THE JOURNAL OF BUSINESS & DESIGN

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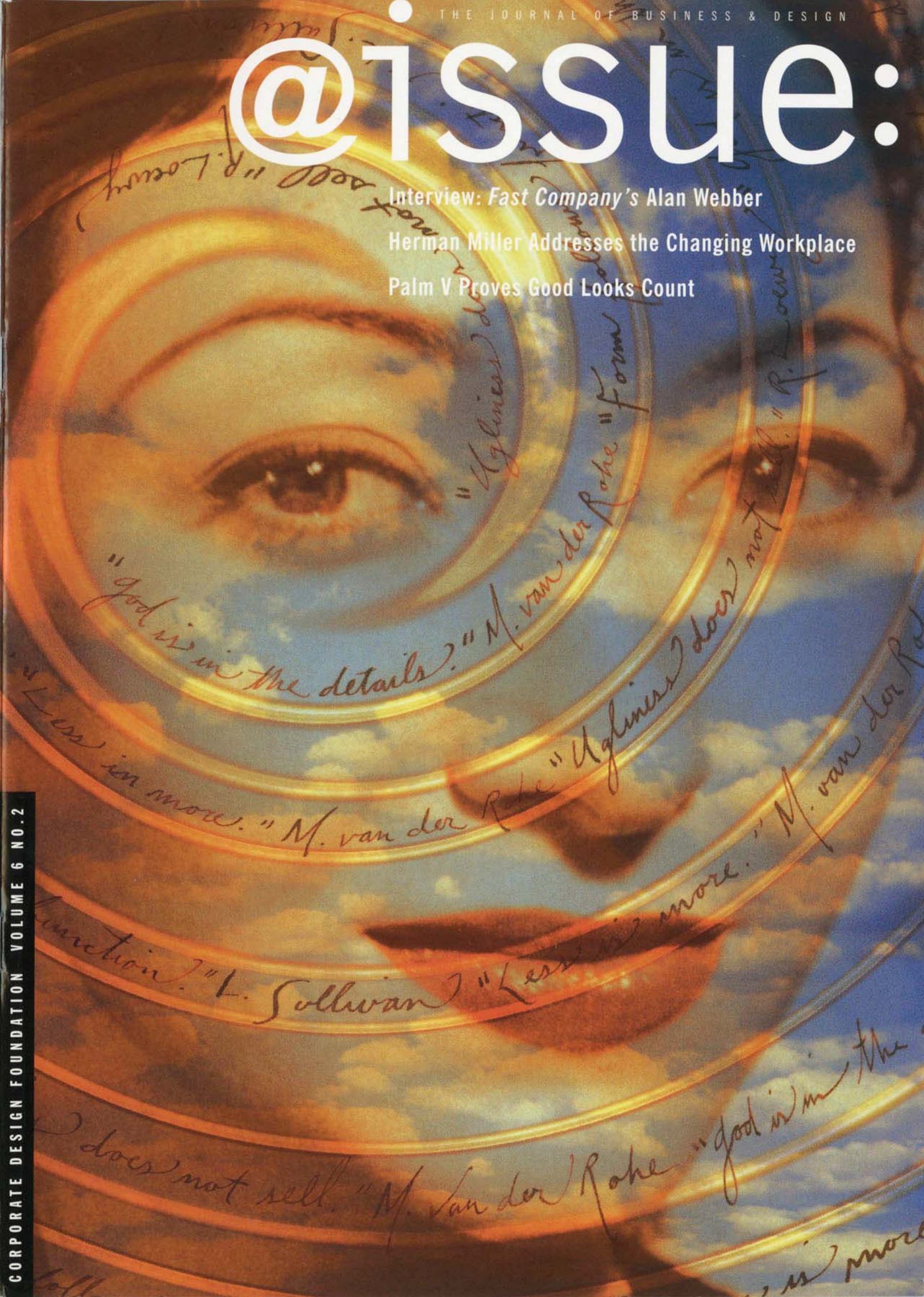
Interview: *Fast Company's* Alan Webber

Herman Miller Addresses the Changing Workplace

Palm V Proves Good Looks Count



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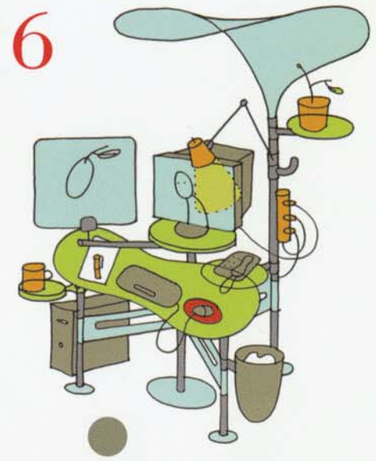

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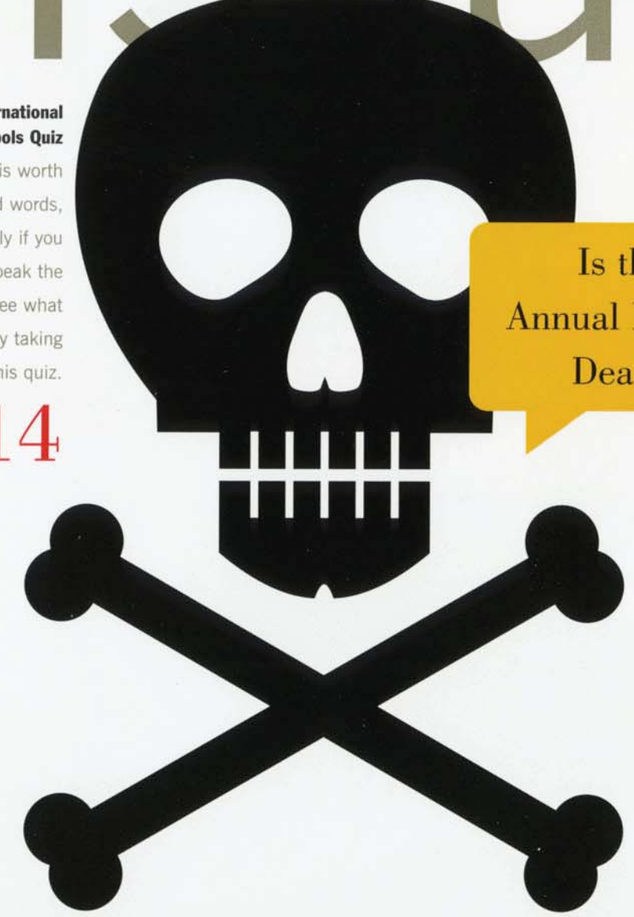


Is the Annual Report Dead?

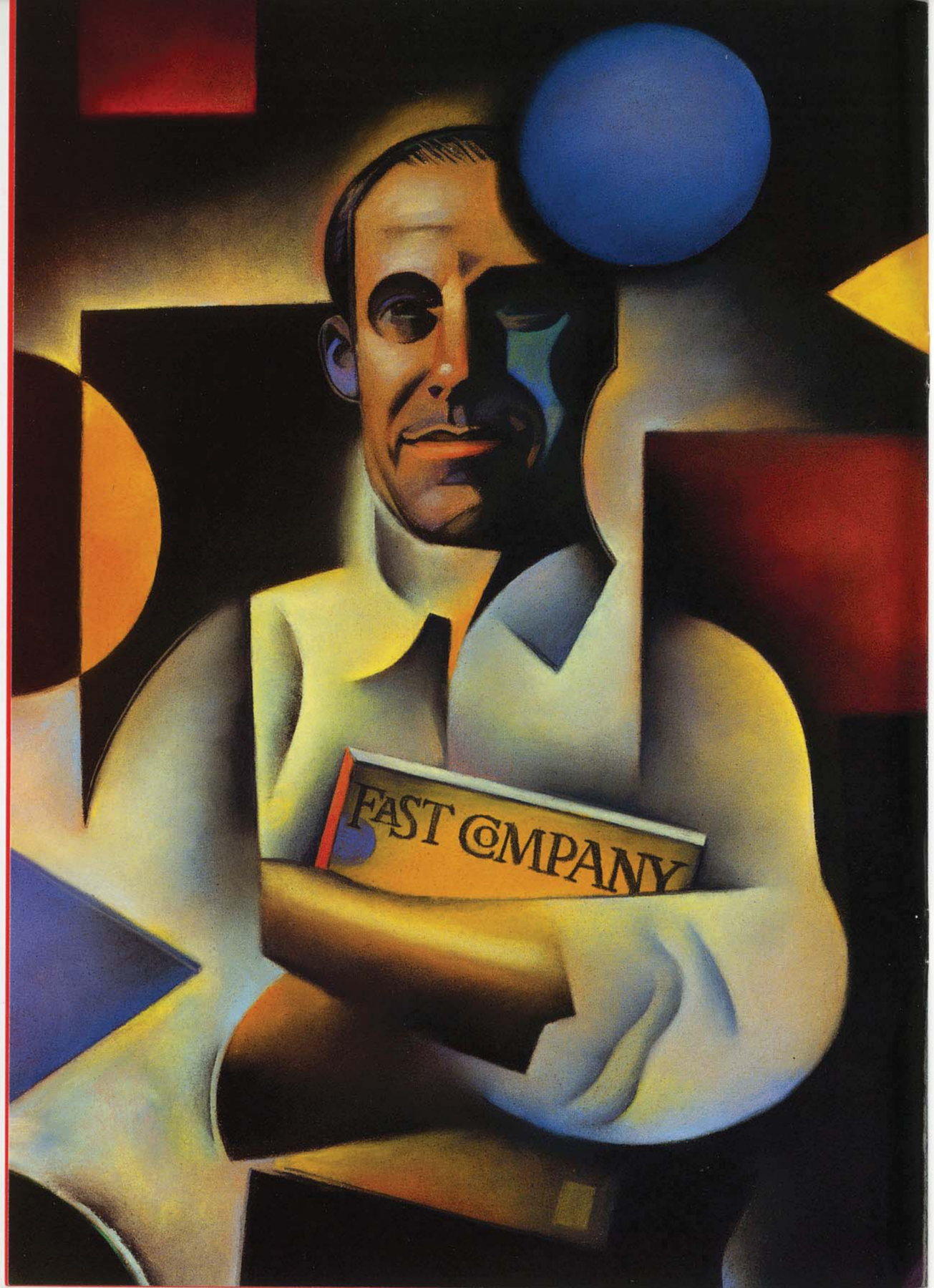


ILLUSTRATION: GARY KELLEY

Fast Company's Alan Webber on Design

Since its launch in 1995, *Fast Company* magazine has become the voice of the New Economy, chronicling how business is reinventing itself. Here, *Fast Company's* co-founding editor Alan Webber talks with Peter Lawrence, chairman of Corporate Design Foundation.

