Later Than You Think

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Introduction

Charles Birch's book *Confronting the Future* was first published in 1976 and up-dated in 1993. I used the book while teaching at the University of Melbourne in the early 1990s and have occasionally seen used copies of it languishing upon the 'science' shelves of Brisbane's few remaining second-hand bookshops (there being no shelf or, in libraries, no Dewey classification, to help locate the rich but generally little-known futures literature). When I reviewed the book in 2006 I was impressed at how the basic thesis remained sound. This was summed up in the view that 'one sort of world is dying (while) another is struggling to be born.' (p321) Birch did his homework well. The twelve chapters are well researched, clearly written and, to my mind at least, reasonable. Moreover, the conclusions he presented have largely been substantiated by subsequent experience.

I felt that it was more than worthwhile re-visiting *Confronting the Future* and taking a fresh look both at the analysis it contains as well as some of the actions and policies it suggests. Part one of this essay deals with 'the problem' as defined by Birch. It begins by summarising key issues and then briefly reviews what might be called 'failures of response.' It then looks in some detail at two specific types of media complicity. First, mis-representing the debate on climate change and, second, exacerbating the problems arguably caused by what I term 'extreme affluence.' Both examples are drawn from the *Australian* newspaper.

Part two is called 'responding to a world on the edge'. It deals not merely with solutions but also with the grounds from which those solutions can arise. I look in some depth at what lies behind the common strategies, employed at all levels, of avoidance, repression and denial. I consider the diversionary 'worlds of illusion' that complicate the task of thinking clearly and lead to what I call 'the great forgetting.'

Part of the 'good news,' however, is that there are some exceptionally valuable resources for dealing with this 'civilisational challenge.' The futures literature, which is broader, richer and more helpful than is commonly realised, is part of that collective resource. Some of those who've contributed to it – like Birch himself - live and work in Australia. They can be thought of as 'physicians of the planet' and they have much to offer, a little of which is summarised here. With this material clearly in mind it is then possible to outline actions and strategies that lead away from 'overshoot and collapse' futures to those where we, and indeed, the human race, re-gains a measure of control over its destiny.

Part One: Confronting the future re-visited

As noted above, and in my view, Charles Birch correctly identified many of the key issues that have not diminished but grown in scale and significance over the ensuing years. Here is a summary of some of these themes.

- Current ways of living in Australia are fundamentally unsustainable and, if left unchecked and uncorrected, will lead to disaster.
- There are very many ways forward out of this self-constructed trap, but the social capacity to respond effectively is minimal or non-existent.
- Structural solutions will not be easy; they involve major, often radical, changes.
- Market-, and growth-oriented, economies constantly exacerbate these concerns and cannot, in themselves, offer any long-term solutions.
- The utilitarian view of the world that underlies the above (ie, the view that the world exists for human use and is thus approached in terms of the 'use value' of 'resources') is self-defeating.
- Solutions to the inequalities between people that are the sources of many conflicts will not be solved unless and until affluent consumption is curbed.
- A profound spiritual emptiness dominates affluent societies in the midst of material abundance.
- There is an equally profound lack of leadership available to respond to these questions.
- Little or no attention is given to long-term issues anywhere.
- All of which means that we are, on the whole, living in a fools paradise, undermining our own future and compromising that of our children and future generations.

Considering such a list one is struck by how effectively this work has been marginalised, skimmed over and, I would say, largely forgotten. As suggested below, this is by no means the first time that questions powerfully affecting the viability of the social order have been raised, only to be set aside later and ignored. It is, in fact, very common process. What this suggests for Australia is something that many will not want to hear, ie, that disastrous 'overshoot and collapse' futures are far closer than is commonly believed – even by those who consider themselves 'educated' and 'well informed'.

Such a view not only seems to fly in the face of 'normal' everyday life. It can also be dismissed with familiar references to 'gloom and doom' thinking which, as we all know, is socially and politically untenable. It's widely believed that no politician will go near such questions if he/she values their seat in parliament. Yet there are increasingly powerful reasons to suggest that dismissive responses will simply not suffice. Difficult issues call for extraordinary leadership and it is this that we appear to lack. Like it or not, we have to face up to the fact that no amount of denial and no conceivable array of high-tech diversions will help us in this situation. What can change, however, is how we respond, and this is where I think we've a lot more going for us than may at first appear. I will deal with this in part two.

Failures of understanding and leadership in Australia

Before we further explore some of the grounds of long-term solutions, I want to look briefly at some of the opportunities we've had in this country to deal with these issues. No doubt many more could be added to this sample

First, as noted, Charles Birch's, *Confronting the Future* (1976, 1993). The book was inspired by the *Limits to Growth* (Club of Rome, 1972) and its Preface written by Aurelio Peccei. Its basic proposition was that fundamental changes were needed in Western culture. (p 19.) It took stock of the key issues and concerns facing Australia and recommended policies and strategies to deal with them. The latter diverged radically from what was considered to be 'politically acceptable' at the

time and thus were deemed to be either too hard or unworkable.

Second, was the setting aside of *the Ecologically Sustainable Development (ESD) process* in 1992/3. (Ref: W L Hare (ed) *Ecologically Sustainable Development*, ACF, Fitzroy, 1990) A number of ESD forums were held in various parts of the country and related reports and other publications were issued. According to Birch, the reports were circulated to no less than 'thirty-six interdepartmental committees' (p 39) before they were abandoned.

The *Australian Commission for the Future* (1984-1998) was initiated by then Science Minister, Barry Jones, to help Australians become better informed about technology choices and future directions. Under four directors it attempted to come to grips with these and a range of other long term issues. It is considered either mis-directed or a failure by many. In fact it yielded useful lessons that can be (and have been) used to inform more advanced foresight work. It was abolished in 1998 not long after Senator John Button took over the Chair.

Australia 2020: Foresight for Our Future (Matthew James, Parliamentary Library, Canberra, 2001) is an example of a proposal originating from within the government infrastructure [the Parliamentary Library] that drew on Australian and overseas sources to argue for the usefulness of supporting long-term views. Like other such initiatives it was ignored, shelved and forgotten.

The Canberra Futures Forum was set up to facilitate informal dialogue between middle-level government employees and held regular meetings for (?) years. It was closed by Ministerial edict in 2004 (?) for reasons unknown.

The Australian Foresight Institute was initiated at the behest of the then Vice Chancellor of Swinburne University in 1999. A Masters of Science in Strategic Foresight was offered from 2001. The notion of adding foresight to strategy was and is a productive one. The course attracted a range of 'mid-career professionals' who soon formed their own identity and alumni group. The AFI per se was abolished in 2005 upon the appointment of a new Vice Chancellor as part of a university re-structure. All institutes were abolised and their programs ended or 'folded into' new faculties. The AFI was downgraded into a 'foresight program' within a Faculty of Business and Enterprise.

What these examples suggest is that futures/foresight work is still seen as either too 'way out' or, conversely, as of little or no value in Australia. Defenders of the status quo will want to argue that any or all of the above were impractical, unrealistic, untimely etc. Yet what is clear, overall, is that the issues raised by and through all of these initiatives have grown in seriousness and potential impact with each passing year. What this means is that opportunities for timely intervention have been consistently lost. Also that the eventual costs will be much greater.

Media complicity

Another reason why major issues are set aside and initiatives to deal with them are lost is the fact that a large proportion of Australia's commercially owned and oriented media are actively complicit in misinforming and misleading the public. Here are two examples, both taken from the Australian newspaper which seeks to portray itself as a reliable 'thought leader' in the country. Careful analysis, however, shows exactly what is going on and suggests a different interpretation.

Reporting climate change

On the 14th of January, 2006, two newspapers, *The Australian* and *The Age*, carried very different accounts of the inaugural meeting of the Asia Pacific Partnership on Clean Development and

Climate. The conference brought together representatives from Australia, the US, China, India, Japan and Korea which, it was reported, together account for about half the world's energy consumption and emissions of greenhouse gases.

The Australian made its position clear at the outset with the view that 'there was more theology than meteorology in the response of the environmental lobby to this week's inaugural meeting ...' It proceeded to attack those who were critical of the meeting, describing them as 'prophets of doom', 'green zealots', 'environmental opportunists' and 'extreme greens.' This is an oddly perverse strategy for a paper that aspires to be taken seriously and would presumably seek to distance itself from the tabloids. Those who have first-hand experience of those being demonised here would find it difficult to recall having met anyone, environmentalist or not, who could be so characterised; and there is one reason for this – these terms are 'off-the-shelf' stereotypical responses.

Instead of taking critics of the conference seriously, listening to their point of view and debating substantive points of difference, the strategy employed is to denigrate them and attempt to deny them any legitimacy or standing. The use of the term 'theology' is a clear signal that those who stand against the 'approved' worldview of the paper are irrational and not to be trusted. But this only serves to demonstrate the paucity of insight involved. Clearly, deeply embedded interests are threatened. But, instead of reflecting clearly on the nature of this underlying opposition, its dynamics, implications, etc, the writer of the editorial opted for a different, and entirely self-defeating, path. It is simply not possible to address embedded issues of worldview and value difference by denying the good standing of those one disagrees with. The approach is a non-starter and it suggests that the intellectual resources available to the newspaper are more slender than might otherwise be supposed.

This lack of intelligence is also reflected in two further slurs on the identity of these ill-defined opponents who are accused of other transgressions. One is that 'environmental opportunists ... (have an) ideological preference for bureaucratic solutions.' The other is that 'the Green movement's real desire (is) to see capitalism stop succeeding.' The first of these is plainly false because the solutions required obviously span a range of contexts in which bureaucracy is only one. The second purports to diagnose what is 'really' going on under the surface but actually reveals the author's structural position, which is that of defending the capitalist system against what are seen as its 'enemies'. It is a black and white view (for or against) that is blind, deaf and dumb to the costs that any system hooked on unending growth brings with it. Moreover, the reference to 'success' is uninformed by a recognition of the irony contained in a word that can be read as a piece of compressed code for a way of thinking and operating that derives from US commercial trade practices. This 'religion' is used in a manner which suggests that the writer is unaware of his own, deeply embedded growthist 'theology'. There are certainly alternatives but that is not what the piece is about.

