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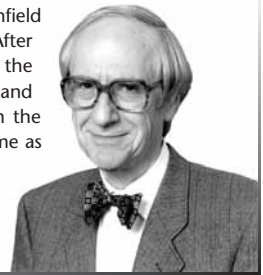
THE LEAN ECONOMY

A Vision of Civility for a World in Trouble

David Fleming

The depletion of oil and gas, the degradation of the environment and the decline of social capital all threaten to collapse the market economy. Fleming believes that such a collapse cannot be averted and that public policy should concentrate on laying the foundations for the transformed political economy that could rise from the ashes. In his lecture he explored the social and cultural qualities that will be indispensable for surviving the crash and moving on to recovery, renewal and stability.

David Fleming studied history at Oxford (1963), business management at Cranfield (1968) and economics at Birkbeck College, London, completing a PhD in 1988. After working in industry he became an independent consultant. He was elected to the Council of the Ecology (Green) Party in 1977 and served as economics spokesman and press secretary; the party office was his flat in Hampstead. He later worked on the Council of the Soil Association, which he chaired 1988-91. He now works full time as a writer and lecturer on the environmental and social issues which can be expected to have a major impact in the new century. He has recently completed two books: *The Lean Economy: A Vision of Civility for a World in Trouble*, and *Lean Logic: A Dictionary for Our Time*, which are due to be published shortly.



In 1978 the Ecology Party, now the Green Party, had its office in my flat in Hampstead. I was a member of the team that wrote a pamphlet called *The Reckoning*, and on the back cover there was a picture by the cartoonist, Peyton, of a large number of circus clowns optimistically balancing on a barrel of oil. We felt there was about a quarter of a century left in which to prepare for the moment when this mad and reckless pyramid collapsed, and the pamphlet proposed a comprehensive reform of energy and industry, of society, of land and culture, beginning straight away, to prepare for a world after oil. What a pity no one took any notice. An irreversible energy shortage is due to break in the near future. It would not be all that damaging if there had been between 25 and 50 years of intensive preparation. In the event, we will be lucky if denial ends in time to give us a notice period of 25 months. It might be as short as 25 days.

When it does hit, and when oil famine is joined with the other problems on the way, we will need to respond to it as to an avalanche. There is no

point in trying to stop it; instead: survive; think; start again on safer ground and on totally different principles.

1. OIL AND GAS

We begin with conventional crude oil, the stuff that can be pumped from oilwells in reasonably accessible places on land and on the sea-bed, and source of almost all the petroleum in use today – and there is one main thing to remember about it: in order to produce it you must, first, discover it. That is obvious enough, but there is an important corollary. Production follows discovery by something of the order of 20-40 years, so that, if you draw a graph of the rate in which oil is discovered in any particular place (the curve on the left in figure 1), you can draw another graph of the rate at which it will be produced (the curve on the right).

And in figure 2 we have those two pictures drawn with real numbers for the world as a whole. Discovery of conventional oil peaked in 1965; this means that the production of conventional oil peaks some forty years later.

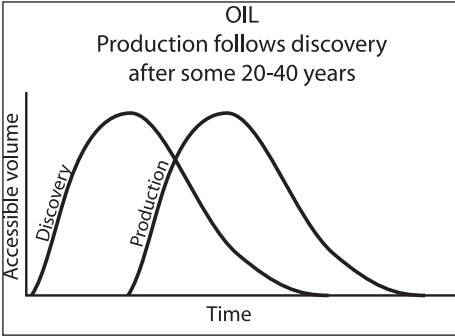


Figure 1. The production of oil follows discovery.

Conventional crude oil is by far the most convenient form of oil; it is accessible, easy to pump, transport and refine. But there are alternatives. “Unconventional” sources of oil include tar sands, present in abundance in Canada, and heavy oil from a variety of places, notably the Orinoco oil deposits in Venezuela. The difficulty with these deposits is that they are very energy-intensive to produce; in the case of the tar sands, for example, opencast mines have to be dug; the product then has to be heated and compressed, and the waste material must then be disposed of in unstable mountains of spoil. You cannot always be sure that the energy actually derived from this process is more than the energy put into it; this is not the massive rich

flow of energy which comes from conventional oil. Then there is deep-water oil (more than 500m); and ways are also being investigated of extracting that little bit more (“enhanced oil recovery”) from conventional oil wells. And there are “natural gas liquids” from gas fields, which have been making a useful contribution to the supply of oil since the early 1970s, and will continue to do so.

The main alternative to oil is gas. The world as a whole has used about 35 percent of its original endowment. Most of the remainder is in Russia (at the end of a very long pipeline from the Western Europeans that will depend on it) and in the Middle East. It is far from certain that the stability of either of these sources can be sustained in a global political economy devastated by the depletion of oil.

All this is summarised in figure 3. The best estimate is that the peak production of oil, worldwide, is due around the middle of the decade 2001-2010. The story could be elaborated by adding in the peak and depletion of gas, to give a picture of “all hydrocarbons”, but the effect of the oil peak on demand for gas is highly uncertain: better to stay with oil for the moment. Oil drives the world’s transport; transport drives the world’s economy, and it is the necessary condition for practically every material need of urban life. The global economy relies on an ever-

