

## Stewart Brand, an Icon of Environmentalism, Talks About Embracing Nuclear Power



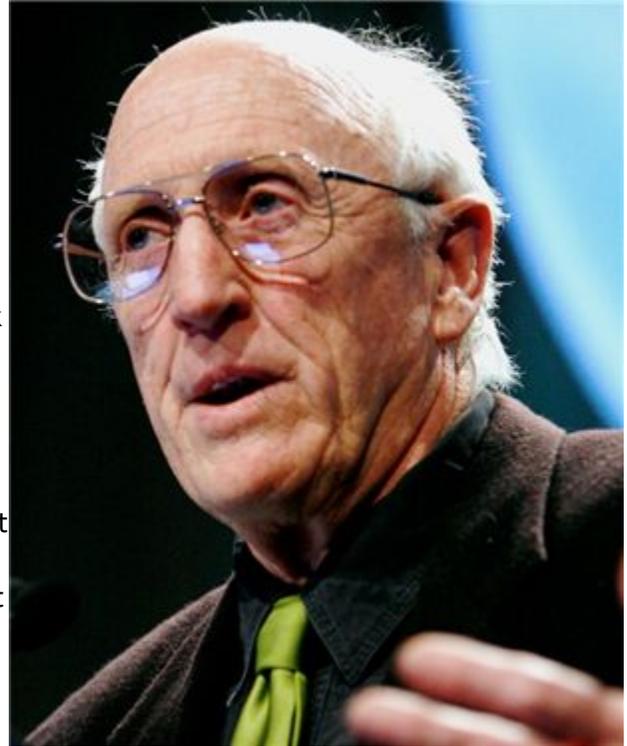
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By Andrew Bast

When it comes to icons of the environmentalist movement, Stewart Brand ranks at the top of the list. Brand, 70, founded the *Whole Earth Catalog*, which helped to mold the counterculture of the 1970s. Today, though, he's just released a new book, *Whole Earth Discipline: An Ecopragmatist Manifesto*, in which he makes a U-turn into much of the movement's received wisdom. Perhaps the biggest about-face concerns his embrace of nuclear power. NEWSWEEK's Andrew Bast sat down with Brand in New York to talk about the atom, the environment, and the dire ramifications of napping on a tugboat. Excerpts:

### NEWSWEEK: Is nuclear power green?

BRAND: Yes. Having been careful not to look into nuclear power for many years, when I began considering it I thought it was green primarily in the context of greenhouse gases and climate change. But frankly, now I've gotten to the point now that even if carbon dioxide in the atmosphere, greenhouse gases, and climate change were not significant issues, I would still probably be pro-nuclear. Because coal is so awful.



### Is it fair to compare the remnants of coal-fired power plans with nuclear waste?

The waste from coal means gigatons of carbon dioxide going into the atmosphere. There is also the fly ash, slurry, and all the rest of the stuff. The sheer quantities get to be overwhelming. Eighty rail cars a day of coal, each one weighing a hundred tons goes into a 1-gigawatt coal-fired plant, and that multiplies to 19,000 tons of carbon dioxide, every day. Compare that to one year of a 1-gigawatt nuclear plant, which puts out 20 tons of very dense nuclear waste that goes into dry cask storage. You know exactly where it is and you monitor it, and it's not doing anything bad. That's a pretty strong contrast.

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### In the book, you tally up the anti-nuke environmentalists who have changed their minds. Is there a definitive line in the environmental movement to embrace nuclear power?

You can name the prominent figures on two hands and two feet. The one I like, because it is so clear, is Stephen Tydnall in Britain, who was head of Greenpeace there. Today, Britain is headed toward an environmentally permitted, if not actually encouraged, nuclear renaissance. And they've got France right across the channel selling them 2 gigawatts a year of nuclear electricity!

**You were trained originally as an ecologist, so maybe it's easy for you to think about long eras like 10,000 years. But for many people, whether it's nuclear power plants, waste from coal-fired plants, or climate change, it's hard to think beyond much more than the time they've got before, well, they're part of the earth, too.**

If we got most of civilization comfortable thinking in a 100-year time frame, that would be a fantastic victory.

Climate change may do this. But that is jumping up from a situation where people can barely think seriously about a decade at a time. Mostly we're focusing on the next quarter, the next election, and that's fine. But one of the things we hire government and scientists to do is to step outside that time frame, bear it in mind, operate within it, but keep the century in mind.

**Environmental debates are undoubtedly heated. Do you think good science ends up the victim?**

Good science wound up a victim in a serious way with genetically engineered food crops. The next generation, known as synthetic biology, has learned the lesson that efforts were not made to get really good public understanding and permission to go ahead with new technology.

**In an ideal world, shouldn't good science—the scientific method—rise above the fray?**

Ingo Potrykus, the Swiss engineer who developed golden rice, had to get money from the Swiss government to grenadeproof his greenhouse. He was developing the rice that would provide Vitamin A to save the lives and eyesight of a million children a year. He was vilified and threatened by many, especially in Europe. We would like to not keep doing that.

**What's your strategy, then?**

The title of my book, *Whole Earth Discipline*, shows that we have to engage a global climate problem, which doesn't belong to any one region. We are doing what ecologists call ecosystem engineering. That's what beavers do—they make dams, and then you get a much richer environment. Earthworms do it, too. So we need to be as productive, ecologically, as earthworms and beavers.

**Is there any hope for the upcoming climate change summit in Copenhagen?**

Focusing on the nuclear issue, I would trust that they will not make the Kyoto mistake of refusing to give carbon credits to nuclear power.

**One last question, about you as a person. You live on a tugboat in San Francisco. First, does that lessen your impact on the environment? And second, don't you get seasick when you take a nap in the afternoon?**

No.

**No to the impact, or no to the seasick?**

No to the seasick.

**Ah, well.**

The impact is pretty small, mainly because it is a pretty small space. My wife and I have lived for 25 years in 450 square feet. It's easy to cool, because we are on the water. It's easy to heat, because there's not much space. We do use biodiesel. There's a solar panel on the flybridge that brings a little juice down into the battery bank. But mainly it's living small.