Alan Webber founded *Fast Company* with Bill Taylor in 1995 after six years as the managing editor/editorial director of the *Harvard Business Review.* During Webber's tenure at *HBR,* the publication was named a three-time finalist for the National Magazine Awards. Webber went to Harvard Business School in 1981 to serve as senior research assistant and project coordinator on the American auto industry. The project culminated in the book, "Changing Alliances." Previously he served as special assistant to the U.S. Secretary of Transportation. Webber's most recent book with Taylor is "Going Global," published by Viking Penguin.

When you and Bill Taylor started "Fast Company," what made you feel there was a need for yet another business magazine?

We saw a world emerging where there were few fixed points from the past. Shrinking technologies – laptops, cell phones, pagers – were changing how work felt. Baby boomers were rising to positions of authority with different backgrounds and expectations than their parents' generation. Women in the workplace were affecting how people talked to and worked with each other. Business people were just as comfortable flying from Boston to Tokyo, Paris to Tokyo, as from Boston to San Francisco. And the Web and the Internet were on the verge of re-routing conversations and information so that an individual with a Web connection, a Rolodex and a good idea could literally change the course of an industry. Rather than highly structured, hierarchical organizations, we were seeing places where people mattered most. Work had become more than a way for people to put bread on the table – it was who they were. They felt they could bring their own ideas, energy and sense of purpose into their work and find ways to do things that were fun, fulfilling, and profitable at the same time.

We began *Fast Company* with the notion that none of that was being written about in a magazine. The standard business magazine didn't look like the world we were living in. Most still looked like they were in the '70s and the photography, typefaces and presentation were pretty much reflective of the kinds of organizations being written about.

"Fast Company" didn't just introduce new content; it departed from the look and feel of traditional business magazines.

Design was a key element from the start. We felt the magazine had to be as much a personal tool as a laptop, cell phone or pager, and it had to have the design attributes and energy that those tools have. Early on we began to catalog the language of design emerging in business, in work tools and in hot products like Nike shoes. While editing *Harvard Business Review,* I interviewed Nike's head designer. The way he described how Nike came up with designs was transferable to imagining a new kind of magazine where the mythology of the shoe design came from looking at how actual people run and the kinds of situations that they find themselves in. Bill and I began to talk about the magazine in those terms – the kind of energy on the page, the touch of the paper. The design, look, feel, touch, typography, printing quality, all of those attributes help to communicate the magazine's values, mission and purpose, and we wanted them to be right from the start.

It seems that more entrepreneurs are working with designers before seeking venture capital.

Yes. For *Fast Company,* we recruited Roger Black, one of the nation's preeminent magazine designers, to create a

prototype with real articles in it. Having a handsome design aided our ability to attract highly regarded investors like Mort Zuckerman who financed our magazine. Investors knew we had a clear idea of where we wanted to go with the look and feel. It's important that design gets "cooked" into the product at the start, whether you're talking about software, office space, or a web design. It's not an afterthought.

Why is communication design so important to the Web?

The Web is the best, most immediate and most direct medium for detecting phoniness, hypocrisy and bad vibrations. It is so in your face that the character of the website is almost totally naked to the user. What's often observed is that designers and businesses bring to the Web all of the biases and mindsets of paper and other media, which frequently don't translate well. You have to open your mind and experience to what you know works in your own interactions on the Web and let design specs grow out of that experience.

"The Web is so overloaded with clutter and information, brand becomes an important differentiator."

Is the quality of design on the Web getting better?

Absolutely. Like any enterprise, the more people who take a hand to it, the more talent it attracts, the more you see people stripping away first efforts that were cute but not really productive. The instinct is always to overdo things at first and then gradually hone in on principles of design that work and are fun to engage in rather than self-serving, pompous or done to excess. Over time, quality, experience and sensibility emerge along with what works and that ends up becoming the dominant design sensibility.

What is the role of brand on the Web?

It's huge. The wonderful thing about the Web is that anybody can create a website. The terrible thing about the Web is that anybody can have a website, and does. The Web is so overloaded with clutter and information, brand becomes an important differentiator. Who do you trust? Why go there? What do they deliver – not just the first time, but the second, third, fourth time? The Web has so much to choose from that in order to use it productively, you only want to visit the sites that keep their promises. That's what a brand is. A brand is a promise to the user that gets kept consistently. The companies that perform in ways that respect your time, intelligence and the limits of your technology are sites you're going to want to see again.

Explain "Fast Company's" premise that design is a critical part of how we communicate, collaborate and compete.

We have a long-standing slogan at *Fast Company:* The new MBA is an MFA. At the heart of the New Economy is the challenge of design. It's not a narrow definition of design. It's not just organizing type on a page or arranging an office interior. It's the design of a business model. It's the way you design the relationship with your collaborators, your network, your customers, your employees. Those are design issues.

Business people probably don't appreciate being told that they should learn to think like designers.

Let's be honest, there's been a history of animosity. Business people look at a designer as somebody just interested in doing pretty things. And the designer looks at the businessperson as a barbarian willing to sacrifice quality to win at the bottom line. But in the New Economy, the capacity to talk to each other and see each other as necessary collaborators is more important than ever. What do successful entrepreneurs and business people in the New Economy do? They reconfigure reality. They reimagine the space in which their company is going to compete. They redesign their organizational operation. They reconceive a metaphor for their business. In fact, they operate in a land that's often pretty intangible. Venture capitalists and incubator companies are constantly trying to foresee what doesn't exist. They look for openings where there are opportunities.

Now how does a good designer work? A designer often starts with things that are very tangible. How do people work, talk to each other? How far do they move from their desks? How do they get information off the printed page? How much time do they spend making decisions at a newsstand? What typeface sends the right message? These are tangible propositions that they work from to create the organized principles that will solve those tangible problems.

Design is critical for product acceptance. So why is there so much clumsy design?

Unfortunately situations come to pass where designers and technologists play to each other's worst instincts. They believe that if something is possible, it must be necessary. Designers and technologists collaborate to produce more facets or functionalities than anybody could possibly want or need. The result is not the simplification and user-

friendliness that are ultimately measures of great design. It's the radical overextension of capability for capability's sake. That is *bad* design.

How would you define a great designer?

A great designer is someone who understands human beings and what they really want, need and will use. My wife, a trained architect, taught me everything I know about design – which is that design isn't about buildings that look like wedding cakes. It's about creating the experience for the person who works inside the building as well as for the person walking by outside. What do people experience when they walk in the front door? What do they experience after an eight-hour day? Are their eyes fried? Have they had good fresh air because the ventilation system works? In the same vein, someone working at a technology company should not be thinking about what color to make the case, but about the design of the experience that the user has.

"A great designer is someone who understands human beings and what they really want, need and will use."

Is there a revolution occurring in workplace design?

Yes. It is a blast seeing the many ways you can organize and design office space. But there is a sense that people have gotten carried away. They've said, "We know how to make a cool office. We find exposed brick, put in a coffee bar and give everyone an Aeron chair. Now we're cool." Sorry, that's not design; that's rearranging the deck chairs on the Titanic. But suddenly there is great energy behind designing where people work and how the work gets done. It's fundamental, but it's great.

What about redesigning the relationship with customers?

That's fundamental but it's old news. I once had the privilege to hear Stanley Marcus speak. After listening to people say that the great thing about the Web is that customers are in charge, Stanley got up, at the age of 90, and said, "I don't want to sound like a fuddy-duddy, but when I went to work at Neiman Marcus, my daddy's store, we always thought customers were in charge. What's the news here exactly?" It's a classic truth, but the connection now is more intense and urgent. There's more choice. What's next in the New Economy is refocusing on the things we've briefly forgotten about what really matters.

There's a lot of talk about building new kinds of communities. Can design help?

It's a hot topic now. The Web is a big part of it because you can use the technology that blew up pyramidal organizations to create all kinds of community connections and relationships that previously were limited by geography or by the capacity of sharing and spreading information. One thing that is on the pulse of the moment is the need for people in the New Economy to have a sense of community, to reinforce it with well-designed communication tools, to design and develop their own rituals, their own practices that make the community more than just a cheap fad of the moment. That's what design does. It provides the recognizers and the habits and the signposts that people depend on so that you have more than just the trappings of community; you have the real underpinnings and muscle of community.

Any thoughts on the market downturn and what IPOs need to do differently to survive?

Make money. I can't tell whether there is a downturn. When Paul Saffo, one of the world's most quotable pundits, was asked if we had a bubble economy, he responded, "No, it's a froth economy." It's more like the top of a cappuccino where there is not one big bubble but lots of little ones. Sure, a number of start-ups may not survive, but, at the same time, data in newspapers suggest that the IPO market had a better month last month than the month before it was declared defunct. We don't know how to measure these phenomena exactly. It's less a matter of saying, "it's over" than saying, "what are the design specs for what's going to work?" We can see some design specs, some of which are not all that new.

A lot of what I honor as great design, whether it's an architecture or magazine or office space or website, is classic design. It's elegant design. It's good, smart design that could have been done 100 years ago and is refreshed, reinvented and made contemporary for what we're doing right now. That's true in many lessons about how to succeed in the New Economy. You have got to build organizations where you attract talent and where people want to work. The big myth that's been exploded is that people will only respond to the promise of instant wealth, IPOs that turn them into overnight millionaires. For some people that's true. But a lot of other folks respond to the idea that their work is something they care about. They want to go in every day and do stuff that matters to them. That's not new, we just needed to be reminded.

Resolve Rethinks the Workplace

With "Free Dilbert" as its rallying cry, Herman Miller's Resolve design team set out to liberate the beleaguered cartoon office worker from the confines of his cubicle and place him in an environment offering light, air and collaborative stimulation.

Ayse Birsel, Product Designer
Olive 1:1 Inc., New York
Before designing Resolve, Ayse Birsel created award-winning water products for Toto. Born in Turkey, she moved to New York in 1986 to study at Pratt Institute.

Rick Duffy, Vice President, Genesis Team
Herman Miller, Inc., Zeeland, MI
Rick Duffy has been providing insight into the causes and effects of change on organizations and their workplaces for Herman Miller since 1984.

For more than 30 years, the Action Office® II, the world's first open office system designed by Bob Propst for Herman Miller, has been *de rigueur* in companies around the world. Today 58% of American office workers sit in such paneled cubicles. But as successful as the cubicle has been, even Herman Miller recognized the need to reconsider the system it pioneered. Laptops, cell phones, pagers and email access have made it possible to work anywhere, anytime. Project-based work teams that include temps, part-timers and consultants have emphasized collaboration over hierarchy. Exorbitant real estate costs have put office space at a premium.

"We knew we needed to do something," says Jim Long, Herman Miller's director of research, adding that the company decided to explore two approaches. "One was to take everything we knew about systems furniture and optimize the cubicle design," Long reveals. "The other was to start over."

Starting over quickly won out, with Turkish-born Ayse Birsel of Olive 1:1 selected to design a radical new system, named Resolve. The choice of Birsel's two-person (herself and an intern) Manhattan firm was daring for such a breakthrough product, but Herman Miller has a history of making bold moves, with such designers as Charles Eames, George Nelson and Bill Stumpf. "We believe that variety is very important to the creation of design," says Rick Duffy, who leads Herman Miller's Genesis Team, which gets involved in all matters of innovation and invention. "And our belief is that that variety only comes from outside perspectives."

