



SUSTAINABLE RESIDENTIAL INTERIORS

ANNETTE K. STELMACK

ASSOCIATES III: KARI FOSTER · DEBBIE HINDMAN

SECOND EDITION



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sustainable residential interiors

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Annette K. Stelmack

Associates III:

Kari Foster *and*

Debbie Hindman



WILEY

Dedicated to my 'Grosseltern' (grandparents).

—Annette K. Stelmack

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PREFACE

When we heal the earth, we heal ourselves.

—DAVID ORR

As residential interior designers, we create “home” for our clients. Our responsibility is to serve them in one of the most personal and profound expressions of their world—where they live. We are privileged to engage with them on an intimate level, listening to their needs and dreams for “home,” where they welcome us into their living rooms, dining rooms, kitchens, bedrooms, bathrooms, home offices, and closets.

Since the first edition of this book, residential interior designers have developed a greater consciousness and appreciation for green and healthy design issues. In fact, the market transformation has seen an explosion of sustainable ideas, principles, and practices, including eco-friendly and healthier products. Green building rating systems are being adopted nationwide, and product certifications are standard practice for many manufacturers, who are following the leaders in the commercial sector of the industry.

This new edition provides comprehensive and reliable information on how to apply sustainable design principles and practices on projects. We celebrate your interest in integrating environmentally responsible design into your practice, and it is an honor to offer this book to the design community.

Our intention in *Sustainable Residential Interiors* is to support you as you question the status quo, to ignite your spirit as a catalyst for change, to present you with information and processes, and to encourage you to ask well-informed questions as you start down the path to creating healthy, high-performing, eco-friendly, meaningful, nurturing residences that positively impact our clients and the world we live in. Designers around the world are integrating sustainable, healthy, and high-performing strategies into their daily practice; it is no longer an added value, it is inherent to their work. In fact, we implore you to act now, and live differently, for if we don't, who will?

Consumers, too, are more aware of the environmental issues affecting their homes and lifestyles, and they increasingly ask designers, architects, and builders to incorporate healthy indoor air quality and sustainability into their projects. To help meet this increased demand, this book provides design professionals with a comprehensive, easy-to-understand sustainable resource guide. It will:

- Answer why we must become catalysts for change.
- Share inspiring stories about today's environmental champions.

- Give visual examples of sustainable projects and applications.
- Examine why the health, safety, and welfare of our clients matter.
- Address the most hazardous chemicals that are consistently in our lives.
- Explore the health impacts of traditional building.
- Encourage critical thinking about environmental issues within homes.
- Present strategies for incorporating sustainable design into work and projects.
- Provide a practical, hands-on approach to sustainable design.
- Offer guidelines for clients and project teams.
- Provide helpful checklists for greening projects and specifications.
- Give in-depth information to promote understanding and assist in specifying interior finishes and furnishings.
- Raise questions for manufacturers and vendors.
- Share effective methods of marketing sustainable design services.
- Discuss what's next with industry leaders.

Years ago, our eyes, minds, and hearts were opened to the inspirational world of sustainable design. Since then, we have been on a quest, searching for ways to exemplify integrity in our work, as articulated through the details of a project—asking how long finishes will last and which adhesives to specify, addressing indoor air quality, ensuring that woods are from certified sources, finding low-impact materials, conserving energy and water, supporting construction teams in reducing waste, providing information regarding healthy cleaning methods, assisting clients with multiple chemical sensitivities to create a healthy interior—all while exceeding the client's expectations.

We know that healthy, eco-friendly design might not always be what our clients want initially, but we believe they will come to value and appreciate it in the long run. And it is for the future that we do this, for the future health of the Earth and its inhabitants, for future generations, indeed, for the future of humanity and our planet. We, the authors, have found that when something is right, there is always consensus, and we have agreed that this is the right way to practice the business of interior design.

