

fiber optimistic



YES, IT'S STILL A GREAT IDEA. BUT EVERYTHING ELSE YOU KNOW ABOUT RECYCLED PAPER IS WRONG.

By Colin Berry

The next time someone asks you for a good two-word joke from the early 1990s, try this one: paperless office. Like phone-booth stuffing or duck-and-cover drills, there's something quaint and naively optimistic about the concept now, 15 years later, when offices are no more in danger of becoming paperless than they are of becoming opium dens. Nor are designers at any risk of losing their mainstays of business creating catalogs, brochures, reports, mailers, or reams of corporate letterhead.

Yet another concept from bygone days, recycled paper, has survived—and even begun to thrive. Aided by new technologies and tectonic shifts in public perception about environmental and sustainability issues, recycled, once the homely stepsister of the pristine virgin, has matured from a maligned office supply into a sophisticated product that has everyone in the paper chain—forest managers, pulp mills, paper companies, printers, designers, and their clients—thinking about it. The bottom line is: What you thought you knew about recycled paper has been supplanted by a model in which product excellence, true costs, and recognition of design's global responsibilities all share equal footing.

“High-quality papers with high recycled content are available for almost every use,” proclaims Brian Dougherty, a partner at Celery Design Collaborative in Berkeley, California. Dougherty is one of a number of designers seeing and selling recycled as something respectable, even preferable, to virgin paper. “For day-to-day offset printing,” he says, “alternatives to virgin are easy to find.”

Before patting anyone on the back, however, it's important to acknowledge the world's—and the U.S.'s—gluttony for paper. According to the Worldwatch Institute, the average American consumes some 660 pounds of paper per year: A typical U.S. worker uses about 12,000 sheets annually, while an average midsized university goes through more than a million sheets of bond and let-



terhead every month. Americans are only five percent of the world's population, yet consume (and produce) one-third of its paper. About 50 percent of this is recycled, much of it sent to China for packaging. (The U.S. is the largest supplier of recovered fiber: some 46 million metric tons in 2003.) More than 90 percent of America's printing and writing paper is still made with virgin fiber. By 2010, global paper demand will rise by 32 percent; consumption continues apace.

Used for years in copy machines by green-leaning individuals with the best of intentions, recycled long suffered a reputation as a high-cost, low-quality alternative sheet. On the latter charge, however, in hundreds of testimonials in a 2003 study by Conservatree and the Recycled Paper Coalition, recycled was found not guilty.

"In the past 15 years, paper manufacturers have gotten much better at making recycled paper products for any application," says Darby Hoover, the RPC's former executive director, and now a resource specialist for the Natural Resources Defense Council. "Today's

post-consumer recycled paper products are equal to or better than comparable virgin paper products in every way."

Jeff Mendelsohn, president of San Francisco-based New Leaf Paper, which makes and sells more than 20 different recycled products, agrees, adding that the only challenges are at the super-premium and super-commodity ends of the spectrum. "A super-bright white or ultra-premium coated is a finely tuned product," Mendelsohn says, "and you can't fine-tune recycled. But basic coated papers? Opaques? Text and cover? Recycled does extremely well."

As for the other charge—recycled being pricier—there was once some truth. Like any emerging industry, the recycled paper business took a while to improve its standards and establish an infrastructure: Collection systems, sorting technologies, de-inking processes, and new pulping techniques had to be refined. Economies of scale kept prices high. Now, however, cost differences are negligible.

"The term 'recycled' covers a lot," Dougherty says. "It includes

expensive specialty papers, like banana paper or coffee paper or things done in small batches that cost \$40 a ream. But on the other end, companies like New Leaf, Neenah, and Living Tree are creating cost-competitive lines of comparable papers."

With quality up and prices down, designers are reassessing their relationship to recycled: how they feel about it, its true costs, what using it says about them and their clients. In *The Myth of the Paperless Office*, authors Abigail Sellen and Richard Harper suggest paper's physical properties—its thinness, lightness, porosity, opacity, flexibility—best allow human actions of grasping, carrying, folding, and writing. Designers understand this. They appreciate how, in addition to what's printed upon it, paper itself communicates a message. And, increasingly, recycled carries the message designers want to convey.

"Using recycled acknowledges our responsibility to the world and the community in which we work," suggests Janine James, founder of The Moderns, a New York City multidisciplinary design firm. "We rarely use anything else. It reflects a core value of our company."