Elsewhere there are further signs of a poor grasp of the issues. Here are a few. About a third of the way in we read that 'a commitment to invest in cleaner energy without crippling economic growth makes sense.' Well, yes, if you see such growth as being the central value and purpose of an economic system that inverts the relations between itself and the natural world, forgetting that the former is wholly dependent on the latter, and not vice versa. The 'theology', or embedded lack of rationality, in placing the abstractions of the economy *first* and the sustaining realities of the environment *second,* is appears invisible to the writer who will support the view that, with more economic growth, we can solve our environmental problems. It is a familiar fallacy that is universally missed by mainstream economists and their apologists.

We then learn that global warming is not really such a big deal since Australia is 'only responsible for 1.6 per cent of global emissions' anyway. Again, the 'I'm alright Jack' argument is certainly

familiar, but one would perhaps not expect it in a paper supposedly intended for thinking people. Most of the latter would appreciate that in an interdependent world such a view is of limited utility indeed, if not downright stupid. Then we reach the heart of the piece where we read that 'it seems certain the world is warming, but no one knows how long the trend will continue or why it is happening.' Here the word 'seems' is misplaced because the data is there to show that the trend is real. The view that no one knows how long it will continue is, when one thinks about it, too obvious to need saying at all and somewhat beside the point. Finally, the notion that 'no one knows ... why it is happening' is pure fantasy.

The piece concludes with an assertion that only has one thing to recommend it – it is at least consistent with the dross that precedes it. Here we find that 'whatever the extreme greens say, we can address global warming without adopting a medieval mindset that sees electricity as inimical to the environment.' What this says very clearly is that those who dare to question the ambiguities and oversights of such a meeting, those who have a different point of view, those who may be asking different kinds of questions and attempting to explore different solutions – all these can be assimilated to a view of the world that is one with the Middle Ages. That is, one that is dated, obscure and irrelevant. Yet, as we've seen, what stands behind this attempted demolition job actually reveals the lack of capacity of the writer and his/her inability to come to terms with deficiencies in the worldview of business and its largely unexamined 'growthist' ideology and practices. If anything needed to be dragged into the light of day, freed of its 'medieval' assumptions, liberated from its own irrational commitments it is this.

The biases noted above are further underlined and revealed by contrast with another editorial published by the Melbourne *Age* on the same day dealing with the same subject. The treatment could hardly be more different. The Age noted the 'lack of political resolve' to deal with the problem, noting that 'the politicians more or less said that they trusted the industries that contribute most to the greenhouse problem to solve it' (thus raising the legitimate question of the extent to which any 'industry' can in fact be trusted to create its own regime of self-regulation). It also noted that the meeting 'set no benchmarks or targets ... offered the smallest of carrots to industry and waved no sticks.' In other words the official response was a familiar laissaiz faire one that, as ever, was out of scale with the issue involved. The editorial also pointed to other issues, such as 'finite resources' and 'environmental sustainability', suggesting that there was a path hitherto untried that could be summarised under the heading of 'demand management.' Anticipating the likely response of market ideologues the writer disavowed an 'idealistic return to Eden', opting to state the obvious, yet in this context, overlooked, fact that 'sensible everyday changes in public behaviour could deliver immediate greenhouse gains without great pain.'

The *Age* writer also drew attention to the 'meagre $100 million' that the government had promised to spend over the next five years, correctly noting that this 'makes one wonder about the nation's priorities.' It argued for more 'free exchange of ideas and technology between nations', suggesting that this 'could produce results that greatly exceeded expectations.' It suggested that nuclear power was 'highly risky' and ended by stating that 'neither the Kyoto Protocol nor the new partnership has offered a remotely adequate response to the uncertain future of climate change.'

What are we to conclude? First, the editorial policy of the Australian is seriously lacking. A paper that prints editorials that speak for only one section of the community (and that badly) needs to re-assess its own priorities. Does anyone really believe that growth-oriented business is 'all good' and those who question this paradigm are 'all bad'? Second, there's a far better informed debate to be had on these matters. For example, what IS the role of business in helping us move toward a sustainable economic system? Is anyone interested in finding out? If the answers are 'none' and 'no' then we will again move closer to the reality of 'overshoot and collapse' in the very near future.

Third, the *Age* editorial makes it clear that the government itself is not serious about the issue of climate change and still has its head buried in the sand.

If this is this the best a well-educated and (currently) affluent country can do Australia will find the path toward sustainability even more fraught than it need be.

Wish magazine

Besides seeking to deflect and de-focus the debate about climate change the *Australian* has, since 2005, openly pursued another strategy that I believe works against the national interest. Each month it publishes a large glossy magazine called *Wish* with exceptional production values devoted to what might be called the 'lifestyles of the rich and famous'. The analysis below is drawn from the June 2006 issue. It contained 72 pages (including the cover) of which over 28 – nearly half – were devoted to full or double page advertisements. The breakdown is as follows.

Table 1: Full page advertising content, Wish Magazine, June 2006

Item	#	Rank
Airline	1	
Bank	1	
Clothes	1	
Consumer electronics	1	
Local travel	1	
Luxury accommodation	5	(1)
Luxury cars	2	(4)
Luxury home appliances	2	(4)
Luxury hotels	3	(3)
Luxury yachts	1	
Overseas travel	4	(2)
Pearls	1	
University	1	

As can be seen from table 1 luxury accommodation (ie, units and condos) and luxury hotels come first and third in rank order, with overseas travel coming second. Luxury cars and home appliances share joint fourth place, with luxury yachts, airline, bank, clothes, local travel, consumer electronics, pearls and a university completing the list. The front section of Wish is divided into five regular features: wisdom, pursuits, society, tribes and health. Each takes up no more than a page, and often less. In this issue the following themes are pursued.

Table 2: 'Regular features' themes, June 2006

Wisdom – Tackle shyness by challenging self-defeating thinking patterns.
Pursuits – Making a splash (an article on a Federal MP's penchant for ocean swimming).
Society – An 'op ed' piece about perceptions different generations have of each other.
Tribes – The BMW motorcycle club of Victoria.
Health – Vitamins, bicycles, 'ask the doctor' and a 'better living tip'.

The above are notable only for their brief and trite treatment of the subject matter. They are obviously intended as 'fillers' whose only purpose is to bulk out the magazine and insert some content among the ads. If we set aside the fashion theme there are only three stories that run over

one page: 'love boats' (ie, superyachts), 'a car called zonda' and 'peak experience', about a Sydney based climber.

Love boats

The front cover carries a dramatic close-up arial shot of an ocean-going 'superyacht' at high speed with two couples on the rear deck and the obigatory bikini girl at the front. At the speed the vessel is travelling this would be an exposed and uncomfortable position to be in so she's clinging on for dear life and there for visual effect only. The caption reads: 'Water worlds. Why superyachts are on everyone's dream shopping list'. The article begins with 'superyachts, floating palaces – call the outrageously expensive motor-powered luxury craft what you will – are the latest must-have accessories of the rich and famous'. The marketing manager of one company selling the yachts is quoted as saying that 'no two boats are the same; they're built to customer order. This is the top end of the world scale, the same way in which some people have luxury 747s. When you've got everything, why not?'

Apparently there are about 6 000 such vessels in Australia and currently the cost of a 'top-of-the-line' yacht is about 'Aud$1 million per metre'. Todd Vigdon, who has crewed on some of these yachts was asked why people spent such large amounts of money 'to bob up and down on the sea'. He replied that,

> it's a status symbol...the thrill of a jet-setting lifestyle because that's exactly what it is. They hop in their private jets and are sitting on a remote island within hours, with their own six-star floating hotel nearby. And whatever you want, you can have.

Cameron Grey is the captain of a luxury yacht and his observations are similar.

> Superyachts are the most private luxury retreat you could experience ... Bedarra Island may be beautiful but you're sharing it with other couples. With a luxury yacht, you can walk along Whitehaven Beach in the morning, snorkel and scuba dive before playing golf in the afternoon, then return to the boat for cocktails at sunset...

According to the article, 'cocktail hour generally begins at 4.00 pm in the jacuzzi, followed by hors d' oeuvres, dinner and a nightcap around the outdoor bar'. Interestingly, however, none of the owners of any of the featured vessels are interviewed for the piece, only those who build them, market them or work on them. Why is this? One reason may be that by excluding the wealthy, their views, opinions etc are also kept at a safe distance. The piece remains more fully under the control of the journos and editors involved. Another is that the disjuncture between the projected glamour of extreme affluence and the real (and often disappointing) experience of living it at this level can be set aside. Such contradictions would detract from the image being created.

The actual construction and use of these vessels is clearly a growing industry. Un-named sources are quoted as saying that 'the superyacht industry contributed $338 million to the Australian economy in 2004-2005, and there are now 13 superyachts being built here, worth a total of $213 million'. Richard Morris, manager of Rozelle Bay Marina, is given the last word: ' it's not all about rich people sitting on the deck drinking gin and tonic,' he says, 'this is a growing industry and it should be encouraged.' This hints at the interests behind the piece. At one level there is the mini-industry that has evolved to construct and service these extreme and expensive toys. At another is the diverse array of market apologists who see what they term 'prosperity' through the one-eyed lens of consumption and endless growth.

A car called zonda

Another toy, and one again only for the super-rich with $1.5 million to spare, is the Pagoni Zonda. The erotics of autophilic journalism are fully on display in a gushing paean to the beauty of this car.

> It looks like a ballistic Batmobile, with quad exhausts that seem built to spit fire, and has a name like an Italian sci-fi hero. And if you won a million on Lotto, you'd still have to borrow $500 000 to afford one. Meet the Pagoni Zonda, the newest entry to the pantheon of high-performance super cars.

