



BY JEFFREY E. GARTEN

## Andy Grove Made The Elephant Dance

Next month, Andrew S. Grove, chairman of Intel Corp., will retire after 37 years at the company. In January, 2004, Wharton School voted him the most influential business leader of the past quarter-century—above Bill Gates, Jack Welch, and Sam Walton. I would go further: He is also a superb model for future generations of CEOs.

During Grove's 1987-98 tenure as chief executive, Intel's stock price rose 31.6% a year, twice the rate of the Standard & Poor's 500-stock index, and revenues grew from \$1.9 billion to \$25.1 billion. The workforce doubled, to 64,000 people, and Intel was transformed into a global corporation, with 55% of its revenues coming from abroad. The company became central to the growth of personal computers, cell phones, genomic research, computer-aided design, and virtually everything else that characterizes this age of digitalization and the Internet.

But Grove's achievement is not defined merely by Intel's growth. Throughout his career, he demonstrated a keen ability to rebound from deep crises. In the mid-1980s, for example, he responded to Japan Inc.'s onslaught against Intel's production of memory chips by leading the company into the entirely new field of microprocessors. It was a massive change of direction, as if Caterpillar Inc. had decided quickly to retool all its bulldozer plants to start making passenger cars. Another example: In 1994, Grove managed the global recall of defective Pentium chips, a problem that almost sank the company. He did so in a manner reminiscent of the legendary skill of Johnson & Johnson CEO James E. Burke, who took the lead in J&J's Tylenol crisis.

**GROVE'S GENIUS HAS BEEN** to align strategy and execution as the forces of globalization were creating enormous discontinuities in the business environment. This necessitated creating a vision that was tempered by the realities of an industry in constant turmoil. He thought about his operational environment like a master chess player, always anticipating what the competition might do in response to his moves—and then what he would do in response to that.

Grove had an exceptional ability to create a work environment that married entrepreneurialism with extreme discipline. He gave his colleagues a wide berth to be innovative and to anticipate the future. But he was brutal in demanding that they measure their performance every step of the way. In an era when size is critical to global reach and when speedy adaptability is essential to survival, Intel under Grove demonstrated the way to be big and nimble. It showed that elephants really can dance.

No active business leader has written so extensively and candidly about how to ensure responsiveness to destabilizing change. In *High Output Management* (1983), for example, Grove explains how to maximize the productivity of employees, whether they make computer chips or are involved in back-office work. In *Only the Paranoid Survive* (1996), he describes how companies should deal with new competitors that emerge suddenly and with such force that they change the fundamental shape of an industry itself.

Working out of a cubicle and declining the usual executive perks, Grove was the antithesis of an imperial CEO—although he could question his colleagues so intensely as occasionally to border on intimidation. As the

company's chairman since 1997, he has become a paragon of effective corporate governance. He has been a strong proponent of separating the positions of chairman and CEO and has built an active, independent board that has been deeply involved in overseeing the company's global strategies.

I asked him what he considered his greatest accomplishment. "It's that I have played a significant part in developing the work environment

and culture at the company and with the directors," he said.

In May, Grove will leave the Intel board but keep a hand in the company as an active adviser. One major project will be the application of information technology to health care and bioscience. A new book on corporate strategy will come out later this year. We should hope to continue hearing his ideas on that and many other fronts, too, including his prescriptions for preparing America for competition from China and India. At a time when many business leaders are under a cloud or hiding under the table, his courage, skills, intellect, and integrity will be sorely missed. ■■

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