

E.F. Schumacher: A Retrospect and Reflection After September 11, 2001

By Bruce Piasecki

WHEN E.F. SCHUMACHER VISITED THE CORNELL UNIVERSITY (ITHACA, NY) CAMPUS IN THE LATE 1970S, HE MADE A STRANGE REQUEST. He wanted to speak at Sage Chapel, the old red stone brick sanctuary, not far from the equally odd and submerged Cornell campus bookstore. Sage at the time was seldom frequented by students, let alone the future business leaders that needed to hear his words. I protested mildly, as the precocious undergraduate who first invited this past chair of the British Coal Board during World War II to campus, but he prevailed. To my surprise, the Chapel was full, and the master was at his prime. I left that cool Fall night feeling changed. Everything Schumacher said, from his critique of centralized power systems, to his love of the poor, sounded right to me. Little did I know how right.

The next week I wrote my first published book review, a glorification of *Small Is Beautiful*. I still appreciate the power and grace of his mind, and the lasting value and good sense of this classic text in appropriate technology, world affairs, and the logic and need for properly scaled organizations and programs. I picked up *Small Is Beautiful* again after the horrific terrorist attacks of September 11, and found both solace and insight in those pages now first shared in 1973.

Across time, E.F. Schumacher has influenced directly the likes of Amory Lovins, whose 1979 classic on decoupling energy consumption and GNP can now be seen as the first child of consequence following Schumacher. I can see the fingerprints of Schumacher, for instance, in the new book by my friend and colleague Peter Asmus, whose *Reaping the Wind* (Island Press, 2001) verifies why wind turbines are a small but powerful instance of distributed power now available at the right price in the right locations across the globe. It is hard, in short, to visit the public affairs or environmental ethics sections of most bookstores without seeing this large shadow of Schumacher on the shelf of both doers and thinkers.

What follows itemizes how the work of E.F. Schumacher has shaped the last three decades. As I was asked to write this with reference to how Schumacher influences my own books and consulting practice, please forgive the occasional notation on how this master in word and deed also redirected and focused my topics of concern. Just as another late 20th Century creative force Federico Fellini showed me how a corporate meeting can have the feel of a circus in its recurrent mixture of dramatic technique, precision, and improvisation, *Small Is Beautiful* in particular, and the works and arguments of E.F. Schumacher in general, have helped me choose my battles and arguments. He set the table, upon which many of us still feast.

Telling the Truth

Schumacher had that rare gift of telling the truth. Note the astonishing lack of high or distracting rhetoric in these now classic claims:

1. “The future cannot be forecast, but it can be explored.” (page 226, in the chapter exploding the myths of economic predictability called “A Machine to Foretell the Future?”)
2. “To talk about the future is useful only if it leads to action now.” (page 19, in his still stunning critique of modern manufacturing called “The Problem of Production”)
3. “The technology of mass production is inherently violent, ecologically damaging, self-defeating in terms of non-renewable resources, and stultifying for the human person. The technology of production by the masses, making use of the best knowledge and experience, is conducive to decentralization, compatible with the laws of ecology, gentle in its use of scarce resources, and designed to serve the human person instead of making him the servant of machines. I have named it intermediate technology to signify that it is vastly superior to the primitive technology of bygone ages but at the same time much simpler, cheaper, and freer than the super technology of the rich.” (page 145, from the now classic chapter “Technology with a Human Face”)

You can see Schumacher’s redemptive imagination at work in the phrase “designed to serve the human person,” but you can also sense, even in these short excerpts, the bold simplicity and strong authenticity of his work. The entire book, all 271 pages of it, feels to me like the conversations I have with my wife and best friends on the way down from a long luxurious Adirondack high peaks hike. After all the huffing and puffing that gets us up the mountain, when the limbs are warm and exercised, a bold plainness embraces our speech. Certainly any good book is rehearsed and refined, more like a fine speech by former U.S. President Abe Lincoln than an out-in-the-woods talk, but the grandness in the style and vision of Schumacher is its experienced plainness. Let’s look a little closer at this disarming honesty.