The engine gets the usual 'boy's own' treatment normally found in the Motoring section of 'quality' newspapers and in the large number of Auto magazines now available:

> the Zonda Roadster F's 7.3L V12 engine, sources from Mercedes-Benz, produces 478kW and 780Nm of torque...All that grunt...ships from a standing start to 100km/h in 3.6 seconds, or about the same time it takes to exhale all the air in your body. From there it will sprint to a top speed of 345km/h, although the ridiculously crowded speedometer goes all the way to 400km/h.

Then,

> Look beyond the wild wings and Jetson-style, forward-thrusting cockpit and the beauty of the beast really starts to reveal itself. The inherent loveliness of the carbon fibre is the sort of thing that only the truly car-nutty can comprehend, but if you've ever seen some close up you'll understand what a masterpiece the Zonda is.

The 'beauty of the beast' and the 'inherent loveliness of the carbon fibre' speak of a system of values that would have been familiar to the Italian Futurists in the 1920s. In both cases a machine aesthetic rules and here the 'verdict' is predictable. The car is 'a handcrafted masterpiece for millionaire connoisseurs who like to drive fast – very fast'. Just where such driving can be achieved is, of course, less clear. Perhaps in dreams?

Peak experience?

The third story – and the one that comes with an unexpected burden of significance - deals with the life story of Sue Fear, a world class mountaineer, and the first female Australian to ascend Everest from its north side. She's quoted as saying that 'in the mountains I found the possibilities endless. I was totally engaged, totally tested'. She exudes self-reliance – 'when you're out in the middle of nowhere, you're totally on your own (and) you have to be able to deal with anything'.

According to a friend she overturned gender stereotypes. She 'turned all that crap on its head. She did exactly what she wanted to do in what is very much a man's world'. And, he added, 'she does it better than most of the men'. Other friends admire her almost old fashioned qualities, her values and her capacity to focus. She had the self-belief that enabled her to scale many of the world's highest and most difficult peaks, and to lead her own expeditions several times a year. She knew 'how to manage risk and responsibility'.

Then, to the surprise of all, a dramatic event well beyond editorial control pitched the story into a very different category, altering its significance entirely. A few days before the June issue of Wish magazine appeared, she fell into a crevasse and died. No mention of this appeared in the magazine, although the Australian carried a report several days earlier in its weekend edition of June 3-4.

The Wish budget and beyond

I estimate that the Wish budget may be about $2million a year. This may not seem a great deal, but bear in mind the following. First, the money comes from the advertising budgets of the companies involved who, in turn, draw these sums from the puchases made by everyone. Second, it is legitimate to question both the values behind this practice and also consider some of the alternative uses to which these funds could be put.

Clearly this is a serious enterprise and several things stand out. First, and quite obviously, it's unashamedly a 'lifestyle' initiative designed to appeal to the upper middle classes and beyond who either have large disposable incomes or 'wish' they did. Second, it sits solidly within the arena of liberal economic orthodoxy whereby all human needs are addressed and satisfied by the market. Third, by depicting the toys, experiences, accoutrements of the rich and famous, it deliberately sets up a dynamic that invites the reader to emulate them. The magazine itself acts, overall, as a kind of extended advertisement for what can only be called *extreme affluence*. The key point is this. It is a life that neither recognises nor permits any concession whatever to the well-being of our world and its people, nor to the range of serious issues that we all face. It continues along the well-worn path of attempting to extract from the earth more than we now know it can provide.

The pursuit of fantasy wealth fails sets up an impossible standard for would-be aspirants that can never be satisfied. To see that there is so much that is ever out of reach only serves to increase the tensions between 'what is' for most people and what, in wishes or dreams, might be. It would not matter how long anyone worked – not one or ten working lifetimes – the levels of affluence portrayed here are simply unobtainable financially, socially, energy-wise and environmentally. The standard so portrayed can only be an exception, and a very exposed and temporary one at that. For many, however, knowing that this fantasy world is ever and always beyond them merely serves to increase the already high levels of existential angst felt nearly everywhere. In other words the whole process of promoting this empty image world of the so-called rich and famous is socially and psychologically regressive. It creates more problems than it can ever solve.

The deeper story

Yet there is also a deeper and darker irony in this issue of *Wish*. As noted, when it appeared, the Australian hero who was featured for her rugged individuality and non-standard life, her way of 'doing it differently', lay dead at the bottom of an icy crevasse in Nepal, her dreams of being different extinguished forever. I've no doubt that this would have had some impact on all who had produced the story. But I wonder how many of them would have seen in this tragedy a hint of the greater one to come? What those behind 'the Australian Wish' cannot see is that the system that they are putting so much time, effort and skill into promoting and selling is itself contradictory and in the end self-defeating.

The whole point of *Wish* is to funnel yet more energy, time, resources and effort into an industry that *already* penetrates every crevice of contemporary life with an bland insouciance and nerve (not to say insensitivity) that is breathtaking, once one becomes aware of it. *Yet stimulating consumption in order to promote growth, wealth and prosperity actively works against the best interests of everyone.* Why is this? One reason is that we are now living in the time of peak oil. From here (2006) forward the global demand for oil will greatly out-strip the available supply which, in turn, will lead to disruptions and conflict on a wide scale. Substitutes for oil are, to some extent, within reach from the 'platform' provided by oil. But as the latter diminishes the economics of energy production rapidly become much more difficult. There are no easy solutions and learning that will

be painful in societies that have become over-enthralled with so-called 'market solutions.' Second, the whole way of life that was subsidised by cheap oil is coming to an end and living conditions for very many more people will deteriorate over coming decades. This will create new instabilities and conflicts. Third, the fact that the above will occur during a period of global heating and sea-level rise (to name only two environmental 'wild cards') greatly exacerbates the difficulties of making a smooth transition to a different way (or ways) of life on this planet. In fact, what we call 'normal' life looks set to become increasingly impossible as the ice sheets melt, weather patterns change, extreme weather events increase and very large numbers of people are driven from low-lying coastal areas around the world.

What all this means is that a much larger proportion of our current surplus wealth needs to be turned *away* from the patterns of empty affluent consumption promoted in 'Wish' magazine and others of its type. It's in the best interests of all, rich and poor alike, that this wealth is re-assigned to the complex and demanding process of *adapting* to the new realities of life on an over-crowded and compromised world. While some will dismiss this analysis as evidence of an assumed 'politics of envy', that is simply not the issue. Excessive consumption of the kind depicted here works directly against fundamental human interests, including those of the super-rich. The currently blinkered mainstream media that are owned by some of the latter are therefore also working against mutual survival in a much harsher and more demanding planetary context.

To summarise, the strategy represented by *Wish* (but by no means limited to it) is fundamentally regressive and unhelpful because it:

• makes a system and way of life that is driving humanity toward disaster seem desirable;
• makes palatable the empty values of affluence that contribute substantially to the problem;
• stimulates appetites that can never be fulfilled, even for the bulk of the currently affluent;
• further drains the natural wealth upon which humanity depends for its existence; and,
• diverts attention away from the need to use current wealth to adapt all human societies to radically altered global conditions.

What we should 'wish' for, therefore, and work towards, is that more of the 'super-rich,' their promoters and networks of supporters, themselves begin to 'wake up' to the very real dangers that we face. They might then choose to devote their wealth, as a few such as Bill Gates already do, to ends that matter. Ends that might give them greater satisfaction than a 'scotch on the rocks' would do in a private 747 or at sunset on a deserted beach in the Whitsundays now.

2012 Note

This line of argument was significantly strengthened by Herb Kemph's book *How the Rich are Destroying the Earth*, Sydney, Finch Publishing, 2008). I discuss the implications in Chapter 4 of The Biggest Wake-Up Call in History, Brisbane, Foresight International, 2010. See review at: http://integralfutures.com/wordpress/wp-content/uploads/2011/10/Kempf_Review_181011.pdf

Part Two: Responding to a world on the edge

I suggested above that humanity in general, and therefore Australia, is faced with an unprecedented array of serious issues and major world problems that, taken together, provide convincing evidence that we are set on an 'overshoot and collapse' path. Another way of putting this is to say that we're living by mining the Earth's capital, rather than living on the interest. This is not a new message but it has been consistently distorted and blocked by some of the most powerful organisations in the world. There are many reasons for a diagnosis of this kind. For example:

• the 'success' and subsequent failure of economic liberalism and 'wild globalisation;'
• the inability of education and business to read and understand signals from the global system;
• the incapacity of governments to respond effectively and pursue progressive visions of futures;
• an environment that is being irreversibly damaged; and,
• a progressively more dangerous mismatch between social/ethical development on the one hand and growing technological capacity on the other.

This essay is not, however, merely concerned with re-iterating examples of 'bad news' nor is it yet another expression of 'gloom and doom.' No particular political axe is being ground. Rather the focus of this section is the nature of human and cultural responses. So I begin with an overview of what might be called 'strategies of avoidance' and commonly adopted ways of *not* knowing, and therefore *not* responding before proceeding to ways of responding to the civilisational challenge.

Denial, avoidance and repression

Human beings clearly have available a range of psychological protection mechanisms that enable them to deal with (or, rather, not deal with) facts they find uncomfortable. These responses almost certainly developed in order to mitigate the unacceptable foreknowledge of one's own death. Perhaps the most common response, therefore, to 'bad news about world problems' is to dismiss it in the belief that it is unhealthy to 'dwell on the negative'. Better to change the subject and take shelter behind such responses as outright denial (it won't happen to me), avoidance (not now please) and repression (I am going to hide this knowledge in a place where it cannot be found). These strategies are functional up to a point because they help us to keep going, to not be immobilised by fears and worries that have few easy answers. This tendency, however, is not merely a personal ploy. It is powerfully reinforced by a culture that provides us with a huge variety of indulgences, diversions and endless opportunities for 'not knowing.' One could even suggest that these are some of its main purposes. So we need to address this question directly.

