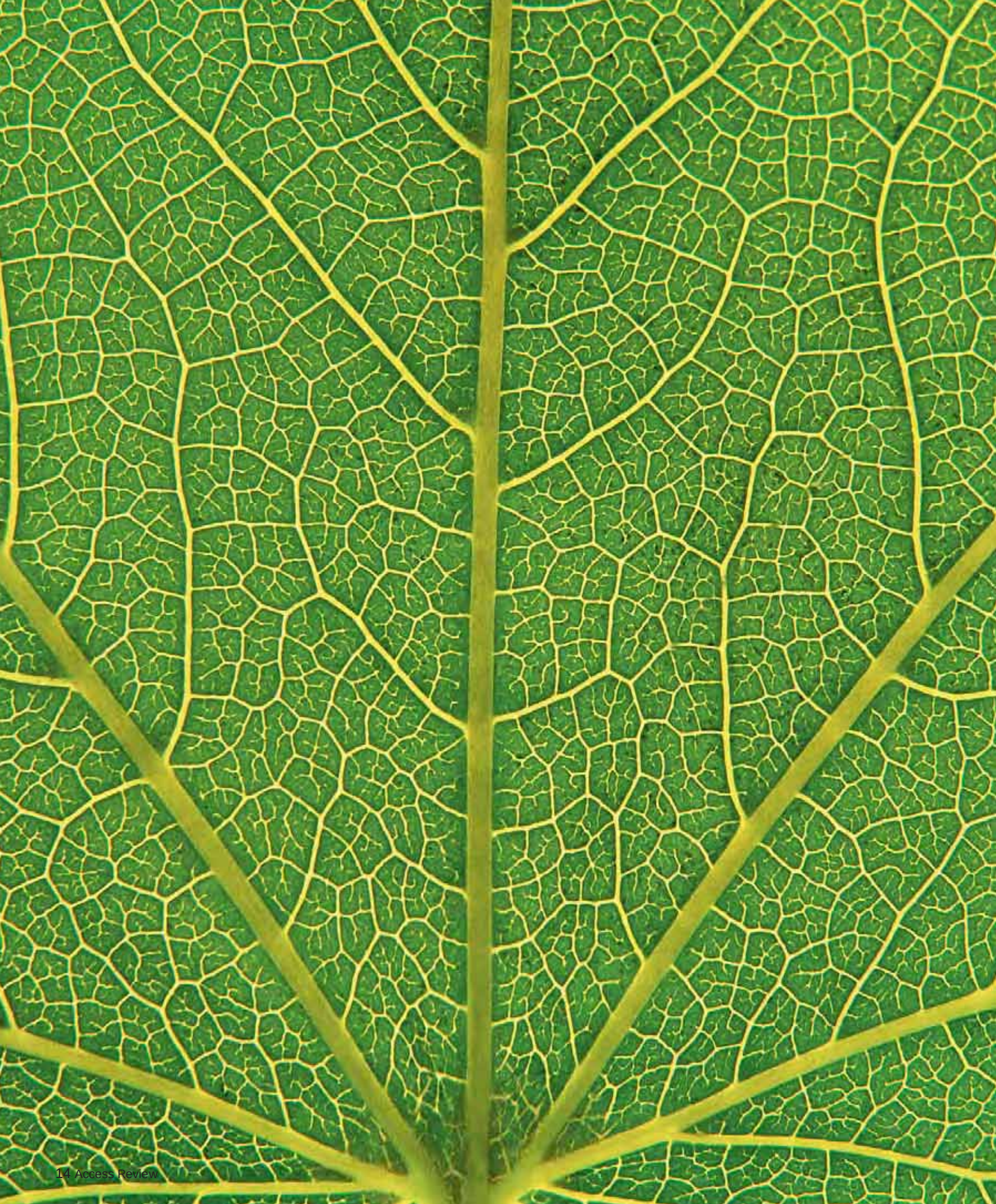

Building a truly sustainable world will demand fixing every link in every supply chain. Access is giving companies like Wal-Mart, Tesco and Interface the toolkit.

SUSTAINABLE ACCESS:

Getting It Into Your System

by Chris Turner | Photography by Jason Fulford

EVERY CHOICE WE MAKE — how and where we live and work, and especially what we buy — is the end result of an entire supply chain. Those choices carry with them a chain of consequences as well. When we talk about Access throughout this issue, we are talking about a catalyst that is continually broadening the possibilities, connections and choices available to us. Our decisions create positive feedback; supply chains snap to attention, eager to give us what we want following criteria that have been honed to perfection since the Industrial Revolution: faster, cheaper, broader, better. The ever-expanding cycle of Access has steadily increased our capabilities to do exactly that. But now the criteria are changing — sustainability and responsibility have begun to trump the ultimately destructive rock-bottom price — and the question today is whether Access can nurture these goals the same way it opens up markets or connects the next low-cost manufacturing hub. One thing we do know is that we must address the entire chain, because when we choose to be sustainable, we want it to be sustainable all the way to the end.