During the late 1980s, after finishing two books on hazardous waste management in Europe and the United States, I decided that I was writing in black and white, books that were too technical and legalistic. In reviewing *Small is Beautiful* among others, I decided, with the help of a new literary agent, to try my hand in color. Most of us know that trying to write about social and ecological problems in color is counterintuitive. It is not easy, at least for me, to transcend the inherently legal and technical densities of the subject matter, from alternatives to the land disposal of chlorinated hydrocarbons to the competing computer models now defining our best options regarding CO₂ and other greenhouse gas magnifiers like SF₆.

At the time, I was also reading a great deal of the Scottish writer Lord Macaulay, a frequent contributor of literary essays to the *Edinburgh Review* in the 1820s to the 1840s. As I combed through Macaulay's forty pages on Machiavelli or his one hundred and twenty four pages on the short amazing life of Lord Byron, I was reminded of how segmented my thinking had become regarding social problems. I was falling prey to the common modern conceptual allergy. If I couldn't count it, I couldn't comment on it. Macaulay's grand and colorful style helped me reconsider my bearings, but it was a bit too much. In fact, when I brought home the passages that I loved the most to my wife, an editor and publisher, she noted how crazed they were, and often compared them, rather accurately, to those crazed conversations we sometimes have when stuck with a stranger on a long night train ride. Nonetheless, Macaulay had touched a nerve, so I decided to calibrate his style next to Schumacher's plainer style. It was night and day. In contrast to both Macaulay and Schumacher, most professional writing appears stultifying. But a hybrid of Macaulay's exuberance and Schumacher's level headedness seemed intriguing. I decided to give it a try.

By 1990, I had published through Simon and Schuster my book, with the journalist Peter Asmus, *In Search of Environmental Excellence: Moving Beyond Blame*. It was not written in the language of experts, and selling in paperback for less than ten dollars, it got wide circulation for a book of its kind, winning a book of the year by the Nature Society of England, and being selected by several quality paperback book editions and collections. Once again, embedding my thoughts in the realm of E.F. Schumacher had helped. Gregg Easterbrook, then the Environment Editor of *Newsweek* magazine, listed the title in his colossal *Moment on Earth* in its general bibliography section, in the neighborhood of some twenty-two other general environmental writers last century that included Aldo Leopold, Rachel Carson, Schumacher himself, and their direct descendents.

Why do I mention this? We don't have many decades to forge our compositional style. Schumacher, in his plain but argumentative style, helped me settle on the manner of communication that worked for me. More importantly, it also helped me discern one of the best ways to engage the many clients, affiliates, and stakeholders in my consulting firm's basic practice. If you can tell the truth, some will listen.

Schumacher's Insight Regarding Public Participation

Schumacher can also help one become a more competent teacher. During the 1990s, I taught graduate business seminars at Rensselaer Polytechnic Institute's (RPI) Lally School of Management and Technology. Being America's first engineering school, RPI tended to attract technology-gifted individuals, still does. I chose in the early 1990s to teach them *Small Is Beautiful* in one of the core-required seminars. While I must admit, in retrospect, that many of the purer gear heads often slipped two or three speeds, downshifting into disdain on such chapters as "Buddhist Economics" (Part I, chapter 4) or "The Problem of Unemployment in India" (Part II, chapter 4). Nonetheless, some took a solid liking to the following passage:

The structure of the organization can then be symbolized by a man holding a large number of balloons in his hand. Each of the balloons has its own buoyancy and lift, and the man himself does not lord it over the balloons, but stands beneath them, yet holding all the strings firmly in his hand. Every balloon is not only an administrative but also an entrepreneurial unit.

Students of business read this passage, and it caffeinates them. They already have inherited a sense of the monolithic organization, which Schumacher colorfully characterizes as a "Christmas tree, with a star at the top and lots of nuts and other useful things underneath." Even the recalcitrant RPI engineer was moved, if only momentarily, by Schumacher's application of this insight to his work at the British National Coal Board, one of the largest commercial organizations in Europe at the time.