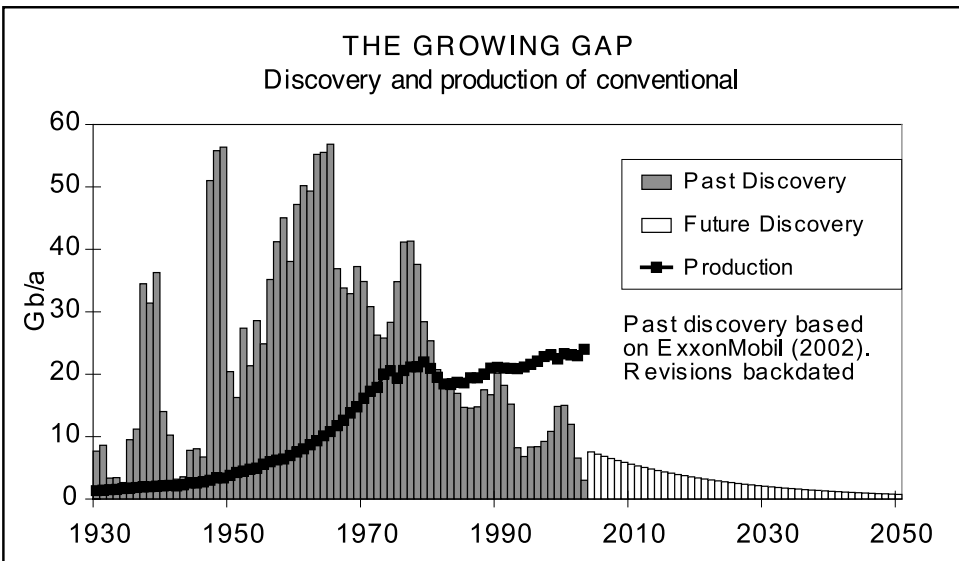


Figure 2. The peak in global discoveries of conventional oil occurred in the mid 1960s, and was followed by a long decline. Production’s peak follows about forty years later.¹ Source: Colin Campbell: ASPO Newsletter.

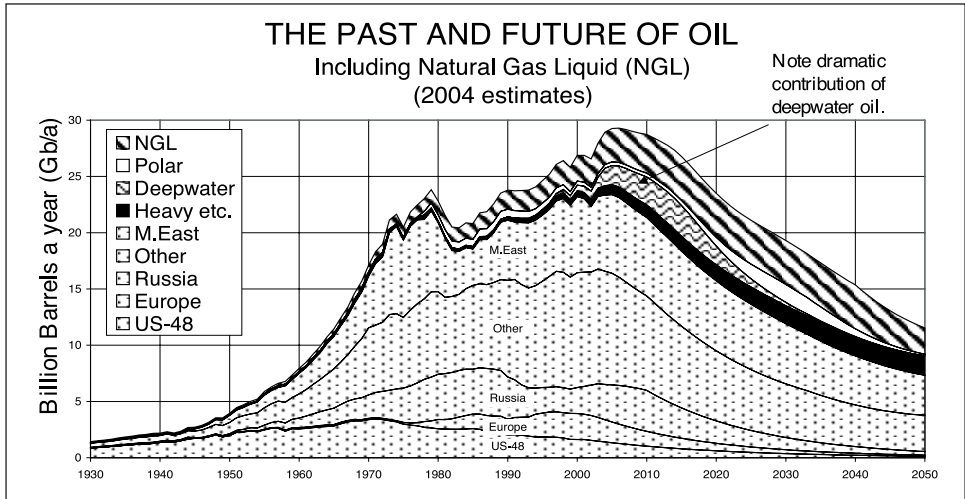


Figure 3. The past and future of oil worldwide. (Production is measured in gigabarrels of oil equivalent; 1 gigabarrel = 1 billion barrels. 10 thousand billion cubic feet of gas are taken to be equivalent to 1 billion barrels of oil). Source: Colin Campbell: ASPO Newsletter.

growing production of oil, but oil production is about to go into decline.

You may also be thinking that if all this is true, then the experts would have been forecasting it long ago - in the 1960s, perhaps. Well, they were. The petroleum geologist King Hubbert established the science in the 1950s. And after that, forecasts that oil production would peak around the turn of the century followed fast - from the UK's Department of Energy, from President Carter's *Global 2000 Report to the President*, and from geologists in every oil province of the world who have pooled their hard evidence and have been consistently disbelieved.

We could, you know, had we taken these forecasts seriously, have built a solar economy by now. "We" - if someone had taken the lead - could have meant the whole global economy; the cost of energy - given the technical sophistication and the economies of scale which would by now have developed for the world economy - would be low. Global warming would be under control. There would be very much larger oil reserves still in the ground. And we would not be becoming increasingly dependent on oil provinces already half a century old and showing their age in five countries in the Middle East: Iran, Iraq, Saudi Arabia and the United Arab Emirates.

Now, if the path ahead of us were really one of gentle decline at some 2 percent a year, even this would land us in deep trouble, with prospects for

global growth abruptly stopped, and the energy that underpins our way of life, including food production, declining more quickly than the rate at which there is any real prospect of developing alternatives on the needed scale. But the transition is unlikely to be so smooth. Rivalry over access to oil, combined with near-monopoly powers in the hands of a few producers, will set the scene for the start of disruptions in supply.

And, in North America, reserves of gas have reached a level of depletion at which production will go into steep decline in the middle years of this decade. Gas, the fuel which heats American homes, drives much of its industry, provides much of its electricity, and is the feedstock for its fertiliser, will have to be imported from Russia. Gas will suddenly become scarce, and America will become very vulnerable, being dependent on increasingly unstable import supply lines for the two hydrocarbons on which its political economy depends. When breakdowns in supply and increases in price occur, this will be to everyone's surprise and dismay - which is an odd thing, considering that the essential nature of the problem has been understood for decades.

New technologies - renewables, conservation systems, ways of substituting between oil, gas and coal - will be ready to be developed. They will not, however, be ready to take over. The market economy will be in shock. Like an army caught napping, it will not have time even to reach for its trusted, new, high-tech equipment.

