SCHUMACHER CENTER
for a new economics

Small is Beautiful Revisited…

50 Years Later

A STUDY GUIDE

By David Boyle

Introduction

"One of the most fateful errors of our age is the belief that 'the problem of production' has been solved. Not only is this belief firmly held by people remote from production and therefore professionally unacquainted with the facts – it is held by virtually all the experts, the captains of industry, the economic managers in the governments of the world, the academic and not-so-academic economists, not to mention the economic journalists. They may disagree on many things but they all agree that the problem of production has been solved; that mankind has at last come of age. For the rich countries, they say, the most important task now is 'education for leisure' and, for the poor countries. the 'transfer of technology'…"

– E. F. Schumacher, the opening lines of *Small is Beautiful* (1973).

"Most of the environmental movement takes a utilitarian ecology approach, that we must protect the environment because it is useful and beneficial to human beings. Schumacher's approach was that we must take care of the environment out of our deep reverence for it. I call the Schumacherian approach to the environment 'reverential ecology'. Reverential economy and ecology say that you must know your limits and learn to live within them. Then everything will be recycled and regenerated. Mahatma Gandhi said there is enough in the world for everyone's need, but not enough for anyone's greed. Our modern dinosaur society has become a greedy society and we don't know when enough is enough."

– Satish Kumar, editor of *Resurgence* magazine (in the 25th anniversary edition, Hartley & Marks, 1999).

The book *Small is Beautiful* is also the story of how one man managed to stand in the way of a juggernaut - the stultifying series of errors in economics that stemmed, according to the author, from scientific materialism.

I accept, of course, that the juggernaut continues – but would we have made as much progress as we have against it without this short book of essays and lectures, pulled together by Dr Fritz Schumacher and published exactly 50 years ago this year?

The first chapter about production goes to the heart of the problem as Schumacher saw it – as first and foremost a spiritual mistake:

"*Modern man does not experience himself as a part of nature but as an outside force destined to dominate and conquer it. He even talks of a battle with nature, forgetting that, if he won the battle, he would find himself on the losing side*..."

Background

When *Small is Beautiful* was published in May of 1973, Schumacher had long since completed the shift he had made from conventional Keynesianism to a radical scepticism – almost a maverick anti-economics position.

He could so easily have been dismissed as a crank. But then, as he said, a crank is "a small element in a machine that makes revolutions".

This was a man about whom Keynes had once said his mantle would fall – because Schumacher could really make the words "sing".

He had become radicalized after a visit to Burma in 1955, when he saw suddenly how few of his conventional economic measures were relevant to an economy, where the main product was Buddhist monks and their prayers.

His journey continued via his foundation of the Intermediate Technology Development Group (now Practical Action) in 1966 (more about intermediate technology in Chapter 10).

The philosopher Theodore Grosz wrote, in the foreword of the American edition of *Small is Beautiful*, about his first encounter with the author:

"The first example of Schumacher's work I came across was an informal talk he gave in the mid-sixties on the practicality of Gandhi's economic program in India. I was at the time editing a small pacifist weekly in London (Peace News) *and was on the lookout for anything about Gandhi I could find. But here was a viewpoint I had never heard expounded even by ardent Gandhians, most of whom brushed over Gandhi's concern for village life and the spinning wheel as if it were the once regrettable folly of an otherwise great and important man. Not so of Schumacher. Step by step, he spelled out the essential good sense of a third world economic policy that rejected imitation of Western models: breakneck urbanization, heavy capital investments, mass production, centralized development planning, and advanced technology. In contrast, Gandhi's scheme was to begin with the villages, to stabilize and enrich their traditional way of life by use of labour-intensive manufacture and handicrafts, and to keep the nation's economic decision making as decentralized as possible, even if this slowed the pace of urban and industrial growth to a crawl..."*

Schumacher had by then attracted a number of supporters and followers, initially people who had worked with him during his two decades advising the National Coal Board, like George McRobie, Duncan Smith and John Davis, who would go on to launch the New Economics Foundation in London in 1986.

Another key colleague was Satish Kumar, a Jain monk, who was then editing the magazine *Resurgence* in Devon, which gave him a platform in the UK. Another of the international mavericks and radicals was Bob Swann, who had been reading Schumacher's essays in *MANAS*, published by fellow World War II conscientious objector, Henry Geiger, and then in *Resurgence.* It was Bob Swann who organized Schumacher's 1974 tour to America, during which Schumacher asked him to form a parallel organization to Intermediate Technology Development Group – but Bob was not ready to do so.

It was 1980, when Satish Kumar, David Ehrenfeld, Ian Baldwin, John McClaughry, and Kirkpatrick Sale asked Bob Swann and Susan Witt to form the E. F. Schumacher Society (now Schumacher Center for a New Economics) in Western Massachusetts.

Even so, these were intellectual outliers. They were hardly a majority view. So it was an act of courage and imagination which led Anthony Blond of London publishers Blond & Briggs to ask Schumacher to put together a collection of essays. It was Blond who chose the title – a quotation from Leopold Kohr, the devolution pioneer and a key influence on Schumacher (who didn't really like it).

He had planned to use the title *Homecomers* to reflect the spiritual theme – and because he had been received into the Roman Catholic church in 1971. He had always intended the famous subtitle 'Economics as if people mattered'.

Conjunctions of events are hard to understand, but it so happened that the publication at the end of May coincided with the first so-called energy crisis. In October, the Opec group of Middle Eastern oil producers decided to hike the price of oil – mainly in response to those nations which had backed Israel in the Yom Kippur war.

The price of oil leapt four times over within days. In the UK, this led to a miners' strike and a three-day working week; in the USA it led to the emerging speed limit going down to 55 mph. It plunged the world into recession for the first time since the Second World War.

It was enough for people to start searching for other economic opinions and other kinds of solution – and they happened upon S*mall is Beautiful*.

It seemed to synthesize and epitomize everything that people like Barbara Ward, and other 'experts', had been saying the previous year at the United Nations. It seemed to encapsulate the environmental anxieties of a whole generation. 'Saving the world with small talk' was the headline of an article on Schumacher by Victoria Brittain in *The Times* on 2 June 1973: "*Schumacher ... believes that the Western world's loss of the classical/Christian ethics has left us impoverished devotees of the religion of economic growth, heading for every conceivable kind of world disaster. His book is a polemic for smallness, and for what he calls metaeconomic values, in which people come before profits...*"

Almost overnight Schumacher became famous throughout the world. He was idolized as a guru by the California counter-culture and by a rising generation of eco-warriors, yet at the same time, he was also recognized in the Queen's Honours List, being

awarded a CBE in 1974.

By 1977, his views had become so popular and so mainstream that he was invited by President Carter for a half-hour talk in the White House. Carter was keen to be photographed holding a copy of *Small is Beautiful.*

By the end of that year, he was dead – from exhaustion.

What happened next?

Schumacher died in Switzerland on 4 September 1977. *Small is Beautiful* is now a classic – picked in 1995 by the *Times Literary Supplement* as one of the 100 most influential books since 1945.

Nearly three months later, on 30 November, a requiem mass was celebrated for Schumacher at Westminster Cathedral. During the service, Jerry Brown, Governor of California and a friend and follower of his, described him as *"a man of utter simplicity who moved large numbers by the force of his ideas and personality. He challenged the fundamental beliefs of modern society from the context of ancient wisdom".*

An address was also given by David Astor, a former editor of the *Observer,* and the High Commissioner for Zambia read a message from President Kaunda. Other dignitaries present included the High Commissioner for Botswana, the US Ambassador and members of both Houses of Parliament.

The next day, the *Times* described Schumacher as a "*pioneer of post-capitalist, post-communist thought*" and more than made up for its earlier alleged indifference by devoting its editorial to his work.

The trouble was that, without Schumacher to be the face and voice of a new economics, all these powerful people have been unable to stop the economics juggernaut.

But there were by then a number of people who were determined not to let his message die. And so there is now a whole circle of institutions that he either founded or inspired so much that they borrowed his name to make the case again. The former include the Soil Association (where he was the chair for many years) and ITDG (now Practical Action) which he founded.

In the latter category is the Schumacher Center for the New Economics in Massachusetts – which now houses his library – and Schumacher College in Devon, the New Economics Foundation thinktank, and a number of others.

It wasn't always easy to keep going in those difficult years under Ronald Reagan and Margaret Thatcher, when – in reaction to the failures of the old Keynesian arrangements – it sometimes seemed like the world was going backwards rather than forwards.

But debates change, and there has been progress – as we will see...

This Project

For the 25th anniversary of the publication in 1998, the publishers Hartley & Marks gathered a collection of quotations by leading individuals in the broader movement towards a new economics, published in 1999. Mr Marks has very kindly let us use some of those quotes here.

Chapter by chapter, we will be looking afresh at *Small is Beautiful*, explaining some of the aspects that now seem a little obscure, putting it in the context of what has been happening since 1973 – and looking ahead about what could happen next.

We also suggest a number of elements and questions that could make for fascinating or useful discussions, at colleges, homes or churches.

I hope you enjoy them! Please let us know what you think...

SECTION I – THE MODERN WORLD

1/What is capital?

Chapter 1. The Problem of Production

"Few people will be easily convinced that the challenge to man's future cannot be met by making marginal adjustments here or there, or, possibly, by changing the political system..."

– E. F. Schumacher, *Small is Beautiful*, Chapter 1.

"There is a fundamental difference between production in the economy and production in nature. Because they are essentially self-producing, and use only dispersed (high entropy) substances for their growth and maintenance, green plants are called primary producers. By contrast, humans are strictly secondary producers. We use enormous inputs of high-grade energy and material resources extracted from the rest of the ecosphere to produce and maintain our bodies and all the products of our factories. In short, all production by the human enterprise involves the consumption of a much larger quantity of energy and material first produced by nature. From this material perspective, economic activity is more an inefficient conversion process than it is a productive process."

– William Rees, ecologist and co-author of *Our Ecological Footprint*, 25th anniversary edition (1989)

The first chapter came from a talk Schumacher gave in Zurich in February 1972. He launches straight in without any kind of introduction, so perhaps we should do the same...

What the Chapter Says…

This chapter is about the idea of 'capital'. Traditionally, this meant just land, labour and manufactured capital – the three bases for creating wealth according to traditional economics. We have become used since 1973 to authors and business writers trying out new forms of capital, whether that is 'social capital' (like Robert Putnam), 'intellectual capital' (like Annie Brooking or Thomas Stewart), 'natural capital' (Paul Hawken), or even 'spiritual capital' (perhaps Danah Zohar).

This is what Paul Hawken said 25 years ago: *"The term natural capital, introduced to a broad audience by Schumacher in* Small is Beautiful*, was not immediately taken up by*

economists or academics. The term seemed to lay dormant until the past decade. Today, it is being used commonly, certainly in environmental circles and writings. Schumacher defined natural capital both narrowly and amorphously: fossil fuels and the tolerance margins of nature and human subsistence. Today we understand natural capital as the sum total of renewable and non-renewable resources, including the ecological systems and services that support life. It is different from conventionally defined capital in that natural capital cannot be produced by human activity. What was unimaginable 25 years ago was the speed with which the loss of natural capital would affect humankind." (25th anniversary edition, Hartley & Marks, 1999).

So, yes, Schumacher looked at natural capital, and first of all he looks at fossil fuel consumption – bear in mind that the Greenhouse Effect had yet to be identified when he was writing. What he wants to discuss is why the effort to use this capital as if it was ordinary income?

He includes some figures looking ahead, explaining that by the 1970s, human beings were using about 7,000 million tons of coal equivalent. By the year 2000 – about half way back to 1973 – our energy consumption would triple, he said – and it had already tripled since the end of World War II.

What about the year 2028, when little children running about today will be planning for their retirement, he asks? Will it have trebled again?

	1973	2000	2028?
Predictions by EFS	7,000	21,000	63,000?
Actual figures	7,000	16,700	WE SHALL SEE!

In the event, it hasn't been as bad as that – mainly because so many of us have partly managed to wean ourselves off fossil fuels. the Greenhouse Effect was actually identified back in 1824, but it wasn't a popularized concept until the late 1980s and early 1990s.

In fact, fossil fuel consumption has increased significantly over the past half-century, around eight-fold since 1950, and roughly doubling since 1980.

Even so, Schumacher's point still stands: that, first, you can't just carry on exponentially increasing fossil fuel consumption – which you can understand only when you grasp that humanity has been using up its natural capital as if it was a renewable resource:

"*All these questions and answers are seen to be absurd the moment we realize that we are*

dealing with capital and not with income: fossil fuels are not made by men; they cannot be recycled. Once they are gone they are gone for ever."

And second, don't forget the pollution this all causes ("*And this has come so suddenly that we hardly noticed the fact that we were very rapidly using up a certain kind of irreplaceable capital asset, namely the tolerance margins which benign nature always provides.")*

Meanwhile, we are blithely shooting towards a nuclear energy future as an alternative – when we haven't even solved the problem of what to do with all that high-level radioactive waste that needs to be stored until it is safe – in about 25,000 years' time *(more on this in Chapter 9).*

"I am sure that I shall be confronted with another, even more daring proposition: namely, that future scientists and technologists will be able to devise safety rules and precautions of such perfection that the using, transporting, processing and storing of radioactive materials in ever-increasing quantities will be made entirely safe; also that it will be the task of politicians and social scientists to create a world society in which wars or civil disturbances can never happen..."

Are we not far better off than we were a generation ago? Schumacher asks rhetorically. To which he answers: "*Of course we are: most, but by no means all, of us...*"

The 'substance of man' is his third form of natural capital (after fossil fuels and energy and nature's tolerance margins). But he barely defines it – he just says what it isn't. "*It cannot be measured by Gross National Product,*" he says: "*Perhaps it cannot be measured at all, except for certain symptoms of loss. However, this is not the place to go into the statistics of these symptoms, such as crime, drug addiction, vandalism, mental breakdown, rebellion, and so forth. Statistics never prove anything."*
Which is quite right. Or so I believe.

Then the chapter ends with a call to arms: "*What is my case? Simply that our most important task is to get off our present collision course. And who is there to tackle such a task? I think every one of us, whether old or young, powerful or powerless, rich or poor, influential or uninfluential. To talk about the future is useful only if it leads to action now. And what can we do now, while we are still in the position of 'never having had it so good'? To say the least – which is already very much -we must thoroughly understand the problem and begin to see the possibility of evolving a new life-style, with new methods of production and new patterns of consumption: a life-style designed for permanence..."*

What happened next?

So how is wealth created if we throw out the traditional trio of capitals - land, labour and manufactured capital?

One of the problems is that, in the traditional model, you are allowed to substitute one capital for another, which means that it is OK to trash the planet – as long as one of the other types of capital takes its place.

That doesn't work, said the late David Pearce, the doyen of the environmental economists and the author of *Blueprint for a Small Planet: "There are many types of environmental assets for which there are no substitutes*."

Paul Ekins, the first director of the New Economics Foundation, wrote a book called *Wealth Beyond Measure: An atlas of new economics.* It was published by Gaia Books in London in 1992 – to coincide with the Earth Summit that year in Rio de Janeiro.

He proposed a different system that had four capitals, rather than the traditional three – ecological or natural capital, human capital (people and ideas), social and organizational capital, and manufactured capital (tools, machines and infrastructure).

Thirty years on, we might make that five by dividing the social from the organizational capital, because we know so much more about social capital (communities) and organizational capital (institutions and laws).

Since then, all these different capitals have gone their own sweet ways, with the socioeconomists primarily interested in social capital, the institutional economists in organizational capital, the environmental economists in natural capital – and the patent lawyers in intellectual capital.

In this way, the insights that began with Schumacher have become scattered to the winds.

Questions for Discussion…

1. Alvin Toffler, a contemporary of Schumacher's who wrote *Future Shock*, used to ask business managers what it would cost them – in real cash terms – if none of their executives had ever been toilet-trained. What aspects of life do you think are vital for creating wealth?

2. Could Schumacher's 'problem of production' ever be solved?

3. Can you define Schumacher's phrase 'substance of man' which industrial production "eats into"?

4. *"Few people will be easily convinced that the challenge to man's future cannot be met by making marginal adjustments here or there, or, possibly, by changing the political system,*" says Schumacher at the end of Chapter 1. Are you one of them? What adjustments need to be made?

2/Growth
Chapter 2. Peace and Permanence

"The foundations of peace cannot be laid by universal prosperity, in the modem sense, because such prosperity, if attainable at all, is attainable only by cultivating such drives of human nature as greed and envy, which destroy intelligence, happiness, serenity, and thereby the peacefulness of man. It could well be that rich people treasure peace more highly than poor people. but only if they feel utterly secure – and this is a contradiction in terms. Their wealth depends on making inordinately large demands on limited world resources and thus puts them on an unavoidable collision course – not primarily with the poor (who are weak and defenceless) but with other rich people."

– E . F. Schumacher, *Small is Beautiful,* Chapter 2.

"Too much and for too long, we seemed to have surrendered personal excellence and community values in the mere accumulation of material things. Our Gross National Product, now, is over $800 billion dollars a year, but that Gross National Product - if we judge the United States of America by that - that Gross National Product counts air pollution and cigarette advertising, and ambulances to clear our highways of carnage. It counts special locks for our doors and the jails for the people who break them. It counts the destruction of the redwood and the loss of our natural wonder in chaotic sprawl. It counts napalm and counts nuclear warheads and armored cars for the police to fight the riots in our cities. It counts Whitman's rifle and Speck's knife, and the television programs which glorify violence in order to sell toys to our children. Yet the gross national product does not allow for the health of our children, the quality of their education or the joy of their play. It does not include the beauty of our poetry or the strength of our marriages, the intelligence of our public debate or the integrity of our public officials. It measures neither our wit nor our courage, neither our wisdom nor our learning, neither our compassion nor our devotion to our country, it measures everything in short, except that which makes life worthwhile."

– Senator Bobby Kennedy, March 1968.

Chapter 2 is primarily about how economists measure success, and how their measurements are leading the world into great peril.

It is also the most pronounced spiritual chapter, and none the worse for it – placing wisdom and God at the heart of the new economics ("as if people mattered").

What the chapter says…

These days, Schumacher says at the start of the second chapter, everyone believes that increasing prosperity is the path to peace. On the contrary, he says: *"One may look in vain for historical evidence that the rich have regularly been more peaceful than the poor, but then it can be argued that they have never felt secure against the poor: that their aggressiveness stemmed from fear; and that the situation would be quite different if everybody were rich. Why should a rich man go to war? He has nothing to gain. Are not the poor, the exploited the oppressed most likely to do so, as they have nothing to lose but their chains? The road to peace, it is argued, is to follow the road to riches."*

The problem is that there are so many comfortable reasons for believing it – it isn't exactly that we don't want peace – but just that it isn't hard to accept a little more prosperity too.

The issue, says Schumacher, is that it requires nothing more from us – nothing purifying or accepting, in fact it requires no moral effort at all: *"Gandhi used to talk disparagingly of 'dreaming of systems so perfect that no-one will need to be good'. But is it not precisely this dream which we can now implement in reality with our marvellous powers of science and technology? Why ask for virtues, which man may never acquire, when scientific rationality and technical competence are all that is needed?"*

He then talks about his former colleague – the man who rescued him from detention as an enemy alien in 1942 – the great economist John Maynard Keynes, and the famous essay he had written a decade earlier in the 1930s called 'Economic possibilities for our grandchildren'. Keynes warned that the time when we can relax into our economic future isn't yet – and that, for at least another century, we need to *"pretend for a while that foul is useful and fair is not*". Or as Schumacher puts it: "*The road to heaven is paved with bad intentions."*

Next, he talks about fuel requirements in 1966, and his own calculations about what the situation might look like in 2000 (this chapter was taken from an article he had written for *Resurgence* magazine in 1970). The chapter borrows from some of the conclusions of the previous chapter:

"*Exploratory calculations, of course, do not prove anything. A proof about the future is in any case impossible, and it has been sagely remarked that all predictions are unreliable, particularly those about the future. What is required is judgment and exploratory calculations can at least help to inform our judgment In any case, our calculations in a most important respect understate the magnitude of the problem. It is not realistic to treat the world as a unit. Fuel resources are very unevenly distributed, and any short- age of supplies,*

no matter how slight, would immediately divide the world into 'haves' and 'have-nets' along entirely novel lines. The specially favoured areas, such as the Middle East and North Africa, would attract envious attention on a scale scarcely imaginable today, while some high consumption areas, such as Western Europe and Japan, would move into the unenviable position of residual legatees. Here is a source of conflict if ever there was one…"

No country can just keep on growing and growing, Schumacher concludes:

"*We find, therefore, that the idea of unlimited economic growth, more and more until everybody is saturated with wealth, needs to be seriously questioned on at least two counts: the availability of basic resources and, alternatively or additionally, the capacity of the environment to cope with the degree of interference implied*."

Schumacher uses the term *GNP*, whereas, mainly these days, most authorities use *GDP* – as they have done since 1991. The main difference between the two is that GNP (*gross national product*) measures everything (sometimes more than once!) and GDP (*gross domestic product*) measures the value of the total output of the national economy, but not – for example – the value of citizens living abroad and their businesses:

"If human vices: such as greed and envy are systematically cultivated, the inevitable result is nothing less than a collapse of intelligence. A man driven by greed or envy loses the power of seeing things as they really are, of seeing things in their roundness and wholeness, and his very successes become failures. If whole societies become infected by these vices, they may indeed achieve astonishing things but they become increasingly incapable of solving the most elementary problems of everyday existence. The Gross National Product may rise rapidly: as measured by statisticians but not as experienced by actual people, who find themselves oppressed by increasing frustration, alienation, insecurity, and so forth. After a while. even the Gross National Product refuses to rise any further, not because of scientific or technological failure, but because of a creeping paralysis of non-co-operation, as expressed in various types of escapism on the part, not only of the oppressed and exploited, but even of highly privileged groups."

Then he concentrates on the non-materials elements of his argument.
Because Keynes said that universal prosperity isn't attainable unless we keep our idealism muted, because"foul is useful", then how can prosperity lead to peace, he asks?

"*The exclusion of wisdom from economics, science. and technology was something which we could perhaps get away with for a little while. as long as we were relatively unsuccessful; but now that we have become very successful, the problem of spiritual and moral truth moves into the central position."*

That means, says Schumacher, that we have to study the "economics of permanence". We need to"re-orientate around wisdom": "*There can be growth towards limited objectives, but there can't be unlimited, generalized growth.*"

So, what do we need from scientists and technologists, asks Schumacher? His answer is that we need methods and equipment which are:

- Cheap enough so that they are accessible to virtually everyone.
- Suitable for small-scale application; and
- Compatible with man's need for creativity.

The final one on this list may be the most interesting because it is so reminiscent of the Victorian art critic John Ruskin who, in his book *Unto This Last*, famously named the opposite of wealth as'illth', and warned that there were circumstances – even in 1860, when it could overwhelm wealth. Needless to say, *illth* is not a term modern economists use.

Ruskin is said to have influenced Catholic Social Doctrine – via Cardinal Manning and Pope Leo XIII – so we should not be surprised at this point to find Schumacher quoting Leo's successor, Pope Pius XI, about the critical importance of meaningful work (more on this in Chapter 4):

"How could we explain the almost universal refusal on the part of the rulers of the rich societies - whether organized along private enterprise or collectivist enterprise lines - to work towards the humanization of work? It is only necessary to assert that something would reduce the 'standard of living', and every debate is instantly closed. That soul-destroying, meaningless, mechanical, monotonous, moronic work is an insult to human nature which must necessarily and inevitably produce either escapism or aggression, and that no amount of 'bread and circuses' can compensate for the damage done - these are facts which are neither denied nor acknowledged but are met with an unbreakable conspiracy of silence – because to deny them would be too obviously absurd and to acknowledge them would condemn the central preoccupation of modern society as a crime against humanity."

Then he finishes: "*Only by a reduction of needs can one promote a genuine reduction in those tensions which are the ultimate causes of strife and war*."

Schumacher then draws his conclusion, which is to find the permanent aspects of ourselves, and to build on them:

"They enable us to see the hollowness and fundamental unsatisfactoriness of a life devoted primarily to the pursuit of material ends, to the neglect of the spiritual. Such a life necessarily sets man against man and nation against nation, because man's needs are infinite and

infinitude can be achieved only in the spiritual realm, never in the material. Man assuredly needs to rise above this humdrum 'world'; wisdom shows him the way to do it; without wisdom, he is driven to build up a monster economy, which destroys the world, and to seek fantastic satisfactions, like landing a man on the moon. Instead of overcoming the 'world' by moving towards saintliness, he tries to overcome it by gaining pre-eminence in wealth, power, science, or indeed any imaginable 'sport'...

"I think Gandhi has given the answer: 'There must be recognition of the existence of the soul apart from the body, and of its permanent nature, and this recognition must amount to a living faith; and, in the last resort, nonviolence does not avail those who do not possess a living faith in the God of Love.'

What happened next?

The new economics movement has, ever since then, shied away from explicitly spiritual statements – for fear of putting off mainstream economists and frightening the punters. I'm not sure this was wise...

Even so, at the heart of the new economics is a critique of measures of success, which feels more theological than economic.

In his presidential campaign in 1968, Bobby Kennedy condemned unlimited growth, and this has been the basis for the critique ever since. In that respect Schumacher was not describing a new idea.

In fact, the first economist who set out to demolish what he called the 'religion' of economic growth, was the deeply conservative economics professor at the London School of Economics, E. J. Mishan. He published *The Costs of Economic Growth* in 1967, but he had been hauling the book around publishers for two years. It is still wonderfully prescient, complaining – as Kennedy did – that GDP fails to distinguish between good things and the side effects of social and environmental failure.

The next breakthrough was also in the UK,when the Liberal Party in 1979 voted that reject GDP growth as "neither achievable nor desirable". It was an important moment.

Fast forward a decade to 1989, when Herman Daly, the World Bank economist, teamed up with the theologian John Cobb to write *For the Common Good,* which introduced the idea of an Index of Sustainable Economic Welfare (ISEW). It uses a formula like this one:

ISEW = personal consumption
+ public non-defensive expenditures
- private defensive expenditures
+ capital formation
+ services from domestic labour
- costs of environmental degradation
- depreciation of natural capital.

About seven countries have now tracked their ISEW. They included the UK, which – like most of the others – found that their index peaked around 1976, after which it began to decline.

Five years later, and Bill Clinton's first set of mid-term elections led to a headline on cover of *The Atlantic* magazine: 'If the economy's up, why is America down?' It was by John Cobb's son Clifford, plus Ted Halstead and Jonathan Rowe. "*Throughout the tumult of the elections last year political commentators were perplexed by a stubborn fact,"* they began.

"*The economy was performing splendidly, at least according to the standard measurements. Productivity and employment were up; inflation was under control. The World Economic Forum, in Switzerland, declared that the United States had regained its position as the most competitive economy on earth, after years of Japanese dominance*."

They defined the problem as Schumacher had – that GDP leaves out "*two large realms: functions of family and community on the one hand, and the natural habitat on the other".*

Cobb, Halstead and Rowe were all at the time employed by the new thinktank, based in San Francisco called Redefining Progress – which was dedicated to doing the math in a whole new way, to get to a single number that could sum up 'genuine progress' more accurately: *"If the chief of your local police department were to announce today that 'activity' on the city streets had increased by 15 percent, people would not be impressed, reporters least of all. They would demand specifics. Exactly what increased? Tree planting or burglaries? Volunteerism or muggings? Car wrecks or neighborly acts of kindness? The mere quantity of activity, taken alone, says virtually nothing about whether life on the streets is getting better or worse. The economy is the same way. 'Less' or 'more' means very little unless you know of what. Yet somehow the GDP manages to induce a kind of collective stupor in which such basic questions rarely get asked."*

They also investigated the history of GDP, first proposed by Sir William Petty during the Anglo-Dutch war in 1667. It was then developed by the American economist Simon Kuznets from 1934 onwards. But as it turned out, Kuznets never approved of how GDP

was to be used: "*Distinctions must be kept in mind between quantity and quality of growth, between its costs and return, and between the short and the long run*," he wrote. "*Goals for 'more' growth should specify more growth of what and for what.*"

Unfortunately, Redefining Progress hit a difficult patch and didn't survive. In London meanwhile, Nic Marks from the New Economics Foundation was developing his Happy Planet Index, that measured the efficiency with which each nation converts its environmental capital into sustainable well-being. The Happy Planet Index famously put the small Pacific island of Vanuatu top in the first index in 2006. Since then, the index has favoured central American countries like Costa Rica and Colombia.

The have now been so many alternatives to GDP that it almost makes the argument itself pretty clearly. They now include:

- Gross National Happiness, Bhutan's contribution to the debate.
- Measure of Economic Welfare, developed by monetary economist James Tobin and William Nordhaus in 1972.
- Green National Product, inspired by the work of Joseph Stiglitz.
- Genuine Progress Indicator, introduced by Redefining Progress in 1995.
- Living Planet Index by the London Zoo for WWF.
- The Where-to-be-born Index, of the Economist Intelligence Unit.
- Human Development Index, from the UNDP.

...and so on

Nic Marks and the team behind the Happy Planet Index, have since developed it into a tool for measuring the success of corporate life.

The bottom line is that there is no bottom line - which is how the author of T*he Green Consumer Guide* John Elkington explains his 'triple bottom line'.

That means that anything that undermines the single-minded economic push for money alone - like 'inclusive growth' - can be a useful corrective.

Finally, there is another kind of bottom line about resources. the calculation - for everyone in the word to reach north American living standards - it would mean tapping the resources of five planets like our own.

Questions for Discussion…

1. Why don't people understand that unlimited growth would require more than one planet? Are they just scared or are there some other reasons? How can we convince

them?

2. Gandhi said that “Earth provides enough to satisfy every man's need, but not for every man's greed”. But how in practice might we tell the difference?

3. Do you think Schumacher would have approved of all those alternative indicators? Or are they just trying to find that elusive element in mainstream economics - one number?

Chapter 3. The role of economics

"Call a thing immoral or ugly, soul-destroying or a degradation of man, a peril to the peace of the world or to the well-being of future generations: as long as you have not shown it to be 'uneconomic' you have not really questioned its right to exist, grow, and prosper..."

– E. F. Schumacher, *Small is Beautiful,* Chapter 3.

"Schumacher argued that profitability alone is not an adequate measure of whether something is 'economic' or not. A new economics is needed that takes into account not only the profitability of a given activity, but also its effect upon people and the environment, including the resource base."
George McRobie, author of *Small is Possible* and co-founder of the Intermediate Technology Development Group (now Practical Action).

***"A* man who knows the price of everything and the value of nothing..."**
– Oscar Wilde defines a cynic, *Lady Windemere's Fan* (1892).

This chapter continues and extends the argument in previous chapters about economic measurement, and the failure of modern economics to understand the quality of life matters at least as much as the quantity of money.

What the chapter says…

The Liberal political philosopher John Stuart Mill (who Schumacher quotes) looked upon political economy "*not as a thing by itself, but as a fragment of a greater whole; a branch of social philosophy, so interlinked with all the other branches that its conclusions, even in its own peculiar province, are only true conditionally, subject to interference and counteraction from causes not directly within its scope."*

Even Keynes rather contradicts himself - from the importance of "foul" being useful (see Chapter 2) - he advises economists not to *"overestimate the importance of the economic problem, or sacrifice to its supposed necessities other matters of greater and more permanent significance."*

Perhaps, says Schumacher, economics should derive its aims and objectives from studying human beings and its methodology from studying nature. but it doesn't seem to stick to any of these principles.

"*In the market place, for practical reasons, innumerable qualitative distinctions which are of vital importance for man and society are suppressed; they are not allowed to surface. Thus the reign of quantity celebrates its greatest triumphs in 'The Market'. Everything is equated with everything else. To equate things means to give them a price and thus to make them exchangeable. To the extent that economic thinking is based on the market, it takes the sacredness out of life, because there can be nothing sacred in something that has a price. Not surprisingly, therefore, if economic thinking pervades the whole of society. even simple non-economic values like beauty, health, or cleanliness can survive only if they prove to be 'economic'...*"

Next, he takes aim at the idea of cost-benefit analysis, which he describes as a "*procedure by which the higher is reduced to the level of the lower and the priceless is given a price, It can therefore never serve to clarify the situation and lead to an enlightened decision. All it can do is lead to self-deception or the deception of others; for to undertake to measure the immeasurable is absurd and constitutes but an elaborate method of moving from preconceived notions to foregone conclusions...*"
As he says, "*what is worse, and destructive of civilization, is the pretence that everything has a price or, in other words, that money is the highest of all values."*
Schumacher then pretends to call in aid the celebrated presidential address by Professor Sir Henry Phelps Brown, to the Royal Economic Society on 'The Underdevelopment of Economics' in 1970. Phelps Brown had talked about "t*he smallness of the contribution that the most conspicuous developments of economics in the last quarter of a century have made to the solution of the most pressing problems of the times*."