Until recently, pacesetting companies have sought to maximize the efficiency of their supply chains along two primary axes: cost and service. They've waged war on wasted time and money, shrank inventory and sped up delivery — all of it enabled by and thereby enabling greater Access. The increasing urgency of the 21st century's environmental crisis, however, compels companies to account for the third axis of sustainability. Bringing supply chains in line with the new baseline of sustainability while maintaining or increasing Access is indeed one of the most important challenges facing the business world today.

SYSTEMS, NOT TACTICS

Pay a visit to the Research and Development department of Interface Americas — a multinational flooring manufacturer and a global leader in corporate sustainability — and you'll find that sustainability speaks to both the little things a company does and the monumental ones all at once.

"If you're talking about sustainability," Interface's John Bradford is telling me, "you'll like this." Bradford has nearly reached the front door of the company's R&D facility, a quiet, low-slung complex in a leafy suburban industrial park on the outskirts of LaGrange, Ga. He stops short and waves his hand

toward the handful of parking spaces closest to the entrance. Each one is marked with a small sign indicating that it is reserved for hybrid drivers and carpoolers. He fixes me with a broad, just-joshin' Alabama grin, and we continue inside.

Bradford's only half-kidding, of course. It isn't such a bad idea, after all, to save the best parking spaces for those employees who've chosen to minimize the greenhouse gas emissions created by their daily commute. But it really isn't much, either. It's the kind of token gesture that might pass muster if it had been issued from the under-equipped sustainability office of any old business-as-usual company. But Bradford is the vice president of R&D for Interface — one of the world's most ambitiously green companies, whose founder, Ray Anderson, famously decided, midway through a close reading of Paul Hawken's book *The Ecology of Commerce*, to set the company on a course for 100-percent sustainability. Bradford knows window-dressing when he sees it, and he's pointing it out as if to say, *Yeah, like* that's *all there is to this sustainability thing*.

Bradford has extensive firsthand knowledge of how much deeper sustainability penetrates a business that fully embraces its core principles. In the years since Anderson's mid-1990s epiphany, Bradford and his engineering team have waged a relentless companywide war on waste, reducing Interface's landfill-bound garbage by two-thirds as of 2004 (en route to the unwavering goal of zero waste by 2020). They've fundamentally reconfigured the company's manufacturing process, and they've pioneered a production process that can use nearly any kind of junked plastic on Earth as the raw material for carpet backing, thus allowing for a positive recycling loop.

NATURE AS A MODEL

The lessons learned on Interface's shop floor translate readily to any business' supply chain. By using a "systems" or "whole-system engineering" approach to reducing waste over the entirety of its production line, the company experienced firsthand a phenomenon predicted in the sustainable-business primer *Natural Capitalism* by Amory Lovins, L. Hunter Lovins and Paul Hawken (who consulted with Interface on its sustainability plan). They call it "tunneling through the cost barrier" — a kind of counterpoint to the principle of diminishing returns, wherein the cost of *large* gains in efficiency turns out to be less than the cost of smaller, incremental ones. Opportunities abound to reap enormous efficiency gains — and to save big bucks — at every step of the supply chain, and the most dramatic gains will accrue to companies that retool their supply chains systemically, top to bottom and end to end. Think of it as a sort of inverse of the law of diminishing returns: the more dogged and thorough the commitment to sustainable practices, the greater the returns.

Just ask David Oakey, an independent designer who has been designing carpets for Interface since the first days of the company's switch to sustainable principles. A self-professed "nonbeliever" at the outset, Oakey has seen his own thinking on sustainability gallop far ahead of his primary corporate client. "There is only one sustainable model you can follow," Oakey says today, "and that is the natural model." Making a close study of nature in order to attempt to duplicate its perfect efficiencies — known as "biomimicry" — has become Oakey's guiding obsession. His carpet designs for Interface often imitate repetitive patterns in nature, creating individual carpet tiles that are easy to replace without disrupting the unity of the entire carpeted surface. (This enables carpet tiles in high-traffic areas to be replaced without sacrificing the perfectly serviceable surrounding tiles.) Interface's waste-reduction efforts have been impressive, Oakey argues, but as long as its core product is made from petrochemical thread in factories powered by fossil fuels, the goal of total sustainability will remain beyond its reach.