2. OTHER THREATS TO THE MARKET ECONOMY

The coming oil shock is not the only reason why the prospects for the global market economy and for civilisation as a whole look poor. A complex system, such as a car or a human body, tends at the end of its life to fail in many different ways at about the same time. A second sign of systems failure is climate change. Thirdly, there is the complex and still poorly-understood issue of how a mature market economy can, even under ideal conditions, sustain the perpetual economic growth which is an essential condition for its stability: along with Richard Douthwaite and others I argue that it simply cannot do so. Fourthly, there is the increasingly intense phenomenon of disengagement – a failure of participation, consent, shared values, social cohesion – in short, a failure of social capital which ultimately matures into insurgency, both from dissidents on the outside of modern society and from within it. The system is failing in many other ways: soil fertility, water, hormone disruptors, the collapse of fisheries – but that is enough for now.

If we put all these together, then we find ourselves looking at the climax of the market economy, followed by its comprehensive failure, very high unemployment and an atrophy of government revenues, leading towards what could be called hyperunemployment - that is, unemployment so high that government cannot fund subsistence payments and pensions. Unemployment on this scale means no income. No income means no food. No food means the collapse of urban populations on the scale experienced by former civic societies – the Romans and some two dozen other accomplished civilisations – in the closing phase of their life-cycles. I hope I am wrong or, rather, that it doesn't come to this. But it does seem obvious to me that the opportunity is rapidly passing in which it will be possible to avoid the high levels of mortality that have been associated with the collapse of other civic societies.

With the Romans, there was a long period of troubles, some 250 years, before the empire finally collapsed. Our period of troubles is likely to be condensed (figure 4) because the four problems I have mentioned are converging so fast. My suggested period of 25 years is indicative only. From the climax of the market economy - when the downturn comes, and employment

(solid line) falls decisively - to the point of hyperunemployment, could be some 25 years. Perhaps the turning point is 2010. According to these very arbitrary time intervals I am giving you, that makes 2035 the point at which hyperunemployment and its consequences occur. By that time, the Lean Economy (dashed line) must have been built up to a scale at which it can provide a working alternative: a new economic and social order.

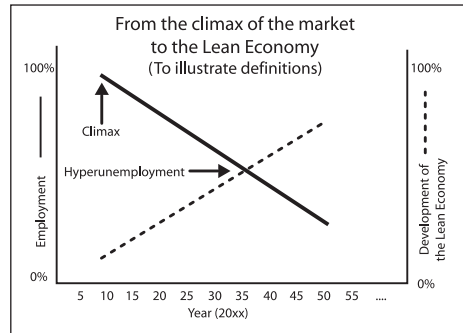


Figure 4. After the climax of the market economy, it will go into steep decline. The damage will be immediate, and the task will be to build the essential structures of the Lean Economy before the crisis of hyperunemployment – when the government can no longer maintain subsistence payments to the unemployed.

3. THE NEW DOMESTICATION

Now, I want to draw attention to an advantage and asset that our civilisation can bring to solving its problem: industry.

In the world of hyperunemployment and market breakdown, industry will be substantially bankrupt, of course. And yet, it has developed some stunning assets in the course of the last century or so. It has developed a technology capable, for instance, of working on a very small scale; it is learning how to capture energy and store it, using very little of it to get results.

Industry has also successfully developed methods of creating effective human groups and keeping them working constructively together. It has been creative. It has some understanding of the way in which systems function, and how to audit a proposal for its unintended consequences, how to avoid denial. It has worked out how to manage itself with the efficiency of lean production systems and – more recently and generally – with the decisive effectiveness of “lean thinking”. Not

every company we can think of is a shining example of these properties in practice, and companies' ultimate values and culture do tend to be thin and trivial. But, on the fundamentals of how to make things happen neatly, with minimum waste and on a small scale, companies have something important to offer – just, in fact, what households will need very badly indeed.

After the failure of the market economy, households will lack jobs, they will lack state handouts; above all, they will lack primary goods - food, water, energy and materials. Those are the things that really matter; they provide the basis for coping with life – and they are the things that urban populations cannot easily provide for themselves. Primaries will fall within the range of assets open to households if and only if there is a revolution in their effectiveness as producers. Households will need to become as competent in the future as industry is now; they will need to use many of industry's technologies and practices. The name of this revolution is “the new domestication”.

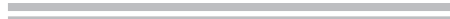
There is an inspiration for this. 8000 years ago there was an evolution in human society when many human groups gradually began to turn away from being hunter-gatherers. Instead of going out, foraging and taking what they found, they began instead to bring animals and plants within the perimeter fence - domesticating them, taking *direct* responsibility for the fulfilment of their own primary needs. It was the start of something big. It was the first domestication. What I suggest lies ahead now is the second domestication when, instead of relying on industry to do the work and then foraging in the market, households and local economies bring industrial insights and technologies within, so to speak, the perimeter fence - bringing it under their direct control. The *new domestication*, then, can be seen for local economies as a process of growing-up, of evolution - not just a means of survival in the midst of global economic catastrophe, but a vision of civility.

Now, at the heart of the market economy is the idea of the specialisation of labour. Adam Smith explained the story, as I am sure you will remember. If you want to make a lot of pins, you can get ten men to turn them out - each individual completing as many pins as he can, or you can divide the job up into ten parts and get each man to do just one of the parts, and the

output of pins will go up by (as Smith calculated), 4,800 times.