And among those 'pressing problems', he listed: "*checking the adverse effects on the environment and the quality of life of industrialism, population growth and urbanism*."

Even so, Schumacher is pretty dismissive; "*As a matter of fact, to talk of 'the smallness of the contribution' is to employ an euphemism, as there is no contribution at all; on the contrary, it would not be unfair to say that economics, as currently constituted and practised, acts as a most effective barrier against the understanding of these problems..."*

Why? Because, says Schumacher, of the addiction to "*purely quantitative analysis and its timorous refusal to look into the real nature of things..."*

The paradox is that economists deal with a limitless variety of goods and services, produced and consumed by an equally limitless variety of people, so it would not be possible to develop any economic theory at all, unless they are prepared to "*disregard a vast array of qualitative distinctions"*, he says:

"*But it should be just as obvious that the total suppression of qualitative distinctions, while it makes theorizing easy, at the same time makes it totally sterile...*"

To help fellow economists, Schumacher then comes up with a minimal set of different categories of 'goods' which they should not disregard - indeed, they can't disregard them "without losing touch with reality..."

'Goods'			
Primary		secondary	
non-renewable	renewable	manufactures	services
(1)	(2)	(3)	(4)

"*The market knows nothing of these distinctions. It provides a price tag for all goods and thereby enables us to pretend that they are all of equal significance. Five pounds' worth of oil (category 1) equals five pounds' worth of wheat (category 2), which equals five pounds' worth of shoes (category 3) or five pounds' worth of hotel accommodation (category 4). The sole criterion to determine the relative importance of these different goods is the rate of profit that can be obtained by providing them. If categories 3 and 4 yield higher profits than categories 1 and 2, this is taken as a 'signal' that it is 'rational' to put additional resources into the former and withdraw resources from the latter... [W]ithout going into any further details, it can be said that economics, as currently constituted, fully applies only to manufactures (category 3), but it is being applied without discrimination to all goods and services, because an appreciation of the essential, qualitative differences between the four categories is entirely lacking.*"

Towards the end of the chapter, he broadens the attack on the economics mindset, arguing that this obsession with 'hidden hands' at the expense of differing categories of goods and services, leads to a kind of obsession with means rather than ends.

"*The trouble about valuing means above ends - which, as confirmed by Keynes, is the attitude of modern economics - is that it destroys man's freedom and power to choose the ends he really favors; the development of means, as it were, dictates the choice of ends. Obvious examples are the pursuit of supersonic transport speeds and the immense efforts made to land men on the moon. The conception of these aims was not the result of any insight into real human needs and aspirations, which technology is meant to serve, but solely of the fact that the necessary technical means appeared to be available.*"

What happened next?

The critique of economics by the new economics has normally echoed what Schumacher says here about trying to force a wide variety of things into the same narrow values system.

After he gave the lecture on which this chapter was based - to the National Society for Clean Air in London in 1967 - but before this book was published six years later, there was an attempt by the UK government to carry out the biggest cost-benefit analysis ever attempted. This was to remove the human factor in the decision where to build the third London airport - the so-called Roskill Commission.

Three teams were sent out to do a thorough cost-benefit analysis on the three sites, Thurleigh in Bedfordshire, Cublington in Buckinghamshire, and at the last moment, the TCPA (Town and Country Planning Association), a small ginger group, put in a planning application to build an airport on reclaimed land in the Thames estuary called Foulness or Maplin Sands.

Rather as Schumacher suggested, the teams quickly ran into difficulties. How should they value, for example, the demolition and the loss of St Martin's 12th century church in Stewkley? They ended up basing it in its fire insurance value, only about £12,000.

Then, at the end of the process, there was an awkward moment, when the teams all came together theatrically and added up the totals, and - to everyone's horror - the conclusion turned out to be 'wrong'. The cost-benefit analysis suggested the airport should be built at Cublington - which nobody thought was a good idea.

One of the commissioners, the eminent transport planner Sir Colin Buchanan, put out a dissenting report saying that this would be an "environmental disaster". He urged his government to choose Maplin Sands instead - which they did, until the energy crisis intervened and the whole project was canceled. The Roskill Commission had been excellent, said Buchanan. "It just got the small matter if the site wrong."

The third London airport was eventually built at Stansted, without a cost-benefit analysis.

Even so, cost-benefit has become a great deal more sophisticated since those days. Economists use a concept like 'Willingness to Pay' (WTP) or 'Willingness to Accept Compensation' (WTA). After surveying people to find out what they would be willing to pay to protect the world's elephant population or the Grand Canyon, for example, then you multiply it with the number of people affected and - hey presto! - you have something approaching a value for them.

Even so, by the turn of the century, I couldn't help noticing how many things were valued at a round $1 million. The world's elephants, for example, the moon, and the entire genetic heritage of Costa Rica, because that is what the pharmaceutical giant Merck paid them for it. One Washington economist said that the elephants valuation was because $1m was "easy to remember".

The trouble with cost-benefit is that about a quarter of people refuse to answer the WTP question on the grounds that you can't put a value on these things, and of course some things are beyond price - as a Frankfurt woman called Frau Kraus showed in 1989, when she found she had a veto over a proposed new skyscraper next door to where she lived.

She refused to budge for the million Deutschmarks they offered her. She also refused to accept ten million. "*Not even if they offered me twenty million would I change my mind*," she said. "*It would block out my sunlight and spoil the place where I was born and bred.*"

The British geographer John Adams said cost-benefit analysis has a particular problem - just as Schumacher says - with valuing intangibles. He called the process a 'horse and rabbit stew'. *"The rabbit is skinned and dressed with great care; the horse - size unknown - is just tossed into the pot with no preparation at all,*" he wrote. "*It is an ethic that debases that which is important and disregards entirely that which is supremely important*."

Briefly, new economists tried something different, which involved measuring success by range of different indicators - like Seattle which by the 1990s, was measuring their success by the number of salmon in local streams. In Dundee, it was the number of empty houses. In Lima, it was the number of days you could see the Andes from the city center. Or in Hazel Henderson's Calvert-Henderson quality of life indicators for investors, which measured every nation according to their performance on the environment, health, human rights and so on.

The OECD was suddenly measuring national performance using 105 different indicators, and a whole movement was developing dedicated to measuring with no bottom lines. Unfortunately, thanks to the involvement of Mckinsey, and similar consultancies, the whole thing became subsumed into the New Public Management - and the radical elements were lost in a welter of management-speak.

Something similar happened with 'social auditing', developed by Simon Zadek at the New Economics Foundation from 1995, when one of their first challenges was to research a 'Values Report' for the Body Shop.

But Body Shop CEO Anita Roddick turned against the idea of social auditing, which seemed to her to hand over responsibility for the company's ethical policies from the

board to the accountancy function - rather as Schumacher warned that it would. So she sold the Body Shop's in-house social auditing team to accountancy firm PWC. There was no way that the New Economics Foundation, which had originally trained the team, could compete with PWC, so that was nearly the end of social auditing as a radical act.

Questions for Discussion…

1. What role should measurement play - if any - in public ethics?

2. How should you tell the difference between people's 'need' and their 'greed', in practice?

3. Without cost-benefit analysis, can you debate with other nations how much the rich should pay for climate change adaptation? Does that mean there is a use for cost-benefit analysis after all?

4/Good work

Chapter 4. Buddhist economics

"The choice of Buddhism for this purpose is purely incidental; the teachings of Christianity, Islam, or Judaism could have been used just as well as those of any other of the great Eastern traditions..."
E. F. Schumacher, *Small is Beautiful*, end of Chapter 3

"When Schumacher was an economist working for the British government, he was sent to Burma to advise the people and their government on how to develop economically using technologic, scientific, advanced techniques of 'progress.' After a few months he realized that the Burmese did not need this Western style of development and technological agriculture. They had their own perfectly good economic system, which he called ='Buddhist economics.' When he returned to Great Britain, he wrote the essay, 'Buddhist Economics,' and gave it to his fellow economists in the government. They said: 'Mr Schumacher, economics is all very well, but what does Buddhism have to do with it?' Schumacher replied: 'Economics without Buddhism, i.e. without spiritual, human, and ecological values, is like sex without love.'"
Satish Kumar, editor of *Resurgence* magazine (from the 25th anniversary edition, Hartley & Marks, 1999).

In some ways, this chapter on Buddhist economics is the very heart of the book. It starts with the somewhat 'shocking' idea that Buddhism has an economic policy - though, in fact, all the great world religions do, once you strip away the stuff about sheep and goats.

What is more, they are all remarkably similar.

What the chapter says...

At the heart of the chapter is the issue about work - and how modern economists assume that work - or 'labor' - is 'a necessary evil':

"*From the point of view of the employer, it is in any case simply an item of cost, to be reduced to a minimum if it cannot be eliminated altogether, say, by automation. From the point of view of the workman, it is a 'disutility'; to work is to make a sacrifice*

of one's leisure and comfort, and wages are a kind of compensation for the sacrifice. Hence the ideal from the point of view of the employer is to have output without employees, and the ideal from the point of view of the employee is to have income without employment..."

Neither of these work effectively, of course. In fact - simply because modern economics regards work as drudgery - then that is precisely what it tends to become, often in the name of 'efficiency' or 'modernization'...

"Here, it is not a matter of ordinary specialization, which mankind has practised from time immemorial, but of dividing up every complete process of production into minute parts, so that the final product can be produced at great speed without anyone having had to contribute more than a totally insignificant and, in most cases, unskilled movement of his limbs..."

On the other hand, Buddhism suggests that there are three vital functions of work:

- To give people the chance to use and develop their faculties.
- To enable them to overcome their egocentredness by joining with other people in a common task.
- To make the goods and services happen "*which are needed for a becoming existence".*

Next, Schumacher quotes the artist and writer Ananda Coomaraswamy, who was a craftsman in the tradition of John Ruskin and William Morris, as well as someone who was trying to translate the art world of India and his native Ceylon to the English art world, and vice versa. He was married four times and his first wife was the great Distributist weaver and designer Ethel Mairet, a pioneer of natural dyes. He drew what he called a "a delicate distinction between the machine and the tool": "*The carpet loom is a tool, a contrivance for holding warp threads at a stretch for the pile to be woven round them by the craftsmen's fingers; but the power loom is a machine, and its significance as a destroyer of culture lies in the fact that it does the essentially human part of the work.*"

Schumacher contrasts this with John Kenneth Galbraith's book *The Affluent Society*, whether it might be more 'economic' to run an economy at less than full

employment so as to ensure a greater mobility of labor, and better stability of wages: "*His fundamental criterion of success is simply the total quantity of goods produced during a given period*..."

From a Buddhist point of view, he says, this is getting things upside down - as if goods were "*more important than people and consumption [...] more important than creative activity*".

"*It means shifting the emphasis from the worker to the product of work, that is, from the human to the sub-human, a surrender to the forces of evil. The very start of Buddhist economic planning would be a planning for full employment, and the primary purpose of this would in fact be employment for everyone who needs an 'outside' job: it would not be the maximization of employment nor the maximization of production...*"

Next, he inveighs against the problem of built-in obsolescence:

"It would be the height of folly to make material so that it should wear out quickly and the height of barbarity to make anything ugly, shabby or mean. What has just been said about clothing applies equally to all other human requirements..."

Buddhism is about liberation, says Schumacher: *"Buddhism is 'The Middle Way' and therefore in no way antagonistic to physical well-being. It is not wealth that stands in the way of liberation but the attachment to wealth; not the enjoyment of pleasurable things but the craving for them. The keynote of Buddhist economics, therefore, is simplicity and non-violence. From an economist's point of view, the marvel of the Buddhist way of life is the utter rationality of its pattern - amazingly small means leading to extraordinarily satisfactory results...."*

The problem for Schumacher is that the world is now hopelessly materialistic:

"*When we examine all of the foreseeable difficulties which threaten the survival of industrial civilization, it is difficult to see how the achievement of stability and the maintenance of individual liberty can be made compatible. Even if this were dismissed as a long-term view there is the immediate question of whether 'modernization', as currently practised without regard to religious and spiritual values, is actually producing agreeable results. As far as the masses are concerned.*

the results appear to be disastrous – a collapse of the rural economy, a rising tide of unemployment in town and country, and the growth of a city proletariat without nourishment for either body or soul…"

What happened next?

Women, on the whole, said Schumacher in his chapter, "*do not need an 'outside' job, and the large-scale employment of women in offices or factories would be considered a sign of serious economic failure. In particular, to let mothers of young children work in factories while the children run wild would be as uneconomic in the eyes of a Buddhist economist as the employment of a skilled worker as a soldier in the eyes of a modern economist*…"

So the first task is to look more closely at new economics and it's attitude to women. In 1999, Hazel Henderson took him to task on this:

*"One issue about which Fritz and I agreed to disagree was the role of women in society. Schumacher was a product of his European culture and era. I was just emerging into my own feminist awareness. We both admired the loving, caring, sharing role that women had so faithfully played through most of human history. However, Schumacher, like many of our male colleagues at that time, still believed that only women could nurture children and the local community. These beliefs, of course, are no longer tenable today - especially as we learn that gender-equity is essential if we are to redirect our societies in more peaceful, sustainable paths. Yet Fritz encouraged my determination to account for the 'Love Economy' - 50 percent of all useful products and services in even industrial societies which are unpaid and largely produced by women. They include volunteering, caring for the young, old and sick, household management, do-it-yourself housing, food-growing, and community service. Traditional economics scorns such loving work as 'uneconomic,' while only self-interesting if maximizing of one's own advantage is recognized as economically rational. Such theories are based on fear of scarcity and survival, which is the economics of reptilian brains. Today we learn from the United Nations Human Development Index that this unpaid work is estimated at $16 trillion, which is missing from the gross domestic product of all countries…" (*from the 25th anniversary edition, Hartley & Marks, 1999).

But Hazel writes as if this was just a peculiar idea of Schumacher's. I'm less sure it is a coincidence.

There is definitely a danger here that any new economics that tries to go forward towards radical departure from the present based on traditional values - as *Small is Beautiful* does - will have a blind spot about the role of women.

It may be that Schumacher managed to avoid this mainly by talking about Buddhism, rather than, say, Catholicism, which he had recently become attracted to.

There has been a suggestion that the chapter was originally to be called 'Chestertonian Economics', after G. K. Chesterton, the famous poet, writer and distributist, who died in 1936.

Chesterton and Hilaire Belloc, the Catholic apologist and historian, began as Liberals but by 1912, they had begun to formulate a different ideology based on the distribution of land and small-scale household industry, borrowing a Liberal Party slogan from the 1880s, 'three acres and a cow' - which was enough, or so it was said, for every family to provide for themselves.

The Distributist League never fought elections, and it had petered out in anti-semitism by the 1950s, but in its heyday it was an extraordinary example of a practical 'small is beautiful' creed.

It also drew broadly from Catholic social doctrine. Belloc and Chesterton shared with Schumacher dismay at the failure to divide work effectively between men and women. They even opposed the franchise for women - on the grounds that Westminster politics was too corrupt and pointless for men already (Morris had famously imagined the Houses of Parliament as a compost heap in *News from Nowhere* (1890)) - and they wanted them to dominate home life instead.

This is the tradition that Schumacher fits into - it stretches back to people like Thomas Jefferson, William Cobbett, and other advocates of going back-to-the-land. It includes Ruskin and Morris. And Ruskin is supposed to have inspired Cardinal Manning to draft the original tenets of Catholic social doctrine for Leo XIII (1893).
In fact, by the 20th century, many of the stars of this tradition were women, people like Dorothy Day in the USA, or Wangari Maathai in Kenya, or indeed Ethel Mairet, the first wife of Ananda Coomaraswamy.

She wrote that "*every piece of craft work should be an adventure... It may be objected that life is not long enough [to dye all your own cloth]; but the handicrafts are out to create more life, not out to produce quantity nor to save time*."

That was also what Schumacher was saying in this chapter. What made his contribution new and fresh was that he has none of the melancholia of the distributists. This is Chesterton in 1926, the year the Distributist League was launched:

"Do anything, however small. Save one out of a hundred shops. Save one croft out of a hundred crofts. Keep one door open out of a hundred doors; for so long as one door is open, we are not in prison..."

The great thing about *Small is Beautiful* is that it looks excitedly towards a smaller scale, more humane future. It embraces life.

Questions for discussion...

1. Can we forgive Schumacher for his failure to understand about labour-saving technology and women's lives?

2. How does he manage to keep so joyful and optimistic, when the situation in 1973 was far worse than it was when Chesterton was writing 50 years before?

3. Coomarawamy was a '*Perennialist*' which meant that – like Aldous Huxley - he believed that the great world religions were just aspects of the same fundamental truth. Was Schumacher one too? Does this matter?

5/Scale

Chapter 5. A question of size

"I was brought up on an interpretation of history which suggested that in the beginning was the family; then families got together and formed tribes; then a number of tribes formed a nation; then a number of nations formed a 'Union' or 'United States' of this or that; and that finally, we could look forward to a single World Government. Ever since I heard this plausible story I have taken a special interest in the process, but could not help noticing that the opposite seemed to be happening: a proliferation of nation states, The United Nations Organization started some twenty-five years ago with some sixty members; now there are more than twice as many..."

– E. F. Schumacher, *Small is Beautiful,* Chapter 5.

"In 1998, more than 5,000 corporate mergers with a combined value of more than $2 trillion took place in the United States. Federal agencies approved virtually every merger application, even when their own studies empirically verified the "convenience, humanity, and manageability of smallness. Consider the case of banks. In 1996, two Federal Reserve economists found no improved efficiencies when bank assets grow beyond $200 million, a size larger than 80 percent of the 12,000 banks operating in the United States. Other studies provided evidence that small banks serve their communities better. Small banks make over 80 percent of all commercial loans to very small business borrowers, concluded a 1996 Federal Research study. Fees for checking accounts and other basic services were on average 15 percent higher at large, multi-state banks than at small, community banks, concluded a 1997 study by the US Public Interest Research Group."

– David Morris, Institute for Local Self-Reliance, Boston in the 25th anniversary edition, (1999).

This chapter, the final one in the introductory section, looks a scale and goes to the heart of the title of the book, which – as I noted earlier – is not the one that Schumacher originally planned for it.

What the chapter says...

Schumacher starts by setting out three “truths which everyone knows” - all of which he has some reason to doubt.

1. That the process of organization goes from families to towns, to nations, towards to world government.
2. That a prosperous a country had to be big – the bigger the better.
3. That modern technology requires companies to be even bigger than before.

In fact, he says, the process appears to be, at least as much in the other direction, a force pushing the opposite way.

As he says, the United Nations began in 1945 with only 60 member nations. Yet, when he was writing – for a 1968 lecture in London (this chapter was first published in *Resurgence* magazine later that same year) – the number had doubled. These days, it has more than trebled, to 193.

Also, if you were to look at Chrysler General Motors under Alfred Sloan or the National Coal Board under Lord Robens – where Schumacher worked for two decades – you would find, he said, a number of people trying to break down these huge organizations into smaller, more human units (more on this in Chapter 16):

“People find it most difficult to keep two seemingly opposite necessities of truth in their minds at the same time. They always tend to clamor for a final solution, as if in actual life there could ever be a final solution other than death. For constructive work, the principal task is always the restoration of some kind of balance. Today. we suffer from an almost universal idolatry of gigantism. It is therefore necessary to insist on the virtues of smallness...”

And there you have the phrase on which publisher Anthony Blond hung the title of the book on – though actually it was a quotation from Leopold Kohr, an old friend of Schumacher’s who wrote *The Breakdown of Nations.* Schumacher himself always claimed that what was most important was that cities, companies or nations should be the *appropriate* size.

What, for example, is the appropriate size for a city or a nation? There have been a number of answers, before and since, on the size of communities and cities. But Schumacher doesn’t get drawn into this cul-de-sac: *“It is quite clear that above such a size nothing is added to the virtue of the city. In places like London, or Tokyo or New*

York, the millions do not add to the city's real value but merely create enormous problems and produce human degradation…"

He then imagines the USA in the grip of megalopolis, with three cities of 60 million population each stretching from Washington to Boston, and the same from San Diego to San Francisco. The city of Adelaide in Australia now stretches for more than 70 miles along the Queensland coast. Or London, which in some ways stretches from Bishops Stortford in the north right down to the Surrey hills - and it would have filled the whole of south east England if it had not been for powerful planning legislation in the 1940s.

And those are just developed, first world cities - consider those cities that have now topped populations of over 20m, and there are now ten of them - from Tokyo (39m), Djakarta (34m), Chungong (32m), Seoul (26m). Shanghai (25m), Manila (24m), Sao Paolo (22m), Beijing (22m), Mexico City (22m) and Mumbai (21m).

"*If this is somebody's conception of the future of the United States, it is hardly a future worth having. But whether we like it or not, this is the result of people having become footloose; it is the result of that marvellous mobility of labour which economists treasure above all else*," said Schumacher. At that sort of scale most – if not all those places – will become completely ungovernable:

"*In a mobile, footloose society the law of disequilibrium is infinitely stronger than the so-called law of equilibrium. Nothing succeeds like success, and nothing stagnates like stagnation. The successful province drains the life out of the unsuccessful, and without protection against the strong, the weak have no chance: either they remain weak or they must migrate and join the strong, they cannot effectively help themselves*…"

So here is the problem. Despite all the political rhetoric, richer areas feed off poorer ones: as he says: "*The successful province drains the life out of the unsuccessful*."

Yet the same applies to smaller nations next to more powerful ones, like Scotland versus England, or parts of divided cities like Camden New Jersey and Philadelphia or St Louis and East St Louis. Nor does the economic success of a place have much to do with its size - because there is no need to be part of a larger nation just to trade with anyone else. As Schumacher said: *"If you want to trade with the whole world you don't need to annex the whole world in order to do so."*

"But it does make a lot of difference if a poor community or province finds itself politically tied to or ruled by a rich community or province. Why? Because, in a mobile, footloose society the law of disequilibrium is infinitely stronger than the so-called law of equilibrium. Nothing succeeds like success, and nothing stagnates like stagnation. The successful province drains the life out of the unsuccessful, and without protection against the strong, the weak have no chance: either they remain weak or they must migrate and join the strong, they cannot effectively help themselves..."

The poor tend to stay poor come what may - because of these assumptions by the wealthy:

"*Invariably, it proves that only such policies are viable as have in fact the result of making those already rich and powerful, richer and more powerful. It proves that industrial development only pays if it is as near as possible to the capital city or another very large town, and not in the rural areas. It proves that large projects are invariably more economic than small ones, and it proves that capital-intensive projects are invariably to be preferred as against labour-intensive ones. The economic calculus, as applied by present-day economics, forces the industrialist to eliminate the human factor because machines do not make mistakes which people do. Hence the enormous effort at automation and the drive for ever-larger units..."*

What follows is the economic credo of Schumacher: that, if economics can't grasp this, then it's useless and needs to be condemned, so that we can start again:

"Therefore we must learn to think in terms of an articulated structure that can cope with a multiplicity of small-scale units, If economic thinking cannot grasp this it is useless. If it cannot get beyond its vast abstractions, the national income, the rate of growth, capital/output ratio, input-output analysis, labour mobility, capital accumulation; if it cannot get beyond all this and make contact with the human realities of poverty, frustration, alienation, despair, breakdown, crime, escapism, stress, congestion, ugliness. and spiritual death, then let us scrap economics and start afresh."

What happened next?

As Schumacher said back in 1973: "*It's unbelievably urgent now."* In so many areas of public life, and almost everywhere we look around the world, you can see this same phenomenon – less successful neighborhoods kept down by their richer neighbors and no economic doctrine that can possibly help them find a way up using their own resources. It is the flashpoint of so many regional conflicts across the world.

Still, there has been considerable progress made in recent years since the book was published from, for example, the Schumacher Center for New Economics and their Berkshires program, and the idea that you can maximize buying power using the existing money flows into and out of an area.

Much of this has emerged from the USA – because, as well as being the world's supporters of rigid economic orthodoxy, Americans are also the world's great money-innovators.

The idea especially came from Jane Jacobs, who wrote a book in 1985 called *Cities and the Wealth of Nations*, which wrestles with these issues. She realized that when Detroit was falling apart, a nation like Singapore – basically just a city – was doing very well, then it may be that the size of your currency has a lot to do with your success. Because a single interest rate cannot possibly suit the needs of currency speculators on Wall Street as well as impoverished former miners in West Virginia.
It seems to be important to foster an interest in the granular detail of how money flows through the city, regional or local economies. And that's what lay behind the successful development of micro-enterprises in Italy's Emilia-Romagna area.

The success of small local banks, like the US community development financial institutions (CDFIs) or the German Spaakassen - especially when they're federated and share risk and support - is part of this same movement of localization. Few governments track the profits according to the size of the company, so – given that UK SMEs earned 51 of taxable profits – how come all the efforts of the big banks go towards supporting the giants in the 49 per cent?

The answer is reliable information and the lack of it the bankers feel about local economies – because it requires information or local know-how that can't be recorded electronically.

Pioneers in the USA, like Michael Shuman in the USA and Frances Northrop in the UK, are beginning to put some of these ideas into practical effect, with other initiatives like BALLE (the Business Alliance for Local Living Economies, now Common Futures), or Main Street USA or Platform Places in the UK, are managing to engage the energies and enthusiasm of local people to regenerate their local economies.

What is more, this will be real regeneration, not simply of the fabric of the place although the poor are expected to move out to impoverished places on the outskirts of the city - which is what the word 'regeneration' came to mean for some decades after

Schumacher published his book. But that is the problem of trying to do such things on too big a scale and – as Schumacher warned, of doing it by numbers.
Kirkpatrick Sale being the exception that proves the rule – see his massive tome *Human Scale* – very few writers have tackled the giantism issue. That was until 2017, when a senior fellow and anti-trust researcher at the New America Foundation, Barry Lynn - now executive director of the Open Markets Institute - was sacked for upsetting their main funder, Google. Since then, he has launched a movement on both sides of the Atlantic dedicated to rolling back giantism in business – which has links to rising prices – by revitalizing the era of anti-trust.

Ironically, much of the movement that had led to a real horror story about the over-consolidation of American and UK business began with the jurist Robert Bork – briefly Nixon's solicitor-general,- who argued the other way. And he was in post from 1973, from the publication of *Small is Beautiful,* until Schumacher's death in 1977.

It just shows how quickly things can unravel – and especially, perhaps, when it comes to giantism which seems to attract so much nodding agreement, but so little real understanding.

Questions for Discussion…

1. Is small really beautiful? Or are we actually looking for some kind of balance between big and small? What about big generosity or a big sky?

2. How should less affluent regions compete to support their indigenous local people?

3. Was Schumacher right about the prospects of economics getting beyond its "vast abstractions"?

SECTION II – RESOURCES

II.1/Metaphysics

Chapter 6. The greatest resource - education

"The resulting confusion is indescribable. What is the Leitbird, as the Germans say, the guiding image, in accordance with which young people could try to form and educate themselves? There is none, or rather there is such a muddle and mess of images that no sensible guidance issues from them. The intellectuals, whose function it would be to get these things sorted out, spend their time proclaiming that everything is relative - or something to the same effect, Or they deal with ethical matters in terms of the most unabashed cynicism."

– Professor David Orr, 25th anniversary book (1999).

"Sorrow is knowledge: they who know the most
Must mourn the deepest o'er the fatal truth,
The Tree of Knowledge is not that of Life."

– Lord Byron, quoted by Schumacher in chapter 6.

"To read it would be to condone it."

– F. R. Leavis, literary critic, in reply to a colleague accusing him of not having read 'The Two Cultures' lecture.

Section II is all about how Schumacher applies the ideas in Section I to the modern world. He has called it simply 'Resources'. This one (No 6) is also one of the only chapters in the book which was written especially for it. It isn't based on anything Schumacher had written before.

It covers more about education than it's about economics directly. Perhaps because he knew a great deal more about the latter rather than the former, it is also highly readable, compelling and simple.

Schumacher diagnoses the problem as related to the decline as one of metaphysics in UK schools and he is also impatient to try different methods of education in Washington.

What the chapter says...

As a European liberal, Schumacher believed that education is the underlying solution to the problems he has identified. But what kind of education? His starting point is a critique of the famous 1959 lecture by the scientist and novelist C. P. Snow in which he talked about the gulf between the 'Two Cultures' - literary and scientific.

Snow urged that the gap should be healed, which in practice mean a great deal more scientific education for nearly everyone.

Snow gave his lecture in 1959 and it was based on an article he had written on the same subject in 1956. It led to a huge furore, which Schumacher reflects in his own attack on the two cultures. It was published as a book on the two cultures in 1961. It got another boost the following year when the great literary critic F. R. Leavis published his attack on the lecture and on Snow personally in *The Spectator*.

Originally delivered as the Downing Lecture at Cambridge, 'Two Cultures? The significance of C. P. Snow' is pretty devastating. Leavis wrote about "*the preposterous and menacing absurdity of C. P. Snow's consecrated public standing*," his *"embarrassing vulgarity of style,"* his *"panoptic pseudo-categories,"* his *"complete ignorance"* of history, literature, the history of civilization, and the human significance of the Industrial Revolution. *"Not only is he not a genius,"* said Leavis, *"he is intellectually as undistinguished as it is possible to be."*

Schumacher was much more polite than that, denying there was any parallel at all between the First Law of Thermodynamics and Shakespeare's plays - which was Snow's contention. He also echoes some of the themes of Matthew Arnold nearly a century before, in 1882:

"*There must be something more to education than Lord Snow suggests. Science and engineering produce 'know-how'; but 'know-how' is nothing by itself; it is a means without an end, a mere potentiality, an unfinished sentence. 'Know-how' is no more a culture than a piano is music. Can education help us to finish the sentence, to turn the potentiality into a reality to the benefit of man?*" writes Schumacher.

"At present, there can be little doubt that the whole of mankind is in mortal danger, not because we are short of scientific and technological know-how, but because we tend to use it destructively, without wisdom. More education can help us only if it produces more wisdom."

Schumacher suggested two elements to his argument against the two cultures:

i) Language
"First of all, there is language. Each word is an idea. If the language which seeps into us during our Dark Ages is English, our mind is thereby furnished by a set of ideas which is significantly different from the set represented by Chinese, Russian, German, or even American.

ii) Grammar
"Next to words, there are the rules of putting them together: grammar, another bundle of ideas, the study of which has fascinated some modem philosophers to such an extent that they thought they could reduce the whole of philosophy to a study of grammar."

He was quite right about English philosophy, which takes dryness to whole new, almost Saharan levels.

When you have no idea how to interpret the world around you, then you are truly lost, he says. Then he quotes the great 20th century Spanish philosopher, José Ortega y Gasset:

"We cannot live on the human level without ideas. Upon them depends what we do. Living is nothing more or less than doing one thing instead of another.' What, then, is education? It is the transmission of ideas which enable man to choose between one thing and another, or, to quote Ortega again, 'to live a life which is something above meaningless tragedy or inward disgrace...'

Yet the key ideas we imbibe at school are mainly a handful of Victorian ones:

> *"1. There is the idea of evolution - that higher forms continually develop out of lower forms, as a kind of natural and automatic process. The last hundred years or so have seen the systematic application of this idea to all aspects of reality without exception*
> *2, There is the idea of competition, natural selection, and the survival of the fittest, which purports to explain the natural and automatic process of evolution and development.*
> *3. There is the idea that all the higher manifestations of human life. such as religion, philosophy, art, etc. - what Marx calls 'the phantasmagorias in the brains of men' - are nothing but 'necessary supplements of the material life process', a superstructure erected to disguise and promote economic interests, the whole of human history being the history of class struggles.*

4. In competition, one might think, with the Marxist interpretation of all higher manifestations of human life, there is, fourthly, the Freudian interpretation which reduces them to the dark stirrings of a subconscious mind and explains them mainly as the results of unfulfilled incest-wishes during child- hood and early adolescence.
5. There is the general idea of relativism, denying all absolutes, dissolving all norms and standards, leading to the total undermining of the idea of truth in pragmatism, and affecting even mathematics, which has been defined by Bertrand Russell as 'the subject in which we never know what we are talking about, or whether what we say is true'.
6. Finally there is the triumphant idea of positivism, that valid knowledge can be attained only through the methods of the natural sciences and hence that no knowledge is genuine unless it is based on generally observable facts. Positivism, in other words, is solely interested in 'know-how' and denies the possibility of objective knowledge about meaning and purpose of any kind."

Interestingly, none of those ideas - the bad metaphysics we are actually taught - involves any traditional English empiricism, says Schumacher.

"No amount of factual inquiry could have verified any one of them. They represent tremendous leaps of the imagination into the unknown and unknowable. Of course, the leap is taken from a small platform of observed fact... What do these six 'large' ideas have in common, besides their non-empirical, metaphysical nature? They all assert that what had previously been taken to be something of a higher order is really 'nothing but' a more subtle manifestation of the 'lower' - unless, indeed, the very distinction between higher and lower is denied. Thus man, like the rest of the universe, is really nothing but an accidental collocation of atom..."

