

# SHIFT

the global citizens' magazine

## TOP 10:

**COUNTRIES MOST  
VULNERABLE** to  
*Climate Change*

**GrowthBusting**  
Psychosocial Benefits  
of Localization

*the greatest  
EMERGENCY  
humankind faces...*

**Nuclear  
Armageddon**

**Changemaker Profile**

**Ben Pennings:  
THE RESISTOR**

*the POWER DOWN issue*

**ISSUE  
#1**

## CREDITS

### Editorial team

Sean Crawley  
Kari McGregor

### Graphic design

Ben Matei  
David Zwolski

### Cover artwork

Ben Matei & Katie Bennett

### Contributing artists

Bill Kaye - [www.killybay.deviantart.com](http://www.killybay.deviantart.com)  
Katie Bennett - [www.embellysh.com.au](http://www.embellysh.com.au)  
Cuba Gallery - [www.flickr.com/photos/cubagallery](http://www.flickr.com/photos/cubagallery)

## NEXT ISSUE RELEASE

 15th March



READ ONLINE, DOWNLOAD, ORDER HARD COPY  
[www.sustainabilitysc.org](http://www.sustainabilitysc.org)

## FOLLOW US AROUND



@ShowcaseSustain



/AllAboutTheSHIFT

## CONTACT US



[contact@sustainabilitysc.org](mailto:contact@sustainabilitysc.org)



+61 7 5450 0892  
(Australia)

[www.sustainabilitysc.org](http://www.sustainabilitysc.org)

SHIFT magazine is an initiative of Sustainability Showcase |  
Sustainability Showcase is a registered charity ABN: 38742790381

All content is



# Dear reader,

Welcome to the first issue of SHIFT magazine!

The team at Sustainability Showcase have been beavering away in the background for some time now, and we're proud to announce the launch of our exciting new magazine.

SHIFT magazine is a volunteer-run non-profit magazine whose focus is on examining our global emergency, and strategies for adapting to the future in store for us as the world rapidly changes. Speaking honestly and compassionately about the converging crises of ecological and economic collapse and peak resources, we aim to deliver not just food for thought, but inspiration to practical action. What we need is a shift: a shift in attitude, action, and the trajectory our civilization is on, and SHIFT magazine pulls no punches

Each issue of SHIFT presents global issues from a whole-systems perspective, delivering fresh material from cutting-edge thinkers and doers who practice what they preach in the real world. Great minds and hearts of the sustainability movement have selflessly donated their time and efforts to provide captivating content and share their wisdom with a global community of humans hungry for change.

Each issue of SHIFT presents its own theme relevant to our paradigm-shifting emergency, and this first issue casts the spotlight on powering down our way of life as a means of becoming more sustainable in the face of ecological and economic hardship and resource scarcity. Every issue will also feature a couple of submissions from our readers, so if you fancy wordsmithing your way into print, chuck us a submission and we'll take it from there. Submission guidelines and forms are on our website at [www.sustainabilitysc.org](http://www.sustainabilitysc.org).

As you'll no doubt notice, SHIFT contains no commercial advertising as a production cost-offset or revenue-spinner. All purchases of SHIFT magazine and subscriptions support the cost of non-profit production of the magazine, and all hard-copies are printed to order to minimize waste. All this means you get to read only the stuff you want to read, in the format you want it in, and don't have to leaf through pages and pages of consumer-paradigm crap that makes you question the purpose of the publication! We're on a different page.

We hope that you will find SHIFT an inspiring and empowering read, and that you will find information worth sharing. Take care, and have a good read!

Peace, love and biodynamic beansprouts,

 Sustainability Showcase Team

# CONTENTS

## FEATURES

15

### Growthbusting:

#### Psychosocial Benefits of Localization

Dave Gardner examines how localizing our economic horizons has unexpected benefits for our communities.

21

### Nuclear Armageddon

Guy McPherson zeroes in on what is arguably the greatest emergency humankind faces, presenting an unnerving realism that is absent from mainstream media.

41

### A Complex Predicament: How our Energy, Economic and Ecological Systems are Connected

Feedback Loops, the Jevons Paradox,  
and the Three End Games:  
Part 1 - The Energy Predicament

In the first of this three-part series, Dave Pollard gets to grips with the complexity of our so-called energy crisis.

55

### Renovating Culture: Rise of the New Domesticity

Miss Metanoia explores the recent cultural phenomenon of homesteading, and why it is gaining in popularity.

81

### Transitioning the Suburbs to a Low Carbon Future

Brian Feeney explores ways in which the suburbs that are home to most Australians could be adapted to a post-peak & low carbon future.

## COLUMNS

7

### The Overthinker:

#### Climate Change and the Triune Response

The Overthinker unpacks the reasons behind our civilization's painfully slow and inadequate response to climate change.

47

### Changemaker Profile:

#### The Resistor

Kari McGregor met with Ben Pennings, founder of up-and-coming radical environmentalist activist group Generation Alpha, to get some insight into what motivates society's much-needed Resistors.

61

### Doing it Ourselves:

#### Coping with a Post-Peak Future

Theo Kitchener gets to grips with the bad news about our post-peak future, and discusses what folks can do to prepare themselves both practically and psychologically.

69

### The Human Race:

#### The Joy of the Blackout

Sean Crawley mulls over the pace of life in the Human Race, and questions whether we couldn't slow it down and take time to smell the roses.

78

### Spotlight:

#### The Lane

Sean Crawley shines the spotlight on a Sunshine Coast local initiative that exemplifies the rise of a new culture of community.

## DEPARTMENTS

1

From the Editors

3

Contributors

5

### The Critically Endangered Species File:

The Woylie

29

### Top 10:

Countries Most Vulnerable to Climate  
Change

84

Powerdown Cryptic Crossword

85

References

# Contributors



## Dave Pollard

Dave Pollard retired from paid work in 2010, after 35 years as an advisor to small enterprises, with a focus on sustainability, innovation, and understanding complexity. He is a long-time student of our culture and its systems, of history and of how the world really works, and has authored the blog How to Save the World for over ten years. His book Finding the Sweet Spot: The Natural Entrepreneur's Guide to Responsible, Sustainable, Joyful Work, was published by Chelsea Green in 2008. He is one of the authors of Group Works: A Pattern Language for Bringing Life to Meetings and Other Gatherings, published in 2012. He is working on a collection of short stories about the world two millennia from now. He lives on Bowen Island, Canada.

## Guy McPherson

Guy McPherson was born and raised in the heart of the Aryan Nation, small-town northern Idaho. More than ten years into a career in the academic ivory tower, McPherson began focusing his efforts on social criticism. He is a professor emeritus and a prolific writer and public speaker. McPherson's latest chapter includes abandoning his tenured position as full professor at a major research university for ethical reasons. His story is described in his latest two books, Walking Away from Empire and Going Dark.



## Brian Feeney

Brian Feeney is a town planner, researcher and writer. His interests are transformation, cultural evolution, ecological sustainability, social justice and nature writing. He lives at the Gold Coast. Brian also spearheaded the Future Queensland Forum, the people's response to the Queensland Government's 30-year plan.

## The Overthinker

The Overthinker is a self-confessed tree-hugging vegan heathen with a love of big words and small cats, and the green calm of nature. A soft-core doomer no longer hooked on hopium, The Overthinker freelances a fresh spin on our planetary predicament.

Keep up with the Overthoughts of the Overthinker:

web: [www.theoverthinker.org](http://www.theoverthinker.org) | Twitter: @ThinksItOver | Facebook page: The Overthinker



## Sean Crawley

Sean Crawley has decided to hang around and get involved in earthly affairs for as long as possible because his curiosity to see how all this pans out is greater than the sometimes attractive option of hanging up one's boots. Sean has worked as an educator in schools, community settings and in youth mental health. He lives and works on the Sunshine Coast, Queensland, Australia.

## Theo Kitchener

Theo Kitchener has a background in activism and community building, and more recently has been working to raise awareness around collapse and transition possibilities through the Melbourne based volunteer group, Doing It Ourselves.

Self-described apocaloptimist, Theo is positive about the future, focusing on community, permaculture, appropriate technology, voluntary simplicity, participatory democracy, community economics and our potential transformation.



## Miss Metanoia

miss metanoia is an aspiring freelance writer, cultural creative, and professional homebody. her craftiest accomplishment to date is writing admirably of those skilfully more practised in the domestic arts than her humble hands.

## Dave Gardner

Dave directed the documentary GrowthBusters: Hooked on Growth and is founding contributor at Growth Bias Busted. He writes, films and speaks regularly about our culture's addiction to growth.

web: [www.growthbusters.org](http://www.growthbusters.org) | Twitter: @growthbusters | Facebook: GrowthBusters



## Kari McGregor

A former teacher and refugee from the mainstream Non-Profit Industrial Complex, Kari has made her home on Australia's Sunshine Coast after more than a decade of nomadic wandering. Socially critical and anti-authoritarian, Kari delights in pulling the system up by the roots, critically examining its flaws, and figuring out what TLC is needed.

# The Critically Endangered Species File: Woylie



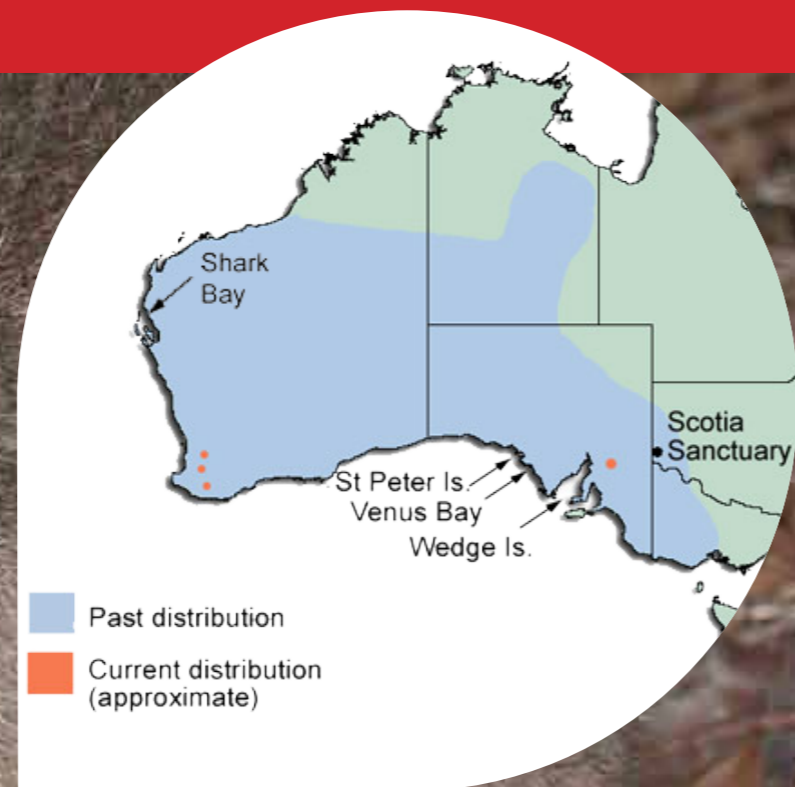
Each edition of Shift will present one species of life that is classified as critically endangered, homo sapiens excluded. By definition, whether it be by the International Union for Conservation of Nature (IUCN), or your nation state's environmental governance structure such as the Department of the Environment in Australia, critically endangered essentially means that the species is facing an extremely high risk of extinction in the wild in the immediate future.

**Common Names:** Woylie, Brush-tailed Bettong, Brush-tailed Rat Kangaroo

**Species:** *Bettongia penicillata*

**Range:** Once widely distributed across over 60 percent of the Australian continent, the Woylie now only survives in small isolated pockets where specific conservation efforts are in place.

**Threats:** Primarily, predation by introduced species especially the red fox and feral cats. Habitat destruction has also played a role in this species' decline.



## Further Considerations

A small mammal that would unlikely ever be able to engender the level of human attention as a whale or a panda bear, but like any life form has a place in the web of life. The woylie may never be a significant food source for humans nor be domesticated to be a cute pet, but its role in the Australian ecosystem would once

have been significant, as evidenced by its once large distribution and abundance. Scientists have suggested that the woylie's habit of regular digging about in the ground for food was integral to the soil condition in its habitat. What other contribution the Woylie has made to the unique Australian ecosystem, and the impact of its demise, may never be known.

Australia has a long history of human-induced species extinction. The arrival of the first people around 60,000 years ago, is widely credited as the cause of the extinction of the continent's megafauna (see *The Future Eaters*, by Tim Flannery). This phenomenon of the demise of megafauna as homo sapiens spread, out of Africa and across the planet's continents, was not unique to Australia. Loss of megafauna occurred in Europe, Asia and the Americas as humans entered new lands. The theory is that that the animals on these continents evolved without the presence of a bipedal, weapon wielding, social hunter. The megafauna were easy pickings, the lowest hanging fruit on the tree, for the newly arrived and hungry humans. The relatively recent accounts of hungry sailors simply walking up to Dodo birds and knocking them on the head for an easy kill, and the television images many of us have seen of large Antarctic species such as lion seals and emperor penguins being totally relaxed as humans wander amongst their midst, support the theory that megafauna are inevitably doomed when hungry humans arrive in their domain. The exception to this of course is Africa, being a different case altogether, as humans evolved over millions of years on this continent in the presence of megafauna who were consequently able to evolve adaptations to coexist with the slowly evolving hominid.

The next wave of extinctions in Australia occurred after the arrival of Europeans in the 1700s. According to the Australian Wildlife Conservancy:

"Australia has the worst mammal extinction record in the world – 27 mammals have become extinct in the last 200 years. No other country or continent has such a tragic record of mammal extinctions.

In addition, of our surviving biodiversity, more than 1,500 mammals, birds, reptiles, amphibians and plants are listed as threatened with extinction under federal legislation. The Federal Government has also identified 3,000 ecosystems facing extinction (Source: Terrestrial

Biodiversity Amendment)."

## What can be done?

Our understanding of the relationship between biodiversity and overall wellbeing for all life on this planet is sufficiently indisputable that any efforts to save a species should be supported and applauded. The Woylie is a species as worthy as any other for saving. However, ultimately any species that is threatened by the increasing scope and depth of human activity is doomed if we do not change our ways. The current universal paradigm of economic growth will eventually negate all efforts to save threatened and endangered species. So individually, as global citizens, the only long-term viable option we have to save the biodiversity of Earth is to not accept or participate in the current mode of human existence that manifests from the growth paradigm. Our presence on this planet must be benign, and not malign as it is at present. **The shift required begins in our minds and must be followed by our actions.** If the imminent loss of the Woylie moves you at all, at the very least, you can consider how each and every one of us must power down to give any endangered species a chance of future existence.

## Further reading

[www.sharkbay.org/woyliefactsheet.aspx](http://www.sharkbay.org/woyliefactsheet.aspx)

[www.theconversation.com/australian-endangered-species-woylie-19448](http://www.theconversation.com/australian-endangered-species-woylie-19448)

[www.environment.gov.au/resource/national-recovery-plan-woylie-bettongia-penicillata-ogilbyi](http://www.environment.gov.au/resource/national-recovery-plan-woylie-bettongia-penicillata-ogilbyi)

[www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon\\_id=66844](http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=66844)

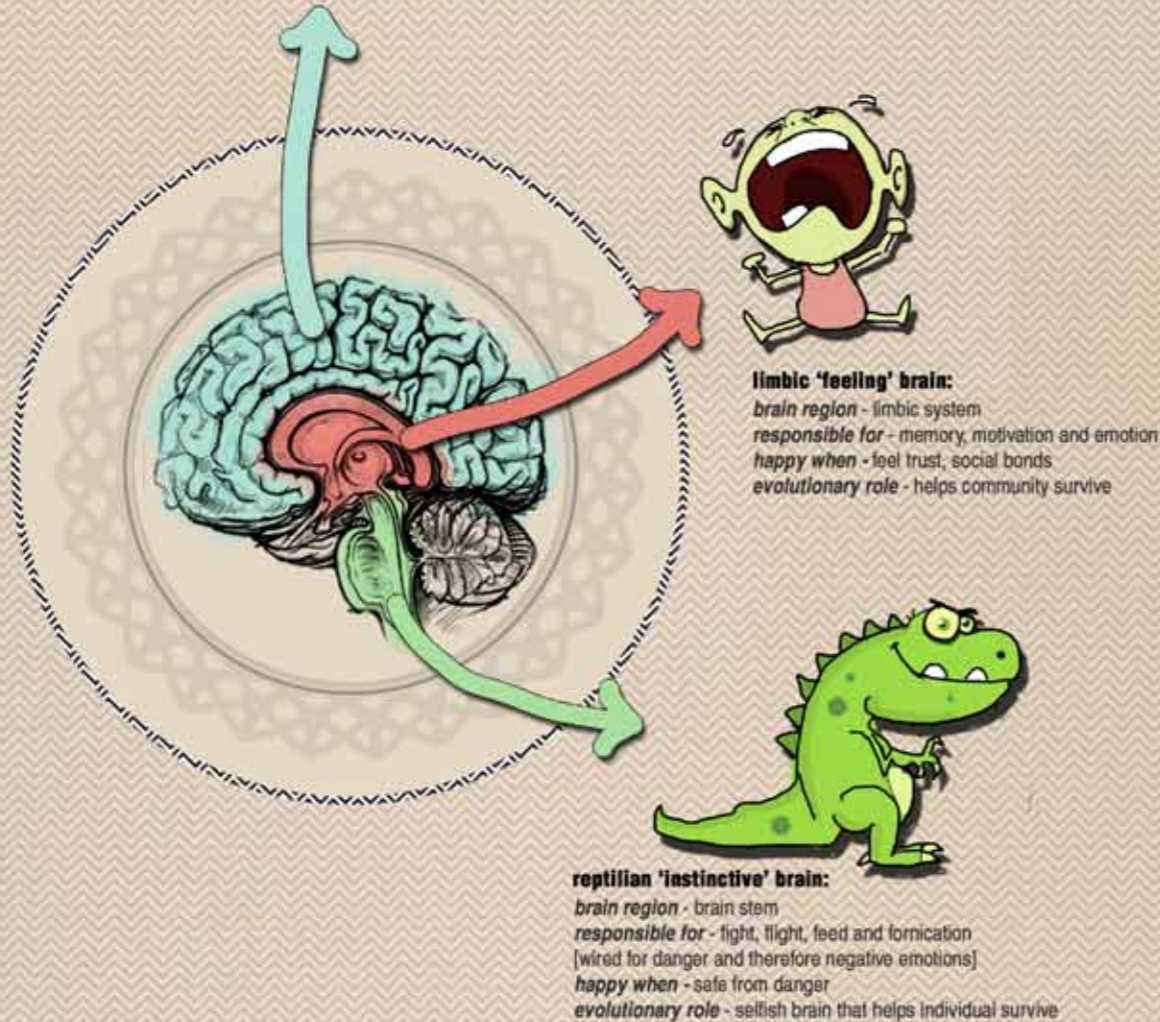
<http://www.iucnredlist.org/details/2785/0>

## Acknowledgement

Image of Woylie and map of past and present distribution used with the kind permission of the Shark Bay District, Department of Parks and Wildlife.



**neo cortex 'thinking' brain:**  
 brain region - neo cortex  
 responsible for - conscious thought, intellectual memory  
 happy when - learning, anticipating future reward  
 evolutionary role - predicting/problem solving, helps community thrive



**limbic 'feeling' brain:**  
 brain region - limbic system  
 responsible for - memory, motivation and emotion  
 happy when - feel trust, social bonds  
 evolutionary role - helps community survive

**reptilian 'instinctive' brain:**  
 brain region - brain stem  
 responsible for - fight, flight, feed and fornication  
 [wired for danger and therefore negative emotions]  
 happy when - safe from danger  
 evolutionary role - selfish brain that helps individual survive

# Climate Change and the Triune Response

By The Overthinker

## Most people don't seem hugely concerned about our future.

My partner told me the other day that he's getting worried. He is starting to think we might not make it. I welcomed him to my world.