Here Schumacher notes how they found it possible to set up "quasi-firms" under various names for its opencast mining, its brickworks, and its coal products: "Special, relatively self-contained organizational forms have evolved for its road transport activities, estates, and retail business, not to mention various enterprises falling under the head of diversification."

Today, even after the recent dot.com disasters, it makes sense to think through this distinction in our own organizations and lives. The man or woman holding balloons is in desperate need. The problem I found with many U.S. business school graduates is their narrowness. They have trouble empathizing with the needs and logic of their direct reports, and often can't see the value of inputs from their customers or stakeholders. Gifted in diagnostics, they are like doctors unable to articulate their prognosis, unwilling to schedule the cure. Schumacher, and others writing in the great humanistic tradition like Macaulay, Max DePres, or Donald Phillips (whose *Lincoln on Leadership* I give to any leader I meet willing to take the time), know better. It is all about people, not just numbers, no matter how alluring and telling.

In fact, Schumacher chose to end *Small is Beautiful* with this forceful warning:

Everywhere people ask: "What can I actually do?" The answer is as simple as it is disconcerting: We can, each of us, work to put our own inner house in order. The

guidance we need for this work cannot be found in science and technology, the value of which utterly depends on the ends they serve; but it can still be found in the traditional wisdom of mankind.

The traditional wisdom of mankind, something I know you can get at the “Great Books” curriculum at a few fine U.S. schools like Columbia University, but not many other places. I guess it pays to just buy the books yourself.

Schumacher’s insight centers on how a trust in people, their needs, can allow the refinement of complex management systems, not vice versa. He would get a kick out of the billions of dollars now invested in forecasting and customer relations software, in the absence of basic eye-to-eye relationships. I once met a brilliant New York-based advertising executive who summed it up for me: he said every business resides in relational marketing, not in machines. In the end, E.F. Schumacher taught many of us that if we trust in public participation, it will prove the most reliable means to make the world more intelligible.

Citizen Science and Today’s More Dangerous World

Of course, there are many other places the readers of the Loka Institute can go to get this advice. But Schumacher was a particularly intelligent provocateur, a conceptual conversationalist par excellence. Watch, for example, how he pricks his readers into attentiveness in this opening to his chapter called “Resources for Industry” (Part II, Chapter III):

“The most striking thing about modern industry is that it requires so much and accomplishes so little. Modern industry seems to be inefficient to a degree that surpasses one’s ordinary powers of imagination. Its inefficiency therefore remains unnoticed.” (page 110).

Amory Lovins echoes this “illusion of certainty” argument in his now famous preamble to *Soft Energy Paths*. I have heard the same echo in my mind several times, as I march in to make a presentation before a Board or Management Council of one of my clients or affiliates. In fact, my firm’s focus on emerging trends in energy, materials, and the environment can be thought to have its enabling mantra found in the author under review.

Readers of *Loka Alert* know far more than I ever will about the importance of citizen science. When citizens ask the right questions (about siting, about complex technologies, about how the police might use their new OnStar satellite systems embedded in their cars), higher efficiencies and more sound social policies are bound to prevail. Call this optimistic, but it is a belief based in a kind of conceptual empiricism I see at the base of Schumacher’s work. To test the legitimacy of these claims, let’s look at the issue of energy security.

Since September 11, many U.S. government experts and corporate strategists have begun to reassess their respective beachfronts from the point of view of security. This is an especially important issue when it comes to energy: how we make it, how we might best distribute it, and what the real needs of business are at a time when power outages can add up to millions of dollars in lost profit.

While U.S. dependency on imported oil from the Middle East is the obvious vulnerability linked to the terrorist strikes, our information-intensive economy is also highly dependent upon a reliable supply of electricity. The rolling blackouts that have hit California attached some real dollar signs to the cost of unreliable power supplies. Silicon Valley firms lost \$100 million in one day in June of 2000 when the power went out. All told, businesses in the U.S. lost \$80 billion per year due to power outages, according to the Electric Power Research Institute.