Schumacher then argues that a purely scientific education can't do this for us because it deals only with ideas of know-how, "*whereas we need to understand why things are as they are and what we are to do with our lives.*"

"What we learn by studying a particular science is in any case too specific and specialized for our wider purposes. So we turn to the humanities to obtain a clear view of the large and vital ideas of our age. Even in the humanities we may get bogged down in a mass of specialized scholarship furnishing our minds with lots of small ideas just as unsuitable as the ideas which we might pick up from the natural sciences. But we may also be more fortunate (if fortunate it is) and find a teacher who will 'clear our minds', clarify the ideas - the 'large' and universal ideas already existent in our minds - and thus make the world intelligible for us."

Nor is it true that the metaphysics and ethics would be eliminated altogether. On the contrary, all we got was "*bad metaphysics and appalling ethics,*" he says.

Next, Schumacher looks at how that bad metaphysics can destroy civilizations, quoting the great classical historian and philosopher R. G. Collingwood:

"The Patristic diagnosis of the decay of Greco-Roman civilization ascribes that event to a metaphysical disease .... It was not barbarian attacks that destroyed the Greco-Roman world .... The cause was a metaphysical cause. The 'pagan' world was failing to keep alive its own fundamental convictions, they (the patriotic writers) said, because owing to faults in metaphysical analysis it had become confused as to what these convictions were .... If metaphysics had been a mere luxury of the intellect, this would not have mattered."

How might change come about, when those bad metaphorical ideas are so much implied by teachers. On the other hand:

"How could there be a rational teaching of politics without pressing all questions back to their metaphysical roots? Political thinking must necessarily become confused and end in 'double-talk' if there is a continued refusal to admit the serious study of the metaphysical and ethical problems involved. The confusion is already so great that it is legitimate to doubt the educational value of studying many of the so-called humanistic subjects..."

This is the poor teacher, who Schumacher refers to as 'he':

"I do not think, however, that this can be successfully done unless he quite consciously accepts - even if only provisionally - a number of metaphysical ideas which are almost directly opposite to the ideas (stemming from the nineteenth century) that have lodged in his mind..."

He then mentions three examples:

1. Hierarchy.
"Without the recognition of 'Levels of Being' or 'Grades of Significance' we cannot make the world intelligible to ourselves nor have we the slightest possibility to define our own position, the position of man, in the scheme of the universe."

2. Insoluble problems.
"All through our lives we are faced with the task of reconciling opposites which, in logical thought, cannot be reconciled. The typical problems of life are insoluble on the level of being on which we normally find ourselves..."

The British mathematician and parapsychologist, George Tyrell, invented the terms 'divergent' and 'convergent' to distinguish problems which can't be solved by logical reasoning from those that can. As Schumacher explained:

"Life is being kept going by divergent problems which have to be 'lived' and are solved only in death."

3. Ethics
Those who originally came up with the ideas behind the 'bad metaphysics' still retained the ethical assumptions they had been brought up with, he says - yet after three or four generations, they have nothing:

"In ethics, as in so many other fields, we have recklessly and willfully abandoned our great classical-Christian heritage. We have even degraded the very words without which ethical discourse cannot carry on, words like virtue, love, temperance. As a result, we are totally ignorant, totally uneducated in the subject that of all conceivable subjects, is the most important, We have no idea- to think with and therefore are only too ready to believe that ethics is a held where thinking does no good. Who knows anything today of the Seven Deadly Sins or of the Four Cardinal Virtues? Who could even name them? And if these venerable. old ideas are thought not to be worth bothering about, what new ideas have taken their place?"

Finally, he sets out his hopes for the future:

"What is to take the place of the soul- and life-destroying metaphysics inherited from the nineteenth century? The task of our generation, I have no doubt, is one of metaphysical reconstruction. It is not as if we had to invent anything new: at the same time, it is not good enough merely to revert to the old formulations. Our task - and the task of all education - is to understand the present world, the world in which we live and make our choices."

What happened next?

There is nothing in this chapter that implies how education should be managed instead, and nothing in the rest of the book either. But in a book called *Small is Beautiful*, you sort of expect there might be something to do with scale.

It is true that, in C. P. Snow's mind, the Soviet Union was way ahead of the West in dealing with these vast imponderables. This is, he said, partly because the Russians have a "*passionate belief in education.*" But it is also because they have a "*deeper insight into the scientific revolution than we have, or than the Americans have."*

It so happened that Snow's lecture took place in the late 1950s, just when observers on both sides of the Atlantic were looking at the Soviet lead in the space race, and assuming that it must have something to do with their education system - massive schools.

Policymakers persuaded themselves that somehow only huge schools could produce enough scientists to compete with the USSR. It is one of the peculiar ways that Soviet thinking filtered into the West.

The first challenge to it came from Roger Barker, who described himself as an environmental psychologist, who set up a statistical research centre in a small town in Kansas after the Second World War and researched small schools wherever he could find them.

It was his 1964 book *Big School, Small School,* written with his colleague Paul Bump, which revealed that – counter to what you might expect – there were more activities outside the classroom in the smaller schools than there were in the bigger schools. There were more pupils involved in them in the smaller schools – between three and twenty times more in fact. He also found children were more tolerant of each other in small schools.

This was precisely the opposite of what the big school advocates had suggested: big schools were supposed to mean more choice and opportunity. It wasn't so.

Nor was this a research anomaly. Most of the research has taken place in the United States, but it consistently shows that small schools (300–800 pupils at secondary level) have better results, better behaviour, less truancy and vandalism and better relationships than bigger schools. They show better achievement by pupils from ethnic minorities and from very poor families. If you take away the funding anomalies which privilege bigger institutions, they don't cost any more to run.

Unfortunately, those kind of assumptions were still widely believed when *Small is Beautiful* was being written. and now - when some of the evidence has finally got through the thick skulls of policymakers - there is no spare money left to s]]] or protect those smaller schools we have left.

Among the successes of small schools has been Finland, where the average number of pupils per school is 50. The Scandinavian country is held up as a model for educational success and regularly tops international school league tables for basic skills.

But why should smaller schools work better? There is some consensus among researchers about this. The answer is that small schools make transformational human relationships possible. Teachers can know pupils and vice versa. “Those of us who were researchers saw the damage caused by facelessness and namelessness,” said the Brown University educationalist Ted Sizer, who ran a five-year investigation into factory schooling in the 1970s. “You cannot teach a child well unless you know that child well.”

Frightening evidence of this came in June 2008, when the *Times Educational Supplement* reported that 21 per cent of Year 8 pupils in the UK said they had never spoken to a teacher. “Talk to the children, if you can,” one school volunteer I know was told by the head teacher on their first day. “Nobody talks to them these days.”

Since then, the various sides in this debate have barely listened to each other, and especially for some reason in the USA. On one side, the protagonists of GERM (the Global Educational Reform Movement), including rigid testing, league tables and core competencies, see themselves fighting a long-term war against those who believe that education is primarily about ‘lighting a fire’.

On the other side, the parallel movement to new economics - those education fire-lighters - have been reduced to supplicants, without a big idea or any schools, most of which have now closed or been taken over by the state or nation.

Worse, schools are actually getting bigger. There is nothing like the 5,000-pupil factories that have had such a disastrous effect on education in the USA, but a new school in Nottingham was designed for as many as 3,000 pupils.

I don’t know how much Schumacher was aware of these educational issues, but the idea of small-scale schools that were capable of lighting that fire were to become important among his followers.

By coincidence, the same year when Schumacher was beginning to think through this book, there was another book published from a younger contemporary, who has often been compared with him. The Austrian catholic priest Ivan Illich, then in New York City, had written a book called *Deschooling Society*.

Illich began thinking about public education when he ran into the radical educationalist, Everett Reimer, in Puerto Rico in 1958.

He later saw that, between 1965 and 1968, over three billion dollars were spent in US schools to offset the disadvantages of about six million children. The programme was called ‘Title One’.

"*It is the most expensive compensatory programme ever attempted anywhere in education,"* wrote Illich*, "yet no significant improvement can be detected in the learning of these 'disadvantaged' children. Compared with their classmates from middle income homes, they have fallen further behind."*

How do you explain that?

Illich argued that this total failure to improve the education of the poor despite more costly treatment can be explained in three ways:

"1. *Three billion dollars are insufficient to improve the performance of six million children by a measurable amount, or*

2. The money was incompetently spent: different curricula, better administration, further concentration of the funds on the poor child, and more research are needed and would do the trick, or

3. Educational disadvantage cannot be cured by relying on education within the school."

Illich argued that No 3 was the most important - and *Deschooling Society* became the best-known element of Illich's critique of public institutions - that schools were keeping people stupid, and hospitals were making people sick, and so on.

That goes some way beyond Schumacher's intention in writing this chapter, which was more to do with the assumptions behind what they are taught. Unfortunately, technocratic thinking from the six Victorian ideas, that Schumacher identified, still dominates educational policy.

"We are suffering from a metaphysical disease, and the cure must therefore be metaphysical," wrote Schumacher. *"Education which fails to clarify our central convictions is mere training or indulgence. For it is our central convictions that are in disorder, and, as long as the present anti-metaphysical temper persists. the disorder will grow worse."*

Questions for discussion...

1. Is Schumacher right that the only way to truly understand the world is via a metaphysical education?

2. What kind of schools does his theory imply? How should we bring up our children?

3. Why has the experimental education so run out of steam - when even Ted Sizer's 'Coalition of Essential Schools' $closed$ in 2017?

II.2/Agriculture

Chapter 7. The proper use of land

"Man, whether civilized or savage, is a child of nature - he is not the master of nature. He must conform his actions to certain natural laws if he is to maintain his dominance over his environment. When he tries to circumvent the laws of nature, he usually destroys the natural environment that sustains him. And when his environment deteriorates rapidly, his civilization declines..."

– Tom Dale and Vernon Gill Carter, *Topsoil and civilization*, quoted by Schumacher in Chapter 7.

"With access to a farm, many are dazzled by the bounty and wonders of nature. I love to see grown people awed by the delicate beauty of a carrot seedling. "People start eating vegetables they never liked before because they had never tasted them vine-ripened and chemical-free..."

– Robyn van En, community supported agriculture (CSA) pioneer, Indian Line Farm, Massachusetts, from 'Eating for Your Community' in *Good Harvest*, 1995.

"It takes almost 50 years to grow a forest for an Indian, and the logging companies can cut it down in a few years. That is what we are fighting. But the struggle is not solely about forest preservation. Although clear-cut once at the turn of the century, White Earth has recovered. Its biodiversity is cherished - cherished for what it provides the people and because each plant is alive, has spirit and value on its own. Simply stated, we cannot be a forest culture without a forest."

– Winona Laduke, environmentalist and part Native American from the Obijwe White Lands, author of *Honor the Earth*, writing in the 25th anniversary book (Hartley & Marks, 1999).

This is another chapter which Schumacher appears to have written especially for this book. It follows the pattern of the rest of this section, emphasizing that we have blinded ourselves to our predicament - and primarily because we have impoverished our metaphysical thinking.

What the chapter says...

Before centuries of irrigation and over-farming - mainly after supplying Rome and its empire with its huge appetite for wheat - much of the Middle East was once lush pastureland. Now it is desert.

The argument that Schumacher uses to introduce the problem of land, as he sees it, goes back a long way before the dawn of the green movement, which is normally dated to the publication of Rachel Carson's ground-breaking book *Silent Spring* on 1962.

There are people who would pinpoint the American polymath George Perkins Marsh, who published *Man and Nature* in 1864 - but that, in turn, built on ideas he first revealed on 30 September 1847, when as a Whig congressman, he gave a lecture to the Agricultural Society of Rutland county, Vermont, predicting global warming and much else.

Inspired by Marsh, Walter Lowdermilk, of the Soil Conservation Service, went to the remains of old civilizations in 1938 and 1939. His report, *Conquest of the Land Through Seven Thousand Years,* was distributed by the US government in huge numbers.

Lowdermilk helped inspire Tom Dale of the Soil Conservation Service, and Vernon Gill Carter of the National Wildlife Federation, to write *Topsoil and Civilization*, published in 1955, which Schumacher quotes at the start of this chapter.

It was partly a response to the Dust Bowl horrors, which began in 1935 - the culmination of wasteful and thoughtless farming practices dating back to when Europeans first settled in America, and began to move westwards as each successive piece of land was exhausted.

But, as Schumacher points out, there are two main differences between then and now:

- The earth is now much more densely populated than it was then There are also no new lands to move to.
- The rate of change has also enormously accelerated, especially - says Schumacher - "*during the last quarter of a century*". Back, in short, to the end of the Second World War.

Next, he quotes the eminent American physicist and botanist, Eugene Rabinowitch - who had been born in Russia and was then the founding editor of the *Bulletin of Atomic Scientists.*

Rabinowitch was one of the first to call and work for setting up international discussions on nuclear weapons. He was therefore one of the good guys - but Schumacher makes an example of him nonetheless for what he wrote in *The Times* of London in 1972 (29 April):

"The only animals whose disappearance may threaten the biological viability of man on earth are the bacteria normally inhabiting our bodies. For the rest there is no convincing proof that mankind could not survive even as the only animal species on earth! If economical ways could be developed for synthesizing food from inorganic raw materials - which is likely to happen sooner or later - man may even be able to become independent of plants, on which he now depends as sources of his food..."

Schumacher condemns this approach - and for what will now be for familiar reasons:

"If we become independent of plants, the connection between topsoil and civilization will be broken. Or will it? These questions suggest that 'The Proper Use of Land' poses, not a technical nor an economic, but primarily a metaphysical problem. The problem obviously belongs to a higher level of rational thinking than that represented by the last two quotations... Is the land merely a means of production or is it something more, something that is an end in itself? And when I say 'land', I include the creatures upon it."

There comes a point, he says, when we have to put aside the utilitarian calculator:

"The hygienic aspect is secondary; we recognize cleanliness as a value in itself. We do not calculate its value; the economic calculus simply does not come in. It could be argued that to wash is uneconomic: it costs time and money and produces nothing - except cleanliness. There are many activities which are totally uneconomic, but they are carried on for their own sakes."

The division, traditional in economics, between production and consumption, is actually very confused and confusing, he says. The first of them (production) is beset by accountants, telling producers that most luxuries are 'uneconomic'. The second (consumption) is dominated by people being pleased about the high standard of living everyone is displaying.

"The higher animals have an economic value because of their utility; but they have a meta-economic value in themselves. If I have a car, a man-made thing, I might quite legitimately argue that the best way to use it is never to bother about maintenance and simply run it to ruin. I may indeed have calculated that this is the most economical method of use. If the calculation is correct, nobody can criticize me for acting accordingly, for there is nothing sacred about a man-made thing like a car. But if I have an animal - be it only a calf or a hen - a living, sensitive creature, am I allowed to treat it as nothing but a utility? Am I allowed to run it to ruin?"

These are metaphysical questions, not scientific ones, Schumacher says:

"It is a metaphysical error, likely to produce the gravest practical consequences, to equate 'car' and 'animal' on account of their utility, while failing to recognize the most fundamental difference between them, that of 'level of being'. An irreligious age looks with amused contempt upon the hallowed statements by which religion helped our forebears to appreciate metaphysical truth..."

The molecular biologist Professor Joshua Lederberg - the man who had warned that astronauts returning to earth might carry with them terrible diseases - defined people like this, says Schumacher:

"Genotypically at least, he is six feet of a particular molecular sequence of carbon, hydrogen, oxygen, nitrogen and phosphorous atoms."

Schumacher responds, again predictably:

"*As modern man thinks so 'humbly' of himself, he thinks even more 'humbly' of the animals which serve his needs: and treats them as if they were machines...*"

Schumacher then turns his attention back to the land, and in particular towards the report to the European Commission, *A Future for European Agriculture* (by D. Bergmann, M. Rossi-Doria, N. Kaldor, J. A. Schnittker, H. B. Krohn, C. Thomsen, J. S. March, H. Wilbrandt, Pierre Uri, published by the Atlantic Institute in Paris, 1970) - and towards the 1970 Mansholt Report by the then European commissioner for agriculture, Sicco Mansholt.

The European Common Agricultural Policy (CAP) has come in for a great deal of criticism since it began in 1962, but - at the start - it was an attempt to raise agricultural productivity, making sure that all farmers across the six nations that were members of what was then the European Community had a fair standard of living for farmers.

To achieve that, the Commission put a system of price and market support in place, which gave farmers a guaranteed price for their products, introduced tariffs on products grown abroad and allowed for state intervention if market prices fell.

But because the farmers were supported according to their total levels of production, things went rapidly awry.

Mansholt predicted that market imbalances could arise from over-production and price support. He proposed a 'modernization of the agricultural sector in an attempt to improve the standard of living of farmers and avoid market distortions.

His plan was the first reform of the CAP. It aimed to optimize the area of land under cultivation and to merge farms to create bigger units.

"*The crude materialist view sees agriculture as essentially directed towards food-production*," wrote Schumacher:

"A wider view sees agriculture as having to fulfil at least three tasks:

- *- to keep man in touch with living nature, of which he is and remains a highly vulnerable part.*
- *- to humanize and ennoble man's wider habitat, and*
- *- to bring forth the foodstuffs and other materials which are needed for a becoming life.*

I do not believe that a civilization which recognizes only the third of these tasks, and which pursues it with such ruthlessness and violence that the other two tasks are not merely neglected but systematically counteracted, has any chance of long-term survival. Today, we take pride in the fact that the proportion of people engaged in agriculture has fallen to very low levels and continues to fall."

The UK produces 60 per cent of the food it requires with just 3 per cent working on the land, says Schumacher. In the USA, 37 percent of their workforce worked on the land after World War I. Now (1970) it is just 4.4 per cent, he said.

Since the 1870s, and the long agricultural recession in the UK - and since then across the world - the decline in the proportion of workers on the land has been "*associated with a massive flight from the land and a burgeoning of cities... Because rural culture has broken down, the rural people are fleeing from the land and, because metropolitan life is breaking down, urban people are fleeing from the cities. 'Nobody,' according to Dr Mansholt, 'can afford the luxury of not acting economically', with the result that everywhere life tends to become intolerable for anyone except the very rich."*

This is the conclusion of the chapter:

"The social structure of agriculture, which has been produced by - and is generally held to obtain its justification from - large-scale mechanization and heavy chemicalization, makes it impossible to keep man in real touch with living nature; in fact, it supports all the most dangerous modern tendencies of violence, alienation, and environmental destruction. Health, beauty and permanence are hardly even respectable subjects for discussion, and this is yet another example of the disregard of human values - and this means a disregard of man - which inevitably results from the idolatry of economism..."

Agriculture cannot fulfil its second task, "*which is to humanize and ennoble man's wider habitat, unless it clings faithfully and assiduously to the truths revealed by nature's living processes*," writes Schumacher:

"One of them is the law of return; another is diversification - as against any kind of monoculture; another is decentralization, so that some use can be found for even quite inferior resources which it would never be rational to transport over long distances. Here again, both the trend of things and the advice of the experts is in the exactly opposite direction - towards the industrialization and depersonalization of agriculture, towards concentration, specialization, and any kind of material waste that promises to save labour. As a result, the wider human habitat, far from being humanized and ennobled by man's agricultural activities, becomes standardized to dreariness or even degraded to ugliness."

And finally:

"Nothing could be clearer. If agriculture does not pay, it is just a 'declining enterprise'. Why prop it up? There are no 'necessary improvements' as regards the land, but only as regards farmers' incomes, and these can be made if there are fewer farmers. This is the philosophy of the townsman. alienated from living nature, who promotes his own scale of priorities by arguing in economic terms that we cannot 'afford' any other."

George McRobie, Schumacher's sidekick at the National Coal Board, wrote in the 25th anniversary book, that he elaborated this rather shorthand statement in his later writings:

'The task is to work with nature to find ways of improving soil fertility and maximizing genetic variety of plants and animals in contrast to the industrial agriculture approach of attempting to subdue and control nature by chemicals, factory farming, and biotechnology - all forms of violence. This nonviolent approach of collaborating with nature and respecting all forms of life is perfectly consistent with the approach of deep ecology."

What happened next?

The European Union's CAP lurched from bad to controversially worse after the Mansholt reforms, with talk of 'wine lakes' and 'butter mountains', sold off cheaply around the world at below cost, discouraging farmers in other parts of the planet.

The next set of major reforms, in 2013, tried to address the issue of over-production by making agriculture more sustainable and a more equal distribution of support, limiting the budget for big farms and giving more support to smaller farms by targeting income support better.

Three years later, the UK voted narrowly to leave the European Union and is now struggling to replace CAP subsidies by paying farmers to look after the land, which - depending on how it happens - may be a good thing.

Even so, the decline in the numbers working the land has carried on:

2018	*USA*	*UK*	*The world*
%age working on land	1.4	1.1	28 (down from 44 in 1991)
%age of those that are poor	5	25	33+

Yet despite the continuing shrinkage - the proportion of people working in agriculture has leveled out and is beginning ever so slowly to recover, the consolidation of farms still carries on apace - the world is still so dependent on small family farms. They now produce about 56 per cent of agricultural production worldwide.

These questions seem to be at the heart of so much of the current debate on both sides of the Atlantic - about the possibility of unadulterated, healthy food, and how much they have been misled by the modern food and pharmaceutical industries about how to lead healthy lives.

As for the cities, these are still growing in the developed world as well as the developing world - though that was not the case in the 1970s, when Schumacher was writing. In 1986, researchers at Newcastle University in the UK shocked the world of planning by showing that the urban population in the cities was growing for the first time since the end of World War II - partly because of the new influx of students and asylum-seekers from around the world. Also perhaps because city living became trendy again around that time, thanks to the New Civics and livability movements in the USA and the great improvements of cities like Pittsburgh and Birmingham.

It was soon true of most western cities. Even Liverpool, which had lost about a third of its population since 1945, was showing signs of leveling off. There was no more 'flight to the green' - as the Germans used to put it: cities were becoming modish again.

Even so, Schumacher may still have been correct. Because so many people felt trapped in cities during lockdown, there has been a huge exodus from London, for example, once people could leave again. If you could afford to leave, you often did; if not, you simply had to stay put.

That was why the advocates of garden cities always insisted on policies that would help everyone to leave the cities if they wanted to - otherwise the only people who would be left there would be the poor, who would be left behind clinging to the wreckage of the cities in high-density towers like those around the outskirts of Paris or the huge, dead estates around the outskirts of Glasgow.

In the great American cities like Detroit or East St Louis or Camden, New Jersey, where the suburbs have been spread out along strip miles of ribbon development, it is in the hollowed out centers of the cities where the poor are left behind.

The main hope for them - and for Schumacher's solution of providing scope for people to go back to the land - came from a study by the economist Amartya Sen, which showed that, when you took farm land and split it up into plots and built houses on it, the remaining back gardens could be more productive than the same land was before, when it was being farmed conventionally farmed.

That was because of the all-important personal touch, when a householder is growing crops compared with when a farmer was doing the same on the same land before the building, with modern 'productive' machinery.

That is the same idea which the great radical William Cobbett first wrote about two centuries ago, and which was confirmed by the allotment movement in World War I in the UK, that - when you give plots of marginal land to the poor - they can out-produce the best land, farmed conventionally.

In the USA, it has been new economics theorists like the Schumacher Center that first began to think about how to revive community growing as part of how to regenerate places - their first community-supported agriculture (CSA) project dates back to 1985 (in the USA, the idea dates back to 1965 in Tokyo).

In the same way, their farm notes currency, redeemable for for vegetables, helped to support local farmers in the awkward gap between investing in a crop and getting the money back. Now this is subsumed under their successful local currency, BerkShares (see Chapter 14).

On both sides of the Atlantic, you can hear the same arguments repeated during and after pandemic lockdowns, that farmers' markets - where people could buy direct from nearby farmers - were a lifesaver. A record number of people in the USA signed up to be members of CSAs during 2021.

Then, there has been Severine von Tscharner Fleming and her Greenhorns, encouraging people to go back to the land and helping them find their feet there.

The real question is: why don't policy-makers see the urgency of this?

Questions for Discussion...

1. Why don't policy-makers see the urgent importance of these ideas? Is it because so many of them are overwhelmingly urban?

2. Can we solve the basic imbalance by growing much more food in cities?

3. How might we persuade people to take up farming again?

II.3/Growth

Chapter 8. Resources for industry

"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."

– E. F. Schumacher, *Small is Beautiful*, the opening lines of this chapter.

"What Schumacher missed is that petroleum may be replaceable by renewables such as hydrogen fuel cells, and that water is probably more limiting than oil in any economic model. Water is the future natural capital of most import and does not appear in his book."

– Peter Warshall, biologist, anthropologist and former editor of *Whole Earth Review,* 25th anniversary book, Hartley & Marks, 1999.

This topic had clearly been irritating Schumacher for ages, since the chapter was taken from a report he had written for the National Coal Board, back in 1961.

Schumacher had worked as economic advisor to the nationalized coal industry in the UK for about 20 years before *Small is Beautiful.* Given that mining has now died out almost completely in the UK, some of this might make this chapter seem a little bit out of date. Margaret Thatcher's government took on the mining unions in 1984 – and after showing extraordinary courage and sense of community, the mineworkers went back to work. Except that most mining has stopped for most of them in the years that followed.

This might go some way to explaining why Schumacher is so keen on burning coal in this book – because nobody really understood global warming when he was writing.

What the chapter says…

Schumacher talks about materials for American industry. The mid-1970s must have been the high tide of American imports compared with their competitors. Then he wrote:

"All the same, the industrial system of the United States cannot subsist on internal resources alone and has therefore had to extend its tentacles right around the globe to secure its raw

material supplies. For the 5-6 per cent of the world population which live in the United States require something of the order of forty per cent of the world's primary resources to keep going. Whenever estimates are produced which relate to the next ten, twenty, or thirty years, the message that emerges is one of ever-increasing dependence of the United States economy on raw material and fuel supplies from outside the country. The National Petroleum Council, for instance, calculates that by 1985 the United States will have to cover fifty-seven percent of its total oil requirements from imports, which would then greatly exceed - at 800 million tons - the total oil imports which Western Europe and Japan currently obtain from the Middle East and Africa."

Nor does he mince words about American lifestyles:

"An industrial system which uses forty per cent of the world's primary resources to supply less than six per cent of the world's population could be called efficient only if it obtained strikingly successful results in terms of human happiness, well-being, culture, peace, and harmony. I do not need to dwell on the fact that the American system fails to do this, or that there are not the slightest prospects that it could do so if only it achieved a higher rate of growth of production, associated, as it must be, with an even greater call upon the world's finite resources..."

In the chapters in this section, his technique mainly just reaches for a hapless scientist or economist to demonstrate what we're up against. In this case, it is Professor Walter Heller, who Schumacher describes, somewhat patronizingly, as a former chairman of the President's Council of Aluminium Economic Advisers – but he was in fact a leading economist in the early 60s - he invented the Johnson administration's 'War on Poverty'. Heller says:

"I cannot conceive a successful economy without growth."

Then Schumacher goes for the jugular:

"But if the United States' economy cannot conceivably be successful without further rapid growth, and if that growth depends on being able to draw ever-increasing resources from the rest of the world, what about the other 94-4 per cent of mankind which are so far 'behind' America?"

This is a terrifying vicious circle. So that:

"*If a high-growth economy is needed to fight the battle against pollution, which itself appears to be the result of high growth, what hope is there of ever breaking out of this extraordinary circle?*"

Especially given that, every time the circle goes around, you find there are fewer resources and raw materials to distribute.

For example, Schumacher quotes the figures in the recent Club of Rome report *Limits to Growth.* US consumption as % of World Total'. The figures are as follows:

Aluminium 42%
Chromium 19%
Coal 44%
Cobalt 32%
Copper 33%
Gold 26 %
Iron 28 %
Lead 25 %
Manganese 14%
Mercury 24 %
Molybdenum 40%
Natural Gas 63%
Nickel 38 %
Petroleum 33 %
Platinum Group 31%
Silver 26%
Tin 24%
Tungsten 22%
Zinc 26%

As an aside, he also pokes fun at the team at MIT who did most of the calculations for the Club of Rome:

"It was perhaps useful, but hardly essential, for the MIT group to make so many elaborate and hypothetical calculations. In the end, the group's conclusions derive from its assumptions, and it does not require more than a simple act of insight to realize that infinite growth of material consumption in a finite world is an impossibility. Nor does it require the study of large numbers of commodities, of trends, feedback loops, system dynamics, and so forth, to come to the conclusion that time is short. Maybe it was useful to employ a computer for obtaining results which any intelligent person can reach with the help of a few calculations on the back of an envelope, because the modern world believes in computers and masses of facts, and it abhors simplicity. But it is always dangerous and normally self-defeating to try and cast out devils by Beelzebub, the prince of the devils."

But Schumacher wants to concentrate on one element alone. As he puts it: *"If energy fails, everything fails."*

"As far as the oil importing countries are concerned, the problem is obviously most serious for western Europe and Japan. These two areas are in danger of becoming the 'residuary legatees' for oil imports. No elaborate computer studies are required to establish this stark fact. Until quite recently, western Europe lived in the comfortable illusion that 'we are entering the age of limit-less, cheap energy'..."

This provides him with a hook to quote a report he happens to agree with:

"Five years later, all that needs to be said is that Britain is more dependent on imported oil than ever before. A report presented to the Secretary of State for the Environment in February 1972, introduces its chapter on energy with the words: 'There is deep-seated unease revealed by the evidence sent to us about the future energy resources, both for this country and for the world as a whole. Assessments vary about the length of time that will elapse before fossil fuels are exhausted, but it is increasingly recognized that their life is limited and satisfactory alternatives must be found. The huge incipient needs of developing countries, the increases in population, the rate at which some sources of energy are being used up without much apparent thought of the consequences, the belief that future resources will be available only at ever-increasing economic cost and the hazards which nuclear power may bring in its train are all factors which contribute to the growing concern.' "

He comments on the irony of this advice:

"It is a pity that the 'growing concern' did not show itself in the 1960s, during which nearly half the British coal industry was abandoned as 'uneconomic' - and, once abandoned, it is virtually lost for ever -- and it is astonishing that, despite 'growing concern', there is continuing pressure from highly influential quarters to go on with pit closures for 'economic' reasons."

What happened next?

The first thing we need to understand was that Schumacher was writing in 1961 and revising in 1973 - both of which was before the identification of global warming led to a worldwide struggle to wean mankind off fossil fuels, like coal. It is why he has no compunction about arguing for coal, and against nuclear and oil, as the major source of energy in the future. He had, after all, been working for the nationalized National Coal Board for 20 years.

We might even be quite glad that Margaret Thatcher took on the miners and then closed down the UK pits in 1984-5 because, otherwise, the political left would feel they should support miners now, and might have found it very hard to act against fossil fuel and carbon emissions from the UK.

Still, we can't speculate about what Schumacher would be saying now, if he knew what we know.

What we do need to look at is some of his figures - and especially the table of American percentages - and bring them up to date:

US %age of global markets	**1970** **40%**	**2020** **13%**
Aluminium	42	27
Chromium	19	4
Coal	44	23
Cobalt	32	18 (China now has 32%)
Copper	33	19
Gold	26	13 (China is now on 45%)
Iron	28	16+
Lead	25	12 (90% of lead is now recycled in the USA).
Natural gas	63	23
Petroleum	33	33
Tungsten	22	11

It may be unfair to single out the USA, and we might be pleased that the percentages are so much lower than they were. Only, think about it for a moment, and we realize that since - in most cases American consumption has not gone down - the lower figures show how much other countries have grown their consumption as a proportion of what we all consume around the globe.

Despite this, we should remember just how profligate Americans have been in using and abusing natural resources. Between 1900 and 1989, the US population tripled, while its use of raw materials grew by a factor of 17. With less than 5 percent of world population, the USA still used a quarter of the world's oil, and 23 percent of the coal. That is because, per capita use of energy, metals, minerals, forest products, fish, grains,

meat, and even freshwater in the USA, dwarfs those of people living in the developing world.

American fossil fuel consumption is double that of the average resident of the UK and two and a half times that of the average Japanese. Americans also create half of the globe's solid waste.

The world's energy consumption dipped by 4.5 per cent during the first lockdown in 2020, but it then rebounded by 5 per cent in 2021.

Part of the problem is that the USA is still using coal to provide itself with power. The US Energy Information Administration has forecast that the capacity of their coal-fired power plants will only halve from 2022 levels by 2050 - which is when the world is supposed, under the Paris Agreement, to have reached net zero emissions.

What Schumacher says in the chapter about needing more than one planet - if more of this planet were to reach American lifestyles - has since been pinpointed more precisely. That figure is now 4.4 planets, like this one - an impossible request to fulfil
.
This is a newer technique developed by Mathis Wackernagel formerly of Redefining Progress (see Chapter 3) and William Rees. They called it 'Footprints'. 'Earth Overshoot Day' is a spin off from that idea. It means the date when we stop using the resources from one planet and start using the resources of another one. This year, it's on August 1.