Before paper gets recycled, it begins life as a tree, ideally one grown in well-managed woods. "The forest is the start and the heart of everything," says Derek Smith, a Washington, D.C.-based consultant with 35 years' experience in environmental issues relating to the paper, printing, and graphic design industries. Without properly run forests, Smith says, the paper industry can't continue to harvest trees for production. Smith consults for the nonprofit Forest Stewardship Council, which certifies that forestry operations and wood-product companies are following responsible practices. Backed by the NRDC, World Wildlife Fund, the Nature Conservancy, and retailers including Home Depot and IKEA, the FSC logo is the best indication that wood comes from a responsibly managed source.

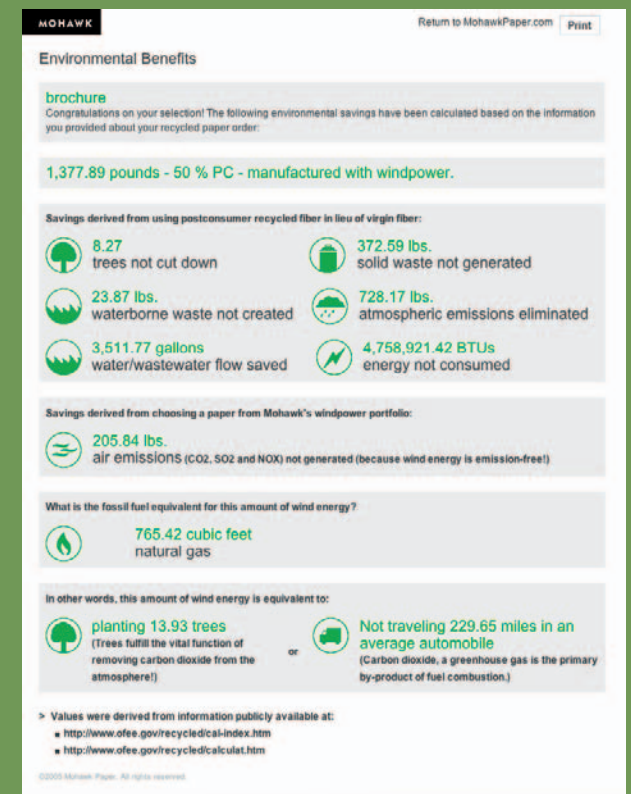
"Post-consumer, printed pre-consumer, and sustainably harvested virgin fiber," New Leaf's Jeff Mendelsohn says, ticking his fingers. "Those are best, in order. In a perfect world, you'd probably have 60 percent recycled and 40 percent virgin from sustainable sources."

Some of the biggest advances in ethical paper manufacturing have come from Canadian companies. The Montreal-based Domtar, the third-largest freesheet maker in North America, was among the first to create recycled paper lines; it recently partnered with environmental organizations to increase protection for Canada's boreal forest. "Domtar has long been committed to the environment and

Right: Screen from Mohawk Paper's online "environmental calculator" (mohawkpaper.com). Design firm: Pentagram; designers: Lisa Strausfeld, Jack Zerby, Tamara Maletic, Josh Nimoy; programmers: Jack Zerby, Josh Nimoy, Manish Nag Spire.