One rather serious drawback is that if these 'not knowing' strategies are the main, or only, ones at our disposal then, at some point, as I think we all know, 'reality comes crashing in.' Clearly, that's when the suffering really begins. Moreover, it's a poor way to run a powerful, globe-spanning culture equipped with the most powerful tools and technologies yet seen in human history. The key point of this paper, however, is that all these issues can be re-framed, reconceptualised, seen differently and therefore responded to in more active and helpful ways. Let me be clear: we do not have to walk passively into dystopian 'overshoot and collapse' futures. The more clearly we understand the pathways and processes that lead there, the more leverage and potential for social innovation we have.

Grounds for informed hope

It's true that our whole way of life is at risk and will have to change. It's true that the currently powerful in business, government, education and so on are failing in their civic duty. It's also true

that the kinds of changes in prospect cannot be made without substantial costs. Yet the fact remains that to really understand how serious our situation is, is not necessarily a cause for gloom and depression. Unthinking responses certainly lead in that direction but it takes little thought to realise that they all lead to a literal dead end for individuals and for societies as well. The good news, however, is that there is indeed other path. It requires courage, nerve, moral and other such resources on a scale perhaps never seen before. But I think it is a far better choice all round. This is where we do, indeed, look right into the abyss and see just how terrible the human outlook is about to become. If we're willing to contemplate this abyss, to take it seriously and to stop denying our rapid approach to it, we'll also start to see that the clear perception of what's involved has some very interesting – and powerfully constructive – implications.

The most significant change that occurs when we take the onset of disastrous futures seriously is that we suddenly find that we are ready to re-examine assumptions and open to new possibilities. This is not something we'd normally do because it is far easier to accept things 'as they are and simply drift with the tide. But when that tide is carrying us to Hell, we are given a chance to wake up and perhaps change some things that we'd never have contemplated before. Another change that takes place is that we discover new and renewed sources of motivation. Suddenly, the most important items on the agenda are no longer the family meal, the house extension, the latest car or the overseas holiday. We begin to realise that all of these things only exist by the grace of an extended web of relationships, processes and arrangements - all of which we'd taken for granted – that are shifting away from what we'd considered normal; all of which need to be re-perceived and re-thought.

Earlier work on 'world problems' - even Birch's to some extent - may well have under-estimated what might be called the 'burdens of change'. That is, the real costs - personal, financial, psychological etc – that will be widely experienced as our over-extended global megaculture moves from its growth phase into a deep correction, or series of them, ending in a very different 'stable state.' Despite the fact that some have already written about this, the process has yet to be consciously acknowledged, let alone seriously explored. But I think we'll find that there's a close parallel with the grief cycle as men and women come to terms with the finality of death itself. Yet there are also some very major positives hidden within this apparently dire outlook.

Once we understand that the kind of lives we've led are the most *abnormal* ever seen on planet Earth, and that they cannot, under any scenario, be preserved in their current forms, we realise on a very deep level that it is indeed time to respond to the new context, before the ground shifts under us. One of many ways to get a handle on just how extreme our 'normality' has been is to note that our species has, in a brief three centuries, expended the fossil energy that took some *fourteen million* years to accumulate beneath the Earth. Another is to realise that the current world population of over six billion souls has been inflated a long way beyond the Earth's optimum carrying capacity and now exists in its current state as a result of one key factor – the availability of cheap oil. As noted, the 'descent' from peak oil will be far more difficult than most people yet realise and hence the current level of world population will not be sustained. Knowing this in time gives us a brief space to choose to move away from the path of unsustainable growth. During that time we can re-vision our place on this small planet and take the first steps to a steady state economy living in balance with the Earth.

The outlook is certainly challenging and we'll find traditional values in every area of society, the economy and our personal lives under greater pressure than ever before. Yet here too there are powerful grounds for hope. While cynical business people, and others, may comment about how 'human nature' cannot be changed, it turns out that the latter is by no means as Protean and fixed in place as has often been assumed. From an integral viewpoint, what is termed 'human nature' turns

out to be a very broad set of developmental options. Among these are arrayed many choices. For example, we now understand the functional differences, and the choices they pose, of a scale of values leading from ego-centric-, to world-centric functioning. The former admits of few solutions that are not already in play, but the latter opens up to many new and entirely novel ones. It's reflected in the movement from conventional thinking and operation to post-conventional states and stages. The former is stuck in 'the way things are' whereas the latter is able to see 'how they might be'. Once we begin seriously looking at questions, digging deeply in the constitution of our own human-ness, into the dynamics of human and social development we find that there are options awaiting us that were unavailable from within the cornucopian dream (or nightmare) of endless material wealth.

There's no shame in coming to understand very clearly that we are currently living in a fools paradise perched on the edge of disaster. In fact we can turn this view around and understand the same outlook very differently. We can acknowledge that we're living in an 'evolutionary forcing ground', ie, a context that forces us to deal with the issues I've sketched in above, that sets before us a number of major growth-related choices that Birch and others have devoted a good part of their lifes to documenting on our behalf. For some time now I've described this as the 'civilisational challenge', which is as far away from 'gloom and doom' or passive acceptance of 'fate' as it is possible to get.

Worlds of illusion and 'the great forgetting'

In the field of conjuring and magicianship the creation of illusions is a positive and enjoyable experience. The audience chooses to have their sense of reality, their ordinary assumptions and perceptual habits challenged in the most entertaining ways. The magician seems to have extraordinary powers: the cards obey his will; the doves and rabbits appear as if from nowhere; the lady vanishes. We leave perplexed but happy, knowing that our ordinary assumptions have been challenged, if only briefly. Clearly there's more to the world than meets the eye (a point to which I'll return below) and this can leave us with a sense of widened possibilities, even if we do not, at that moment, know exactly what they may be. Such illusions are temporary and we soon forget them as we return to the daily round. But if we look more closely at daily life we see that it is filled with illusions of a completely different kind.

The familiar surfaces of everyday life are made up of the things we see, hear and do without, in most cases, thinking about them very deeply. That is to say, the world we experience is comprised of other people, imagery, music, signs, symbols etc, all embedded in familiar, man-made, infrastructures such as roads, railways, airports, pavements, offices, shops and shopping malls, cinemas and, of course, our homes and those of our friends. Within this world, both public and private, are rapidly increasing numbers of glittering attractions such as shop signs, advertisements, magazines, TV and cinema screens and the ever growing range of hand held electronic devices, from mobile 'phones to sound and image-rich I-pods. Increasingly the range of sensory options from the external world is matched, and perhaps even exceeded, by the infinite range of material now available on the internet.

There is, therefore, a strong sense of being surrounded by a kind of multi-media, multi-domain, orchestra that sometimes plays 'in tune' (as we make sense of fragments of it momentarily) and then 'out of tune' (as we struggle to cope with the sensory overload that it creates). There's an increasing sense that the wider world 'out there', while attractive in many obvious respects, is also demanding, harsh, abrasive, unforgiving and quite possibly dangerous as well. Far better, perhaps, after prolonged exposure to 'tune out' and seek solace somewhere else. For some that 'somewhere else' is, in fact, a deeper engagement with the external world, through sport, bush walking, travel and other

such activities, including companionship with others. For many it is found by turning inward to reading, television, computer games, the internet and so on.

There's no simple 'take' on how individuals construct their lives and their own unique worlds. What is clear, however, is that we live amidst enormous sensory complexity. Hence the question that arises is the effect all this has on our grasp of the wider context. I suspect, in fact, that the world of culture that I've been attempting to evoke above, now functions primarily as a dense and all-but impenetrable screen that intervenes between us and the background natural world so effectively that we have, in fact, lost sight of our real relationship with that world and, equally, also lost sight of what that means. I call this 'the great forgetting.'

There is, however, a group of individuals that, instead of turning away from the wider world, spend a great deal of their time dealing very directly with one or another aspect of it. Some are scientists, while others are writers, journalists, academics, wardens, guides and so on. Some are professional (in the sense of being formally paid for what they do) while others are volunteers working out of a sense of certain value commitments or personal connection with some part of the natural world. They are a varied group and they have vital role to play. Some of these I think of – in a sort of 'shorthand' way - as physicians of the planet.

Physicians of the planet

When we get physically sick we usually visit a doctor, a person trained to read the signs of physical and/or emotional distress; one who will interpret the signs and prescribe a course of action (that may or may not include taking some form of medication) to ameliorate or cure the condition. Broadly speaking, we tend to listen to what the humanly oriented physicians have to say about us individually and to consider their advice. One of the measures of civilisation is the extent of institutional provision for the sick, the injured, the young and the elderly. The medical infrastructure in any country provides for this and woe betide any local politician who overlooks this responsibility! Just as there are physicians who deal with human beings, so too there are those who focus on the planet and specialise in a particular geographical area, earth system or type of organism.

Table 3: Physicians of Australia and the planet

(a) Planetary physicians

- HG Wells: *Wanted, Professors of Foresight*, 1926
- Rachael Carson: *Silent Spring*, 1962
- Paul Ehrlich: *The Population Bomb*, 1968; *Extinction*, 1981
- Frank Herbert: N*ew World or No World*, 1970
- Dennis and Donella Meadows: *Limits to Growth* 1972, 1992, 2004
- Hazel Henderson: *Politics of Solar Age*, 1981; *Beyond Globalisation*, 1999
- Richard Leakey: *The Sixth Extinction*, 1995
- JR Saul: *The Unconscious Civilization*, 1997
- Edward Wilson: *The Future of Life*, 2002
- Jared Diamond: *Collapse: How Societies Choose to Succeed or Fail*, 2005

(b) Physicians of Australia

- Charles Birch, *Confronting the Future,* 1976, 1993
- Tim Flannery: *The Future Eaters,* 1994; *The Weather Makers*, 2005

- Richard Eckersley: *Measuring Progress*, 1998: *Well and Good*, 2005
- Lindy Edwards: *How to Argue With an Economist*, 2002
- Clive Hamilton: *Growth Fetish*, 2003: *Affluenza*, 2005
- Ronald Wright, *A Short History of Progress*, 2004
- Ian Lowe: F*irst Survive the 21st Century*, 2003: *Living in the Hothouse*, 2005

Back in the early 1960s Rachael Carson was one of the first to reveal some of the drawbacks of modernity. At the time she was demonised by the US chemical industry for showing that DDT had cascaded through the ocean food chains to affect the reproduction of some species of oceanic birds. Later in the decade Paul Ehrlich also offended many people, and especially the Catholic Church, by exposing the dysfunctional character of unrestrained population growth. While some of the forecasts fell wide of the mark, the overall case against unrestrained growth was sound and remains pertinent to this day. Frank Herbert is best known for his SF series based on the planet Dune, but he also edited *New World or No World,* a book drawn from the NBC's Today Show celebrating Earth Day back in 1970. The Meadows team took a different approach using systems dynamics and computer modeling of the global system. Over a period of thirty years they carried out a sustained and disciplined study into how the world system would likely evolve according to different assumptions and human / cultural responses. Their first study made a huge impact in the early 1970s, was widely critiqued and then set aside. Two other very valuable works followed but they had little influence in the expansionist ethos of globalisation and were effectively marginalised.