Every year since 1970, when this was first measured, humans have used more ecological resources than the planet can regenerate. We do this through overfishing, over-harvesting forests, and emitting more carbon dioxide into the atmosphere than ecosystems can absorb. The August 1 date means we are using 1.7 Earths. That's like spending 170 percent of our paycheck, month after month.

If everyone in the world had the American standard of living, it would take 4.4 planets and nor is America the worst offender these days. If we had Bahrain's standard of living, that would take up six planets worth of resources.
Most controversially, have been the attempts to imagine what a no-growth economy would look like, given that it is the growth in the money supply that allows us to fund schools and hospitals.

There is still no consensus about it. Mainstream politicians cling to the idea of growth because they fear having no answers to people's questions, even though Schumacher's arguments may well be unanswerable.

One of the twists in the argument comes from British economist Tim Morgan, who argues that growth is over because of the rising energy cost of generating power. Compared, even to 20 years ago, this is now prohibitive - the rise in costs, which Schumacher predicted because oil was becoming scarce, may not be obvious when measured in money, but – if you look at how much energy it now takes to generate more – it is clear that we are in some difficulties.

Then you begin to understand why economic life now seems so hard. In other words, we have no control over the end of growth - it is happening anyway. What we have to do is to make sure our leaders understand it and take evasive action.

Questions for discussion ...

1. Why are politicians still so wedded to the idea of growth on both sides of the Atlantic?

2. If growth is automatically over - and there is nothing we can do about it - how might we reshape society to survive?

3. What can we do for ourselves if national politicians won't play ball?

II.4/Energy

Chapter 9. Nuclear Energy: Salvation or Damnation?

'The main cause of the complacency - now gradually diminishing - about future energy supplies was undoubtedly the emergence of nuclear energy, which, people felt had arrived just in time. Little did they bother to inquire precisely what it was that had arrived. It was new, it was astonishing, it was progress, and promises were freely given that it would be cheap. Since a new source of energy would be needed sooner or later, why not have it at once?

– E. F. Schumacher, the opening lines of chapter 9.

"Schumacher's name is rarely if ever listed among the influential opponents of nuclear power. Yet his opposition was implacable, and he came to it earlier than most, in the 1960s - a decade of near-universal euphoria over nuclear power. It would be several years at least before the more insistent voices Gofman, Brower, Nader, and others would be raised against the atom. ¶ As the patron saint of appropriate technology, Schumacher's spirit was vital to the vision of renewable energy that sustained anti-nuclear activists during the 1970s and early 1980s, when the direction of energy policy hung in the balance. His conviction that reactors were uneconomic in the most fundamental sense - because they worked against the betterment of society - helped stiffen the resolve of the anti-nuclear movement to demand a non-nuclear future."

– Charles Komanoff, director of the Carbon Tax Center, in the 25th anniversary book, Hartley & Marks, 1999.

This is Schumacher's influential rant against nuclear energy. It was a struggle that - after a number of tense moments - he was to win. The key issue is whether may only have been a temporary victory.

The text was based on his Des Voeux Memorial Lecture in 1967, 'Clean Air and Future Energy -- Economics and Conservation', published by the National Society for Clean Air in London.

What the chapter says...

Schumacher starts with a statement about nuclear energy of which he says: "*At the time, it seemed highly unorthodox*".

The time he was referring to was six years before the publication of *Small is Beautiful* - which takes us to 1967. This was also the year in which he gave the lecture on which this chapter is based - so I think we can assume that he was referring to the reaction to the lecture:

"The religion of economics promotes an idolatry of rapid change, unaffected by the elementary truism that a change which is not an unquestionable improvement is a doubtful blessing. The burden of proof is placed on those who take the 'ecological viewpoint': unless they can produce evidence of marked injury to man, the change will proceed... Put that nuclear fission represents an incredible, incomparable, and unique hazard for human life does not enter any calculation and is never mentioned...'

As he explains, insurance companies are reluctant to insure nuclear power stations anywhere in the world for third party risk, which means that they have to pass special legislation so that the state accepts big liabilities. *"Yet, insured or not, the hazard remains, and such is the thralldom of the religion of economics that the only question that appears to interest either governments or the public is whether 'it pays'."*

As long as 36 years before, in 1927, the American biologist, Hermann Muller, published a famous paper on genetic mutations produced by X-ray bombardment. It seemed likely that people would suffer - and especially perhaps unborn children.

"*A new 'dimension' is given also by the fact that while man now can - and does - create radioactive elements, there is nothing he can do to reduce their radioactivity once he has created them. No chemical reaction, no physical interference, only the passage of time reduces the intensity of radiation once it has been set going. Carbon-14 has a half -life of 5,900 years, which means that it takes nearly 6,000 years for its radioactivity to decline to one-half of what it was before. The half-life of strontium-90 is twenty-eight years. But whatever the length of the half-life, some radiation continues almost indefinitely, and there is nothing that can be done about it, except to try and put the radioactive substance into a safe place...'*

Strontium-90 was the isotope that was endangering the lives of young children thanks to the atmospheric nuclear testing in the 1940s and 50s. We hear far less about it these days.

Why did we allow these monstrosities, he asks - and his conclusion is guilt about the bomb. "*There is an understandable drive on the part of men of good will to build up the positive aspects of nuclear energy simply because the negative aspects are so distressing,*" wrote the American nuclear physicist, Alvin Weinberg. Weinberg also described nuclear energy as a "*Faustian bargain*" - the first to do so.

Schumacher says:

"*Our instinct of self-preservation, one should have thought, would make us immune to the blandishments of guilt-ridden scientific optimism or the unproved promises of pecuniary advantages....Once many more centers of radioactivity have been created, there will be no more choice, whether we can cope with the hazards or not.*"

The issue is that we do not know how to deal with the waste produced by nuclear energy. He quotes a report commissioned by the government's new Department of the Environment in 1972:

"In the United Kingdom, strontium-90 is at the present time stored as a liquid in huge stainless steel tanks at Windscale in Cumberland. They have to be continually cooled with water, since the heat given off by the radiation would otherwise raise the temperature to above boiling point. We shall have to go on cooling these tanks for many years, even if we build no more nuclear reactors..."

At the time, the solution on both sides of the Atlantic was to dispose of the high level waste in the sea. Luckily, that doesn't happen any more:

"*The evident danger is that man may have put all his eggs in the nuclear basket before he discovers that a solution cannot be found. There would then be powerful political pressures to ignore the radiation hazards and continue using the reactors which had been built. It would be only prudent to slow down the nuclear power programme until we have solved the waste disposal problem.... Many responsible people would go further. They feel that no more nuclear reactors should be built until we know how to control their wastes*."

His conclusion is particularly pungent:

"*No degree of prosperity could justify the accumulation of large amounts of highly toxic substances which nobody knows how to make 'safe' and which remain an incalculable danger to the whole of creation for historical or even geological ages. To do such a thing is a transgression against life itself, a transgression infinitely more serious than any crime ever perpetrated by man. The idea that a civilization could sustain itself on the basis of such a*

transgression is an ethical, spiritual, and metaphysical monstrosity. It means conducting the economic affairs of man as if people really did not matter at all."

What happened next?

An "*ethical, spiritual and metaphysical monstrosity*" - that is what Schumacher called the idea that civilization could or should be sustained on the idea of threatening civilization.

By the end of the 1970s, the campaign against nuclear energy had reached a sort of crescendo. In 1978, the year after Schumacher died, the fire at the Three Mile Island plant at Harrisburg in Pennsylvania demonstrated more of the risks, although mercifully nobody was killed or injured.

A few conservatives still defended it, like Edward Teller, the long-lived 'father' of the H-bomb.. "*I was the only victim of Three Mile Island*," he wrote in the *Wall Street Journal* at the same time as passing comment on the nuclear conspiracy film *The China Syndrome* with Jane Fonda and Jack Lemmon. He was describing his heart attack at that time. "*No, that would be wrong*," he wrote. "*It was not the reactor – it was Jane Fonda. Reactors are not dangerous*."

But, by the time the fire at the Chernobyl plant in Ukraine caused a near meltdown and brought Soviet power to a juddering halt - it was clear that there was a danger involved. Just as there was at Fukoshima in Japan much more recently.

this danger is also political. It is certainly not simply that those in charge of the storage of high-level nuclear waste prefer to keep it in leaky tanks on the Sellafield site in Cumbria - because they have no idea where else to put it - but because the kind of institutions it would be necessary to set up to look after the waste would have to be powerful enough to last for 6 or 7,000 years at least.

They would have to be more rigid and powerful than the Roman Catholic church, which has only survived for a mere 2,000 years.

And because of all the security that would be necessary to manage the fuel and waste, in the so-called plutonium economy, would mean that there was no way that any reduction in the cost and reliability of the plants. It will always be an expensive options.

So how has this technology begun to creep back again?

Partly because the prospects of a solar and wind-driven world has not emerged fast enough to reduce our carbon emissions toward net zero (nuclear plans require huge carbon inputs while they are building, UT]] NT when ta are running. Also partly because Germany, for example, has had to go back to burning coal because they closed their last nuclear power plant immediately before Russia's Ukrainian invasion.

Ironically, in the UK, it was the election of a right-wing ideologue like Margaret Thatcher in 1979, who believed in the free market so much that she tried to privatize nuclear energy. It was clear then that nobody wanted to buy it, because - as Schumacher says - governments have to underwrite the insurance costs of nuclear energy because no insurance company in its right mind would insure it.

The failure of that privatization led to the demise of the ardently pro-nuclear Central Electricity Generating Board. In Sweden, cities are in charge of generating energy. In the UK, there are now a myriad of different energy providers, and the most enlightened ones - like Good Energy - are entirely committed to the Schumacherian world view.

Questions for Discussion…

1. What do we feel about Schumacher's support for burning coal? Would he have continued in this if he was with us today, even when he knew about the greenhouse effect - or might he had supported solar, wind or micro-hydro power as intermediate technologies?

2. What about nuclear energy - might he have been tempted to change his mind because of the climate crisis?

3. How can we encourage more people to stand up clearly and decisively against widespread public conviction - as Schumacher did in the 1960s with nuclear energy?

II.5/Human beings

Chapter 10. Technology with a human face

"We are poor, not demigods.
We have plenty to be sorrowful about, and are not emerging into a golden age.
We need a gentle approach, a non-violent spirit, and small is beautiful.
We must concern ourselves with justice and see right prevail.
And all this, only this, can enable us to become peace-makers."

– E . F. Schumacher's version of the Beatitudes, adapted from the original in the Gospel of St Matthew Chapter 5, vv3-12, in this chapter.

"Schumacher would certainly have supported the Gaia hypothesis, the view that planet earth is a self-regulating system. But there is nothing self-regulating about technology, which is still driven by notions of limitless growth, labor-saving, and expansion of consumption."

– George McRobie, author of *Small is Possible,* from the 25th anniversary book, Charley 7] Marks, 1999.

"We are creating so many unnecessary technologies for the home environment that we have made housing unaffordable for most people. When we go to the roots of technologies in housing, we recognize that what we had before was adequate - people were sheltered sufficiently from the elements. In our drive to create technologies that protect us and save our time and energy, we are losing energy by producing gadgets that are not necessary to begin with."

– Avi Friedman, Canadian architect and professor and co-founder of the Affordable Homes Program at the McGill University School of Architecture, from the 25th anniversary book (Hartley & Marks, 1999).

This is the last of Schumacher's core chapters covering policy areas where he had developed bees in his bonnet. So he delves into the question of whether - if it hadn't been for *Small is Beautiful* - this issue might have provided his main claim for a legacy.

The chapter is based on his lecture given at the Sixth Annual Conference of the Teilhard Centre for the Future of Man, London in October 1971.

What the chapter says...

If the modern world is shaped by its faulty metaphysics, that is bound to affect its education, its food and its tech, says Schumacher:

"If that which has been shaped by technology, and continues to be so shaped, looks sick, it might be wise to have a look at technology itself. If technology is felt to be becoming more and more inhuman, we might do well to consider whether it is possible to have something better - a technology with a human face."

The natural world which we are part of tends to be self-balancing, self-adjusting, self-cleansing, says Schumacher:

"Not so with technology, or perhaps I should say: not so with man dominated by technology and specialization. Technology recognizes no self-limiting principle -- in terms, for instance, of size, speed, or violence. It therefore does not possess the virtues of being self-balancing, self-adjusting, and self-cleansing. In the subtle system of nature, technology, and in particular the super-technology of the modern world, acts like a foreign body, and there are now numerous signs of rejection."

He then looks at three simultaneous crises:

1, **Human nature** revolts against inhuman technological, organizational, and political patterns, which it experiences as suffocating and debilitating.

2, The **living environment** which supports human life aches and groans and gives signs of partial breakdown; and

3, It is "*clear to anyone fully knowledgeable in the subject matter that the inroads being made into the world's non-renewable resources, particularly those of fossil fuels, are such that serious bottlenecks and virtual exhaustion loom ahead in the quite foreseeable future..."* (see Chapter 8).

"Everywhere the problems seem to be growing faster than the solutions. This seems to apply to the rich countries just as much as to the poor. There is nothing in the experience of the last twenty-five years to suggest that modem technology, as we know it, can really help us to alleviate world poverty, not to mention the problem of unemployment which already reaches levels like thirty per cent in many so-called developing countries, and now threatens to become endemic also in many of the rich countries. In any case, the apparent yet illusory successes of the last twenty-five years cannot be repeated: the threefold crisis of which I have

spoken will see to that. So we had better face the question of technology - what does it do and what should it do? Can we develop a technology which really helps us to solve our problems - a technology with a human face?"

At this point, Schumacher gets suddenly playful and suggests that, when he was first travelling around the world, it struck him that it might be a good idea to re-formulate the first law of economics like this: *''The amount of real leisure a society enjoys tends to be in inverse proportion to the amount of labour-saving machinery it employs.**

This is a kind of lampoon of Parkinson's first law - that the work tends to expand to fill the time available - at least according to the English historian-turned-business guru, Cyril Northcote Parkinson, which made him very famous around the world after it was first published in 1958 (following an article in *The Economist*, three years before). His second law is even more like Schumacher's 'economics law' - that the amount of time and effort a committee takes to discuss an agenda item is in inverse proportion to its importance (this was also known as Parkinson's Law of Triviality).

This makes me wonder whether there was ever a time when Schumacher considered copying Parkinson in his approach to economics. But you can see why he didn't - because Parkinson had no economics background at all, to make his opinions about how bureaucracies tend to grow in their ambition and numbers of staff in inverse proportion to the work that anyone actually needs. Whereas Schumacher had worked with some of the most famous economists in the world. He had no need to pass himself off as a humorist - though it would be fascinating to see what other 'laws' he would have been able to formulate his ideas as if he had gone further with this.

He justifies his labour-saving law by comparing Burma and the UK:

"As there is so much less labour-saving machinery to help them, they 'accomplish' much less than we do; but that is a different point. The fact remains that the burden of living rests much more lightly on their shoulders than on ours ... The question of what technology actually does for us is therefore worthy of investigation. It obviously greatly reduces some kinds of work while it increases other kinds. The type of work which modern technology is most successful in reducing or even eliminating is skilful, productive work of human hands. in touch with real materials of one kind or another. In an advanced industrial society, such work has become exceedingly rare, and to make a decent living by doing such work has become virtually impossible. A great part of the modern neurosis may be due to this..."

Only about one sixth of the workforce actually produces, makes or grows things anyway, he says.

"When you look at industrial society in this way, you cannot be surprised to find that prestige is carried by those who help fill the other 96 per cent of total social time. primarily the entertainers but also the executors of Parkinson's Law. In fact, one might put the following proposition to students of sociology: 'The prestige carried by people in modern industrial society varies in inverse proportion to their closeness to actual production'... There is a further reason for this. The process of confining productive time to 31 per cent of total social time has had the inevitable effect of taking all normal human pleasure and satisfaction out of the time spent on this work. Virtually all real production has been turned into an inhuman chore which does not enrich a man but empties him. 'From the factory,' it has been said, 'dead matter goes out improved, whereas men there are corrupted and degraded.'

Now you might say that this sounds awfully like a whiff of Marxism, but Schumacher is aware of this.

"Karl Marx appears to have foreseen much of this when he wrote: 'They want production to be limited to useful things, but they forget that the production of too many useful things results in too many useless people.' to which we might add: particularly when the processes of production are joyless and boring. All this confirms our suspicion that modern technology, the way it has developed, is developing, and promises further to develop, is showing an increasingly inhuman face, and that we might do well to take stock and reconsider our goals."

As a possible solution, he suggests a test of reversing the labour-saving figures. so that instead of only spending, on average, 3 per cent of our time in productive work that we all spent 20 per cent.

"*An incredible thought! Even children would be allowed to make themselves useful, even old people. At one-sixth of present-day productivity, we should be producing as much as at present. There would be six times as much time for any piece of work we chose to undertake -- enough to make a really good job of it, to enjoy oneself, to produce real quality, even to make things beautiful. Think of the therapeutic value of real work: think of its educational value. No-one would then want to raise the school-leaving age or to lower the retirement age, so as to keep people off the labour market. Everybody would be welcome to lend a hand. Everybody would be admitted to what is now the rarest privilege, the opportunity of working usefully, creatively, with his own hands and brains, in his own time, at his own pace -- and with excellent tools*."

He was quite right - there could definitely be a great deal less illness if people had to do something genuinely productive for that much of their weeks (we now know that loneliness can impact people's bodies as much as smoking 15 packets of cigarettes a day.

This is the 'technology of production by the masses', he says - quoting Gandhi - who famously said that we don't need mass production: we need "*production by the masses.*"

He explain that his new kind of 'IT' is "d*esigned 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. One can also call it self-help technology, or democratic or people's technology - a technology to which everybody can gain admittance...*"

Then it is back to making an example of Dr Sicco Mansholt of the European Commission (see Chapter 7) as an example of the wrong direction to go in.

" 'More, further, quicker, richer,' he says, 'are the watchwords of present-day society.' And he thinks we must help people to adapt 'for there is no alternative'. This is the authentic voice of the forward stampede, which talks in much the same tone as Dostoyevsky's Grand Inquisitor: 'Why have you come to hinder us?' They point to the population explosion and to the possibilities of world hunger. Surely, we must take our flight forward and not be fainthearted. If people start protesting and revolting, we shall have to have more police and have them better equipped. If there is trouble with the environment, we shall need more stringent laws against pollution, and faster economic growth to pay for anti-pollution measures. If there are problems about natural resources, we shall turn to synthetics; if there are problems about fossil fuels, we shall move from slow reactors to fast breeders and from fission to fusion. There are no insoluble problems. The slogans of the people of the forward stampede burst into the newspaper headlines every day with the message, a breakthrough a day keeps the crisis at bay'."

Then he describes people like himself. And remember that his term 'Homecoming was originally going to be the title for the whole book:

"And what about the other side? This is made up of people who are deeply convinced that technological development has taken a wrong turn and needs to be redirected. The term

'home-comer' has, of course, a religious connotation. For it takes a good deal of courage to say 'no' to the fashions and fascinations of the age and to question the presuppositions of a civilization which appears destined to conquer the whole world; the requisite strength can be derived only from deep convictions. If it were derived from nothing more than fear of the future, it would be likely to disappear at the decisive moment. The genuine 'homeroom does not have the best tunes, but he has the most exalted text, nothing less than the Gospels. For him, there could not be a more concise statement of his situation, of our situation, than the parable of the prodigal son. Strange to say, the Sermon on the Mount gives pretty precise instructions on how to construct an outlook that could lead to an Economics of Survival."

At this point, we get Schumacher's own re-writing - or perhaps re-interpretation might be a better phrase - of the Beatitudes, from the Sermon on the Mount (see the top of this chapter):

"*It may seem daring to connect these beatitudes with matters of technology and economics. But may it not be that we are in trouble precisely because we have failed for so long to make this connection? It is not difficult to discern what these beatitudes may mean for us today:*

- We are poor, not demigods..." (and so on).

Schumacher predicts a long struggle - a kind of 'culture war' between these *homecomers* and those committed to what the '*forward stampede* call '*progress*':

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"In one way or another everybody will have to take sides in this great conflict. To 'leave it to the experts' means to side with the people of the forward stampede. It is widely accepted that politics is too important a matter to be left to experts. Today, the main content of politics is economics, and the main content of economics is technology. If politics cannot be left to the experts, neither can economics and technology... The case for hope rests on the fact that ordinary people are often able to take a wider view, and a more 'humanistic' view, than is normally being taken by experts. The power of ordinary people, who today tend to feel utterly powerless, does not lie in starting new-lines of action, but in placing their sympathy and support with minority groups which have already started."

He is referring here to the two biggest organizations in the UK which were inspired by Schumacher's vision - the Soil Association in Bristol and the Intermediate Technology Development Group (ITDG) - known since 2005 as Practical Action - in Rugby. He ends the section like this:

"I have no doubt that it is possible to give a new direction to technological development, a direction that shall lead it back to the real needs of man, and that also means: to the actual size of man. Man is small, and, therefore, small is beautiful. To go for gigantism is to go for self-destruction. And what is the cost of a reorientation? We might remind ourselves that to calculate the cost of survival is perverse. No doubt, a price has to be paid for anything worth while: to redirect technology so that it serves man instead of destroying him requires primarily an effort of the imagination and an abandonment of fear."

What happened next?

This really is essential Schumacher, especially in the way he plays with ideas - suggesting that those two modern professions (sociologists and economists) are stick-to-itiveness. Not to mention his version of the Beatitudes - his attitude to religion in this chapter is reminiscent of the great British Distributist Hilaire Belloc (see Chapter 4), who famously said that all political issues are at root theological. Schumacher would have agreed.

He would also have agreed with the Distributists that the economic solution for the UK was for everyone to be allocated 'three acres and a cow', which they could control. The equivalent slogan in the USA demonstrates the difference between the two countries: 'Forty acres and a mule'.

The Soil Association had been founded, largely by ultra-conservatives, at the end of World War II, and Schumacher was the chair in the 1960s. But ITDG had been set up - as so many ginger groups were in the 1960s - after an article in the *Observer,* in 1965. It was by Schumacher and it was called 'How to help them help themselves'. There was enough interest and excitement from academics, politicians and the wider development community that Schumacher was able to launch a new organization, which he then chaired.

ITDG began with an advisory service in 1966, but soon expanded with a technical consulting service in 1969, alongside an independent publishing arm in 1973. Their 'development approach' focused on helping communities facing poverty to help themselves, rather than prescribing hardware-based solutions that may not be viable or appropriate.

These days, it is a key member of the Schumacher Circle organization, of which the New Economics Foundation and the Schumacher Center are also part. Practical Action (formerly ITDG) is still committed to rolling out intermediate technology solutions in developing countries. Take, for example, their 'Emptier to Entrepreneur' model:

"While almost everyone in Bangladesh has access to a basic toilet, human waste isn't always safely managed and can cause huge problems, especially for the workers who risk their health and dignity to clean it up. Waste disposal systems managed by local authorities don't cater for poor, urban 'slum' dwellings. Instead informal waste workers have to step up to carry out this vital service."

The pay and job security are both uncertain for these waste workers, who often work in dangerous conditions where they have to empty the contents of pit latrines and septic tanks by hand, facing toxic substances without protective clothing. They are also often "*excluded from society and discriminated against because of the work they do. Because there is no established system for emptying waste and treating it safely, it's often dumped in local rivers and nearby wasteland, causing serious health and environmental hazards*."

Practical Action takes a *"systems approach, working across sectors to facilitate bold collaborations between waste workers, communities, the private sector and local government. Informal workers are supported to form co-operatives. By joining together in a formal business, workers are able to develop improved operating practices and obtain the licenses needed for the safe emptying, transport, and disposal of waste. Employment conditions are improved and workers get access to personal protective equipment. New, innovative technology is leased to the co-operatives from the municipality, waste workers swap emptying latrines by hand for* 'Vacuity *suction technology which is quicker, cleaner and much safer*..."

The main issue seems to be about why people are not shifting in their understanding. And here we come across a separate debate - about the proportion of the population who are at least potential homecomers.

It seems like an impossible question to answer, but actually there is some evidence that it's about half of us in the UK. That's the proportion of the British population categorized as 'inner-directed' – people whose prime motivation is no longer conspicuous consumption or keeping up with their neighbors, but autonomy, self-expression, health and independence.

These are people who are suspicious of mass production, who want things customized or tailor-made, who may or may not be excited by information technology and computers – but who are definitely part of the world of self-actualization, and maybe self-employment, tracked by modern prophets like Charles Handy.

'Inner directness isn't a new discovery. The idea goes back to a book called *The Lonely Crowd,* published in 1950 by the radical sociologist David Annmarie. It was a revolutionary way of categorizing the public, when most sociologists were used to categorizing people according to their class rather than their attitudes.

Instead, he divided consumers into three. There was *sustenance-driven*: people motivated primarily by getting by, or where the next meal would come from. Then there were the *directorates*, the vast majority of the population, who were in control of their insecurity about the next meal, but who were busily consuming conspicuously – the marketing dream. Inner -Disconnectedness were then a small, barely visible third group, in control of their insecurity about what the neighbors might think, and moving on to something else.

It was thought that their interest in independence made many of them Thatcher voters in the 1980s, though they are probably more natural Liberal Democrats or Greens. These are the people who leave the cities for the countryside – or who want to – who downshift, who experiment with new ideas and sometimes new technology. They are deeply suspicious of marketing and serious enthusiasts about health and education.

By the end of the 1980s, about 37 per cent of British people were classified as inner-directed – only the Netherlands had a higher proportion - and there was speculation about what would happen if they suddenly became the majority. Would those directorates, so busily keeping up with the Joneses around them, suddenly start copying them?

So the British, Dutch and Scandinavians now lead the world in disconnectedness, where anything up to half the population are inner-directed, and that has indeed been something of a shock to the system.

In the USA, the idea of 'Cultural Creatives' identified by Paul Ray, of the Institute of Noe tic Sciences, who he believes make up a quarter of the American population – no coincidence that the inner-directed category makes up a similar quarter of all Americans. His figures put what he calls Modernists, those primarily motivated by material wealth, at 47 per cent of the US population. Cultural Creatives, at 24 per cent, are those he sees as reinventing culture, interested in health and spirituality, and searching for integrity, quality and authenticity in what they buy.

Many Cultural Creatives think they're alone in their beliefs, says Ray – maybe just them and their ten best friends. It's a strange phenomenon: because the kind of

challenge made by Schumacher isn't really reflected in the media, they don't feel they are part of anything widespread or new.

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In other words, we are talking about *potential* homecomers here - not necessarily fully-signed up, card-carrying ones. but even so, a potential electorate of 25 percent can certainly achieve great things, as long as they don't do what Schumacher warned against - when he says that we shouldn't constantly reinvent the wheel: "*The power of ordinary people, who today tend to feel utterly powerless, does not lie in starting new lines of action, but in placing their sympathy and support with minority groups which have already started.*"

Questions for discussion.

1. What do we feel about Schumacher's re-statement of the Beatitudes as a warning, rather than as a blessing?

2. Is Schumacher right about his refusal to accept new lines of action - surely sometimes, we just need to start afresh?

3. Might going 'back to the land' mean that women's roles will get sidelined again?

III.1/Development

Chapter 11/Development

"For two-thirds of mankind, the aim of a 'full and happy life' with steady improvements of their lot, if not actually receding, seems to be as far away as ever..."

– E. F. Schumacher, clear statement near the beginning of chapter 11.

"Another stumbling block is the belief that a greater degree of self-reliance in the North would undermine the economies of the 'Third World,' where people supposedly need northern markets to lift themselves out of poverty. The truth of the matter is that a shift toward smaller scale and more localized production would benefit both North and South, and allow for more meaningful work and fuller employment all around. Today, a large proportion of the South's natural resources is delivered to the North, on increasingly unfavorable terms, in the form of raw materials. The South's best agricultural land is devoted to growing food, fibers, even flowers for the North, and a good deal of the South's labor is used to manufacture goods for northern markets. Rather than further impoverishing the South, producing more ourselves would allow the South to keep more of its resources and labor for itself."

– Helena Kornberg-Hodge, director and founder of Local Futures, in the 25th anniversary book, Hartley & Marks, 1999.

"*It isn't the human-scale hardware flowing out of intermediate and appropriate technology centers around the world that has had the most profound impact on society. As Schumacher well recognized, it is the software of the industrial nations that needs to change if the world is to provide a just and equitable life for all. It is that 'search for a new lifestyle' and 'return to certain basic truths about man and his world' that is now on the verge of promising a bright new future for all of humanity*."

– Bill Ellis, general co-coordinator of TRANET since 1977, and physicist, in the 25th anniversary book, Hartley & Marks, 1999.

As he did in the last section, Schumacher deals with an introductory big idea in the first chapter, this one at the beginning of a section he calls the 'third world' - but which we will refer to as the global south.

It was taken from an 'anniversary address' he gave at the general meeting of the Africa Bureau in London in March 1966.

What the chapter says...

Schumacher launches into a definition of development - the one used by the UK government in their 1965 white paper on development policy:

"To do what lies within our power to help the developing countries to provide their people with the material opportunities for using their talents, of living a full and happy life and steadily improving their lot."

What is wrong with that, you may ask? Nothing except that it is hopelessly optimistic. As Schumacher says, there "*may have been some disillusionment..?*"

Then he explains why this matters - because nobody in authority appears to notice the two different worlds in the global south. This is what he calls the *'dual economy'*:

"There are two different patterns of living as widely separated from each other as two different worlds. It is not a matter of some people being rich and others being poor. both being utilized by a common way of life: it is a matter of two ways of life existing side by side in such a manner that even the humblest member of the one disposes of a daily income which is a high multiple of the income accruing to even the hardest working member of the other. The social and political tensions arising from the dual economy are too obvious to require description."

Schumacher says he puts the under-educated basic class, in rural areas, at an average of around 85 per cent of the population. The educated urban class makes up around 15 per cent.

How long will it take for the 15 per cent to drag the 85 per cent up to their level, Schumacher asks? And he answers his own question with an emphatic: "*They never will.*"

"Could it be that the relative failure of aid, or at least our disappointment with the effectiveness of aid, has something to do with our materialist philosophy which makes us

liable to overlook the most important preconditions of success, which are generally invisible?" he ask:

"*Or if we do not entirely overlook them, we tend to treat them just as we treat material things - things that can be planned and scheduled and purchased with money according to some all- comprehensive development plan. In other words, we tend to think of development, not in terms of evolution, but in terms of creation... Our scientists incessantly tell us with the utmost assurance that everything around us has evolved by small mutations sieved out through natural selection. Even the Almighty is not credited with having been able to create anything complex. Every complexity, we are told, is the result of evolution."*

Either way, the effect of dual economy is that money is sucked out of the rural areas, so that the poorest people in the world have to leave to go to the cities in search of work.

"We may observe in passing that similar tendencies are at work even in some of the richest countries, where they manifest as a trend towards excessive urbanization, towards 'megalopolis', and leave, in the midst of affluence, large pockets of poverty-stricken people, 'drop-outs', unemployed and employable."

Now he gets down to explaining why:

"*Until recently, the development experts rarely referred to the dual economy and its twin evils of mass unemployment and mass migration into cities*.

Worse, says Schumacher, it is likely to get much worse:

"*Meanwhile, it has become widely recognized that time alone will not be the healer. On the contrary, the dual economy, unless consciously counteracted, produces what I have called a 'process of mutual poisoning', whereby successful industrial development in the cities destroys the economic structure of the hinterland, and the hinterland takes its revenge by mass migration into the cities, poisoning them and making them utterly unmanageable."*

Forward estimates made by the World Health Organization and by experts like Kings ley Davies predict cities of 20, 40 and even 60 million inhabitants. It is "*a prospect of 'commiseration for multitudes of people that beggars the imagination*," says Schumacher.

The ruling philosophy of development over the last twenty years has been: 'What is best for the rich must be best for the poor.' This is clearly nonsense:

"This belief has been carried to truly astonishing lengths, as can be seen by inspecting the list of developing countries in which the Americans and their allies and in some cases also the

Russians have found it necessary and wise to establish 'peaceful' nuclear reactors - Taiwan, South Korea, Philippines, Vietnam, Thailand, Indonesia, Iran, Turkey, Portugal, Venezuela - all of them countries whose overwhelming problems are agriculture and the rejuvenation of rural life, since the great majority of their poverty-stricken peoples live in rural areas."

Then, as if by magic, he comes up with three words which he believes the freedom to work in any society requires: *education, organization*, and *discipline.*

"There are prosperous societies with but the scantiest basis of natural wealth. and we have had plenty of opportunity to observe the primacy of the invisible factors after the war. Every country, no matter how devastated, which had a high level of education. organization, and discipline, produced an 'economic miracle'. In fact these were miracles only for people whose attention is focused on the tip of the iceberg. The tip had been smashed to pieces, but the base, which is education, organization, and discipline, was still there."