And the Romans made the same discovery. And so did every other civic society in history. But specialisation triggers off an astonishing spiral of elaboration. The sequence goes from *specialisation* to *productivity* to a *concentration* of the specialists in *towns*. And then we have long distances, transport, police forces, money, bureaucrats. Then there is the need for lots of equipment, for more productivity, for more specialisation. There is a *capture* and *concentration* of particular functions in particular places. The sequence has a dynamic of its own; it is virtually impossible to stop. It is a very expensive business. It is very *complicated*. It takes lot of swapping around just to get anything to work at all. And eventually it crashes under its own weight.

All civilisations crash. In the end, the political economy flips into a quite different, lightweight, decentralised order requiring a drastically reduced quantity of goods and services, minimal transport and much less specialisation. In response, people and localities start to provide most of what they need for themselves. This is the inevitable sequel to the closing stages of a civic society.



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In the past, those closing stages have led to a collapse into dark ages, with the population, as the Venerable Bede put it, being “cut down, like ripe corn”. I would argue that the sooner we start to build distributed, decentralised, broadly competent local economies, the more realistic they become: the less the pain; the less the grief; the greater the prospects of evolution beyond the market economy - making something of what we have inherited, and building on it.

That is to say, there is a logical sequence which goes something like this (figure 5). We start with Capture and Concentration (left hand panel) with big, concentrated producers, far from home; the

to maintain, shall we say, a conservation system in its use of water. Among the reasons for this – first, lean production will use aquaculture, which is a more productive food system than the soil; secondly, permaculture, which loves closed, circular systems, typically has a central place for water – for instance, the pond is habitat for water weeds, that fertilise the land, that grows the food, which is attacked by slugs, that are eaten by the ducks, that live in the pond, and fertilise the water weeds. Water has a way of connecting things up. One immensely effective form of it is the Japanese Aigamo method for rice production. It can be many times more productive, for a given area of land, than the most high-tech agriculture.

In the case of energy, closed systems do not really apply since they are defined in terms of materials, and energy takes a one-way ticket from the sun to dissipation in the form of low-level heat. But the principle is similar, because the Lean Economy is built on “solar string” technologies – that is, various forms of renewable energy derived ultimately from the sun, and strung out in a minigrd in which every member of the grid is generator, user or storage depot as opportunity offers.

A minigrd uses the full range of technologies including solar, wind, water and biomass, conserving energy through the use of the benign army of emerging energy technologies that is on the way. It stores energy with the use of media such as hydrogen, biomass, supercapacitors, flywheels, ceramics and pumped storage. It uses information technology to manage demand. And the giant users of energy – transport and industry, and houses that leak energy – are not, and cannot be, part of that world.

The stabilised Lean Economy gives a sharp and very ambitious meaning to energy efficiency. Changes in behaviour, including (for example) a drastically reduced dependency on transport, could reduce the demand for energy-services by two thirds (a factor of 3); and energy efficiency – the energy services provided by a kilowatt of energy – could be improved by as much. That multiplies up to a 90 percent improvement – or a demand for just 10 percent of the energy we use now – and that is well within the capability of renewables.

The transition will require energy rationing. There is an electronic rationing system for energy called Domestic Tradable Quotas (DTQs) which

uses information technology to distribute fair access to fossil fuels, guaranteeing that a year-on-year budget for reduced consumption is achieved. The DTQ budget looks like this (figure 6). It is the basis for a step-by-step decline in emissions of carbon dioxide from all fossil fuels. This is, I would argue, the only way of achieving equitable allocation of the declining access to fuel that we will face in the near future. It will need to be a national scheme, firmly based on a strong sense of national solidarity. And its significance extends beyond energy. A decisive and persistent reduction in energy use could provide the pathway by which our present day economy can achieve the transition – a massive achievement it would be, if it happened – to the stabilised Lean Economy.

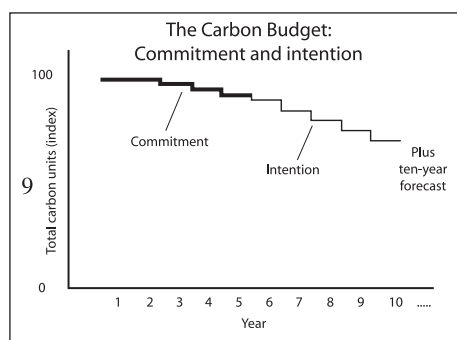


Figure 6. The Carbon Budget for Domestic Tradable Quotas is defined over ten years: the first five years (the Commitment) cannot be changed; the second five years is set in advance but can be revised. There is then a ten year “forecast” which gives guidance on the scale of the reduction that can be expected in the future. The budget represents a guarantee that reduction targets are met and it enables people to make informed preparation for it.

5. THE GREENING OF WASTE

And then, there is the material economy itself. I am going to skip that – it is rather a matter of dirty detail. But there is one thing to say as we come to the end of this review of practical matters of food, water, energy and materials. We, in our consumer-driven economy, have a sense of guilt about material goods. It is understandable, but strange, in a sense, because previous societies, those that existed in sustainable coexistence with their environment, were quite comfortable not only with goods, but also with waste. Certainly, they were doing it all on a vastly smaller scale than our own society, so that, in

that sense, there is no comparison. But in another sense there is a comparison.

It is quite a complex argument, and I will just trail it past you. The argument goes that primitive societies were in fact incredibly productive. Their environments were so fertile that they could produce in abundance all too easily. In fact, they produced too much, and the problem was to get rid of the excess. Ecosystems develop ways of getting rid of the excess, not least by evolving a vast array of charismatic predators.

Early human societies, faced with excess, regarded this excess as a curse: *la part maudite*, in Claude Bataille's words. The accursed share. They then set about *wasting it*: potlaches; sacrifices; parties. Tibetan monks, in our own day, make immensely complex sand mandalas, months of painstaking work and a huge quantity of embodied human capital; a magnificent investment - and then they chuck it all in the river for the delectation of the river god. Problem solved.

