

An answer in Somerset

The Age of Entropy is here. We should all now be learning how to live without oil

Never again,” the Texas oil baron and corporate raider T Boone Pickens announced this month, “will we pump more than 82m barrels.”

As we are pumping 82m barrels of oil a day at the moment, what Pickens is saying is that global production has peaked. If he is right, then the oil geologist Kenneth Deffeyes, who announced to general ridicule last year that he was “99% confident” it would happen in 2004, has been vindicated. Rather more importantly, industrial civilisation is over.

Not immediately, of course. But unless another source of energy, just as cheap, with just as high a ratio of “energy return on energy invested” (Eroei) is discovered or developed, there will be a gradual decline in our ability to generate the growth required to keep the debt-based financial system from collapsing.

A surplus of available energy is a remarkable historical and biological anomaly. A supply of oil that exceeds demand has permitted us to do what all species strive to do - expand the ecological space we occupy - but without encountering direct competition for the limiting resource.

The surplus has led us to believe in the possibility of universal peace and universal comfort, for a global population of 6 billion, or 9 or 10. If kindness and comfort are, as I suspect, the results of an energy surplus, then, as the supply contracts, we could be expected to start fighting once again like cats in a sack. In the presence of entropy, virtue might be impossible.

The only question worth asking is what we intend to do about it. There might be a

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miracle cure. Photosynthetic energy, supercritical geothermal fluid drilling, cold fusion, hydrocatalytic hydrogen energy and various other hopeful monsters could each provide us with almost unlimited cheap energy.

But we shouldn't count on it. The technical, or even theoretical, barriers might prove insuperable. There are plenty of existing alternatives to oil, but none of them is cheap, and none offers a comparable EROI.

If it is true that the Age of Growth is over, and the Age of Entropy has begun, and if we are to retain any hope of a reasonable quality of life without destroying other people's, then our infrastructure, our settlements, our industries and our lives require total reconstruction. Given that our governments balk even at raising fuel taxes, it is rational to seek to pursue our own solutions: to redevelop economic systems which do not depend on fossil fuels.

For several years, I've been involved in one of these. Now that it has passed its 10th birthday, I think it is fair to say that it works. Tinkers' Bubble is 40 acres of woodland, orchards and pasture in south Somerset. It was bought by a group of environmentalists in 1994, and a dozen people moved in, applied for shares and built themselves temporary houses. They imposed a strict set of rules on themselves, which included a ban on the use of internal combustion engines on the land. They made a partial exception for transport: the 12 residents share two cars.

Otherwise, the only fossil fuel they consume is the paraffin they put in their lamps. They set up a small windmill and some solar panels, built compost toilets, and bought a wood-powered steam engine for milling timber, some very small cows and a very large horse.

Almost everyone predicted disaster. The Independent even claimed that the project had collapsed, after one of its reporters turned up on market day and found the houses empty. There's no question that it was hard.

The first winter was spent wading around in two feet of mud. Some of the locals, mistaking the settlers for new age travellers, went berserk. There was plenty of internal strife as well. The work is tough. They fell trees with handsaws, heat their homes with wood, cut the hay with scythes and milk the cows, weed the fields and harvest the crops by hand.

But they have come through. They have made friends with the locals, who are coming to see the project as an asset: the land is biodiverse, still has standing orchards, and is open to the public. Their stall has won first prize in the local farmers' market. They have learned, often painfully, to live together. Because it doesn't depend on heavy machinery, this farm, unlike most, isn't in hock to the bank.

One hundred and fifty years after he published *Walden*, Henry David Thoreau is

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alive and well in Somerset. Needless to say, an army of bureaucrats has been deployed to murder him. Peasant farming, the settlers have found, is effectively illegal in the UK.

The first hazard is the planning system. The model is viable only if you build your own home from your own materials on your own land: you can't live like this and support a mortgage. So the settlers imposed more rules on themselves: their houses, built of timber, straw bales, wattle and daub and thatch, would have the minimum visual and environmental impact.

But the planning system makes no provision for this. It is unable to distinguish between an eight-bedroom blot on the landscape and a home which can be seen only when you blunder into it.

The residents applied for planning permission and were refused. They appealed and won, but then the government overturned the decision. They took it to the high court and the appeal court and tried to take it to the Lords, in every case without success.

But when they reapplied, the council, which had woken up to the fact that homeless people were housing themselves without costing the taxpayer a penny, changed its mind and let them live there.

Then the environmental health inspectors struck. There are two sets of regulations in the UK. There are those which the big corporations campaign against; and those which they tolerate and even encourage, because they can afford them while their smaller competitors cannot.

This is why it is legal to stuff our farm animals with antibiotics, our vegetables with pesticides, our processed food with additives and our water tables with nitrates, but more or less illegal to use any process which does not involve stainless steel, refrigeration and fluorescent lighting.

The clampdown on small food businesses, on the grounds that their produce might contain bacteria, has been accompanied by a massive rise in food poisoning cases since the 1970s: large-scale production and long-distance transport provide far greater opportunities for infection. Tinkers' Bubble, which has never poisoned anyone, is now forbidden to sell any kind of processed food or drink: its cheese, bacon, juice and cider have been banned. But the settlers have learned to live with these constraints, just as they have learned to live with all the others.

They haven't yet solved all their problems, but they have shown that a life which requires scarcely any fossil fuel consumption is still possible. It wouldn't work for everyone, of course, but it works. And one day, unless we demonstrate some willingness to respond to the impending crisis, those who live this way could discover that despite the obvious privations their lives are more comfortable than ours.