

CONTEXT



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**SPECIAL
REPORT**

C O R P O R A T I O N

R E E B

**ILLUSTRATIONS BY
ALEXANDER KOSOLAPOV**

**THINK FOR
YOURSELF**

**INNOVATE
OR DIE**

SHIFT HANGS

**EAT YOUR
BEANS**

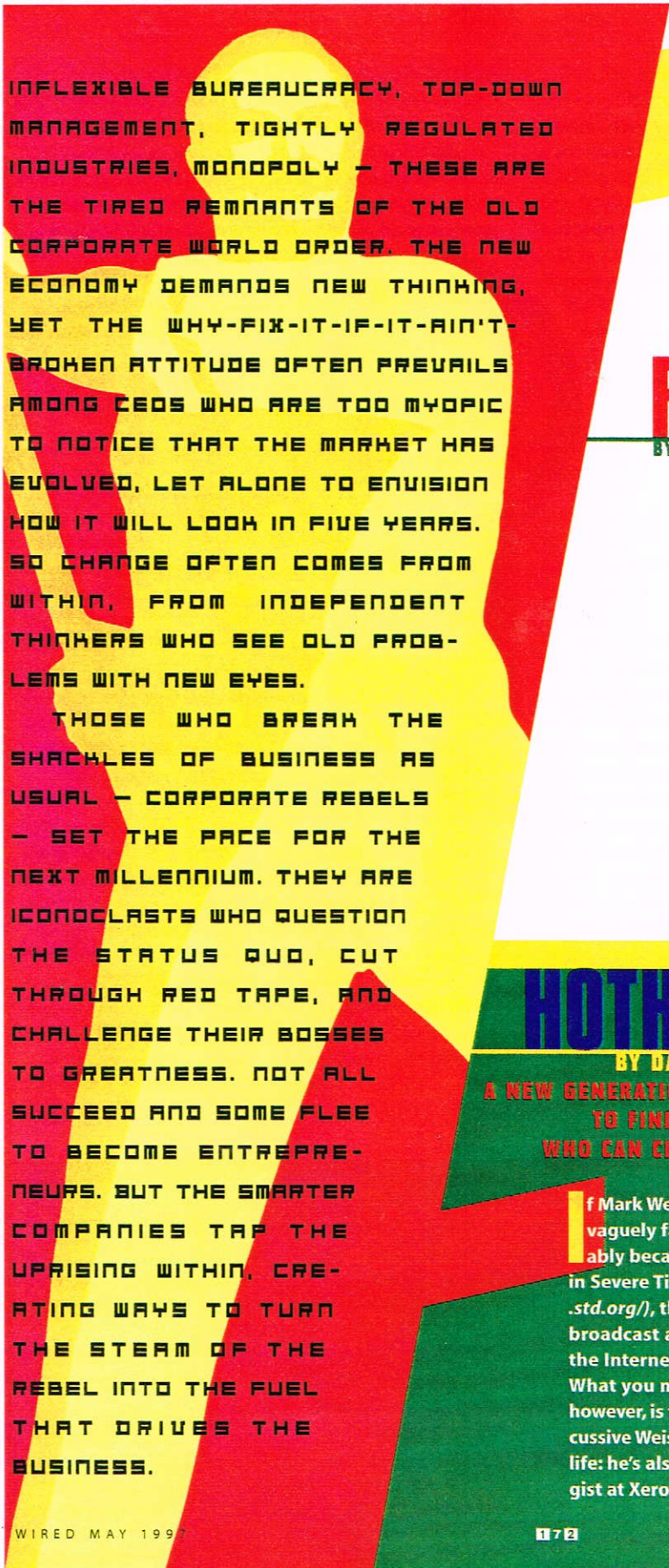
**CREAT-
CHAS**

D R A T E

REBELS

EIGHT WHO MADE A DIFFERENCE
BY CHALLENGING CONVENTIONAL WISDOM

www.wired.com/5.05/rebels/



INFLEXIBLE BUREAUCRACY, TOP-DOWN MANAGEMENT, TIGHTLY REGULATED INDUSTRIES, MONOPOLY — THESE ARE THE TIRED REMNANTS OF THE OLD CORPORATE WORLD ORDER. THE NEW ECONOMY DEMANDS NEW THINKING, YET THE WHY-FIX-IT-IF-IT-AIN'T-BROKEN ATTITUDE OFTEN PREVAILS AMONG CEOs WHO ARE TOO MYOPIC TO NOTICE THAT THE MARKET HAS EVOLVED, LET ALONE TO ENVISION HOW IT WILL LOOK IN FIVE YEARS. SO CHANGE OFTEN COMES FROM WITHIN, FROM INDEPENDENT THINKERS WHO SEE OLD PROBLEMS WITH NEW EYES.

THOSE WHO BREAK THE SHACKLES OF BUSINESS AS USUAL — CORPORATE REBELS — SET THE PACE FOR THE NEXT MILLENNIUM. THEY ARE ICONOCLASTS WHO QUESTION THE STATUS QUO, CUT THROUGH RED TAPE, AND CHALLENGE THEIR BOSSES TO GREATNESS. NOT ALL SUCCEED AND SOME FLEE TO BECOME ENTREPRENEURS. BUT THE SMARTER COMPANIES TAP THE UPRISING WITHIN, CREATING WAYS TO TURN THE STEAM OF THE REBEL INTO THE FUEL THAT DRIVES THE BUSINESS.

His arms gesticulate spastically and his head keeps bobbing and flicking between his visitor and every item that comes into view as he races down the hushed hallways of the IBM Almaden Research Center.

He's fumbling over his words, changing the subject every few seconds, then backing up, finally throwing out his hands and letting go a staccato burst of laughter before launching into a story about a cocktail party, someone named Lou, and a computer you wear on your belt.

REBEL WITHOUT

BY STEVE G. STEINBERG