Our goal for *Sustainable Residential Interiors* is to create a reference tool for interior designers who are beginning to embrace green design strategies. What is a healthy, green building? Simply, sustainable building takes steps to create homes that are socially and environmentally responsible while supporting the health and prosperity of families, communities, and the environment. Whether renovating an existing residence or designing a new home for your clients, keep in mind these three fundamental goals:

- Be mindful about using limited resources, such as wood and water, to limit waste, pollution, and environmental damage.

- Build and remodel with energy efficiency in mind to save money, create a more responsible home, and reduce air pollution and global warming.
- Choose healthy materials and construction methods to prevent indoor air pollution from formaldehyde, mold, toxins, and other contaminants.

The residential design industry is moving briskly in the direction of sustainable building for many vital reasons, among them:

- *Higher quality.* Most green building products and materials are now developed to perform better than their conventional counterparts.
- *Greater durability and less maintenance.* Green building encourages the use of longer-lasting products that don't require an inordinate amount of time or the use of harsh chemicals to maintain. Less frequent replacement puts less of a burden on natural resources and landfills.
- *Greater comfort and lower utility bills.* Energy-efficient upgrades can reduce the rate of energy consumption, lowering energy bills while providing a comfortable living space.
- *Healthier products and practices.* Green building promotes the use of products and construction practices that avoid introducing harmful chemicals and other pollutants into the home.
- *Natural resource conservation.* Protecting the environment is yet another compelling reason for committing to build green.

This book is a continuation of a journey that started so many years ago. It presents a logical and sequential process for creating healthy, sustainable residential interiors that meet the goals of the homeowner as well as the goals of green design. Step by step, it will take you through an integrated design process, exemplifying how sustainable principles, strategies, and practices can be applied at each level of interior design. These principles and practices can be utilized in any residential project to create a home that is healthy, functional, comfortable, sustainable, and beautiful.

Imagine if:

- We learned how to be eco-friendly from our parents and grandparents, our grade schools, middle schools, high schools, and colleges.
- Clients came to us asking for homes and products that were Earth- and family-friendly.
- We, as residential interior designers, ascribed to the medical profession's charge, "First, do no harm," and recommended and specified only Earth-friendly and healthy materials and products.
- We were able to provide net-zero-energy homes that were truly restorative for our clients and for the planet.
- Residential contractors and architects seamlessly and routinely integrated green principles and strategies into their everyday best practices.

- Government mandated environmentally sustainable construction for residences.
- The core principle of all manufacturers of residential products included healthy ingredients as well as environmental and social responsibility.
- All materials were safe and their contents healthy.
- There was a practical, positive book to assist residential interior designers in converting their practice into one that is socially and environmentally responsible.

Well, here it is!

Our challenge, and opportunity, is to learn how we can leave a lighter footprint on the planet—or better yet, no footprint at all—and have a positive impact on our clients in order to create a thriving future for generations to come. As interior designers, we must actively promote change, transparency, and progress in the building industry—change that will support our clients' vision and respect the environment, fully integrating environmentally responsible design. On each project we are motivated to create designs that are appropriate to the client and that meet traditional goals—the homeowner's needs, budget, schedule, and aesthetics—as well as to give back more than we take from the surrounding environment.

Thank you for taking time to read this book. Whether you are taking your first steps toward adopting sustainability or are well along on your journey, we hope that you will find it informative and helpful and that it will inspire you to act now. We are truly honored to share with you how much our design and building profession is transforming and moving in a better direction. We look forward to engaging in conversations with you about healthy, intelligent, high-performing design, and with that in mind we welcome your feedback, your insights, and your questions. Hope to hear from you soon!

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Thank you to my clients, who continually open their hearts and minds to allow me to help them create healthy, nurturing, high-performing, and vitalizing interiors that reflect their essence and support their health, safety, and well-being.