Although Birsel had no experience designing office furniture, she had earlier sent Herman Miller a concept proposal asking why offices couldn't capture the feel of a garden and suggesting that the tangle of technology cables in offices could be managed in an aqueduct-like system. While that proposal went nowhere, it must have left an impression. Months later, the company invited her to fly to its Michigan headquarters to respond to one of its infamous problem statements: If you were Bob Propst today, how would you design the Action Office?

PHOTOGRAPHY: FRANÇOIS ROBERT

Birsel dispatched the first part of the question by pointing out, "If I were Bob Propst today, I would be a 70-year-old white man." She then went on to explain why merely modifying Propst's renowned cubicle would not be enough. "A lot has changed in offices and in how we work since 1968," Birsel told them. "Today people can work anywhere and yet they still come to offices. Why? I believe they come to belong, to be part of a community, to be part of a group. The emphasis should be on connecting people, not on separating them." Herman Miller agreed. "They told me that was where their heads were at, too," she says.

Indeed, her assessment confirmed much of their initial findings. A research-driven company, Herman Miller conducts ongoing studies of workplace issues and makes research an important part of the design process. So the first step after bringing Birsel on board was to form a "concept team" that included representatives from marketing, engineering, applications, planning and research. Together the team toured offices of various sizes to identify issues companies were confronting. "When I saw the offices," Birsel recalls, "my first reaction was, if this is how people work, I don't want to work in a corporation." Dubbing it the "Dilbert Syndrome" (the cartoon middle-manager created by Scott Adams), she observes that "offices had become places that box people in. Liberating Dilbert became our passion."

To do that, Birsel came up with an unorthodox solution aimed at putting people and their technology at the center of everything. Her idea revolved around a vertical pole, braced by two fabric-covered beams set at a 120-degree angle. To keep the power and cable delivery system from dictating the office arrangement, she proposed running the wires through overhead troughs, out of sight yet accessible, and bringing them down to each workstation through the poles.

At first, Birsel considered dividing the workspaces into 90-degree angles, but soon concluded that 120 degrees made for a more stable and inviting structure. "The difference between sitting in 120 degrees and 90 degrees is like night and day," Birsel discovered. "One makes you feel welcome while the other seems to push you outside. 120 degrees is the angle you intuitively make when you open your arms to welcome someone."

It matches the body's natural movement as well, she noticed. "It's almost an equal reach on all sides when you sweep your arms. It's less confining than 90 degrees, yet it surrounds you and still feels open." It is also nature's favorite angle, as evidenced in honeycombs, snowflakes and soap bubbles.

The pole-and-beam concept, however rough, seemed viable to Birsel, but figuring out a way to explain it to the Herman Miller team was a challenge. "I went to the meeting with a dozen pencils, all kind of standing up, set them on the table and told them this is what

Designed for Flexibility
An *à la carte* selection of side tables on wheels, storage units, lights and accessories (including a flower vase) allows users to create an environment that meets their needs and preferences.

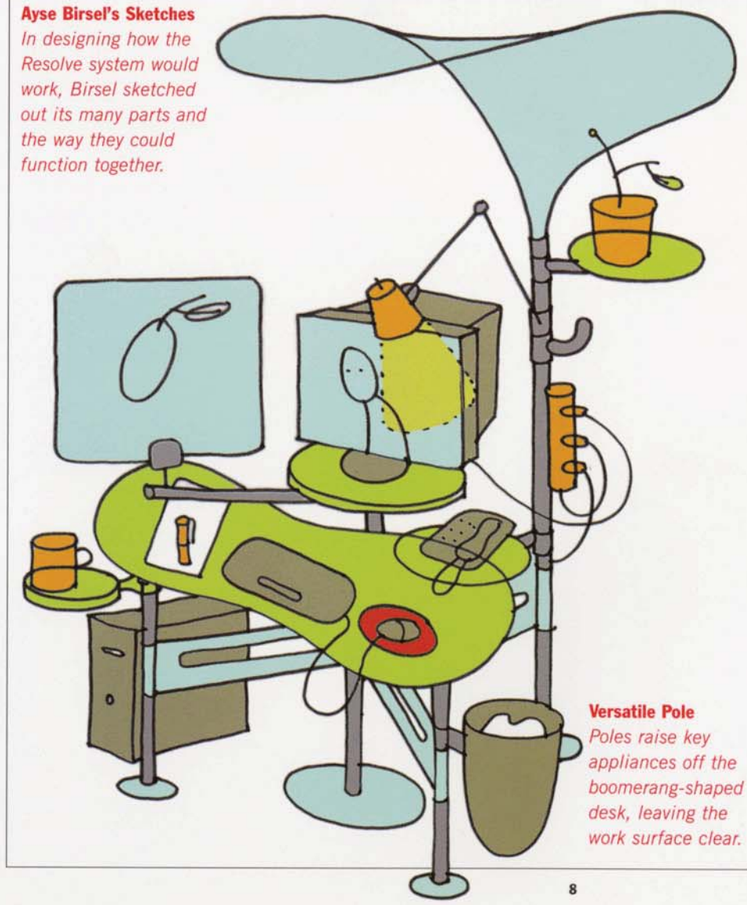
Hanging Shelves
Resolve makes optimum use of vertical space, using poles to hang shelves and other things.

Porch Light
A porch light brings a sense of community to the place where people spend eight hours a day.

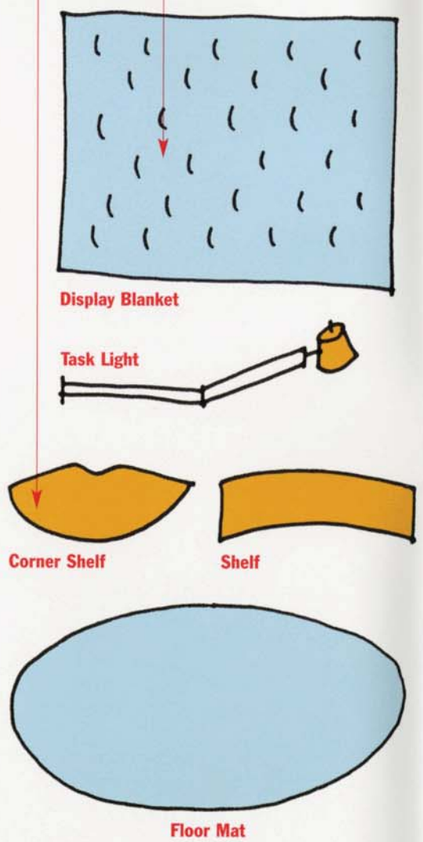
Translucent Screen
Movable privacy screens and canopies let in light and can be digitally printed with patterns, pictures or logos.

Storage
Customizable storage cabinets, with areas for both personal and work items, give users control over their work tools.

Ayse Birsel's Sketches
In designing how the Resolve system would work, Birsel sketched out its many parts and the way they could function together.



Versatile Pole
Poles raise key appliances off the boomerang-shaped desk, leaving the work surface clear.



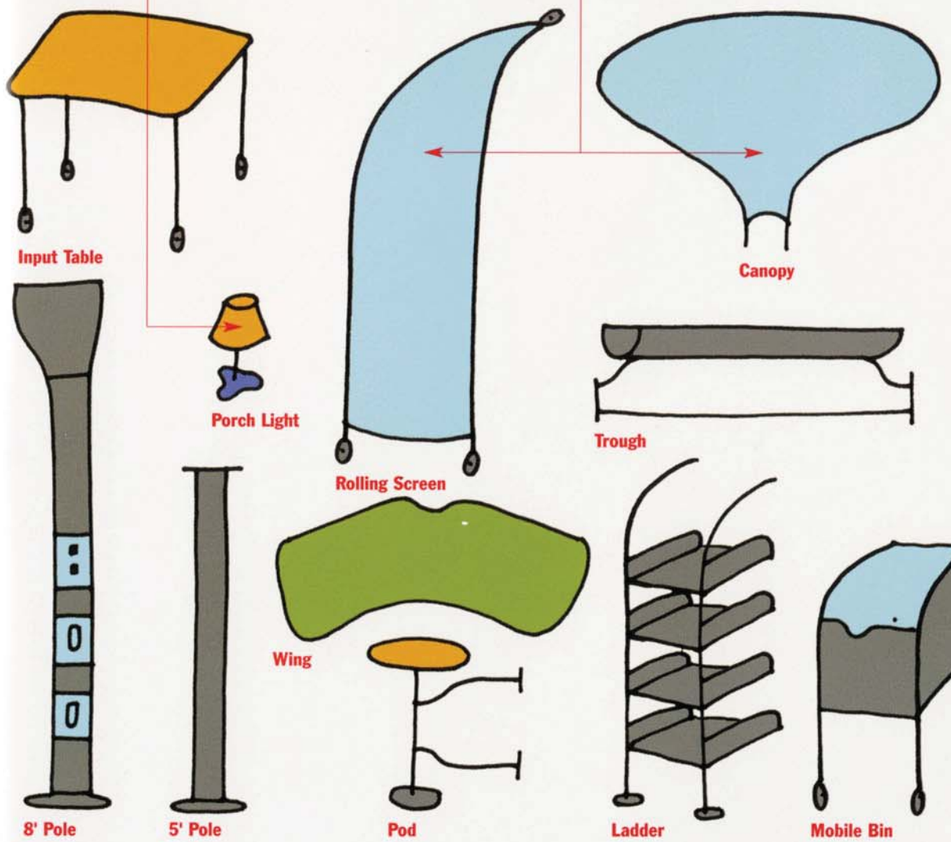


ILLUSTRATION: AYSE BIRSEL

Display Screen
Early testers of Resolve felt they had enough work surface, but wanted more display area to personalize their space. Herman Miller complied by creating a unique patented material that is tackable, Velcroable, translucent and digitally printable.

the concept is based on. They agreed, but asked, 'How you are going to get the poles to stand up?' This was kind of funny because here is a company that has been standing up walls for years and they thought poles would be hard to deal with."

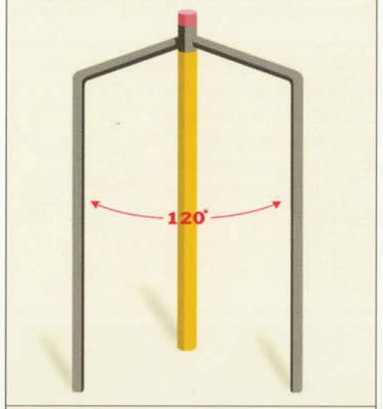
Returning to her office, Birsel set about constructing a full-scale mock-up with off-the-shelf parts – a Speedrail scaffolding system connected with slip-on tubes used for chain-link fences, plywood cut into desks, blankets from Ikea for divider screens, sweater bags for storage holders, and plastic cut into circles for floor mats. As a finishing touch, Birsel added a porch light and bud vase. "We built eight workstations. They were very crude, but complete," she says. "When we invited the Herman Miller team in, they were totally convinced, and said they wanted to build the next mock-up with their own engineers and model shop."

