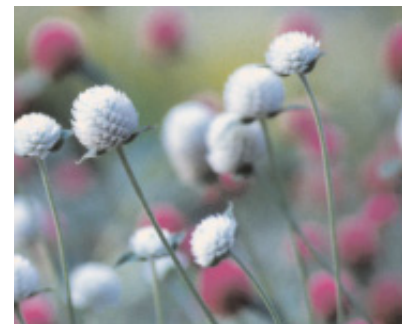
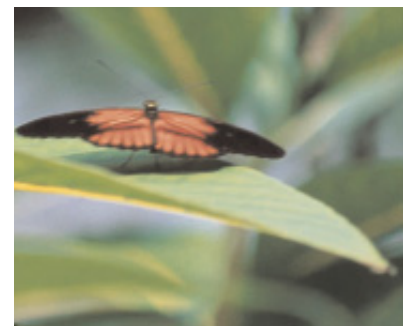


IT'S NOT EASY Being Green

by Michael Fazio



It's been almost 35 years since the first Earth Day, and the climate for creating sustainable buildings and interior spaces has changed a lot since then. Even as recently as 20 years ago, it was difficult to get people interested in green buildings and virtually impossible to find readily available or affordable materials. There was no consistent way to evaluate the success of a project, let alone the impact of a particular material or system on the environment. The US Green Building Council (which brought us the LEED™ Green Building Rating System) didn't even exist until 1993, and the pilot version of LEED wasn't developed until 1997.

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His recent projects include the office interiors for Reebok's World Headquarters in Canton, Mass. and Callaway Golf Ball's Headquarters and Development Center in San Diego.

Michael lives in Glenview, Ill., with his wife and two children. He enjoys spending time with his family, playing golf and wishing he played guitar well enough to be a rock star.

It's not easy Being Green, continued

Today, however, there is no shortage of information, resources, training or products focused on sustainable design. Over 100 projects in the US alone have been LEED certified since 2002. While this is certainly impressive, it still represents only a small percentage of the thousands of projects completed each year.

Caring.....enough

There are three major hurdles to widespread implementation of

sustainable design: awareness, access and assessment.

Awareness, of course, is more than simply caring about the issue. It's caring enough to devote the most precious non-renewable resource of all to solving the problem: time. This is probably the hurdle where the most progress has been made, as many architects, designers, building owners, corporations and product manufacturers will attest.

Many A&D firms now include a link on their website homepage, detailing their commitment to green design and expertise in this area. The pioneering work of firms like HOK, McDonough & Partners and SmithGroup, Inc. has done much to raise awareness and show other organizations that "green architecture" is not only possible, but it's also good business.

But awareness is only the first hurdle. Another problem is access. Access is about assembling the right resources to turn a vision into reality. There were plenty of people who cared about green design in the '70s and '80s, but there just weren't enough proven approaches, products and trained practitioners to make sustainable architecture commercially viable on a large scale.

A lot of progress has been made in recent years, with an increase in training for design professionals and availability of sustainable materials and systems. There are over 9,000 individuals in the US and Canada alone who have earned LEED accreditation, and the number is growing fast. In addition, many manufacturers of building materials and furnishings have taken the lead in developing environmentally friendly products and are actively involved in educational programs for design professionals.



Steelcase Wood Plant, Grand Rapids, Michigan, the world's first LEED-certified manufacturing facility.

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It's not easy Being Green, continued

It takes 2 - 3 times more energy to make aluminum than steel. So the higher recycled content comes at a high environmental cost.

It's hard work

With all of the commitment and expertise available today, why isn't sustainable design the norm? Because the real issue is one of assessment. The fact is that even with all of the information that's available, it's still hard to tell which products are really best for the environment.

For example, if a carpet is made of 100% percent recycled products but takes five times the energy to produce and is trucked to your project from a plant that is 2,500 miles away, is it green?

Another example: Steel has an average of 30% recycled content, while aluminum is more in the 70 - 80% range. So manufacturers using aluminum in their products can rightly claim that they have higher recycled content than a steel-based product. But it takes 2 - 3 times more energy to make aluminum than steel. So the higher recycled content comes at a high environmental cost.



The Steelcase Think™ chair is 99% recyclable by weight and disassembly takes just five minutes with ordinary tools.



While it's helpful to see information on the percent of recycled content, a better way is to look at the life cycle of a product—its impact on the environment from raw materials to the end of its life.

Getting smarter

Life Cycle Analysis (or LCA) isn't new. In fact, a quick web search will return over 2 million results! LCA looks at all aspects of a product or systems environmental impact, starting with materials through production, transport, use and end of life.

An example is Steelcase's new Think™ chair, where the environmental impact was considered at every stage of the product's life.

LCA looks at a host of issues, including...

- Reducing the use of hazardous materials
- Reducing waste and energy consumption during manufacturing
- Limiting shipping distances
- Providing minimal and recyclable packaging
- Maintaining user health during use
- Recycling the product following use.

This kind of analysis helps specifiers and purchasers feel confident about their decisions, and it also puts a stake in the ground and fosters even better results for the next generation of products.

It's not easy Being Green, continued

Compared to what?

But the question of how to compare products still remains. Even with LCA, it's still not easy to compare one product versus another. For example, imagine that one wallcovering product does really well with respect to its material content and production, but is less friendly to the environment when it comes to its transport and use. How does this compare to a product where the opposite is true?

Put simply, "Which one is greener?"

The answer is it's very difficult to tell without spending scores of hours on research for each material or option on the entire project. An easier way is to begin to develop a database of green products based on a simplified view of its life cycle impact. A simple scoring system could be used—for example, award 5 points for positive impact on the environment, zero points for a neutral impact and minus 5 points for a negative impact. Of course, this is an extremely simplistic way of looking at things and it will take some time to build your database, but every step in the right direction is ultimately worthwhile.

Flawed though they may be, the methods for evaluating products today are a vast improvement over even 10 years ago when designers had very few available resources. Even the LEED system was not meant to be followed as a rote recipe, but rather as a guide to the issues that should be investigated and solved in green design.

Heading in the same direction

On the product and materials side, designers should work with manufacturers to understand the life cycle implications for the major finishes and furnishings on the project. Involving manufacturers in the process early can help you to develop the overall green story for your project. It can also help manufacturers see where additional product development or resources may be applied.

In the end, creating sustainable buildings and interior spaces shouldn't be about paperwork. Instead, it's about making responsible choices based on the best information available. Even in 2004, Kermit the Frog's refrain holds true: "It's not easy being green." But it *is* getting easier.