You see, most people aren't really worried about our planetary predicament (the converging crises of climate change, biodiversity loss, ocean acidification, peak oil, peak phosphorous and numerous other issues). Most people don't seem hugely concerned about our future. If you ask them many will say yes, they are concerned – and they can reel off a bunch of facts that illustrate their cause for concern.

But their actions belie us. We are responding to the climate emergency – the flagship cause of the environment movement – like we respond to a neighbour's burglar alarm: just hoping it will die down so we can get back to our TV shows and not have to shift our bums off the couch. It's someone else's problem and it'll get taken care of. Anyway, it can't be a real emergency if no one's already taking care of it. If this is our response, to what has been referred to as "the greatest moral challenge of our time," then I shudder to think how we will respond to under

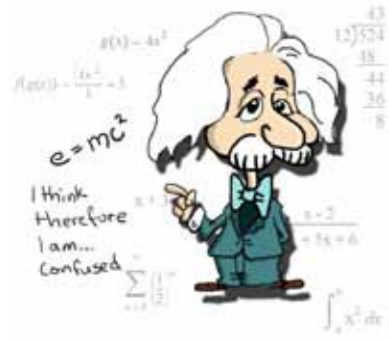
the radar issues such as the mass die-off of phytoplankton - the little-known source of 50% of atmospheric oxygen.

I have been through three phases in my awareness of our planetary predicament. I don't know if there's a fourth, or a fifth, but I've been through three. It's like opening up a set of Russian dolls; each one might be the last one, but then you open it up and descend another layer. I call it the Triune Response, after the Triune (three-in-one) model of brain evolution that categorizes the human brain into three stages of development – first the reptilian complex, second the limbic system, and third the neocortex. The three levels of experience familiar to most people can be conceptualized as physical, emotional and mental, each corresponding to the three stages of development.

There is, of course, also the spiritual, which remains relatively untapped by many. Perhaps that is the fourth stage of awareness which I simply have not yet experienced? We'll see.

**The three levels of experience familiar to most people can be conceptualized as physical, emotional and mental, each corresponding to the three stages of development.**

# But I did not really feel concerned, just somewhat annoyed



## The Neo Cortex Response

The neocortex is the outer layer of the brain, in evolutionary terms this is the most recent layer to develop. It is the site of our capacity for logical reasoning, language, abstraction, planning and perception. This is the mental level of experience, the head-space of our mind's labyrinth.

It should come as no surprise that our immediate response to knowledge of the planetary predicament comes from the neocortex. We read about two degrees of warming by century's end in the papers, we bitch about carbon taxes over coffees, we struggle to comprehend the magnitude of unburnable carbon or what 350ppm means, and we wonder whether our superannuation funds are being gambled on stranded assets. **We are playing a cognitive game, first encountering news of our predicament in an abstract form, then processing this via language and finally to weigh up its relevance to us.** We tend not to pursue this information, but it comes to us mainly in terms of government policy debate over pseudo-solutions, such as carbon markets, and it seems far removed from our immediate realities.

This is how I first processed the news of climate change. As a kid I grew up with the concept of Global Warming – that was what it was called back in the '80's and '90's when I was at school. It was the summer of 1992, when I was on the cusp of entering high school, than things really started to ramp up. The first Earth Summit was due to be held in Rio, and that was all I remember hearing about that summer. I resolved to become a Planeteer, like on Captain

Planet, and learned all that I could about our predicament so that one day I could join the fight. I sort of expected my role to be a suited office-based one, but that was not how it turned out. I began humbly with a poster run at school and in my neighbourhood, imploring people to care for the Earth because she's our only one.

Then everything seemed to go quiet for a while - Global Warming was reincarnated as Climate Change by the time I reached my 20's. It had slipped from the forefront of my mind to the murky depths, and I found myself needing to re-learn how the greenhouse effect worked, not something I was keen to admit to my better-educated peers. It's not that I had abandoned activism, but that I had turned my attention to human rights and animal welfare advocacy, not yet fully understanding that the bottom line - the environment - needed to be my picket line.

As long as we were talking numbers and models, parts per million and feedback loops, tree rings and ice cores, I remained in the neocortical zone, absorbing information and learning how to discuss the issue in great depth. I did not,

***I did not, however, feel a connection with the issue; I was in the head-space only. I did not feel afraid, nor even terribly concerned.***



however, feel a connection with the issue; I was in the head-space only. I did not feel afraid, nor even terribly concerned.

The world seemed to go on turning just fine and disaster didn't appear around every corner. I was complacent. I noted that the seasons were different and attributed it, like many others, to climate change. But I did not really feel concerned, just somewhat annoyed, as though I thought we would get back to the way things used to be and that I was just getting tired waiting. It was the summer of 1990 that we

stopped having summers in the UK - for a while at least. And winters were no longer snowy - just rainy and slushy. And then, about a decade later, the extremes kicked in: heatwaves that killed people, and knee-deep snows, and floods that started to seriously affect food security. I later came to realize that these extremes are the new normal. And that we are unprepared for this normal. Cognitively, I understood that this could be really bad, but the alarm had not yet pierced through the noise of everyday existence on the hamster wheel.



### The Limbic Response

The limbic system is an interconnected system of structures in the brain that are responsible for memory, motivation and emotion. This is where that whiz of emotions is concocted in an electro-chemical brew of complex stimulus-response impulses. If the neocortex is the head-space of the mind's labyrinth, then the emotional level of the limbic system is the heart-space, where passions are born.

About six or so years ago I started to really connect with how the planetary predicament was really going to affect us. I had come to understand that climate change is going to displace a lot of people, and that there is no current legal structure for dealing with the issue of hundreds of thousands – if not millions – of climate refugees. A friend of mine has been finishing a PhD on precisely this topic for some years now. I wish he'd hurry up and get it finished, and then go on a speaking tour or something, or write a book or make a movie: anything to get the issue out of the academic ivory tower and bring it into public discourse.

When my limbic response kicked in, I started to feel profoundly sad for all the destruction we have done: and for the victims whose innocence is inversely proportional to their responsibility. I felt for the people who I knew would suffer greatly from what was to come. But I still thought of it all in abstract terms, as something that was happening to others, the world's disadvantaged, those who were unable, in most cases, to represent their own voices politically. I cried for the world's climate victims just as I had cried before for the world's starving millions, for the child soldiers forced to kill loved ones, and for the factory-farmed animals born into abject hell.

***I cried for the world's climate victims just as I had cried before for the world's starving millions, for the child soldiers forced to kill loved ones, and for the factory-farmed animals born into abject hell.***

I came to understand that our impact on climate came from more than just the emissions from our car exhausts and industrial production. I came to understand that deforestation due to industrial development and agriculture was removing desperately needed carbon sinks, advancing the threat of climate change. I came to understand that my vegetarian diet was not preventing the animal agriculture-fuelled carbon and methane emissions, and decided to go vegan. I can't say that that has had much overall impact, but I will accept a lite-green pat on the back for reducing my personal carbon footprint. And I hate flying – I am a serious white-knuckled plane passenger – so I started to use the lite-green excuse that taking a flight would double my personal emissions rate, and that I was unwilling to compromise my integrity.

I felt quite impotent in the face of it all. But I also felt passionate and indignant. I decided I had to get involved in the climate movement, and invested a lot of energy in touting the pseudo-saviour of Big Green Tech. I was determined that people should know that we could address the crisis that was unfolding and that renewable energy technology was up to the job. I also quietly hoped that more people would wake up to the reality that we cannot keep having our steak and eating it; our biosphere simply cannot handle the impact of a future 9 billion humans whose beef-eating habits would require a doubling in current food production capacity and, consequently, an explosion in agricultural emissions.



### The Reptilian Response

The reptilian complex is the part of the brain that is responsible for our instinctual behaviours. It is the realm of survival-oriented instinctive reflex, home to the physiological response mechanisms. This physical and visceral realm of the mind's labyrinth represents the physical space

This is where I'm at now: the reptilian response. Three years ago, not long after I had returned to Australia in order to pursue a more activist-oriented seachange, after a couple of years living in Thailand, I reached a turning point. Granted, my turning point was something that many folks barely registered, but, for me, it was a turning point nonetheless: I read that phytoplankton, the source of 50% of the planet's oxygen, and a major carbon sink, had diminished to around 40% of what was present in the 1950's – and that this was due to ocean acidification as a result of increased carbon emissions. I understood this to mean that a whole heap more carbon would be emitted into the atmosphere rather than being locked up in sinks. And that we'd have a heck of a lot less oxygen to breathe. I figured that phytoplankton are not the cute mascot-type of organism that people get enthusiastic about saving. I wondered what a world without phytoplankton would be like - it couldn't possibly support human life, I concluded, and that felt surreal. And then I learned that a two degree temperature increase in average global temperature is now not something that can be avoided, and that we are likely on course for four. I started to feel scared; this is an unbeaten track we're tramping down and there are no experienced guides.

I came to understand that efforts pushing for policy and technology related pseudo-solutions were having no more impact than our personal consumer choices. This inevitably leads to an understanding that food security and access to clean, safe water will become compromised; that the Wet Tropics of Far North Queensland will become like the arid Pilbara – a contrast like no other. Harvests will fail in many global regions. People will go hungry. Many will die. Many will fight for survival and war will ensue. I came to understand that it was not just poor brown people living in third-world dives who would suffer – and felt immense shame and guilt from starting to care more only at this point. I came to fear for the future wellbeing of my family in the UK, now regularly suffering floods whose impact on food security drives up prices in a way that few interpret as the red flag that it is.

***I came to understand that no cavalry is coming. That no policy initiatives are being enacted – or even tabled for discussion – that could lead to a world-wide response to our predicament.***

I came to understand that no cavalry is coming. That no policy initiatives are being enacted – or even tabled for discussion – that could lead to a world-wide response to our predicament. That we will not experience the rapture of a miracle in the form of Big Green Tech – we simply do not have the resources. We will have to face a future of energy insecurity or continue trashing the climate until we run out of fossil fuels to burn, or at least until it's financially unviable to extract them. We're pretty much there now. We're scraping the

barrel with tar sands and shale gas, even risking deep-sea landslides and consequent tsunamis for methane hydrates, and we are not getting bang for our buck. It seems likely that we will stop pumping greenhouse gases into the atmosphere not at the point of rational scientific concern – for we are way past that – but at the point of reduced profitability for the industry. The intersection point of peak fossil fuel resources and the breaching of the safe climate boundary has passed. We may already be into the downward spiral from which our civilization will not emerge.

Understandably when I internalise all of this I feel a tad panicky. Adrenaline kicks in and I feel mobilised to action. My fight-flight-or-freeze response has booted. There is nowhere to run, so fight I must. Many, however, seem to have opted for a less evolutionarily sound response: freeze. Many are startled deer in the headlights, aware that there is a serious problem, but frozen in the moment, in suspended animation of business as usual while tossing themselves over the cliff-edge in the manner of mythical lemmings.

I was annoyed when I read Bill McKibben's *Terrifying New Math*, and wanted to ask him why he thought talking more numbers would get through to people now when it hadn't before. Sticking new numbers on the crisis hardly seems to make a compelling case for action with people who already understand cognitively that there is a problem, but who are yet to feel any emotional engagement or impulse to act. We surely can't keep pumping out abstract sets of numbers every couple of years and expecting people to suddenly understand that we will have to relocate whole towns and regions; we will not have enough food; and that many more keystone species will become extinct - devastating the fragile food chain that supports organisms at higher trophic levels, such as humans. I grow impatient with the endless reams of repetitive news that never escalates the alarm to a level which can be heard as anything other than white noise.

I became self-conscious, aware that I might appear to be a hysterical maniac if I tell others what I felt. Miffed that my rational response would

be interpreted as extreme paranoia by many, I didn't talk about it much. But I gradually found more and more people who seemed to feel what I felt, many of whom had moved past the panic of the reptilian response to its natural successor: streamlined action.

So of course I was pleased when my partner confessed that he was finally feeling scared too. That it had finally hit him that we're in the kind of trouble that will require the kind of collective global effort never before attempted in the history of our species, and that we are not gearing up for it. It had hit him that all we have is our minds and bodies, and that we'd better put them to good use in preparing for what is to come.

### Powering Down

**My response now is a somewhat uncomfortable existential contemplation, interspersed with a scattered array of direct actions and pointed prose.**

I do not have all the answers, but I am asking a lot of questions – practical questions, ones that cannot be answered from the theoretical realm of the ivory towers and the political realm that dominates our media. I have identified root causes of our climate crisis, and come to understand that business as usual cannot go on, economic growth must cease, and our consumption must become more modest. We will need to want less now if we are to hand anything on to future generations. The conditions responsible for our climate crisis cannot be tackled only from the supply end of the chain; demand must also cease.

So I have decided to power down my life. I have decided to get at least myself off the treadmill of industrial growth that is causing the widespread destruction, which we might not survive, for the sake of luxuries that we can – and indeed must – learn to live without. I know it sounds scary to some, or at least unpalatable, but I don't feel daunted or put off by the prospect of living with less and not having to work so much.

My partner and I are downshifters, unusual in our age group because we have not already “made our money”, we have not retired to a nice patch of land with capacity for self-sufficient

food production, we aren't even on the “property ladder”, and we have barely any savings. We are neither equipped nor inclined to run away to a bunker in the hills. But we decided we cannot contribute to the downward spiral anymore, we have instead opted for a modest life. To be honest, I like living in a small rented unit in a close-knit community, barely needing to drive anywhere (we are planning to gradually ditch the car over the next year), cleared of all debt, and structuring my days according to a work schedule that suits me. I work for myself, and only as much as I need to, to keep ticking over. I like having time for important people in my life, and for taking part in meaningful action, and I am beginning to feel less guilty about my premature escape from the rat-race. I am happy with my choice not to have children and adopt a cat instead (ok, it's not the same). Not that I think having kids is bad; the continuation of humankind requires progeny. Just not so many that we humans and our domesticated animals make up over 90% of all terrestrial animal biomass.

Many of my friends and former colleagues tell me they wish they could do what I'm doing - I just wonder why they simply don't. I understand that it's easier said than done if you've already got the mortgage, the kids and the white picket fence – all on the credit card. I don't have any moralizing to do. I just offer the pragmatic

**Forward is the only direction left, and right now I'm mobilised by a primal instinct for survival; I've drawn my line in the sand and staked my picket. I'm removing my consent for our climate crisis, and powering down.**

suggestion that we can all downshift in some way. We can all at least extract our support from fossil fuel investments by switching our bank accounts and superannuation funds to cleaner, greener alternatives. **Even the most lascivious meat-lovers among us can surely handle meatless Mondays.** One does not need to be as minimalist or as frugal as I am to prioritize unhooking oneself from the debt-cycle and enabling the conditions for lightening our workloads and increasing our quality time with family and friends. And it only takes a few rehearsals of “can I borrow a cup of sugar please” before we feel ok about connecting with neighbours and meeting many of our needs through community rather than commerce. Living more slowly and deliberately brings its own rewards of mental clarity and creative energy for action.

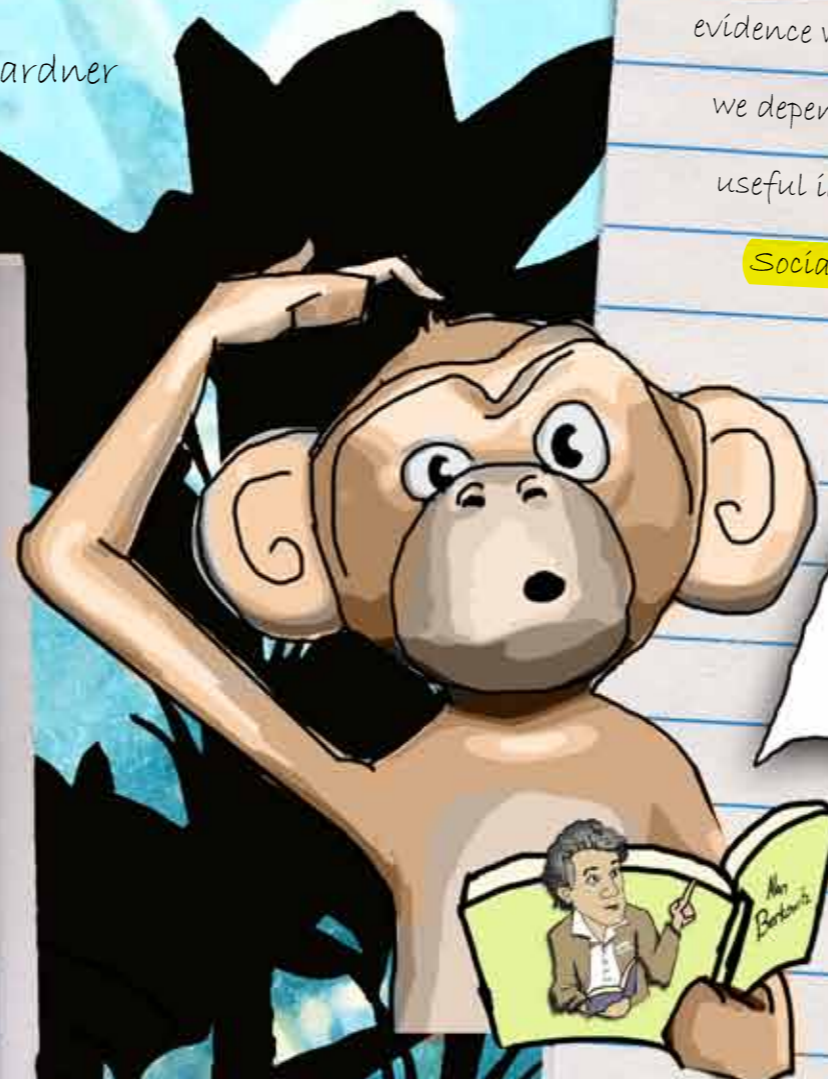
I know that what I'm taking here – and encouraging – are just baby-steps. But I also know that if we don't take those, the task ahead seems too daunting. However are we going to learn to run if we do not first take on the challenges of toddling? There are bigger and bolder actions to come once we are confident and empowered – we will need to adapt to changing conditions, building resilience in the face of what will come, and we will need to support one another in doing so. Perhaps I am yet to experience a fourth brain response; I wonder if others have entered that realm of the mind. **Perhaps the fourth will be a spiritual-social response from the medial prefrontal cortex – the protrusion that gives us humans our big foreheads – the region responsible for learning and creativity, the very essence of humanity.** I have no idea what that response will be like, but I am looking forward to not being scared anymore.

I have sometimes wished I could put the genie back in the bottle and go back to my pre-scared days, maybe even my pre-sadness days. But I can't. Forward is the only direction left, and right now I'm mobilised by a primal instinct for survival; I've drawn my line in the sand and staked my picket. I'm removing my consent for our climate crisis, and powering down.

## Psychosocial Benefits of Localization

by Dave Gardner

As our civilization proceeds down the slope of the post-peak-oil curve, global trade will become more and more expensive, so our economies will naturally localize. The energy-efficiency benefits of localized economies are obvious to us, but there are also social, and even psychosocial, benefits that aren't often contemplated.



I had the good fortune to work with respected crowd-behavior expert Alan Berkowitz several years ago on a film project about bystander behavior. I later interviewed him for my documentary, GrowthBusters: Hooked on Growth. I was curious about why human beings react so irrationally to evidence we are harming our planet and the life support systems on which we depend. "Bystander behavior" or "crowd behavior" theories offer some useful ideas. Berkowitz offers a concise summary in Applications Of Social Norms Theory To Other Health And Social Justice Issues:

"Individuals may see that others are not doing anything and assume that there isn't a problem (social influence), may fear doing something that may cause embarrassment (audience inhibition), or may assume that if they don't do anything someone else will (diffusion of responsibility)."

