to educated designers, as well as out-of-step with current educational curriculum.

This study contributed knowledge that can help educators and designers understand the role of media in perpetuation of either an antiquated or an unbalanced approach to the current practice of interior design. The design community needs to play a role in remedying this situation so that the public can be better informed.

Changing the input in the system. This study brought home the fact that there was a failure by the design community in outreach to media, particularly in the realm of service journalism, to communicate the ERD perspective. Somehow, the new paradigm that supports holistic design assessment models needs to be conveyed to mass media as new input in the system. The narrative needs to be changed so that opposing ideologies can be reconciled.

Luxury, style, and fashion do not have to be at odds with sustainable development. Rather, attributes of fashionability need to be composed of new criterion. Consequently, the final output, balanced portrayals of exemplary design, existing at the junction of aesthetics and ethics, will become more universally accepted as a desirable standard for design critique. Feedback, from the end-users of design, will then loop back to media and further impact the ERD perspective. Research needs to be done to develop new strategies to provide relevant input to media.

Future Research

Further research. Further research should be conducted with a larger study population to confirm the findings, given that the theoretical population consists of substantially more than three design publications.

New strategies. The issues concerning sustainable development cut deep to the very heart of modern cultural values. There are many stakeholders impacted by the environmentally responsible design dialogue. Possibilities of synthesizing opposing theories into a common ground need to be explored. Studies could be done to examine how academia could influence media to embrace the impact of what environmentally responsible design can accomplish, consequently encouraging consumers, as the primary stakeholders in sustainable development, to understand the changing and emergent field of interior design.

Integrating current educational policy. Formal professional programsfor interior designers have evolved to include curricula that keep pace with current events including the environmental movement; however, mass media has not embraced the new image of an interior designer. Future research should focus on ways to implant the new and continually evolving design assessment paradigms, inherent in current educational curricula, in such a way that the new paradigms take root and improve current mass media design critique. More research needs to be done to explore ways to cure the gap between educational curricula and antiquated media depictions of interior designers.

One way this task could be accomplished is by outreach. For example, Michigan State University (MSU) created a specific program for environmental journalism. A potential outreach could be to have interior design educators research a joint inter-disciplinary program, specific to sustainable development, to provide upcoming environmental journalists with templates for new design assessment models, consequently providing upcoming environmental journalists with meaningful tools for design critique. This could be the forerunner of a ripple effect for media.

Denouement

      The design profession. If recent graduates of design schools are schooled in ERD but then enter a community that is ignorant of their training, this is a great detriment to the profession as a whole. Media, sometimes called the "Fourth Estate," holds sway in the court of public opinion. If the court of public opinion is not persuaded to embrace ERD in a meaningful fashion, and to judge designers, not as individual design heroes but as integral members of a building team who are active participants in sustainable design, then consequently, newly minted designers entering the work force are being set up for failure, without meaningful recognition of their training and/or educational background. This situation is not only a detriment to the profession as a whole, but may very well fetter global strides being made towards sustainable development.

      Conclusion. To date, the design community has demonstrated an important, historic role in the environmental movement and thus on the impact of sustainable development. The design community has shown a willingness to create new design assessment models that include both aesthetics and ethics as gears of environmentally responsible design. However, much work remains to put into practice and to disseminate, to the world at large, the intelligence gathered by the design community. Neither widespread recognition of the importance of ERD nor a balanced approach in coverage of ERD is at the forefront of mass media. This situation should not be ignored.

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Appendix A

Operational Definitions/Vocabulary	
Mass Media	Communication, whose distribution reaches large numbers of people. For purposes of this study, mass media will reference print media only (magazines).
Interior Design Publications	Magazines with content focused on service journalism about interior design.
Interior Design	The art or practice of planning and supervising the design and execution of architectural interiors and their furnishings.[a]
Interior Designer	One who specializes in Interior Design.[b]
Sustainable Design	A macro perspective that addresses the health and well being of the global ecosystems that support life for both current and future generations.[c] The purpose of sustainable design is to support environmental responsibility, an ethical perspective.
Sustainable Interior Design	Interior design in which all systems and materials are designed with an emphasis on integration into a whole for the purpose of minimizing negative impacts on the environment and occupants[d] 'an ethical perspective.
Environmentally Responsible Design (ERD)	A comprehensive perspective that addresses both the health and welfare of the global ecosystems AND the health and welfare of people who live, work, and play on planet earth both now and in the future – it is a combination of sustainable and green design.[e] ERD is an ethical design perspective that minimizes negative impact of design decisions on the environment.
Non-ERD	An aesthetic perspective that does not minimize negative impact of design decisions on the environment.
Environmental World-View	An ethical perspective that attempts to minimize negative impact of decisions on the environment, and promote well-being of people and the planet.
Non-Environmental World View	An aesthetic perspective that does not attempt to minimize negative impact of decisions on the environment nor necessarily promote well-being of people and the planet.
Environmentally Responsible Interior Design (ERID)	An ethical perspective that encourages interior designers to use selective criteria to choose materials that support sustainable and green design. As used here, synonymous with ERD.
Design Assessment Model	A set of criteria and principles used in a design critique to portray exemplary interior design.

Sources: [a]interior design, n.d., In *Merriam Webster*, retrieved from http://www.merriam-webster.com/dictionary/interior+design
[b]interior designer, n.d., retrieved from http://www.merriam-webster.com/dictionary/interior+designer?show=0&t=1295466049;
[c]Jones, L. (2008). *Environmentally Responsible Design: Green and Sustainable Design for Interior Designers*. NY: Wiley, p.4
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