By contrast, when we - that is, we in the market economy - create a vast investment, we use it to create an even more vast investment. We accumulate it. Bataille suggested that the bigger the accumulated capital the bigger the eventual crash. Primitive societies knew better; they kept the stakes low. They had fun. They had something to tell us. I call it the Greening of Waste.

Now, the next part of the Lean Economy is lean society, which we will come back to. The third part, lean consumption, considers what, amongst the vast quantity of goods and services consumed by households and by government, we could in fact do without. And the first thing to recognise is that, in the Lean Economy, there is no burning question about *reducing* consumption at all. On the contrary, the aim is to *increase* consumption.

The deep economic meltdown that will occur after the failure of the market economy will make a fine job of reducing consumption down indeed to catastrophic levels. But try as we might to increase consumption, we will not then be able to increase it very far. The only sort of economic and social order that will then be possible will be one that travels light. We may be forced to travel very light indeed.

Why? Because the great support systems, the transport, the waste disposal systems, the

infrastructure of bureaucracy, security and large-scale state services, will no longer be there. All those regrettable necessities of a large scale society will have been brought down to size, localised, internalised, reintegrated back into the community - in fact, substantially eliminated. In an inverse of the usual green interpretation of the matter, our needs will have been dramatically reduced by circumstances outside our control; if we are lucky, we will be able to indulge some of our wants. And this will require a radically different way of using land, with a new conception of industry, integrated into localities, domesticated.

6. IS CULTURE REALLY NEEDED?

And then there is lean culture. Now, we need to think about this for a moment, because it is a reasonable question to ask - whether a society actually needs to have any culture at all. After all, if we have jobs, and we have income, and we have a body of law, and a police-force to enforce it, why do we need the sense of solidarity conferred by a culture?

Well, to a substantial degree, we don't. This was explained, somewhat ambiguously, by Adam Smith: so long as we have a functioning market we do not need to feel towards each other any particular sense of benevolence. All that is really needed is that the butcher and baker, and the others who have useful services to offer, should themselves be hungry for an income. And Karl Polanyi, in his celebrated book *The Great Transformation*, published in 1944, thought that, in the presence of the market economy, that amazing mechanism for automatically regulating society and keeping order, none of the great loyalties, obligations and traditions of a previous age are really needed at all.

However, as Polanyi points out, there is a fatal flaw in the idea of the self-regulating market economy: the lack of a safety-net. If the market economy should, for any reason, break down, we would be left *without any* of the loyalties, obligations and traditions by which society in a previous age was held together. And this would be a serious problem. Indeed, it would mean that society would simply disintegrate down to the level of a crowd, a riot. And the loyalties, obligations and traditions which go to form a culture, once broken up, are very hard to put together again.

Polanyi was even more right than he knew, because, since he wrote, we have not only diligently been dismantling all trace of the loyalties, obligations and traditions which we once had, but, taking what traces are left, we have mixed them up with the remains of other cultures so that it has become divisive to refer in terms of loyalty to any particular culture, and the remnants of social cohesion that we are left with have become instruments of disorder.

A double-bind. A mess. As if we didn't have enough to contend with. You know, it is impossible to look at any aspect of our economy and society in the context of what lies ahead, at the prospects for energy, food, climate change, land-use, skills, social order, international order and culture, to name but a few – without reflecting that, if we had been governed by a hundred thousand malevolent devils they could not have made more of a mess of it.

>>> *there is a fatal flaw in the idea of the self-regulating market*

But we have to start from where we are. We have to rebuild a culture, a multiple culture, making a celebratory virtue out of diversity. And we need to have an idea of the job that a strong culture has to do. You see, there is a great deal more to local economies than renewable energy and local currencies; material need is not, and never has been, a sufficient incentive for wholehearted cooperation in anything. What we are talking about here, what we are looking for, is a society which is capable of lasting for a very long time, picking up from the defunct market economy, containing and channelling ambitions, providing a social and cognitive setting for the greatest minds, being fun, tolerating dissidence, moving beyond sustainable development and environmental policy, and joining together to build a political economy for a new era. What local economies have to achieve in the future is survival, permanence and civility.

7. THE THREE VITAL FUNCTIONS OF CULTURE IN THE LEAN ECONOMY

That was the easy part. Now for culture. We shall leave the environment far behind and talk now about a human culture that has permanence - or, at least, one that can bounce back. In a society

without a culture, two things happen, both of which are horrible: it falls apart, and it develops simplistic cultures on the hoof - fundamentalisms, which we are beginning to find out about.

Lean culture is just as important as each of the other three parts of the Lean Economy. They need each other. And lean culture has to do three things.

7.1 Cohesion

First, it is the foundation for social cohesion. It allows a society to recognise itself as having something in common beyond simply a sense that people may from time to time be instrumentally useful to each other. Social cohesion implies that there is some willingness to recognise that society exists, that it contains institutions which are to be valued, and that cooperative behaviour is justified and to be encouraged.

Now, the key to understanding this is the idea of “consent”, a willing acceptance by a person that in his association with his society there is a sense of obligation: this is not a matter of making a choice, but of recognising a covenant. The great Irish political philosopher, Edmund Burke (brought up in Ballyduff, in County Cork), explains: “Men without their choice derive *benefits* from that association; *without their choice* they are subjected to *duties* in consequence of these benefits; and without their choice they enter into a *virtual obligation* as binding as any that is actual.”

There is a powerful bonding implied here: not an arrangement, but a destiny, and Burke adds, “Much the strongest moral obligations are such as were never the results of our option.” Lean culture turns social cohesion into a deeply held obligation.