Henderson's work began by critiquing mainstream economics and then went on to consider and promote a wide range of social, economic and organisational innovations, offering new tools to a hard-pressed world. Over time she has assisted many governments and international agencies to re-think their paradigms and approaches to a wide range of issues. Richard Leakey summarised the evidence for a humanity-created biodiversity crisis that he called the 'sixth extinction'. As noted, and despite a popular and sometimes polemical style, Saul helped to identify and diagnose the dysfunctional nature of conventional corporate ideology and behaviour. Wilson's extensive scientific studies re-framed the debate in terms of the overall effects of human activity on the web of life. He reached the striking conclusion that the near-term future is a kind of 'bottleneck' and that to get through it we need a combination of 'science and technology, combined with foresight and moral courage'. Seldom are the issues put more plainly or with such nuanced recognition of the different types of factors involved. Yet they remain shadows upon the wind to the dominant social formations of our time. Finally Diamond took the long view back over the rise and fall of many different societies and civilisations to provide us with an historical overview of the factors that contribute to, or detract from, collective survival. Among the latter is the ability of current political elites to make good, far-sighted decisions...

In relation to Australia, Birch was perhaps the first and, thus far, the only author to work systematically through a range of futures-related concerns. Updating and revising his work would be a service to the nation. Flannery drew on his broad bio-geographical knowledge to place the continent's ecological inheritance into context and suggest why human beings had become 'future eaters.' (They move into ecological niches that they then over-exploit.) The book was also turned into a three-part ABC TV series. More recently he has spoken out very clearly about global warming and the measures needed to moderate it. Edwards provides an insider's view of the symbolic war between the 'pointy heads' (economic rationalists) and the 'bleeding hearts' (those with a wider, more humanistic, view) in successive Australian governments. She outlines several strategies for challenging the former on their own ground (eg, identifying market failures).

Eckersley has used social indicators to show that, while material standards have improved people are, on the whole, no happier. His more recent work goes beyond the usual economic indicators to

examine more subjective areas of life including: meaning and purpose, identity, belonging, perceptions and expectations. Over several years Hamilton has worked out of one of Australia's few critically enabled so-called 'think tanks', the Australia Institute. He has developed a critique of the traps and social consequences of consumerism, also questioning the dominance of materialistic values and goals. His term 'affluenza' neatly captures the dysfunctional nature of the current economic system. Wright's 2004 Massey Lectures provided yet another opportunity and resource for revising conventional views. Like Diamond, but much more succinctly, he reviews the historical record and concludes that 'the most compelling reason for reforming our system is that the system's in no one's interest. It is a suicide machine.' [8] Finally Lowe, currently the President of the Australian Conservation Foundation, has written a number of well researched and articulate publications about a range of key issues, including energy, the environment and global warming, directly affecting Australia's future options. But, like most of the material reviewed here, this work has been consistently sidelined by the government.

In the light of the social foresight research project carried out by the Australian Foresight Institute, it is not surprising that so little of this work has had any real structural impact. Over time there have been some gains, eg, DDT was widely phased out and futures / foresight work has 'come of age', as it were, now being widely adopted even by governments in certain limited instrumental ways. But, overall, these messages, insights, proposals all receive the same general treatment and share a similar fate. They are given brief, tokenistic, 'air time' and then forgotten. The signals they contain are filtered out by editors, government advisers, economists, CEOs and many other such gatekeepers who know that 'the public' prefers good news to bad and appears to be much more interested in the sexual adventures of film stars and sports personalities than they are in the implications for their children of levels of $CO2$ in the atmosphere. In such ways essential signals that, rationally, society would otherwise want to deal with clearly and explicitly are set aside. The many potentials for public leadership and civil response are deferred or lost.

Until ... And there's the rub ... Until such time as a crisis occurs and the value of what has been proposed and set forth over decades suddenly becomes unavoidably clearer to many more people. Then the standard filters are briefly shaken, destabilised, de-legitimated, such that people, organisations and even societies waken momentarily from their ordinary slumber and begin to enact some of the proposals that have long been available. This phenomenon is remarkably widespread and particularly visible in the critiques of economics that have been with us for several decades but that have had little effect over that time. The principle was demonstrated in the context of New Orleans and then later in the aftermath of the Asian tsunami. What such examples show is that there is a dialectical relationship between foresight and experience.

At the civilisational level, that is, at the level of governments, large organisations and the key social formations and institutions, our culture is permeated by illusions, wishful thinking and ideas that are long overdue for replacement. For example, the twin ideologies of progress and of growth, sanction a continuing assault on the natural world that beggars the imagination. The destruction of forests, lakes, rivers, reefs and ecosystems of all kinds has become so 'normal' in the so-called 'advanced' societies that few ever give it serious thought. Most people would probably not even know what has been called the 'sixth extinction' stands for, even though they are part of it. Life on Earth took some four billion years to evolve but it is being dispensed with wholesale as though it counted for nothing. The arrogance is breathtaking and it supports an illusion of safety and security. The illusion in question is that, in an immediate sense, affluent life (and in an extended sense, any human life) can prosper while the Earth's life support systems are steadily compromised. The associated illusion that *homo sapiens* is a 'peak species' that bestows on it the status of 'lords and masters of nature' is also false. It obscures our real situation and sponsors the kind of wishful thinking that stands behind the vast majority of decisions made in our major institutions:

government, business and education.

Were it otherwise then the long chains of reasoning that stand behind conventional thinking would be challenged and, in some cases, reversed. The structure of institutions would change and the reality principles of advanced civilisations would change as well. Where the extremity of the human condition is put so far out of mind that it ceases to exist then 'anything goes.' In a complex environment it is already difficult to 'clear the fog', think clearly and understand what is happening and why. The question is: how can this be turned around?

Responding to the civilisational challenge

If we are going to make any real progress it is essential to re-frame our situation away from trite and ill-considered 'gloom and doom' responses suggesting that we are, or will be, helpless victims of forces beyond our control, towards the notion of us being collectively challenged. One of the immediate gains is that, instead of having to mount a psychically expensive and debilitating strategy of denial, etc, we can start to explore the range of options that are, in fact, available. In my view this approach leads us to genuine empowerment, social innovations across the board, sustainable long-term solutions and, eventually, a very different future world. There are three key steps. These are:

• understanding our situation
• taking responsibility, and
• acting effectively.

Understanding our situation, using the new 'integral' tools for a diagnosis

The roots of the human and civilisational predicament go back at least to the Western enlightenment when some of the core notions of our culture emerged: the scientific method, the power of reason, individuality and so on. They were developed and applied further during the industrial revolution, as the revelations of science become embodied in increasingly powerful machines and devices of all kinds. Discoveries in biology, medicine, farming and so on fuelled a great increase both in human numbers and in the steadily growing impacts that populations were exerting on their environment. The mass societies that we take for granted today emerged from a series of revolutions in human ingenuity and technical skill.

Of relevance here is the fact that these developments occurred in the face of critiques, warnings and direct opposition – not once, but many times over. From poet William Blake, the early 19th Century Luddites, to the suffragette movement, Lewis Mumford and HG Wells of the 20th, to those working now; there have been many who have stood up and argued against the trends of development that they could see taking place around them. A turning point in terms of popular awareness occurred during the early decades of the 20th Century as the 'high ground' of Victorian optimism gave way to a sense of malaise and a growing view that the future looked increasingly forbidding and dark. The impacts of the First and Second World Wars, followed by the explosion of the first atomic bomb in 1945, put paid to the earlier dreams of rational social organisation and the possibility of a perfectible society on earth. At that point utopia gave way to its opposite, and we have been living with (or repressing) the consequences ever since.

In other words, to understand our current situation we need to look back and develop an historical analysis, a clear view of how it is that we reached *this* world, and not any of the other multiple possibilities that could have eventuated. Without this analysis we can make little progress in discussing 'the future.' This is basically why inspirational, poorly grounded, futures work is worse than none at all: it is built on illusions and wishful thinking and brings discredit on the whole

enterprise. The rise of critical futures studies began here; began, that is, with a deep appreciation not merely of the 'external' history of our path to the present (machines, technologies and infrastructure) but, perhaps more significantly, of the social and human 'interiors.' That is, the inner worlds of people and cultures. Both of the latter are accessible to the right methodologies, and they've had huge impacts on the range and power of Futures Studies and applied foresight. But there are no quick fixes.

Critical futures studies considers the grounding of societies in worldviews and ways of knowing. It uses the tools of enquiry that developed in various contexts to 'get inside' and deeply understand the principles and processes that can be summed up in the term 'social construction.' This means that, instead of dealing only with the external, visible, world (technologies, infrastructures, 'the future of cars' [a media favourite] etc) we can also both see and understand many of the processes that proceed all the time 'under the surface.' One of these deals with the issue of legitimation, or how it is that a society establishes something it considers of value and then tenaciously defends it. Another is identity, or how we learn who we are and are inducted into the social order.