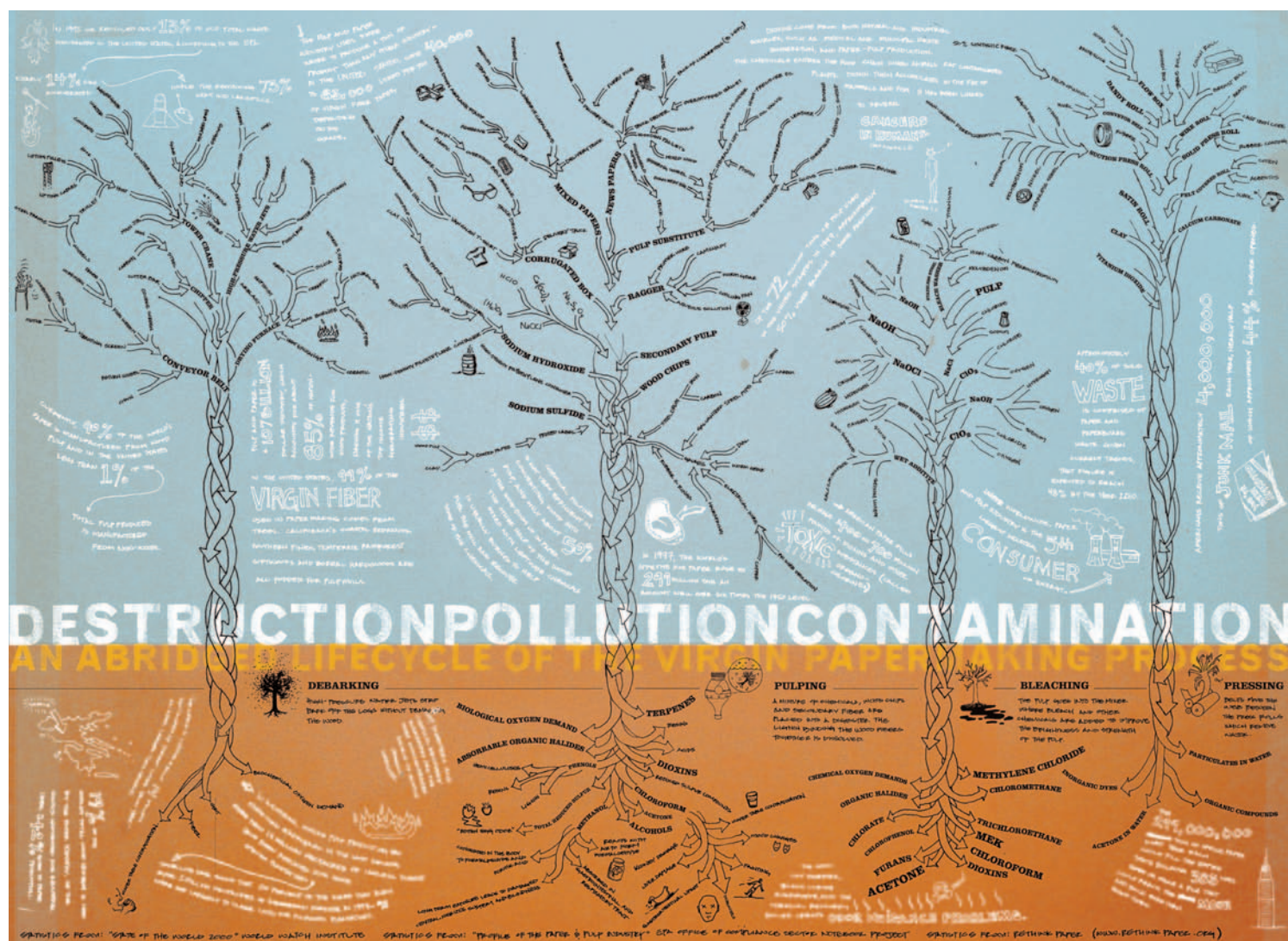
Facing page (clockwise from top): Swatchbook for Esleeck Cotton 100. Design firm: DiBacco & Company, Avon, CT; art director: Lou DiBacco; designer: Rich Denver; photographer: Rick Whittey; client: Esleeck Papers. Swatchbook for Neenah Environment. Design firm: Design Guys, Minneapolis, MN; creative director: Steve Sikora; designer: Kelly Munson; photographer: Jim Brandenburg; client: Kimberly-Clark Worldwide. Swatchbook for Fox River Paper's Evergreen. Design firm: Coalesce Marketing, Appleton, WI; illustrator: Desiree Hajny. Booklet for J&J/Invision carpets, printed on Fox River Paper's EverGreen paper. Agency: FitzMartin, Birmingham, AL. Booklet about Mohawk Paper's environmental stewardship, printed on Mohawk Options. Design firm: Aurora Design, Niskayuna, NY; designer: Jennifer Wilkerson; photographer: Roy Lowe.

IT ALL ADDS UP



Whether processing new trees into virgin fiber or recycled fiber into its new life, the manufacturing of paper takes an enormous ecological toll. The single largest air polluter and the third-largest consumer of fossil fuels, the paper industry ranks third behind chemical and metals manufacturers in total releases of toxics, comprising hundreds of millions of pounds annually. For this reason, progressive papermakers are working to protect the land, or at least lighten their impact upon it. Some mills make paper out of alternative fibers or recycle de-inking sludge into fertilizer. Others are working within the existing system to create mindful alternatives. A leader in alternative energy sources, Mohawk Paper, saved 2.5 megawatts of electricity within the past year—enough to produce 1,000 tractor-trailer loads of paper—by switching to wind power for 23 percent of total manufacturing at its three mills. "Our original contract was for 20 percent of the output of one mill, but response has been so great, we've increased it," reports Laura Shore, a marketing VP at Mohawk. In October, the total allotment will rise to 34 percent.