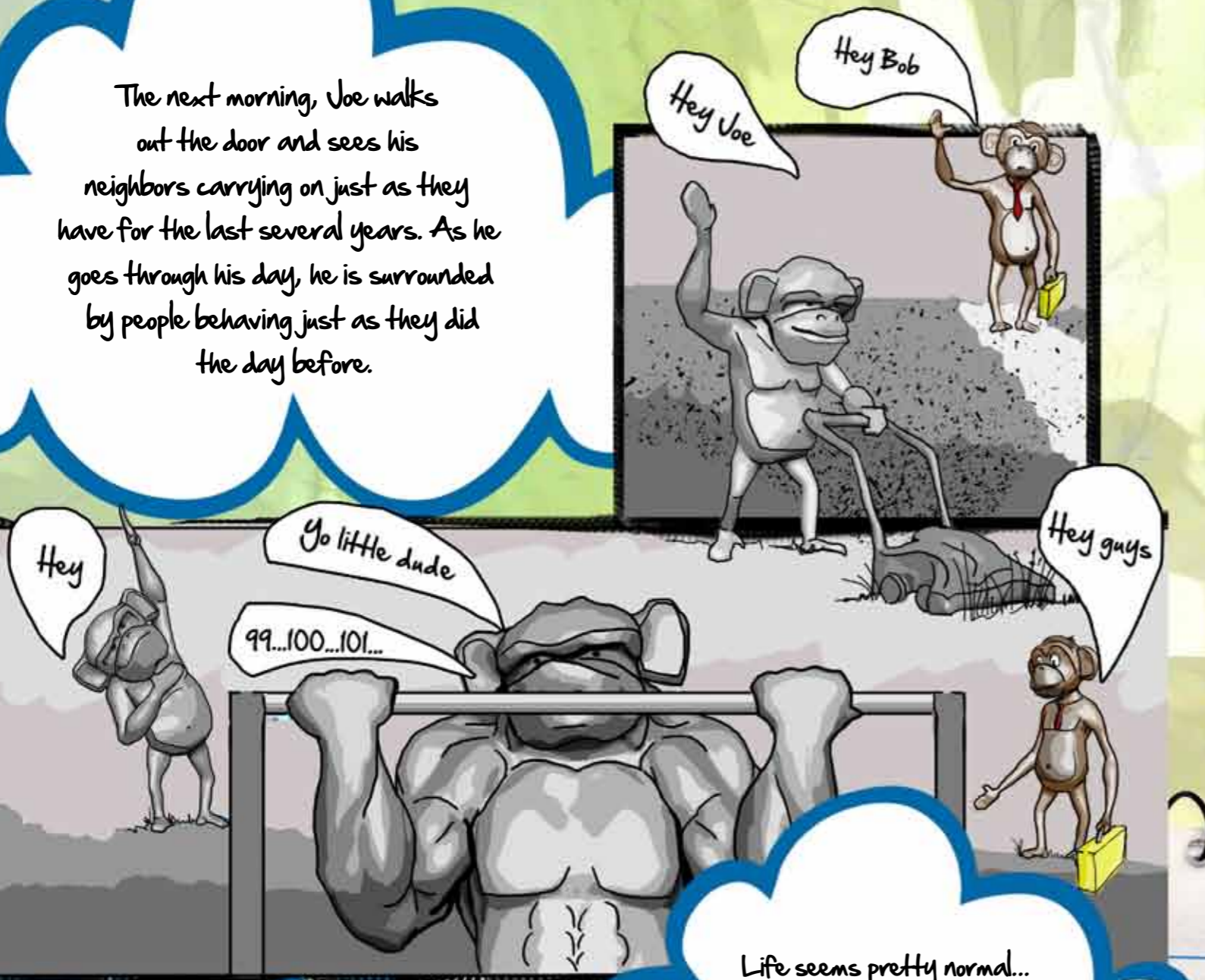
- Alan Berkowitz

The phenomenon of "social influence" plays a huge role, in my view. Here's how it plays out for an ordinary Joe:



One evening Joe sees a film, reads a news report or explores a scientific study that convinces him we are in a global emergency; we are about to drive our civilization off a cliff.

The next morning, Joe walks out the door and sees his neighbors carrying on just as they have for the last several years. As he goes through his day, he is surrounded by people behaving just as they did the day before.



Life seems pretty normal...  
There is no apparent state of emergency...  
What goes through his head?

According to Alan Berkowitz:

"When I don't see other people doing something, I think, 'Well maybe it's not really so bad, it's blown out of proportion, because if it was really as bad as you say, someone else would be doing something.'"

- Alan Berkowitz

And so, Joe does nothing, just like the vast majority of people - and for the same reason. This is social influence at work. There are many people around the world, however, who do understand we are in a state of crisis, and many of them are doing something about it. They are changing the way they live. But they're spread around the world and therefore pretty invisible to the ordinary Joes out there.

Imagine, however, what will happen as our economies re-localize. Connections will be formed among people who share the same concerns and are similarly motivated. We will be increasingly surrounded by people who are changing their behavior. In such a case, social influence will inspire us to alter our behavior even more.

I've experienced this myself, as I've engaged more and more in my local Transition Town and in a local group called the Green Cities Coalition.

I've noted that hanging out with these wonderful folks is changing my own norms. Behavior that might be considered completely normal

among a group of stockbrokers (serving food on disposable plates, for example) suddenly becomes embarrassing when you're mingling with sustainable living advocates.

Alan explained when I interviewed him:



"The presence of other people inhibits the desire to help when there's confusion about what's really true for other people. Now let's take a different situation. Let's say I grow up in a community where I'm taught very clear values and guidelines about when I'm supposed to help and I know that the other people in my community share my values. We have a well-articulated shared set of values that in this situation we do x. So if you and I are both friends, lifelong friends, we went to high school together, whatever, and we're driving a car and we see situation x, without even saying anything we'll both get out of the car and go help because we know that we both share these values that we need to do these things. In this case the presence of other people encourages the desire to help because we have a shared value system."

- Alan Berkowitz

Who you hang out with can either strengthen sustainable living values or weaken them. I'm not suggesting you avoid groups and friends who don't share your commitment. In fact, being aware of the power of social influence, you may be able to start raising awareness and shifting values of those groups - if you're clever. Be sure to come back to your tribe frequently for a refill of values affirmation. Then go back out and infect more people with sustainable living thinking.

Alan offered this observation:

"So we live in communities, we're all walking around feeling unhappy and not allowed to tell each other that we're all unhappy because we think we're the only one. So there's this whole system that maintains and forces us to keep the unhappiness as a secret. Why can't we admit that we're good people, we're trying really hard, we've done the right thing and it hasn't worked? And so we need to rethink some of our fundamental assumptions, like the world isn't flat, and the sun doesn't go around the earth and that women are smart enough to exercise the privilege to vote and own property and that the growth paradigm isn't producing the results it promised us."

- Alan Berkowitz



As our economies re-localize, our social connections will be reinvigorated, and we'll find ourselves more and more in touch with others who share our values. I believe this will serve to accelerate the transition. Many of us are experiencing it already, and we can manage that to our benefit. Hang out with people who reinforce your values and desired behaviors, and invite others in. They may be out there thinking they're the only ones troubled by what's going on out there.

**Dave Gardner** is the director of the documentary, GrowthBusters: Hooked on Growth, and founding contributor to the media watchdog, Growth Bias Busted.

**Alan Berkowitz** is a psychologist and sociologist who advises, writes, and speaks on bystander behavior, as well as a number of other health and social justice subjects. He founded and edited The Report on Social Norms.

Further reading on social influence:

<http://www.forbes.com/sites/avaseave/2013/09/12/how-social-influence-significantly-manipulates-the-wisdom-of-the-crowds/>

<http://blogs.scientificamerican.com/beautiful-minds/2013/07/09/the-neuroscience-of-social-influence/>

# nuclear ARMAGEDDON

By Guy McPherson



# really bad news

Nuclear Armageddon is here. We've bought a lie about the alleged safety of nuclear energy. The lie was promoted on the basis of another lie, one we should've recognized immediately under the auspices of, "if it seems too good to be true, it probably is." The latter lie is the promise of electricity too-cheap-to-meter.

The actual cost of nuclear power goes well beyond monetary. It includes billions of human lives.

We understate risks and plow ahead with dangerously complex and transient nuclear projects because in one century we have become addicted to electricity. Ironically, the first two million years of the human experience indicate that electricity is an unneeded luxury.

What do we need? Like all organisms on Earth, we need habitat for our species. Notably, such habitat includes clean air, clean water, healthy food, the ability to maintain body temperature at a safe level, and – for most of us – a decent, loving human

community. These few elements allow us not simply to survive, but to thrive. Even the Hierarchy of Human Needs<sup>1</sup> developed by celebrated 20th century psychologist Abraham Maslow reflects exactly the statement above.



Note the absence of electricity from this list of survival needs. I would go further and suggest that grid-tied electricity results directly from the patriarchy associated with men packing guns, but that would be off-topic for this essay.

## The nuclear threat

Since I first learned about global peak oil and its economic consequences, nuclear catastrophe has been my constant nightmare. It's easy to imagine the world's nuclear power plants melting down catastrophically when the monetary system fails, and failure of the electrical grid follows. Assuming we can maintain economic growth forever on a finite planet has us headed straight for global-scale disaster.

Japan, as bad as it is suffering right now, is a harbinger of far worse events ahead. And ionizing radiation is only one of many adverse artifacts of industrial civilization.

Until recently, Japan had the second-largest industrial economy in the world. It's a country so deeply terrified of nuclear disaster that it's taken the strongest steps to insure against natural disasters of all kinds. Yet in the wake of the earthquake and tsunami of 11 March 2011 near Fukushima Daiichi, all 13

backup diesel generators failed in plant number one. Why were there even 13 backup diesel generators? Because, contrary to myth, nuclear power plants require external power to keep them running. And they need to keep running because if they stop running, they begin to melt down. It's a real-life hamster-wheel, except no one gets off without serious consequences.

Imagine the horrors when the diesel stops flowing to the world's nuclear power plants, which number more than 400. Many of these plants are found in countries with infrastructure and safety records far worse than we find in Japan. This is truly the stuff of nightmares, and the only way out is to forgo sleep.

### How bad is it?

I often hear we have nothing to worry about. Ionizing radiation isn't that big a deal. After all, people are living in the Chernobyl exclusion zone, and some have proclaimed the area a haven for wildlife. Sure enough, the exclusion zone has abundant wildlife.<sup>2</sup> However, no significant sampling effort has been undertaken to determine animal numbers, and a quarter century after Chernobyl melted down many species exhibit high levels of abnormalities, including potentially lethal mutations.<sup>3</sup>

And just when some people thought it was safe to commission more nuclear power plants, Fukushima splashed across the headlines. The mainstream media, Japanese and American governments, and Tokyo Electric Power Company (TEPCO) tell us not to worry. It's all firmly under control. On the other hand, people with more incentive to tell the truth than these entities indicate otherwise.

Four months after nuclear disaster struck Fukushima, MSNBC tried to protect "those in power" by stifling news anchor Cenk Uygur.<sup>4</sup> Nuclear engineer Arnie Gunderson pointed out in October 2013 that governments were withholding the truth about stillbirths, deformities, and health defects, and were suppressing studies on deformed animals.<sup>5</sup>

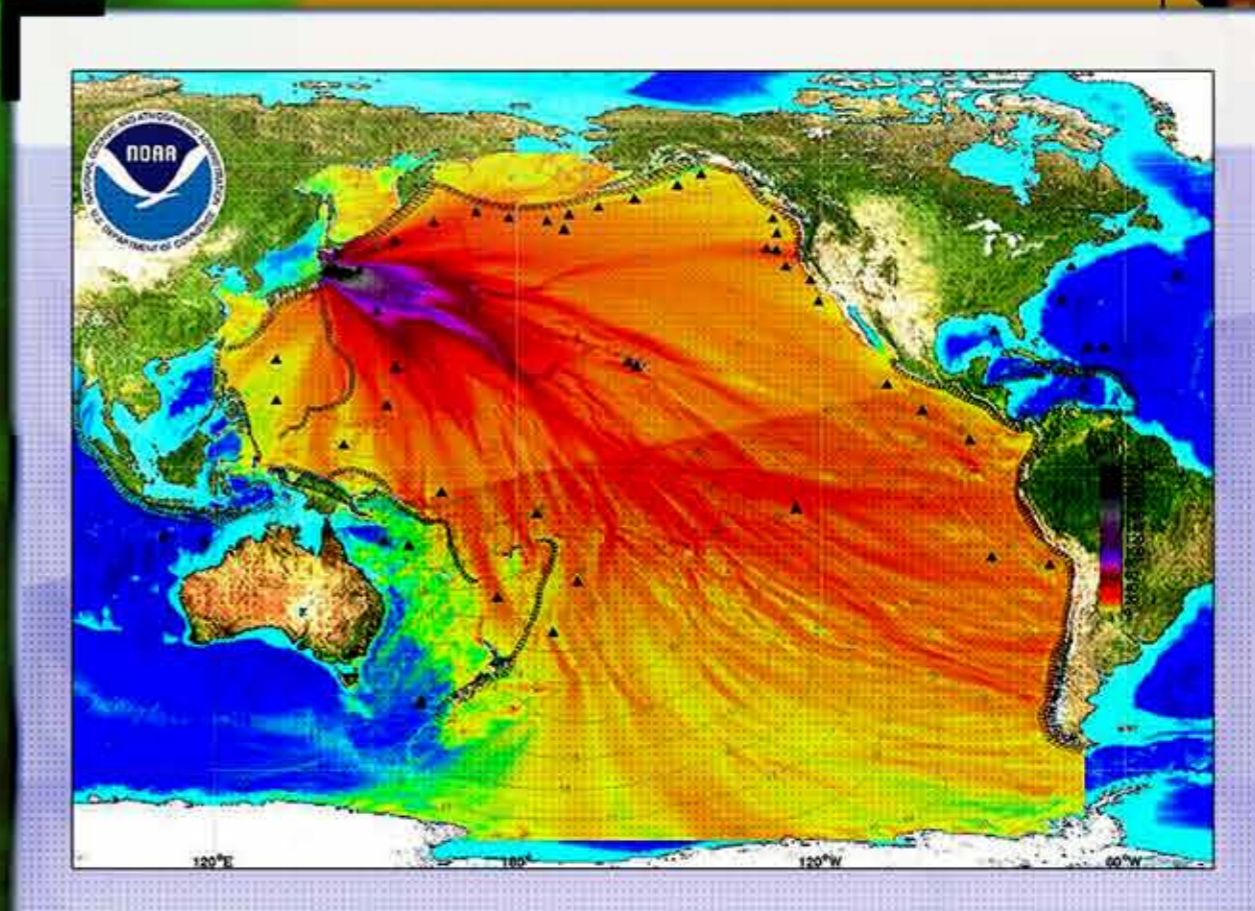
The scientific evidence continues to grow, with abundant signs pointing in the wrong direction for survival of humans and other species. Dr. Timothy Mousseau, with his horrific overview of nuclear nightmares in March 2013<sup>6</sup>, documents the destruction and demise of animals in the Chernobyl exclusion zone as



severe as extirpation (i.e., local extinction). Mousseau had this to say on Fukushima in early September 2013<sup>7</sup>: "Given the vast amounts of material that was released I think there will be measurable amounts of radioactive cesium hitting the West Coast, blanketing the West Coast for some time to come." In an interview with RT from August 2013,<sup>8</sup> nuclear fallout researcher Christina Consolo indicated that billions of people could die from release of ionizing radiation from Fukushima alone. The following month, Yale professor Charles Perrow concluded that events at Fukushima could lead to fission of fuel rods and, "all of humanity will be threatened, for thousands of years."<sup>9</sup> And in October 2013, Canadian scientist David Suzuki added his voice to the conversation, calling Fukushima, "the most terrifying situation I can imagine."<sup>10</sup>

The situation is already terrifying for the 71 sailors assigned to the USS Ronald Reagan who responded to the 2011 Fukushima disaster in Japan for four days.<sup>11</sup> They've reported radiation sickness and will file a lawsuit against TEPCO. At least half the sailors have contracted some form of cancer.

In early January 2014 Gordon Edwards, nuclear expert and president of the Canadian Coalition for Nuclear Responsibility,



concludes that four of the six reactors at Fukushima exploded, and three of the four melted down<sup>12</sup>: “They found a pool of water beside the tank that was leaking, that pool of water – they measured the radiation levels – if a person stood beside that pool of water for 1 hour, they would die of radiation poisoning.” Days later, an overview of the situation at Fukushima Daichi concluded: “There is little reason to expect anything but worsening conditions, slowly or suddenly, for years and years to come. And there is even less reason to expect anyone in authority anywhere to be more than minimally and belatedly truthful about an industry they continue to protect, no matter how many people it damages or kills.”<sup>13</sup>

Fukushima Daichi represents a single nuclear plant. More than 400 plants exist throughout the world. They require decades to decommission, and more are being commissioned each year.

### Absence of leadership

In my dreams, world leaders would act to decommission nuclear power plants instead of commissioning more of them. I’ve lived long enough to expect otherwise.

If I were king of the world for a decade – or even a day – I would immediately order a rapid but methodical shutdown and then closure of all nuclear power plants. The alternative is emergency shutdowns in myriad ways, all of them hasty and unplanned, as the world’s industrial economy continues its ongoing demise while the effects of climate change wreak daily havoc hither and yon. The results of decline and disaster are completely predictable and unimaginably horrific, and they include numerous core meltdowns and huge releases of radiation.

Perhaps we will avoid causing our own extinction via ionizing radiation in the wake of worldwide nuclear catastrophe. But such a positive outcome will only result from careful planning and strong leadership. The nuclear industry is a microcosm of industrial civilization, favoring short-term monetary profit over life on Earth. At some point, the result is carved in stone. I suspect that point draws near.

### Equal inheritance

The consequences of huge unplanned releases of radiation into Earth’s atmosphere include death to many land-dwelling species on the planet. Considering the interdependencies between

terrestrial and aquatic ecosystems, the extinction of many aquatic species would follow on the heels of extinction of terrestrial species.

Radiation is impartial. Radiation doesn’t discriminate. In short, the near-term consequences of nuclear catastrophe likely to result from collapse of the world’s industrial economy are unthinkable.

So let’s put our hearts and minds together to think of something else. Something much better. Unless you’re really into peeling skin, deformed babies, and glowing in the dark.





Climate change is the media darling of environmental issues. Every day the news delivers more facts, figures and stats, and every day business as usual continues.

We have heard that we will need to reduce atmospheric CO2 to 350ppm and stabilize there, and that we are on track for a 2 degree increase in global average temperatures by mid-century, which will be disastrous. But most of us have not heard that 260ppm is a far safer emissions level, consistent with pre-industrial times. And most of us have probably not heard that 2 degrees is a death sentence for low-lying island nations and much of Africa, which is why these nations, and others, lobbied at Copenhagen in 2010 for international agreement to a 1 degree limit, yet were undermined by even the environmental NGOs whom they believed stood for climate justice.

But all this talk of numbers is barely tangible. What does it all mean in practical terms? What will the impacts look and feel like for those who will be most affected? Why are these points not first and foremost in our public discourse?

Of course there is no place on Earth that will emerge unscathed from the effects of climate change. But there are some places where the effects will be felt more keenly than others. Large parts of some countries will become inundated when sea levels rise, leaving them uninhabitable and their populations displaced. Cycles of drought

and flooding will impact food security, forcing populations to migrate away from unproductive agricultural land.

The most at-risk countries, according to the most up-to-date modeling are, as one has come to expect, all in the developing world – particularly Africa and Asia. The greatest increase in risk levels are felt in West Africa and the Sahel, whose political terrain is already dominated by food insecurity issues, and projections up until 2040 indicate a 2 degree rise in average temperatures combined with substantial changes in rainfall and humidity. Many of these most at-risk countries have sizeable – and growing – populations that will need to relocate. The US and much of Northern Europe are, fortunately for the residents of those developed countries, deemed to be at low risk, at least for the near future.

