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>> HOW SMART PEOPLE WORK

William McDonough and his "A Walk in the Garden" carpet (right): a breakthrough design for sustainable manufacturing.

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THAT SHAPED
THE YEAR IN DESIGN—
AND THE PEOPLE
WHO LAUNCHED
THEM



WILLIAM McDONOUGH If architect William McDonough ever loses sight of his ambition to redesign the world, he need look no further than the carpet under his feet. There, covering the floor of his sunbathed corner office, is the future: one of the first

products of what McDonough calls the "next Industrial Revolution." In 5 or 10 years, when this new, sand-colored carpet is all worn out, its raw materials (white nylon pellets and polymers) will be reclaimed and recycled again—and again—in a near-infinite loop. In his relentless drive to bring sense and sustainability to manufacturing processes, McDonough seeks nothing less than to entirely eliminate the concept of waste—rethinking everything from garbage dumps to recycling centers.

If that sounds ridiculously utopian, McDonough—or at least, his carpet—is firmly grounded in the real world. Dubbed (appropriately) "A Walk in the Garden," the carpet was designed by McDonough and manufactured by Shaw Industries Inc., the world's largest carpet maker, which happens to be owned by Warren Buffett's Berkshire Hathaway Inc. Traditional recyclable carpet gets turned into other products that eventually end up in a landfill; Shaw's rug uses materials that are fully reused as new carpet fiber. And that saves money: Launched this past November, Shaw's new line has already cut manufacturing costs by 10%.

Shaw's carpet illustrates a breakthrough design concept called cradle-to-cradle, which McDonough and German chemist Michael Braungart outlined two years ago in *Cradle to Cradle: Remaking the Way We Make Things* (North Point Press). The book amounts to a hardheaded sales pitch for improving productivity by designing for reuse at every step of the manufacturing process. The goal is to create products that are comprised of biodegradable raw materials ("biological nutrients," in McDonough-

speak) that will naturally decompose once their life cycle has expired, or of materials ("technical nutrients") that can be recaptured and reused for generations. Good for business? Good for the environment? According to McDonough, 53, it's just good design. "I see the conflict between industry and the environment as a design problem," he says. "A very big design problem."

As with any successful innovator, McDonough's true insight was that the conventional wisdom might not be so smart after all. In this case, it was the longstanding assumption that profitability meant disposability and waste. He dared to start fresh with the cradle-to-cradle concept—one of those revolutionary ideas that gain almost instant traction.

"Cradle-to-cradle is something that a corporation can understand," says Gary Miller, executive vice president at Herman Miller Inc. Last June, the company introduced the Mirra chair, its first cradle-to-cradle product, in which the materials can be disassembled and 96% of them reused and recycled. In China, the government's housing industry association has asked McDonough to develop a cradle-to-cradle protocol as a model for cities across the country. Its goal is to deliver housing for 400 million people in 10 years, the equivalent of building all the housing in America in six years, he says.

McDonough's ambitious outlook is a refreshing antidote to the gloomy "end of nature" rhetoric that characterizes environmental debates. "Design is inherently optimistic," he says. "That is its power."

—Christine Canabou