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Initially, our passion as environmental stewards was nurtured by trailblazers from all walks of life; Buckminster Fuller, Daniel Quinn, David Suzuki, Julia Butterfly Hill, Judith Helfand, Michael Braungart, Paul Hawken, Sarah Susanka, and Sym Van der Ryn are among them. We are thrilled that many have contributed to our book: Bert Gregory, Hunter Lovins, Janine Benyus, Paula Baker-Laporte, Steve Badanes, Trudy Dujardin, and William McDonough. Thank you for your unwavering commitment to creating a better world. You inspire us daily to do our part in creating healthy and nurturing environments.

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My phenomenal research team—Rena Goodwin, Jessica Levy, Teen Rollins, Sheena Roddy, Briar Sawkins, Erica Smith, Bethany Strothman, Lisa Taylor, and Lori Tugman—provided in-depth examination and confirmed updates—tracking down all the material I needed to create the new chapters and advance the existing ones, and securing images and permissions. Your dedication, staying power, commitment, thoroughness, and patience were outstanding. I loved working with all of you and appreciate you immensely.

To the interior designers, architects, and project teams who submitted their cutting-edge, healthy, and high-performing residential projects: Thank you for your enthusiasm and the wealth of expertise and creativity you share through your work, which illustrates that sustainable, healthy principles and practices are beautiful, culturally rich, and ecologically sound.

My editor, Lauren Poplawski, has been understanding and patient this year, especially when my personal life got in the way of writing. Thank you for your compassion and for being there when I needed your guidance and expertise.

Finally, I want to thank you, our readers, for expanding your commitment to healthy, sustainable interior design. Knowledge empowers change; I am honored to be part of your process. I hope to hear from you as you transform your approach, communication, and design process in your projects.

—ANNETTE K. STELMACK, INSPIRIT-LLC

We are eternally grateful to Annette Stelmack for her incredible hard work in spearheading the research, writing, and rewriting of this second edition of *Sustainable Residential Interiors* and in updating it with the many changes that have occurred in the few short years since we collaborated together on the first edition. It's gratifying to see the new wealth of information available to us all in creating healthy, responsible, beautiful, and life-enhancing interior spaces. A special mention and thank you to Amy DePierre, an integral part of the Associates III team, for her supreme effort and diligence in the review of the content and written word.

—KARI FOSTER AND DEBBIE HINDMAN, ASSOCIATES III, INC.

CHAPTER 1

why be sustainable?



Figure 1.1
Photo courtesy of Allegria Spa.
Interior design by Annette
Stelmack and Donna Barta-
Winfield, Associates III.

There is no greater potential for personal expression than building one's own shelter. For this reason alone, home construction should be sustainable for generations to come. And to be truly sustainable, it is not enough to minimize damage to the environment; the construction must have a net positive impact on it.

—DENNIS WEDLICK, AIA

The answer to the question why, as residential designers, our work should be sustainable is simple: There is only one planet Earth, and if we destroy its ability to sustain life, our planet will become uninhabitable. Numerous speeches have been made and publications written by credible sources who, over the past decades, have been leading the market transformation in the building industry. This book will share knowledge and provide motivation from another perspective—that of the residential interior design community.

Through our experiences and the information that we have gathered and organized, we will demonstrate to residential design professionals that it is possible to build a home that is beautiful, pleasing, functional, healthy, safe, affordable, and life-sustaining. The time is now to 'BE' the catalyst for change within the residential design community and to integrate sustainable residential design into our work.

Interior designers are resourceful beings; they are information-gathering, solution-seeking, innovative creatures, and these are ideal characteristics for promoting healthy, high-performing, sustainable design. Our profession is a natural for revolutionizing the industry by transforming environments. It is, after all, what we do. By focusing our creative energy and implementing sustainable design, we become instruments of beneficial change. If we are resolute in our belief that each positive action makes a difference, our contribution to a healthy planet is guaranteed.

Before us lies a remarkable opportunity to connect where we are with where we have been to inform where we need to be going. Creating healthy, life-enhancing design is an invigorating prospect. Is it challenging? Absolutely! It's challenging, doable, exciting—and, of course, the right thing to do.