Risk analyst Maplecroft has just released the 2014 edition of their Climate Change and Environment Risk Atlas. In the new Climate Change Vulnerability Index (CCVI), vulnerability has been calculated as the susceptibility of 197 nations for which there was data available to extreme climate-related events such as droughts, cyclones, landslides and sea-level rise. Also considered in the evaluation is each country's capacity to adapt to the anticipated threats.

**Here are the top ten most at-risk nations on Earth:**



## Bangladesh

Not just the sweatshop labour capital for our western consumerist clothing needs anymore, Bangladesh is soon to be famous for literally going under water.



### Lay of the Land:

Bangladesh is located in the low-lying Ganges Delta between India to the west, and Burma to the east, and boasts some of the most fertile agricultural plains in the world. Most of the country is lower than 12 metres above sea level and extremely flood-prone.



### Climatic changes:

A tropical monsoon country, Bangladesh is prone to floods, tropical cyclones, and tornadoes, which occur almost every year, and now the low-lying country is suffering increased rainfall, cyclones and rising sea levels.



### Impacts:

Soil degradation, erosion and deforestation resulting from climate change are huge problems for food and water security, as well as human

health and shelter. It is estimated that a 1 metre rise in sea level would result in inundation of 10% of the country. Earthquakes also pose an increased threat as flooding of the delta forces the underlying Earth's crust down, aggravating faults, and tectonic movements have even caused rivers to suddenly and dramatically change course. Over the coming decades it is estimated that 20 million climate refugees will emerge from Bangladesh.



### Adaptation:

In proactive measures, Bangladesh has been experimenting since the 1960's with a "build with nature" program that implements cross dams, causing accretion of silt that creates new land. With the assistance of Dutch funding, Bangladesh has developed this new land by building roads, embankments, and cyclone shelters, as well as distributing land among settlers to re-settle 21,000 families.



## Guinea Bissau

Not to be confused with Guinea, Equatorial Guinea, or Papua New Guinea, Guinea Bissau is soon to be placed on the map in its own right, no longer to be mixed up with other similar-sounding countries.



### Lay of the Land:

Guinea Bissau, located on the west coast of Africa and bordered by Senegal and Guinea, is a small, low-lying tropical country with coastal mangrove swamps and inland savanna.



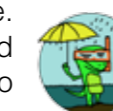
### Climatic changes:

Guinea Bissau experiences a monsoon-like rainy season alternating with hot, dry winds blowing from the Sahara. Rainfall has become irregular and unpredictable. The coastal lowlands are exposed to increasing rising tides due to thermal ocean expansion, which in turn increases the risk of flooding.



### Impacts:

Coastal erosion due to flooding is causing dramatic losses of vegetation and infrastructure, and threatens entire villages. Damage to infrastructure and loss of water security are already felt keenly, as is the loss of food security due to the loss of fish stocks and coral reefs, soil degradation and decreased agricultural yields. With more than two thirds of the population living below the poverty line, Guinea Bissau is already heavily dependent on foreign aid.



### Adaptation:

Guinea Bissau has made efforts at reforestation, rehabilitation of degraded lands and natural resource management, and is integrating the issue of climate change into national development strategies and policies. In order to adapt sufficiently, Guinea Bissau requires financial and technical support from developed nations.



## Sierra Leone

Sierra Leone, famous for blood diamonds and civil war, is next on the list.



### Lay of the Land:

Another west-African coastal nation, Sierra Leone boasts diverse terrain, from high plateau to forested lowland plains and mangrove swamps. The north is forest savanna, and the south is rainforested plains and farmland.



### Impacts:

Crop production is highly vulnerable to prolonged droughts interspersed with heavy rainfall, rendering Sierra Leone another country at high risk from threats to food and water security. These problems are compounded by deforestation, carried out in order to make room for increased agriculture as well as for commercial timber, and slash and burn land conversion for cattle grazing. It is the poor communities who rely on subsistence agriculture who suffer the most.



### Climatic changes:

Sierra Leone's climate is tropical, with a rainy season and a dry season which brings cool, dry winds from the Sahara. The population is now threatened by climate change-related droughts, storms, floods, landslides, heatwaves and altered rainfall patterns.



### Adaptation:

Sierra Leone has begun adaptation efforts including sustainable land and natural resource management programs as well as improved technical and institutional capacity development to provide improved access to weather and climate data. Progress is slow and does not hold great promise.



## Haiti

Haiti, placed on the map for many after the devastating earthquake of 2010, and winner of the 2013 honour of most at-risk country in the world to the effects of climate change, no longer holds the top spot. However, this is likely due to increased threats to other countries than to improvements in Haiti's own situation.



### Lay of the Land:

Haiti is the eastern half of the Caribbean island of Hispaniola, shared with the Dominican Republic. Haiti's terrain is predominantly mountainous, with small coastal plains and river valleys.



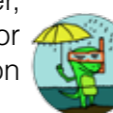
### Impacts:

Half of all Haitians work in agriculture, which is becoming increasingly unstable with changes in climate patterns. Unseasonable droughts have caused widespread crop failure in recent years. **Less than 2% of Haiti's forest cover remains since the 1915-1934 US occupation, which oversaw the majority of deforestation due to concentrated land ownership for plantations;** with few tree roots to bind topsoil landslides are inevitable in heavy storms. There is little in the way of marine, coastal and river basin management, and soil erosion and deforestation have led to catastrophic flooding, which has become a norm.



### Climatic changes:

Haiti's climate is characterized by two seasons: the wet and the dry. Heavier rainfall is now occurring in the wet season, hurricanes are more frequent and less predictable, and sea level rise is a major concern. Climate projections, however, indicate a hotter and drier future for Haiti with decreased precipitation overall.



### Adaptation:

Poverty has massively impacted Haiti's ability to prepare for extreme weather events and adapt to a changing climate, and the response capacity of Haitian institutions is low. And now that post-earthquake aid has dwindled there is little in the way of external funding coming in that could help Haiti to her feet.



## South Sudan

The world's "newest nation" is currently generating concern for its latest descent into civil war. South Sudan, however has even harder times ahead.



### Lay of the Land:

South Sudan is a landlocked central African nation that gained independence from Sudan in a referendum in 2011. The landscape is tropical forests, swamp and grassland.



### Impacts:

Rivers that were once permanent have become seasonal. Water is scarce during the dry season, and at least 50% of the population lack adequate access to safe drinking water. Rainfall patterns have now become so unpredictable that farmers simply do not know when to plant crops. Livelihoods and food security are now at considerable risk, particularly since the majority of the population is employed in the agricultural sector. Desertification and soil erosion have become a major issue, indicating the difficulty of reversing the impacts of climate change on South Sudan.



### Climatic changes:

South Sudan's climate is tropical equatorial with a humid rainy season – with vast amounts of precipitation – and a drier season. However, climate change has delayed and shortened the rainy season, and drought has become an increasing concern.



### Adaptation:

Stable institutions are required in order for any country to adapt to climate change. South Sudan's predicament is only worsened by the increased civil strife in the region.



## Nigeria

The surprise addition to the list, new in at #6, is Africa's largest economy: Nigeria. Nigeria's oil-based economy is set to suffer greatly, likely impacting the funds required to address climate change.



### Lay of the Land:

Another west African nation, Nigeria lies on the fertile Niger Delta, one of the world's largest. The terrain is varied, with mountains, plateaus, savannah, rainforest, coastal plains, and mangrove swamp.



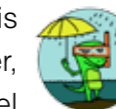
### Impacts:

The oil-rich Niger delta is particularly vulnerable to the effects of climate change, with erosion resulting from rising sea levels. In the Sahel region the Sahara desert is encroaching and the increased risk of drought is compounding existing patterns of water scarcity. Despite economic development in other sectors, 60% of Nigerians still work in agriculture, and their livelihoods are impacted by a changing climate. It has been predicted that the effects of climate change will lead directly to civil conflict in Nigeria.



### Climatic changes:

Along with its varied terrain, Nigeria also has variable climatic patterns which are compounded by climate change. Nigeria is already experiencing drier weather, particularly in the northern Sahel region, and droughts are increasing in frequency and severity. It is also expected that Nigeria will experience temperature shifts, changing rainfall patterns, storms and sea-level rise.



### Adaptation:

Adaptation measures taken thus far in Nigeria have centered around educational initiatives, but the country still lacks a federal oversight body for the purpose of coordinating research and policy. Funding is also needed from more developed nations. The issue of adaptation in Nigeria is a complex one due to the need of various measures designed to suit the various bioregions.



## DR Congo

Famed for civil war and the conflict minerals of the Rift Valley – particularly the coltan so essential for the making of smartphones and computer parts, the Democratic Republic of the Congo (DRC) is the richest nation on earth in terms of natural resources, and the most biodiverse African country, yet one of the poorest nations on Earth, with 70% of the population living below the poverty line.



### Lay of the Land:

Located in the Great Lakes region of Central Africa, the DRC is an equatorial country that is home to the world's second largest rainforest. Thickly forested terrain, high plateau merging into savannas, high mountains and dense grasslands are the lay of this African land.



### Climatic changes:

The tropical climate of the DRC experiences high precipitation, and the highest frequency of thunderstorms of any country in the world. The frequency of floods, droughts and heatwaves is expected to increase.



### Impacts:

The predicted increase in frequency of floods, droughts and heatwaves, is expected to impact agricultural productivity and livelihoods. Deforestation and land degradation due to mining are exacerbating these climate-related disasters by increasing the likelihood of soil erosion and landslides. Rural populations have been displaced from their land by conflict, drought and flooding, and coupled with economic decline this has caused pressures on food security and resultant hunger.



### Adaptation:

The low adaptation capacity of this desperately poor country places a huge proportion of the country at great risk for the future. It is also predicted that climate change will contribute to future conflict in the DRC due to scarcity of productive land.



## Cambodia

Another country famous for its bloodshed, Cambodia has seen more than its fair share of strife.



### Lay of the Land:

Located on the Mekong Delta in south-east Asia, Cambodia is characterized by low-lying central plains surrounded by mountains and highlands. Heavy deforestation – much of it due to illegal logging – has scarred the landscape.



### Climatic changes:

Cambodia is a tropical country with a monsoon season and a dry season. In monsoon season Cambodia is extremely flood-prone. Flooding is increasing in frequency and severity during the monsoon season while temperatures during the dry season are on the rise.



### Impacts:

Climate change is expected to amplify already existing problems of water scarcity, agricultural

failure and food insecurity. Extreme flooding is predicted to endanger the agriculture that supports the majority of the population, particularly those living below the poverty line. Extreme heat is also predicted to impact the Cambodian economy due to increases in workdays lost to impossible working conditions. Economic difficulties have the further impact of constraining funds for climate change. Increased incidences of malaria and dengue fever are also predicted.



### Adaptation:

A lack of infrastructure for dealing with flooding and other climate disasters has become cause for alarm among Cambodians, who fear their country's government is making inadequate efforts to prepare for climate change. **Nearly half of Cambodia's settlements are categorized as either vulnerable or extremely vulnerable to climate change.** Capacity-building as well as funding for adaptation measures are desperately needed if Cambodia is to avoid disastrous flooding in future.



## Philippines

Much in the media as of late, the Philippines has escaped the attention of no one for its extreme vulnerability to the effects of climate change. The term super-typhoon is set to become a fixture in climate-related vocabulary.



### Lay of the Land:

The Philippines, a tropical archipelago of more than 7,000 islands in the Pacific Ring of Fire, is the 12th most populous country in the world, with more than 98 million. Most of the islands are mountainous and covered with tropical rainforest.



### Climatic changes:

The climate of the Philippines is tropical, hot and humid. There are three seasons: hot and dry, cool and dry, and rainy. The Philippines straddles the typhoon belt, meaning that the archipelago is regularly hit by typhoons and torrential rains. It is expected that climate-related disasters will increase in frequency and severity, and the recent devastation and deaths of thousands from typhoon Haiyan are a stark predictor of what to expect in future.



### Impacts:

Rising sea levels place the Philippines in a particularly vulnerable position, and increase the threat of storm surges that inundate vast coastal regions, threatening their populations who will be forced to migrate en masse if they are to escape the effects of food insecurity, and the loss of shelter and livelihood that will result. Manila, the country's capital, is at particular risk due to a combination of factors: exposure to climate-related hazards, poor socio-economic factors, and low adaptation capacity. Predicted to grow by 2.23 million residents by 2020, an increase of close to 20% of its population, the risks of flooding and typhoons affecting Manila threatens millions.



### Adaptation:

Despite UNFCCC delegate Naderev (Yeb) Sano's impassioned speech at the COP19 in Warsaw, the Philippines' adaptation efforts look set to remain underfunded. The Philippines has been at the forefront of recent criticisms of developed countries' reluctance to assist developing nations with mitigation and adaptation efforts, and cover for loss and damage.



## Ethiopia

An unsurprising new addition to the list this year, Ethiopia is famed for drought, crop failure and famine on a Biblical scale which looks set for a sequel.



### Lay of the Land:

Located in the Horn of Africa, Ethiopia is the world's most populous landlocked country. Ethiopia is a surprisingly diverse country with mountainous highlands to lowland semi desert.



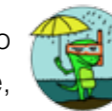
### Climatic changes:

Ethiopia's diverse landscape also brings with it a diverse climate, although Ethiopia's predominant climate is tropical monsoon. However, rainfall is becoming increasingly unpredictable, arriving later in the season, and droughts – ever a mainstay of Ethiopian climate – are getting worse.



### Impacts:

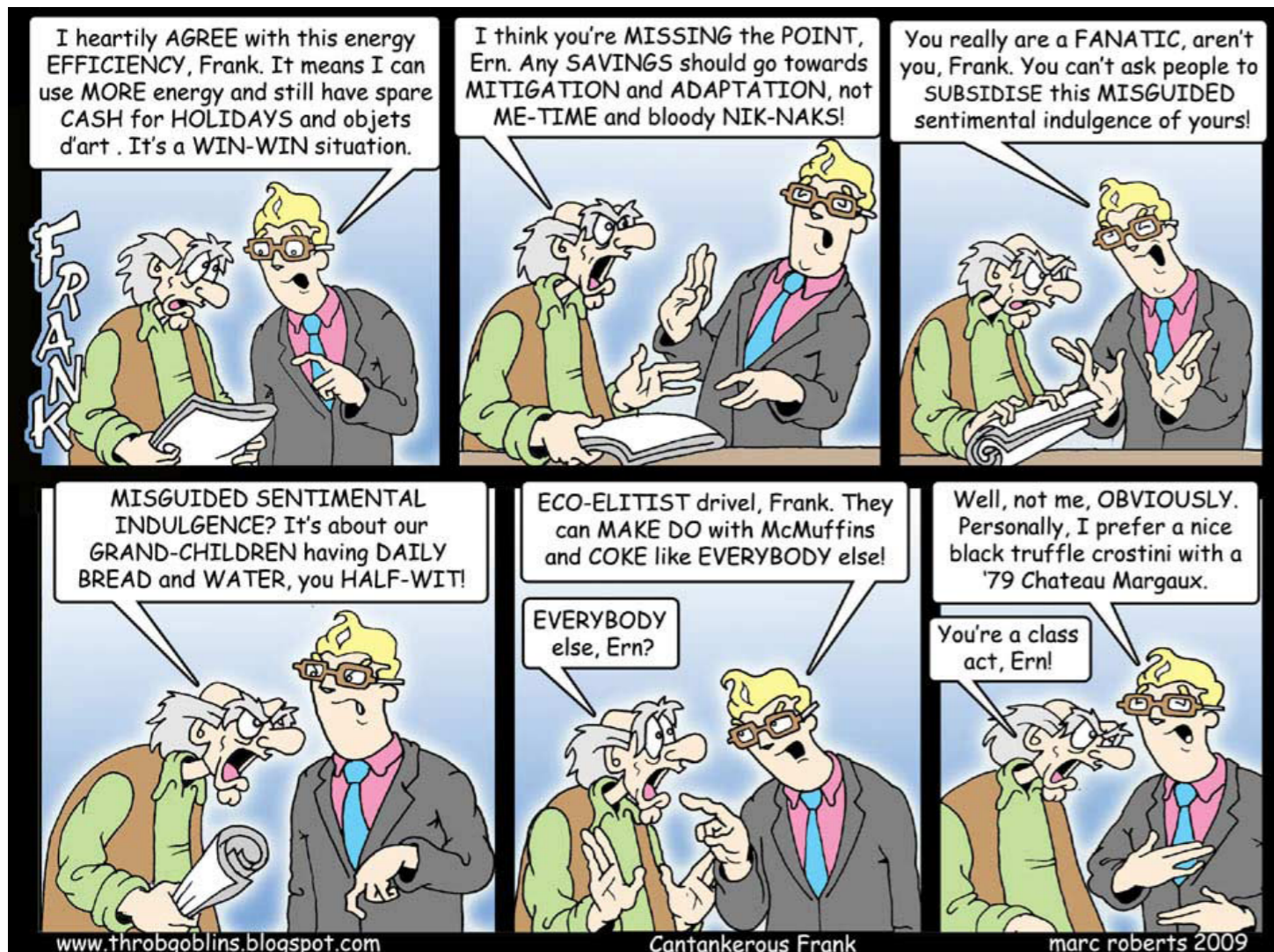
Small-scale farmers – which make up 85% of the Ethiopian population



### Adaptation:

Farmers are opting to plant more drought-resistant crops, and pastoralists have even opted for herds of camels or goats, as opposed to cattle, in order to better manage drought-associated risks. However, poverty, limited resources, and limited alternative options for livelihoods – compounded by the absence of policy measures and adequate funding – mean that Ethiopian lives hang in the balance once again.

If you'd like to learn about this issue in more depth, please visit Maplecroft's website and download The Climate Change and Environmental Risk Atlas 2014: <http://maplecroft.com/themes/cc/>



# A Complex Predicament

By Dave Pollard

**How Our Energy, Economic and Ecological Systems are Connected: Feedback loops, the Jevons Paradox, and the three End Games**

## Part One: The Energy Predicament

*This is the first of three articles on understanding complexity, and how our energy, economic and ecological systems, like unruly children, tend to defy our attempts to change them.*

It's called the Jevons Paradox<sup>1</sup>. It explains why increases in the efficiency of resource-consuming technologies tend to lead to an increase, rather than a decrease, in resource use. So, for example, it would explain that drivers of hybrid cars, rather than banking the savings on gasoline their vehicles provide, because of reductions in both cost and guilt, instead drive them further, sometimes even to the point they use more gasoline than they would have if they owned a non-hybrid.

In a broader sense, the Jevons Paradox is a way of explaining a puzzling behaviour of many complex systems. In essence, because we humans don't really like to change, we will tend to 'work around' interventions in a system that were designed to bring about some desired change, so that the status quo of the system is maintained.

So, for example, Malcolm Gladwell's research<sup>2</sup> has discovered that you are actually safer driving in a convertible than in an SUV, because drivers of convertibles know the dangers of an accident and compensate by more careful and attentive driving, while SUV drivers, in the (mostly false) belief that their risk of being in an accident is much lower, tend to drive more aggressively and less attentively, so they have significantly more accidents per mile and in total face more injuries and deaths per mile. (Don't try to sell this logic to your insurance company, however.)

In addition, there are Jevons Paradoxes inherent in complex systems that lead to undesired results that have nothing to do with deliberate human behaviour at all. For example, if we put a 'carbon tax' on fuels in the hope of reducing consumption and encouraging conservation, we may find that the reduced consumption will temporarily lower prices (as a result of lowered demand). But those lower prices will enable drivers to buy more gasoline for the same outlay, so they will fill their tanks more often -- until that increased demand enables the gasoline vendors to raise their prices, completing the cycle.

And when the vendors can increase their prices, they can also economically justify exploring for and developing more costly, marginal hydrocarbon resources (fracking, deepwater oil, shale oil, tar sands). That increased supply starts another cycle, since more supply relative to demand tends to lower prices until the new supply can be fully sold. It's all a delicate balance.