Those limits notwithstanding, Interface's pioneering pursuit of sustainability as a companywide, top-to-bottom goal puts it well in front of a fast-expanding pack of companies beginning to invest piecemeal in greener business practices. Oakey likens this trend to the obsession with "quality management" in the 1970s and 1980s, as businesses across America struggled to keep pace with a resurgent Japanese industrial powerhouse. The looming threat of climate change, laden as it is with the ominous promise of an uncertain and radically reconfigured future, has merged with the skyrocketing fuel prices of a new breed of energy crisis to create an epidemic of corporate anxiety — masquerading at present as a flirtation with sustainable business. "I think the fear we see at the corporate level is that they'll fall behind," says Oakey.

FROM FRINGE TO MAINSTREAM

Small wonder, then, that sustainability is high on the agenda of multinational giants like General Electric, BP and — perhaps most surprisingly — Wal-Mart. Met with widespread skepticism when it was first unveiled in the fall of 2005, Wal-Mart's green plan soon surprised its critics with its thoroughness and care — thanks in no small part to its efficiency overhaul, guided by the Rocky Mountain

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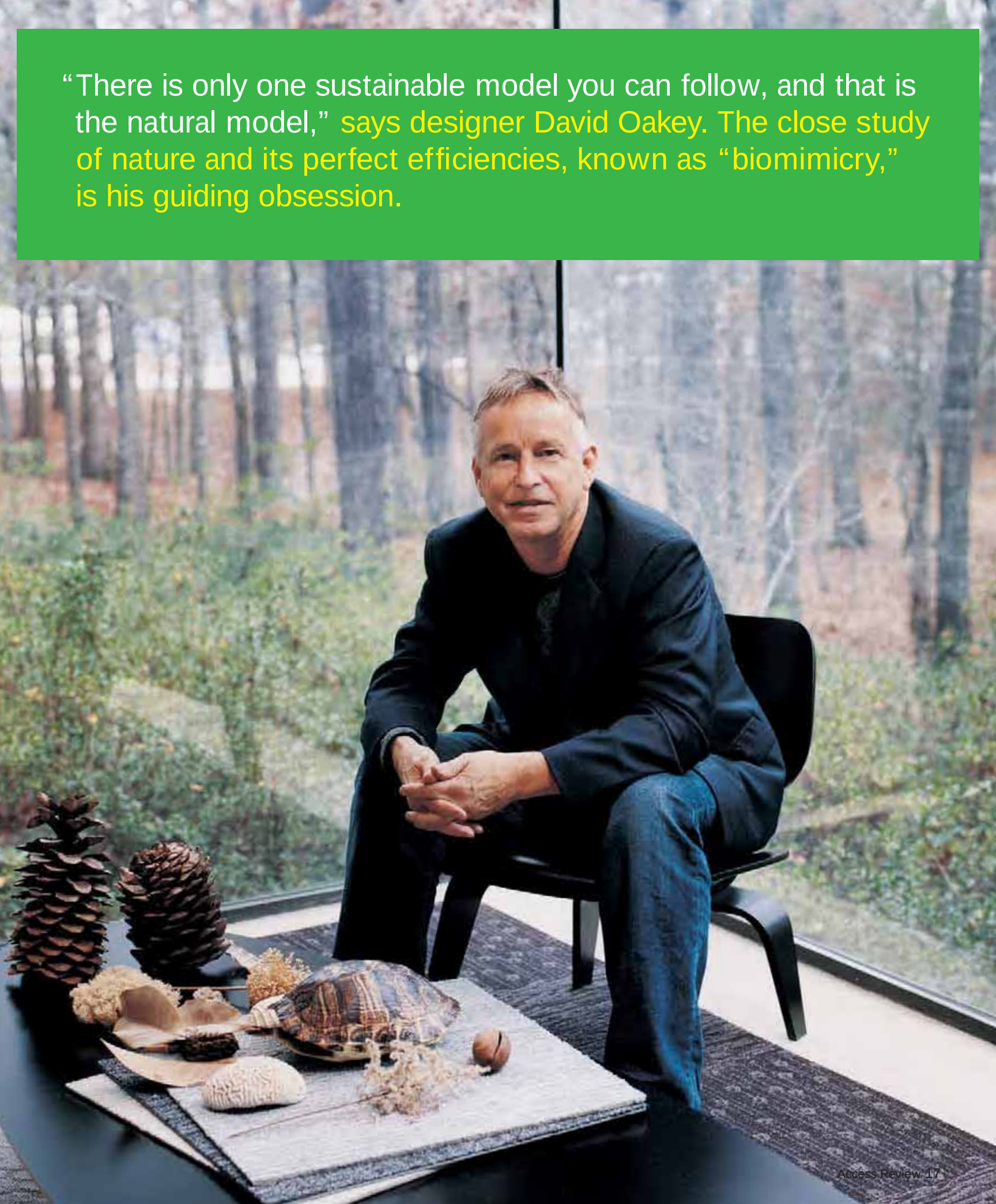

Institute (RMI), a leading-edge sustainability and energy efficiency "think-and-do" tank based in Snowmass, Colo., and founded by *Natural Capitalism* co-authors Amory Lovins and L. Hunter Lovins.