Whether it is Toyota or GM competing in auto-making, or Intel and its archrivals competing over the shape of future chips, modern manufacturing increasingly requires higher and higher degrees of reliability.

Over 8 percent of current U.S. consumption of electricity is directly linked to the entire wired state of play necessary to make better cars, better homes, or better appliances. In each of these cases, a steady stream of highly reliable electrons is required. Whereas electricity represented only 25% of total energy needs in the mid-70s, it will represent 50% of total U.S. energy by 2020, when my daughter enters her teens.

What would E.F. Schumacher say about this current predicament, and outline as our search for solutions?

The terrorist attacks, and corresponding increases in U.S. security costs at nuclear power plants, natural gas pipelines, and long distance transmission lines, amplify the shortcomings of the old transmission and distribution grid. I am sure Schumacher would say this boldly. A perfect strike at one of these targets could result in crippling outages that could last for days.

Since September 11, some key U.S. decision makers are taking a fresh look at our energy infrastructure needs. There are some real business opportunities merging in the realm of clean and distributed electricity technologies, especially for the nimbler small businesses that abound. Wind turbines, solar photovoltaics, fuel cells, and highly efficient micro-turbines are being incorporated into the corporate strategies of firms as diverse as Walgreen's, Fetzer Winery, First National Bank of Omaha, Nutrogena, Johnson & Johnson, Bently Mills, and Arden Realty. In fact, our *Corporate Strategy Today* quarterly tracks these developments. These companies are walking in the shadow of E.F. Schumacher, some knowingly, some by good fortune.

After September 11, we need as a nation and as a larger community of intellectuals to revisit the question of scale, first articulated by Schumacher since World War II. This is the most annoying feature of Schumacher's perennial success as a writer. He creates

mental mosquito bites, like Socrates, that cause cognitive itch. If we rebuilt the World Trade Center, should it remain 110 stories high? When we ready the new Pentagon, should it all be so centralized? When we modernize our electricity grid, as now hotly debated in the U.S. Senate versions of President Bush's Energy Bill, should we do it at the exclusion of the small business innovator stretching for energy independence through distributed power?

India, Sub-Saharan Africa, and Loyal Readers Worldwide

At age forty-six, I have now lived with Schumacher's vision since I was that Cornell University undergraduate when the book came out, thirsty for redirection and even guidance. I still ask myself some mornings: Why did he choose to speak at Sage Chapel? Why did he place so much emphasis on the end use of energy? Why did he constantly question if we were efficient enough? In fact, why did he believe we have so much trouble asking the question, "What Is Enough?" in the vast paradise of consumer delight? I also ask at the end of some brutal days as a consultant: "In retrospect, has he become more like a perfect fossil, glittering in its translucent amber, but actually mostly historic debris?"

The answer resides in use. The greatest pleasure for writers of non-fiction may be that their books not only be read, but also used—used by corporate decision-makers and technical innovators, used by citizens and scientists, employed and engaged by other intellectuals.

As I travel around, when I spot *Small Is Beautiful* on a shelf, I ask to hold it. It is often a used copy, with marginalia, and earmarked. This is the final honor to an author.

In our more dangerous world, in a time when data is transferred in seconds but often left uninterpreted or even unopened, and when the pace of professional life itself is nothing short of turbulent, the long, low-frequency of E.F. Schumacher's message remains heard.

Think in closing about how elephants herd. Lately scientists have begun to discern that in Africa at sunset elephants capitalize on heat inversions. The nasal vibration emitted to alert other herds to keep their distance, especially during droughts, now travels up to six miles rather than the usual one hour doable without the inversions to bounce the frequency. This is an important toll-free message when each herd these days consumes several square miles of food in places where food is scarce. It is during this time of day, when there can be 20 degrees F of difference between the coolness at the knees of a giraffe and the temperature hovering in the inversion at their Dr. Seuss-like heads, that these elephant families choose to speak to their neighbors.

This small curious detail, just one among billions in the gloria known as our natural world, might bring—even in a time after the loss of so many lives—a smile to Schumacher's normally stern face.

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