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FINDINGS

An Early Environmentalist, Embracing New ‘Heresies’

By [JOHN TIERNEY](#)

Correction Appended

Stewart Brand has become a heretic to environmentalism, a movement he helped found, but he doesn't plan to be isolated for long. He expects that environmentalists will soon share his affection for nuclear power. They'll lose their fear of population growth and start appreciating sprawling megacities. They'll stop worrying about " Frankenfoods " and embrace genetic engineering.

He predicts that all this will happen in the next decade, which sounds rather improbable — or at least it would if anyone else had made the prediction. But when it comes to anticipating the zeitgeist, never underestimate Stewart Brand.

He divides environmentalists into romantics and scientists, the two cultures he's been straddling and blending since the 1960s. He was with the Merry Pranksters and the [Grateful Dead](#) at their famous Trips Festival in San Francisco, directing a multimedia show called " America Needs Indians ." That's somewhere in the neighborhood of romantic.

But he created the shows drawing on the cybernetic theories of Norbert Wiener, the [M.I.T.](#) mathematician who applied principles of machines and electrical networks to social institutions. Mr. Brand imagined replacing the old technocratic hierarchies with horizontal information networks — a scientific vision that seemed quaintly abstract until the Internet came along.

Mr. Brand, who is now 68 and lives on a tugboat in Sausalito, Calif., has stayed ahead of the curve for so long — as a publisher, writer, techno-guru, enviro-philosopher, supreme networker — that he's become a cottage industry in academia.

Last year, Fred Turner of Stanford published " From Counterculture to Cyberculture: Stewart Brand, the Whole Earth Network, and the Rise of Digital Utopianism ." This fall Andy Kirk of the [University of Nevada](#), Las Vegas, is putting out " Counterculture Green: The Environmentalism of Stewart Brand and the Whole Earth Catalog ." By next year we should be due for a revisionist historian's discovery of a modern social movement that Mr. Brand did not orchestrate.

In addition to publishing the Whole Earth Catalog, he organized the first Hackers Conference, in 1984, and helped found The WELL, the early electronic community that was a sort of prototype of the Web. In Professor Turner's history, he was the impresario who knew everyone and brought the counterculture and

the cyberculture together, from the Homebrew Computer Club in the 1970s to Wired magazine in the 1990s.

He is now promoting environmental heresies, as he called them in *Technology Review*. He sees genetic engineering as a tool for environmental protection: crops designed to grow on less land with less pesticide; new microbes that protect ecosystems against invasive species, produce new fuels and maybe sequester carbon.

He thinks the fears of genetically engineered bugs causing disaster are as overstated as the counterculture's fears of computers turning into Big Brother. "Starting in the 1960s, hackers turned computers from organizational control machines into individual freedom machines," he told *Conservation* magazine last year. "Where are the green biotech hackers?"

He's also looking for green nuclear engineers, and says he feels guilty that he and his fellow environmentalists created so much fear of nuclear power. Alternative energy and conservation are fine steps to reduce carbon emissions, he says, but now nuclear power is a proven technology working on a scale to make a serious difference.

"There were legitimate reasons to worry about nuclear power, but now that we know about the threat of [climate change](#), we have to put the risks in perspective," he says. "Sure, nuclear waste is a problem, but the great thing about it is you know where it is and you can guard it. The bad thing about coal waste is that you don't know where it is and you don't know what it's doing. The carbon dioxide is in everybody's atmosphere."

Mr. Brand predicts that his heresies will become accepted in the next decade as the scientific minority in the environmental movement persuades the romantic majority. He still considers himself a member of both factions, just as in the days of the Merry Pranksters, but he's been shifting toward the minority.

"My trend has been toward more rational and less romantic as the decades go by," he says. "I keep seeing the harm done by religious romanticism, the terrible conservatism of romanticism, the ingrained pessimism of romanticism. It builds in a certain immunity to the scientific frame of mind."

Mr. Brand got his first look at the big picture one afternoon in 1966 while sitting on a roof in San Francisco at what he calls an "altitude of three stories and 100 miles," meaning micrograms of LSD. He contemplated the skyline and decided the buildings weren't parallel because he was seeing the curvature of the Earth.