Mohawk, Neenah, and others include an "environmental calculator" on their Web sites, where consumers can figure how much they'll save (environmentally) by choosing recycled. New Leaf creates an "eco-audit" for materials printed on its paper, the most famous of which appeared in 2003, after J.K. Rowling asked that *Harry Potter and the Order of the Phoenix* be printed on recycled paper. Scholastic, her U.S. publisher, ignored her request. Her Canadian publisher, Raincoast Books, used New Leaf EcoBook 100, made with 100 percent post-consumer waste. With an initial press run of 935,000 copies, the Raincoast edition saved 30,000 trees, 12 million gallons of water, a million pounds of solid waste, and 2.7 million pounds of greenhouse gases by using recycled.—C.B.



the communities that our operations affect,” says Scott Townsend, marketing director for the company’s commercial print and consumer channels. EarthChoice—Domtar’s new, FSC-certified line of socially and environmentally responsible papers, endorsed by the Rainforest Alliance—“is just the next logical progression of our vision.”

Other companies are seeing a greenward shift as a smart marketing tool, and corporate acceptance of responsible papermaking is a sign that what designers are feeling in their hearts, manufacturers are noticing in their ledgers. The purchasing public is coming to understand what environmentalists have advocated for years: We must make sustainable choices. And clients, if they aren’t demanding it themselves, are embracing the change.

In the design community, discussions around the topic represent a larger argument: that designers are more than mere creators of attractive artifacts; that they have a responsibility for the stewardship of the earth and its finite resources. Designers can satisfy their environmental consciences by stocking, spec-ing, and recommending post-consumer recycled paper, and by buying the highest post-consumer content available. They can choose from a huge selection of non-tree fibers, including denim, cotton, hemp, flax, bamboo, and kenaf, a hibiscus relative that generates up to five times the yield of an acre of pine trees. They can inform themselves—Celery Design publishes an annually updated “Ecological Guide to Paper,” available online, that gathers links to all the best companies and products into one Web site. And they can coordinate with printers before implementing a design in order to minimize waste: More and more, efficient uses for paper are built into the nascent stages of a proof.

On the business side, Neenah, Mohawk, and other papermakers sponsor annual competitions with an environmental bent. Richard Grefé, the AIGA’s executive director, says designers must discover more respectful ways to use limited resources. “Design is at the very center of a challenge recognized by both business and society,” he says. “The profession’s success will depend on how designers internalize this challenge during their creative process.”

Most of all, designers can help dismantle common myths: that recycled paper is substandard, expensive, scarce, or omnipresent. It is none of these. It is, however, a product that saves trees, energy, and water; produces less pollution; uses more benign chemicals; and requires less bleaching than virgin paper. It is, simply, the future of responsible design. And unlike so many worldly things—from majestic forests to paperless offices—it’s one we can be certain will be here to stay.



Opposite page, upper left: Promotion for Elephant Pharmacy. Box is made of recycled chipboard; interiors are printed on Neenah Environment. Design firm: Celery Design Collaborative, Berkeley, CA; art director: Brian Dougherty; designers: Brian Dougherty, Patrick Castro; illustrator: Patricia Katsura. **Upper right:** Brochure for the San Francisco Education Fund. Printed on Mohawk Options PC 100. Design firm: Chen Design Associates, San Francisco; art director: Joshua Chen; designers: Jennifer Tolo Pierce, Joshua Chen; photographer: Kyle Pierce. **Bottom:** Celery Design’s self-initiated “Ecological Guide to Paper” poster, based on a life-cycle analysis of the papermaking process and created in collaboration with AIGA/San Francisco. Printed on Fox River Confetti. Design firm: Celery Design Collaborative; art director: Brian Dougherty; designer/illustrator: Patrick Castro. **This page, above:** Brochure for Joe Goode Performance Group, printed on Mohawk Options PC 100. Design firm: Chen Design Associates; art directors: Joshua Chen, Kathryn Hoffman; designers: Jennifer Tolo Pierce, Max Spector; photographer: R. J. Muna.

Online Resources for Recycled Paper

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| AIGA’s Print Design and Environmental Responsibility [PDF] | aiga.org/resources/content/6/8/1/documents/SustainPrint.7_AIGAx.pdf |
| Celery Design’s “Ecological Guide to Paper” | celerydesign.com/paper/matrix.html |
| Conservatree | conservatree.com |
| Conservatree/Recycled Paper Coalition “Paper Listening Study” | paperlisteningstudy.org |
| ForestEthics | forestethics.org |
| Forest Stewardship Council | fsc.org |
| Natural Resources Defense Council | nrdc.org |
| The Myth of the Paperless Office (MIT Press) | mitpress.mit.edu/catalog/item/default.asp?tid=8501&ttype=2 |
| Worldwatch Institute | worldwatch.org |