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Heavens on Earth

Can a scientific utopia succeed?

"There is no scientific law that prevents 100 people who find each other on the Internet from coming together for a month, or 1,000 such people from coming together for a year. And as that increases to 10,000 and 100,000 and beyond, for longer and longer durations, we may begin to see cloud towns, then cloud cities, and ultimately cloud countries materialize out of thin air." So says Stanford University lecturer Balaji Srinivasan in an article published online by *Wired* in November 2013. In a talk at the annual conference held by the Silicon Valley start-up-funding organization Y Combinator, he revealed his inspiration to be the classic 1970 book *Exit, Voice, and Loyalty* by the late economist Albert Hirschman: when firms, nations and other organizations begin to stagnate and decline, members or citizens can employ one of two strategies for change—*voice* their opinions for reform; *exit* and start anew.

Which strategy is best? It depends on whether the change is brought about through violence or resistance. University of Denver political scientist Erica Chenoweth and her colleague Maria Stephan compared violent and nonviolent revolutions and reforms since 1900. They found that "from 1900 to 2006, nonviolent campaigns worldwide were twice as likely to succeed outright as violent insurgencies." And: "This trend has been increasing over time, so that in the last 50 years nonviolent campaigns are becoming increasingly successful and common, whereas violent insurgencies are becoming increasingly rare and unsuccessful." Only a small percentage of a population is necessary to bring about change: "No single campaigns failed after they'd achieved the active and sustained participation of just 3.5 percent of the population." And if they surpassed the 3.5 percent threshold, all were nonviolent and "often much more inclusive and representative in terms of gender, age, race, political party, class, and the urban-rural distinction." It's a faster track to the 3.5 percent magic number when you are more inclusive and participation barriers are low. Plus, nonviolent resistance does not require expensive guns and weapons.

We should keep these data in mind when evaluating utopian schemes. Theists and postmodernist critics of science often label the disastrous Soviet and Nazi utopias as "scientific." But science was a thin patina covering a deep layer of counter-Enlightenment pastoral paradisiacal fantasies of racial ideology grounded in blood and soil, as documented in Claudia Koonz's 2003 book *The Nazi Conscience* (Belknap Press) and in Ben Kiernan's 2007 book *Blood and Soil* (Yale University Press). Such utopias can rack up high body counts with a utilitarian calculus in which everyone is presumed to be happy forever. As Harvard psychologist Steven Pinker explains in *The Better Angels of Our Nature* (Viking, 2011), people who oppose a utopia "are the only things standing in the way of a plan that could lead to infinite goodness. How evil are they? You do the math."

Which brings us back to Srinivasan, who envisions techno-utopian schemes such as *Star Trek,* in which replicators produce everything anyone could want or need (much like the promise of 3-D printers today). Is this realistic? In his and Steven Kotler's 2012 book *Abundance* (Free Press), X Prize founder Peter H. Diamandis says that "humanity is now entering a period of radical transformation in which technology has the potential to significantly raise the basic standard of living for every man, woman and child on the planet. Within a generation, we will be able to provide goods and services, once reserved for the wealthy few, to any and all who need them." PayPal co-founder Peter Thiel has helped bankroll the Seasteading Institute, whose mission is "to establish permanent, autonomous ocean communities to enable experimentation and innovation with diverse social, political, and legal systems." Google CEO Larry Page has suggested setting aside regions of the world for political and social experimentation. SpaceX CEO Elon Musk has outlined colonies on Mars where new social systems could be tried.

I am skeptical of these schemes but not cynical about them. New ideas have to come from somewhere. As long as a techno-utopia is based in reality and one can opt out, what's the harm? As English poet Robert Browning wrote, "Ah, but a man's reach should exceed his grasp,/Or what's a heaven for?" ⓢⒶ

Illustration by Izhar Cohen