"Here, then. lies the central problem of development. If the primary causes of poverty are deficiencies in these three respects, then the alleviation of poverty depends primarily on the removal of these deficiencies. Here lies the reason why development cannot be an act of creation, why it cannot be ordered, bought, comprehensively planned: why it requires a process of evolution. Education does not 'jump'; it is a gradual process of great subtlety. Organization does not 'jump'; it must gradually evolve to fit changing circumstances. And much the same goes for discipline. All three must evolve step by step, and the foremost task of development policy must be to speed this evolution. All three must become the property not merely of a tiny minority, but of the whole society."

It follows from that, says Schumacher, shouldn't generally speaking be allowed into development:

It follows from this that development is not primarily a problem for economists, least of all for economists whose expertise is founded on a crudely materialist philosophy. No doubt, economists of whatever philosophical persuasion have their usefulness at certain stages of development and for strictly circumscribed technical jobs, but only if the general guidelines of a development policy to involve the entire population are already firmly established," he says.

How will this be different from old style paternalistic aid?;

"The new thinking that is required for aid and development will be different from the old because it will take poverty seriously. It will not go on mechanically, saying: 'What is good for the rich must also be good for the poor.' It will care for people - from a severely practical point of view.

"Why care for people? Because people are the primary and ultimate source of any wealth whatsoever. If they are left out, if they are pushed around by self-styled experts and high-handed planners, then nothing can ever yield real fruit."

What happened next?

When *Small is Beautiful* was published, Robert McNamara had been leading the World Bank for just over five years. He had another eight years in the job after that, during which time, it massively increased loans to the global south and shifted its focus from industrialization to poverty reduction.

So far so good, thanks partly to the influence of Schumacher.

McNamara had presided over the Vietnam War as Secretary of Defense, and had become a clearly defined personality in the political world. Commentators watched his ability to issue streams of figures on television, and the hardness with which he dismissed searching questions.

There was a huge rise in the ambition and the status of the World Bank and McNamara brought his own system analysis to the problem of poverty – focusing then, as the bank does now, on the income levels of small farmers.

The tragedy of McNamara was not that he lacked ambition – quite the reverse. It was that he could not see clearly enough to make the difference he wanted. New high-yield crop varieties and mechanization were introduced from the 1960s onwards in a move dubbed by the US government as the 'Green Revolution'. Intended to showcase what a peaceful revolution, rather than a Red one, might be like, it worked at first in India and Mexico by enormously increasing the yield of those countries' crops.

It succeeded on its own terms, but that involved turning a blind eye to some of the unwanted side-effects – like rising debt, the loss of local know-how and, for

example, the high levels of suicide among indebted small farmers in India which now suggest that all was not well even then. Yet even if it seemed to work in some pioneering locations, it didn't work nearly as well everywhere, perhaps not surprisingly.

Brazilian farmers rejected the new crops because in their own dry climate the new varieties seemed to be bred only for yield, not hardiness. In sub-Saharan Africa, where the problems were particularly intense, and where the new crops would not grow, World Bank staff began to lend only on projects they knew would work towards meeting their targets. Roads were popular because they were easy to lend on, but they tended only to help the richest, and often forced poorer people off the land. Dam projects were even worse.

And so it was that McNamara could not understand why the poor in Latin America destroyed the homes they were given. He called it the 'pathology of poverty', and similar conundrums about the War on Poverty presented themselves back home in the USA. The urban poor in American ghettos also rejected their new housing because of the way they were described – as hopeless or feckless, or both.

'*Charity wounds*,' said the great anthropologist Marcel Gauss, and this is a real phenomenon. This rejection of welfare consistently confuses well-meaning officials, but is not necessarily surprising that poorer people might prefer to avoid the implication – and sometimes the description – that they are feckless.

Schumacher's defence of development on a broader basis, without economists, was written on the background of McNamara at the World Bank. Since then, there is a sense in which development economics has been one corner of economics which has responded to Schumacher's challenge. not so much in international institutions like the World Bank, which was pressing loans so hard that the recipients were soon suffering a debt crisis - and it was Schumacherian types at the Jubilee Debt who led the successful campaign to cancel the unplayable debt which came to a head at the G8 summit in the second city in the UK, Birmingham in 1998.

Nor did he really believe in government to government aid - where everyone is obsessed with quantities. Does it matter, for example, that the UK government in 2015 withdrew from their commitment to put 0.7 per cent of GDP into aid - when

that figure included a number of self-interested items that no sane person could categorize as aid?

Mainly because of the involvement of governments - which are obsessed with numbers, which Schumacher warned against - development remains trapped in the numerical cage.

Despite his conviction that economists should leave development alone, economists like Amartya Sen or Jeffrey Sachs are, in some ways, academics from a new economics tradition to which Schumacher also belongs.

Sachs was involved in drawing up the Millennium Development Goals, which derived from the optimism of the 1990s, and were succeeded in 2015 by the Sustainable Development Goals.

In 1983, the United Nations had set up the World Commission on Environment and Development - later known as the Brundtland Commission - which defined sustainable development as "meeting the needs of the present without compromising the ability of future generations to meet their own needs". In 1992, the first UN Conference on Environment and Development - later known as UNCED or Earth Summit - was held in Rio de Janeiro and which launched Agenda 21.

Two decades later, in 2012, the UN Conference on Sustainable Development - known as Rio+20 - was held as a 20-year follow up to UNCED. Colombia proposed the idea of the SDGs at a preparation event for Rio+20 held Indonesia in July 2011.

The outcome document proposed 17 sustainable development goals and associated targets. At the Rio+20 conference, a resolution known as '*The Future We Want*' was reached by member states.

Even the World Bank has come a long way since the days of Robert McNamara four decades ago. But new initiatives in the far more pessimistic 2020s are scarce, unless they involve panels of expert technocrats busily measuring everything.

One of the most hopeful results of the UN's COP process which emerged recently, in Paris in 2015 - the unexpected agreement to limit earth temperature rises to 1.5 degrees centigrade - has proved next to impossible to achieve in practice.

Questions for Discussion…

1. Is it possible to rescue technocratic development economics?

2. Numbers alone simply blind officials and delude everyone else. But how can you organize any kind of global effort without learning whether you are succeeding or not?

3. In practice, how might we go about healing the dual economies of the global south?

III.2/Technology

Chapter 12/Social and economic problems calling for the development of intermediate technology.

"In many places in the world today the poor are getting poorer while the rich are getting richer, and the established processes of foreign aid and development planning appear to be unable to overcome this tendency. In fact, they often seem to promote it, for it is always easier to help those who can help themselves than to help the helpless. Nearly all the so-called developing countries have a modern sector where the patterns of living and working are similar to those of the developed countries, but they also have a non-modern sector, accounting for the vast majority of the total population, where the patterns of living and working are not only profoundly unsatisfactory but also in a process of accelerating decay."

– E.F. Schumacher, the opening lines of this chapter.

"I first met Fritz Schumacher in 1968 while working in the Science Policy Division of UNESCO. His concept of intermediate technology had become the driving force behind a shift in technological aid to the Third World. In the following decade, intermediate technology centers had sprung up all over the world. Papua New Guinea, Nepal, Ghana, Colombia, and India were only a few of the nations of the third world developing small-scale, low-cost technologies. Water wheels, composting privies, solar pumps, bicycle-driven threshers, and other intermediate hardware filled the gap between the primitive hand tools used by most of the people of the world and the hi-tech, high-cost, complex hardware and infrastructure being foisted on these countries by the 'development experts'. The industrial countries too caught Fritz's small-is-beautiful bug."

– Bill Ellis, physicist and general co-ordinator of TRANET since 1977, in the 25th anniversary book (Hartley & Marks, 1999).

"In 1965, a group of us helped Schumacher start the Intermediate Technology Development Group in London. Our starting point was that mass unemployment and rural misery could be overcome only by creating new workplaces in the rural areas - low-cost workplaces that could be created in large numbers, where production methods and associated services were relatively simple, and used local materials for local use."

– George McRobie, former chair of ITDG and the New Economics Foundation, and author of *Small is Possible,* in the 25th anniversary book (1999).

This chapter is an odd one out, in that - as Schumacher explains at the end of Chapter 11 - it is a slightly shortened version of a paper prepared in 1965 for a Conference on the Application of Science and Technology to the Development of Latin America, organized by UNESCO in Santiago, Chile.

"*At that time, discussions on economic development almost invariably tended to take technology simply as 'given', the question was how to transfer the given technology to those not yet in possession of it,"* he wrote at the end of the previous chapter.

"*The latest was obviously the best, and the idea that it might not serve the urgent needs of developing countries because it failed to fit into the actual conditions and limitations of poverty, was treated with ridicule. However, the paper became the basis on which the Intermediate Technology Development Group was set up in London.*"

The chapter is still structured like a report, with an introduction and headings.

What the chapter says...

To start with, he reiterates his conclusions from Chapter 11 that, despite the money and expertise poured into development, most of it only touches the lives of people who live in cities. Mostly, it completely ignores *"the vast majority of the total population, where the patterns of living and working are not only profoundly unsatisfactory but also in a process of accelerating decay*."

Schumacher emphasizes that his one concern is entirely with those in what he calls the "non-modern sector":

"*This does not imply the suggestion that constructive work in the modern sector should be discontinued, and there can be no doubt that it will continue in any case. But it does imply the conviction that all successes in the modern sector are likely to be illusory unless there is also a healthy growth - or at least a healthy condition of stability - among the very great numbers of people today whose life is characterized not only by dire poverty but also by hopelessness,"*

He denies that the unemployment in rural areas has much to do with population growth, even if that must have some effect. So why can't they do extra work, he asks rhetorically?

Because, in a free system, more people ought theoretically to mean more paid work and more demand. But for some reason that doesn't work in the global south:

"It is said that they cannot work because they lack 'capital'," writes Schumacher. "*But what is 'capital'? It is the product of human work. The lack of capital can explain a low level of productivity, but it cannot explain a lack of work opportunities."*

We know from the last chapter that desperate people in rural areas tend to go into the burgeoning cities: *"Rural unemployment produces mass-migration into cities, leading to a rate of urban growth which would tax the resources of even the richest societies"* he says. "*Rural unemployment becomes urban unemployment*."

Conventional economists are obsessed with productivity and 'output per man'. But that cannot help the unemployed and underemployed. Because "e*ven poorly paid and relatively unproductive work is better than idleness".*

Because this is a report, and his original purpose was to make it clear that he is no single voice 'crying in the wilderness's, he digs out a number of economists and other officials who agree with key elements of his argument.

" '*Coverage must come before perfection,' to use the words of Mr Gabriel Ardant,"* writes Schumacher. Ardant was a French official and accountant who also wrote books - he rose to be inspector-general at the General Inspectorate of Finances. he was a near contemporary of Schumacher's - five years older, but both men died in 1977. Like Schumacher, Ardant started off as a convinced Keynesian before he varied it a little, *à la française,* collaborating with Pierre Mendès France, the leader of the French radical party, who was a reforming prime minister of France for less than a year from 1954-5.

Even so, Ardant wrote 'A Plan for Full Employment in the Developing Countries' in *International Labour Review*, in 1963:

"*It is important that there should be enough work for all because that is the only way to eliminate anti-productive reflexes and create a new state of mind - that of a country where labour has become precious and must be put to the best possible use,*" he wrote and Schumacher quotes him approvingly.

"An unemployed man is a desperate man and he is practically forced into migration. This is another justification for the assertion that the provision of work opportunities is the primary need and should be the primary objective of economic planning. Without it, the drift of people into the large cities cannot be mitigated, let alone halted," he writes, praising Egypt

and Japan but criticizing Turkey and India, whose five-year plans typically end with more unemployment than they began with.

To summarize, Schumacher sets the following propositions:

1. "*That workplaces have to be created in the areas where the people are living now, and not primarily in metropolitan areas into which they tend to migrate*."

2. "*That these workplaces must be, on average, cheap enough so that they can be created in large numbers without this calling for an unattainable level of capital formation and imports.*"

3. "*That the production methods employed must be relatively simple, so that the demands for high skills are minimized, not only in the production process itself but also in matters of organization, raw material supply, financing, marketing, and so forth*."

4. "*That production should be mainly from local materials and mainly for local use*."

He also spells out how it should be achieved:

1. ***Regional development approach***

Huge areas within the country "*will benefit little and may indeed suffer*," says Schumacher. "*If the purpose of development is to bring help to those who need it most, each 'region' or 'district' within the country needs its own development. This is what is meant by a 'regional' approach*."

This is also true of the Italian south, or parts of north Wales or Cornwall in the UK. or West Virginia in the USA:

"*The bigger the country, the greater is the need for internal 'structure' and for a decentralized approach to development. If this need is neglected, there is no hope for the poor.*"

2. **The technology used needs to be appropriate.**

Although Schumacher is trying to be positive in this chapter, he can't resist a sideswipe a the traditional economist Dr Nicky Kaldor, who claimed that research had "*shown that the most modern machinery produces much more output per unit of capital invested than less sophisticated machinery which employs more people*."

This is Schumacher's riposte:

"If we can employ only a limited number of people in wage labour, then let us employ them in the most productive way, so that they make the biggest possible contribution to the national output, because that will also give the quickest rate of economic growth. You should not go deliberately out of your way to reduce productivity in order to reduce the amount of capital per worker. This seems to me nonsense because you may find that by increasing capital per worker tenfold you increase the output per worker twenty fold. There is no question from every point of view of the superiority of the latest and more capitalistic technologies."

Ad what about the idea that Kaldor suggested that "*the capital/output ratio grows if capital is concentrated on fewer workplaces*"?

"No-one with the slightest industrial experience would ever claim to have noticed the existence of such a 'law', nor is there any foundation for it in any science. Mechanization and automation are introduced to increase the productivity of labour, i.e. the worker/output ratio, and their effect on the capital/output ratio may just as well be negative as it may be positive. Countless examples can be quoted where advances in technology eliminate workplaces at the cost of an additional input of capital without affecting the volume of output. It is therefore quite untrue to assert that a given amount of capital invariably and necessarily produces the biggest total output when it is concentrated on the smallest number of workplaces."

This is unusual. It is Schumacher arguing about concepts in economics, using the territory and language of the enemy, so to speak.

"The greatest weakness of the argument, however, lies in taking 'capital' - and even 'wages goods' - as 'given quantities' in an under-employed economy. Here again, the static outlook inevitably leads to erroneous conclusions. The central concern of development policy, as I have argued already, must be the creation of work opportunities for those who, being unemployed, are consumers - on however miserable a level - without contributing anything to the fund of either 'wages goods' or 'capital'. Employment is the very precondition of everything else. The output of an idle man is nil, whereas the output of even a poorly equipped man can be a positive contribution, and this contribution can be to 'capital' as well as to 'wages goods'. The distinction between those two is by no means as definite as the econometricians are inclined to think, because the definition of 'capital' itself depends decisively on the level of technology employed."

He then quotes two examples. The first is about what Schumacher calls *"the recent tendency (fostered by the policy of most African, Asian and Latin American governments of having oil refineries in their own territories, however small their*

markets) for international firms to design small petroleum refineries with low capital investment per unit of output and a low total capacity."

The second example relates to ammonia packaging production, also recently designed for small markets. In fact, people in the 85 per cent need something far simpler:

"*What the poor need most of all is simple things - budding materials, clothing, household goods, agricultural implements - and a better return for their agricultural products. They also most urgently need in many places: trees, water, and crop storage facilities. Most agricultural populations would be helped immensely if they could themselves do the first stages of processing their products. All these are ideal fields for intermediate technology."*

Those products - like mini oil refineries - are not normally an urgent need of the poor, says Schumacher:

"It is too often assumed that the achievement of western science, pure and applied, lies mainly in the apparatus and machinery that have been developed from it, and that a rejection of the apparatus and machinery would be tantamount to a rejection of science. This is an excessively superficial view. The real achievement lies in the accumulation of precise knowledge, and this knowledge can be applied in a great variety of ways, of which the current application in modern industry is only one."

The idea of intermediate technology does not imply simply a 'going back' in history to methods, says Schumacher. But he also needs to put the econometricians in their place:

"The output of an idle man is nil, whereas the output of even a poorly equipped man can be a positive contribution, and this contribution can be to 'capital" as well as to 'wages goods'. The distinction between those two is by no means as definite as the econometricians are inclined to think, because the definition of 'capital' itself depends decisively on the level of technology employed."

Schumacher then looks at some of the arguments against intermediate technology:

"It is argued that all this might be quite promising if it were not for a notorious shortage of entrepreneurial ability in the under-developed countries. This scarce resource should therefore be utilized in the most concentrated way, in places where it has the best chances of success and should be endowed with the finest capital equipment the world can offer. Industry, it is thus argued, should be established in or near the big cities, in large integrated units, and on the highest possible level of capitalization per workplace. The argument hinges on the assumption that 'entrepreneurial ability' is a fixed and given quantity, and thus again

betrays a purely static point of view. It is, of course, neither fixed nor given, being largely a function of the technology to be employed. Men quite incapable of acting as entrepreneurs on the level of modern technology may nonetheless be fully capable of making a success of a small-scale enterprise set up on the basis of intermediate technology - for reasons already explained above. In fact, it seems to me, that the apparent shortage of entrepreneurs in many developing countries today is precisely the result of the 'negative demonstration effect' of a sophisticated technology infiltrated into an unsophisticated environment. The introduction of an appropriate, intermediate technology would not be likely to founder on any shortage of entrepreneurial ability. Nor would it diminish the supply of entrepreneurs for enterprises in the modem sector; on the contrary, by spreading familiarity with systematic, technical modes of production over the entire population it would undoubtedly help to increase the supply of the required talent."

The catalogue issued by the European or United States exporters of machinery and the institutional arrangements for dispensing aid are generally such that *"there is an insurmountable bias in favour of large-scale projects on the level of the most modern technology,*" says Schumacher:

"If we could turn official and popular interest away from the grandiose projects and to the real needs of the poor, the battle could be won. A study of intermediate technologies as they exist today already would disclose that there is enough knowledge and experience to set everybody to work, and where there are gaps, new design studies could be made very quickly..."

The next expert Schumacher quotes with approval is the Indian economist Professor Dhananjay Ramchandra Gadgil, who he describes as 'director of the Gokhale Institute of Politics and Economics at Puna - though he had actually left Gokhale in 1933. Gadgil was later vice-chair of the Indian Planning Commission and the author of two of their five-year plans, so he wasn't an obvious ally.

Even so, he quotes Gadgil on 'appropriate technology' and the three possible approaches he suggests in his book, *Appropriate Technologies for Indian Industry* (SIET Institute, Hyderabad, India, 1964). There you find the key quotation:

"The advancement of advanced technology in every field is being adequately pursued in the developed countries; the special adaptations and adjustments required in India are not and are not likely to be given attention in any other country. They must, therefore, obtain the highest priority in our plans. Intermediate technology should become a national concern and not, as at present, a neglected field assigned to a small number of specialists, set apart."

Finally, Schumacher summarizes the chapter like this:

1. The 'dual economy' in developing countries will remain for the foreseeable future.

2. If the non-modern sector is not made the object of special development efforts, it will continue to disintegrate, leading to mass unemployment and mass migration into the cities.

3. The poor can be helped to help themselves, but only by making available to them a technology that recognizes the economic boundaries and limitations of poverty - an inter- mediate technology.

4. Action programs, both national and supranational ones, are needed to develop intermediate technologies.

What happened next?

As we know, Schumacher's report inspired enough people in London to launch the Intermediate Technology Development Group (ITDG), which began life 1965 (it changed its name to Practical Action in 2005, by which time 'IT' had come to mean something quite else...

Within a year or so, they had given up being technology consultants and were getting their hands dirty developing the technology.

Former ITDG chair George McRobie said in the 25th anniversary edition of *Small is Beautiful* (Hartley & Marks, 1999) that there "*now dozens of appropriate technology organizations, ranging from technical research and development teams to information networking groups...*

"The growth of these groups and other voluntary bodies led Intermediate Technology to decentralize its work by setting up country offices with local staff involved in the following activities: Bangladesh (agro-processing, textiles), Kenya (transport, stoves, building materials, animal husbandry), Peru (agro-processing, mining, building materials, micro-hydro, Nepal (micro-hydro), Sri Lanka (rural workshops, transport, stoves, agro-processing), Sudan (food security) and Zimbabwe (transport, mining, agro-processing, building materials)."

George McRobie adds: *"We used the term 'intermediate' to indicate that, in terms of cost per workplace, the technology appropriate to a poor country would be somewhere between the almost nil cost of a primitive hand tool, and the £40,0000-cost of a combine harvester. Thus if a developing country insisted on technologies that needed £40,0000 for each new workplace, obviously, being short of capital, relatively few jobs could be created. But with a technology that cost £500, the country could create 80 times as many jobs. The best engineering talent available, we argued, should be engaged in the task of creating low-cost technologies: tools and equipment that could be owned and controlled by the rural and urban poor with which they could work themselves out of poverty."*

But Schumacher also explains very clearly in this chapter that similar issues afflict the developed world too - which may be why Glasgow came to be the scene of a related objective from the early 1980s - building what they called *social enterprises.*

They meant an enterprise that was designed both to meet local needs and to make a profit that is designed to employ local people - using business as method of attempting to tackle deprivation. The first social enterprise was probably the first co-op in Rochdale, in the 1840s, but in our own generation, the idea emerged at Strathclyde Community Business, in the deprived outlying estates of Glasgow, Easterhouse and Crownhill.

The problem was that it simply wasn't attractive for business to set up effectively in some of these places. Yet, even in the most impoverished inner city areas, there were still needs which could be met as the basis for a business that might employ local people. Imagine you set up a business to meet local needs, whether it was for food or laundry or something more fundamental, and ran it – not to make a profit – but to provide local people with an income.

The first social enterprise in this wave was in 1978, a community laundry, and the movement spread out from there. A quarter of a century since the first UK social enterprises emerged around Glasgow, the social enterprise sector has developed enormously. Not-for-profit companies of various kinds, from mutuals to ordinary community interest companies, were increasingly recognized in law. As much as £4 billion in public services were being delivered by social enterprises, just in health and social care, but nobody really knew because of the variety of ways in which social enterprises were being defined.

Social enterprises don't have to involve relationships. There are now huge social enterprises, like Welsh Water or Divine Chocolate. But they tend to have a more human

face, perhaps because they are measuring their success more broadly than large, conventional companies do – and their local links are important to them.

Since social enterprises began to emerge in the 1980s, that has been a feature of their success. The role they are playing in the national economy is growing every year, accounting now for a combined turnover of £24 billion across the UK alone.

One of the corners of the world where social enterprise had really taken off to solve otherwise intractable problems has been in Quebec. As so often, their emergence there in the health and social care sector was a response to economic catastrophe, in this case in the run-up to their independence referendum in 1995: manufacturing industry was closing, the economy was restructuring and the ubiquitous economic centralization was bypassing peripheral areas everywhere, and all these issues were taking their toll.

But Quebec has taken a rather different turning from other places, adopting a set of ideas the French call *economie solidaire*, to create the lending institutions that can build up a co-operative network of small businesses; encourage small-scale enterprise and use some of the lessons of development economics, rather than traditional economic policy.

The watershed was a summit meeting of the different sectors held in 1996, which led to the creation of a series of institutions designed to provide the finance in hard-to-reach neighborhoods, and a collection of co-op networks known as the Chantier de l'economie sociale, which has driven the development of co-operative enterprise ever since.

Quebec's trade unions had laid the foundations for this success fifteen years before when they decided to take a more pro-active stance, setting up a series of revolving investment funds to develop the co-operative enterprise sector. One of the major problem for social enterprises is that conventional banks find it very hard to assess their credit-worthiness.

This bold shift in approach delivered results: within five years Quebec's 'social economy' included over 11,200 enterprises. Part of what made Quebec's ultra-local economics policies successful was the concentration on two kinds of co-ops in particular: small-scale care co-ops which could provide sustainable jobs and low-cost social care, and childcare co-ops (nearly a thousand of those had been launched by 2002) to provide low cost nursery schooling. By 2008, the social care co-ops employed over 8,000 people, and the childcare co-ops over 40,000 people.

In the UK, the sector has also been changing, thanks partly to the emergence of the new national funders and lenders, from UnLtd to Big, both of which concentrate on *social*

entrepreneurs, who want to set up a social enterprise, rather than just getting into business to get rich.

In the USA, the work of the Democracy Collaborative on *community wealth building*, starting in Cleveland, Ohio, has added to this sophistication, by setting up small local co-ops - training and employing locals - and clustering them around local institutions like hospitals, which will carry on spending no matter how impoverished the neighborhood gets.

And their first co-op was a laundry service, just as it was in Glasgow.

All these have been part of Schumacher's inspiration in the developed world.

Questions for Discussion…

1. Given that the founder of the Democracy Collaborative, Gar Alperowicz, visited Tanzania in the mid-1970s to learn more about the Ujamma model and the co-operative villages being developed by the government of Julius Nyerere - how can you say that the inspiration comes from Schumacher?

2. More people ought to mean more paid work and more demand, but for some reason that doesn't work in the global south. Why not?

3. Who is right - Waldorf or Schumacher - about the regularity and predictability of economic growth in the global south?

III.3/Development aid

Chapter 13/Two million villages

"The results of the second development decade will be no better than those of the first unless there is a conscious and determined shift of emphasis from foods to people. Indeed, without such a shift the results of aid will become increasingly destructive."

– E. F. Schumacher, the opening lines of this chapter.

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"Schumacher's favorite economic system was the Gandhian decentralized model. In India today, the rural village economy is still very strong, especially in agriculture and crafts, despite Bombay, Calcutta, and New Delhi, where citizens prefer the globalized, international economy. Sixty to 70 percent of Indian villagers are practicing their crafts and small-scale agriculture without chemicals, fertilizers, and genetically modified and engineered patent seeds, and so on."

– Satish Kumar, editor of *Resurgence*, in the 25th anniversary edition (Hartley & Marks, 1999).

"Our growth economy is based on greed and envy stimulated by aggressive advertising to levels beyond that provided by original sin. Our modern alchemists, the economists, promise to transmute the sinful dross of private greed into the virtuous gold of public riches by the catalyst of the market, guided by their invisible hand. But even when the invisible hand produces wealth, private greed ultimately finds a way to defeat it, by concentrating increasing riches in visible but fewer hands. To meet the still unmet needs of the poor we are urged to give still freer rein to greed by allowing the consumption of natural and social capital and falsely counting it as income. Greed thus takes from the future as well as the present."

– Herman Daly, former World Bank senior economist and co-author of *For the Common Good*, from the 25th anniversary edition (Hartley & Marks, 1999).

This chapter had been published originally in a 1970 book in London called *Britain and the World in the Seventies: A Collection of Fabian Essays.* It had been published by George Cunningham, then a Labour MP.

The Fabian Society is a well-known leftist thinktank, founded in the 1890s by the husband and wife team of Sidney and Beatrice Webb.

What this chapter says...

Schumacher begins the chapter by distinguishing between development for people and development of goods, which "do not raise so many questions" about development. This is so particularly when econometricians and statisticians deal with them:

"Goods even cease to be anything identifiable, and become GNP, imports, exports, savings, investment, infrastructure, or what not. Impressive models can be built out of these abstractions, and it is a rarity for them to leave any room for actual people. Of course, 'populations' may figure in them, but as nothing more than a mere quantity to be used as a divisor after the dividend, i.e. the quantity of available goods, has been determined...."

People on the other hand have feelings, and pride, so that we have to leap three gulfs - between village people and city people, between the rich and the poor and between educated and uneducated:

"The first problem of development aid is how to bridge these three gulfs. A great effort of imagination, study, and compassion is needed to do so. The methods of production, the patterns of consumption, the systems of ideas and of values that suit relatively affluent and educated city people are unlikely to suit poor, semi-illiterate peasants. Poor peasants cannot suddenly acquire the outlook and habits of sophisticated city people. If the people cannot adapt themselves to the methods, then the methods must be adapted to the people. This is the whole crux of the matter," says Schumacher:

"*If the nature of change is such that nothing is left for the fathers to teach their sons, or for the sons to accept from their fathers, family life collapses. The life, work, and happiness of all societies depend on certain 'psychological structures' which are infinitely precious and highly vulnerable. Social cohesion, co-operation, mutual respect and above all self-respect, courage in the face of adversity, and the ability to bear hardship - all this and much else disintegrates and disappears when these 'psychological structures' are gravely damaged. A man is destroyed by the inner conviction of uselessness.*

"No amount of economic growth can compensate for such losses - though this may be an idle reflection, since economic growth is normally inhibited by them."

Schumacher manages a good swipe at the point at his old profession:

"None of these awesome problems figure noticeably in the cosy theories of most of our development economists. The failure of the first development decade is attributed simply to an insufficiency of aid appropriations or, worse still, to certain alleged defects inherent in the societies and populations of the developing countries. A study of the current literature could lead one to suppose that the decisive question was whether aid was dispensed multilaterally or bilaterally, or that an improvement in the terms of trade for primary commodities, a removal of trade barriers, guarantees for private investors, or the effective introduction of birth control, were the only things that really mattered."

He then gives an example of the manager of an African textile mill he met, who showed him around, boasting that his factory was at the highest technological level anywhere in the world. Why?

" *'Because.' he said, 'African labour, unused to industrial work, would make mistakes, whereas automated machinery does not make mistakes. The quality standards demanded today are such that my product must be perfect to be able to find a market. Surely, my task is to eliminate the human factor.'*"

Worse, the equipment had to be imported - which meant that all higher management and maintenance personnel had to be imported too. Even the raw materials had to be imported because the locally grown cotton was too short for top quality yarn, and the standards demanded the use of a high percentage of man-made fibres. "*This is not an untypical case,*" he says.

It isn't really about money, in any case, says Schumacher: this is a key tenet in the new economics back to John Ruskin.

"*The oil producing countries of the Middle East, Libya, and Venezuela. Their tax and royalty income from the oil companies in 1968 reached £2,349 million, or roughly*

£50 per head of their populations. Is this input of funds producing healthy and stable societies, contented populations, the progressive elimination of rural poverty, a flourishing agriculture, and widespread industrialization? In spite of some very limited successes, the answer is certainly no. Money alone does not do the trick. The quantitative aspect is quite secondary to the qualitative aspect. If the policy is wrong, money will not make it right; and if the policy is right, money may not, in fact, present an unduly difficult problem."

It is all about quality not quantity, he says:

"They know how to do a few big things in big towns; but do they know how to do thousands of small things in rural areas? They know how to do things with lots of capital: but do they know how to do them with lots of labour -- initially untrained labour at that? On the whole, they do not know; but there are many experienced people who do know, each of them in their own limited field of experience. In other words, the necessary knowledge, by and large, exists; but it does not exist in an organized, readily accessible form. It is scattered, unsystematic, unorganized and no doubt also incomplete."

You know the old story about giving someone a fish to feed them for a day, or teaching them to fish and, by doing so, feeding them for the rest of their life? It's the same principle here.

The UK was then providing about £250 million a year in aid, which seems like a tiny amount compared to these days. Schumacher suggests diverting one per cent of that to organizing and mobilizing those 'gifts of knowledge'. "*It might also make the other ninety-nine per cent immensely more fruitful*," he says.

But how to do it?

"It is quite wrong to assume that poor people are generally unwilling to change; but the proposed change must stand in some organic relationship to what they are doing already, and they are rightly suspicious of, and resistant to, radical changes proposed by town-based and office-bound innovators who approach them in the spirit of: 'You just get out of my way and I shall show you how useless you are and how splendidly the job can be done with a lot of foreign money and outlandish equipment'."

We no longer have the knowledge we need, but they have it, he says. He suggests a series of teams, made up of administrators, business people and communicators, working together, rather than separately, at every level in both donor and recipient countries.

But then he has a flash of inspiration and hope:

"If the rural people of the developing countries are helped to help themselves, I have no doubt that a genuine development will ensue, without vast shanty towns and misery belts around every big city and without the cruel frustrations of bloody revolution. The task is formidable indeed, but the resources that are waiting to be mobilized are also formidable."

Economic development is something much wider and deeper than economics, certainly than econometrics, says Schumacher. "*Its roots lie outside the economic sphere, in education, organization, discipline and, beyond that, in political independence and a national consciousness of self-reliance*."

It can only work if...

"... it is carried forward as a broad, popular 'movement of reconstruction' with primary emphasis on the full utilization of the drive, enthusiasm, intelligence, and labour power of everyone. Success cannot be obtained by some form of magic produced by scientists, technicians, or economic planners. It can come only through a process of growth involving the education, organization, and discipline of the whole population. Anything less than this must end in failure."

What happened next?

First of all, let's look at Schumacher's calculation about the UK aid budget in 1972 and what one percent of it would be worth. Deploying one per cent of that - about £2.5m a year "*would, I am certain, change all prospects and open a new and much more hopeful era in the history of 'development'."*

These days - half a century later - that sum would probably fail to cover the costs of those senior civil servants responsible for giving out the money.

UK aid reached its target of 0.7 per cent of GDP, only in 2020/1 to slip back to 0.5 per cent, though - since 1970 - the amount of money that goes on bilateral aid has increased enormously. The full UK aid budget now tips £11.4 billion - still, one per cent of that comes to £114m.