Let's begin by asking why everything considered good for us is termed "alternative"—alternative health care, alternative medicine, alternative food. Indeed, sustainable design should no longer be considered an alternative; it is, simply, the responsible way to conduct good business. In fact, states and municipalities have passed legislation mandating high-performing and healthy building standards. It benefits us all to work together toward better solutions that "respect all of the children of all of the species, for all times," to quote renowned architect William McDonough, principal and founder of William McDonough + Partners and MBDC.

Sustainability is transforming the building industry, and expertise in sustainable design is now highly regarded and regularly sought after. Clients, architects, and contractors value the knowledge and skills that we bring to the table as part of the professional services team; as designers, we can offer numerous possibilities for creating eco-friendly homes. The finishes in a home can exemplify environmental responsibility, support our clients' health, and be beautiful as well. By combining materials in a unique and environmentally responsible way, we have a rich opportunity to make a difference.

As interior designers and architects, we have the power—and the responsibility—to create environments that sustain life on the planet. The methods that we employ, often beyond the realm of other professions, compel us to practice sustainable design. By doing so, we are, as defined nearly three decades ago by the Brundtland Commission in 1987, "meeting the needs of the present without compromising the ability of future generations to meet their own needs."

Designers have much to teach the world. Of all people, we understand that there is never only one right way to design anything. Searching for new solutions, creatively adapting what we know to what we need, and solving problems is what designers do. Perhaps, then, we as designers need to expand our vision to include sustainability and start showing ordinary people how to look at the world from a green design point of view.

—FROM DANIEL QUINN,
ISHMAEL: AN ADVENTURE
OF THE MIND AND SPIRIT
(BANTAM, 1995)

There are countless opportunities for design professionals and those we work with to make a significant difference. Green building practices and strategies, coupled with constantly emerging technologies, are transforming our industry and, subsequently, the buildings that we live and work in. By applying principles, strategies, and practices that sustain our natural resources, we can ensure a healthier life on our planet for future generations.

As we all were taught, for every action there is an equal reaction; similarly, for every choice we make there is a consequence. By practicing sustainable design, we catalyze change in our industry by gathering information, learning new strategies, attending conferences, questioning the status quo, sharing information, and aligning with like-minded individuals, project teams, and clients.

Market transformation begins with individuals who integrate sustainability into the core of their interior design process—one step at a time, one material at a time, one project at a time, and one question at a time. We can and do make a difference. (See the sidebar on Ray Anderson, page 50.)

What Are Green Buildings?

The U.S. Environmental Protection Agency (EPA) describes green building as the practice of creating structures and using processes that are environmentally responsible and resource-efficient throughout a building's life cycle, from siting to design, construction, operation, maintenance, renovation, and deconstruction.¹ Green buildings, including residences, exhibit a high level of environmental, economic, and engineering performance, including:

- Energy efficiency and conservation
- Indoor environmental quality
- Resource and materials efficiency
- Occupant health, safety, welfare, and productivity
- Transportation efficiency
- Improved environmental quality including air, water, land, limited resources, and ecosystems

The U.S. Green Building Council (USGBC) states that the built environment is expected to double by 2050. Buildings have a major impact on the environment as a whole in that they account for:

- 39 percent of total energy use and percent of electricity consumption
- 30 percent of greenhouse gas emissions
- 30 percent of raw materials use

¹www.epa.gov/greenbuilding/pubs/about.html

Energy consumption in homes by end uses
quadrillion Btu and percent

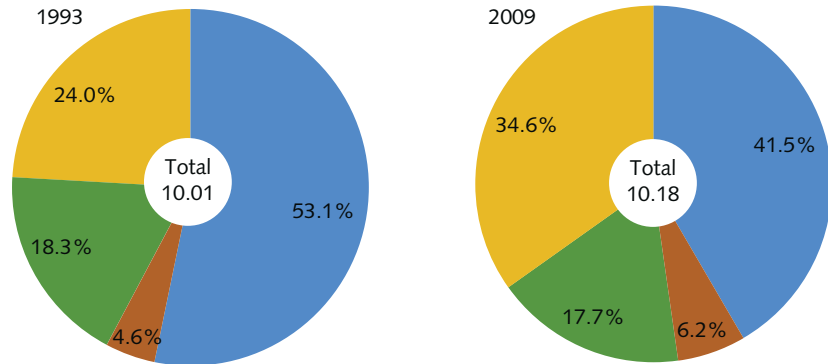


Figure 1.2 ■ space heating ■ air conditioning ■ water heating ■ appliances, electronics, and lighting

