

Sustainability Beyond Materials: The Holistic Approach to Eco-Friendly Design

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Sustainability continues to be a priority in interior design and has been a significant focus in the world of interior design for many years. Sustainability has become fully integrated into the design process. Since the founding of USGBC in 1993, LEED certification has become a foundation for designing and building interior environments. WELL, begun in 2013, brought a new consciousness to the connection between the human experience and the design of interior space. While using eco-friendly materials has been a critical aspect of this movement, interior designers continue to move toward a more holistic approach that creates truly sustainable and healthy spaces- spaces that are healthy for the environment *and* the occupants within interior spaces. The holistic approach goes beyond the choice of materials; it encompasses chemical use, energy efficiency, waste reduction, ethical sourcing of interior projects, and leadership practices in setting global policy.

Designing for Energy Efficiency

One of the primary aspects of holistic eco-friendly design is energy efficiency. Designers are increasingly incorporating features such as LED lighting, smart thermostats, smart faucets, and lighting and energy-efficient appliances into projects.

One of the most beneficial features to clients that also reduces energy consumption is control systems that allow for centralized control with presets for lighting, security, window treatments, and more. Many commercial clients provide electric vehicle charging stations and lighted areas that do not need to be on all night. Other areas of the building can be set based on timers or photocells

Office, residential, education, healthcare, hospitality, and industrial environments can all benefit from the use of control systems that monitor lighting, temperature, and sun control to maximize energy savings while providing a high level of convenience and comfort for occupants.

Manufacturers (*such as Lutron, Leviton, LeGrand and others*) provide state-of-the-art products and technical support for designing control systems.

Such areas can utilize a motion sensor to provide lighting only when needed, saving energy long term. Automation adds convenience and also reduces waste by maximizing control and adjustability of lighting, sound, security, and sun control levels with photocells, motion sensors, timers, and integrated systems. Additionally, optimizing natural light through thoughtful placement of windows and skylights can reduce the need for artificial lighting and heating, further decreasing energy consumption. Selecting and specifying control products helps control heat build-up inside interior spaces.

Lighting control systems can also incorporate temperature and HVAC control systems. As integral members of the professional design team, interior designers work with mechanical and lighting engineers to develop systems that meet client needs, reduce energy consumption, and provide comfort for interior occupants. Balancing natural light with sun control increases comfort and energy savings.

Water sense appliances and plumbing fixtures are essential and may incorporate multi-controls, automation, and both motion and touch sensors to save energy while maximizing ease and comfort for the best client experience possible.

Waste Reduction in Your Designs

Another key component of holistic design is minimizing waste throughout the entire design process. This includes selecting durable and timeless materials that can withstand wear and tear, as well as planning spaces that can adapt to changing needs over time. By creating flexible and multi-functional environments, interior designers can help extend the lifespan of interiors and reduce the need for frequent renovations. The use of filtration systems for air and water keeps equipment running smoothly and reduces interior air pollution. Designing recycling areas into the space, providing appropriate equipment, and waste management within the interior environment supports sustainability.

Selecting durable and adaptable materials for construction and design is crucial for several reasons:

- **Longevity and Durability:** Materials that are robust and long-lasting can withstand wear and tear, weather conditions, and other environmental factors, thereby extending the lifespan of a building or structure. This reduces the frequency of repairs and replacements, which can be costly and time-consuming.
- **Cost-Effectiveness:** Though durable materials might have a higher initial cost, they prove to be more economical over time by minimizing the expenses associated with frequent renovations, maintenance, and replacements. This long-term financial benefit is significant for both residential and commercial properties.
- **Sustainability:** Using materials that last longer and require less frequent replacement reduces the environmental impact. This approach minimizes waste, conserves natural resources, and decreases the carbon footprint associated with the production, transportation, and disposal of building materials.
- **Adaptability:** Materials that can adapt to different uses or changes in design trends add flexibility to buildings. This adaptability allows for modifications and repurposing without needing major overhauls, supporting the evolving needs of occupants and uses of space.
- **Aesthetic Value:** High-quality, durable materials often maintain their appearance and structural integrity over time, contributing to the lasting aesthetic appeal of a building. This can enhance property values and reduce the need for cosmetic updates.

Repurposing and recycling materials in interior design can create unique and sustainable spaces. Here are some strategies for incorporating salvaged, recycled, and upcycled materials:

1. Using Recycled and Salvaged Materials and Repurposing items.

- **Recycle Carpet:** Many manufacturers have recycling programs for their products. Large areas of carpet, especially in commercial spaces, can be recycled to reduce waste in landfills.
- **Recycle Glass:** Use recycled glass for countertops, tiles, and decorative accents. It can be melted down and reformed into new shapes and colors.