This reminded him of Buckminster Fuller's theory that people abused the environment because they thought of the Earth as flat and infinite, not as a finite globe. The next day the Earth looked flat again, but the 28-year-old Mr. Brand had a new cause. He printed up buttons asking, "Why haven't we seen a photograph of the whole Earth yet?"

Two years later, when Earth's portrait from space was finally released, he used it on the cover of his new project, the *Whole Earth Catalog*. The catalog became the bible for the counterculture and the back-to-the-land movement, but Mr. Brand was not into the simple self-sufficient life on the farm. He was into new tools and new ways of sharing information. As he famously explained in the introduction to the catalog: "We are as gods and might as well get good at it."

Along with the potter's wheels and organic-farming tips, the catalog featured a state-of-the-art offering from Hewlett Packard: a desktop calculator that cost \$4,900. In 1968, which was 16 years before the Apple Macintosh, Mr. Brand helped arrange the first demonstration of a computer mouse.

In a 1972 article, he contrasted "hackers" (a novel term then) with old-fashioned "planners," hailing the experimental, collaborative culture that was taking shape in cyberspace. At the first Hackers Conference, he uttered another of his enduring aphorisms, "Information wants to be free."

Mr. Brand's latest project, undertaken with fellow digerati, is to build the world's slowest computer, a giant clock designed to run for 10,000 years inside a mountain in the Nevada desert, powered by changes in temperature. The clock is an effort to promote long-term thinking — what Mr. Brand calls the Long Now, a term he borrowed from the musician Brian Eno.

Mr. Brand is the first to admit his own futurism isn't always prescient. In 1969, he was so worried by population growth that he organized the Hunger Show, a weeklong fast in a parking lot to dramatize the coming global famine predicted by Paul Ehrlich, one of his mentors at Stanford.

The famine never arrived, and Professor Ehrlich's theories of the coming "age of scarcity" were subsequently challenged by the economist Julian Simon, who bet Mr. Ehrlich that the prices of natural resources would fall during the 1980s despite the growth in population. The prices fell, just as predicted by Professor Simon's cornucopian theories.

Professor Ehrlich dismissed Professor Simon's victory as a fluke, but Mr. Brand saw something his mentor didn't. He considered the bet a useful lesson about the adaptability of humans — and the dangers of apocalyptic thinking.

"It is one of the great revelatory bets," he now says. "Any time that people are forced to acknowledge publicly that they're wrong, it's really good for the commonweal. I love to be busted for apocalyptic proclamations that turned out to be 180 degrees wrong. In 1973 I thought the energy crisis was so intolerable that we'd have police on the streets by Christmas. The times I've been wrong is when I assume there's a brittleness in a complex system that turns out to be way more resilient than I thought."

He now looks at the rapidly growing megacities of the third world not as a crisis but as good news: as villagers move to town, they find new opportunities and leave behind farms that can revert to forests and nature preserves. Instead of worrying about population growth, he's afraid birth rates are declining too quickly, leaving future societies with a shortage of young people.

Old-fashioned rural simplicity still has great appeal for romantic environmentalists. But when the romantics who disdain Frankenfoods choose locally grown heirloom plants and livestock, they're benefiting from technological advances made by past plant and animal breeders. Are the risks of genetically engineered breeds of wheat or cloned animals so great, or do they just ruin the romance?

Mr. Brand would rather take a few risks.

"I get bored easily — on purpose," he said, recalling advice from the co-discoverer of [DNA](#)'s double helix. "Jim Watson said he looks for young scientists with low thresholds of boredom, because otherwise you get

researchers who just keep on gilding their own lilies. You have to keep on trying new things.”

That’s a good strategy, whether you’re trying to build a sustainable career or a sustainable civilization. Ultimately, there’s no safety in clinging to a romanticized past or trying to plan a risk-free future. You have to keep looking for better tools and learning from mistakes. You have to keep on hacking.

Correction: February 28, 2007

The Findings column in Science Times yesterday, about the environmentalist Stewart Brand, gave the incorrect surname in some references for an economist who made a bet about the prices of natural resources in the 1980s. He is Julian Simon, not Sinon.

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