That is, until affordable oil – and other resources – run out entirely. The energy industry is fond of telling us there is centuries' worth of potentially extractable hydrocarbons in the ground. But with the cost of extraction getting ever higher, and the life of each new find getting ever shorter, the amount that can be extracted at a price consumers can afford is finite; and when it is used up we reach what Derrick Jensen calls End Game<sup>3</sup>.

This is where complex systems, because they're interrelated, get especially tricky to explain. What exactly is 'a price consumers can afford'? This depends on our economic system, not our energy and resource systems. That system, as I will explain in Part Two of this series, is hurtling towards its own End Game. But the bottom line is that, as we come to realize that our unsustainable industrial growth economy is already hugely overextended (the debts we have incurred could only ever be repaid if we lived on a planet of infinite wealth and resources), the entire Ponzi scheme<sup>4</sup> of our markets will collapse, and what 'consumers can afford' will plummet. End Game.

And all of this economic activity and resource development has pushed atmospheric CO2 and other global warming gases past what many climate scientists believe<sup>5</sup> is the tipping point, so that 'runaway' climate change, and with it, massive droughts, desertification, fires, storms, water scarcity, species extinction, pandemics, infrastructure destruction and sea level rise are now, they say, inevitable in this century – a third End Game. (more about this system in Part Three of this series).



we gauge whichever of the three is going to hit us first, and hardest?

And, once collapse comes, how can we learn from this astonishing life experience – from being at this pivotal point in human evolution – so that those living after the fall will be able to create sustainable, joyful societies (probably very localised, small scale societies that will, because they will be adapted to place, seem amazingly diverse to those of us living in our current homogeneous global human culture)? And how can we help our descendants draw upon the best of pre-civilization ('prehistoric,' since in our arrogance we presume that history only began with our civilization) ways of living, and also on the lessons of (civilization's) history and the scientific and technological learning of today's world, to create future human societies better than we could dream of?

But back to our complex energy/resource system chart: what this diagram explains is the futility of us trying to intervene politically or economically to bring about significant, sustained changes in the systems pushing us inexorably to the End Games. Carbon taxes, energy conservation and innovation, protests and blockades of dirty energy and resource exploitation are admirable and necessary, but they cannot hope to fundamentally change the status quo which will ultimately take us to resource exhaustion. Our entire civilization depends upon the ready availability of cheap resources that enable us to feed 7.5 billion humans today, and by mid-century 9.5 billion or more, most of whom will want to live, and hence consume resources, as we do today. If we run out – when we run out – we will find that such a horde cannot live on what we can produce with the energy of our hands and that of domesticated animals. (The average human can produce about 0.1 horsepower of energy in sustained manual labour; a car requires 150 hp or so, a train 4,000 hp per engine, an airplane 60,000 hp, a cargo ship 100,000 hp, a power plant 3,000,000 hp.)

I would like to believe, as Donella Meadows so eloquently explained in her Places to Intervene in a System<sup>8</sup> paper, that a transformational human evolution, a way of fundamentally changing our whole global way of thinking and acting, our whole paradigm, is possible. As a student of history I don't believe such changes happen, however, at least not on a large scale, persistently or quickly. But even if I did believe, I would want to understand what we are facing if we are not successful in such a transformation, and how we might prepare for it.

I believe the key to doing that – to understanding what we are facing and what is possible – is through the use of story. That is how we have always learned and come to understand these things. I believe it is never too early to start to study and learn from the stories of previous civilizational and economic collapses – Ronald Wright's A Short History of Progress<sup>9</sup>, Jared Diamond's Collapse<sup>10</sup>, and Pierre Berton's The Great Depression<sup>11</sup> are excellent starting points for this. And I believe it is the right time to start to write the story of the unfolding collapse of our current energy/resource, economic and climate/ecological systems, and hence the collapse, over the next few decades, of our own fragile civilization. Not as a story of apocalypse – the Mad Max scenario may make good cinema but a study of human history suggests it's highly unlikely, and that collapse will occur more gradually and unevenly than we might expect, and our collective response to it will be gentler and more generous than we might imagine. We could probably learn much, too, from the homeless in our own communities, and from the people in the massive, sprawling slums of the third world, who are already living in cultures of collapse.

Through an understanding of how the complex systems of our world really work and how change happens, and through an appreciation of history and the telling of stories, I think we can move past denial and blame and start to move towards preparation for the future. A

future that will be unstable and unpredictable and much different from how many of us in affluent nations live today, but also exciting and satisfying and engaging and meaningful in a way our current culture does not provide. And that work can make us collectively resilient – not in the sense of 'bouncing back' to an unsustainable style of life, but in the sense of moving forward, courageously and joyfully, to a re-localized, communitarian style of life that is sustainable.

*In Part Two I will explore the complexities of our economic systems and explain why, although it won't 'save' civilization, the dismantling or crumbling of our current industrial growth economy, sooner rather than later, could well lessen the hardship and suffering of the collapse we and our descendants are likely to face. And I'll look at several different scenarios of how, and in what order, some or all of the three End Games might come to pass.*

*In Part Three I will explore the complexity of climate change, ecological collapse and the unfolding Sixth Great Extinction of most life on Earth, and how we might prepare for that by co-creating stories of a near-future world as much warmer than our planet is today as it was colder at the coldest point in the Ice Ages of Earth's recent past. And by co-creating stories of the life that's possible for our species a few millennia (not a long time, really) into the future, we may rediscover what our species was meant to be before we lost our way.*

# CHANGEMAKER PROFILE

Each issue of SHIFT magazine will feature a changemaker profile. Coming up are: The Communicator, The Builder, The Networker, The Investigator, and The Nurturer. This issue's focus is on The Resistor.

## The Resistor

- ▶ Ben Pennings.
- ▶ Founder and Publisher, Generation Alpha. <sup>1</sup>
- ▶ Coordinator, Over Our Dead Bodies. <sup>2</sup>

### First the name: how did you come up with the name Generation Alpha, and what does it mean?

It actually started from seeing some graffiti in my early 20s, the anarchist 'A'<sup>3</sup> surrounded by a love heart<sup>4</sup> rather than a circle. I identified with it a lot and had a version tattooed on my bicep.

I identified with the values rather than any 'ism'. I've always been pretty anarchistic, questioned authority or perceived wisdom more than most. I got in trouble regularly at school and was kicked out of my good Christian home as a teenager. And I'm definitely a lover more than a fighter, to my detriment at times.



A few years back I saw an article saying Generation Z had finished and the new demographic to label and market to was going to be called Generation Alpha. Some expert in the article told me that Generation Alpha is likely to be the "most materially supplied generation ever". It saddened me due to the complete denial that we are already living well beyond the limits of the planet, depleting its 'resources' at an alarming rate. The complete denial of climate change, that each prediction is being overtaken by reality.

I became determined to take the term Generation Alpha back, to align it with the honesty, courage, and action needed to restore ecosystems rather than grow economies. And my tattoo symbol fit the A for Alpha in the logo too! So now if you search Generation Alpha you get this large radical environmental Facebook page, linked to local groups around the world. You'll also find Over Our Dead Bodies, a strategically radical campaign to help stop the largest coal-mining complex on the globe. Soon you'll find a blog, more campaigns and maybe even a literary anthology.

### What is Generation Alpha's mission, and how do you plan to achieve it? What obstacles stand between you and a mission accomplished?

The ultimate aim is to become an identity of sorts. Re-identifying with nature, and identifying with ways of living that are within local land bases. I envision Generation Alpha working with others to both dismantle the current ego-system and embrace the ever-present eco-system. This requires radical action but also creating new stories, steeped in reality, history and place.

Our tag-line is "Honesty, Courage, Action". We must be honest that our current system of living is inherently unsustainable, incredibly abusive. It can't last, shouldn't last and won't last. We must have the courage to be honest, to share, to create, to resist. This courage must lead to action, forming communities of resistance and renewal.

To do this we need to share and connect, so we are able to live authentically within an abusive system of living. Share and connect with people who are passionate and playful, blatant and boisterous, caring and committed. Together we can create new ways of living, new ways of being; re-identifying with all of nature, all of ourselves.

Finally, we need to enjoy it, enjoy each other, enjoy life.

The obstacles to achieving this are numerous and powerful. History reveals that people and institutions do not give up power voluntarily, and mostly use incredible violence to maintain it. The current level of surveillance and 'security' means new and creative strategies are needed to force those in power to stop the abuse.

The damage already caused is another obstacle. We may already be too late in avoiding catastrophic runaway climate change. We're destroying ecosystems at an increasing rate, despite 50 years of an environment movement. People who care often despair. How can we not? How we deal with this despair is essential in empowering people towards effective action.

Convincing people to give up privilege is a huge challenge. The level of enculturation into this abusive system of living is extraordinary and very hard to escape, or even get some perspective on. People need to give up their unsustainable 'creature comforts', give up complex and detached ways of living.

Humans need to give up the delusion that we are superior to other beings, that somehow the laws of nature do not apply to us. We are just another top predator and will eventually die out if we destroy the ecosystems we rely on to live.

Overcoming all these obstacles will require courage. Maya Angelou said, "Courage is the most important of all the virtues, because without courage you can't practice any other virtue consistently. You can practice any virtue erratically, but nothing consistently without courage." I tend to agree.

**Direct action is one of those phrases we hear a lot, and I sense that it's often misused - for example, referring to protesters with placards. How do you define direct action?**

I see direct action as a radical tactic, going to the root of a problem. This requires activists and others to seriously and strategically challenge power. This can be done through legal and illegal means. But if legal means are working, they may not be legal for long!

Direct action has worked very well historically, but never in isolation. It needs to be supported by a wider movement, and complemented by other tactics. It requires courageous people, people whose love is strong enough to risk personal freedom and safety.

Direct action is more important than ever as time is short. However, those in power are supported by a high level of surveillance on citizens, and a very powerful 'security' apparatus. New tactics and strategies must be explored rather than movements relying on what has worked, or not worked, historically.

**While most folks are leaving the future of ecological sustainability up to government policy, scientific and technological advances, and for some odd reason "the market", Generation Alpha are taking matters into their own hands. Why this decision to get radical and pursue direct action? Why not leave it to "the experts"?**

We are in an ecological crisis. There is no time for slow inter-generational change, slight changes in policy, or hoping the market will succeed where it has thus far failed miserably. Time has become a crucial factor in strategy, in human survival. Climate change is an obvious example but time is also crucial to protect biodiversity and halt the depletion of 'resources'.

Technology thus far has enabled us to destroy ecosystems with increasing speed and violence. Also to strengthen the hold of the dominant culture over the planet. I'm sure technical knowledge and some technology will be very useful in transitioning to new ways of living. I'm equally sure, though, that any sustainable way of living will not include the level of complex technology we seem addicted to today. For a start, the minerals will just not be available anymore.

The 'experts' have failed dismally. I'm sorry to say this includes much of the environment movement, which has tinkered around the edges of the changes needed. This is due to being restricted within, or completely accepting,

the dominant paradigm of human exceptionalism, human control. Trying to tame or control nature rather than live within land bases. Believing ourselves special, having a right to live outside the laws of nature.

Ecological sustainability is a radical concept. It has been co-opted to mean more sustainable, slightly less destructive. We must take it back.

**Can you run us through some of the things you're working on at the moment, and what made you choose to zero in on those particular issues?**

Our current priority is Over Our Dead Bodies. We're focused on this campaign because preventing coal mining in the Galilee Basin would buy time. It would delay or maybe even avoid some crucial climate change tipping points. There is that much coal there. Mining and burning it is literally insane and I believe stopping it should be the biggest campaign priority of the environment movement globally. Not only because of the amount of coal there, but because it is a winnable campaign with time on our side. We urge people in the strongest possible terms to join us.

This year's G20 is in Brisbane, Australia where I live. The local Generation Alpha group here is looking at coordinating an international ecological response. This is because the G20 is an important representation of the powerful institutions promoting and profiting from this abusive system of living. We must tell the truth about them, dissent, resist.

We're yet to decide the focus for this response but an interesting option is 'G20 Grief'. I envision this as an opportunity for people around the world to individually and collectively express their grief and despair about what G20 does, which is basically enable more efficient ways of turning a diminishing natural world into money. I believe this is an important step in people going beyond hope<sup>5</sup>, letting go of safe piecemeal actions that do not seriously challenge power.

A web portal including a blog is also on the cards. We have a large Facebook page and I'd love at least 1 in 10 of the 40-odd thousand on it to engage with us on this different level. New stories need to be told, shared. Isolated and often disempowered people need to be given the opportunity to engage and work with

similar folk, to know they are not alone in their thoughts, feelings and desires. Activists and potential activists need new inspiration, directions, strategies and opportunities.

I'd love the website to help facilitate some Generation Alpha anthologies over time. There are new stories, voices and ideas that need a platform. I can't emphasise how much humankind needs them.

**You're obviously very driven. How do you fit being a full-time activist into your everyday life? As a family man, what are the pros and cons of the work you do?**

I am driven. But I'm also determined not to be busy, not to be stressed. I take time out on my own, particularly away from the Internet. I'm in this for the long haul.

My wife and I have found ourselves with an unexpectedly large combined family. This presents challenges, particularly for an activist. Generation Alpha costs us a lot of money in both expenses and unearned wages. There is also police interest, thorough surveillance, and the threat of criminal and civil action against me. My wife is not long-suffering. But she is definitely long-understanding, loving, patient and many other wonderful qualities.

Running Generation Alpha and looking after our family is all I want to do. I avoid paid work but am the main homebody for our family, and caregiver to our three year-old. Despite the challenges and increased risks, I believe my presence at home and passion for what I do is great for our family. It certainly gives the older kids some interesting stories to tell at school!

**Obviously being an activist isn't for everyone. What other kinds of change-oriented action do you encourage people to take? Are there any actions you'd advise against because you think they're just a waste of time?**

I'm happy to say that I see the environment movement radicalising by the day. Not fast enough but it's happening! People are coming to the conclusion or realisation that governments, gods, scientists

and the market are not going to save us – that our whole dominant system of living must radically change.

There is a multitude of ways people can respond to this with effective change-making action – everything from infrastructure sabotage to making cups of tea. Nelson Mandela, for one, advocated both! **A good start is to examine what you identify with, what you care about. Don't be afraid to examine yourself in a deep and meaningful way, to ask what sort of issues and actions may suit your personality, skills, commitments and courage.**

I promise there are others who think and feel like you, who have similar identities, passions and commitments. Find them. Don't settle on the first group you find. Shop around if possible and see what fits. Give yourself to the group/cause the best you can, and be willing to receive. There is no formula except trust your instincts and intuition, and learn all you can from people you trust.

There are a lot of actions or groups that may be a waste of time but they change from campaign to campaign, region to region. Be as thorough as you can when strategizing, questioning each other about the short and long-term value of varied tactics. Are you asking powerful people or institutions to change out of the good of their hearts, or demanding they change, with consequences if they don't? Are you trying to fix systemic problems with individual based solutions? Is the endpoint of your activism stopping destruction or just delaying it a bit? Experienced activists can add greatly to these questions and Generation Alpha is planning to offer our local groups strategy advisers to help this process.

The environment movement has thus far failed to enact any meaningful systemic change, failed to stop the abuse of life on earth increasing at an alarming rate. I've been part of this but am determined for it to change. Preaching to the choir is vital. The choir is large enough to enact systemic change. But it must sing better, louder, more forcefully. Then, in the words of D.H. Lawrence:

**Cool, unlying life will rush in,  
and passion will make our bodies taut with power,  
we shall stamp our feet with new power  
and old things will fall down,  
we shall laugh, and institutions will curl up  
like burnt paper.**



# Renovating Culture: Rise of the New Domesticity

By Miss Metanoia



When my mother and grandmother were my age, they knew how to cook, clean, sew and garden, while I grew up on Disney cartoons and microwaved pizza, beheading Barbie dolls and pressing complex buttons on a machine. Despite the yuppie conditioning imposed upon gen-Xers and Millennials to equate self-actualisation with technocentric careerism and “having it all”, the pull of re-skilling in the domestic arts has never been more alluring.



In *Homeward Bound: Why Women Are Embracing The New Domesticity*, Emily Matchar (Matchar, 2013)<sup>1</sup> talks about an emerging generation of “radical homemakers” who are reclaiming family values, frugal living and DIY culture in the name of sustainability and self-sufficiency. According to Matchar, the New Domesticity is less about traditional gender roles, but rather a call to embracing historically undervalued women’s work in harsh economic times. Motivated by a growing distrust of corporate and government institutions, progressive, educated middle class professionals, with the financial means to opt out partially or permanently from the system, are taking matters into their own hands. They’re organising “knit-ins” at the G8 summit and “yarn-bombing” Wall Street. They’re speaking out about spiralling greenhouse gas emissions, rising sea levels, radiation-contaminated crops and waterways, and the integrity of their children’s future. Concerns over food safety are inspiring backyard vegetable gardens and organic “locavore, slow food” diets. Lack of stable, meaningful careers is encouraging people to get creative with their crafting projects and start up home businesses. Distaste for advertising in schools and understaffed



daycares is leading parents to home school and spend more quality time with their kids. Growing fears that we are being profitably over-medicated by the medical establishment is giving way to a more holistic approach to health; turning to natural therapies, conscious eating, bodywork and meditation.

Equipped with the knowledge that our current way of life is unsustainably reliant on cheap fuel, scarce resources, and a non-transparent production chain alienated from the fruits of our labour -- people are waking up to environmental impacts, as well as human and animal rights abuses, of outsourcing their livelihoods to sweatshops, factory farms, pharmaceutical companies, and Big Oil.

The rise of neo-homesteading takes DIY homemaking to its passionate extreme, as advocates strive for complete off-the-grid energy independence. They're unplugging their microwaves, swapping central heating for homemade sweaters, and turning to alternative currencies or bartering to decrease their reliance on monetary trappings.

According to a recent university survey involving over 2000 Australian students ("Gen Y reinvents itself as Gen S: 'Generation Sensible'", 2013)<sup>2</sup>, a high percentage of 17 to 29 year olds are in fact a generation of planners; more concerned with saving up and settling down than fitting the youthful stereotype of carefree irresponsibility. Their sentimental nostalgia for home and hearth has emerged full circle in reaction to the passion-stifling careerism of their baby-boomer parents, the artifice of online social realities like Facebook and the fragmented anomie of an overstimulated world. In the United States, where the bulk of Matchar's research was conducted, New Domesticity seems to be uniting across all kinds of political, religious and economic divides. Conservative Mormon stay-at-home mum bloggers are sharing recipes online with liberal atheist hipster foodies while trading homeschooling tips with queer unschooling parents. Economists began speculating about a panic in decreased retail confidence as affluent eco-conscious families began emulating the frugal, green and minimalist lifestyles of low income earners. After the 2008 recession, people witnessed their neighbors' homes being foreclosed, friends losing their health insurance and co-workers

getting laid off while hedge fund managers enjoyed billion dollar bonuses. Younger generations began questioning whether it was worth taking out a loan for college when there would be hardly any jobs left for them once they graduated. As shantytowns popped up around the country, progressives and conservatives banded together to brainstorm smarter strategies for self-sufficiency, turning to New Domesticity as a means of taking back control from a very out of control situation.

Research indicates that nearly a quarter of Australians have downshifted through voluntarily simplifying their lives; working less hours, and cutting down on consumption. One psychology study has revealed that while downshifters may earn \$15,000 on average less than the conventional worker, (about \$26,000 compared to \$41,000), they were significantly happier than their affluent peers. It's the case of a twentysomething uni student finding more fulfillment from spending Saturday nights blogging about her latest baking project than hitting the clubs for overpriced drinks.

Or the accomplished lawyer turned stay-at-home dad who leaves his high powered corporate job to renovate an earthship, and make YouTube videos about how to grow your own vegetables. This movement may not have taken off if weren't for the internet and the rise of lifestyle blogging. Unlike isolated women bound by housewife syndrome in the 1950s, today's Homemaker 2.0 is able to connect and skill-share with thousands of supportive, like-minded "craftivists" and "eco-warriors" defending the home front from corporate and government corruption. Controversially coined "the next wave of feminism," New Domesticity recognises that working for The Man isn't necessarily more empowering than homemaking as a vocation in the service of family, community and the planet.