As unconventional as Birsel's approach was, it satisfied the parameters that Herman Miller had placed on the design: 1) that it be free-standing from the architecture; 2) that it be a modular system that one decision-maker could order for an entire company, and 3) that it be economical to construct, ship and maintain. "We are committed to the philosophy of 'reduce, reuse, recycle,' with an emphasis on reduce," says Duffy. Resolve proved to be one-third the weight of a comparable panel system and could be put up in a fraction of the time. "It can be shipped blanket-wrapped instead of in cardboard," Duffy adds. "And we can fit three times as many workstations in the same container, which reduces shipping costs and energy usage."

The pole-and-beam system offered other advantages as well. On research tours, Birsel recalls that every one of the offices looked the same even though they were in diverse businesses. To address that issue, Birsel took advantage of vertical display areas created by Resolve's translucent divider screens. The screens, which slip snugly over the metal frame, can be digitally printed with any graphic treatment – logo, pattern, picture or even directional signs – and changed with relative ease. "With the computer, work has become about vertical display," she says. "You have this rectangle image maker where you can display family pictures, the Internet, any program you're working on. Once you have that, it seeps into the rest of the environment. An analogy is 42nd Street at Times Square, where you have images over images."

Birsel also made use of Resolve's vertical infrastructure to create mounts for objects that are usually spread out on horizontal planes. Through hooks and shelves that attach to the infrastructure, everything from paper trays to computer monitors can be raised off the work surface.

Pencil Demonstration



Designer Ayse Birsel first used pencils to show the Herman Miller team how workstations could be built around a vertical power pole anchored by two horizontal arms set at a 120-degree angle. This economical infrastructure offered maximum stability and could be configured into all kinds of constellations without infringing on windows or walls.

As Birsel worked out details in the early models, the research team, made up of employees and consultants, including Cheskin Research in Redwood City, CA, field-tested the concept. Jim Long and his team showed a videotape of Birsel's first models during one-on-one interviews with 200 facility managers, architects, designers, information technology managers and corporate decision-makers. "While Resolve generated excitement, we received a mixed response, tending toward negative," Long reveals. "That's the response we were looking for. We expect that the more innovative we are, the less certain people will be. That told us we were taking enough chances. Anything else and it would have said we were being too imitative."

What also reassured them were the answers participants gave when asked who would use the system and what kind of work it would support. Although they said they wouldn't buy it themselves, they could see how it could be a benefit to others. "Their answers confirmed we were headed in the right direction," says Long.

The company put more weight on the response from the 60 end-users testing the full-scale prototypes for up to ten weeks. "People liked the openness of the system, which allowed them to communicate more effectively," Long says, citing some feedback. "Many said the 120-degree angle is a better feeling than working

into a corner. From a performance standpoint, they liked the convenience of the electrical outlets."

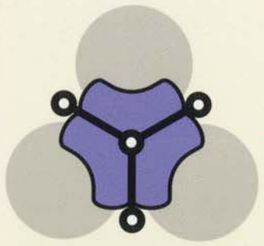
A more thorough test to work out specific details was conducted at the company's Design Yard complex in Holland, Michigan, where a full-scale Resolve office environment was constructed to observe people using the space and to conduct interviews.

These various studies helped to shorten development time as well as address issues raised by participants. One change made in response to the feedback was the addition of a more versatile display screen. "At test sites, we had some display screens that were translucent and tackable, and some that were thick and Velcroable," says Birsel. "Users said they loved the translucent screen because it lets light through, but also loved Velcro as a function." Herman Miller responded by developing a fabric that was translucent, Velcroable and tackable all in one.

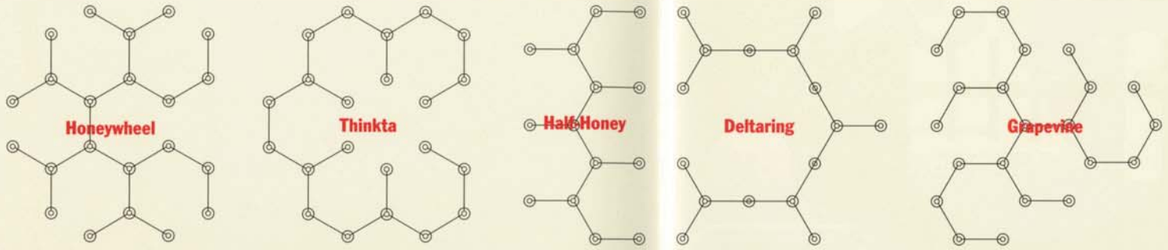
Another issue – acoustics – concerned testers less than the Resolve team expected. "We felt that acoustics were going to suffer, but our emphasis was on connecting people rather than separating them," Birsel admits. "We felt people come to the office to be part of a group, for information-sharing and spontaneous exchanges." Questionnaires filled out by participants after testing the system for two months, however, rated Resolve equal in sound level to cubicles. "We couldn't believe it," says Birsel. "When we went back and asked them, they said in Resolve, you have a sense of the people around you and modulate your voice accordingly. In a cubicle, you feel you are alone, so you may talk louder. Another reason is that Resolve screens are not made of hard material, so sound dissipates. That was a happy surprise."

Another surprise was that conservative companies became the early adopters. The consensus was that the first customers would be dot.coms and creative agencies. "Funny thing was our first client was a bank, and our first test installation was a utilities company," says Birsel. "Since then, some of the most conservative companies have been buying Resolve. They see in Resolve elements that are in harmony with how work has changed."

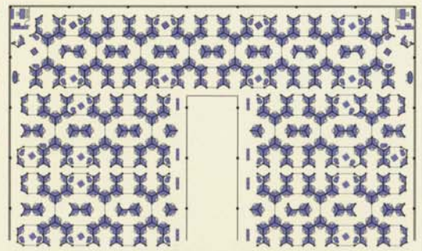
Birsel credits this acceptance to Herman Miller's "sensitive team of men and women" who acted as the users' advocate. This informed her design approach dramatically. Birsel cites as an example: "When I showed them things like a flower vase that might make users happy and individualize their space, they were totally supportive and pushed me to go further." These details have led people to remark that only a woman could have designed Resolve, but Birsel believes that what they respond to as "feminine" is the care that the team took in welcoming users. "We were very much into making sure that they were cared for in ways that went beyond the physical and quantifiable," she says. "The bottom line was we were passionate about the user."

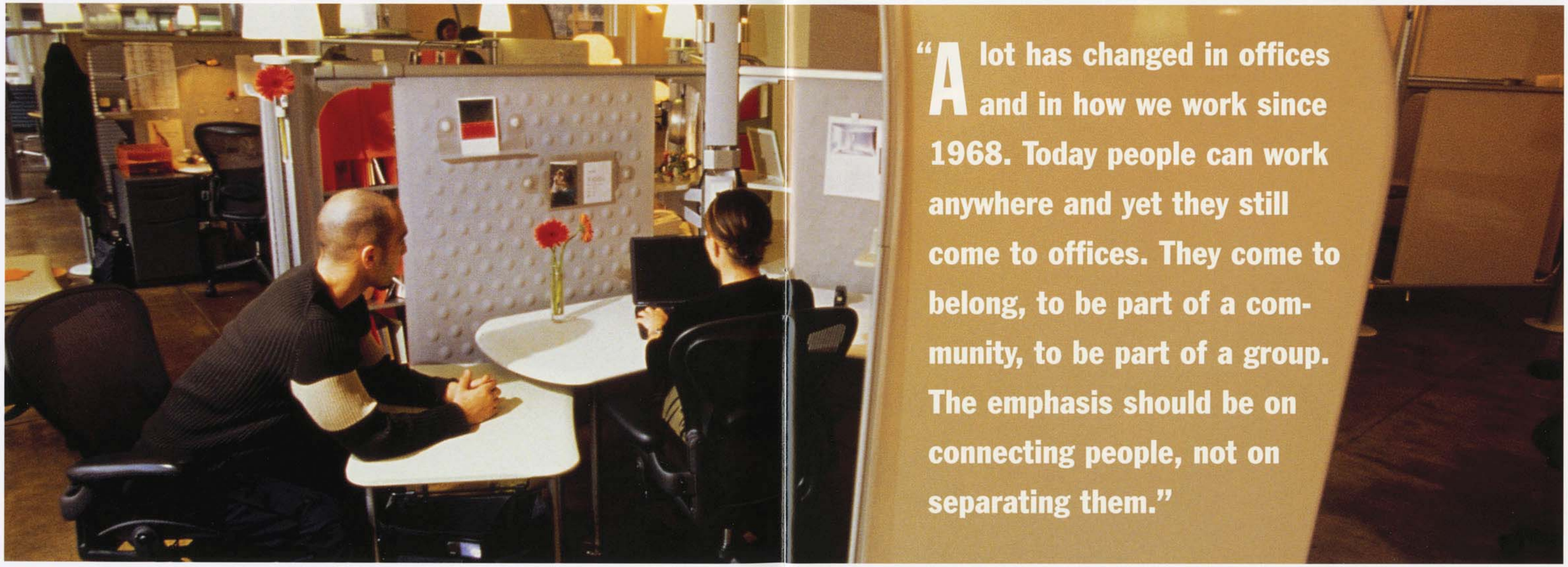


Patterns of Resolve
The basic Resolve grouping is three workstations surrounding one powered pole. This grouping can be arranged into different constellations to suit individual or collaborative work.



Organizing Possibilities
Resolve's organic constellations use space more economically and allow higher densities than traditional panel systems, without sacrificing openness, communication or user comfort.





"A lot has changed in offices and in how we work since 1968. Today people can work anywhere and yet they still come to offices. They come to belong, to be part of a community, to be part of a group. The emphasis should be on connecting people, not on separating them."

Communicating on Sight

The more people travel to foreign lands, the more they rely on international symbols that transcend language barriers. Graphic images point the way to restrooms, dining establishments, lodging and transportation. Often a "faster read" than words, pictograms are also employed by businesses and public entities to instruct, warn and assist. Choosing a universally understood image and reducing it to its simplest, most essential symbolic form is no easy feat. Its message must be easily deducible no matter the spoken language, and it must be visible even from a fair distance. See if you can identify these commonly used markers.