The RMI approach to sustainability manifests itself primarily as a fanatical obsession with efficiency, which has been Amory Lovins' relentless focus since the institute's birth in 1982. Lovins was on the "Dream Team" assembled by Interface's Ray Anderson to begin its switch to sustainability, which in turn marked the beginning of RMI's rapid shift from the radical eco-fringe to the center of the corporate mainstream.

In their work with Wal-Mart, RMI's consultants began with their standard first step: a thorough audit of energy use from one end of the company's supply chain to the other, resulting in a demand-side overhaul of the company's practices. No detail is too fine to escape RMI's efficiency sleuths, who seem particularly gifted at ferreting out any seemingly incidental business practice that turns out to be unexpectedly wasteful. RMI helped Wal-Mart with such profitable initiatives as switching the lights in the freezer cases at more than 500 of the chain's stores from hot incandescents to much cooler LED bulbs (at a projected annual savings of $2.6 million) and the installation of small diesel backup generators in the company's vast fleet of trucks, thus to encourage Wal-Mart's drivers to stop idling their engines overnight just to run heating, air conditioning and communications equipment (at a savings of $25 million per year). Overall, Wal-Mart has sunk $500 million per year into its sustainability push, and it expects to see annual savings of more than $300 million from improvements in the fuel efficiency of its trucking fleet alone by 2015. These efforts prove it's possible to boost Access and sustainability at the same time by wringing costs and inefficiencies out of the current system.

A wide swath of retailers worldwide have initiated similar (and similarly comprehensive) sustainability programs — the concepts are actually more familiar to your average European executive than they are on the U.S. side of the pond. The British supermarket giant Tesco, for example, has committed about $50 million to reducing its environmental footprint.

Customers still expect access to what they want and need — and they're going to expect it to be provided responsibly. As RMI's Lionel Bony, a senior consultant with MOVE — RMI's Transportation Innovation Group — asserts, no business of any size can ignore the sort of measures Wal-Mart and

"You can fundamentally change what's possible in terms of how you execute along a supply chain," says Tom Schmitt, president and CEO of FedEx Global Supply Chain Services. "You can travel 99 percent of the distance electronically and only 1 percent physically. That's happening today."

Tesco are taking if they hope to remain competitive in a future business world that will most likely be characterized by sky-high fuel prices and emissions limits and taxes. "You can either do it now and take some time to do it incrementally," he says, "or you can do it when it's right in your face."

ACCESS AS A TOOL

In the midst of such rabid pursuit of sustainability, businesses need not sacrifice Access; indeed Access can be a flexible tool in the pursuit of a sustainable supply chain. Nau, a Portland, Oregon-based performance and sportswear apparel company, offers a 10 percent discount to in-store customers if they choose to have their purchases shipped directly to their homes for free. The model maintains customers' access to the sizes and styles of their choice, reduces the legs of inventory movement and subsequent resource use, and enables the company to reduce stores' footprint and operating costs. (See interview with Nau's president and CEO, Chris Van Dyke, on page 13.) Companies that rely on third-party shippers such as FedEx for significant stretches of their supply chain might also consider relocating their operations closer to their shippers' hubs.

And Access is already accelerating the pursuit of sustainability in many less dramatic but highly innovative ways. For example, where a company might once have shipped heavy crates of presentation binders to a faraway conference, FedEx Kinko's stores worldwide can now transfer such documents nearly the entire distance electronically before printing and collating them within a short distance from where they're needed. This represents potentially enormous savings in fuel consumption.

"You can fundamentally change what's possible in terms of how you execute along a supply chain," says Tom Schmitt, president and CEO of FedEx Global Supply Chain Services. "Today, you can send any documents to the FedEx Kinko's closest to your shipment's destination. You do not need to 'go' to a Kinko's to initiate. You can do this electronically from whatever device is most convenient to you. Anywhere, anytime. You can travel 99 percent of the distance electronically and only 1 percent physically. That's happening today."

In this and countless other ways, large and small, all along the supply chain, the choice that businesses face is the same — either to lead or follow. The leaders of tomorrow will be sustainable enterprises throughout their system, not only on a tactical level. The unsustainable status quo will, in any case, soon cease to be an option. ■