Skeptics raise some interesting questions, however, about the implications of working professionals potentially opting out of the system en-masse. Does retreating to a "highly privatised and deregulated" domestic sphere do anything to help the plight of working class



families, or does it simply leave them behind in their struggle for fairer working conditions, affordable day care and better quality education?

It's a complex issue to resolve, given how those most in need of liberation from the system tend to be the most financially dependent on its trappings. Proponents of the lifestyle may still stage public campaigns in solidarity, but is it still necessary for them to "lean in" up the ranks and smash glass ceilings from within?

Libertarian writer Harry Browne (Browne, n.d.)<sup>3</sup>

extrapolates that in every situation in which we have a dilemma, we can either choose a direct or indirect alternative.

Direct alternatives require us to make an independent decision to act on a desired outcome, while potentially sacrificing collective action. Indirect alternatives seek change primarily through convincing others to agree with our objectives, while potentially overlooking individual motives and free will. While the two aren't mutually exclusive, those who believe the infamous "opt-out revolution" is sabotaging opportunities for policy reform are often reasoning in favour of indirect alternatives. Advocates of the New Domesticity meanwhile believe the change we often hope to achieve through indirect activism is ideally actualised through living in direct accordance with our values. Although the state of the world and attitudes of others are often outside our personal control, how we choose to structure our lives by "voting with our feet" is equally valid and important.

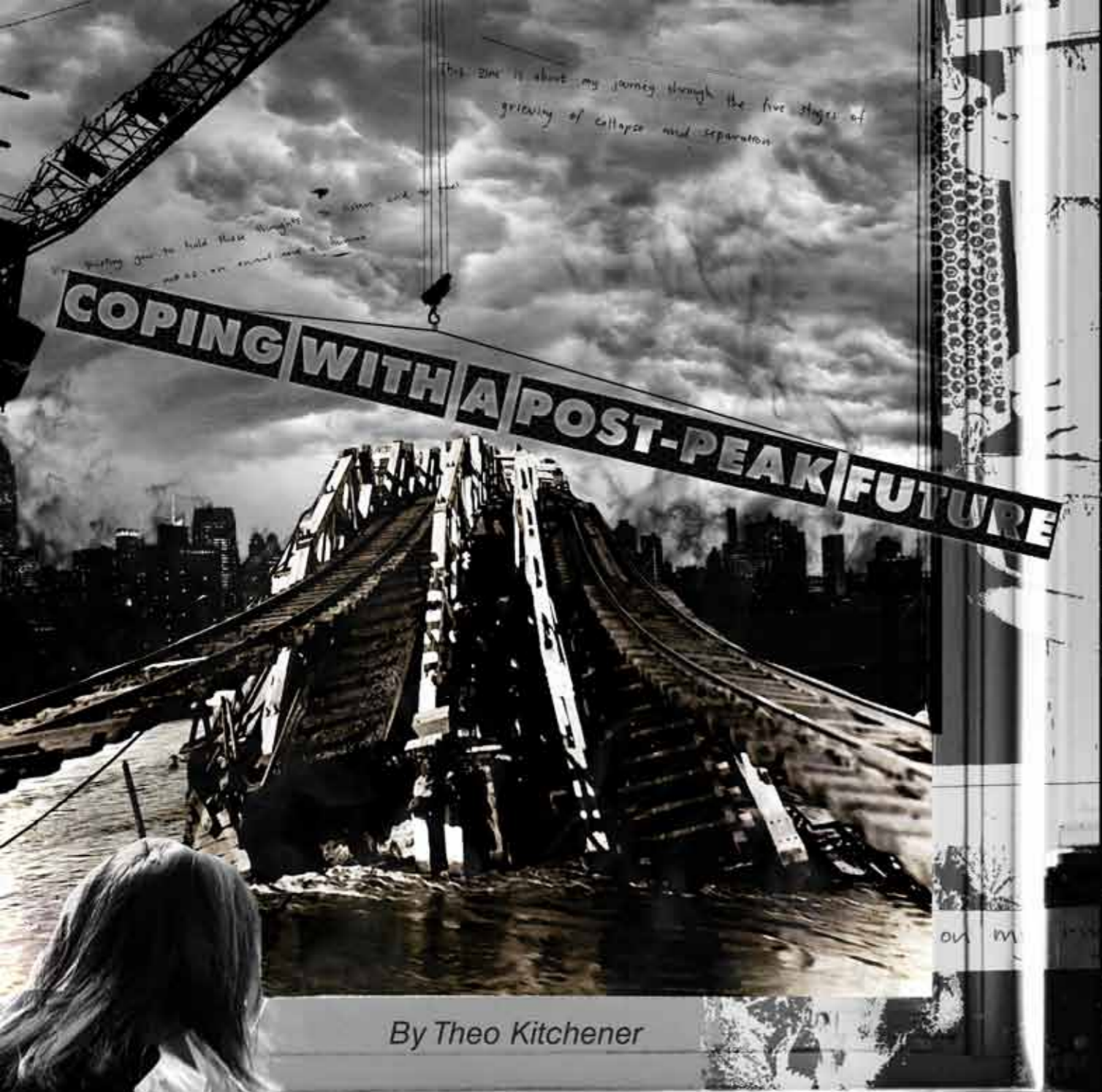
Shannon Hayes, author of *Radical Homemakers: Reclaiming Domesticity from a Consumer Culture* (Hayes, 2010)<sup>4</sup>, proposes that in order for New Domesticity to be truly revolutionary it should follow a dedicated recipe of "renounce, reclaim, and rebuild." In the renouncing phase, individuals make a conscious long-term decision to reject mainstream consumer culture. In order to

reclaim alternative values, they must learn the skills to prepare them for a more self-sufficient life, whether it's by learning how to cook, garden, sew, or install their own solar panels. The final phase - rebuild - addresses the original question that while radical homemakers may be opting out of mainstream culture, they aren't opting out from building new resilient communities. In order for radical homemakers to make a significant impact beyond one's private domain they need to openly share and teach the skills they've learned to neighbours, friends, coworkers and fellow activists as a means of strengthening community capacity. The take-home message here is that, instead of fighting and rallying others to conform to our beliefs, we should aim to lead and inspire by example through creating a life which is meaningful, sustainable and ultimately worth emulating.

**Have you voluntarily downshifted your life or found meaning outside a conventional career path? I'd love to hear your thoughts -**

 [@stalksnu](https://twitter.com/stalksnu)





By Theo Kitchener



So I first learnt about peak oil back in 2005, when **The End of Suburbia** was shown at **an activist skillshare**. And while I didn't go into denial per se, I didn't really accept it. It was like if anyone had asked me about it, I would've said, "yeah peak oil's really full on, I don't know what we're gonna do about that." But at the same time, it didn't impact the way I was living my life, or my strategy for changing the world in any way at all. Of course I already knew all about climate change, supposedly wasn't in denial of that either, yet was still choosing to work on projects that were largely irrelevant to it.

I mention this because I talk to people all the time now who can agree with me that peak oil/climate change/economic crisis/the bees/drinking water/genetically modified food (pick your crisis!) is full on and an issue that we should be worrying about/doing something about (though they don't), but somehow can't agree that it'll be bad enough that things will really be all that different. Somehow everything will just be fine. That is cognitive dissonance too. It's not just the climate sceptics who are in denial – they've at least come up with an argument they can believe in. **I find that most left-wing people are still in denial of peak oil and climate change in this soft kind of way. 'It's real and it's intense, but I'm not going to fully accept it into my life plan and belief system, because that would be an insanely disruptive and upsetting thing to do.'** I want to talk here

about how to deal with that upset and disruption, because if we don't talk about it, then most people won't deal with it. And for people who are dealing with it, hopefully I can offer some useful insights that I've learnt along the way.

**It wasn't until 2008 when I'd seen A Crude Awakening** for the second time that I really got peak oil. I was thrown into a tailspin, I cried all night. My partner (who'd watched the film with me) didn't get it and thought I was taking it all way too seriously, which just upset me more. My mind couldn't stop reeling through the coming potentials for starvation and fascism. While at the same time, I was getting a little excited by the opportunity for social transformation that peak oil would offer up. Then I began obsessively researching, I had to understand it as much as I could. And that continued for a year or two or three. All the while I was depressed, I couldn't bring myself to do anything useful about the situation, I mostly dropped out of my activism, and even my life in general.

## Getting prepared

All the way through my depression I was planning what I wanted to do about it, both in terms of changing the world, and also in terms of getting myself prepared to deal with the civilizational collapse I believe we're facing. So two years on, when my subconscious had done enough processing that I was able to come out of the stupor, I decided to get started on what eventually became Doing It Ourselves<sup>1</sup> – a volunteer group in Melbourne working to raise awareness, create action and lend emotional support around peak oil, economic depression, environmental catastrophes, fascism and all the exciting and practical strategies to change the world.

I never really managed to get far along in my plans to prepare myself though. My activist work raising alternatives and building alternatives communally always took precedence because there were meetings and events, deadlines that I said I would get things done by, and people to be accountable to and so on. I did start a sharehouse in which we set up lots of vegie beds and compost bays, planted lots of fruit trees, and just recently put in a composting toilet. But compared to my plans for what I intended to do, it was all just a drop in the ocean. Just recently, Vaughan, another member of Doing It Ourselves has been inspiring me to get more prepared and take that side of things seriously.

I should mention that for both of us, we don't believe that getting prepared will really secure our future – someone could always show up with a gun and kick me out of my house; **it's much more about demonstrating what's possible so that more people might do the same and then everyone's future security increases** – we're all in this together! Raising awareness and other activities are just as important as getting prepared personally.

Earlier this year after Nicole Foss<sup>2</sup> was in town, Vaughan decided to put together a zine/booklet on all of the issues and how to get yourself prepared for them, and in the process realised he didn't know much about the latter, so would have to do it for himself first. Ever since, he's been working from 8-4, every weekday, on doing just that. He's been collecting tools, books, and knowledge, researching and buying an amazing bike and trailer, a rocket stove, environmentally friendly anti-rusting agent for his tools, renovating his squat to learn how to use his tools, storing food, and so much more. In the seven months or so, he's worked through roughly half of his list of stuff to get. He did say that as for learning skills he's only just scratched the surface, but that he'll probably still think that in 30 years' time.

## Emotional resilience

So, what are the ingredients for being emotionally resilient enough to deal with collapse? I decided to get some extra perspectives from Vaughan, Luke, Mark, Michael, Helen and Lydia from Doing It Ourselves.

When I asked what got you past denial and got you to acceptance of collapse, Michael's answer was 'Two words: Nicole Foss'. Incidentally, it was Nicole Foss who really got me moving on starting Doing It Ourselves a year earlier. Sometimes you really need a kick up the butt, a bit of fear to get you going. I've stopped obsessively researching the issues now – it's way too depressing to even follow the situation; I had to force myself to stop reading it all. But every now and then reading or hearing about something really upsetting gives me the motivation (after it knocks me out for a day or two) to knuckle down and work harder. So if you feel like you need a bit of motivation, give it a go, look up whatever upsets you the most, or if you already read that stuff all the time, give it a rest for a while – it can be debilitating.

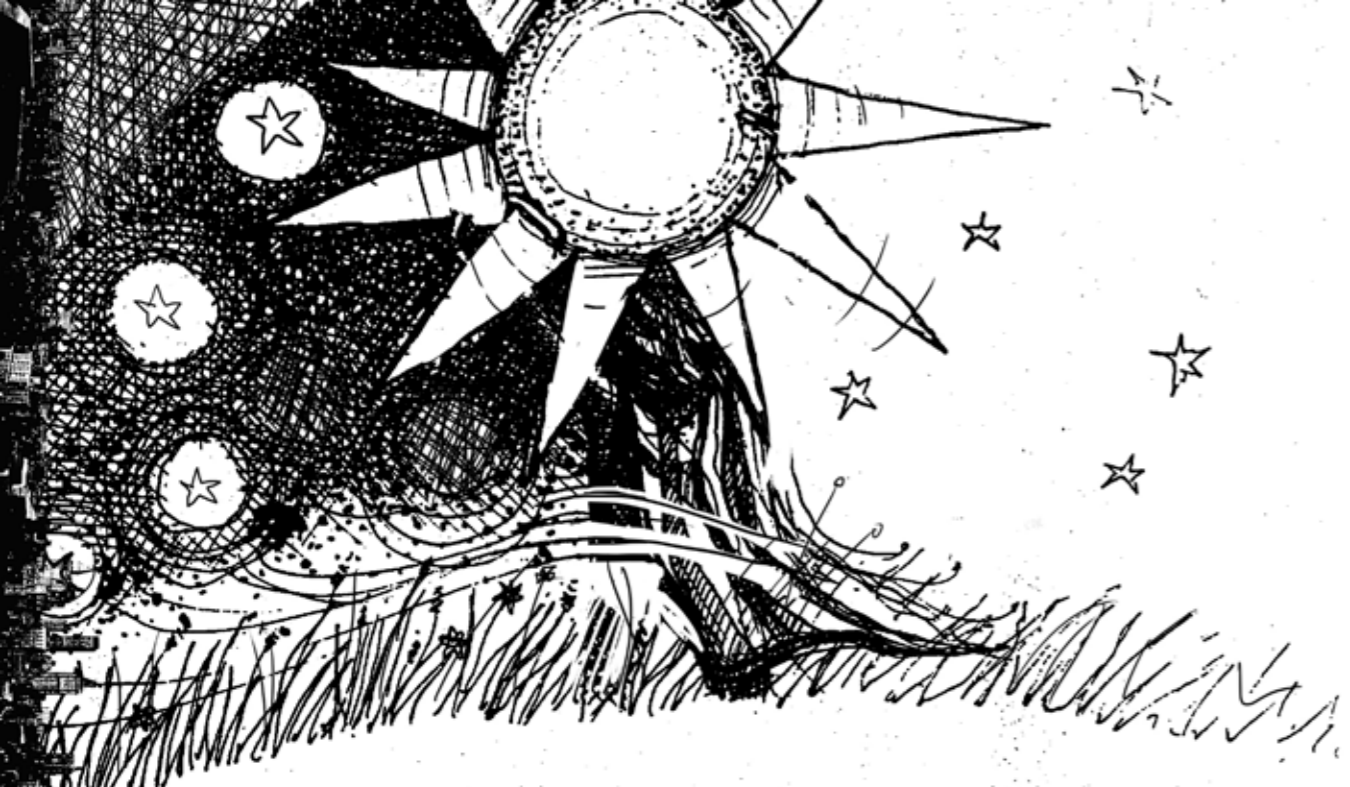
Even once I had fully taken on the peak oil future, I experienced a lot of self-doubt. I

couldn't know for certain that my understanding of the future is correct, and I think that helped me to stay inactive for a long period of time. Doing something about it would imply fully taking it on. **After Nicole finally scared me into actually doing something**, I made a text file that I could copy bits of articles into and titled it 'reread whenever I feel self-doubt'. That's been really useful.

Helen mentioned having a good cry as being really important. I'd really suggest taking the time to really grieve or get angry, or whatever it is that you need to do to express your emotions about collapse so that you don't end up letting your emotions control you. I think it took me two years to come out of my depression because I was numbing myself, processing it all so slowly. In my opinion, that's what depression is, it's an apathetic avoidance of feeling something that you don't want to deal with. This year, I've started facing the emotions instead, which for me, has meant a lot of crying and a lot of making noise and punching pillows. Amazingly though, every time I have a bit of an episode like that, I feel better afterwards, more ok with where the world is at, and more motivated to act. Since I've started actively processing this stuff, I've been getting so much more done, and am feeling a lot happier.

It's not easy to take yourself to where the emotions are most raw though. It's something we tend to actively avoid instead, which is why cognitive dissonance and depression are such widespread coping mechanisms for being a part of this crazy world. I've gotten there usually through either counselling or workshops designed to bring up emotions about the world situation. Those experiences have made it easier for me to be able to take myself there when those feelings start to come and I have that urge to just get drunk.





So, some resources to help get you there:

- If you can find workshops based on 'the work that reconnects', 'despair and empowerment', 'deep ecology', or 'grief tending rituals' in your area, go along and check them out, they're amazing.
- Any kind of psychotherapy-based counselling is good for getting in touch with your emotions, but you need to find a counsellor who won't think you're crazy when you talk about collapse. Call or email a bunch of counsellors and ask their opinions on things like peak oil and whether or not they think that mental illness can be caused by the insanity of the world rather than always the insanity of the patient. It's a great idea to try out a handful of counsellors before picking one you want to work with, even just for personality and style as well. I'd also highly recommend Radix and other body-based forms of psychotherapy, I've found them much more effective in helping me get in touch with my emotions than normal talk-based psychotherapy.
- Arrows-Crosses<sup>3</sup> is a new zine that Regan, another Doing It Ourselves member, has made. I found that reading it one night (when I was getting drunk to avoid feeling scared about fascism in Greece) really got me into that raw emotional zone, so that I was

able to have a good cry, and I'll be rereading it now whenever I'm having a bit of a freak out.

And while it's not something I've done, Vaughan and Mark seemed to find acceptance, commitment and mindfulness therapy/cognitive behavioural therapy really useful as well. They both talked a lot about living in the now. Which is kind of the opposite of what I was saying about expressing your feelings about the future now so that they don't control you. Vaughan told me that while he finds adjusting his model of the future can be quite traumatic, since it involves letting go of things, once that is done, he just accepts his future model. And since it's just a model of the future, there's nothing to be upset about. It may or may not turn out to be reality. Reality is now, he'll get upset about it when it happens, no point doing that now. I expressed that I wish I could think that way, and his response was 'you can, just start practicing, right now'... I'll see how I go.

Probably the most important resource of all is your family and friends. Ideally, they can support you through what could be a really difficult time of coming to terms with our situation. The tricky thing is that so often they reject what you're going through. Seeing you go through the emotions can make it all the more scary an issue for them and make them more likely to go into denial. Then you can get into arguments

about it and their position becomes fixed, totally polarised from yours. That happening can make dealing with your emotions around collapse even more intense because you start to feel like you're crazy, and because you feel like no one you care about understands, you feel totally alone.

Kathy McMahon, a psychologist who writes the excellent Peak Oil Blues blog<sup>4</sup> gives the advice that trying to get people you're close to onside by talking to them about how much you're freaking out, how serious this all is, how they must be in denial if they're not scared shitless, or trying to accost them with arguments and stats (which is definitely what I did, it's only natural) won't generally work with something like peak oil. Instead, it's best to tell someone that you've been doing a lot of reading and thinking about insert crisis here, that you're really concerned about your future and, since you care about them and their future as well, that you'd really appreciate it if they would read or watch insert best article/book/film you've found on the topic.

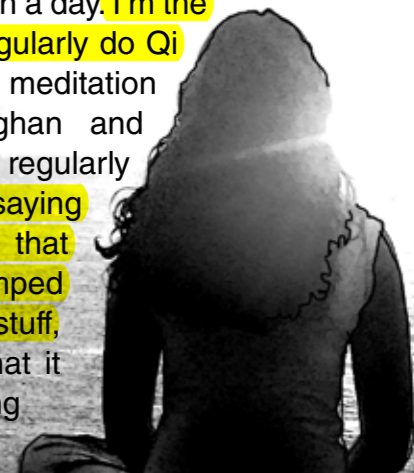
If they're not up for taking it on, don't waste too much of your energy on them – you've got better things to do and they'll figure it out in time. Often getting prepared, and in so doing starting to live a healthier and happier life, can be a better way of getting them onside in the long run. As Mark said, "I really enjoy permaculture, being in nature. I always wanted this lifestyle all along. It just took the threat of collapse to make me realise that I want to live in a food forest in a mudbrick hut." I think most people want community, nature and the abundance that can only come from accepting a simple lifestyle. Demonstrating a viable and awesome post-peak lifestyle is, I think, one of the most convincing things you can do. It's not like most people are really happy with their full-time jobs and mortgages.