1. SCHOOL CROSSING 2. NO PASSING ZONE 3. POISON 4. HIGHWAY 5. FRAGILE 6. BAR/COCKTAILS 7. KEEP DRY 8. STEEP HILL 9. EXIT 10. NO PARKING 11. TRAIL 12. WET FLOOR 13. FISH LADDER 14. DO NOT ENTER 15. INFORMATION 16. AMPHITHEATRE 17. SPEAK 18. ON/OFF (PUSH/PUSH) 19. STAND BY 20. CALL FOR KEY OPERATOR 21. NURSERY 22. TEXT TELEPHONE 23. DO NOT WALK 24. NO SMOKING 25. RECYCLE 26. COMPULSORY ROUNDABOUT 27. RAILWAY, LEVEL CROSSING WITHOUT GATES 28. PEDESTRIAN (ADVANCE WARNING) 29. DEER CROSSING 30. CATTLE CROSSING 31. FARM MACHINERY CROSSING 32. KANGAROO CROSSING 33. TURTLE CROSSING 34. IGUANA CROSSING

Forget about adding "bells and whistles" that the average person doesn't want, need or know how to use. The hot-selling Palm V series is broadening Palm Inc.'s vast market lead by emphasizing qualities that were previously unavailable in handheld computers – namely, sleekness and style.

Beyond Techno Gadget

The desire to be beautiful as well as useful may not seem like a radical idea. But as recently as four years ago, it seemed like a bold, if not frivolous, goal to high-technology manufacturers who were convinced that consumers were only interested in functionality and not in how the product looked. It took the transformation of the chunky but likeable Palm Pilot into the sleek and ragingly popular Palm V to move great design from an afterthought to a necessity.

The odyssey toward this design awakening begins back in March of 1996, when Palm Computing unveiled its original Palm Pilot, a handheld computer based around the novel idea of simplicity – or what its inventor, Jeff Hawkins, described as "Do one thing. Do it well." For an industry that loves to flaunt its technological prowess by packing layer upon layer of functions onto its products, such restraint was virtually unprecedented. But consumers loved it. The Palm Pilot became the fastest-selling computer product ever.

PHOTOGRAPHY: BARRY ROBINSON

Of course, the Palm Pilot's success quickly drove new competitors into the field, all with the intention of one-upping Palm with features like vibrating alarms, voice recording elements and greater memory.

But Palm didn't waver from its belief that simplicity was its competitive edge. Even with giant Microsoft threatening to make inroads in Palm's market share by offering PDAs (personal digital assistants) with four times more memory, Hawkins resisted going *mano-a-mano*, byte-to-byte. "Who cares," Hawkins recalls thinking. "I don't need eight megabytes; I can't even fill up two. Let's show the world that this isn't about speeds and feeds.... It's about simplicity."

Hawkins reached that conclusion early on when he was still trying to envision what features the original Palm Pilot should include. Back then, he carried a crude wood prototype, about the size of a deck of cards, in his pocket as he considered how customers would use such a device throughout the course of a day. At staff meetings, he sometimes even pulled out his wood block to scrawl imaginary notes on the "screen." The experience convinced him that the product should compete with paper rather than larger computers, and stick to basic functions, i.e., storing addresses, phone numbers, a calendar and to-do list, but do it faster and more conveniently.

As Palm considered enhancements to its original product, simplicity remained key to its strategy. Instead of adding features just for the sake of adding features, the company again took the road less traveled by focusing on style and elegance. At the time, the customer base for handheld computers was largely early techno-adopters and men fascinated by electronic gadgets. Female users represented a vast and virtually untapped market. Palm realized that if its product

was ever to gain mass consumer appeal, it would have to look and feel less like a machine and more like an accessory.

To accomplish this, in late 1996 Palm turned to IDEO, known for contributing to the design of thousands of new products from the computer mouse to a portable heart defibrillator. Within IDEO, Dennis Boyle, Palo Alto studio manager and a senior project leader, was seen as a natural choice to lead the Palm V project. Boyle was known at IDEO as the guy who introduced the firm to the "Tech Box," a treasure trove of hundreds of odd objects and materials, from teeny switches and Kevlar swatches to mood rings, that IDEO designers and engineers could rummage through for ideas and inspiration. Boyle led off the Palm project by showing his team a range of sleek products that he admired: a Sony MiniDisc player, a Canon Elph camera, a Panasonic minitape recorder, Pentax opera glasses. Placed next to these, the putty-gray Palm Pilot looked clunky and homely.

The standard practice of rapid prototyping at IDEO stems from its philosophy that you learn as much from a model that's wrong as you do from one that's right.

It also paled when compared to the thin, ultralight Motorola StarTac cell phone that debuted about the same time, and sold for upwards of $1,000 at a time when many cell phones were being given away. Boyle recalls that Hawkins walked into one of their first meetings with a StarTac. "Jeff remarked that there was something about it that had visceral impact. It's so small and beautiful. It really grabs you. He asked if we could create something with the same emotional quality."

For the Palm project, code-named Razor, as in "thin as a razor," IDEO outlined plans for a slimmer, sleeker version of the existing handheld organizer. Two major goals were to reduce the thickness from 19mm to 11mm and the weight by one-third.

What other changes should be made, the IDEO team asked itself. To learn more about user preferences, Boyle distributed dozens of Palm Pilots to colleagues, business friends, soccer moms, physicians and other potential users. Inside IDEO, more than 200 staffers started using Palms and providing feedback through email and informal hallway discussions. Along with praise for the product, "testers" reported problems, ranging from design flaws to minor annoyances. The product was prone to breaking when dropped. The case was too rigid. The battery door was badly placed. The stylus storage was inconvenient. Boyle's team took note of all of these complaints.

Special attention was paid to female comments, since Palm's initial research showed that at least 95% of Palm users were men. To gain more insight into what appeals to women, Boyle brought two female design engineers – Amy Han and Trae Niest – onto the team as project leaders. They, in turn, corralled 15 female IDEO workers to critique the product.

They peppered Boyle's team with all kinds of questions. "They asked, why does it have to be square and corner-edged? Why gray? Why not curved, tapered and graceful?" Boyle recalls. "They even asked why these things have to be sold in electronics stores. That's a guy kind of place. Why not places where women shop, like Nordstrom?" Even the Palm Pilot ad showing a man slipping the product into his breast pocket bothered them. Guided by their responses, the IDEO team determined that the new Palm V should have more universal appeal and softer edges.

The team also recognized that it had to solve three major design issues: 1) how to attach the stylus and other accessories without resorting to the makeshift holders many users had developed on their own, 2) power management and 3) the casing. They addressed these issues by following IDEO's standard practice of rapid prototyping, which stems from the firm's philosophy that you learn as much from a model that's wrong as you do from one that's right. Or as IDEO founder David Kelley says, "Failure is part of IDEO's culture. We call it enlightened trial-and-error." Encouraged not to hold back, IDEO staffers go through dozens of design iterations, producing crude but fast prototypes that they can critique and build on.

Boyle, who holds to the philosophy "Never go to a client meeting without a prototype," made sure that his staff always had something new to show at weekly

PROTOTYPE PHOTOGRAPHY: COURTESY OF IDEO

Design Philosophy
IDEO considers frequent, rapid prototyping the key to innovation. Founder/CEO David Kelley explains, "[Researchers at larger companies] are afraid of looking bad to management, so they do an expensive, sleek prototype, but then they become committed to it before they really know any of the answers. You have to have the guts to create a straw man." Fast prototyping, IDEO believes, quickly eliminates bad ideas, letting the best funnel through to the end.

Stylus Prototypes
Through prototyping, IDEO designers explored ways to make a stylus that felt comfortable in the hand yet attached unobtrusively to the Palm V. Among the features they considered were weights to make the pen heavier; springs to make it longer or thicker; and grooves, grips, or magnets for attaching.

Prototype Progression *As the prototypes become more detailed and finely rendered, the final model looks very close to the actual product.*

Thin Is In
Small enough to fit into a purse and attractive enough to pull out at a party and not come across as a geek, the Palm V proved that consumers would be willing to pay more for a beautiful organizer, even if its functions and processing power basically stayed the same as its predecessor.

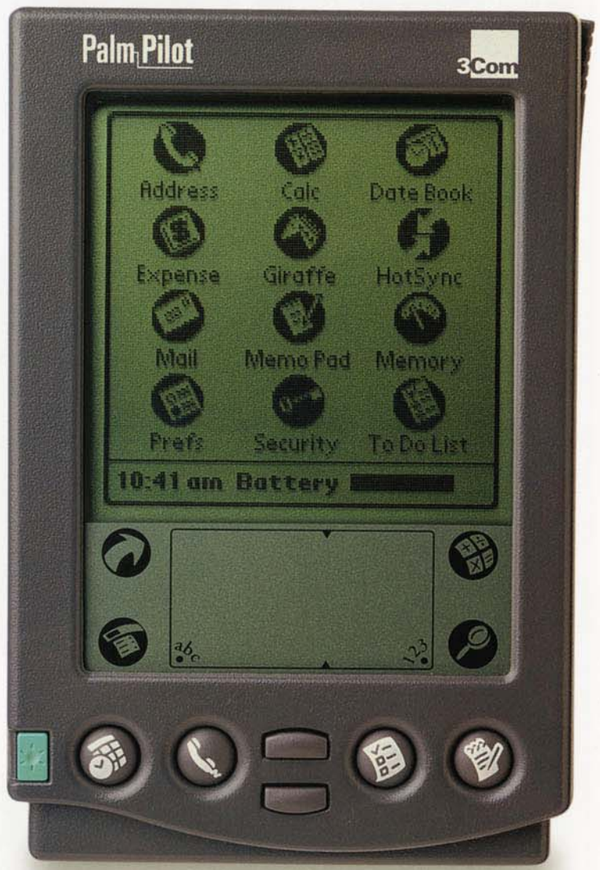
Stylus Rail
The Palm Pilot is thicker than the Palm V and has only one rail for the stylus. The Palm V's two rails accommodate a stylus and removable leather cover, which can be placed on either side depending on whether the user is right- or left-handed.

.65"

3.25"

Batteries Required
The need for two AAA batteries dictated the minimum thickness and weight of the Palm Pilot and the placement of the enclosed stylus holder. The Pilot is held together with screws, while the Palm V is secured with industrial glue to retain its smooth surface.

4.7"



Weight: *Six Ounces*

Boxy Appearance
Both the Palm Pilot and Palm V perform basically the same task-based functions, but the Pilot is boxier, with a less elegant battleship-gray plastic casing and an LCD screen that is difficult to read at certain angles.

Palm Pilot: 1996

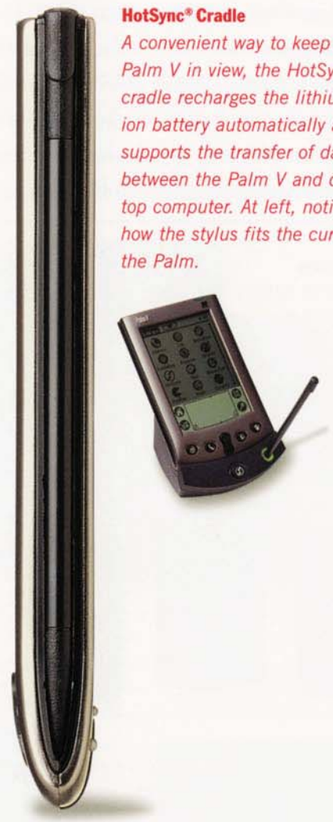
Top-Edge Functions
The top edge of the Palm V incorporates ❶ a green on-off button as well as ❷ an infrared device to beam data from one Palm to another, and ❸ a software control button to adjust screen contrast.