- 30 percent of waste output (136 million tons annually)
- 12 percent of potable water consumption

Various other resources note that:

- Nearly 40 percent of total U.S. energy consumption in 2012 was consumed in residential and commercial buildings, or about 40 quadrillion British thermal units (Btus).
- 50 percent of all global energy is used to cool, light, and ventilate buildings.
- More than 50 percent of all resources are used in construction.

The EPA notes that if every American home replaced their five most frequently used light fixtures or the bulbs in them with Energy Star-qualified lighting, we would save close to \$8 billion each year in energy costs, and together we'd prevent the greenhouse gases equivalent to the emissions from nearly ten million cars.

In addition, statistics show that the United States, though it comprises less than 5 percent of the world's population, consumes nearly 20 percent of the world's energy—and as of 2012 generates 16 percent of the world's global emissions. Our ecological footprint is enormous compared with that of other countries. If everyone in the world enjoyed the American standard of living, we would need four to five Earths to sustain us.

Buildings account for around half of the global output of the greenhouse gas carbon dioxide as well as half of the output of sulfur dioxide and nitrogen oxide, both components of acid rain. The building industry therefore shares responsibility for environmental disasters related to energy production: oil spills, nuclear waste, the destruction of rivers by hydroelectric dams, the runoff from coal mining, the mercury emissions from burning coal—the list goes on and on.

This is motivation enough to rethink the way that we practice design. By designing and adapting the places where we live in an ecologically responsive style, we can contribute to the well-being of our clients as well as our planet and its limited natural resources. To encourage, inform, and assist you in navigating all this, we have assembled some of the most compelling reasons for sustainable design in the key areas where residential interior designers can actively improve the current state of the industry and the planet—before it is too late and the damage to the planet and its ecosystems become irremediable. They include:

- Environmental stewardship and the improved environmental quality of the planet, including air, water, and land, and protecting limited resources and ecosystems
- Good design supported by the Council for Interior Design Accreditation (CIDA) and the American Institute of Architects (AIA)
- Natural resource and materials conservation that minimizes the use of nonrenewable natural resources, and building with low-impact materials
- Improved indoor air and environmental quality
- Energy efficiency, lower energy consumption, and the promotion of renewable energy sources
- Water efficiency and conservation
- Waste reduction and management
- Optimized operational and maintenance practices
- A healthy planet for future generations

ENVIRONMENTAL STEWARDSHIP

For the children and the flowers are my sisters and my brothers, come and stand beside me, we can find a better way.

—JOHN DENVER, COFOUNDER, WINDSTAR

Nature is the precious source of life. As such, living in and engaging with nature should be treated as a privilege. All Earth's citizens must develop a broader perspective and become stewards of our planet. If we do not, the results promise to be disastrous. There is long-established evidence, for example, that we are headed for the dire consequences of global climate change. We would be foolish to wait for a calamity such as a dramatic rise in sea levels—predicted to be nearly five feet within a few generations—before we take action.

How Did the Ecology Movement Begin?

Over one hundred years ago, John Muir wrote to the editor of *Century* magazine, "Let us do something to make the mountains glad." Together, John Muir, Theodore Roosevelt, and David R. Bower founded the Sierra Club, the first major organization in the world dedicated to preserving nature, and the modern ecology movement was born.

Throughout his life, Muir was concerned with the protection of nature both for the spiritual advancement of humans and, as he said so often, for nature itself. These two concerns still inform the ecology movement and continue to inspire millions to think of themselves as a part of nature. Though the arguments in favor of ecological thinking are often couched in scientific terms, the basic impetus remains as Muir stated it: “When we try to pick out anything by itself, we find it hitched to everything in the universe.”²

How Did the Environmental Movement Begin?