- **Recycle Plastics:** Incorporate recycled plastic products in furniture, carpets, and outdoor furniture. Modern techniques allow recycled plastics to be transformed into durable and stylish designs.
- **Recycled Textiles:** Choose fabrics and rugs made from recycled fibers, such as post-consumer polyester, reclaimed cotton, or upcycled denim.
- **Architectural Elements:** Salvage doors, windows, and beams from old buildings to add character and history to a new space. These elements can be used as functional components or decorative features.
- **Wood and Lumber:** Reclaimed wood from barns, factories, or even old furniture can be used for flooring, wall treatments, or custom furniture pieces.
- **Metal Fixtures:** Repurpose industrial metal elements such as piping, light fixtures, and hardware for a vintage or industrial look.
- **Repurposing furnishings** Reupholstering is an excellent way to reduce waste while redesigning a space. Re-shaping, recovering, and adjusting pieces can transform them to enhance the interior design. Re-designing and repurposing casegoods is an excellent way to increase client satisfaction while improving aesthetics, and reducing waste.

2. Upcycling Techniques

- **Furniture Makeovers:** Give new life to old furniture by painting, reupholstering, or modifying the pieces to suit new purposes. For example, turning an old dresser into a bathroom vanity.
- **Creative Art and Décor:** Use found objects and materials to create unique art pieces, wall hangings, or decorative items. This could include using old tools, machinery parts, or everyday objects in innovative ways.
- **Lighting:** Upcycle bottles, jars, or metal scraps into custom lighting fixtures, adding a personalized touch to the space.

3. Sourcing Sustainable Materials

- **Local Resources:** Sourcing materials locally reduces transportation emissions and supports local economies. Look for local salvage yards, antique shops, and recycling centers.
- **Certified Sustainable Products:** When buying new materials, opt for those with sustainability certifications, such as FSC-certified wood, which ensures responsible forest management.

4. Design Approaches and Innovations

- **Adaptive Reuse:** Convert existing buildings and spaces for new uses rather than demolishing and building anew. This can include transforming warehouses into loft apartments or old schools into office spaces.
- **Modular Design:** Design spaces with flexibility and adaptability in mind, using modular furniture and systems that can be easily reconfigured, repurposed, or expanded over time.
- **Biophilic Design:** Incorporate natural and recycled materials to enhance connection to nature, which can improve well-being and sustainability.

5. Practical Tips and Considerations

- **Quality Check:** Ensure that salvaged and recycled materials are in good condition and suitable for their new purpose to maintain safety and durability.
- **Blending Old and New:** Skillfully blend old and new materials to create cohesive designs that respect the integrity of the salvaged elements while incorporating modern functionality.
- **DIY Projects:** Encourage DIY projects where feasible, as they not only save costs but also allow for greater customization and personal involvement in the design process.

By implementing these strategies, interior design projects can become more sustainable, cost-effective, and personalized, while also reducing waste and conserving natural resources.

Ethical Sourcing of Materials and Products

Ethical sourcing is a fundamental part of holistic sustainable design. Interior designers are increasingly partnering with suppliers who prioritize fair labor practices, safe working conditions, and environmentally responsible production methods. This commitment to ethical sourcing not only supports workers and communities but also ensures that the design process aligns with a broader commitment to social and environmental responsibility.

Ethical sourcing in interior design plays a crucial role in enhancing social and environmental responsibility. Its significance can be observed through various aspects:

Ethical sourcing ensures that materials and products are obtained from suppliers who uphold **fair labor practices**, provide safe working conditions, and pay fair wages. This helps to combat issues like child labor, forced labor, and exploitation in the supply chain. By sourcing materials from local and small-scale producers, interior designers can support local economies and promote community development. This fosters a positive relationship between businesses and the communities they operate in.

Ethical sourcing prioritizes the **use of sustainable materials**, such as reclaimed wood, recycled metals, and natural fibers, which have a lower environmental impact compared to conventional materials. By selecting materials that are sourced locally or regionally, designers can **reduce the carbon footprint** associated with transportation. Additionally, ethical sourcing encourages the use of materials produced with environmentally friendly processes. Ethically sourced materials are often harvested or produced in a way that conserves natural resources, such as water and energy. This includes **sustainable forestry practices**, organic farming, and the use of renewable energy sources. Ethical sourcing promotes the use of materials that are durable, recyclable, or biodegradable, thus contributing to **waste reduction**.

When selecting products and suppliers, designers must research the supplier and their manufacturing processes. Ethical sourcing requires **transparency** in the supply chain, allowing designers and consumers to know where and how materials are produced. This transparency builds trust and allows for informed decision-making. Many clients have become more aware of ethical and sustainable practices, and their demand for responsibly sourced products is increasing. Interior designers who prioritize ethical sourcing can meet this demand and differentiate themselves in the market.