3.1"

.4"

4.5"

HotSync® Cradle
A convenient way to keep the Palm V in view, the HotSync cradle recharges the lithium ion battery automatically and supports the transfer of data between the Palm V and desktop computer. At left, notice how the stylus fits the curve of the Palm.



Weight: *Four Ounces*

A More Elegant Form
Not only does the Palm V have a smaller footprint, it features contoured edges, recessed buttons, brushed aluminum finish, crisp backlit screen and removable embossed leather front cover.

Palm V: 2000

meetings with Palm. The prototype could be a one-inch square that demonstrated the on-off button, a selection of different LCD panels or styluses of various thicknesses, lengths and shapes. "This process ensures that even the smallest details are considered and the client feedback is continuous," says Boyle.

Rough and rapid prototyping of stylus attachments, for instance, led the IDEO team through fabric pockets, hinges and eventually to a dual-rail system solution that allowed the secure attachments of peripherals without the use of moving parts, and without adding to the Palm V's dimensions.

The power source was more problematic. To ensure a very thin product, the team knew it had to replace the two bulky AAA batteries in the Pilot with rechargeable lithium ion ones. But in 1997, lithium ion was a new technology and battery makers weren't sure it would function properly in a device requiring frequent and brief recharging. It was left to Frank Canova, Palm's director of hardware engineering, to coax reluctant battery makers into helping Palm develop a solution.

The brittle and thick plastic casing had to go too, and the IDEO team identified thin-yet-rigid anodized aluminum that was being used for Japanese cameras and binoculars as an ideal alternative. But U.S. manufacturers had little experience working with the material, so IDEO turned to Japanese companies to create the working prototype. In order to avoid screws (which were considered aesthetically undesirable), IDEO arrived at a binding device never before used for a handheld organizer – industrial glue. "It took plain old trial-and-error with dozens of adhesives to get a satisfactory solution," Boyle admits. "But in the end, it worked out well."

Another unforeseen challenge for the project team was the change in product ownership: Before starting the Palm V, Palm Computing had been bought by U.S. Robotics, which, in turn, was bought by 3Com. (In March 2000, 3Com spun off Palm into its own company through an initial public offering.) With the Palm V development almost complete in 1998, Hawkins also left 3Com on amicable terms to start up Handspring, a PDA that licenses the Palm operating system.

Still the project moved forward, and after almost three years in the making, the Palm V was finally introduced. The reception was as enthusiastic as for the rollout of a new luxury car. People didn't hesitate to pay the higher asking price for the product, even though cheaper models, including the Palm III, were available. In fact, the primary differences between the Palm V and its sister product, Palm III, are its cool anodized-aluminum skin, rechargeable battery, and ultrathin, ultralight form.

Next to other handheld computers, the Palm V clearly looks like an elegant accessory and not an electronic gadget. Early Palm V advertisements worked to reinforce that perception, with fashion-oriented images by portrait photographer Timothy Greenfield-Sanders, who photographs for such publications as *Vanity Fair* and *Vogue*. One showed a female dancer, naked and kneeling, with the Palm V resting in her hand. Block letters read "Simply Palm."

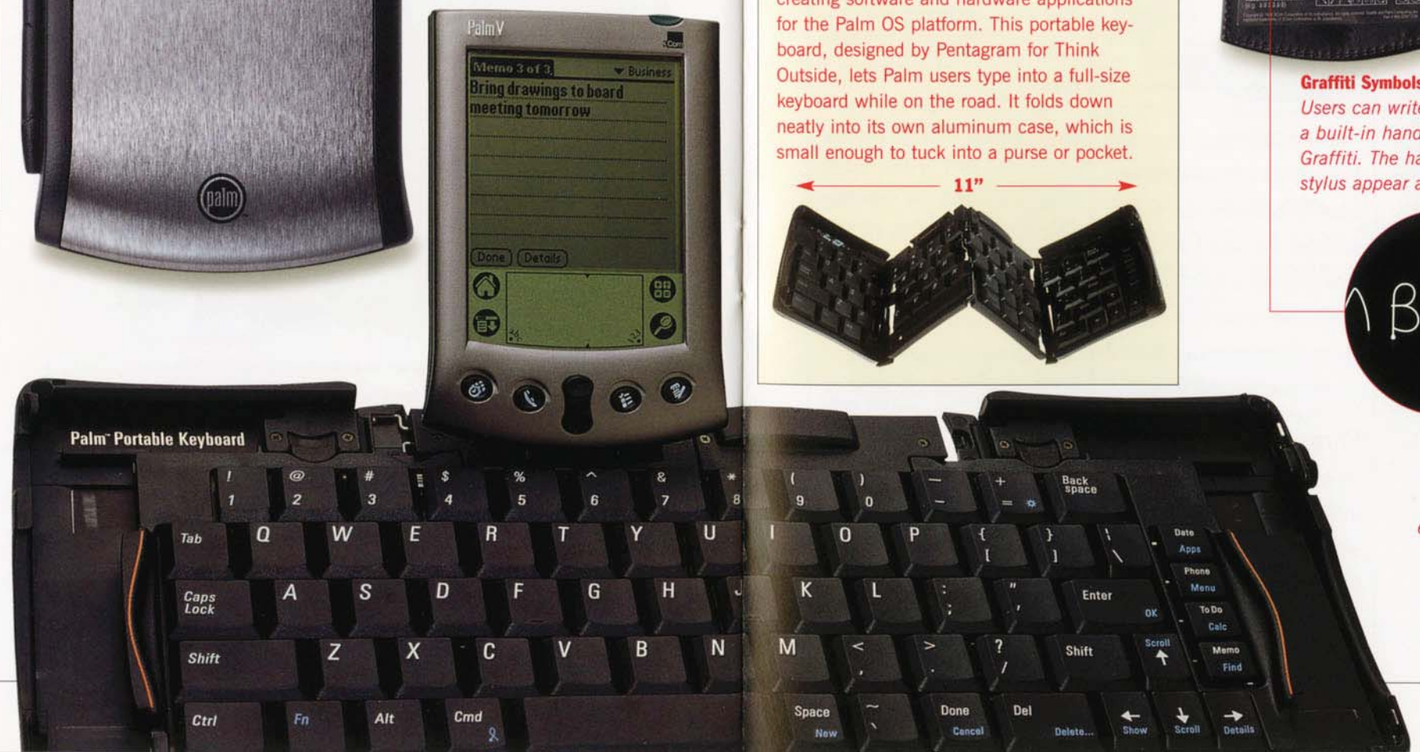
Presenting a handheld computer like a fashion accessory is a radical departure from the typical marketing pitches aimed at geeks and early techno-adopters. In significant ways, the ad signaled a coming of age for technology. Now that computers are found in everything from cars to toys, they are no longer their own distinct category. "Technology is integrating into designed products that we use, wear, and ride in," Boyle agrees. "It has become like the wristwatch which has a very sophisticated mechanism inside but has evolved to a stage where people take that for granted. People buy the watch that looks beautiful and is a pleasure to use. Now they are coming to expect that of computer devices too."

The Palm Line
Evocative of BMW's 3, 5 and 7 series, Palm's numbering system for its product series captures some of the glamour of the luxury car industry while targeting different market segments. The Palm III series appeals to the young, sporty crowd. The sleek Palm V exudes style and taste. The Palm VII with its wireless Internet access suggests power and success.

Palm III **Palm V** **Palm VII**

Website
On Palm's website, e-tailing begins right on the home page with a lively pitch for Palm's new budget-priced "m100" handheld organizer aimed at entry-level customers.

Personalized Accessories
Palm's success has spawned an array of accessories, including a broad choice of carrying cases. Designed by IDEO, this case matches the contour of the Palm V.

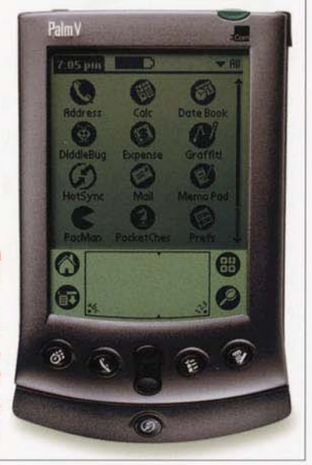


Portable Keyboard

(Actual size relationship)

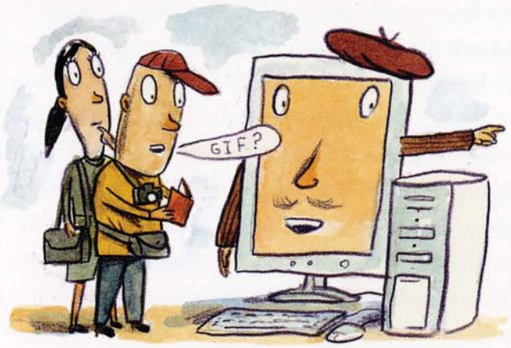
To date, more than 100,000 developers are creating software and hardware applications for the Palm OS platform. This portable keyboard, designed by Pentagram for Think Outside, lets Palm users type into a full-size keyboard while on the road. It folds down neatly into its own aluminum case, which is small enough to tuck into a purse or pocket.

Graffiti Symbols
Users can write on their Palm organizer by using a built-in handwriting recognition system, called Graffiti. The handwriting strokes made with the stylus appear as printed characters on the screen.



Palm V Modem
The Palm V's modem echoes its shape and thin, lightweight design. With the modem attached, the organizer is still small enough to slip easily into a shirt pocket.

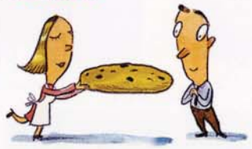
How to Talk Web



Does the "brochureware" posted on your website a few years ago now look tired and oh so last century? Want to jazz it up with some cool animation and sound? Or maybe add some moving images and text that magically appear every time a mouse rolls over an icon? If you're reluctant to start because you are intimidated by all of the techno-jargon and acronyms that Web designers toss around, cheer up! This little glossary won't make you fluent in Webese, but it does provide definitions for a few basic terms you're likely to hear. This glossary was prepared with the help of San Francisco-based Web designer, Ryan Bailey.

Click through rate:
A way to measure the number of users clicking onto a site or ad.

Cookie:



Personal information provided by the user that is recorded as an encoded text file and stored on the user's hard drive. When the user visits the site again, the Web server retrieves the "cookie" and reconfigures itself based on the user's profile and preferences.

CGI (Common Gateway Interface):
An interface that enables Web authors to obtain real-time access to data stored in formats that are incompatible with Web browsers.

Cross-platform compatible:
A website written with HTML language that can be read by different operating systems and browsers.

Firewall:

Security measures designed to protect a networked system from unauthorized or unwelcome access.

Flash:

Multimedia software, developed by Macromedia, that provides increased functionality through animation and interactive systems while maintaining compact files appropriate for the Web.