At this point, the visitor is so convinced that Ted Selker seems too, well, flaky, to be a real scientist — he's not calmly staring off into the middle distance, loosely holding an uncapped marker in one hand, preparing to record the next flash of inspiration like others at Almaden — that it takes a minute to connect "Lou" with Lou Gerstner, IBM's CEO. And then the visitor starts wondering: *How the hell did this maniac become so important to a staid corporation like IBM?*

Corporate R&D labs have always been a dumping ground for misfit technogeeks. If they are a bit weird, so much the better. They can be shown off every quarter or so when the CEO takes investors on a tour of the lab: "Yep, we have some brilliant researchers here. Just look at Ted! He's almost as crazy as Einstein!"

HOTHOUSE FLOWERS

BY DAVID DIAMOND

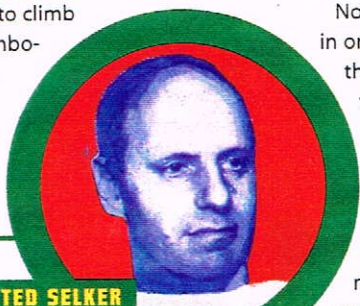
A NEW GENERATION OF COMPANIES IS WORKING HARD TO FIND AND NURTURE THE IN-HOUSE MAVERICKS WHO CAN CHALLENGE THEM TO SUCCESS.

If Mark Weiser's name sounds vaguely familiar, it's probably because he plays drums in Severe Tire Damage (www.std.org/), the first band to broadcast a concert live on the Internet in June 1993. What you may not realize, however, is that the hyperpercussive Weiser leads a double life: he's also chief technologist at Xerox PARC.

Weiser doesn't possess many of the traits typically associated with corporate rebels — or, to quote one futurist, "He's not an abrasive asshole." Weiser is soft-spoken. He doesn't like to brag. But as the Number Two person to PARC's legendary chief scientist John Seely Brown, Weiser has turned the lab's research direction around, and led it

Selker, 41, seems like a natural for this role. His angular face is framed by his annual winter beard, and he's breath-takingly smart, with an appropriately esoteric academic background. As an undergraduate at Brown University in 1978, he built an electronic simulation of how the eye focuses and then went on to study brain modeling and AI at the University of Massachusetts and Stanford. In his spare time, Selker used his restless energy to climb peaks like the 20,702-foot Chimborazo in Ecuador and to carve a 6-ton oak sculpture.