Speaking of family and friends, partners, workmates, housemates – the people in your life that can have a big impact on your wellbeing – good communication skills are,

in my opinion, one of the most important things you can develop in terms of collapse preparedness; Vaughan mentioned this too. Maybe it's just a growing up thing, or a life skills thing, but when you are able to deal with conflicts in a healthy way, rather than an avoidant or angry way, you're so much less likely to get depressed or take on an unhealthy coping mechanism. Two books that I've found really, really useful in this area are Non-Violent Communication by Marshall Rosenberg, and The Dance of Intimacy by Harriet Lerner.

Likewise, if you're working too much, drinking too much, eating too much, sleeping too much, shopping too much, watching too much Game of Thrones, playing too much Freecell, or whatever your coping mechanism is, you're avoiding something. Don't bother trying AA, dieting, throwing out your TV or chopping up your credit cards; in my experience that kind of stuff doesn't work. Dealing with the emotions you're avoiding is what will allow you to let go of your unhelpful coping mechanisms. Counselling is amazing, please do it! I know this might seem irrelevant to collapse preparedness, but if you're someone who cares about the world, and you're inhibited by stuff you haven't dealt with yet, then do something about it. Put your mental health first, and you'll be so much better able to help the world!

Meditation is another really important one. Dave, a close friend from high school who's now a physicist, had a big rant to me about it the other day. He's doing ten minutes every morning, and he's found that he can now get twice as much done in a day. I'm the same way when I regularly do Qi Gong (it's a moving meditation like Tai Chi). Vaughan and Mark both meditate regularly as well. Dave was saying how frustrating it is that meditation gets lumped in with spiritual stuff, and not seen for what it is, a way of switching



off the conscious brain for a little while so that your subconscious is better able to function. There are plenty of psychological studies on the benefits of meditation, yet most people dismiss it out of hand as something that only hippies are into. Vaughan recommends books and guided audio practices on mindfulness by Jon Kabat-Zinn.

Then there's your physical health. Everyone talked about preventative methods of looking after your health – getting good sleep, good exercise, eating well and cutting down on drugs and alcohol. All of that can really positively impact on your mental health.

## Getting on with doing



Now to the question of how to get things done? About four months ago I decided to take on the Daoist concept of wu-wei, action through non-action. I got rid of all of my lists of things to do, and started doing whatever I felt like doing whenever I felt like doing it. The idea was that when there's no internal resistance to whatever it is you're doing, (and once you've gotten used to having freedom), you can get a lot more done in the same amount of time, simply because you want to. Two great resources on this way of thinking are Tom Hodgkinson's book 'How to be Idle' and Taoism and Wu Wei<sup>5</sup>. Trying this out, I definitely felt a lot more relaxed,

the guilt and the stress were gone, I'm not sure I was getting more done, but I definitely wasn't getting any less done. I was thinking, though, that I might need to reread *How to be Idle every 3 months in order to fully let go of the guilt I have socialised into me around having a good work ethic.*

I think the main piece of advice that comes out of that way of thinking is summed up in what Lydia said, 'We have this idea of failing ourselves. Our culture is full of shaming, and 'shoulds' and guilt. You should only do what you have energy for, when you feel like it, prioritise time with friends and family, and take it easy and put your mental health first.' Following this kind of advice, I socialise nearly every day, I let myself take a nap when I need one (though the guilt is always there), and always take time out, no matter how busy I am, to plan difficult conversations with people I care about or deal with emotions that come up. Otherwise I just get consumed by the emotions and I don't get anything done anyway.

Back to preparedness now, one of the trickiest questions I get asked at my talks is 'what is the number one thing I should do?' There's just so much to do, and most of it isn't much more important than any other thing. Learning to grow food is probably the closest non-meta answer I could give, but then isn't figuring out how to cope emotionally even more important than that? What about getting your money out of the system (if you've got any)? What about getting to know your neighbours? Or starting a community project? So what I generally tell people is to make a plan. We can't just change lightbulbs, we have to change our entire lives.

And when we make plans, we have to make plans in a smart way, because let me tell you I've done them the wrong way before! My old preparedness plan was split up into different categories for food, community, health and so on. Each one was a list of things to do in itself, and none of those lists were prioritised. So whenever I looked at this document, all I felt was the magnitude of everything I needed to do and no idea where to start. It overwhelmed me

and depressed me more than reading about the crises did. And eventually I just stopped looking at it.

Until Vaughan said something recently about there not being any point having a list unless it's prioritised. So last week I re-made a new preparedness list into one big list, and I came up with an order of importance for the stuff on the list as a whole. Like I said earlier, it's pretty impossible to prioritise this stuff when it's all so important. But Vaughan was saying it doesn't matter, just put it in an order, any order, and then you can get started on it.

I even started thinking maybe I could set myself times of day when I could work on this stuff like he does. I couldn't do 8-4, but maybe 10-4? I became extremely excited about my new plan; this was finally something that was going to work. I often get caught up in new plans and become overly optimistic about them, and they're usually one extreme of planning or anti-planning. Lydia pointed out that I was doing this. Turns out she and I have both in the past tried making ourselves heavily regimented timetables to try to get stuff done. That was a fail for both of us. Somehow Vaughan manages. Everyone is different though. Helen talked about how processes won't work unless you have emotional and interpersonal resilience. She says 'do the least amount of work possible, protect your wellbeing and make sure you're not gonna burn out. It can take years to recover, and you don't have years, or even a month.'

So I've decided that I'm going to try to work with a balance of planning and anti-planning. I'll have my prioritised list and I'll have some time set aside in the mornings when I don't make plans to be anywhere so I can do stuff off the list. If I need to do something else for myself though I will, and if I want to work on something other than what's right at the top of the list, I will. And otherwise I'll be free to do whatever I want to do whenever I want to do it. I always forget, but balance between any extremes is pretty much always the answer.

So, once you've got your emotional resilience and how to get stuff done under control (lol),

there's the issue of what to do with yourself. Luke talked about it being confused as to what to make of his life. *Accepting a future of collapse does mean that your career, your plans for travel, for owning your own home, and so on may not make sense anymore, and might all need to change quite drastically.* This can be really disconcerting, and I think it's what most people are avoiding with cognitive dissonance. It requires giving up your current way of life which you may be quite attached to.

Winston Churchill once said "Plans are of little importance, but planning is essential". The important thing is to figure out what your needs are, and to make it holistic. Vaughan has four different lists, ones for self care, interpersonal relations, skills, and stuff to get. I would add one for activism as well. The categories of my preparedness list are food, water, shelter, health, community, transport, organisation, communications, money, security and luxuries. Figure out your own categories and fill in your needs. Vaughan says "the most important thing I've done was sitting down and figuring out what I actually want to do, what's important, what I need, and what the people I know and care about need; then spending time organising that into a manageable, easily comprehensible form and trying to organise it in some way. The most important thing was just to do it and then start working through it. I can optimise the system as I go. It's totally different to how it was when I started a year or so ago."

I hope hearing about my story, and some of the things that I and the other Doing It Ourselves have been thinking about, has been useful to you and your process. Good luck with life!



# The Human Race

by Sean Crawley

## The Joy of the blackout

Dare it be said, but, the good news is that with the increasing frequency and intensity of extreme weather the electrical power grid is destined to be out of action more and more, and for longer and longer durations. The really good blackouts, those bitchin' two or three day outages that annoy the crap out of the power junkies, will render your workplace totally inoperable. When the whole circus comes grinding to a halt, in our new climate where the best thing about work is the air conditioning, some unexpected time off is surely a bonus. Mother Nature is stepping up to bat and giving you a well-deserved break. This is just one of the benefits we can expect from nature's payback for our mindless exploitation of so much easy energy. So when the boss says "well nothing's going to get done here so you may as well go home", the staff morale is guaranteed to be the highest it's been in the years since KPIs were introduced.

On the domestic powerdown scene, once the fridge and freezer contents have been prioritised for maximum consumption and minimum wastage, and when the laptop, iPod and iPhone batteries have given up sucking electrons, a whole new world of kilowatt-hour free fun and leisure awaits to be enjoyed. Getting out the candles so you can see at night and putting on that hand-knitted jumper to keep warm are just some of the simple pleasures of doing without power for a while. The wind-up radio, the solar barbeque and the camping shower, which yesterday seemed so archaic, are now treasured for their ingenious ability to provide simple creature comforts. Books, photo albums, playing cards and acoustic instruments are resuscitated back to life as the grid-dependent plastic gadgets sit powerless in the corner.

On the personal front, the long lost art of face to face human interaction is rekindled as the internet's virtual worlds and social networks collapse at the speed of light—exactly as predicted by the theorems of Maxwell and Faraday. Family members get to know each other again, or for the first time, and some of those neighbours who you invited over to share the now-thawed side of lamb are actually not weirdos at all. People share food, stories and human-powered tools. Previously unknown and ignored skills and talents arise from the unique

humans that surround us. Getting to know each other on deeper and more meaningful levels for some reason didn't seem to be possible when everyone was rushing frantically just to keep up in the human race. The spike in number of births 9 months after major blackouts may not be a great outcome for an already overcrowded planet, but when the telly's redundant, the light is soft and the music is live, then romance and connection are inevitable.

Perhaps most important of all is the realisation that without electricity life goes on. The fear that we cannot survive, let alone thrive, without an ever-increasing array of high tech devices and the energy to drive them is debunked every time there is a blackout. The blame game and calls for compensation that go on, when the power does kick back in, from all levels of government and from the perennial whingers is not worth the media air time it is given – unless of course you tune in for the comedy relief. The fact is that we are quite capable of caring for and enjoying ourselves without being plugged into the grid. An electrical blackout, as it turns out, is the perfect test case that exposes some of the major lies that underpin our ever-increasing appetite for more and more energy.

## The illusion of civilisation

"It is a truth universally acknowledged that any reasonable human would be in want of all the latest electrical appliances and the very latest and most powerful model of automobile. However little known the feelings or views of such a human may be on their entering into civilisation, this truth is so well fixed in the minds of everyone else, that they would be considered stark raving mad if they shunned the fruits of the modern age."

DEAD  
END

Civilisation, as commonly perceived, is inconceivable without electricity to power our homes and some form of hydrocarbon to power our cars. The nations of the world can roughly be divided into those with abundant and continuous supplies of energy and those without. Those with the energy, the first world, rank themselves as superior, or for want of a better term, more civilised, than the third world. The lowly status of the third world, and its intolerable primitiveness, is published and broadcast to us all with frequent images of the "miserable and unfortunate" people who are barely subsisting without domestic electricity and/or private motor cars. Unfortunately, the third world itself seems to have fallen for this negative portrayal of their own lifestyle and are convinced that the only pathway to a more civilised existence and acceptable place in the world is the acquisition of the very same standard of electricity supply and private car ownership that the developed world enjoys. Consequently, major industrialised nations cling in fear to their privileged status of "developed", whilst the "developing" nations demand their right and entitlement to exploit the planet's resources needed to lift them from their unacceptable second rate status. Unlimited and uninterrupted energy is the universal hallmark of civilisation regardless of which side of the tracks you find yourself.

So the global cultural myth is that because we have the technology, 24/7 access to limitless energy is an absolute prerequisite to consider, or classify, ourselves as civilised. The goal for "energy on tap" directly, or indirectly, drives all human activity in a relentless and unethical pursuit of low entropy. The laws of physics and the limits of our finite planet have become trivial problems, for idealists to complain about and for the realists to solve at some unspecified time in the future. The panic that sets in when the power does go down is a true sign of both our ignorance of reality and addiction to unlimited energy affluence. Denial of an end point to exponential growth and consumption is the fundamental obstacle we face as we ever

increasingly are forced to confront reality as it bites us hard on the arse. Sober friends and family of the addicted are presently a minority who frequently find that their planned interventions or pleas for sanity are deemed unrealistic, even illegal, by the ignorant addicts.

The extraction, purification and distribution of the energy drugs such as coal, gas and oil is an ugly and toxic business. The inequality that has resulted from the unprecedented plundering and exploitation of fossil fuels, catalysed by Laissez-faire capitalism, is a primary cause of modern dysfunctional human settlement patterns. The drug lords and more privileged users live well away and protected from the less savoury aspects of this dirty trade, while the rest of us find ourselves in debt slavery to meet our basic needs for food, water and shelter. In a geographic sense we have been herded into urban or suburban enclaves that are so distant from resource bases that when the power goes down we are indeed a very long walk away from our basic needs. In a socio-political sense, even if we did make the long walk to the resource bases, we would likely be prohibited from access and denied a share as these resources are owned or controlled by someone or something else. Ironically, the least fortunate who have been pushed to the very outer fringes of civilisation, may well wake up one morning to find the Italian leather healed energy billionaires suddenly appearing in their backyards to extract the gas or coal from under their K-mart-clad feet. On a more human level we have dispersed ourselves so far and wide that when the energy runs out we may find ourselves physically unable to travel the insurmountable distances to connect with the relatives and friends that nurture our higher needs. The realisation of the depth and breadth of society's dependency on energy, a voraciously growing dependency at that, is so unthinkable that the necessity of an endless supply has become unquestionable.

From time to time we do wake up to the insanity of being able to go to the fridge at 3am, gorge ourselves on food that has been transported half

way round the globe, while we buy an exercise machine advertised on a massive plasma TV with a credit card and mobile phone. So the joy of the blackout is not only that our indulgent consumption disappears when the electricity disappears, but the end of indulgent consumption is not the end of the world, it's just an end to the insanity – quite a relief actually. However, as energy is some form is needed, the path that we have wandered down for the last century or so has led to an expectation that is ruling out considerations of many, if not all, of the alternative energy options. It doesn't matter if it's green or sustainable or renewable or even free, it is not permitted on the discussion table if it means in any way that our right or freedom to use any amount of energy we choose is restricted. The same could be said about the nonstop nature of its availability. Rationing energy either with limits to amounts or available times is viewed akin to war – time sacrifices. Consequently, alternatives to electrical supply such as wind and solar are outright rejected as they cannot meet that criteria. If we all can't turn on every light in the house, and the street, and power every electrical device that we desire because the wind is not blowing and the sun is not shining then "that just ain't good enough". Similarly, moving the energy debate to our motor cars, the limitations on speed and range inherent in electric cars, is a "no brainer" for the average motor enthusiast. Apparently, the capacity of these quiet and clean machines to travel up to 100km distance at speeds of up to 90 km per hour is just too piss-weak for anyone to seriously consider.

Generally any decline in magnitude or availability of anything that is regarded as a mark of civilisation is regarded with fear and contempt. The growth paradigm views any reduction as a step backwards and is judged as a failure of our own doing that cannot, and will not, be tolerated. This same mindset logically translates to a belief that every human who has existed in the past, including our younger selves, has lived in times inferior to the civilisation which we are so privileged to experience today. This is ridiculous,

but it is exactly how we do view the past. Even when we nostalgically look back at the recent past, fondly recalling the simplicity of life without mobile phones, we mostly reject any proposal to give up anything and risk a return to the past if it means having less than what we possess today.

Along those lines let's do some simple maths.

The following data set has been used for the calculations:

- The world's first public electricity supply was provided in 1881
- Birth of the automobile = 1886
- First appearance of Homo sapiens 200,000 years ago.

(Note: please feel to do your own maths using your own data, if you use 6,000 years ago as the first appearance of man your outcome will not be quite so dramatic, but nevertheless will still prove the point.)

- The percentage of human existence without electricity:  $100 - (2014-1881)/200,000 \times 100 = 99.93\%$
- The percentage of human existence without the automobile:  $100 - (2014-1886)/200,000 \times 100 = 99.94\%$

So if electricity and petrol-powered transport are non-negotiable aspects of civilisation, then from the above calculations it appears that over 99.9% of human existence on this planet has been a lesser, and more undesirable form of civilisation. The unthinking person's logical conclusion from this assessment is that our poor ancestors must have had a truly miserable existence.

I always wondered why Grandma and Great Grandma, in those sepia toned daguerreotypes, looked so bloody pissed off! If only they had a five star water efficient dishwasher and five hundred Facebook friends.

## The root cause of the illusion

As we approach the time of dwindling cheap energy that can be dug up out the ground to power our homes, trains, planes and automobiles, a new outlook and understanding of civilisation needs to evolve. A reappraisal of human history, where the view of our ancestors' quality of life as being inferior to our own because they lived without electricity or the internal combustion engine, will be needed. If we are ever going to psychologically cope with the reality of a powered-down future we need that new appraisal soon. This reappraisal starts with a better assessment of the human capacity to exist in a less energised and sustainable balance with nature.

The fear induced by the failure of 24/7 uninterrupted unlimited electricity is based on the belief that we are weak, pathetic creatures whose very survival depends on the eternal advancement of modern technology. Without vigilance we will surely perish from hunger or cold or some freak of nature, or some human freak that is just

lurking waiting for us to stop and relax before it pounces upon us and devours us whole. It's bit like the story of the shark that must keep swimming because if it stops it will sink and be crushed to death by the very ocean it lives in. Consequently, we sign up for the never-ending human enterprise of progress. This human race to "get ahead" is motivated by the pathologically low opinion we have of ourselves as a species on this planet. All of us have been so indoctrinated that our default state is one of inferiority or imperfection, that happiness and success is a lifelong trial of self-improvement and competition pitted against others.

Virtually every field of human knowledge – religion, history, philosophy, psychology, politics and science – has been adopted, edited, interpreted, corrupted and propagandised by various elements of modern culture to prove the case that Homo Sapiens is a fundamentally flawed creature who is just one step ahead of falling back into depravity and chaos. The prevailing zeitgeist is built upon the pretence that we can only be redeemed, saved or enlightened by serious

and disciplined hard work. We certainly are not good enough just as we are. The recipients of pop culture's highest accolades inform us regularly that they are the living proof that if you try hard enough and never give up you can achieve your wildest dreams (latest projections confirm that planet earth cannot support seven billion billionaires, even though that has been confirmed to be one person's wildest dream).

At our peril, we ignore the reality that, like all life, we too are the product of thousands of millions of years of evolution, thus perfectly adapted to live in balance and harmony with nature.

While we admire and praise the existential ease with which all other life forms on Earth seem to fit in, we fail horribly at imagining how, let alone accepting that, we can connect, and have in the past connected, simply and naturally into the web of life. Our ignorance and exclusive viewpoint that we are somehow different has led to a fatal separation of the human species from the equilibrium of life on this planet. The delusion, which drives our constant pursuit of control and self-improvement, is so ingrained and effective that we rarely question our participation on the endless treadmill of advancing civilisation.

## The true cost of the illusion

When we believe that human nature is flawed – and accept a lifetime sentence of stepping up, striving to reach goals, being better off or getting ahead – we create comprehensive ranking systems so we never lose sight of which way is up.

If there is one unifying feature of humanity, it is our desire to improve our ranking in the human race. We want more money, we want to live in the best postcode in the best country, we want the best health care and we demand better education. We all believe that we can and must improve our lot. If we can't improve it for everyone, everywhere, then we shamelessly console ourselves that there is nothing inherently wrong in working to make our own little patch better than the norm. Our efforts for a good life manifest as competition within ourselves and with everyone else. We battle daily to seize any and every opportunity in the quest of bettering our lives and perhaps the lives of a select few from our tribe. Because if we don't, someone else surely will. We don't trust ourselves, let alone anyone else, and so are never content or grateful for who we are or for what we have already.

The race to get ahead, step up, improve, be the best, and fulfil your dreams, begins every morning, every day of the week. There is no rest for the wicked, so Sundays, or any days of rest, have been relegated to those unprepared to capitalise upon every spare minute to get ahead of the pack. For most us the race is not optional and participation is compulsory. The reality of over seven billion humans, spread across every habitable continent, means there is no escape from putting on your racing colours and getting out there amongst it. Snoozers are losers. Conscientious objectors are hippies or dreamers. If you are not out there getting amongst it and giving it your all, you have yourself to blame for not being tough enough, or you must have some diagnosable disability that should be

treated with medications and therapy so that you can get back out there and at least make some contribution to society.