7.2 The Public Sphere

Secondly, lean culture has to develop the public sphere. The public sphere? The distinction between private and public is not immediately obvious nor easy to explain. I think the best way to explain it is by placing it immediately in the context of the local economy. There you are, building a local economy, against the odds, in a troubled world. You have the food and water systems, the currency, the schools. You have community – and you have claustrophobia. You know each other all too well. You have no secrets. No courtesies.

There is a danger of it becoming sheer hell, and in truth the record of communities staying together is poor. Those with a well-defined purpose, having more in common with firms than communities, like Machynlleth, have stayed together for a long time. Very loose local economies that depend basically on the formal economy but find ways of cooperating when they feel like it have also got a reasonable record of longevity. But close-knit communities, particularly those with high ambitions of sharing and cooperation, tend not to survive. On some definitions in the literature, none of them have survived.

>>> *the record of communities staying together is poor*

Now, there are many reasons for this, but the particular reason we are talking about now is that there can be, in communities, a cloying sense of invasion of privacy. It is not just that you know each other to the point of being desperate for a change of scenery, but that there is a sense of invasion of privacy, a sense that you cannot get away, a sense that you want to talk about something else for a change, and that you wouldn't half mind, if your neighbours wanted to express themselves *again*, that they would go and do it somewhere else.

The solution is to develop a public culture. That makes it sound simple, but it is not. Here are three properties of a public culture: (1) it has "self-distance"; (2) it is a form of play; and (3) it is a skill – I prefer the word accomplishment.

First, self-distance.. There is an impersonal quality, here, a sense of a lack of spontaneity. The discourse tends not to be about one's own life and problems. There is a reserve. But perhaps clothes get to this point better. Comfortable grunge signals, "Hey, this guy's unpretentious, he presents himself as he really is". Whereas, a guy who's kitted out in, oh, all this - the tie, for instance - invites the question, "What's his game?" Well, there is a game, in a sense, but the real meaning of the question is, "What has he got to hide?" Well, I must admit, I've got a lot to hide. If I told you about my irritating sense of humour, my anxiety neurosis, my workaholism - my obsession with detail, the erotic feelings I have about seagulls - enough - I shan't tell you,

because if I did, it would bore you sick and you might put up with it for an evening, but it would very quickly pall, and the prospect of a lifetime of Fleming's self-revelation is simply horrible.

Better to be a bit impersonal. Better to sustain a bit of reserve, or of what that great writer on the public sphere, Richard Sennett, describes as "self-distance". This is the starting-point of a culture. It is not an exercise in self-revelation, but a public expression. You might get a better lecture, too, if I sustain a certain detachment. You have no reason to be interested in what I think. But if I am a bit impersonal about it, and try, instead to follow where the logic of the argument may lead and, crucially, if I don't mind very much if I get my hands dirty when the argument leads to some very strange and uncomfortable places, then there might be a story here worth reflecting on.

That sense of reserve and self-distance may begin to capture the meaning of the public sphere.

The second property of public culture turns on the idea of play. Play is one of the core themes of the Lean Economy, and one of the defining conditions of it is that there are rules: it is arbitrary. So, if you are defeated, or insulted, it does not matter. Victory in a game does not make you into a real-life tyrant. No offence is taken.

Play lowers the temperature. It therefore relishes – *in the play context* – the extremes of self-expression, without spilling over into the extremes of self-revelation. And this, in turn, opens the way to inclusiveness. In a play context you can interact with people who are different from you in a way which you could not, or at least not so easily, do out of that context.

Young children can join in an older children's game though they would be left out of the older children's conversation.

It is inclusive, therefore; and in the process, it is fun. No *fun* means low serotonin levels. Serotonin is a neurotransmitter and when levels in the brain run low, the result is liable to take the form of anger attacks, addiction, violence, of behaviour which is antisocial or withdrawn - all characteristics of a community breaking up. Serotonin levels in the brain are raised, however, by excitement, confidence, success, particularly success when you thought that all was lost. These are the things that are provided by play.

And the third approach to the public sphere takes us into thinking about accomplishment. Another great Irish philosopher, Alasdair MacIntyre, tells us something about this – well, he calls it “practice”, but it is the same thing. It means being very good at something – at an objective skill which is not satisfied by mere good intentions; it has to be done right if it is to be done at all. And he points out the ways in which this accomplishment affirms, and needs, the inheritance of the community’s own past accomplishments and traditions. There may, indeed, be personal expressiveness here but it is expressed on the community’s own terms; it belongs to – that is to say, its medium is – the community’s own public life.

It is for these three reasons then, which I have labelled as three properties, self-distance, play and accomplishment that the public sphere is central. It is the place where a community’s culture *happens*. Without it, forget the solar panels and local food. If the local economy, the community, can produce accomplished music, dance, celebration, it will have a chance.

Now, all that about the public sphere was just the second argument in support of my claim that lean culture is exceedingly important. The third one is about “judgment”.

7.3 Judgment

The argument goes like this. There is a tendency, particularly in the case of people with substantial authority, for their judgment to be poor. This is for various reasons, but mainly because they reduce their thinking down to simplified categories, universal principles which they apply to all circumstances. They stand for a position. They are defined by it. They represent a certain view, a certain set of good intentions, a rigid, plausible, catastrophic mind-set.

Now, it doesn’t have to be like this. The alternative is to get down to the dirty detail, to find out about the particular circumstances and let them and their logic speak for themselves.