The year 1970 marked the moment when the 0.7 per cent of GNP (in those days) was set by the UN. The UK only achieved it by 2013 and, two years later, they set out legislation that would have made it compulsory for all UK governments. But it wasn't to be.

Even so. if Schumacher was right about the quantities being relatively unimportant, maybe that doesn't matter.

But then, take a look at the official objectives of UK aid - none of them seem unimportant exactly, but even so, they are not what he hoped for:

"*1. Deliver honest and reliable investment, building on the UK's financial expertise and the strengths of the City of London, and delivering the prime minister's vision for the clean green initiative, supporting partner countries to grow their economies sustainably.*
2, Provide women and girls with the freedom they need to succeed, unlocking their future potential, educating girls, supporting their empowerment and protecting them against violence.
3, Provide life-saving humanitarian assistance and work to prevent the worst forms of human suffering, prioritizing our funding and being a global leader in driving a more effective international response to humanitarian crises.

4, Take forward our work on climate change, nature and global health..."

The UK still now gives the fourth largest amount in aid in the world, behind the USA, Germany and Japan:

United States (£30.8bn)
Germany (£23.4bn)
Japan (£12.8bn)

There is another problem with conventional aid, which is that many countries in the global south increasingly feel that - whether it comes bilaterally governments or from big international agencies - aid is an outrageous interference in the internal life of their nations.

This isn't a good sign. Just as the UK was painfully managing to donate 0.7 per cent of their GDP, a leaked report by India's Intelligence Bureau (IB) accused NGOs of reducing India's GDP by up to 3 per cent a year by campaigning against projects that the Indian government argued to be integral for economic growth.

NGOs, including Greenpeace and Amnesty, were accused of "*serving as tools for foreign policy interests of western governments*" by sponsoring campaigns to protect the environment or support human rights. These 'anti-development' activities included campaigns against climate change, workers' rights, and even the disposal of electronic waste by India's huge IT sector.

For a while, all the funds coming into India from the Ford Foundation were scrutinized by the Indian home ministry. There have been similar crackdowns in Egypt, Uganda, Ethiopia, Russia and China.

Increasingly, that may mean a bigger role for the local homegrown NGOs - like the women's fund Tewa in Nepal, which has built up a network of over 5,000 individual Nepali donors, many of them ordinary women who themselves have benefited from Tewa's grants in the past. On principle, Tewa only used resources it had raised locally for its grant-making as way of demonstrating the power of local assets and local buy-in.

It may be that Schumacher's alternative might fit better into this kind of pattern.

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The truth is that the combination of over-filled cities and surrounding poverty-stricken countryside was a big problem in the UK and other western cities a century ago. In 1899, a parliamentary shorthand writer called Ebenezer Howard published a book called *Garden Cities of Tomorrow*, with a potential solution.

The 'garden cities' idea was supposed to be about re-balancing cities and rural areas by building new communities. Letchworth and Welwyn were followed by three programs of new towns in the UK, which ended in 1976 while Schumacher was in the USA.

In the USA, most of the decentralization of population has had to take place in an unplanned way and via the free market. That has had some disadvantages. The *Washington Post* reporter Joel Garreau wrote about the results in his 1991 bestseller *Edge City*, which found that some of the fledgling edge cities could not be found on any maps.

Once again. the American approach will only involve those who can afford to move. It provides precious few possible solutions for the problem identified by Schumacher.

Questions for discussion.

1. How should the global development community go about tackling the increasing scepticism about aid from both authoritarian governments and western voters too?

2. Who needs to act to make Schumacher's vision of development a reality?

3. How can we persuade the rural people of the developing countries to help themselves?

III.4/Unemployment and productivity

Chapter 14. The Problem of Unemployment in India

"When considering productivity in any society it is not sufficient to take account only of those who are employed or self-employed and to leave out of the reckoning all those who are unemployed and whose productivity therefore is zero."

– E. F. Schumacher, the opening lines of this chapter.

"Colonialism, development, and now 'free trade' and globalization have meant that the best land in the South is used to grow crops for northern markets. Shifting the emphasis to diversified production for local consumption would not only improve the economies of rural communities, but also lessen the gap between rich and poor while eliminating much of the hunger that is now so endemic in the so-called 'developing' parts of the world."

– Helena Norberg-Hodge, founding director of Local Futures, from the 25th anniversary edition (Hartley & Marks, 1999).

"Schumacher's opportunity to address this task came in 1962 when India's then prime minister Nehru, having read 'Buddhist Economics', asked him to advise on rural development in his country. It was then that Fritz came up with his concept of an intermediate technology."

– George McRobie, author of *Small is possible,* from the 25th anniversary edition (Hartley & Marks, 1999).

This chapter first saw the light of day in a talk Schumacher gave to the Indian Development Group in London in 1971.

What this chapter says...

Schumacher starts by setting out his stall on the evils of unemployment:

"When speaking of unemployment I mean the non-utillization or gross under-utilization of available labour. We may think of a productivity scale that extends from zero, i.e. the productivity of a totally unemployed person, to 100 per cent, i.e. the productivity of a fully

and most effectively occupied person. The crucial question for any poor society is how to move up on this scale. When considering productivity in any society it is not sufficient to take account only of those who are employed or self-employed and to leave out of the reckoning all those who are unemployed and whose productivity therefore is zero."

The chapter is then structured on the basis of the four elements that he believes India will need to make his plan possible:

1. Motivation
2. Some know-how
3. Some capital
4. An outlet.

These are four essential conditions for getting more work done anywhere - which is how you can solve a problem of unemployment. But in India, we are not talking about a few people - we are talking about hundreds of millions.

1/2 Motivation and know-how

Worse, these are peasants who are - generally speaking - regarded with disdain by the small educated elite, he says:

"I think it was the Chinese, before World War II, who calculated that it took the work of thirty peasants to keep one man or woman at a university. If that person at the university took a five-year course, by the time he had finished he would have consumed 150 peasant-work-years. How can this be justified? Who has the right to appropriate 150 years of peasant work to keep one person at university for five years, and what do the peasants get back for it? These questions lead us to the parting of the ways: is education to be a 'passport to privilege' or is it something which people take upon themselves."

Schumacher quotes Leo Tolstoy who was talking about the same problem when he wrote: "*I sit on a man's back, choking him, and making him carry me, and yet assure myself and others that I am very sorry for him and wish to ease his lot by any means possible, except getting off his back*."

Somehow, says Schumacher, we need to create an ideology which makes educated people feel they have taken upon themselves an obligation and have not simply acquired a 'passport to privilege'?

"This ideology is of course well supported by all the higher teachings of mankind. As a Christian, I may be permitted to quote from St Luke: 'Much will be expected of the man to

whom much has been given. More will be asked of him because he was entrusted with more.' It is you might well say, an elementary matter of justice."

As he explains: "*The whole matter can be summed up in the question: what is education for?*"

All educated people need to see themselves as servants of the nation - which "*means after all as servants of the common people*" - because that is the only way to generate enough leadership and communication of know-how to solve the problem of unemployment in the half million villages of India. It is. he says, *"a matter of 500 million people."* If you need at least two people to look after a hundred, that means we somehow need to recruit 10 million helpers - about the whole educated population of India when he was writing:

"Now you may say this is impossible, but if it is, it is not so because of any laws of the universe, but because of a certain inbred, ingrained selfishness on the part of the people who are quite prepared to receive and not prepared to give. As a matter of fact, there is evidence that this problem is not insoluble; but it can be solved only at the political level."

3 . Capital

What proportion of national income - in those days about £15 billion - might be available for our capital fund for job creation?

"I would say, without going into any details, you are lucky if you can make it five per cent," says Schumacher. *"Therefore, if you have five per cent of £15,000 million for ten years you have a total of £7,500 million for the establishment of jobs. If you want fifty million jobs in those ten years, you can afford to spend an average of £150 per workplace. At that level of capital investment per workplace, in other words, you could afford to set up five million workplaces a year. Let us assume, however, that you say: 'No. £150 is too mean; it will not buy more than a set of tools; we want £1,500 per workplace', then you cannot have five million new jobs a year but only half a million. And if you say: 'Only the best is good enough; we want all to be little Americans right away, and that means £5,000 per workplace', then you cannot have half a million new jobs a year, let alone five million, but only about 170,000."*

In couple of deft moves, he also defends himself against any number-crunchers who say that he has simplified his calculation too much - leaving out any increase in national income, partly as a result of the fund's work. That is true, he says, but there will also be an increase in the population, which would cancel it out.

"The more sophisticated the technology, the greater in general will be the foregoing requirements. When the simple things of life, which is all I am concerned with, are produced by ever more sophisticated processes, then the need to meet [the] requirements moves ever more beyond the capacity of any poor society. As far as simple products are concerned - food, clothing, shelter and culture - the greatest danger is that people should automatically assume that only the 1963 model is relevant and not the 1903 model; because the 1963 way of doing things is inaccessible to the poor, as it presupposes great wealth. Now, without wishing to be rude to my academic friends, I should say that this point is almost universally overlooked by them. The question of how much you can afford for each workplace when you need millions of them is hardly ever raised. To fulfil the requirements that have arisen over the last fifty or sixty years in fact involves a quantum jump, Everything was quite continuous in human history till about the beginning of this century; but in the last half-century there has been a quantum jump, the sort of jump as with the capitalization of Ford, from $30,000 to $6,000 million,

He speaks of Ford because that was the example used by John Kenneth Galbraith, which Schumacher quotes approvingly, about how - at the beginning of an enterprise (1903 in the case of Ford) - the future is 'near at hand' because everything is simple:

"The choice of technology is the most important of all choices. It is a strange fact that some people say that there are no technological choices. I read an article by a well-known economist from the USA who asserts that there is only one way of producing any particular commodity: the way of 1971. Had these commodities never been produced before? The basic things of life have been needed and produced since Adam left Paradise. He says that the only machinery that can be procured is the very latest. Now that is a different point and it may well be that the only machinery that can be procured easily is the latest. It is true that at any one time there is only one kind of machinery that tends to dominate the market and this creates the impression as if we had no choice and as if the amount of capital in a society determined the amount of employment it could have. Of course this is absurd. The author whom I am quoting also knows that it is absurd, and he then corrects himself and points to examples of Japan, Korea, Taiwan, etc., where people achieve a high level of employment and production with very modest capital equipment."

There are four stages for new thinking, he says - including ideas like the importance of technological choice:

"The first stage has been laughter and scornful rejection of anyone who talked about this. The second stage has now been reached and people give lip service to it, but no action follows and the drift continues. The third stage would be active work in the mobilization of

the knowledge of this technological choice; and the fourth stage will then be the practical application."

There are also the chance to leap to the fourth stage, he says:

"If there is a political ideology that sees development as being about people, then one can immediately employ the ingenuity of hundreds of millions of people and go straight to the fourth stage. There are indeed some countries which are going straight to the fourth stage..."

Then he also reveals his frustration that, after six years, ITDG was still virtually the only organization doing this work:

"It is not good enough that in this crucial matter one should be satisfied with one little group of private enthusiasts doing this work. There ought to be dozens of solid, well-endowed organizations in the world doing it. The task is so great that even some overlapping would not matter. In any case, I should hope that this work will be taken up on a really substantial scale in India, and I am delighted to see that already some beginnings have been made."

4. *Outlets*

"There is, of course, a very real problem here, because poverty means that markets are small and there is very little free purchasing," says Schumacher.

This is, after all, why development projects are advised to export. why the "*extraordinary preoccupation with exports,"* he asks, and answers like this:

"*It is really a hangover of the economic thinking of the days of colonialism. Of course, the metropolitan power moved into a territory, not because it was particularly interested in the local population, but in order to open up resources needed for its own industry. One moved into Tanzania for sisal, into Zambia for copper, etc., and into some other place for trade. The whole thinking was shaped by these interests*.

He suggests getting new buying power into a rural community via some kind of outside funded public works programme - and then making full use of the 'multiplier effect':

"The people employed on the public works want to spend their wages on 'wages goods', that is to say, consumers' goods of all kinds. If these wages goods can be locally produced, the

new purchasing power made available through the public works programme does not seep away but goes on circulating in local market and the total employment effect could be prodigious. Public works are very desirable and can do a great deal of good; but if they are not backed up by the indigenous production of additional wages goods, the additional purchasing power will flow into imports and the country may experience serious foreign exchange difficulties."

Even so, it is misleading to deduce that exports are specially important for development, he says:

"After all, for mankind as a whole there are no exports. We did not start development by obtaining foreign exchange from Mars or from the moon. Mankind is a closed society. India is quite big enough to be a relatively closed society in that sense - a society in which the able-bodied people work and produce what they need."

There then follows what must be the angriest section of the whole book:

"One must not be blocked by being too damn clever about it. We are always having all sorts of clever ideas about optimizing something before it even exists. I think the stupid man who says 'something is better than nothing' is much more intelligent than the clever chap who will not touch anything unless it is optimal. What is stopping us? Theories, planning. I have come across planners at the Planning Commission who have convinced themselves that even within fifteen years it is not possible to put the willing labour power of India to work. If they say it is not possible in fifteen months, I accept that, because it takes time to get around. But to throw up the sponge and say it is not possible to do the most elementary thing within fifteen years, this is just a sort of degeneracy of the intellect. What is the argument behind it? Oh! the argument is very clever, a splendid piece of model building. They have ascertained that in order to put a man to work you need on average so much electricity, so much cement, and so much steel. This is absurd. I should like to remind you that a hundred years ago electricity, cement and steel did not even exist in any significant quantity at all. (I should like to remind you that the Taj Mahal was built without electricity, cement and steel and that all the cathedrals of Europe were built without them. It is a fixation in the mind, that unless you can have the latest you can't do anything at all, and this is the thing that has to be overcome.) You may say, again, this is not an economic problem, but basically a political problem. It is basically a problem of compassion with the ordinary people of the world. It is basically a problem, not of conscripting the ordinary people, but of getting a kind of voluntary conscription of the educated."

No country has developed itself without putting its people to work, says Schumacher:

"But I ask: what sort of an education is this if it prevents us from thinking of things ready to be done immediately? What makes us think we need electricity, cement, and steel before we can do anything at all? The really helpful things will not be done from the centre; they cannot be done by big organizations; but they can be done by the people themselves..."

And finally, he rounds off the section by saying that: *"If we can recover the sense that it is the most natural thing for every person born into this world to use his hands in a productive way and that it is not beyond the wit of man to make this possible, then I think the problem of unemployment will disappear and we shall soon be asking ourselves how we can get all the work done that needs to be done.."*

What happened next?

Why are we still at Schumacher's second stage - where a few people pay lip service to the idea of intermediate technology?

Judging by what he wrote in this chapter, Schumacher believed that India would act on his recommendation, but he could not have imagined what Nehru's daughter Indira Gandhi would do in office.

Frustrated by what seemed to them India's intractable problems, Mrs Gandhi and her son Sanjay declared a state of emergency which allowed them to suspend basic liberties for 21 months between 1975-7 - to organize forcible sterilization for the poor - all described in Salman Rushdie's magically realistic novel *Midnight's Children.*

On the other hand, the Peace Corps is an example of graduates who pay back by taking upon themselves a leadership role in a foreign country. Or on a far smaller scale, VSO (Voluntary Service Overseas) in the UK.

AmeriCorps is a more recent example. and nothing like that has emerged in the UK.

The problem here is that these projects face a policy dilemma - either you only include those donors who can afford to spend two years away (in the Peace Corps, for example); or you make volunteering a paid position, as it has been traditionally with AmeriCorps. In which case, you are not really volunteering...

One solution that has emerged since 1973 has been *co-production*, thanks to people like the Washington lawyer Edgar Cahn and the economics Nobel prizewinner Elinor Ostrom. Both of then have, in different ways, echoing the comment by Marcel Mauss that *"charity wounds*".

Co-production - a phrase coined by Ostrom - means that public services are delivered by both professionals and users. It makes services and neighborhoods far more effective agents of change.

Cahn's time banks or time credit systems also pay people in credits for the efforts they put in, building their local community, and they are exchangeable for whatever happens to be available - anything from theatre tickets or gym entry or refurbished computers.

Time banks, and other new kinds of currency too, can linkup unused assets with unused people. Two periods have demonstrated the huge potential of new currencies - first during the recession in the early 1990s, with Local Exchange and Trading Systems (LETS) in Canada and the UK, followed by the growth in printed notes after the success of Ithaca hours.

Then a decade later, after the banking crisis, more sophisticated currencies - based on the experience of BerkShares in Great Barrington, Massachusetts - began to spread.

Local currencies find it hard to sustain local interest without investment in constant marketing. There also appears to be major transaction costs for both businesses and customers, a challenge that may be overcome by the introduction of electronic payment options as were developed by Berk shares and the Bristol pound in Bristol.

Initial evaluations of the *Eco-Pesa* in Kenya, a local currency with dual environmental and economic aims, show it has been successful in strengthening the local economy, and effecting behavioral change.

Brazil is probably the country where local exchange systems are now most developed, largely because the Central Bank, having filed and lost a legal action against local currencies, has turned into a supporter of these initiatives – the only central bank in the world to do so. There are now 52 community banks in Brazil, issuing and managing social currencies – treated legally as food and transport tokens – but also organizing micro credit loans in both local and national currencies.

The community banks are often based in poorer districts and offer conventional loans at only 2 per cent APR or a social currency loan at no interest (for small loans). People can access these loans, bypassing credit protection agencies if neighbors vouch for them. The loans inject life into the social currency exchange system by creating demand for the social currency that other systems lack.

In 2003 the Banco Palmas Institute, the first community bank, created the Rede Brasiliera de Bancos Comunitarios, of which all community banks are members. There are worries among economists that social currencies might create inflation. In order to prevent inflation, social currencies need to be based in places where the economy is slow.

Local exchange currencies are largely experimental. Only in Latin America are they approaching the mainstream, though there are patches of early success elsewhere. Even in Argentina, the development of currencies was marked by a huge explosion and a huge collapse. The involvement of the Central Bank in Brazil may mark a whole new departure – with local currencies accepted as a public policy instrument to tackle poverty.

In this chapter, Schumacher mentions the importance of liquidity. His 'multiplier effect' was a Keynesian idea - Schumacherian new economists have translated that to look at why some places find it so hard to catch up.

Local money flows analysis shows that some high streets may have the same amount of money coming in, but in one of them it gets spent in the supermarket and then it leaves the area straight away. But in another place, the income gets passed on from local business to local business, over and over again. It is the same money, but every time it changes hands, it creates local wealth.

It is not the total amount of money that is important here. It is the diverse ecosystem of businesses, and maybe even the diversity of people that matters – because they can keep money circulating.

The original research by the New Economics Foundation on the local multiplier effect showed that every £10 spent with the organic vegetable box scheme was worth £25 for the local area, compared with just £14 when the same amount was spent in a supermarket.

Another study in Chicago showed that a dollar spent at a local restaurant yielded a 25 per cent greater economic multiplier effect than at a chain. 🎬

An LM3 (local money 3) study of the Brixton pound shows that a pound spent locally is worth £1.73 for the local economy. The implications of this for the local economy are pretty profound.

It means that sustainable economic success requires a diverse range of locally-owned high streets and town centre businesses which trade with each other. Outside investment is important, but only when it supports that local business – not when it corrodes it by taking local spending away from the area.

One way to tackle this is to ensure there are local lenders in every area. In this case, the UK is uniquely disadvantaged - because it has virtually no local banks.

Microcredit, organized through groups of women primarily, originally through the Grameen bank in Bangladesh, also began in 1976, three years after the publication of *Small is Beautiful*. Grameen alone now serves more than 45m of the poorest people on earth, and has over 10m borrower-members. It is a clear example of how small is still beautiful.

Questions for Discussion...

1. Why are we still at the stage of paying lip service to the idea of intermediate technology?

2. How come, in some areas, there are many people with needs - and people able to fulfill them - but no money to bring them together?

3. How do we make sure that time credits never suffer from the reputation as 'poor people's money'?

SECTION IV – ORGANIZATION & OWNERSHIP

IV.1/Knowledge

Chapter 15. A machine to foretell the future

"The reason for including a discussion on predictability in this volume is that it represents one of the most important metaphysical - and therefore practical - problems with which we are faced. There have never been so many futurologists, planners, forecasters, and model-builders as there are today, and the most intriguing product of technological progress, the computer, seems to offer untold new possibilities."

– E. F. Schumacher, opening lines of this chapter.

"As this century draws to a close, we are living in a time when technology dominates our relationship with the domestic environment, work environment, and even nature. It has a powerful influence in most of our decision-making. So we need to question whether we are using technology just for the sake of using it."

– Professor Avi Friedman, co-founder of the Affordable Homes Program at the McGill School of Architecture, the 25th anniversary edition (Hartley & Marks, 1999).

"Like the great social thinkers that came before him - Buber, Gandhi, Kropotkin, Tagore, Tolstoy - Schumacher understood that economic renewal is tied inextricably to cultural, social, and ecological renewal. His library, housed at the E.F. Schumacher Society [now the Schumacher Center for a New Economics] *in Great Barrington, Massachusetts, reflects this understanding. The economics books are far outnumbered by books on philosophy, religious thinking of all traditions, psychology, social history, art, gardening, technology, and the environment. This integration of concerns most closely mirrors the human experience of community, and yields in Schumacher's work an economic theory profoundly moral in nature."*

– Susan Witt, Schumacher Center for the New Economics, 25th anniversary edition (1999).

This chapter was taken from a talk Schumacher gave to the first British conference on the social and economic effects of automation in Harrogate, Yorkshire, in June 1961.

As with the other sections, he starts with a broad introduction to his point of view - starting from the point of view about the missing metaphysical angle on modern life.

What this chapter says…

"The fact remains," writes Schumacher, *"that a machine to foretell the future is based on metaphysical assumptions of a very definite kind. It is based on the implicit assumption that 'the future is already here', that it exists already in a determinate form, so that it requires merely good instruments and good techniques to get it into focus and make it visible."*

He says that this is "*a most extraordinary assumption which seems to go against all direct personal experience":*

"It implies that human freedom does not exist or, in any case, that it cannot alter the predetermined course of events. We cannot shut our eyes to the fact, on which I have been insisting throughout this book. that such an assumption, like all metaphysical theses, whether explicit or implicit, has decisive practical consequences. The question is simply: is it true or is it untrue?"

Schumacher them takes a moment to think about God's creation of the universe and decides that he could not have gone for either option – making everything either predictable 0r completely random – because neither would allow any scope for human freedom of choice. Thus was also the conclusion of the 20th century philosopher Karl Popper in his celebrated 1966 essay, 'Of clouds and clocks'.

The key question for us is whether we have the wisdom to tell the difference. In fact, Schumacher says, there are at least eight categories:

1 Act Past Certain
2 Act Future Certain
3 Act Past Uncertain
4 Act Future Uncertain
5 Event Past Certain
6 Event Future Certain
7 Event Past Uncertain
8 Event Future Uncertain

"Endless confusion results from the semantic muddle in which we find ourselves today," he writes. *"As mentioned before, 'plans' are put forward which upon inspection turn out to relate to events totally outside the control of the planner. 'Forecasts' are offered which upon inspection turn out to be conditional sentences, in other words, exploratory calculations. The latter are misinterpreted as if they were forecasts or predictions. 'Estimates' are put forward which upon inspection turn out to be plans. And so on and so forth. Our academic teachers would perform a most necessary and really helpful task if they taught their students to make the distinctions discussed above and developed a terminology which fixed them in words."*

For some reason, as he says, many people these days *"seem to use their freedom only for the purpose of denying its existence:"*

"A great shout of triumph goes up whenever anybody has found some further evidence - in physiology or psychology or sociology or economics or politics - of unfreedom, some further indication that people cannot help being what they are and doing what they are doing, no matter how inhuman their actions might be."

That explains, says Schumacher, (1) the 'semantic confusion' he referred to at the start pf the chapter, and (2) it explains why he believes "we shall soon have a machine to foretell the future."

From there it is a short step to the 'underdevelopment of economics'. "Our own science," says Professor Sir Henry Phelps Brown who lectured on that subject in 1970 at his presidential address of the Royal Economic Society, "has hardly yet reached its seventeenth century."

Believing that economics is metaphysically the same as physics, Phelps Brown quoted another economist, Professor Oskar Morgenstern - the game theory pioneer - approvingly as follows:

"The decisive break which came in physics in the seventeenth century, specifically in the field of mechanics, was possible only because of previous developments in astronomy. It was backed by several millennia of systematic, scientific. astronomical observation.... Nothing of this sort has occurred in economic science. It would have been absurd in physics to have expected Kepler and Newton without Tycho - and there is no reason to hope for an easier development in economics."

Professor Phelps Brown concludes therefore that we need many, many more years of observations of behaviour: *"Until then, our mathematization is premature."*

When human freedom and responsibility barges its way into economics, it becomes metaphysically different from physics and makes human affairs largely unpredictable:

"In principle, everything which is immune to the intrusion of human freedom, like the movements of the stars, is predictable, and everything subject to this intrusion is unpredictable. Does that mean that all human actions are unpredictable? No, because most people, most of the time, make no use of their freedom and act purely mechanically. Experience shows that when we are dealing with large numbers of people many aspects of their behaviour are indeed predictable; for out of a large number, at any one time, only a tiny minority are using their power of freedom, and they often do not significantly affect the total outcome. Yet all really important innovations and changes normally start from tiny minorities of people who do use their creative freedom."

It is true, he concedes, that statistics about social phenomena *"acquire a certain steadiness and predictability from the non-use of freedom, which means that the great majority of people responds to a given situation in a way that does not alter greatly in time."*

That means there are actually four different possibilities when it comes to predicting the future:

1. ***Full predictability**, "which exists only in the absence of human freedom".*
2. ***Relative predictability,** which "exists with regard to the behaviour pattern of very large numbers of people doing 'normal' things."*
3. ***Relatively full predictability,** which covers "human actions controlled by a plan which eliminates freedom" - like a railway timetable.*
4. ***Individual decisions** by individuals which "are in principle unpredictable".*

"I suggest that for the detection of such clear, strong and persistent patterns the non-electronic human brain is normally cheaper, faster, and more reliable than its

electronic rival. Or to put it the other way round: if it is really necessary to apply such highly refined methods of mathematical analysis for the detection of a pattern that one needs an electronic computer, the pattern is too weak and too obscure to be a suitable basis for extrapolation in real life."

Long-term forecasting.
Because things change over time. long-term forecasts are even less predictable than the short-term ones, says Schumacher:

"In fact, all long-term forecasting is somewhat presumptuous and absurd, unless it is of so general a kind that it merely states the obvious."

Again, he distinguishes between forecasts and feasibility studies on the other:

"In the one case I assert that this or that will be the position in, say, twenty years' time. In the other case I merely explore the long-term effect of certain assumed tendencies. It is unfortunately true that in macro-economics feasibility studies are very rarely carried beyond the most rudimentary beginnings. People are content to rely on general forecasts which are rarely worth the paper they are written on."

"A long-term forecast, as L said, is presumptuous; but a long- term feasibility study is a piece of humble and unpretentious work which we shall neglect at our peril."

At this point, Schumacher anticipates a great deal of the very current debate about AI. It is fair to say that he is sceptical about what he calls the "electronic computer":

"It seems to me that the endless multiplication of mechanical aids in fields which require judgment more than anything else is one of the chief dynamic forces behind Parkinson's Law. Of course, an electronic computer can work out a vast number of permutations, employing varying assumptions, within a few seconds or minutes, while it might take the non electronic brain as many months to do the same job. But the point is that the non-electronic brain need never attempt to do that job. By the power of judgment it can concentrate on a few decisive parameters which are quite sufficient to outline the ranges of reasonable probability. Some people imagine that it would be possible and helpful to set up a machine for long-range forecasting into which current 'news' could be fed continuously and which, in response, would

produce continual revisions of some long-term forecasts. No doubt, this would be possible; but would it be helpful! Each item of 'news- has to be judged for its long-term relevance, and a sound judgment is generally not possible immediately. Nor can I see any value in the continual revision of long-term forecasts, as a matter of mechanical routine."

Then finally he sets out a vision for his own profession, though he can't resist a sideswipe at Dr Colin Clark, a leading Keynesian:

"Economics, and even more so applied economics, is not an exact science: it is in fact, or ought to be, something much greater: a branch of wisdom. Mr Colin Clark once claimed: 'that long-period world economic equilibrium develop themselves in their own peculiar manner, entirely independently of political and social changes.'"

Next he unpacks why Clark got it wrong:

"On the strength of this metaphysical heresy he wrote a book, in 1941, entitled The Economics of 1960. It would be unjust to say that the picture he drew bears no resemblance to what actually came to pass; there is, indeed, the kind of resemblance which simply stems from the fact that man uses his freedom within an unchanged setting of physical laws of nature. But the lesson from Mr Clark's book is that his metaphysical assumption is untrue; that, in fact, world economic equilibria, even in the longer run, are highly dependent on political and social changes; and that the sophisticated and ingenious methods of forecasting employed by Mr Clark merely served to produce a work of spurious verisimilitude."

Finally, he draws some conclusions:

"In his urgent attempt to obtain reliable knowledge about his essentially indeterminate future, the modern man of action may surround himself by ever-growing armies of forecasters, by ever-growing mountains of factual data to be digested by ever more wonderful mechanical contrivances: I fear that the result is little more than a huge game of make-believe and an ever more marvellous vindication of Parkinson's Law. The best decisions will still be based on the judgments of mature non-electronic brains possessed by men who have looked steadily and calmly at the situation and seen it whole. 'Stop, look, and listen' is a better motto than 'Look it up in the forecasts'."

What happened next?

Schumacher uses Parkinson's Law again here, and twice in one chapter (see chapter 10). It was published originally in 1956 so it was hardly new, though it must have felt exciting for his supporters to have him calling a non-economic 'law' - one formulated by a celebrated naval historian - in aid at the same time as he was dismissing all those economics laws.

Parkinson's Law was that work tends to fill the time available to do it in. So when Schumacher looks at all the efforts to see into the future using computing power, he just sees something that fulfills the Law by being unnecessarily complicated and, therefore, faintly ridiculous.

Not many writers have followed him into condemning all quantitative efforts in quite the same way (though, in all modesty, I must mention my own effort, in the US, called *The Sum of Our Discontent* (Texere, 2002)).

We will need to speculate about why that might be. Perhaps the modern world has become obsessed with measurement, or blips on a computer screen - so much so that it is simply to serious for anyone to step out of line?

When I worked for the Cabinet Office in the UK, I used to sit opposite a man who described his job as "drawing graphs for the prime minister". Because the PM was known to like graphs, he drew them - even when there was no data or numerical evidence at all, he would find something to put in some kind of line going up or down - whichever way gave the PM some relief!

What is more, the obsession with measurement which emerged in the late 1980s has now got considerably worse and more sclerotic - when every charity or small company seems to have become attached to numbers to characterize their achievements. But when those social enterprises and charities are dependent on money from official sources, it is increasingly linked to the numbers. This is an attempt to automate the economic system, but it certainly adds in extra complications which can only be tackled by the missing human element.

Still, it is forecasting that Schumacher has in his sights this time.

"*Schumacher's feasibility studies have become the 'scenario' industry, oddly championed by Shell Oil at the same time as his book appeared*," wrote the anthropologist and ecologist Peter Warshall in the 50th anniversary edition (Hartley & Marks, 1999).

"The World Business Council for Sustainable Development now has sustainability scenarios. Forecasting is improved in weather and gene-based diseases. But, as Schumacher says, it's worse in everything else."

In fact, we might ask those who contributed to the 1999 edition of *Small is Beautiful* how they felt about theses themes in the optimistic 1990s.

The Canadian wildlife painter Robert Bateman wrote: *"The 1980s saw the culmination of the bigger-is-better, growth- and greed-philosophy. Based on the assumption that accelerating growth is desirable or even possible, large-scale borrowing became the watchword. Happy bankers with their eyes closed to reality doled out billions in loans, which now are impossible to repay and will remain as debts into future generations…*

"*It was really fun to borrow from our grandchildren during the 1980s*," he added bitterly.

For Amory Lovins, then chair and co-founder of the Rocky Mountain Institute, the 1990s was the time when the energy industry were beginning to take the lessons of *Small is Beautiful* to heart:

"In the 1970s, when new power plants were big enough to serve the average needs of nearly a million households or a hundred thousands commercial customers, suggestions that it might make more sense (and money) to match the plant's size more closely to the size of their loads were ridiculed by the energy industries. But many utilities had financial near-death experiences as they defied Miss Piggy's Fourth Law, 'Never try to eat more than you can lift.'