Integral thinking enabled a further decisive step forward toward clarity and integration. Until it appeared futurists (and others) had concentrated on understanding the external world through methods such as systems theory and empirical science. Post-modern scholarship in general, and critical futures in particular, brought into play the underlying social factors as mentioned above. But it was integral theory that both extended these and provided a way of linking them together, achieving a balance across hitherto separate fields of knowledge that had not been possible before. Specifically, integral thinking allows us to integrate four domains.

Table 4: Four domains of integral thinking

- the inner individual (or the domain of 'I')
- the inner collective (the domain of 'We')
- the external individual, ('It') and
- the external collective. ('Its')

It turns out that different phenomena operate in these domains and, as a result, different methods and ways of knowing operate in each of them. This may, at first sight, appear to be an abstract sort of argument, but it you look at the results that have flowed from it you quickly realise that, for the first time, we have an immensely clarifying 'meta map' that allows us to make sense of the complexities and challenges around us. The very positive point is this: 'understanding the present', while clearly challenging, is now more achievable than at any time in the past. This provides a valuable clue. With the right tools we can see much, much more deeply into the present and much further into the near future context. In other words, looking 'beneath the surface' provides rich rewards.

Early 21st Century consumerist culture has its achievements, perhaps, in making available to large numbers of people sophisticated goods at relatively low prices. It is here that any residual 'social utility' of business may reside. Yet in the process whole populations have been turned into consuming automatons who have, in certain key respects, lost sight of the value and grounding of their own autonomy, along with any clear notion of what their own best interests might be. The cornucopia of superficially attractive consumer goods conceals a very different reality – the full cost of mass affluence to us, to the web of life that supports us and to future generations has never been reckoned. Perhaps it never will be.

What's been widely overlooked is that the very success of economic liberalism, the fulfilment of its

materialist cornucopian agenda, has led directly to its failure. Those responsible for it may well have genuinely believed that if the economy was 'running well' and that goods and services were being successfully produced for millions of people, then human happiness and social well-being would follow. But that's clearly not what's happened. People are now unhappy at higher standards of material living. They are suffering from meaningless, depression and alienation on a vast and growing scale. Moreover, it's clear that the Earth cannot sustain the system that's been created to feed endless economic growth for very much longer. What have been called 'the resource wars' have already started. But, rather than demonstrating the positive uses of power, they only signal its nihilism and exhaustion.

Taking responsibility

Under these circumstances, taking responsibility can appear to be an awesome project. It means, for a start, consciously separating oneself from the flow of conscious and subliminal messages that tell us to want more, buy more, consume more. It means putting these illusions aside and thinking for ourselves. It is also an invitation to a very different way of life – a life that is open to possibilities currently eclipsed by the power of social convention, habit and symbolic power. Here are four specific suggestions, four specific ways to take back responsibility. Many more are, of course, possible.

First, we can become aware of the protective mechanisms of denial, avoidance etc that were outlined above and, instead of taking shelter in the comfort they provide, decide on a case by case basis if we really do want to adopt them so uncritically. In other words, we can begin to open to the reality of our situation without automatically filtering out information, and knowledge that we may initially find uncomfortable. We can begin to positively value this knowledge, recognising that within it are truths, ideas and options that can help shake us out of our ordinary complacency.

Second, we can reverse 'the great forgetting', ie, the complete dependence of society, the economy, the life and breath of each person, on natural systems. We can recognise the arrogance and hubris that always stood in the background as powerful men swelled with pride at new discoveries or a new technologies that aided (some) human beings in some ways but, equally, depleted or destroyed natural capital somewhere, sometime. This insight leads to a refreshing change or perspective. For example, much has been said and written about the moon landings and, more generally, the journey into space. But few have reflected on how that journey was made possible by what someone once called 'the stored motility of countless tiny pre-historic organisms' (ie, fossil fuels) that concentrated the energy of ancient sunlight. In like vein, every rush hour in every city in the world thoughtlessly relies on this same archaic source. Beyond this, the construction and deployment of modern armies and weapon systems involves, in each and every case, a vast increase in entropy, the wholesale waste of precious stores of human skill and rapidly diminishing stores of fossil energy. Viewed in these wider terms, war itself becomes even more insane than it looks from a purely human point of view. It is an entropic trap made possible only by a kind of widely-shared species vanity. Yet, as noted, understanding the abject dependence of our civilisation on past riches provides motivation to move away from convenient – yet ultimately fatal – illusions and to seriously develop alternatives.

Third, we can consciously explore the possibilities inherent in what can be called a 'world centric' stance. That is, a view of the world that sees it as a total system comprised both of material and non-material parts. In the expansionist ethos of the last couple of centuries the laws of ecology were first discovered and then set aside. As noted, it became easy to forget the connections between each of us and the wider world. The limits of the human senses reinforce that tendency and have sanctioned much suffering, waste and destruction as a result. The dominant social organisations of our time – transnational corporations – have developed upon and exploited this fractured

foundation. As a result they have been accurately described as 'externalising machines.' What this means is that they have a single-minded focus - to make money. Toward this end they have actively sought to reduce regulation, deny the full costs of their activities and externalise as many of the costs of production as possible onto the wider environment and, inevitably, future generations. Corporations are not necessarily 'bad' in any final sense. A more constructive view is that they are only part-way through their own process of development and now need to be brought into line with long-term social needs. In a world centric view everything is always viewed in multiple contexts, from micro -, to macro - scale. Although there are few simple answers, vital new rules for the conduct of civilisation can be explored: balance, interdependence, reciprocity and so on.

Fourth, and this is a focus that is often taken by those wishing to encourage others to participate in bringing about change, it is entirely possible to begin to make a host of changes in one's own life, work and household toward 'living more lightly upon the earth.' This is, at the same time, both a useful and a very imperfect solution because, for as long as we have vast entropic infrastructures and war-making capacities; as long as we acquiesce to proxy wars being carried out on our behalf; as long as consumption and waste remain central principles of social life; and as long as the reality principles underlying our civilisation remain fundamentally defective, for all these reasons what any one individual or family can do alone is very minor indeed. Yet this is by no means the end of the story.

When the actions of countless numbers of active citizens align with each other, reinforce each other, governments and businesses pay attention. It is then that populations begin to be aware of, and then approach, various 'tipping points' where changes in thinking and practice can follow each other with remarkable speed. The fall of the Berlin Wall and of the old Soviet Union are often quoted in this context. It is therefore vital that changes in personal lifestyle do take place but, at the same time, are not seen as a substitute for all the many other things that need doing at the social level. Taken alone they could be seen as a way of 'keeping radicals quiet' while others go about their old ways of extracting wealth and power at every opportunity.

Actions and strategies

In order to act people need to find sources of motivation that work for them and, since 'people are different', no single approach will suit everyone. It is indeed up to everyone to consider the options and to decide what form of motivation is likely to be effective for them. Here are some options:

- feel responsible for one's children and work out of that sense of being committed to an open future;
- feel anger about the state of the world and learn how to sublimate this into effective action;
- get informed about an issue that seems to 'strike a chord' and pursue it tenaciously;
- make a decision to strike out in a new direction and make the study of a world problem a long-term and sustained personal preoccupation;
- participate in, or create, some sort of educational program, or program of renewal
- look at issues in one's own locality and decide where to place efforts, etc.

When the motivation is clear a direct link with specific issues can be made. In this process there is a central idea that I've found to be very useful and effective. The core of it is this. It's very easy to become depressed, worried, overwhelmed by a sense that the 'problems of the world' are too vast and simply beyond our ability to deal with. What's often overlooked, however, is that we mistakenly locate the source of power in the problem. We don't see that the power (to understand, act, make changes and create social innovations) actually resides in each one of us. So the key here is to, in a sense, withdraw energy from creating and sustaining 'the problem' and to redirect that same energy into strategies and solutions.

This principle can be taken on a naïve level (where it often fails) or on a number of successively deeper levels where it gains more credibility and substance. I call it the 'empowerment principle' and have designed and offered workshops that demonstrate its power. It's not difficult to show how shifts of this kind can make a big difference in the way people approach and deal with all sorts of problems. The key shift (which is best experienced in a workshop format with other people and not alone and 'in the head') is to (a) consider a range of possible responses to a specific problem and (b) to then explore 'high quality responses.' If the latter are seriously engaged over a period of time it is surprising what can result. To this end I've suggested a number of such responses that can be explored through a wide variety of strategies. I've also found it useful to distinguish between strategies that can be realistically pursued by the young and those that are more appropriate for older people. A brief summary of some of these is set out below.

Strategies for young people

• Develop an understanding of the effects of young peoples' media.

Look at the ways that such media portray the future in dark, violent, stereotypical terms. Ask 'What is going on here?' Direct attention to the *constructed* nature of these images. De-code the marketing imperative using the suggestions opposite. Begin to consider a wider range of non-commercial, post-materialist possibilities and alternatives.

• Change fears into motivations.

Show how energy is channelled into creating fears or concerns. Explore strategies for re-directing this energy toward strategies of response. Explore the meaning of high-quality responses. Explore the empowerment principle.

• Explore social innovations.

Use simple examples to illustrate how they work. Provide opportunities for young people to model or use the social innovation process. Look at people, literature where successful examples are given.

• See the future as part of the present.

Explore conventional notions of the future. Look at connections between past, present and future. Explore the extended present. Consider examples from this and other cultures of how future generations can be considered and valued.

• Use futures concepts, tools and ideas.

Take up some of these and explore their implications with/for young people. Teach futures concepts with the express purpose of helping to develop a futures discourse. Introduce simple futures tools such as time lines and futures wheels.

• Design ways out of the current civilisational 'trap'.

Show how the concept of design is inherently futures-oriented. Use concrete examples to show how the creative process works. Apply to problem solving, social design, social directions. Work through a Futures Bibliography to see what resources exist on some of these themes.

• Explore individual responses to these strategies.