There was - there were some ambiguities and massive exceptions, here - but there was a mediaeval way of thinking, known as casuistry which made a point of avoiding generalisations – idiot simplifications, as Bernard Crick calls them. Instead, casuistry prefers to get to grips with the specific, local, case-by-case detail, and it has had its powerful advocates, notably (again) Edmund

Burke, and Aristotle, who wrote “Decisions about which practical theory will best allow us to resolve any particular problem can only be made in the context of, and with an eye to, the *detailed* circumstances of that particular problem.”

Now comes the crunch of the argument. What does “particular” mean? Well, it means, among other things, “particular *place*”. And in the Lean Economy, we are not just building local economies; we are making particular places, with their particular associations, and bringing particular places to life.



Play is one of the core themes of the Lean Economy. <<<

No fun means low serotonin levels.



That is to say, *the Lean Economy is located*. Its culture is a culture of place. Art that celebrates a particular place has a quality of ritual to it. It validates a place, gives it its own values; it gives people, not just the courage of their convictions, but the courage of their locations.

8. LEAN SOCIETY

And that brings us to lean society. When the market economy, with its nice, regulating price mechanism, has broken down, it will be necessary to rediscover social order and social structure from first principles - not to build a Utopia but to recognise the absolutely undisputable fact that there has to be a social order in the future. The market won’t be there to do the job. And the first principle of society is that, while it can be imposed, or be led, or guided, from the top down, it has to be constructed from the bottom up.

I see four layers of lean society. First, there is the primary group, essentially the extended household on a scale of around six adults. It can consist of several families, next door to each other, or round a “turning” as they used to call it in the East End of London. This is the essential building block of social order.

Secondly, households are located within what I describe as the precinct, the size of which is around 150 active adults, a scale which is one of the most persistent features of social order in the

anthropological record. It is possible, within the precinct, to sustain cooperation without exchange systems such as local currency. It may not be possible to do so now, because we are not used to it, and we do not have the necessary structure of social order. But it is a skill which is embedded in our human personality and it is there to be developed.

>>> *Local currencies are absolutely fundamental*

And above that layer, there is the parish, and above that, the nation. I want to finish this lecture by taking a closer look at issues arising with respect to one of these scales of social organisation.

The parish is a strange sort of size in terms of sociology. For small groups (that is, the primary groups) and for the very large group in the form of the nation, there is a characteristic form of “reciprocity”, that is, a particular way in which people exchange things amongst each other and cooperate. For households, it is “generalised” reciprocity – that is, unconditional obligation. You cooperate with people in your household unconditionally. At the other extreme, with people who are not local, and whom you are unlikely ever to see again, it is “negative” reciprocity – that is, the exchange is based on the principle of going out for what you can get.

For parishes, reciprocity is “balanced”, a sort of half-way house between the two. Local currencies are absolutely fundamental to this. And the right scale for the local currency is the parish. The parish is an easier, less competitive regime than that of the tough exchange systems that exist outside, but that is not enough to keep parish economies in order; neither local currencies nor anything else can carry it off on their own. Remember, we are in a state of economic disorder here – hyperunemployment, no incomes, crashed markets. It is all too likely that it will also be a case of crashed local communities.

The task of getting this local parish economy off the ground, and protecting it, is very tough indeed. And the technique which I would like to suggest is based on the absolutely standard fully accepted and uncontroversial principles of economics: that is, on the criteria which have to exist in an economy which enjoys the benefits of

perfect competition. The modification I would suggest in this case is that every one of them should be stood completely on its head.

In other words, if you want to know the way forward in the future, listen to what standard neoclassical economics has to say, and do the opposite. The criteria for perfect competition are:

1. there should be a LARGE NUMBER OF SELLERS AND BUYERS – so that none can influence prices;
2. PRODUCTS SHOULD COMPETE ON PRICE, and on no other criteria;
3. FREE ENTRY AND EXIT – sellers and buyers can come and go as they wish;
4. PROFIT MAXIMISATION – sellers are simply out to make money;
5. NO LOCAL STANDARDS can be imposed, and there is no discrimination except on grounds of price against another producer;
6. PERFECT MOBILITY of the factors of production - labour, capital and land follow the money, with no strings attached;
7. PERFECT KNOWLEDGE – so that buyers can compare the quality of all products on the market.

For parishes in the Lean Economy, just the opposite will need to be the case.

1. There will be a *small* number of buyers and seller, with a lot of influence over the local market.
2. There will be immense product diversity, every product will be bundled-in with other things, such as neighbourly services, and the process of building a local community.
3. There will be barriers to entry and exit. Loyalty to local suppliers will be essential. Bargain hunting for the best price is essentially the cause of the collapse.
4. Clear objectives? Forget it. The nature of the Lean Economy will be one of improvising, invention and muddling through.
5. Local standards – that is to say, standards of lean production, not be confused with the destructive regulatory regime of the World Trade Organisation and the EU, will be essential.
6. There will indeed be barriers to the mobility of factors of production. There will be precisely that tissue of loyalties, obligations and traditions which keeps labour and capital at home.

7. Imperfect knowledge will be absolutely vital. If local economies really knew how hard their future would be, and how long it will take to stabilise, they would be dispirited, and might not try it at all. Whenever you are starting something big, it is best not to be too realistic about it, to look no further than the next step.

Put all these together, and we begin at last to have a blending of people and economics, mending the broken world left by the market economy. Civil disobedience may be part of the road that lies ahead. Economic disobedience will certainly be part of it. The rule is: break the rules of economics, reintegrate society; join together, make a future.

And now, finally, all this has to be located. Remember, *place* is one of the core concepts of the Lean Economy. And place, in turn, has to be placed in ... well, what? The sequence, remember, goes from primary group, through precinct and parish up to the nation. And what about the region? What about the EU?