Form:
An interactive document that contains fields into which users can type in information – for such things as surveys, purchases or data search. Forms are made up of the HTML code and a CGI programming script that processes the data.

Frame:

One way to lay out and operate a Web page using HTML (also, see Table). A Frame divides the page into a rectangular section that is a separate HTML document from the rest of the page. This allows the browser display window to be subdivided into sections that change independently while leaving title graphics, navigational bars and such intact. A disadvantage is that frames require more files from the Web server.

GIF (Graphic Interchange Format):
A file compression format developed by CompuServe to transfer graphic files to and from online services.

GIF Animation:
Simple animation using multiple frames stored in a single file – e.g., Web banner ads that move.

GUI (Graphical User Interface):
Front-end software meant to provide an attractive and easy-to-use interface between the user and application.

HTML (HyperText Markup Language):
The language used to tag various parts of a Web document so that browsing software will know how to display links, text, graphics and attached media.

Hyperlink:

An element in an electronic document that links to another place in the same document or to an entirely different document.

Information architecture (site map, navigation system):
An organizational chart that maps out how users will navigate through a site.

Java:

An object-oriented programming language developed by Sun Microsystems.

JavaScript:
Not to be mistaken with Java, this is a scripting tool that adds functionality but is not an independent language. JavaScript must be run within a browser.

JPEG (Joint Photographic Experts Group):

An image-compression format used to transfer color photographs and images over computer networks. Along with GIF, it is a common way to move photos over the Web.

Lossy:
A way of describing data that gets lost when compressing files. (Example: JPEG is a lossy image format because it drops pixels to save space.)

MPEG (Moving Pictures Expert Group):
An international standard for video compression and desktop movie presentation.

Raster Images:
Graphic images formed through pixels, or bit-maps.

Rollover Button:
Graphic object (button) that has an "on" and "off" state, i.e., a button that highlights when the cursor is passed over it.

Screen Resolution:
Resolution determines the amount of space designers have to work with on the screen. The higher the resolution, the more space, and vice versa. Most design is for a standard 15-inch monitor running at 800x600 dpi.

Streaming Media:

A streaming file allows multimedia content stored on a client server to start playing before it's completely downloaded onto the user's computer. To play streaming media, the user's browser must have a streaming media player, which can be downloaded free, and sufficient bandwidth to download quickly and get good quality.

Table:

Like Frame, Table is an element of HTML that affects how a page is laid out and operates. Tables allow designers to arrange data (text, images, links, forms, etc.) into rows and columns of cells similar to a spreadsheet.

Vector Graphics:
A graphic format that uses mathematical plotting points to form an image, rather than using pixels (see Raster).

Web Host:
The service provider that provides the space on which to place your website.

Web-Safe Palette:

Because some Internet users have operating systems with 8-bit color resolution, they are limited to viewing only 256 colors (as opposed to some 16 million available colors). About 40 colors vary between Macintosh and PC systems, thus leaving 216 common colors that are considered Web-safe and usable for images regardless of the operating system or browser they are displayed on.

ILLUSTRATION: REGAN DUNNICK

Are Annual Reports Still Relevant?

Are printed annual reports going the way of the dinosaurs? Do recent IPOs view and use annuals differently than Fortune 500 giants? An independent survey of corporate communications executives, conducted by Roper Starch Worldwide, provided some surprising answers.

Today the belief that the corporate annual report is primarily a financial document is more fallacy than fact. It is much more than that, according to the just-released Roper Starch Worldwide survey, "Annual Reports in the New Economy."

Most communications executives (93% Fortune 500 and 79% recent IPOs) questioned by Roper Starch state that printed annual reports serve so many purposes they will always be around. They go on to substantiate their opinion by revealing that their annual report press run (on average) in 1999 actually rose over the previous year; percentage-wise, recent IPOs increased their run by more than 40%. This is in spite of the fact that 82% of the Fortune 500 and 76% of the recent IPOs surveyed say they post their printed annual report on their corporate website.

One reason companies do not feel this is redundant is because annual reports serve so many purposes. Today they are used as marketing pieces, recruiting brochures, brand-builders, corporate image books and strategic positioning tools. Less than 25% of those surveyed believe that annual reports are just for individual investors.

These myriad uses confirm why surveyed executives rank the printed annual report as the single most important document their company produces. The fact that annual reports are regulated by the Securities and Exchange Commission (SEC), approved by the corporate CEO, and issued yearly imbue them with a credibility, authority and timeliness that other corporate collateral seldom command. Then too, unlike dry 10K documents which the SEC severely restricts in form and content, annual reports are allowed to include a CEO's letter and editorial theme with lots of appealing images. Most companies seize this opportunity by using the "narrative" half of the book to elaborate on

In June 2000, the global marketing and opinion research firm, Roper Starch Worldwide, conducted a phone survey of 229 Fortune 500 and recent IPO communicators to learn their views on the future of annual reports in the age of the Internet. The independent survey was commissioned by Potlatch Corporation. The results have been compiled in "Annual Reports in the New Economy," which can be viewed, in part, on the Potlatch website, **www.potlatchpaper.com.** A complete printed copy, that also includes the winners of the Potlatch 2000 Annual Report Show and 2000 Production Trends and Averages, is available on request through the website as well.

RECENT IPO

"A clear message of what the company stands for and how well the company is moving foward."

FORTUNE 500

"It should be the face of the firm."

RECENT IPO

"It must have a theme that tells how the company has done and that speaks to the company's aspirations for its products and its people."

FORTUNE 500

"A great annual report has a certain look and feel. It conveys clear messages and communicates the image of the company. Clear financial information is a necessity."

RECENT IPO

"Brevity. Provide core information without fluff."

RECENT IPO

"Rule #1: readability.

A great annual report should convey the message in the fewest words and make it easy to understand. Also, the diagrams must have meaning. And the photography must support the message or it is not useful."

FORTUNE 500

"It must be attractive to get the reader's attention, but also easy to read."

the year's performance, introduce new products and services, explain corporate culture and lay out strategy – all in a friendly, approachable tone of voice.

As might be expected, recent IPOs (60%) are more likely to involve the head of marketing in the planning process than Fortune 500 companies (27%). But the overall level of senior management involvement in all companies confirms that annual reports are not seen as just another communications piece, but are ranked in a category all their own.

Given the importance placed on annual reports, it is noteworthy that surveyed companies say that they rely heavily on outside design consultants not only to create the look of the book but to guide them through the entire process – from developing creative concept and directing photography to selecting the paper and printer. A third of the recent IPOs questioned say that they basically ask the outside design firm to handle the whole annual report.

That's not so surprising, considering the emphasis companies place on visual quality. The majority of surveyed executives believe that annual reports produced from cheap materials – i.e., amateurish layouts and artwork, inferior paper and printing – imply that business is not good.

Conversely, they regard thoughtfully conceived design and imagery as an effective means of distinguishing a company's strengths, values and brand. Asked to identify the theme topic for the past year's annual, most mentioned the same broad categories – progress, products and strategy. What helps to differentiate each message is the way the story is visually told. As a result, more companies are forming collaborative relationships with designers and treating them as integral partners in content development and presentation. Design is no longer viewed as an appendage to corporate communications. It is recognized as essential to reach audiences brought up on broadcast entertainment and Internet speeds.

The Annual Report Game

Kerry Leimer
Leimer Cross Design

Annual report designers today must walk a tightrope of corporate objectives – only one goal of which is that the book look good. As important is bringing visual impact to the year's message and perpetuating the company's brand image. One company that has done that exceptionally well is the videogame giant, Nintendo Co. Ltd., which produces the wildly popular Game Boy and characters such as Super Mario, Donkey Kong and Pokémon. For the past ten years, Nintendo's award-winning annual reports have been designed by Leimer Cross in Seattle. This look at a decade of Nintendo reports shows how design has helped to evolve the brand and create a visual bridge between the financial and marketing message.

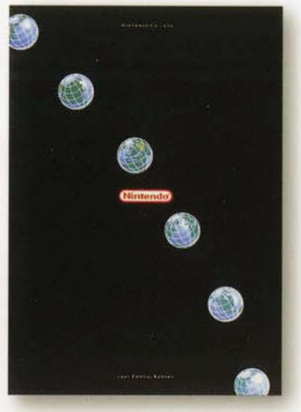
KERRY LEIMER

"Through the thoughtful use of design, I believe we can help our clients frame their message for the year and make it more meaningful and coherent."

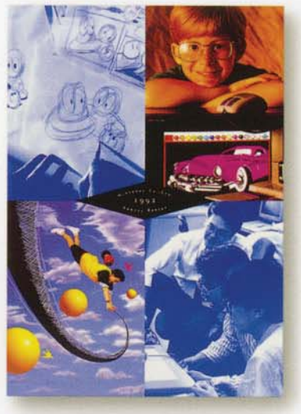
PHOTOGRAPHY: BARRY ROBINSON

Nintendo Covers

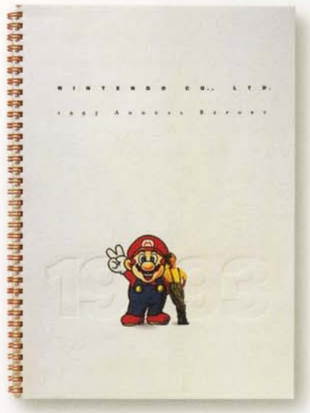
Building brand at Nintendo means giving audiences the feeling that they can always count on the videogame maker to deliver something new, fun and unexpected. "Nintendo wants to surprise," says designer Kerry Leimer. That effort begins right on the cover with dramatic changes in size and format, lavish use of bold, highly saturated colors, inclusion of special techniques such as blind embossing and die-cutting, and the use of a variety of photographic and illustrative styles.