When, in 1962, Rachael Carson wrote the book *Silent Spring*, it made the public aware of nature’s vulnerability to human intervention. In it, she made a radical proposal: that at times, technological progress is so fundamentally at odds with natural processes that it must be curtailed. Prior to the book’s publication, there had never been broad public interest in conservation, for until then few people had worried about the disappearing wilderness. But the threats Carson outlined—the contamination of the food chain, cancer, genetic damage, the extinction of entire species—were too frightening to ignore. For the first time, the need to regulate industry in order to protect the environment became widely accepted, and environmentalism emerged.

Carson was well aware of the larger implications of her work. Appearing in a CBS documentary about *Silent Spring* shortly before her death from breast cancer in 1964, she remarked:

Man’s attitude toward nature is today critically important simply because we have now acquired a fateful power to alter and destroy nature. But man is a part of nature, and his war against nature is inevitably a war against himself....[We are] challenged as mankind has never been challenged before to prove our maturity and our mastery, not of nature, but of ourselves.

The message of *Silent Spring*, one of the landmark books of the twentieth century, continues to resonate loudly more than four decades after its publication. Equally inspiring is the example of Rachel Carson herself. Against overwhelming difficulties and adversity, and motivated by her unabashed love of nature, she rose like a gladiator to its defense.

Environmental Stewardship

What is environmental stewardship, and how does it relate to sustainable design? Sustainability is a concept with definitions that vary across national borders and over time, but most agree that at its core is societal advancement balanced by the social, economic, and environmental needs of current and future generations. Here are two examples:

- The Environmental Protection Agency bases sustainability on a simple principle: Everything that we need for our survival and well-being depends, either

The more clearly we can focus our attention on the wonders and realities of the universe about us, the less taste we shall have for destruction.

—RACHEL CARSON, © 1954
REPRINTED WITH PERMISSION
FROM THE NATURAL RESOURCES
DEFENSE COUNCIL

²www.ecotopia.org/ecology-hall-of-fame/john-muir/biography/

directly or indirectly, on our natural environment. Sustainability creates and maintains the conditions under which humans and nature can exist in productive harmony and that permit fulfilling the social, economic and other requirements of present and future generations. Sustainability helps ensure that we have and will continue to have the water, materials, and resources to protect human health and our environment.³

- The Energy Alternative defines environmental stewardship as the “wisest use of both finite and reusable energy resources to produce the most work guided by a principle of causing the least known harm to the environment and driven by a desire to aid in the restoration of a healthier environment.”⁴

PERSONAL RESPONSIBILITY

Never doubt that a small group of thoughtful, committed people can change the world; indeed, it's the only thing that ever has!

—MARGARET MEAD

As interior designers, we must make a commitment to become environmental champions; it is, after all, men and women who make things happen and get things done who will ‘BE’ the significant difference in the world.

Change occurs by the actions we take and the choices we make. We can be change agents who set an example by demonstrating environmental responsibility through our work and business practices. We, collectively, have the power to drive change within our industry. By specifying interior finishes that are timeless, healthy, and include recycled content; selecting woods that are responsibly harvested; and ensuring that the materials we specify do not contribute to outgassing and exacerbate human health problems, we can reshape our industry’s traditions while we accelerate acceptance and implementation of environmental principles and practices. As environmental champions, we can welcome the challenge to be innovative risk-takers and push beyond the status quo. We may experience an occasional setback, but if we continue to challenge the industry we can help raise it to the next level of environmental performance.

By seeking reliable information and surrounding ourselves with like-minded people, we nurture our environmental aspirations. But first we need to recognize how directly our actions affect the environment, both positively and negatively. Then we must acquire the skills we need to further develop our personal commitment to improving the environment, safety, health, and well-being of our clients.