Experience in the use of such strategies will alter perceptions of the future because they build individual confidence and capacity, and reveal avenues for social intervention. In other words, they help people to see themselves as agents rather than passive observers or victims. Those who consciously take on the role of caring (ethical) agents become better placed to negotiate images and pursue projects of futures worth living in. This is a natural extension of the empowerment principle.

Strategies for adults and those working with the young

The above provide a number of starting points for young people. But qualitatively different approaches are needed for dealing with systemic difficulties and deep-seated world view assumptions and commitments. Those working with young people can therefore explore a range of more demanding and longer-term strategies. The latter can be seen as a bridge into dealing in depth with the civilisational challenge. Those who begin to develop insight and understanding at this more profound level are better placed to teach and guide the young, as well as to play more positive roles in the wider culture. They will have access to a wider range of cultural and methodological resources. They will find it easier to chart their own course through a difficult, demanding and, at times, contradictory environment. Finally, they will begin to discern the grounds of long-term solutions. Taken together, these are important gains. There are a number of ways into this deeper perspective. They include the following.

• Studying cultural editing and understanding its creative potential.

Cultural editing refers to the processes by which cultures choose to construe the world one way and not another. The editing process appears to constrain choices and options. There is, however, always a wider range of possibilities than is normally considered.

• Mastering the skills of critical and integral futures.

Critical futures study attempts to understand the present in depth. It considers different ways of knowing, values and epistemologies. Fundamentally, it is about the negotiation of meanings and the grounds of value. Understandings at this level greatly clarify the nature of the present and expand the range of possible futures which emerge from it. Integral futures provides the tools to balance conventional exterior views with less conventional, but equally vital, inner ones. Again, it is no quick fix. Over time, however, it reveals the grounds for long term solutions to many human and world problems.

• Re-negotiating world view assumptions.

When old assumptions prove inadequate, they can be discarded, revised, reconceptualised. This means that what is meant by 'growth', 'health', 'defence' and so on, is much more open and negotiable than is commonly realised. A great deal of constructive work is needed in such areas.

• Creating and supporting institutions of foresight (IOFs).

IOFs are part of the early warning system of advanced, futures-responsive societies. Their role is to scan the environment and to draw attention to signals, precursors, future options that would otherwise be overlooked. Currently they tend to serve a number of governments and corporations but they potentially have much wider and more valuable uses – such as helping to create and sustain social foresight (foresight in the public interest). The use of social foresight would achieve two vital

gains. First, environmental 'signals' would mean that future problems can be detected and given serious attention before they become critical. Second, the 'design forward' principle can be applied to creating the underpinnings of a new civilisation.

• Conceptualising more advanced forms of social and economic life.

Fritz Schumacher wrote of 'an economics of permanence'. But it is also possible to have an economics of kindness or of wisdom. What is needed here is a modelling and exploration of the implications of *more advanced human motives.* These arguably have the power to re-shape social and economic systems toward different ends. The literature on this subject is vast and connects with that on higher order human development, spirituality and a range of other post-materialist topics.

Conclusion

Our civilisation needs to 'wake up' before it is awakened by a series of events that will decimate it and re-establish a different balance between humanity and its environment. No one can say what the trigger(s) will be: climatic, environmental, viral, terrorist, out-of-control military nanotech, or some combination of these. What is certain is that the 'normal' operation of human societies, their infrastructures and their economies, are progressively eroding the shared foundations of life. This is the heart of the civilisational challenge and to deal with it we need to deploy our in-built capacities for foresight and intelligent, future-focused action more than ever before.

We have to come to terms with the fundamental dynamic that is undermining civilisation, both East and West, and that points inexorably toward a diminished future for all unless it is understood and resolved. While I am keenly aware of the limitations and drawbacks of a 'crisis mentality' and the often over-stated sense of urgency that comes with it, I'm also aware that the cost or our current failure to understand and deal with this phenomenon will continue to rise and will reach levels that exceed our imagination. That is why observers such as James Lovelock are saying that it is already too late. That may be a hasty diagnosis but what is clear is that it is very, very late indeed to begin a process of wholesale restoration and renewal.

One thing is for certain, though we can be sure it will be denied by many: we are looking at the end of the world as we know it. I cannot, by any stretch of the imagination, imagine a world that can sustain the impacts outlined below (let alone others that could be added) and remain much like the current one. In other words we are closing in rapidly upon what we might call an 'evolutionary break point' or a 'fundamental shift' in our relations with the planet. But this is not another essay of despair.

I suggested above that in order to act people need to find what works for them. The light at the end of this particularly challenging tunnel is clear. As noted at the beginning, the perception of downbeat Dystopian futures can be, and often is, read as merely depressing. But that same perception can also be re-processed, revised, re-framed, read and responded to very differently. With a certain degree of skill and basic human courage, it can also be read as providing us with new, or renewed, forms of motivation. This is the key point I want to make and it is articulated by one of the leading 'physicians of the planet'. In his book *The Future of Life*, EO Wilson wrote that:

> we have entered the Century of the Environment, in which the immediate future is usefully conceived as a bottleneck. Science and technology, combined with a lack of self-understanding and a Paleolithic obstinacy, brought us to where we are today. Now science and technology, combined with foresight and moral courage, must see us through the bottleneck and out.

EO Wilson, *The Future of Life* (Abacus, NY, 2002)

This piece captures the reality of our situation in a very real and concise way. It also, to the great credit of its author, anchors long-term solutions in all four of the integral domains I mentioned above. The term 'Paleolithic obstinacy' underpins the cultural analysis I've sketched above. The notion of a bottleneck is also informed by evolutionary history – there were other occasions when our distant forebears 'only just made it.' Science and technology can never, ever, offer complete solutions for two fairly straightforward reasons. First, they cover only 'half of reality' (ie, the external part). Second, they create as many new problems as they promise to solve. If, however, we take up the deeply human power of foresight and powerfully, profoundly, use it to understand in depth and detail the kind of world we've been creating and what that means for our species and our world; if we can bolster that with moral courage and, I would add, a certain measure of wisdom, then we can indeed see our way beyond what Wilson calls the bottleneck and what I call the civilisational challenge.

If earlier cultures were motivated by positive goals to protect themselves from the vagaries of nature, build cities and create the possibility of a viable social order, ours can draw on these sources in order to take the next steps. Our task is to re-conceptualise, re-vision our place on this small planet and to use all the skill and capacity we can muster to consciously design a world worth living in. It's a huge task but, in my heart of hearts, I think and believe that we're up to it.

Appendix: Civilisation-threatening world problems and solutions to consider

Problem: We are facing the end of cheap oil and the withdrawal symptoms from this powerful 'drug' will be painful, in part because although we've known this for many years, we've been mis-led into thinking that 'the market will suffice' and have not taken seriously the many innovations and adaptations that the 'post oil' era will require.

Solution: Get serious about reducing oil dependence. Provide incentives to drive innovation and investment in alternatives: wind, wave, solar, hydrogen etc. Also invest in the social innovations required: move beyond mainstream economics; see economics as a sub-set of society and the economy as a 'fully owned subsidiary' of the ecology; reduce luxury vehicle sales, tax large 4WDs, put road tolls in central CBD streets; also invest in demand management, fast & efficient public transport etc. All are based on well-known options.

Problem: A global 'flu pandemic may be imminent. If that does not occur there will certainly be others in part due to the size of the human population and also because it penetrates into most of the places where other life-forms, including disease-causing ones, are found.

Solution: Recognise the role of pandemics in human history and why they occur. Seek solutions based on understanding the relationships between human beings, micro-organisms and the environment. Take the broadest possible ecological approach to this world-wide problem. Put in place the means to detect 'early signals' of new outbreaks and ensure that they have the back-up required to deal with them.

Problem: The trend towards global warming has been scientifically proven and yet efforts to

control CO2 emissions have thus far proved largely ineffective. Some powerful actors have deliberately cast doubt on what are now well-established facts, thus confusing the issue and delaying effective responses.

Solution: Get to grips with the underlying drivers of global warming. Understand that is a humanly-initiated process based on long term trends (farming, burning of fossil fuels, expansion of human populations and activities). Find a viable balance between adapting to the new conditions and reducing their impact. Eg, where possible move settlements away from low-lying coastal areas and those prone to flooding or storm surges. Reduce dependence on fossil fuels. Invest in sustainable agriculture, manufacturing, transport etc.

Problem: The nitrogen cycle is also out of balance with the natural processes of circulation increasingly overwhelmed by a cascade of man-made nitrogen with numerous 'downstream' effects on, eg, lakes and coral reefs.

Solution: Use the science of the nitrogen cycle to re-design policies to regulate the use of nitrogen in, eg, agriculture. Find ways to reduce the cascade to manageable levels – perhaps even re-think it as a resource. (NB. A resource may be 'waste in the wrong place.')

Problem: Sea level rises of several meters over an historically short period are inevitable.

Solution: As above. Re-zone vulnerable areas so that they become less densely populated. Re-design master plans of low-lying cities to accommodate sea level rise. Look again at likely impacts on coastal plain agriculture and explore mitigation strategies.

Problem: The current model of 'wild' globalisation continues to create wealth on the one hand and alienation, resentment, on the other, sowing the seeds of future conflict.

Solution: Understand that 'wild' globalisation driven by corporate 'externalising machines' was never in the best interests of humankind as a whole. Reject corporate ideology and face-saving claims to 'good citizenship'. Insist that corporations be reformed and required by law to operate in the long term public interest. Understand that the neo-liberal project has been completed and measures are now needed to (a) repair the damage and (b) move beyond redundant (right/left) political distinctions toward an economy of permanence.

Problem: The rise of religious fundamentalism in the USA has impeded its own social development. Elsewhere it has provided a convenient but false rationale for opposition to the West and a focus for those wishing to carry out violent attacks on it.

Solution: Religious fundamentalism is a human and social developmental issue and it needs to be approached and resolved as such. Use integral theory, spiral dynamics etc to provide clearer diagnoses of 'what is going on' in fundamentalist mind sets and approach solutions in this way. Locate the common ground through shared human needs and universal values.

