

STEPCHILDREN

Who are we, what are we doing? Today science, technology and industry determine everything. Man's drama continues with questions neither he nor his computers can answer.

The historian Alfred Crosby's last book was about energy – Children of the Sun, a history of man's unappeasable appetite for energy. Crosby's title raises questions; if we are children of the sun some seem to be stepchildren. This occurs to anyone watching us abandon old ways of using the sun. Such manners are those of ungrateful stepchildren "we don't need to mind Mother Nature she isn't our real mother", these stepchildren point to science, the stars, to electricity as their heritage. Turmoil over this is everywhere.

Once man used daylight in his buildings, he invented glass then plastic which made this easy. Not anymore! Check out a shopping center. Electric lights on all day. If the sun is used it is from a subsidized solar power plant powering light bulbs. Once man oriented buildings and their windows to stay comfortable winter and summer. Not anymore! Everything changed when some of the children discovered how to take coal oil and gas from the earth where it had accumulated for millions of years by photosynthesis of green plants. Coal, oil, gas and the machines to burn it set a new standard for man. We all became kings, using machines. Don't ever remind us of the sweat, the laborious chores before our engines and fossil fuels.

Unfortunately becoming partisan for the machine eliminated many of our best uses of the sun. We need both, the machine and nature, let them work together the machine and passive solar. The machine and daylighting. Not one or the other, we want both one and

the other. Our very lives hang on this, the unfortunate habit of dismissing passive heating, clothes drying and daylighting, because there are no machines is now crippling even how we use photovoltaics. Photovoltaics has the same grace and simplicity as the passive solar we have dismissed, it need not be fed into the grid. Need not be subsidized, forced on us or otherwise misused. PV and passive solar can bring the best to off grid users, part of a golden age now within reach. We have become victims of misunderstanding solar energy. This was done by discounting the immense energies which warmed and lit the world, distilled the rain, grew their food. Such essential matters were passed over while every barrel of oil and ton of coal man mined was carefully counted. Ignorant ingratitude to nature had man count relatively tiny energies if they resembled his own. While leaving out the vast energies for distilling the rain or warming the world statistician count power from hydroelectric turbines or power from a windmill. A shameful consciousness was adopted around the world that flattered man and technology, that played to his worst conceits and destroyed traditional ways of using the sun. "Scientific" energy surveys stilt society as badly as any poll tax ever stilted elections. Such statistics justify obsession with money and neglect other concerns. To be counted, energy had to come through a pipe or wire, had to turn a shaft or tire. The strange treatment of nature was a tip off of intent for further discrimination. Although energy is measured scientifically, people use it without reason according to political and technical fashion. The shift away from economical traditional uses of the sun to an impersonation of fossil fuels is ominous as is the move away from traditional society to the politically correct. The promise of a State Utopia, of a green paradise is dangerous.

Despite this by magic science and industry have created new ways. The photovoltaic panel is a miracle to be explored by free people not an indication that state sponsored planners should guide us. The clamor, pollution, smoke and racket of machines consuming fossil fuels awakened a surprising consciousness. People decided they must do better, live again from the flow of sunlight. If they have failed to do this they have at least given it a name, sustainability. This would be nothing new. We lived this way for thousands of years during which we invented language, mathematics, art. While returning to the sun we are now promised we would retain all luxuries and maintain the lavish consumption as with fossil fuels. Although hardly likely, by a miracle some of these dreams are possible. The miracle is the photovoltaic panel, now efficient and inexpensive. Smokeless, noiseless, odorless, motionless and virtually ageless, thirty times the power of photosynthesis. Perhaps aliens will visit after they see our use of PV. How to use them is the question. Adding them to the grid is like sending drinking water down the sewer.

Paradoxically by making electricity so available we use less, not more. Going off grid and generating one's own electricity avoids a large but questionable enterprise, selling ourselves power. Our utilities have become a hazard, where Americans waste vast excesses of electricity. To continue this our leaders have created a Department of Energy, Renewable Energy Lab, and portfolio standards where waste is ignored and the costs of new ways shifted from those who benefit to tax payers and rate payers. This plan is as if poised on a lake shore they send the streets underwater and study lead shoes and breathing tubes.

The miracle of PV can hardly be exaggerated. Its wonders free even those once crushed by jealousy, it stills the antagonism between nature and power lovers. Power comes silently, pollution free, does not enrage or poison or even awake others. Off grid, used for cooling it hardly requires improved batteries, the huge demand we have for cooling can work on the sun's schedule without batteries instead of charging batteries the compressors can make ice. The PV panel even allows such grace and beauty as we find in daylight and passive heating, electricity from PV is not shamed beside the elegance of passive solar or daylighting. Batteries remain essential for lights, computers, TV's and motors at night. But we need less and less as we improve our use as from incandescent to fluorescent to LED lights. The challenges and triumphs of converting society to operate on PV and passive solar are enormous, just the thing the West is good at. The greatest danger the West faces with its prodigious wealth, imagination and daring is constructing a burdensome green paradise ostensibly to protect nature really to further a loathsome elite.

Really there are no stepchildren we are one family rife with ruses and deceptions, not green goody goodies but opportunistic monsters.

Good luck, bad luck, grab what works. Go off grid. Once we stole nature's coal, oil and gas – can we get a little more? With PV many can forget fossil fuels move back with nature make a deal with her, cut her in on PV, apologize for the past, and make amends.