"*The giant-power-plant business soon collapsed: competitive economies simply stopped buying them because financial markets did not have a big enough appetite for risk. As smaller but better technologies emerged - combined-cycle gas plants, co- and tri-generation, renewables, and (cheapest of all) more efficient end-use - US orders for all fossil-fueled steam plants fell back to Victorian levels. The US generators being commissioned in the 1990s are back to the sizes that prevailed in the 1940s (megawatts to tens of megawatts), and within a few years will be at 1920s sizes (kilowatts to tens of kilowatts) - about a million-fold smaller than the 1980s behemoths, nicely matched to customers' needs, and a far better buy."*

For Helena Norberg-Hodge - the founding director of Local Futures, writing in the same book - it is the narrow economic paradigm identified by Schumacher that is still causing trouble: "*The fabric of industrial society is to a great extent determined by the interaction of science, technology, and a narrow economic paradigm - an interaction that is leading to ever-greater centralization and specialization...*

"It is in robust, local-scale economies that we find genuinely 'free' markets - free of corporate manipulation, hidden subsidies, waste, and immense promotional costs that characterize today's global market. Decentralization is a prerequisite for the rekindling of community in Western society. Mobility erodes community, but as we put down roots and feel attachment to a place, our human relationships deepen, become more secure, and - as they continue over time - more reliable."

Questions for Discussion...

1. Why have so few writers carried on where Schumacher left off criticizing too much quantification?

2. Why does Amory Lovins feel optimistic about the scale of plant being pursued by the energy sector by 1999, when other writers remain pessimistic? Was he right?

3. Why is Schumacher convinced that Parkinson's Law and the quantifying efforts of economists proved his point? Was he right?

IV.2/Giantism

Chapter 16. Towards a theory of large-scale organization

"Almost every day we hear of mergers and takeovers: Britain enters the European Economic Community to open up larger markets to be served by even larger organizations. In the socialist countries, nationalization has produced vast combines to rival or surpass anything that has emerged in the capitalist countries. The great majority of economists and business efficiency experts sup- ports this trend towards vastness."

–E. F. Schumacher, opening lines of this chapter.

"We all recognize, I think, that these are times of rapid change when we need to welcome innovative, better ways of doing things. Many traditionally monopolistic public services need to be opened up to entrepreneurs and others with good idea... But governments can and too often do discourage experimenting, and prevent or delay privately undertaken initiatives that trespass into their traditional preserves. All central planning is at odds with multiple and diverse experimenting. To be sure, small bureaucracies can be as brain-dead as big ones, but at least if they are multiple, when one says no or just doesn't get it, the old saying applies; not all the eggs are in that basket."

– Jane Jacobs, author of The *Death and Life of the Great American Cities*, 25th anniversary edition (Hartley & Marks, 1999).

"As the world enters its third millennium seemingly afflicted with ever-larger institutions, has the Schumacher legacy been repudiated? Not at all. True, Bigness seems to be on the march. But operating underneath galloping globalism, men and women in thousands of local communities are acting bravely in his tradition to create human scale institutions, appropriate technology, community land trusts, environmental improvement, local currencies, cooperatives, alternative health care, new energy technologies, home food production, rewarding self-employment, and entrepreneurship. The forces of the global economy, the great corporations, the international labor unions, the mega-universities, the mass media, are really powerless to stop this movement toward a new society... The one exception is the baneful influence of Big Government..."

– John McClaughry, Vermont politician, Reagan staffer and author of *The Vermont Papers*, 25th anniversary edition, (Hartley & Marks, 1999).

This chapter takes a logical and step-by-step approach to the problem of massive, inhuman organizations. As such, it may be the only chapter that fits the title of the book.

It first appeared in the fall of 1967 as 'Management Decision', *Quarterly Review of Management Technology* in London.

What this chapter says...

Schumacher carried on: "*In contrast, most of the sociologists and psychologists insistently warn us of its inherent dangers - dangers to the integrity of the individual when he feels as nothing more than a small cog in a vast machine and when the human relationships of his daily working life become increasingly dehumanized; dangers also to efficiency and productivity, stemming from ever-growing Parkinsonian bureaucracies.*"

Northcote Parkinson had written *Parkinson's Law* because, as a naval historian, he famously noticed that there had been around 2,000 civil servants working at the British Admiralty at the outbreak of the First World War in 1914 to administer a navy of 146,000 seamen. By 1928, just fourteen years later, that figure had grown to 3,569 civil servants to manage 100,000 seamen.

Schumacher appears to have noticed Parkinson's efforts to get his 'law' discussed (that the work expands to fill the time available). Yet even though he has mentioned Parkinson in three chapters so far, he doesn't call him in aid or support - instead he calls on fans of Franz Kafka

"Modern literature, at the same time, paints frightening pictures of a brave new world sharply divided between us and them," writes Schumacher, "*torn by mutual suspicion, with a hatred of authority from below and a contempt of people from above. The masses react to their rulers in a spirit of sullen irresponsibility, while the rulers vainly try to keep things moving by precise organization and coordination, fiscal inducements, incentives, endless exhortations and threats. Undoubtedly this is all a problem of communications. But the only really effective communication is from man to man, face to face...*"

He then relates the story of Kafka's nightmarish novel, *The Castle* which, he says, "*depicts the why*":

"Mr K, the land surveyor, has been hired by the authorities, but nobody quite knows how and meets all tell him: 'Unfortunately we have no need of a land surveyor. There would not be the least use for one here.' So, making every effort to meet authority face to face, Mr K

approaches various people who evidently carry some weight; but others tell him: 'You haven't once up till now come into real contact with our authorities. All these contacts are merely illusory, but owing to your ignorance ... you take them to be real.' He fails utterly to do any real work and then receives a letter from The Castle: 'The surveying work which you have carried out thus far has my recognition.... Do not slacken your efforts! Bring your work to a successful conclusion. Any interruption would displease me ... I shall not forget you.'"

The Castle was the last novel that Kafka wrote. He began it in January 1922 when he arrived at the Alpine clinic where he was being treated for tuberculosis.

He had been planning the book since before the First World War. It stops in mid-sentence, where he abandoned it - explaining to his friend and executor Max Brod that it was going to finish with K. on his deathbed, still living in the village - when the the castle would notify him that his "legal claim to live in the village was not valid, yet, taking certain auxiliary circumstances into account, he was permitted to live and work there."

Even so, on 11 September 1922 in a letter to Brod, he wrote that he was giving up on the book and would never return to it.

Stomacher takes the obvious and mainstream takes the obvious and mainstream interpretation of the novel - that it was primarily about bureaucracy. It was not, for example, a complex novel about God.

B rod said that the 20th century will one day be known as the 'century of Kafka'. And he made such a reputation possible by promising his friend that he would ignore any instructions as am executor to destroy his manuscripts (including *The Castle*).

"*Yet, it seems*," said Schumacher, *"large-scale organization is here to stay. Therefore it is all the more necessary to think about it and to theorize about it. The stronger the current, the greater the need for skilful navigation.* ***The fundamental task is to achieve smallness within large organizations*** [my emphasis]***"***

"Once a large organization has come into being, it normally goes through alternating phases of centralizing *and* decentralizing, *like swings of a pendulum. Whenever one encounters such opposites, each of them with persuasive arguments in its favour, it is worth looking into the depth of the problem for something more than compromise, more than a half-and-half solution. Maybe what we really need is not either/or*
but the-one-and-the-other-at-the-same-time."

Then he introduces the five principles with which he plans to find a way forward for big organizations.

"This very familiar problem pervades the whole of real life, although it is highly unpopular with people who spend most of their time on laboratory problems from which all extraneous factors have been carefully eliminated. For whatever we do in real life, we must try to do justice to a situation which includes all so-called extraneous factors. Find we always have to face the simultaneous requirement for order and freedom."

1. *The Principle of Subsidiarity*

This means that people need to be governed by decisions taken as close as possible to them. Schumacher borrowed this idea from Catholic social doctrine, under Pope Leo XIII. It was never quite clear where the idea derived from, though persistent rumours suggested that it came from John Ruskin, via Cardinal Henry Manning (see Chapter 18).

In fact, Schumacher quotes the papal encyclical 'Quadragesimo Anno', published as the title says - four decades later, in 1931 - drafted in this case by two German Jesuit theologians Oswald von Nell-Breuning and Gustav Gundlach, and published by Pius XI.

The main function of 'Quadragesimo Anno' was to condemn socialism and capitalism equally, and develop the idea of subsidiarity:

"The opposites of centralizing and decentralizing are now far behind us: the Principle of Subsidiary Function teaches us that the centre will gain in authority and effectiveness if the freedom and responsibility of the lower formations are carefully preserved, with the result that the organization as a whole will be 'happier and more prosperous'..."

But how can it be achieved, given that so many vast organizations now dominate our lives? Answer: by splitting the big organizations up into as many local divisions as possible, with the maximum of leeway and the minimum of control.

2. ***The Principle of Vindication.*** ***"****To vindicate means: to defend against reproach or accusation: to prove to be true and valid; to justify; to uphold; so this principle describes very well one of the most important duties of the central authority towards the lower formations. Good government is always government by exception. Except for exceptional cases, the subsidiary unit must be defended against reproach and upheld. This means that the exception must be sufficiently clearly defined, so that the quasi-firm is able to know without doubt whether or not it is performing satisfactorily."*

The problem, says Schumacher, is that those at the centre want to control everything:

"Administrators taken as a pure type, namely as men of orderliness, are happy when they have everything under control. Armed with computers, they can indeed now do so and can

insist on accountability with regard to an almost infinite number of items - output, productivity, many different cost items, non- operational expenditure, and so on, leading up to profit or loss. This is logical enough: but real life is bigger than logic. If a large number of criteria is laid down for accountability, every subsidiary unit can be faulted on one item or another; government by exception becomes a mockery, and no-one can ever be sure how his unit stands."

3. ***Principle of Identification***.

Every subsidiary unit or quasi-firm should have both a profit and loss account and a balance sheet, says Schumacher:

"Business operates with a certain economic substance, and this substance diminishes as a result of losses, and grows as a result of profit. What happens to the unit's profits or losses at the end of the financial year? They flow into the totality of the organization's accounts: as far as the unit is concerned, they simply disappear. In the absence of a balance sheet, or something in the nature of a balance sheet. the unit always enters the new financial year with a nil balance. This cannot be right."

That means profits and losses are carried forward and not wiped out:

"Every quasi-firm should have its separate balance sheet, in which profits can appear as loans to the centre and losses as loans from the centre. This is a matter of great psychological importance."

4. ***The Principle of Motivation.***

"*For a large organization, with its bureaucracies, its remote and impersonal controls, its many abstract rules and regulations, and above all the relative incomprehensibility that stems from its very size, motivation is the central problem*."

And when intellectuals pretend that work can never be more than a necessary evil - soon to be abolished for the majority - then *"the urge to minimize it right away is hardly a surprising reaction, and the problem of motivation becomes insoluble... However that may be, the health of a large organization depends to an extraordinary extent on its ability to do justice to the Principle of Motivation. Any organizational structure that is conceived without regard to this fundamental truth is unlikely to succeed."*

5. ***The Principle of the Middle Axiom***.

Top management in a large organization inevitably occupies a very difficult position. How do you make things happen from there? In reply to his own questions, Schumacher tells a story from the National Coal Board, which - under Lord Robens - really took his advice on splitting itself up:

"*Some years ago, the most important truth to be enunciated by the National Coal Board was* concentration of output*, that is, to concentrate coal-getting on fewer coal faces, with a higher output from each. Everybody, of course, immediately assented to it, but, not surprisingly, very little happened*."

What they did was to ask any coalfields that were making changes to answer a series of questions, like:

- Why can this particular coalface not be laid out in such a way that the required minimum size is attained?
- Why does this particular bit of coal have to be worked at all?
- What is the approximate profitability of the coalface as planned?

Finally, he draws his thoughts together in a thoroughly English, pragmatic way:

"Many of us have been struggling for years with the problems presented by large-scale organization, problems which are becoming ever more acute. To struggle more successfully. we need a theory, built up from principles. But from where do the principles come? They come from observation and practical understanding... The best formulation of the necessary interplay of theory and practice. that I know of, comes from Mao Tse-tung. Go to the practical people, he says, and learn from them: then synthesize their experience into principles and theories; and then return to the practical people and call upon them to put these principles and methods into practice so as to solve their problems and achieve freedom and happiness."

What happened next?

To return to *Parkinson's Law*, which - as you may remember - started life when a naval historian noticing that however few warships the Royal Navy had, the number of civil servants administering them stayed the same (see Chapter 10). Some years ago, I found out what the numbers were now.

There were then (2010) only 38,000 personnel in the Royal Navy, and they were serviced by only 1,800 civil servants. On the other hand, those are just the ones assigned entirely to the navy, so we have to delve a little deeper. You would also have to assign some of the 19,200 civil servants running the Ministry of Defence in London, and some of the 14,300 civil servants looking after defence equipment. Of course, modern missiles and computers are more complicated than shells and range-finders, but Parkinson's

Law still seems to apply [these are 2010 figures]. "*The number of officials and the quantity of the work are not related to each other at all*," said Parkinson.

Clearly, Schumacher was right that the the drift towards ever bigger organizations was probably unstoppable. Certainly, neither he nor Leopold Kohr nor Kirkpatrick Sale (the author of *Human Scale*) have been able to prevent it.

The National Coal Board - where Schumacher learned this approach and experimented with it - has long since shuffled off into history, as most nationalized industries have done in the UK.

Equally, most if not all the former nationalized industries have stayed vast and unresponsive in private hand, just as they were in government hands. For some reason, we don't see this very clearly - that this has something to do with scale and not to do with the company's ownership structure.

Margaret Thatcher's government in the UK which invented the idea of privatization when they sold British Telecom back to the public - and then spread it to the world - promised that the new owners would be entrepreneurial and flexible. Nothing could have been further from the truth.

Tragically, the only contemporary industrial or business leader who came close at least to emulating what Schumacher was trying to do was Jack Welch, CEO of the massive conglomerate GE. It was Welch who spoke about the importance of making a huge company *feel* small.

It is strange that a man who thought as big as Welch should have been so sceptical about what he was doing. When Jack Welch took over GE in 1981, one of the world's wealthiest companies, it was earning $1.5 billion a year and had 400,000 employees. When he left twenty years later, it was earning $126 billion. The number of employees had long since been slashed to 270,000, earning Welch the nickname 'Neutron Jack', a reference to the bomb which kills people but leaves buildings standing.

Welch joined General Electric as an executive in 1960. In fact, he had accepted another job quite early in his career at GE, but was taken out to dinner and persuaded to stay by a young executive called Reuben Gutoff, who promised to work with him to cut bureaucracy and create a small-company environment.

He set about transforming a corporate monolith that he believed was throttling itself in its own processes. That meant dumping the idea of strategies. Who reads them after

they are written so laboriously? It meant abandoning the great edifice of corporate measurement. *"Too often, we measure everything and understand nothing*," he said.

Under Welch, GE would just measure customer satisfaction, employee satisfaction and cash flow. It also meant, as far as possible in a huge company, striving for informality. It wasn't a small company, heaven knows, but Welch wanted it to feel like one.

None of this suggests that Welch was a leader to be copied in any other way than this – his record on the environment was appalling. But he knew that the kind of people he needed would sometimes be different from the ones he had got. Take away the structures of bureaucracy and people look different. "*Now you see some of them wilt,*" he said, about some senior executives after the process of 'de-layering'. *"That's the sad part of the job. Some who looked good in the big bureaucracy looked silly when you left them alone*."

That implied that recruiting the right people was absolutely central, which is why Welch said he spent half his time recruiting the top positions in the company.

Two decades on, the Welch message has filtered down through corporate America. McDonalds CEO Jim Skinner now personally interviews his top 200 managers. Welch's successor at GE, Jeff Immelt, meets his top 600 staff before they are appointed. Unfortunately, Welch set up a particularly ferocious system that graded all GE staff every year as A, B or C. The As were promoted and the Cs sacked. *"Move them out early,*" he advised. "*It's a contribution.*" But then, as I said, not everything about Welch's reign over GE was admirable.

Schumacher keeps up his asides about the measurement obsession of the culture:

"*I don't see why you can't do that*," says John Timpson - the maverick chief executive of the Timpson's key-cutting chain, and the author of *How to Ride a Giraffe* - about managing without the usual business 'rules'. "*But the first thing that would happen would be that you would get loads of people coming to you and saying why it won't work. Then you'll have lots of people telling you what a good idea it is but not actually doing it. It only works if the person at the top believes with a passion that it must happen."*

It is difficult to achieve, John McClaughry - former Reagan speechwriter and author of *The Vermont Papers* - wrote in the 25th anniversary edition (Hartley & Marks, 1999):

"Even as the opportunities appear for a decentralist future, Big Government constantly centralizes power over its subjects, pries into their privacy, confiscates their earnings, regulates their every activity, dictates their choices, removes what once were local civic

decisions to higher and more distant bureaucracies, and all too often - alas - stifles the upwelling energies of the human spirit."

Questions for discussion...

1. This chapter suggests a compromise between big and small organizations. Why doesn't Schumacher just face down the big ones?

2. Why is it so difficult, in practice, to get our leaders to act on the issue of scale?

3. What McClaughry and others quoted here provide is much more about working for big organizations, or being messed around by bureaucrats - about the psychic load of that in our lives. Why did Schumacher not tackle this in support of his title?

IV.3/The religion of socialism

Chapter 17. Socialism

"Both theoretical considerations and practical experience have led me to the conclusion that socialism is of interest solely for its non-economic values and the possibility it creates for the overcoming of the religion of economics. A society ruled primarily by the idolatry of enrichissez-vous*, which celebrates millionaires as its culture heroes, can gain nothing from socialization that could not also be gained without it..."*

– E. F. Schumacher, the opening lines of this chapter.

"Schumacher's concern about 'the ruthless application of partial knowledge' is still true today. It is true not only in the economic and corporate spheres, but also in the scientific and technological. On Wall Street, for example, there is an extreme simplicity of quantification. If stocks slip in forecasted earnings by a couple of cents, they are quickly sold off. Genetically modified organisms are being created by agrobusiness in pursuit of profits and higher stock prices. Their shareholders are deeply implicated in this ecologically dangerous application of limited knowledge because Wall Street has taught a generation of shareholders that the way to provide for their children's college education and retirement is to play the stock-market."

– Hazel Henderson, in the 25th anniversary edition (1999).

"It is now abundantly demonstrated that neither the capitalist nor the state socialist economies can create viable conditions for the people of the world, nor have they been able to help developing countries to determine their own destinies. Capitalism is able to create an abundance of goods and services, but only by undermining future resources, creating increasing pollution, widening the gap between rich and poor, and unhealthily concentrating wealth and power in fewer hands. The statement 'living off the future inheritance of our children' sums it up. Endeavors through regulatory forces or wider shareholding in ever-larger corporations are largely ineffective."

– Godric Bader, Scott Bader Commonwealth, in the 25th anniversary edition (1999).

This chapter is one of those that were written especially for this book. At first sight, it seems a little out of place - why is he critiquing socialism rather than any other of the prevailing ideologies, after all?

But the answer becomes clear as the chapter goes along...

What this chapter says...

"*Many socialists in so-called advanced societies, who are themselves - whether they know it or not - devotees of the religion of economics, are today wondering whether nationalization is not really beside the point,"* says Schumacher, introducing the problem as he sees it.

"*If the purpose of nationalization is primarily to achieve faster economic growth, higher efficiency, better planning, and so forth, there is bound to be disappointment. The idea of conducting the entire economy on the basis of private greed, as Marx well recognize, has shown an extraordinary power to transform the world.*"

But, in fact, Schumacher is just as critical of the private capitalist sector:

"The strength of the idea of private enterprise lies in its terrifying simplicity. It suggests that the totality of life can be reduced to one aspect - profits. The businessman, as a private individual, may still be interested in other aspects of life - perhaps even in goodness, truth and beauty - but as a businessman he concerns himself only with profits."

Everything seems to be crystal clear once you have reduced reality to only one of its thousand aspects:

"*Let no one befog the issue by asking whether a particular action is conducive to the wealth and well-being of society, whether it leads to moral, aesthetic, or cultural enrichment. Simply find out whether it pays: simply investigate whether there is an alternative that pays better. If there is, choose the alternative ... It is no accident that successful businessmen are often astonishingly primitive; they live in a world made primitive by this process of reduction. They fit into this simplified version of the world and are satisfied with it.*"

There are two ideologies - two attitudes to enterprise, he says:

- Private enterprise, characterized "*by a strict limitation of outlook to 'profitability' and nothing else*." This tends towards "*the total destruction of the dignity of man*".
- The 'idealistic' conception of public enterprise, based on "*the need for a comprehensive and broad humanity in the conduct of economic affairs.*" This tends towards what he calls "*a chaotic kind of inefficiency*".

Schumacher says that we have to understand that both sides are valid and have important points to make:

"There is therefore really no strong case for public ownership if the objectives to be pursued by nationalized industry are to be just as narrow, just as limited as those of capitalist production: profitability and nothing else. Herein lies the real danger to nationalization in Britain at the present time, not in any imagined inefficiency."

The problem lies not either in "*the original socialist inspiration nor any actual failure in the conduct of the nationalized industry*," says Schumacher. It lies in a "*lack of vision on the part of the socialists themselves... They will not recover, and nationalization will not fulfil its function, unless they recover their vision*."

This, finally, is Schumacher's complaint about socialism:

"What is at stake is not economics but culture: not the standard of living but the quality of life. Economics and the standard of living can just as well be looked after by a capitalist system, moderated by a bit of planning and re-distributive taxation. But culture and, generally, the quality of life, can now only be debased by such a system."

So what should the political left do?

"Socialists should insist on using the nationalized industries not simply to out-capitalize the capitalists - an attempt in which they may or may not succeed but to evolve a more democratic and dignified system of industrial administration, a more humane employment of machinery, and a more intelligent utilization of the fruits of human ingenuity and effort. If they can do that, they have the future in their hands. If they cannot, they have nothing to offer that is worthy of the sweat of free-born men."

What happened next?

This chapter - perhaps more than any of the others - belongs in the mid-1970s, when the nationalized industries of Europe, and the consensus in politics was beginning to break down. I remember meeting Sir Richard Acland, who had founded the UK's Commonwealth Party in 1942 and had been a leading advocate of nationalization. He told me in 1976 that nationalized corporations were supposed to be hugely profitable. They were not.

Unfortunately, there was a problem with many of them. They were enormous monopolies, managed by government officials - and, far rom inspiring the people who

worked for them, as they were supposed to do, people felt alienated, like small cogs in giant machines - which is what Schumacher suggests here.

Unfortunately, the most dysfunctional of the privatized utilities in the UK was the Post Office in charge of telecommunciations. So in 1984, the Thatcher government started the ball rolling by selling it off to shareholders until it lived on as British Telecom plc.

It was an atavistic reaction, simply taking the situation back to what it had been decades before. These days, so many of the privatized utilities are as dysfunctional as they ever were in public hands, so inevitably there will be a backlash - and we will be back where we started. Unless both sides begin to understand Schumacher's message - that the ownership doesn't matter nearly as much as the scale.

By 1997, the political Left was back in power in the UK - as it had been in the USA since 1993. In European Terms, these were socialists from the New Labour Party. Yet despite that, they still failed to learn the lessons. The Blair government realized that, even if they had wanted to bring the railways and water companies back into public ownership - and they didn't want to in fact - they could no longer afford to do so.

Simply nationalizing industry, without any idea that it could be organized at a different scale would be, as Schumacher said, "*an obvious case of dogmatic inflexibility, a mere 'grab' organized by frustrated politicians, untaught, unteachable, and incapable of intellectual doubt".*

In 1976, when Schumacher was in the USA, visiting President Carter, the UK parliament was debating the Shipbuilding Bill, which would have brought all UK shipbuilding into national ownership. Feelings ran so high there were fisticuffs in the House of Commons chamber, and a future deputy prime minister grabbed the ceremonial mace, and began to swing it around his head (the tabloid newspapers dubbed him 'Tarzan' as a result).

These issues, which seemed so important at the time, but the political response has been remarkably unimpressive.

Questions for Discussion…

1. Whose side do you think Schumacher be on these days, 50 years later? How would he vote?

2. Why is it that politicians seem to find it so hard to learn from the past or from previous generations?

3. Might there still be any benefits from nationalization?

IV.4/Property

Chapter 18. Ownership

"It is obvious, indeed, that no change of system or machinery can avert those causes of social malaise *which consist in the egotism, greed, or quarrelsomeness of human nature. What it can do is to create an environment in which those are not the qualities which are encouraged. It cannot secure that men live up to their principles. What it can do is to establish their social order upon principles to which, if they please, they can live up and not live down..."*

– R. H. Tawney, as quoted by Schumacher as the opening lines of this chapter.

"In public talks and private discussions, Schumacher often pondered 'the land question'. An economic system that treats land as a commodity to be bought and sold on the market fails to foster the respect for land necessary to encourage its proper use. When an individual is allowed private ownership of a limited natural resource, that individual has an unfair economic advantage. The scarcity of arable land and a growing demand for its use result in an increase in the value of land through no effort on the part of the landowner... This potential for speculative gain places tremendous pressure on the landowner to maximize the dollar value of the land through excessive development and erodes the landowner's commitment to community and place. A further result of the ability to make land a commodity is that a community's capital is tied up in the land. Credit for the small business owner tightens. The region loses its diversity of enterprises, which is the basis of a more sustainable economy and a more environmentally responsible business sector."

– Bob Swann, co-founder of the E. F. Schumacher Society, Great Barrington, MA, in the 25th anniversary edition (Hartley & Marks, 1999).

"Public and private partnerships are very fashionable today. We have learned that the old way was too narrow: rich and greedy companies not paying attention to the social problems they were creating, while nonprofits were often inefficient but well-meaning, and government was too big and far away to understand the issues. I advocate three partners: government (from local to national) to set the rules and framework; private enterprise to take care of the market; and civil society (the users) to evaluate whether a system is working well, which also encourages innovation. In the United States at the state and local level, people are beginning to follow this model by solving problems that

have fallen between the cracks in public, private, and civic partnerships, such as redeveloping an inner city and dealing with drug addiction and crime."

– Hazel Henderson, pioneer green economic thinker and entrepreneur, in the 25th anniversary edition (Hartley & Marks, 1999).

This chapter is made up partly of Schumacher drawing together some of the themes of the book, and partly also a tribute to the influential Christian socialist thinker and economic historian Richard Tawney, who had died in 1962.

What this chapter says...

"Every problem touched upon in the preceding chapters leads to the question of 'system or machinery', although, as I have argued all along, no system or machinery or economic doctrine or theory stands on its own feet: it is invariably built on a metaphysical foundation, that is to say, upon man's basic outlook on life, its meaning and its purpose. I have talked about the religion of economics, the idol worship of material possessions, of consumption and the so-called standard of living, and the fateful propensity that rejoices in the fact that 'what were luxuries to our fathers have become necessities for us'," writes Schumacher, explaining the central theme of the book.

How then can we deal with the problems we have to face? We can't like that, he says, because *"greed and envy demand continuous and limitless economic growth of a material kind"*. And that doesn't work in a finite world.

Instead, we need to think about alternative systems, he says.

As for private property, he makes a distinction between:
(a) *"property that is an aid to creative work, and*
(b) *"property that is an alternative to it."*

"There is something natural and healthy about the former -the private property of the working proprietor; and there is something unnatural and unhealthy about the latter - the private properly of the passive owner who lives parasitically on the work of others."

Then he quotes Tawney in his support:

"*It is idle, therefore, to present a case for or against private property without specifying the particular forms of property to which reference is made*."

Schumacher then draws a controversial conclusion:

"For it is not private ownership, but private ownership divorced from work, which is corrupting to the principle of industry; and the idea of some socialists that private property in land capital is necessarily mischievous is a piece of scholastic pedantry as absurd as that of those conservatives who would invest all property with some kind of mysterious sanctity."

The rest of the chapter is concerned with making this distinction clearer:

"It is immediately apparent that in this matter of private ownership the question of scale is decisive. When we move from small-scale to medium-scale, the connection between ownership and work already becomes attenuated; private enterprise tends to become impersonal and also a significant social factor in the locality; it may even assume more than local significance. The very idea of private property becomes increasingly misleading."

Owners

The owner, employing salaried managers, does not need to be a proprietor to be able to do his work. "*Ownership, therefore, ceases to be functionally necessary*." The whole thing is also exploitative if owners take profits that are higher than a fair salary or gets a return on capital that is higher than he could borrow in other places.

Profits

"High profits are either fortuitous or they are the achievement not of the owner, but of the whole organization. It is therefore unjust and socially disruptive if they are appropriated by the owner alone. They should be shared with all members of the organization."

Relationships and control

"Even autocratic control is no serious problem in small-scale enterprise which, led by a working proprietor, has almost a family character. It is incompatible with human dignity and genuine efficiency when the enterprise exceeds a certain - very modest - size." What we need is for a systematic development of communications and consultation so that all members of the organization have some genuine participation in managing the company.

Social significance

The social significance where it is based demands some *"socialization of ownership"* beyond the members of the company. This "so*cialization may be effected by regularly devoting a part of the firms profits to public or charitable purposes and bringing in trustees from outside*".

"The so-called private ownership of large-scale enterprises is in no way analogous to the simple property of the small landowner, craftsman, or entrepreneur. It is, as Tawney says,

analogous to 'the feudal dues which robbed the French peasant of part of his produce till the revolution abolished them'," says Schumacher.

To sum up:

1. In **private ownership**, small-scale enterprise "*ownership is natural, fruitful, and just*".

2. In **medium-scale enterprise**, private ownership is already unnecessary. "*The idea of 'property' becomes strained, unfruitful, and unjust. If there is only one owner or a small group of owners, there can be, and should be, a voluntary surrender of privilege to the wider group of actual workers - as in the case of Scott Bader & Co Ltd*."

3. In **large-scale enterprise**, private ownership is "*a fiction for the purpose of enabling functionless owners to live parasitically on the labour of others. It is not only unjust but also an irrational element which distorts all relationships within the enterpr*ise."

Then he dares to use the N-word:

"*There are many methods of doing away with so-called private ownership in large-scale enterprise; the most prominent one is generally referred to as 'nationalization*."

4. **Mixing business and politics** normally "*produces inefficient business and corrupt politics*". which means that, for every nationalized industry, you have to define carefully what rights politicians have - especially who they are allowed to appoint.

5. Nationalized industries should have to make **reasonable profits** and to build up their reserves. But if they are excessive, they need to lower their prices.

6. They should have a **statutory obligation 'to serve the public** interest in all respects'. "*The interpretation of what is the 'public interest' must be left to the enterprise itself, which must be structured accordingly. It is useless to pretend that the nationalized enterprise should be concerned only with profits, as if it worked for private shareholders."*

7. We have to be able **to recognize and safeguard the 'public interest'** in nationalized industries. That means we need "*arrangements by which all legitimate interests can find expression and exercise influence, namely, those of the employees, the local community. the consumers, and also the competitors... To implement this principle effectively still requires a good deal of experimentation. No perfect 'models' are available anywhere*."

8. **Over-centralization** and the addiction to it by planners is the chief danger to nationalization. "*In general, small enterprises are to be preferred to large ones.*"

In fact, says Schumacher, *"instead of creating a large enterprise by nationalization - as has invariably been the practice hitherto - and then attempting to decentralize power and responsibility to smaller formations, it is normally better to create semi-autonomous small units first and then to centralize certain functions at a higher level, if the need for better co-ordination can be shown to be paramount*."

By way of explanation, he says that "*no-one has seen and understood these matters better than R. H. Tawney*." Which is why he ends the chapter by quoting him again:

" 'So the organization of society on the basis of functions, instead of on that of rights, implies three things:

1. *" 'That **proprietary rights** shall be maintained when they are accompanied by the performance of service and abolished when they are not."*

2. *" 'That **the producers shall stand in a direct relation to the community** for whom production is carried on, so that their responsibility to it may be obvious and unmistakable, not lust, as at present, through their immediate subordination to shareholders whose interest is not service but gain."*

3. *" 'That **the obligation for the maintenance of the service** shall rest upon the professional organizations of those who perform it, and that, subject to the supervision and criticism of the consumer, those organizations shall exercise so much voice in the government of industry as may be needed to secure that the obligation is discharged'."*

What happened next...

Richard Henry Tawney was born in 1880 in London at the start of a life influencing the UK Labour Party, as an historian and political policy-maker. He was also a Christian socialist, and his most famous book, *Religion and the Rise of Capitalism* (1926), argued that puritanism had made acquisitiveness acceptable in England - worse: it had put commerce above God.

This was not a million miles from Schumacher's position as a newly converted Roman Catholic. No wonder he revered Tawney.

It was Hilaire Belloc, the original Distributist (see Chapter 4), who first said that all political disagreement was at roots theological. He never set out precisely what he meant by that, but it was definitely a way of arguing that the old disputes between Catholic versus protestant, southern Europe versus the north, was alive and well.

You can see this most obviously in the conflict between the UK and the European Union (EU). The EU was designed primarily by Christian Democrats, conservative and predominantly catholic - which is presumably how the principle of subsidiarity (see Chapter 16) came to be so important to the structure of the EU.

One can make a reas0nable case that the circle of stars on the European flag were taken from those around the head of the Virgin Mary in Renaissance and medieval paintings. But that is beside the point.