Problem: The war in Iraq has exacerbated the above and also rationalised a diminution of privacy and loss of civil liberties in some Western countries. It has also shown the limits of the neo-liberal project to create the world in its own image of market based consumer societies drawing

disproportionately on the world's resources and living systems.

Solution: Although warfare is as old as human civilisation its modern forms cannot be sustained in a fragile, compromised, world, especially in the light of existing nuclear arsenals and the advent of powerful new technologies. It is time to wake up to the fact that the international community must outlaw warfare and re-deploy military resources toward positive long-term ends. A variety of social innovations can be used to support this huge task including: UN insurance policies instead of standing armies; conflict resolution techniques; developmental solutions as noted above.

Problem: The collapse of many living systems – from forests to fisheries and reefs – is progressively reducing the capacity of the Earth to support life. This has still not been acknowledged even though the process is well advanced and objectively obvious.

Solution: A combination of scientific knowledge, ethical commitments and multi-generational efforts in many places can be synergistically combined to replace the present dynamic of destruction with one of restoration and renewal. It is a long term cultural commitment. The fruitful abundance of nature provides the wherewithal to re-seed and renew many devastated areas and to re-build damaged ecosystems. The human population, its settlements and its technologies do, however, need to be 'nested into' this restored environment and kept in balance with it. This is a 'prime directive' for a sustainable society.

Problem: Ecosystems, where they are not being destroyed outright, are being simplified. One result is the artificial acceleration of species extinctions, sometimes called the 'sixth extinction'. (The other five were natural events that occurred in the distant past.)

Solution: Species extinctions must be prevented at all costs. A new respect for natural process and our common roots within the overall web of life needs to be incorporated in reinvigorated human cultures. The sixth extinction can only be reversed if the present and future generations abandons the arrogance of previous ones and re-thinks their relationship with the rest of nature.

Problem: There is a long-standing trend toward growing shortages of fresh water and the 'mining' (or depletion) of underground aquifers which means that water will grow increasingly scarce.

Solution: Fresh water needs to be treated as the precious resource that it is and re-used, re-cycled and conserved with as much care and ingenuity as possible. Again, much is known about the science of water cycles and this knowledge should be brought to the forefront and used in policy making decisions.

Problem: New waves of technology are being driven by the abstract imperatives of transnational corporations in their quest for power, profit, market share and return on investment. Such developments are not subjected to effective human, cultural and technological assessment such that societies, as currently constituted, manifestly lack the wisdom to use them well. If left to run unchecked, future technological revolutions look set to overrun human societies.

Solution: No new technology should ever be introduced without substantive, exhaustive and thorough technology assessment. The skills of TA have been around for some time but they have been under-valued, set aside and, basically, ignored in the 'rush to market.' But markets are

incapable of making ethical decisions or of extending prudence and care now or for future generations. New waves of technology will cause severe disruptions if they are allowed to run unchecked and may well cause the extinction of our species.

Problem: Digital, diversionary, surrogate worlds that are characterised by distancing, forgetting and unreality are proliferating. These further sever the links between individuals and the living world that supports their existence. These 'worlds of illusion' are often very compelling, especially to young males.

Solution: The drawbacks of digital secondary reality need to be explored, appreciated and much more widely understood. Within a marketing culture they are applied naively and with no thought for human, social and environmental consequences. The prevalence of 'unreality industries' based upon them needs to be re-assessed.

Problem: The commercially dominated media purports to be 'free to air' but is, in fact, 'extremely expensive to air'. The costs are borne by everyone but are hidden from view in advertising budgets and emerge as social/environmental dysfunctions. In straightforward terms you could say that commerce is 'driving society in the wrong direction', ie, toward more consumption, more dependence and more unsustainable social/environmental impacts.

Solution: So-called 'free-to-air' broadcasting needs to be openly costed so that the sources of funding are clear for everyone to see. Judgements can then be made about desirability.

Problem: Conservative governments are best described as administrators who are currently 'minding the shop'. They lack systems awareness and foresight, operate out of earlier world views, worship mainstream economics and cannot act before consulting opinion polls. They are therefore systematically prevented from leading in any meaningful sense. They place society at risk because they neither see nor understand the challenges of the near term future.

Solution: Governments need to acquire a much keener knowledge about, and understanding of, the civilisational challenge than is currently the case. They cannot do a great deal on their own, without pubic support, but they could do much more than at present. For example: move away from their fundamentalist belief in neo-liberal (market based) economics; focus on the real and fundamental issues of our time (rather than the politically convenient ones); and underwrite the development of Institutions of Foresight (IOFs) to provide timely and accurate advice about (a) signals from the environment and (b) quality interpretations of what these signals may mean for governance.

Problem: Education systems are governed by two sets of powerful forces that have very little concern with young people or the future: local politics and mainstream economics. Hence these systems are based on redundant principles that fail to prepare young people for the world of hazard and risk that they are entering.

Solution: Free education from the stranglehold of politics and economics. Use the integral perspective to develop a more holistic view of knowledge, society and the world. Ensure that educators in training are given the very best professional start possible, with frequent opportunities for up-dating and personal/professional development. Put education in the hands of educators.

Problem: Universal health care (in Western nations) has reversed the age-old trend of Darwinian evolution and caused human weaknesses of many kinds to be retained (rather than eliminated). While humanly desirable, the long-term implications continue to create weak and dependent populations, difficult resource dilemmas and new sources of social conflict.

Solution: Seriously get to grips with the long term dysfunctional aspects of universal health care and explore the dilemma created by the opposition between short-term individual human needs and long-term needs of an increasingly dependent population. This is a tough issue that requires serious attention within a wise and mature culture.

Problem: Big business is still, on the whole, hooked on the growth paradigm and a convenient belief in the efficacy of markets. They overlook the fact that, for markets to 'work' correctly, intelligent governance at national, regional and global levels is required. They do not understand that, by succeeding, the neo-liberal project has failed. They are therefore not looking for solutions in the 'right' places.

Solution: Realise that the growth paradigm was appropriate during an earlier stage of history but has now become unhelpful and destructive. Some growth can be diverted to non-material paths (such as communication substituting for some travel). But, on the whole, the growth paradigm needs to be replaced by a different conception of the needs that economic systems are supposed to serve.

Problem: The US government has opted out of offering genuine leadership and is complicit in exacerbating many of the world problems outlined here. It is the world's leading example of wasteful, empty consumption and the exploitation of others to sustain global inequality and hegemonic power. The US has therefore 'set itself up' for exceptionally difficult times.

Solution: Feel compassion for the US as its 'view of reality' works out in the world, creating great misery for US citizens and many others. Ensure that we acknowledge our own complicity in 'owning up' to some of the (disowned) characteristics we share with them. Having done this, get creative about re-directing our efforts away from 'empty consumerism' towards long-term ends that both matter and are more satisfying.

Problem: There is a growing potential for future conflict over political influence and access to raw materials (especially oil) between the US, Europe, Japan and China. It has been suggested that the era of 'resource wars' has already started.

Solution: Realise that 'resource wars' are the outcome of some of the social, political, economic and worldview deficiencies discussed here. Ghandi once famously said that 'there is enough for man's need, but not for his greed.' With an integral outlook, widely implemented social foresight, a developmental view of human and social capabilities, some humility, a necessary slice of wisdom and, indeed, the right kind of scientific and technological infrastructure, resource wars will become unnecessary.

Appendix 2: Draft principles for a new 'system state'

Humans are not lords and masters of nature. (They are a small part of a vaster system.)

The world is not a set of resources that exist for human usage. (The world and its inhabitants exist in their own right and cannot be legitimately appropriated by one species.)

Nature is not vast, inexhaustible and self-regulating. (Macro 'nature' is indeed vast, but the earth is not. The earth and its resources are not inexhausible. The earth was once self-regulating but its homeostatic controls have been compromised by unthinking human activity.)

Growth is good – the higher the growth rate, the better. (Growth is only 'good' for specific times and places. Uncontrolled growth is correctly described as a cancer because it too destroys its host if left to 'run' indefinitely.)

Globalisation and market liberalisation lead to prosperity. (They do, and have, again for a short time and also for a comparative minority of the world's population. The current model of 'wild' globalisation has created many individual and corporate fortunes but at the cost of universal losses to the environment, human and other species welfare, and future generations, all of whom are left to pick up the bill of 'externalised' costs.)

Science does not provide an objective view of the world. (Science seeks rational and falsifiable knowledge that is reliable within certain limits. It discounts the non-, and super-rational. It is ever and always a social enterprise that embodies certain social interests. It actively validates some assumptions and worldviews and de-legitimates or undermines others. Science is therefore not objective, nor can it ever be so.)

Science and technology are not the primary keys to the future. (S&T provide what can be called 'God-like powers' but they unfortunately do not also supply the God-like ethics and values that are needed to control such powers. Moreover, the compulsive pursuit of innovation for its own sake is actually a futher source of instability now and in the future. Science is not objective, and technology 'changes the rules'. Neither are subjected to superordinate control or regulation. Hence the 'keys to the future' lie elsewhere.)

The needs of future generations cannot be discounted – at least not for long, if the human species is to survive in a world worth living in.

The internet and its offspring are neither neutral nor necessarily forces for good. They were once described and promoted as, eg, the 'information super highway' but are now perhaps better described as a jungle that includes predators and degrading agents.

Good, competent, governance cannot protect us from catastrophe. What is needed is much, much more than merely 'competent' governance.

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During 2001-2005 he was President of the World Futures Studies Federation. During 1999-2004 he was Foundation Professor of Foresight at the Australian Foresight Institute, Melbourne. He is the author or editor of some 20 books and many papers on a variety of futures topics. His most recent projects include two books *Futures Beyond Dystopia: Creating Social Foresight*, and *Futures Thinking for Social Foresight*; and two CD-ROMs in a projected series: the *Knowledge Base of Futures Studies: Professional Edition* and *Towards a Wise Culture: Four 'Classic' Futures Texts*.

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