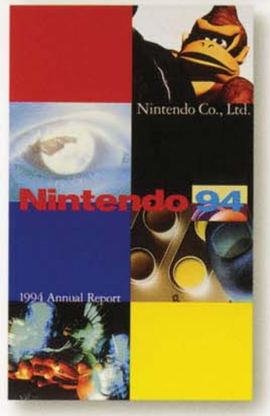
1991: *8.5" x 12"*



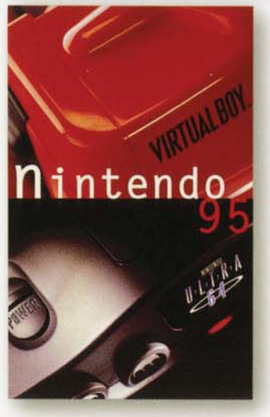
1992: *8.5" x 12"*



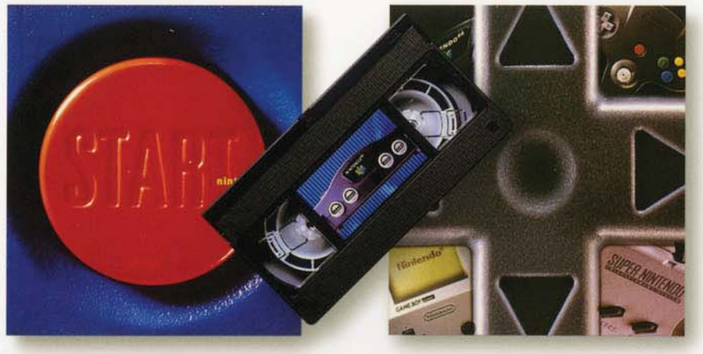
1993: *8.5" x 12"*



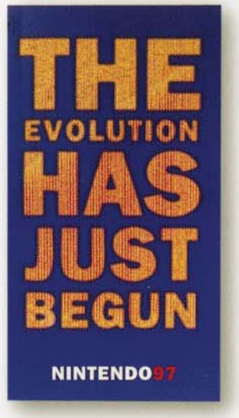
1994: *7.5" x 12"*



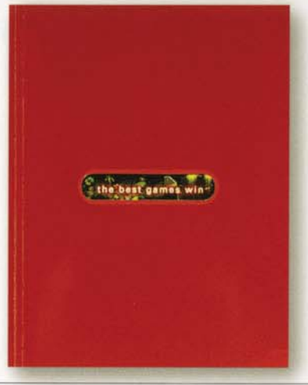
1995: *7.5" x 12"*



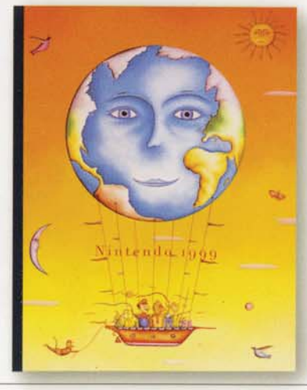
1996: *7.385" x 8.25" book, video & box*



1997: *6.5" x 12"*

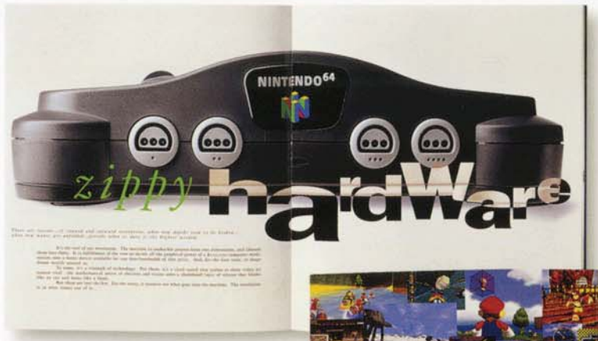


1998: *7" x 9"*



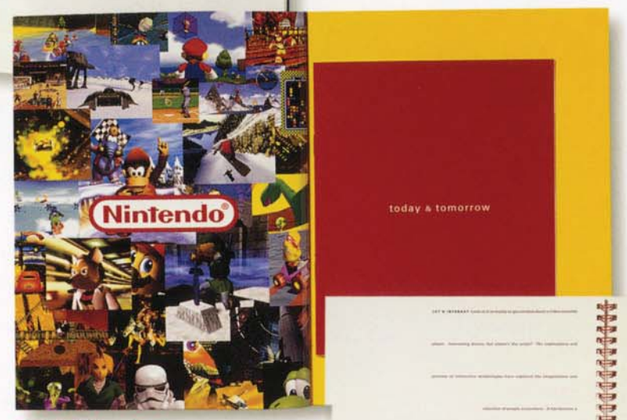
1999: *7" x 9"*

2000: *9.25" x 11.125"*



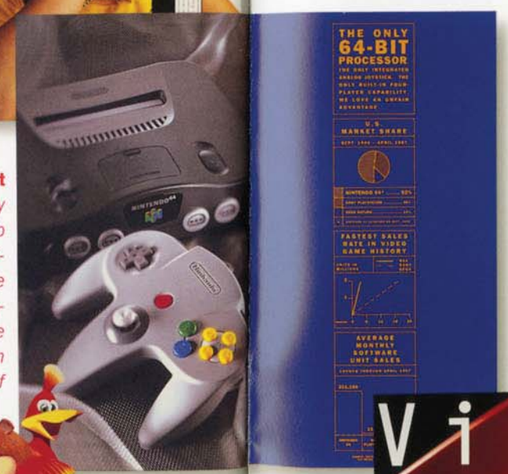
Hardware Display
As with so many technology companies, Nintendo wants to show off its hardware. Here playful typography gives bounce to what could have been a traditional image.

VHS Marketing Demo
To give readers a true sense of its revolutionary new 64-bit-processing player, Nintendo treated its 1996 annual like a game box, with a scaled-down printed report and a VHS demo tape inside.

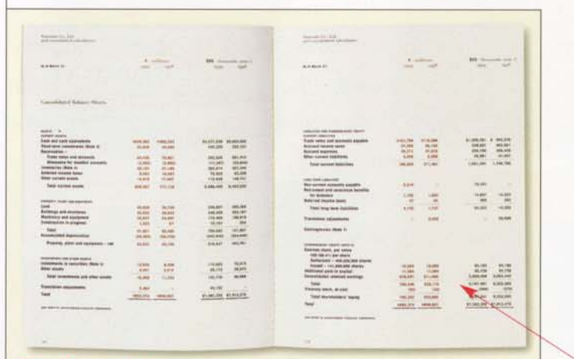


End-User Photos
Nintendo's annual sidestepped the cliché photo of "customer using product" by featuring portraits of happy customers giving brief testimonials about why they like the product.

Book Within a Book
To suggest that its products offer youth a thrill a minute, Nintendo's 1998 report was loaded with animated characters, video game scenes, sports hero shots, and photos of Game Boy. Within this marketing context, the "Today & Tomorrow" corporate message would feel out of place, so Leimer Cross set it off by treating it as a book within a book.



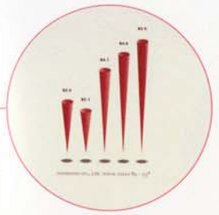
Typography as Art
Leimer Cross used bold typography and strong colors to add impact to what would otherwise be a traditional product presentation. The approach offers both printing economy and visual impact as well. The orange and blue combination strengthens the graphic quality of the text and suggests a trendy look.



Two Currencies
A common challenge for multinational companies is showing financial information in more than one currency, and often more than one language. For Japan-based Nintendo, the financial section is presented only in English, but the numbers are stated in both U.S. dollars and yen. Color-coding helps guide readers quickly to the appropriate column of numbers.

CEO ILLUSTRATION: ROSEMARY WEBBER

A Look Inside
Over the past decade, Leimer Cross has developed a number of graphic solutions to perpetuate the Nintendo brand and highlight the company's main message for the year. Along the way, Kerry Leimer admits that he has had to react to all kinds of challenges, from positioning new product technology to organizing overseas photography on a tight budget. "It's unrealistic for any annual report designer to assume there won't be changes," he says. "I believe one reason we succeed so well in the annual report business is because we structure our firm to allow for things to change."



Financial Graphs
Bar graphs echo the color and spirit of the visuals but are kept conservative to avoid trivializing financial information.

CEO's Portrait
To clearly distinguish the corporate message from the company's playful products, the portrait of Nintendo president, Hiroshi Yamauchi, is often rendered as Wall Street Journal-style line art.

Designing an annual report for a company that markets Pokémon and Donkey Kong may seem like child's play but, in reality, it demands addressing the same kinds of communications issues other companies face. "Nintendo uses its annual primarily to talk to industry analysts and customers like the Toys R Us of the world," says designer Kerry Leimer. "They want their annual to be fresh and different every year and still be recognized as Nintendo."

Communicating brand in the annual is different from that on videogame packaging, which appeals directly to young buyers by "speaking" their visual language. The design of the annual, on the other hand, must convince investors that Nintendo products are playful and hip without trivializing the importance of its corporate message.

KERRY LEIMER
"Clients often want to be very literal when showing their product. But sometimes the literal looks too generic. Imaginative use of design can help to convey what makes it special."

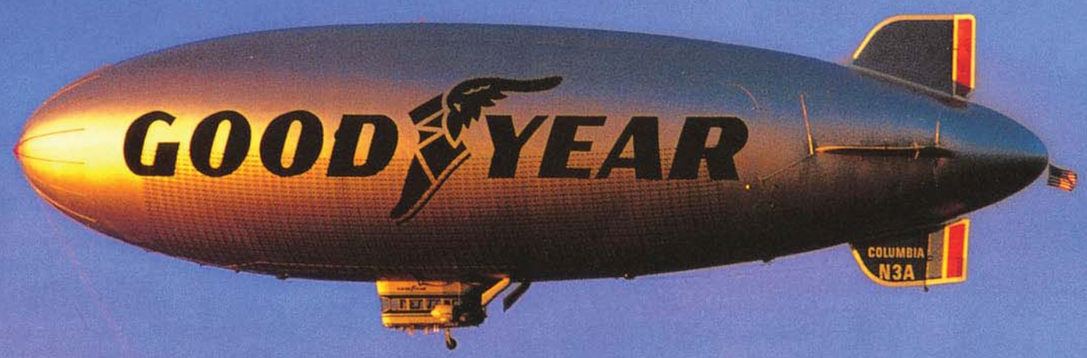
BUSINESS AND DESIGN CLASSIC: GOODYEAR BLIMP

The Goodyear blimp gives real meaning to the term "promotional vehicle." Emblazoned with the logo of the Goodyear Tire and Rubber Company, it has been a familiar sight at major sporting events since the 1960s when it became a "platform" for telecasting a bird's-eye view of the activities below.

Goodyear's blimp tradition began in 1925 when the company built its first helium-filled public relations airship, the Pilgrim, painted its name across the sides and barnstormed the country. An awesome sight, crowds loved it. Over the years, Goodyear built 300 more airships, making its hometown of Akron, Ohio, the center for blimp manufacturing.

In the early 1930s, the U.S. Navy commissioned Goodyear to build two 400,000-pound rigid airships, each measuring the length of seven football fields and needing 6.5 million cubic feet of helium to become airborne. Designed as aerial aircraft carriers, they could launch and retrieve specially equipped planes while in flight. Unfortunately, the lumbering giants were lost in severe storms within two years. But the U.S. Navy continued to rely on a fleet of 150 smaller Goodyear-built blimps to conduct aerial surveillance for military convoys and merchant fleets along the coast. Able to stay aloft for more than a week at a time, Navy blimps remained in service until 1962.

Today Goodyear no longer mass-produces airships. It only operates blimps to serve as its worldwide "Aerial Ambassadors." Its current fleet of seven airships – three in the U.S., two in Europe, one in South America and one in Australia – cover more than 120 events annually, traveling over 400,000 miles at speeds of 35 miles per hour. In the U.S. alone, more than 60 million people get a first-hand look at a Goodyear blimp at sporting events each year, with millions more viewing this beloved corporate icon on television – a successful promotional program by any measure.



PHOTOGRAPHY: BARON WOLMAN

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Potlatch Corporation

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