A PAUSE



REBEL: TED SELKER

POSITION: RESEARCH FELLOW, IBM

CRISIS: BATTLED ENGINEERING AND MANUFACTURING SKEPTICS TO CREATE THE TRACKPOINT, THE KNOBBY RED POINTING DEVICE THAT HELPED BOOST SALES OF IBM'S THINKPAD PORTABLE PC.

He worked at Atari's think tank during its heyday in the early 1980s and moved over to Xerox PARC in 1984. Both labs were full of rebels who invented brilliant things and ... were ignored!

But Selker has managed to break that pattern. You know the little red positioning button used on the ThinkPad? That's his. Called the TrackPoint, it is the biggest improvement in pointing devices since the mouse. IBM tripled its notebook

production every month for four months after the TrackPoint arrived. Two other IBM notebook PCs introduced without a TrackPoint were both discontinued.

Selker never really fit in at Atari or Xerox. So in 1985, when IBM asked him to join its T. J. Watson Research Center, he accepted. "I wanted to show I wasn't a flake," he says. He wound up joining as a lowly advisory programmer because he didn't have a PhD, and he kept getting slapped down by management. But he was starting to learn a few tricks for getting his way within the IBM bureaucracy.

One day, Selker noticed that people were slowed down by always having to reach for the mouse. If some kind of joystick device could be integrated with the keyboard, then users could keep typing. Selker experimented with different tracking algorithms and created hundreds of plastic mock-ups, finally ending up with a stubby plastic shaft that fit between the keys.

Now came the hard part: to have his pointing device used in one of IBM's laptops, he had to win over Satoru Yamada, the IBM Japan engineer heading up that research. Satoru wanted an alternative trackball device and objected to Selker's TrackPoint because it left an imprint on your finger. That was ridiculous, thought Selker. It was like criticizing a Ferrari because the clutch was stiff.

But Selker initiated an orgy of collaborative head-scratching, and the two experimented with different materials to reduce the TrackPoint's stiffness. What emerged was a squishy rubber top that was both more accurate and more comfortable than the earlier version. Most important, Satoru had a stake in it.

Selker knew he had to stay involved during the entire birthing process. IBM's hardware engineers claimed the TrackPoint's microcode was too bulky and unstable, so Selker and his team rewrote it. When the manufacturing expert said they had to use a cheaper rubber even though it wasn't as sticky as Selker wanted, he enlisted his father (who had worked with the rubber industry in the 1940s), and they found a company that could meet IBM's price demands. What emerged was the distinctive red dot. Even today, when many have imitated the design, you'll find people stealing the rubber covering from TrackPoints to replace the more slippery plastic used on other computers.

Selker was rewarded for his success by being chosen as an IBM Fellow, the company's highest accolade. But that hasn't made it any easier for him to get his ideas accepted. Nor has it made him any less worried about being perceived as a flake. ■ ■ ■

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into the post-PC era of ubiquitous computing, involving wireless computers implanted in everything from walls to key chains.

Weiser, 44, personifies the dire need for companies to identify, nurture, and keep

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those who can challenge them into success.

It's the nature of the high tech beast that many of the best innovations spring from the dreams of smart people who challenge the system. Steve Wozniak was a maverick programmer at Atari, for instance, when he devised plans for an easy-to-use PC. (The blueprint, of course, was

dismissed by Atari head Nolan Bushnell, and Wozniak left with another Atari employee named Steve Jobs to create Apple Computer.) In recent years, companies have learned the hard way that in an industry awash in venture capital, it isn't difficult for lone rangers to suddenly jump ship and establish a start-up that has the agility and speed to

develop innovative products.

Of course, there can be a downside to rebel worship. Stanford University economics professor Timothy Bresnahan says it's not always easy to tell "useful, out-of-the-box thinking from raw weirdness." Adds Andersen Consulting partner S. Russel Craig: "It's a dual-edged sword. If the rebel is right, it could be very valuable