On a personal level, identify what inspires you to take on environmental issues and to make change happen. Then proactively, respectfully, enthusiastically, and tenaciously pursue your goal of sustaining the environment. Influence others through your involvement with professional organizations such as the American Society of

³www.epa.gov/sustainability/basicinfo.html

⁴www.theenergyalternative.com/glossary.html

Environmental Champion: Ray Anderson

Ray Anderson's personal commitment to the environment changed the floor-covering industry. In 1994, as CEO of Interface, the world's largest commercial floor-coverings producer, Anderson was invited to give the keynote address to Interface's newly formed environmental task force. He was reluctant to accept because his environmental vision ended with obeying the law. Then he received Paul Hawken's *The Ecology of Commerce* (1994). Anderson recalled, "I read it, and it changed my life. It hit me right between the eyes. It was an epiphany. I wasn't halfway through it before I had the vision I was looking for. . . and a powerful sense of urgency to do something." After this chance introduction to environmental issues, Anderson embarked on a mission to make Interface a sustainable corporation by leading a worldwide war on waste and by pioneering the processes of sustainable development within his company and beyond.

Interior Designers (ASID), the International Interior Design Association (IIDA), the American Institute of Architects (AIA), the AIA Committee on the Environment (AIA COTE), Architects/Designers/Planners for Social Responsibility (ADPSR), and the U.S. Green Building Council (USGBC). As part of the larger movement, you can integrate environmental consciousness at all levels, both personally and professionally. Make the very personal decision to take moral responsibility for what you do as a designer of the built environment, and then put that commitment into action on all projects.

GOOD DESIGN

Good design and sustainable design are one and the same—synonymous with each other. Integrating sustainable design principles and practices is creative and rewarding and opens doors to vast possibilities for personal expression and personal growth for the designer, the client, and the project team.

—ADAPTED FROM DENNIS WEDLICK, AIA, DENNIS WEDLICK ARCHITECT, LLC

Designers are trained to become habitually conscientious creatures, and we accept responsibility for creative design solutions for every interior. Our professional organizations provide codes of ethics that specify our responsibilities as designers regarding function, safety, codes, and aesthetics. We are required to find solutions to design questions and to prepare drawings and specifications that illustrate how we intend to implement these solutions. And the subject of sustainability is now being included in the education of interior designers.

On January 1, 2006, the board of directors for the Council for Interior Design Accreditation (CIDA, formerly the Foundation for Interior Design Educations Research, or FIDER) adopted revisions to its professional standards. This set in motion the addition of sustainability to the curricula for interior education programs and launched the sustainable initiative that all interior design programs must include to be accredited. (These standards were updated in 2011 and again in 2014.) CIDA's vision and leadership continue to have far-reaching effects for interior design education and professional practice.

These revisions strengthened the expectations for student learning in sustainability and communication. The new standards maintain that every student who graduates from a CIDA-accredited school must demonstrate his or her understanding of the concepts, principles, and theories of sustainability as they pertain to building methods, materials, systems, and occupants.

These standards are also supported by the AIA, whose board of directors also adopted position statements to promote sustainable design and resource conservation. In order to achieve a 70 percent reduction of the current consumption level of fossil fuels used to construct and operate buildings by 2015, and an 80 percent reduction by 2020, the AIA will collaborate with other national and international organizations as well as scientists and public health officials. As part of this initiative, the AIA will also develop and promote the integration of sustainability into the curricula for the education of architects and architecture students so this core principle becomes a guide for current and future architects.⁵

AIA Public Policy Position Statement

Architects are Environmentally Responsible

The creation and operation of the built environment requires an investment in the Earth's resources. Architects must be environmentally responsible and advocate for the sustainable use of those resources.

Supporting Position Statements

1. Energy and the Built Environment

The AIA supports governmental policies, programs, and incentives to encourage energy conservation as it relates to the built environment as well as aggressive development and harvesting of energy from renewable sources. Architects are encouraged to promote energy efficiency and waste reduction in the built environment,

⁵www.aia.org