In summary, ethical sourcing in interior design significantly contributes to social and environmental responsibility by ensuring fair labor practices, supporting local communities, preserving cultural heritage, promoting sustainable materials, reducing carbon footprints, conserving resources, and fostering transparency and accountability in the supply chain. This holistic approach not only benefits the environment and society but also aligns with the evolving values and preferences of consumers.

Professional interior designers can manage source by utilizing databases and platforms for professionals (such as mindful Materials , Ecovadis, and Sedex). Developing a company policy that supports sustainable design encourages designers to collaborate with suppliers committed to sustainable, ethical practices.

When seeking to ensure that materials and products are ethically sourced for design projects, there are several certifications and standards that can guide your choices. Here are some key examples:

1. **Forest Stewardship Council (FSC) Certification**
 - Ensures that products come from responsibly managed forests that provide environmental, social, and economic benefits.
2. **Cradle to Cradle Certified™**
 - Evaluates products across five categories: material health, material reuse, renewable energy, water stewardship, and social fairness.
3. **Global Organic Textile Standard (GOTS)**
 - Ensures organic status of textiles, from harvesting of raw materials through environmentally and socially responsible manufacturing.
4. **Fair Trade Certification**
 - Promotes fair prices, better working conditions, and environmental protection, especially in developing countries.
5. **OEKO-TEX® Standard 100**
 - Tests textiles for harmful substances, ensuring they are safe for human use.
6. **LEED (Leadership in Energy and Environmental Design) Certification**
 - Provides a framework for healthy, highly efficient, and cost-saving green buildings. It recognizes best-in-class building strategies and practices.
7. **Green Seal Certification**
 - Certifies products and services that meet rigorous, science-based environmental standards.
8. **SA8000 (Social Accountability International)**
 - A global standard for decent work conditions, ensuring fair treatment of workers and respect for their rights.
9. **BLUESIGN®**
 - Ensures textile products are safe for the environment, workers, and consumers by certifying the entire supply chain.
10. **BREEAM (Building Research Establishment Environmental Assessment Method)**

Interior designers play a crucial role in moving beyond material sustainability towards a more comprehensive approach to eco-friendly design. By considering energy efficiency, waste reduction, and ethical sourcing in their projects, designers can contribute to a more sustainable future while creating beautiful and functional spaces for their clients.

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Author Bio:



Joan Kaufman is an NCIDQ certified interior designer, Illinois Registered Interior Designer, and Florida Licensed Interior Designer. Joan is a Doctoral candidate in Educational Leadership and Policy studies. She received her MBA and MPH from Benedictine University in Lisle, Illinois, her BS in Interior Design, and her BFA in Art History from the University of Illinois at Urbana-Champaign and also studied Art and Design at the Loyola University Rome Center in Rome, Italy.

Joan is an avid supporter of healthy buildings leading to improved health outcomes. She is a project management and design principal at Interior Planning & Design, Inc. in Naperville, IL. A national leader in space planning, lighting, and sustainable design, Joan has devoted her career to combining design excellence and project management focused on health and wellness. Realizing people spend much of their time indoors drives her firm's focus on designing healthier environments. This approach has resulted in award-winning design at the forefront of design innovation.

Joan is passionate about the interior design profession and the promotion of the Interior Designer as an integral, professional member of the design team, affording interior designers the right to practice to the fullest extent of their capabilities, without restriction. In addition to her professional practice, Joan is an ASID Fellow, Illinois Medalist, and former ASID national board member. She is a former Illinois Chapter President and served as the chair of the Illinois State Board of Registered Interior Design Professionals from 2011-2018 and as chair from 2016-2018. Joan remains actively involved in the industry and currently serves on the National Advocacy by Design Council as an Advocacy Support Team leader and member of the Midwest regional Interior Design Advocacy consortium. Dedicated to developing the next generation of interior designers, Joan serves as program director, mentoring and teaching students, and also serves as a CIDA ambassador.

With over 20 years of experience in project design, administration, and management, Joan is most proud of the long-term relationships developed with colleagues, clients, and industry partners. Joan received the ASID Illinois Designer of Distinction Award in 2016. Joan has been named as a National Design Influencer in 2020, 2021 2022, and 2024. Interior Planning & Design Inc. is the recipient of the ASID-IL Design Excellence award for 2015, 2018, 2019, 2020, and 2021 in the categories of commercial design, universal design, and kitchen/bath design. The blend of work and diverse practice demonstrates a command of high standards for quality design that transcends time.

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