

Such was the mindset of architect Charles-Edouard Jeanneret, better known as Le Corbusier. He wished to redesign Paris, Buenos Aires, Algiers, and Moscow according to his own plans. He argued, "We must refuse to afford even the slightest concession to what is; to the mess we are in now. There is no solution to be found there." He envisioned a world, Scott writes, in which "door frames, windows, bricks, roof tiles, and even screws would all conform to a uniform code. [Le Corbusier] called for the new standards to be legislated by the League of Nations, which would develop a universal technical language to be compulsorily taught throughout the world."

In the end, Le Corbusier built only one city, a provincial capital in India. Scott notes, however, that he influenced many people, including Brazilian president Juscelino Kubitschek. Kubitschek created the city of Brasilia from scratch and made it the country's capital. Originally, there was one huge public square, but few informal gathering places such as parks, and all its residents were supposed to live in uniform housing projects called "superquadra," which had their own nurseries, schools, stores, and clubs.

The planned city quickly failed; people found life in it undesirable and stifling. Now, most of the population lives in settlements that were never anticipated by Brasilia's planners. High-modernist ideology didn't result in mass slaughter in the case of Brasilia, but it did produce great unhappiness. People didn't want what the planners tried to force on them. The planners weren't able to acquire the "practical knowledge," as Scott calls it, to pull off such a grand scheme. They were ignorant of "the limits . . . of what we are likely to know about complex, functioning order."

This is excellent analysis, but unfortunately, Scott thinks "large-scale capitalism" suffers from similar defects. It "is just as much an agency of homogenization, uniformity, grids, and heroic simplification as the state is . . . [I]n markets, money talks, not people," he argues. But when I decide to eat breakfast at McDonald's, who is making the decision? I am. I'm using money to buy the meal, but I'm the one doing the talking. In the market, producers cater to the consumers' desires—not

the other way around. Scott fails to grasp that point. Nevertheless, *Seeing Like a State* is a brilliant work of remarkable scope. □

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Silencing Science

by Steven Milloy and Michael Gough

Cato Institute • 1998 • 68 pages • \$8.00 paperback

Reviewed by Kenneth Silber

This slim volume is an ironic how-to guide for heavy-handed regulators, panic-mongering activists, demagogic politicians, venal trial lawyers, dogmatic religionists, and anyone else with an interest in stifling or manipulating science. In breezy style, the authors explain how to impede research and suppress data, using lawsuits, regulation, intimidation, and other methods. They also show how to fill the resulting void with misinformation.

The authors—Milloy is publisher of the Junk Science Home Page (www.junkscience.com); Gough is the former director of science and risk studies at the Cato Institute—draw on numerous examples of science under siege. They present the persecution of Galileo as a cautionary tale (the Inquisition didn't crack down quickly enough to eliminate his influence) and cite the Scopes Monkey Trial as a useful model for interfering with science education. They then launch into more recent anecdotes of obscurantism and obstructionism. Unfortunately (or fortunately, if one remains in the book's ironic mode), there are many ways to silence science.

Outlawing research is one option, the authors explain, pointing to efforts to place a wide-ranging ban on cloning experiments. Alternatively, science can be regulated into the ground, as when the Environmental Protection Agency moved to control pest-resistant plants as if they were pesticides. Government purse strings can be useful in tying up undesired research, such as fetal tissue studies during the Reagan-Bush years. Nor is privately funded science immune to

political attack; one need only stigmatize the research as profit-driven or linked (however tenuously) to Big Tobacco.

Legal harassment works well, too. The authors describe how lawyers representing the alleged victims of silicone breast implants intimidated the Mayo Clinic with onerous demands for medical records. Another form of harassment is to make bogus claims of scientific misconduct; this approach was used by "multiple chemical sensitivity" activists against researchers who raised doubts about that "disease." And don't forget about street protests and celebrity letter-writing campaigns; such techniques helped animal-rights proponents prevent NASA from studying monkeys in orbit.

Even after a research project has been completed, there are various ways to hide or distort the resulting information, the authors point out reassuringly. Careful editing, for instance, allowed a United Nations report to overstate the threat of global warming. Another method is simply not to publish the data; the Energy Department has kept a major radiation study under wraps for years, providing only a brief summary in an obscure bulletin. California's environmental agency went this one better, systematically destroying research documents that did not support the agency's final decisions.

The authors explain how to replace genuine science with various phony substitutes, such as "official science," "consensus science," and "the precautionary principle." The first consists of governmental or other seemingly authoritative pronouncements that happen to be unsupported by evidence, such as a U.S. Senate resolution that women in their 40s should have mammograms. The second involves claiming that there is agreement when in fact there is not, as occurs often in the global-warming debate. The precautionary principle, embraced by environmentalists, means that industrial chemicals and radiation are to be regarded as extremely dangerous, while contrary evidence and uncertainties are swept under the rug.

While *Silencing Science* takes a lighthearted approach, the underlying seriousness of the subject shines through. The suppression of

science—whether motivated by politics, ideology, or personal and financial gain—produces bad decision-making, increased risk, and diminished freedom. One comes away from this book with a heightened awareness of danger—a danger not only to scientists but to anyone who depends in any way on their research (everyone, that is, whose participation in modern society exceeds that of, say, the Unabomber).

The book's format does impose certain constraints. The "how-to" approach, while funny, would start to wear thin if the book were to go on much longer; at the same time, the overall subject deserves a more extensive treatment. A somewhat broader picture of the threats to science would take notice of academic postmodernism and New Age mysticism, movements that go unmentioned here. A deeper analysis, rather than merely reporting anecdotes, would delve into the conditions that enable anti-scientific tactics to thrive.

Nevertheless, *Silencing Science* packs a great deal of valuable and thought-provoking material into its slender frame. The book deserves a wide readership. May that readership not include the anti-science types who might actually take its advice. □

Kenneth Silber has written about science and technology for Reason, Insight, the New York Post, and other publications.

Staring into Chaos: Explorations in the Decline of Western Civilization

by B. G. Brander

Spence Publishing • 1998 • 418 pages • \$29.95

Reviewed by Gleaves Whitney

The right is temperamentally pessimistic. The left is philosophically nihilistic. Both camps have long tended to see the West as culturally decadent, a civilization in decline. So it is odd that, for decades, virtually every major English-language reference work in the social sciences included articles about progress, but not its opposite. It was as though Americans were reluctant to give the impri-matur to decadence and decline as major cat-