Well, I have drawn your attention to a number of tragedies this evening, and I don't want to end on another one, and yet, there is the Tragedy of the Regions. Regions can be an effective scale. Britain fought the last war governed as a federation of regions with a very high degree of local autonomy in implementing the war effort. They did what Britain expected of them. In the future, I fear, they will do what the European Union expects of them.

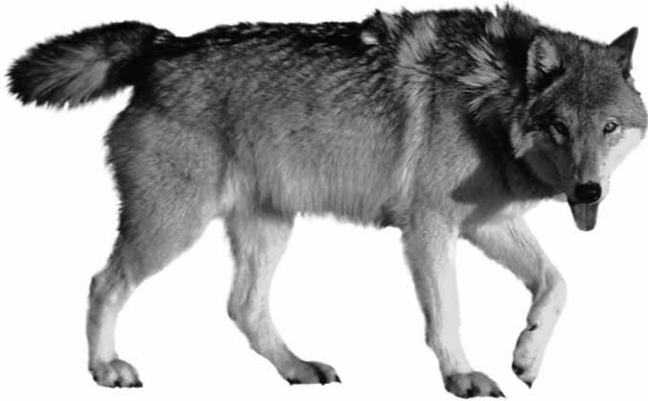
The volume of thinking which is beginning to face up to the consequences of EU regulation in ruling out the possibility of local invention is becoming persuasive. It takes the argument far beyond the old categories of Euroscepticism, and into the serious political analysis of thinkers like David Miller and Larry Siedentop. They are recognising that creative, robust, inventive local autonomy

needs the setting of a strong nation which helps them, protects them, but does not feel compelled to interfere in local detail. In a regime of authoritarian superstate regulation, implemented by the regions, the Lean Economy would have no chance: no chance of achieving its ambitious tasks of inventing and managing a political economy, of sustaining order and civility. Regional government is not a way of taking politics to the people; it is a way of taking it away from the people who already have practical, located governance in a variety of forms, including counties, which are in line to be abolished when regional units become firmly established. Counties' accessibility, their right of local government, their local knowledge and competence – indeed, their existence – need to be defended with courage.

The Lean Economy will need both courage and independence. And it will have a heart. There is a tradition of affection to draw on in our civilisation. There is a resource of feeling, responsibility and sheer affection, in Europe, in Britain, in Inishbofin. Despite the turbulence of our history, our society has been kept going by real concern for one another; much of this network of obligation has been shredded by the impersonal relationships of the market economy, but the essence of it is still at the heart of our culture. Here, for example, is the sixteenth century Briton Miles Coverdale commenting on the German Martin Luther's commentary on the ancient Jewish Psalm 23. The subject of his commentary is sheep. The emotional energy he celebrates will be recruited by the Lean Economy as, in part at least, a substitute for oil:

If any go astray, he runneth after it, seeketh it, and fetcheth it again. As for such as be young, feeble and sick, he dealeth gently with them, keepeth them, and holdeth them up, and carrieth them, till they be old, strong, and whole.

The story of the boy who cried wolf



One of Aesop's Fables is the story of the boy whose job was to look after the sheep but, having a nervous disposition, he was forever crying "wolf" when no wolf was there. One day the wolf really did come, and he cried "wolf" again, but nobody believed him, and the wolf was able to dine off the sheep and the boy at leisure.

There are two morals to the story. The first is: avoid giving false alarms. The second is: in the end, the wolf came, so do not be misled by previous false alarms into thinking that the latest alarm is false, too. Of these two morals, the second one is more significant. Believing false alarms wastes time, but can lead to some helpful advice for apprentice shepherds; disbelieving all alarms can lead to a local lad being eaten, for starters.

We have an example of the fallacy of the wolf in the case of supplies of oil. A century or so ago, there were some false alarms about how little oil remained; the art of forecasting oil supplies earned a bad reputation. However, estimates of the quantity remaining in the world, and of the turning-point (the "peak") at which oil production would start to decline, steadily improved and, in the 1970s estimates of the accessible and liquid oil which had been in place at the start of the industrial era settled at, or around, around 2000 billion barrels, and that estimate has held. The expected peak was estimated to be around the year 2000 – later extended to a few years into the new century thanks to the slower growth in demand following the oil shocks of 1973-1979. The "2000:2000" warning, starting with a report by Esso in 1970, has since been independently

confirmed and published by official sources, such as the UK's Department of Energy, *Energy Research and Development in the United Kingdom* (1976), the *Global 2000 Report to the President* (1980), the World Bank, *Global Energy Prospects* (1981), and by numerous independent studies such as M. King Hubbert (1977), Petroconsultants (1995), L.F. Ivanhoe (1997), Colin Campbell (1999), Roger Bentley (2002)...; it has been established and confirmed for three decades. Analysts have also pointed to the devastating consequences of a breakdown in oil supplies on a global market which has neglected to make any serious preparation. Here was a wolf that gave thirty years notice of its arrival, and has been thoughtfully issuing reminders ever since.

It is, however, the sceptics that tend to carry the day. "There is always a series of geologists who are concerned about imminent depletion of world supplies", an energy economist, Peter Davis, reassured a House of Lords Select Committee on Energy Supply in 2001. "They have been wrong for 100 years and I would be confident they will be wrong in the future". So that's all right then: the anguished warnings are nothing more than that new kid trying to draw attention to himself. Aesop might be tempted to revise his fable slightly. Here we have the apprentice shepherd growing mature and experienced in the job. He has been giving precise fixes of the wolf's advance for as long as anyone can remember. He is specific and credible about the action that must be taken to save the village. And still he is disbelieved.

David Fleming