Whereas the UK has been a protestant country since the 16th century, and was usually the focus for resistance to papal authority before that - so it may have been inevitable that it would break free of the EU at some moment in history.

Schumacher was borrowing from Distributist thinking here about the importance of scale and ownership - rather than the crazy version of property today, which, as he rightly says, is virtually the opposite.

The Distributist League was intended as the beginning of a political movement. It launched in the UK in 1926 but, by the early 1950s, it had begun to peter out - as so many radical movements do - in anti-abortion and misogyny.

By then, a parallel movement had begun in the USA, inspired by Dorothy Day.

Both she and Schumacher were inspired by Distributism, and - through them - they are connected to the great tradition of back-to-the-land. But they both went beyond what the Distributists managed - both Belloc and Chesterton were deeply melancholic (see Chapter 4).

Wes Jackson, the co-founder of the Kansas-based Land Institute, described a visit by Schumacher in, March 1977 in the 25th anniversary edition (*Hartley & Marks, 1999*).

At that stage the Institute was "*a fledgling organization scarcely six months old with little to show the distinguished visitor, whose philosophy most inspired our establishment. We had arranged for this widely acclaimed author to give a public lecture in the Salina Community Theatre. To a full auditorium, he began by telling a story of a trip he had made during the*

1930s with some friends, an automobile trip across America that included passage through Kansas.

"They had stopped at a service station in a small Kansas town at the height of the Great Depression. Fritz engaged a local man at the station by asking, 'How are things?'

'Fine,' the local replied.

'What is it you do?' asked Fritz.

'Oh, I work on a farm over there,' he said pointing. 'I used to own that farm but I had no money to pay the hired hand, so I paid him in land. Eventually he owned all of my farm and now I work for him.'

'That's a very sad story,' replied Fritz.

'Well, not so sad,' replied the hired hand. 'He has no money either and so he is paying me back in land.'"

Questions for Discussion...

1. Why is it so difficult to shift people's lazy support for massive, owned organizations?

2. Can you really draw a line between small-scale, personal property ownership (good) and slightly bigger ownership (bad)? How would you pay for yourself in retirement otherwise if they got rid of all kinds of absentee ownership?

3. Is it true that all political disputes are at root theological?

IV.5/Mutualism

Chapter 19. New patterns of ownership

"J. K. Galbraith has spoken of private affluence and public squalor. It is significant that he referred to the United States, reputedly, and in accordance with conventional measurements, the richest country in the world. How could there be public squalor in the richest country, and, in fact, much more of it than in many other countries whose Gross National Product, adjusted for size of population, is markedly smaller?"

– E.F. Schumacher, the opening lines of the final chapter.

"We do not yet know what combination of social forces brought down the Berlin Wall, and the de-legitimatized communist structures in Eastern Bloc countries. Maybe similar forces will de-legitimatize the unacceptable faces of capitalism and exploitation. I would like to believe that the forces developing trusteeship principles will be paramount in transforming industrial society in the next century."

– Godric Bader, Scott Bader Commonwealth, in the 25th anniversary edition (Hartley & Marks, 1999).

"A community land trust is a not-for-profit organization with membership open to any resident of the geographical region or bioregion where it is located. A community land trust acquires land by gift or purchase and then develops a land-use plan for the parcel, identifying which lands should remain forever wild and which should support low-impact development. The land trust then leases sites for the identified purposes. The lease runs for 99 years and is inheritable and renewable on the original terms. The leaseholder owns the buildings and any agricultural improvements on the land, but not the land itself. Upon resale, leaseholders are restricted to selling their buildings and improvements at current replacement cost, excluding the land's value from the transfer. The resale restriction ensures that the land will never again be capitalized and will provide affordable access to land for future generations. The land-use plan ensures that the resource base is maintained and enriched, not depleted. By restructuring our formal relationship to the land from one of owner to one of steward, a community land trust encourages proper long-term care for the land."

– Bob Swann, Co-founder of the E. F. Schumacher Society - now the Schumacher Center for a New Economics (Hartley & Marks, 1999).

This final chapter is far more practical than the rest of them - because it looks at one proposal which Schumacher believes has the capacity to change the world for the better: the Scott Bader Commonwealth.

What this chapter says...

Schumacher starts the chapter by posing a number of rhetorical questions:

"If economic growth to the present American level has been unable to get rid of public squalor - or, maybe, has even been accompanied by its increase - how could one reasonably expect that further 'growth' would mitigate or remove it? How is it to be explained that, by and large, the countries with the highest growth rates tend to be the most polluted and also to be afflicted by public squalor to an altogether astonishing degree? If the Gross National Product of the United Kingdom grew by, say, five per cent - or about £2,000 million a year - could we then use all or most of his money, this additional wealth, to fulfil our nation's aspirations?"

"*Assuredly not*," he says explaining that all the wealth, as it arises, gets snaffled off privately by the owners. So much so that their public authorities have hardly any income of their own:

"Wealth, as it arises, is immediately reduced to extracting from the pockets of their citizens monies which the citizens consider to be rightfully their own."

This leads to what he calls an *"endless battle of wits between tax collectors and citizens, in which the rich, with the help of highly paid tax experts, normally do very much better than the poor. In an effort to stop 'loopholes' the tax laws become ever more complicated and the demand for -- and therefore the income of -- tax consultants becomes ever larger. As the taxpayers feel that some- thing they have earned is being taken away from them, they not only try to exploit every possibility of legal tax avoidance, not to mention practices of illegal tax evasion, they also raise an insistent cry in favour of the curtailment of public expenditure."*

Schumacher is at least clear-sighted enough to understand that: " *'More taxation for more public expenditure' would not be a vote-catching slogan in an election campaign, no matter how glaring may be the discrepancy between private affluence and public squalor."*

He also sees clearly that a great deal of public spending helps business in particular:

"It is not merely a question of public squalor, such as the squalor of many mental homes, of prisons, and of countless other publicly maintained services and institutions; this is the

negative side of the problem. The positive side arises where large amounts of public funds have been and are being spent on what is generally called the 'infrastructure', and the benefits go largely to private enterprise free of charge... The truth is that a large part of the costs of private enterprise has been borne by the public authorities - because they pay for the infrastructure and that the profits of private enterprise therefore greatly overstate its achievement."

The Scott Bader Commonwealth

Originally Swiss, Ernest Bader launched Scott Bader Co Ltd in 1920, at the age of thirty, together with his wife Rose Scott. By 1951, he had a *"prosperous medium-scale business employing 161 people, with a turnover of about £625,000 a year and net profits exceeding £72,000. Having started with virtually nothing, he and his family had become prosperous*."

The Scott Bader company was by then established as a leading producer of polyester resins and also other sophisticated products.

The young Bader had *"resented the very ideas of a 'labour market' and a 'wages system', and particularly the thought that capital employed men, instead of men employing* capital," says Schumacher:

"Finding himself now in the position of employer, he never forgot that his success and prosperity were the achievements not of himself alone but of all his collaborators and decidedly also of the society within which he was privileged to operate."

He knew that no major change could be made without two things:

- "*A transformation of ownership - mere profit-sharing, which he had practised from the very start, was not enough."*
- *"The voluntary acceptance of certain self-denying ordinances."*

For the first, he set up the Scott Bader Commonwealth in which he handed over 90 per cent of the company in 1951 (the final ten per cent he gave in 1963).

For the second, he agreed with his former employees to draft a constitution to define the distribution of the power which private ownership implies, and to impose the following restrictions on their freedom of action in the future:

1. The company should not grow beyond 350 people. If it looked likely to do so, then they would set up new, independent units, organized along the lines of the Scott Bader Commonwealth.

2. The pay gap between the highest and the lowest paid should never go beyond a ratio of 1:7, irrespective of age, gender, function or experience.

3. Since members of the Commonwealth are partners and not employees, they can't be dismissed by their co-partners for any reason other than gross personal misconduct.

4. The Board of Directors of the firm, Scott Bader Co Ltd, should be fully accountable to the Commonwealth. Under the rules laid down in the constitution, the Commonwealth has the right and duty to confirm or withdraw the appointment of directors and also to agree how much they should be paid.

5. A maximum of 40 per cent of the net profits of Scott Bader would be taken by the Commonwealth - at least 60 per cent would be kept by the company for taxation and self-financing. The Commonwealth would devote half of its share for paying bonuses to members, and the other half to charitable purposes outside Scott Bader.

6. None of their products would be sold to anyone known to use them for war-related purposes.

Schumacher then tells the story:

"*When Mr Ernest Bader and his colleagues introduced these revolutionary changes, it was freely predicted that a firm operating on this basis of collectivized ownership and self-imposed restrictions could not possibly survive. In fact, it went from strength to strength, although difficulties, even crises and setbacks, were by no means absent.*"

Between 1951 and 1971, it had increased its annual sales to £5 million and net profits had grown to nearly £300,000 a year. By then staff had also increased to 379 and they had set up a number of new companies.

"*And yet*," writes Schumacher, *"although Mr Bader's quiet revolution should be 'generally acceptable to the private sector of industry', it has, in fact, not been accepted. There are thousands of people, even in the business world who look at the trend of current affairs and ask for a 'new dispensation'. But Scott Bader -and a few others - remain as small islands of sanity in a large society ruled by greed and envy."*

New methods of socialization

The rest of this chapter is devoted to how to spread similar ideas throughout business. The idea that there is a choice just between private ownership of the means of

production and, alternatively, various types of public or collectivized ownership, is nonsense, he says. In fact, there are eight models which mix freedom, totalitarianism, planning, markets, private and public ownership, in different ways:

Case 1 Freedom
Market Economy
Private Ownership

Case 2 Freedom
Planning
Private Ownership

Case 3 Freedom
Market Economy
collectivized Ownership

Case 4 Freedom
Planning
collectivized Ownership

Case 5 Totalitarianism
Market Economy
Private Ownership

Case 6 Totalitarianism
Planning
Private Ownership

Case 7 Totalitarianism
Market Economy
collectivized Ownership

Case 8 Totalitarianism
Planning
collectivized Ownership

Schumacher then explains:

"*It is absurd to assert that the only 'possible' cases are 1 and 8: these are merely the* simplest *cases from the point of view of concept-ridden propagandists. Reality, thank God, is more imaginative*."

So devising an ownership 'system' for a wider ownership economy would produce a truly mixed economy, says Schumacher:

"For it is 'mixture' rather than 'purity' which is most likely to suit the manifold exigencies of the future, if we are to start from the actual situation in the industrialized part of the world, rather than starting from zero, as if all options were still open."

He suggests that the 'public hand' should get half the distributed profits of large-scale private enterprise, and that it should get this - not from taxing profits - by by owning half the equity in these enterprises.

1. "Since every business loses its private and personal character and becomes, in fact, a public enterprise once the number of its employees rises above a certain limit, minimum size is probably best defined in terms of persons employed. In special cases it may be necessary to define size in terms of capital employed or turnover."

2. They must all be joint-stock companies.

3. "*It would be desirable to transform all shares of these companies into no-par shares after the American pattern*."

4. Next, "*the number of shares issued, including preference shares and any other pieces of paper which represent equity, should be doubled by the issue of an equivalent number of new shares, these new shares to be held by 'the public hand' so that for every privately held old share one new share with identical rights will be held publicly."*

5. *"What precisely is meant by the 'public hand'?*" asks Schumacher. He proposes that the newly created shares, representing fifty per cent of the equity, should be held by a local body in the district where the enterprise either the locally elected politicians nor the local civil servants are "*necessarily the most suitable people to be entrusted with the exercise of the rights associated with the new shares*."

6. He calls this the 'Social Council'. It should be formed locally along broadly fixed lines without political electioneering and without the assistance of any governmental authority, as follows: one-quarter of council members to be nominated by the local trade unions, one-quarter by local professional associations, and one-quarter to be drawn from local residents in a manner similar to that employed for the selection of persons for jury service. "*Members would be appointed for, say, five years, with one-fifth of the membership retiring each year*." It might be sensible to give the local authority the

right to send its observer to the Social Council and, in the event of serious conflict of dissatisfaction, to apply to an appropriate 'court' for temporary powers of intervention.

7. "No questions of compensation arise, because the half-share in equity is being 'purchased' by the abolition of company profits taxes and all companies above a certain size are treated the same. The size definition can be set so that initially only a small number of very large firms is affected, so that the 'transition' becomes both gradual and experimental. If large enterprises under the scheme would pay as dividends to the 'public hand' a bit more than they would have paid as profit taxes outside the scheme, this would act as a socially desirable incentive to avoid excessive size."

Finally, Schumacher says that: *"The above proposals may be taken as nothing more than an exercise in the art of 'constitution-making'. Such a scheme would be perfectly feasible; it would restructure large-scale industrial ownership without revolution, expropriation, centralization, or the substitution of bureaucratic ponderousness for private flexibility. It could be introduced in an experimental and evolutionary manner - by starting with the biggest enterprises and gradually working down the scale, until it was felt that the public interest had been given sufficient weight in the citadels of business enterprise. All the indications are that the present structure of large-scale industrial enterprise, in spite of heavy taxation and an endless proliferation of legislation, is not conducive to the public welfare."*

What happened next?

So what happened to Scott Bader over the past 50 years? Well, you will be glad to hear that they thrived.

They have set up independent businesses all over the world, which are co-ordinated from the country house in rural Northamptonshire where they were evacuated from London during the Blitz in 1940. That means that, via these independent businesses, they employ over 800 people. In 2022, they made £2.1m profit on a turnover of £306m.

Ernest Bader died in 1982, but his son Godric took over as chair of the board: *"We have pretty well kept to 350 persons or thereabouts in Wollaston,"* he write in the 25th anniversary edition (Hartley & Marks, 1999):

"We are developing companies in other countries that we hope eventually will practice our principles. At the 1986 general meeting, we voted - albeit by a narrow margin - to drop the fixed pay ratio in favor of the community council deciding whether the highest pay is excessive in relation to the lowest. This happened mainly by pressure of management to adopt comparative market rates for jobs to be able to recruit people with necessary commercial and technical skills and knowledge for higher positions. The board of the

operating company remains accountable to members of the Commonwealth via the community council, the Commonwealth board, and general meetings. The community council has the right to confirm or initiate the removal of the company directors; and the Commonwealth board has the right of approving or removing membership of the Commonwealth. However, management pressure has ensured that these responsibilities are only timidly exercised. Profit distribution remains as originally conceived and has settled down recently to 90 per cent plow back, five per cent to employees and five percent to charity..."

The original quotation with which Schumacher begins the chapter is by the American economist John Kenneth Galbraith, from his 1957 critique *The Affluent Society*: *"In a community where public services have failed to keep abreast of private consumption, things are very different. Here, in an atmosphere of private opulence and public squalor, the private goods have full sway..."*

But even if we don't really have an answer to Schumacher's rhetorical questions arising out of those words, new economists have tended to go for mutualism (co-ops), to tackle the problem in practice for the poorest.

The Schumacher Center in Great Barrington is itself an example of this, since its headquarters nestles in a community land trust of its own on the side of Jug End mountain in Western Massachusetts.

Community land trusts - where the underlying land remains in trust, and only the ownership of the building on top of it can change hands - they were a brainchild of Bob Swann, who founded the E. F. Schumacher Society there in 1980.

Mary Flynn of the Community Housing Land Trust Foundation (CHLTF) in Canada wrote in the 25th anniversary edition (Hartley & Marks, 1999): *"Since its inception in 1993, the CHLTF has explored ways to implement the land trust model in British Columbia. It finds properties already used for affordable housing where residents are threatened with rising rents and unstable tenure, then attempts to negotiate a discounted purchase price with the owner. Once purchased, the properties are offered on a long-term, nonprofit basis to residents. CHLTF supports housing co-ops, with their mixed income and diverse resident populations, and works with residents to establish housing co-ops where appropriate."*

That is as good an example of the commons in action anywhere. In the UK, there is a similar story, which makes co-ops one of the most successful elements of the new economics in practice.

"We live in collapsing ecological and socioeconomic systems based on developments since the Industrial Revolution that were motivated largely by gain and power," wrote Godric Bader in the same 25th anniversary edition. "*So it is not surprising that such systems are unable to reflect or sustain our true needs, purpose and identity. Trusteeship essentially means having faith and confidence in a process of taking responsibility for assets and social values and administering their rightful and creative usage for the benefit of others - now and in coming generations."*

Bader's parents, Ernest and Dora (Scott) were in that respect following in the path laid down originally in the UK by the great retailer Spedan Lewis.

Spedan had been given a quarter share of the business started by his father when he was 21, in 1906, the heady year of the UK Liberal landslide and the *Dreadnought*, shortly after his father, old John Lewis. famously walked across London with £20,000 in his pocket to buy the ailing store Peter Jones in Sloane Square.

Spedan was appalled by the way his father was running the business. Huge family rows began to disrupt the household, but it was Peter Jones that was to be the cause of the greatest row of all – and the canvas on which Spedan would create his vision of what future business might look like.

This was delayed when he punctured a lung in a riding accident and spent two years recovering. The accident may have saved his life because he was, as a result, medically unfit to fight in the First World War. Instead, in 1914, when Peter Jones was on the verge of collapse, his father asked him to take over as chairman of their new acquisition, on condition that he carried on his full day's work at the headquarters store, and didn't work at Peter Jones until after 5pm.

He accepted and immediately raised the staff wages, launched a pooled commission scheme and set up department talk committees with direct access to himself. Sales immediately began to rise.

Doubts about these revolutionary business ideas reached his father, who warned him to give up his wild theories or hand back control of Peter Jones. If not, his quarter partnership in the John Lewis company would end. Spedan agreed he could give up his share of the business in return for control of Peter Jones.

In business terms, it was an insane deal – giving up a quarter of a reliable fortune in return for a small store on the verge of collapse. Everyone, from his mother to his bankers, urged him not to do it. But he did and, by the end of the war, the turnover of Peter Jones had multiplied by five.

The challenge was now to find a way to turn these ideas into a permanent settlement for the whole dysfunctional company.

The contrast between Peter Jones and John Lewis in the 1920s could not have been sharper. While Spedan Lewis was pushing his profit-sharing scheme through recalcitrant Peter Jones shareholders, his father was facing his first and only strike.

Four fifths of his 500 staff came out in a bruising contest of wills. The management side was so unpopular that even Queen Mary asked her ladies-in-waiting to put money into the strikers' collecting box.

John Lewis was not yet geared up for the kind of expansion that took place in retailing at the end of the First World War, divided as they were between father and son.

It wasn't until 1926, the year of the General Strike, that the two men were reconciled, two years before the old man's death (aged 92), leaving Spedan Lewis in full control of the group, and able to put his partnership ideas fully into effect.

He had certainly had long enough to think about it, testing and tinkering with different aspects while his contemporaries were dying on the Somme and at Ypres. But Spedan's luck held. He floated the company on the stock market just in time before the Wall Street Crash – at the top of the market for £1.5m. A settlement trust was then formed guaranteeing the employees the right to the future profits of the company.

As the Great Depression spread gloom over the future, and the dole queues lengthened, it was a system that Spedan believed would inevitably take over the world. He wrote a book called *Fairer shares : a possible advance in civilization and perhaps the only alternative to communism* (1954), which is a kind of revealing title and may have been why Schumacher did not use him as an example.

That is certainly what Spedan Lewis believed half a century ago. *"Few, if any, want to live on a volcano but more and more we are doing so*," he wrote. *"Our world of millionaires and slums is more and more volcanic."*

Lewis was absolutely right - and it is still growing in its vulcanicity.

These days, when having a Waitrose supermarket - also part of the John Lewis Partnership - is regarded as the best way of regenerating a rundown neighbourhood, John Lewis maybe too big to exemplify Schumacher's vision of the 'commons' - he must

have been aware of it - but it is still a beacon of hope to all those who seek out alternatives.

Which must be why, in 2002, a BBC poll voted him Britain's top business leader - narrowly beating Andrew Carnegie.

My final example is Ricardo Semler, a Brazilian businessman, though he is actually half Austrian, who took over his father's company at the age of 21. As Spedan Lewis found, this was not a comfortable experience for either of them. He was frustrated with the traditional hierarchy of the company, Semco, and determined that it should diversify out of the shipbuilding industry (they made pumps) before it was too late.

When he told his father he had to leave, Antonio Semler was deeply upset. He decided to give his son a majority share of the company and to go on a prolonged holiday. "*Whatever changes you want to make in the organization*," he told him, "*do them now.*"

What happened next is one of the strangest stories in business, leading to a whole new model, which obliterates all the divisions and hierarchies, and with dramatic success. It is one of those ubiquitous case studies that are learned, almost by rote, in Harvard Business School, but which has been hardly copied anywhere.

Because the young Semler responded to his father's challenge. He summoned up all his courage and sacked most of the company's executives, including his father's closest friends, and set about changing Semco, eventually turning it upside down and creating a whole new model of doing management, what is in effect a democratic company.

The company not only survived the experience – though it did so by the skin of its teeth – but it became one of the most successful companies in Brazil, making white goods and a range of other related products and services. From revenues of $4m in 1982, when the young Semler took over, it now earns over $200m a year, with an annual growth rate of up to 40 per cent a year. It employs 3,000 workers, and has managed to sustain that growth through Brazil's years of hyper-inflation and its years of disastrous deflation as well.

There were a whole series of false starts, but the real turning point came when Semler suffered a series of fainting fits when he was 25 and was told by his doctor that he had to simplify his life. It coincided with the sense of frustration that he was feeling about the conventional ways of controlling companies. "*Semco appeared highly organized and well-disciplined*," he said. "*But we still could not get our people to perform as we wanted, or be happy with their jobs.*"

He decided that, not only was his own work-life balance completely flawed, but that his employees were working far too hard as well. A semi-autonomous unit he set up inside the company to develop new products and business ideas was so successful that it provided a template for re-organizing the whole company.

By the 1990s, Semco had emerged with a revolutionary new structure, with semi-independent units and factories run largely democratically, where the employees worked in teams without job titles. They choose the hours they work, and even choose their own salaries.

Semco organizes regular courses for employees in accounting just so that they can understand all the financial information they are given. For very big decisions, like moving factories or buying companies, the whole workforce votes. When they move a factory, they hire buses and everyone goes and inspects the sites. All their internal meetings are voluntary, and anyone can come if they have got something to say. If they get boring, people can go. In fact, if nearly everyone has left by the time they come to the question of what people should do as a result, they ask themselves if the project was really worth doing in the first place.

As Schumacher implies, all this is anathema to most business lobby groups in the world – almost as much as letting staff choose their own hours and salaries. Other companies around the world have followed in the same direction of complete openness, including regular open evaluation of managers by the people they manage, but the democratic element is very unusual.

In small, family firms, including my own (I am the only employee) then the same flexibility and democracy applies. In big companies, it is almost unique, though there are mutually owned companies like John Lewis and Scott Bader, where the staff own the organization.

Semler jokes about his own shrinking role, and his own shrinking office. After ten years of taking no decisions at all, he held a reception to celebrate the occasion. This understates the struggle he has undergone to transform Semco into a model of people power, against the rigorous opposition of the Brazilian business community, the sophisticated business media, but also – less predictably – the unions, who were deeply suspicious of the idea of people choosing their own working hours.

But the key to Semco's success is their intricate networks of self-organized teams. Once the teams were in charge of the separate units, the company's systematic organizational chart had to go out of the window. People took on the roles of leaders and conveners because they had natural authority to do so, and to achieve different tasks.

But the other crucial factor was size. To discuss properly, in such a way that everyone could bring what skills they had to bear, the units had to be small enough for everyone to know each other's first names and to feel they belonged.

Semler's new sub-divided factories began to innovate faster. They also managed to deliver products the day after orders were made, which had never happened before. They bounced back from problems quicker.

"I have come to believe that economies of scale is one of the most over-rated concepts in business," wrote Semler. "*It exists, of course, but it is overtaken by dis-economies of scale much sooner than most people realise."*

Schumacher would definitely have agreed.

Thanks partly to Liberal Democrat legislation in 2014, the UK's mutual sector is now very much bigger than it was, and more successful than it was before.

This is despite the loss of so many mutuals under Margaret Thatcher in the 1980s, when so many of the UK's mutually run building societies were demutualized and their assets stripped and given to members. Even so, Scott Bader is now only among the 50 biggest co-ops in the UK**.**

Questions for discussion...

1. Why have these examples not been copied all over the world?

2. It is obvious why people haven't given up their rights to their enterprises willingly. How might we persuade them to do so, when - without money - the prospects for themselves and their families might be dire?

3. Is it sensible of society to pay entrepreneurs so much more than we need to do to keep them experimenting? How can we avoid it?

4. Is it your experience, like Schumacher's , that the countries with the highest growth rates are also the most polluted? If so, what are the implications of that for economics?

Epilogue

"If it can be said that man collectively shrinks back more and more from the Truth, it can also be said that on all sides the Truth is closing in more and more upon man. It might almost be said that, in order to receive a touch of It, which in the past required a lifetime of effort, all that is asked of him now is not to shrink back. And yet how difficult that is!"

– Martin Lings, *Ancient Beliefs and Modern Superstition* (1964), quoted by Schumacher at the beginning of the Epilogue.

"Humans have tried hard since the 1970s to live more peacefully with non-human nature. They have utterly failed with accelerating habitat and species destruction. From the point of view of non-human nature, this is the Dis-Information Age: the information contained in genes of species is being lost faster than ever and cannot be replaced. No available information from politicians or philosophers seems to be very effective in helping maintain the planet's genetic library. We are content to engineer remaining DNA between already living species. This century will be known for its Species Holocaust."

– Peter Warshall. conservationist and author of *The Next Whole Earth Catalog: Access to Tools* (1976), in the 25th anniversary edition (Hartley & Marks, 1999).

"One of the crucial tasks of the new century will be to so shape our economic system so that environmental and social safeguards are built into its design. Advocacy for better working conditions and non-polluting methods of production will certainly play a part in this reshaping, but theoretical knowledge by itself will not necessarily stimulate a change in our consumer habits. Rather, we need to be able to picture the manufacturing processes so clearly that we are compelled to demand secure conditions for the workers, and to restore the waters poisoned by toxic waste..."

– Susan Witt, co-founder of the E. F. Schumacher Society - now the Schumacher Center for the New Economics, where she is executive director, in the 25th anniversary edition (Hartley & Marks, 1999).

This is Schumacher's attempt to sum up his message in the book. It is just a few pages long. But it also allows me to sum up my feelings about the book too...

What the Epilogue says...

"We shrink back from the truth if we believe that the destructive forces of the modern world can be 'brought under control' simply by mobilizing more resources - of wealth, education,

and research - to fight pollution, to preserve wildlife, to discover new sources of energy, and to arrive at more effective agreements on peaceful co-existence."

So says Schumacher at the start of his summary. Then he goes into a little more detail...

"It is of little use trying to suppress terrorism if the production of deadly devices continues to be deemed a legitimate employment of man's creative powers. Nor can the fight against pollution be successful if the patterns of production and consumption continue to be of a scale, a complexity, and a degree of violence which, as is becoming more and more apparent, do not fit into the laws of the universe, to which man is just as much subject as the rest of creation."

Pollution must be brought under control and mankind's population and consumption of resources must be steered towards a permanent and sustainable equilibrium, he says - then he quotes an official UK government report (1972) called *Pollution: Nuisance or Nemesis*?:

" '*Unless this is done, sooner or later - and some believe that there is little time left - the downfall of civilization will not be a matter of science fiction. It will be the experience of our children and grandchildren*.' "

The report, commissioned by the then brand new Department of the Environment, urges people to buy time so that they can "*revise their values and to change their political objectives."*

In the final pages of the book, Schumacher goes back to eternal values:

"Out of the whole Christian tradition, there is perhaps no body of teaching which is more relevant and appropriate to the modem predicament than the marvelously subtle and realistic doctrines of the Four Cardinal Virtues - prudentia, justitia, fortitudo, *and* temperantia*."*

He quotes Josef Pieper, the German catholic writer and philosopher, explaining that *Prudentia* is not well-served by its current translation: "*On the basis of this magnanimous kind of prudence can we achieve justice, fortitude and temperantia, which means knowing when enough is enough."*

The objective is a kind of 'clear-eyed objectivity', and here Schumacher suddenly falls back on his old love, Buddhism:

"This clear-eyed objectivity, however, cannot be achieved and prudence cannot be perfected except by an attitude of 'silent contemplation' of reality, during which the egocentric interests of man are at least temporarily silenced."

Then he takes a final swipe at the relativity of the current generation:

"Justice relates to truth, fortitude to goodness, and temperantia *to beauty; while prudence, in a sense, comprises all three. The type of realism which behaves as if the good, the true, and the beautiful were too vague and subjective to be adopted as the highest aims of social or individual life, or were the automatic spin-off of the successful pursuit of wealth and power, has been aptly called 'crackpot-realism'."*

Then the final rhetorical flourish about what we need to do about it:

"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 or technology, the value of which utterly depends on the ends they serve; but it can still be found in the traditional wisdom of mankind."

Conclusions: what happened next?

It is true that Schumacher probably believed we would have heeded his warnings by now - or faced the consequences - and would even now be hurtling into a new kind of spiritual conciousness.

The fact that we are clearly not, tough, isn't necessarily a source of despair. There is something implacable about *Small is Beautiful* which implies that he will be heard in the end. And this time, in such a way that mainstream economics and politics can no longer ignore him.

The other thins that has happened since his death is that - on both sides of the Atlantic - there has been a great deal of practical thinking about what an economics 'as if people mattered' might look like.

As a result, there is now a body of practical knowledge, and projects that it is possible to point to, to demonstrate that heterodox economics - as the economists call it - is possible and that it works.

There remains a problem though. Because economists tend to want to systematize and to measure things, to pin them down by plotting them on graphs. The apparent precision, for example, of environmental economics - which is about pricing the environment into the economy.

There remains a tradition that goes the other way, forcing the economy to work with - rather than against the environment. Schumacher is thus the patron saint of a continuing tradition of anti-economics, along with people like John Ruskin and the Distributists.

Although Schumacher may not have won the argument - in fact, precious few people are actually taking part in it - there never was a time of such excitement below the radar of the modern world, as organizations like the New Economics Foundation in London and the Schumacher Center for the New Economics in western Massachusetts - and also now so many others - develop their ideas.

It is possible to be quite optimistic - as Godric Bader was (at least at the start) in the 25th anniversary edition (Hartley & Marks, 1999):

"Consciences are being stirred across the world. Ethics are being taught in business schools. Market economics, currency speculation, soil vitality, air pollution, the destruction of historic social cultures and marginalization of human relationships are all under intense discussion in the media and elsewhere... The continuing violence to the human condition and its environment is being challenged, but often the answer is to apply further violence as a restraint. Possibly even more insidious is the violence that results from the pressure for more intensive growth via capitalism and the many forms of privatization. The real fact of economic life is that the world's resources (notably fossil fuels, minerals and the land, dependent on sun, rain, wind) are the seedbed of the future, and must be husbanded, recycled, and replaced as one conserves capital, not expended as income."

Or you can be intensely practical, as Susan Witt was in the same book:

"By intentionally narrowing our choices of consumer goods to those locally made, local currencies allow us to know more fully the story of items purchased, stories that include the human beings that made them and the minerals, rivers, plants, and animals that gave of their substance to form them. Such stories, formed from real life experience, work in the imagination to foster responsible consumer choices and re-establish a commitment to the community. In this sense, local currencies become a tool not only for economic development but for cultural renewal... The multi-layered nature of local currencies has captivated and energized an informal network of practitioners who are issuing scrip in their own communities. When these activists get together, there is no mistaking the positive dynamic at

work. The movement has all the energy, idealism, and mobility of young adulthood - still experimenting to find the right form, not afraid to take risks, able to alter direction as needed, and determined to change the economic system to reflect deeply held social and environmental values."

Clearly, Susan was primarily describing local currencies - and she got the whole global movement together in one room in Bard College in New York state in 2004.

Experimental new kinds of money - by which I don't mean bitcoin - tend to rise and fall counter-cyclically. So if we are heading for the economic doldrums, as it seems likely that we are, then the mainstream world will be knocking at Susan's door and others who have kept he Schumacher flag flying over the years.

Re-reading *Small is Beautiful* again from cover to cover myself, after nearly 50 years, it came as quite a shock - for the following reasons:

1. I was fascinated both how relevant and up-to-date it feels.

2. Also how religious his focus is - and how Roman Catholic. We tend to think of Schumacher as a Buddhist, but he was also - by the time *Small is Beautiful* appeared - he was showing all the enthusiasm for traditional wisdom of the recently converted.

3. Except at the end when he focuses on Scott Bader, how very broad he is, how very light on specifics about exactly what needs to be done - it isn't that kind of book. He wanted to underpin his economic revolution with a change of attitude and a change of heart.

Questions for Discussion...

1. Why has so it taken the mainstream world of politics and economics so long to take the Schumacher critique seriously?

2. Is Schumacher of the political left or right or neither? Or something else entirely?

3. How might his ideas win? How can we make them a reality in our own lives?