The omnipresent media is largely concerned with regular updates of where we rank in the world, both as individuals and in the teams to which we belong. There is a growing mega market filled with every variety of book, CD, training program, super food, supplement, guru, celebrity, seminar, webinar, crystal, investment advice and so on available to help you improve any and every aspect of your being. It's generally a given that your IQ, EQ, level of enlightenment, body mass index, skin condition, postcode, relationships, weekends, bank account, holiday destinations are all not as good as they could be. The force of the current pushing us along this highway to greatness becomes very evident when you occasionally stop, or if you are totally nuts, dare to move against it.

If you have tried telling the boss or family that you want a demotion or a job with less pay, or want to downsize the mortgage by moving to a lower class neighbourhood you will no doubt have felt the full brunt of the popular "get ahead" momentum.

Try a crazy stunt like keeping your children out of school without an approved curriculum in place – because you're just going to nurture their own natural curiosity as it arises – the torrent of public opinion will not only ostracise you but the laws of the land could see your offspring forcibly removed for the best interests of all concerned.

If all that seems a bit alarmist just experiment a bit by resisting the latest advances in digital technology or refusing to support your nation in the Olympics, and observe the shunning and shaming that will no doubt come at you from a surprising number of directions. The popular mindless participation in "the only way is up" world, when the world is upside down, is shaking loose our tenuous grip on reality. The human race has but one finish line and that is on the very edge of the abyss. A world where everyone and everything is graded is a world where everyone and everything is degraded. Nobody is winning.

The race to get ahead demeans us all. Up the front end the rich and beautiful feign happiness as they grasp ever more tightly onto their material acquisitions and fight tenaciously to hold on to power and status. Back at the tail end, basic needs like clean water, food and basic healthcare are still denied to billions despite the abundance of such. Meanwhile, the bulk of us in the middle, we may live in interesting times but how dull have our lives become as we constantly trudge along with the pack to keep from falling to the back of the race, while we delude ourselves that if we just work or try that little bit harder we can rise to lofty world of leisure and luxury. The stories of rags to riches keep our noses to the grindstone while reinforcing the belief that our rank and position is a true measure of our actual worth. Furthermore, the acceptance of this lie manifests as a popular apathy to change that permits the status quo to dominate. This resistance to change has so severely disrupted the benevolent era of the Holocene that the human race literally needs to be called off due to bad weather.

It has been wisely said, that if a map does not match reality then it is the map that is wrong and not reality. The multi-faceted crises that we are experiencing, right now, is a result of following a map with only one road ahead and that road is the "highway of perpetual growth". The map is antiquated and flawed and its only use will be in a library to be used by students of future times who are researching the question "what the hell were they thinking?" The unnecessary suffering, endured for too long now, will only abate when this map is discarded and superseded by a new map that will chart clearly a path to social justice, equality and sustainability. This map, quite likely, will be drafted with ink, on recycled paper, under candlelight during one or more of the upcoming super blackouts!

## The reality of ourselves

Taking a stance against the view that humans are hard-wired to drive our species to inevitable extinction is not currently a popular science or academic pursuit. However, the misinterpretation, cherry picking and propagandising of the major bodies of humanity's accumulated knowledge base – that has underpinned the contemporary narrative of human nature – can with rudimentary critical thinking skills, and fresh eyes, be easily debunked and re-evaluated to uncover a more accurate and rational assessment of reality.

History, for a start, tends to dismiss the tens of thousands of years of humans living in relative peace and harmony with each other. It does this either by denying that periods of peace and harmony ever existed or that if they did exist they were merely incubation periods for the inevitable outbreaks of war and environmental plundering. This just doesn't add up. Surely an analysis that long periods of peace and harmony have intermittently been disrupted by aberrations of war and wanton destruction of nature satisfies not only Ockham's Razor but is a truer interpretation of human nature.

In the halls of academia, now more than ever reliant on the coin of for-profit corporations, science, in the discipline of genetics at least, has been funded to find a gene to explain away every negative human behaviour on record. The pillars of reason, empiricism and objectivity that science rest upon are severely compromised when the nature of humanity and its destiny are sealed by the discovery of genes for violence, addiction, obesity and a whole smorgasbord of pathologies that not only absolve us from any responsibility for our sins, but sadly justify apathy towards changing our actions for the better. In the social sciences, the success of our species is not correctly attributed to our real nature that includes the capacity for foresight, co-operation and social cohesion but is erroneously attributed to elements of

greed, anger, war, laziness and lust by the devious co-opting of Darwin's "survival of the fittest". Even a high-school understanding of evolution should reveal the contradiction that such destructive traits would be selected and persist in any species' genome.

So if we are not genetically wired or naturally selected to be angry, greedy, lazy, proud, lustful, envious and gluttonous, thank you Pope Gregory, then what are we? The lens of religion, if applied without the chains of dogma, will reveal that by and large the true prophets have revealed a quite opposite picture of us compared to the pathetic creatures painted by the hierarchy of later generations. Religion, so far at least, has been a cultural universal, and in a positive appreciation can be seen simply as our species searching for purpose, meaning and worthiness in our lives. So "living virtues", as opposed to "deadly sins", gives a better understanding of our true nature. In a religious sense, and sticking to the number seven, we could say we are blessed with the virtues of being peaceful, generous, active, humble, loyal, grateful and moderate. If such a new understanding and appreciation of Homo Sapiens did dominate, a new history, science and philosophy of humanity would emerge. This would form the foundation for a new and liberating education system that would not only make a whole lot more sense, but would be the new map to guide us to a sustainable and just future.

Are we not deep down all yearning for a new religion, history and science, call it a philosophy or a narrative if you will, that informs us that we are intricately connected with each other and everything else on this planet – that we are just as beautiful and worthy of being here as anything else you can name or experience. That the beauty and awe of a sunrise, an ocean wave, a flowering plant or a suckling animal are no more or less than the wonder of ourselves. We, like everything else, have evolved on this very planet, and therefore are just as valid and worthy as anything else. We do not need to prove our worth, justify our existence or earn a living. We do not need to get ahead, we simply need to wake up to the reality of who we are and our place in the scheme of all life on this planet.

# The new world

The refusal to move to this new view of ourselves is exactly why we are experiencing, right here and now, the crumbling of modern western industrialised global civilisation. Without the necessary change in our fundamental beliefs about ourselves we will panic and act irrationally as the unsustainable existence we have created begins to fall apart. Self-fulfilling prophecies can and do occur. So as long as we tell ourselves and teach our children about the big scary world out there that needs to be conquered and enjoyed by the winners in the human race, then that is exactly what we will create. If we reject the lies and tell ourselves the true story – that we are evolved beings, interdependent and connected to each other and everything else on this beautiful planet – we can relax and enjoy and share and play. And when the power goes out; when the cars become chook sheds; when we don't have to commute for hours to earn a living, that is when we can then enjoy life as well-adapted animals on a planet that will hopefully be able to bounce back somewhat from the mess we have left it in.

# Change

The current unsustainable mode of human operation will not continue. The Laws of Nature will continue to shape the evolution of the universe on both large and small scales. Without fundamental change in our behaviour we will forever be at war with ourselves and nature. We will populate and perish. Our big chance rests on our ability to detect bullshit because collectively, when we do, no-one will stand by, ignore, or participate in the continued rape of the planet.

Every individual contributes to the wellbeing of the whole. One by one we are waking up from the nightmare that civilisation is built and perpetuated upon a set of lies which begin with you hating yourself and your species. As we awaken, the mantra of growth, prosperity and self-improvement will annoy the shit out of us. This annoyance is good. When we see the illusion we become free to see reality – humans are good, we are an essential part of everything and we already have everything we need. How cool is that? As modern civilisation disappears, as it will, this is not the end of the world – only the end of meaningless suffering. Suffering that is now reserved only for those who stubbornly hold on to the old map.

The blackout is just the start of the party.

# Spotlight The Lane



Since the British theft of Australia in 1778, waves of non-indigenous people have come to the Sunshine Coast region in South East Queensland to recklessly exploit nature to make their fortunes.

First off the mark were the sail-in sail-out capitalists who recognised the abundant magnificent and ancient rainforest trees were outrageously profitable to cut down and ship out. The subtropical climate and rich volcanic soils now plundered and exposed after logging provided prime targets for agricultural magnates to move in, lay claim and further exploit.

Cattle were introduced, and not only trampled and displaced the endemic wildlife, but scarred and degraded the landscape in ways that we are still

only beginning to wake up to and understand. Gold was then found in Gympie and the craziness ensued. Next came sugar cane, citrus and pineapples with their pesticides, both chemical and biological. The cane toad's introduction still remains the dominant textbook example of human stupidity and hubris in trying to control nature. The closing of the sugar cane mill in Nambour, wholly due to economic profitability disappearing, has left swathes of degraded land ripe for yet another wave of capitalists to exploit for housing development. Macadamia and avocado production, once a trendy attraction for the new wave of "hobby" farmers, has peaked and is now in decline. Now tourism and residential development are the latest dollar-making enterprises touted by growth advocates such as business chambers and local government for the cashed-up to invest in and make even more money.

Economic exploitation and the old destructive ways of doing things are not only rapidly becoming less viable, but, more importantly and encouragingly, more and more distasteful, as more and more of us become acutely aware of the social and environmental devastation caused by

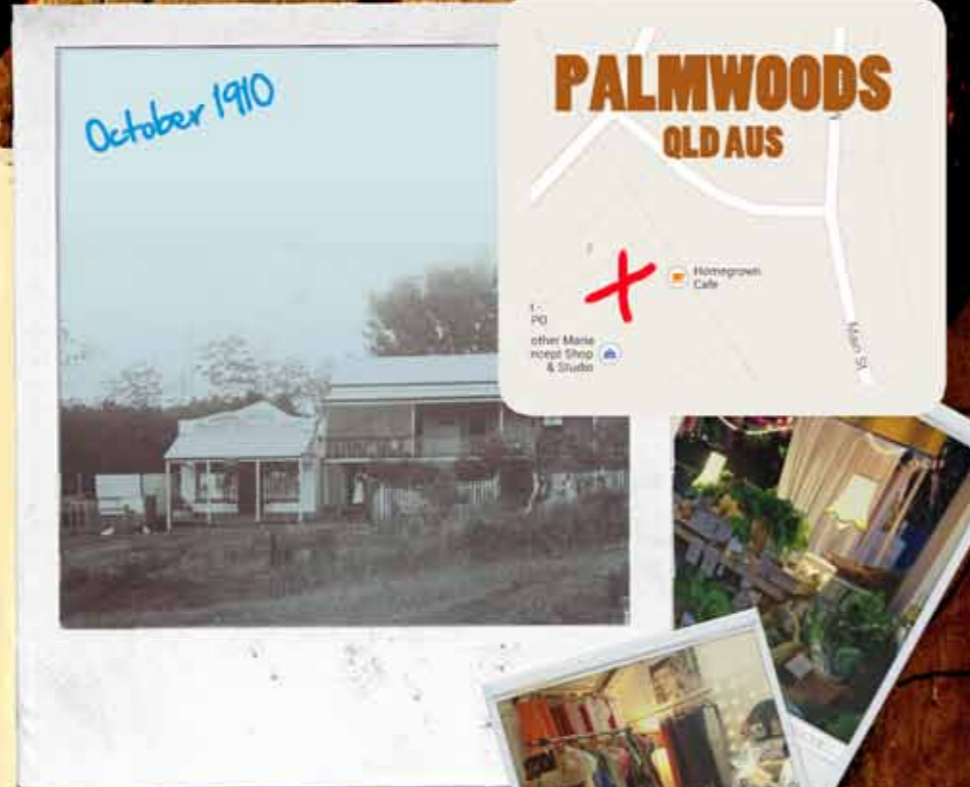


the mindless race to “get ahead”. The rise of alternative economies and lifestyles has been humbly but steadily growing in this fertile region. Maleny justifiably claims to be the co-op centre of the world and the proud history, and long list of success stories, of the Sunshine Coast Environmental Council (SCEC), is an exemplar for other regions and groups battling the relentless expansive onslaught of industrialised civilisation. The plethora of alternative enterprises in the region, such as spiritual retreats, eco resorts, organic produce centres and grass-roots musical events, cannot be dismissed as merely “hippy” bullshit or cynically seen as simply a new way to make a buck. It is mostly a natural outcome of the growing discontent with “business as usual” and a yearning for a slower and more authentic lifestyle (and relationships). Sure some unscrupulous operators are “cashing in” on this new wave, but overpriced products and pseudo-celebrity endorsed services that outrageously promise miracles will only last as long as any fashion

or fad that is mindlessly consumed and then discarded. Real sustainable products and services, shared fairly in the community, will naturally have the resilience to outlast the uncertainties the future is sure to throw at us.

The Lane in Palmwoods is one of the more recent examples of a genuine grass-roots initiative creatively emerging on the Sunshine Coast. The Lane is three businesses: Homegrown Café, The Shed, and Renae’s Pantry – all committed to

ALL THIS  
FRESH PRODUCE  
IS FROM THE  
BACK YARDS  
OF OUR  
AMAZING  
COMMUNITY  
MINDED  
CUSTOMERS  
WHO ARE  
HELPING US  
TO MAKE  
REAL  
CHANGE

operating sustainably and building community, whilst sharing a communal space – that is “The Lane”. There is an emphasis on local products and providing a hub for people to get together in a relaxed and social way. This is best exemplified by the event that is locally known as Friday night at The Lane. The word has been quickly spreading around the coast and hinterland, and people are flocking in ever-increasing numbers to The Lane for both good food and real face to face interaction. The sounds of children playing and adults reconnecting is the soundtrack to some very casual dining and just as casual shopping as the standard working week draws to a close.

Sarah at “The Homegrown Café” literally open’s up her kitchen’s back door to serve a small choice of wholesome organic meals. “Renae’s Pantry” is a vibrant community exchange where local growers and producers drop off their goods, and they themselves and other savvy locavores shop for an ever swelling range of organic foods and other ethical products. Renae and Ben, the husband and wife team who set up the Pantry, are supported by Ben’s mum, dad and sister, who each Friday night set up an outdoor kitchen next to the Pantry to add a further selection of wholesome meals available to the milling mob. “The Shed” up the back end of the Lane, where owner Katie stocks a selection of Australian-made clothing, books and gifts, and where Gary roasts coffee for both the Homegrown Café and the general public, on Friday night transforms into the dessert bar as Sascha from Daisy Cakes sells a selection of her irresistible desserts for eating in The Lane or for taking home.

The overwhelming participation of the locals in this initiative is testament to the reality that many of us are opting to do things differently. Prior to the invasion of western expansionist culture this region was known by indigenous

peoples from as far away as Charleville, Dubbo, Bundaberg and Grafton as a meeting place to share the abundant local bounty of the Bunya nut. Every three or so years thousands of people flocked to the Blackall Range to gather bunya nuts and share stories and culture. The Bunya nut pine tree that bears this invaluable food source was held sacred by the first peoples and was protected. Maybe in the long term humans will once again learn to protect the natural bounty of this region, and the coming together of people will be a sustainable and socially nurturing celebration of life. Places like The Lane in Palmwoods are the seeds for this new future.

**To find out more about The Lane go to:**

- <https://www.facebook.com/homegrownpalmwoods>
- <http://palmwoods.net.au/palmwoods-directory/show-listing/4/the-tin-shed-the-lane-palmwoods/palmwoods/shop/>

**Spotlight - The Lane**

- Where:** Main St, Palmwoods, Queensland 4555
- When:** Tue - Thu: 8:00 am - 4:00 pm  
Fri: 8:00 am - 8:30 pm  
Sat: 6:30 am - 2:00 pm
- What:**

The Lane is a joint effort by Homegrown Cafe, Renae’s Pantry and Mother Maria Clothing. Coffee, cake, breakfast and lunch is available Tuesday to Saturday. Fresh community & organic produce, books, clothing, coffee roasting & much more every Thursday, Friday and Saturday. Street food & late night shopping every Friday Night.



# Transitioning the suburbs to a low carbon future

By Brian Feeney

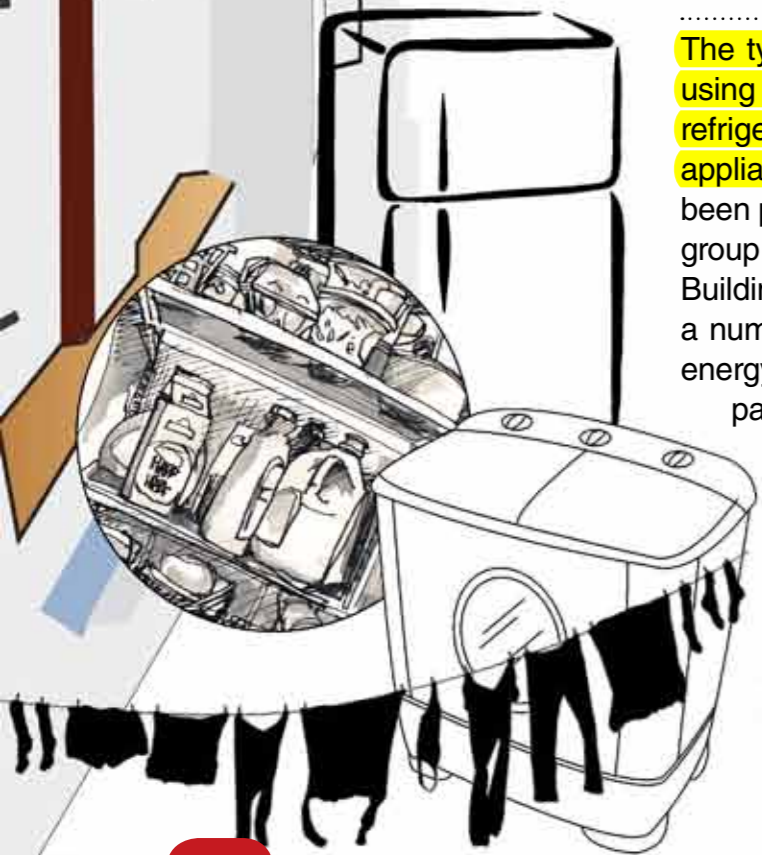
While many of the foundation myths of non-indigenous Australia are linked to images of a 'land of sweeping plains', the reality is that we are a country of suburbs. As historian Graeme Davison tells it, we were probably one of the world's first suburban nations<sup>1</sup>.

In thinking about how to transition to a low carbon future, we need to acknowledge this reality. The fossil energy embedded in housing means that the existing housing stock will need to be adapted to the low carbon reality rather than completely replaced. This also means that low carbon transport will have to take over from the car as the dominant form of transport in the suburbs.



## Housing

The typical suburban house has a large carbon footprint, using fossil energy for space heating and cooling, refrigeration, clothes washing and other electrical appliances. A plan to reduce the size of this footprint has been produced by the Australian non-government research group Beyond Zero Emissions<sup>2</sup>. The Zero Carbon Australia Buildings Plan<sup>3</sup> recommends retrofitting existing houses with a number of off-the-shelf technologies to halve residential energy use within 10 years, and increase domestic solar panel output to 31 GW. Underlying the report is the ZCA Stationary Energy Plan<sup>4</sup> to generate 100% of Australia's electricity from solar thermal power stations (with molten salt storage) and wind turbines, together with small contributions from hydro, biomass and standby gas turbines.



From a permaculture perspective, houses and yards will need to be integrated to incorporate the principles of permaculture design<sup>5</sup>, including intensive food production close to the house (zone 1 in permaculture design). Pulling down dividing fences between individual yards will create shared space for activities such as aquaculture, fruit and nut growing and water storages associated with zones 2 and 3. Cooperative local production of a wide range of food will reduce the carbon footprint of food consumed in the suburbs and, at the same time, provide a model for a diverse local sharing economy.

## Transport

The older suburbs (prior to WW2) were built in an era when walking, cycling and public transport were the dominant forms of transport. In Brisbane for example, new suburban estates such as at Ashgrove were usually linked to extensions of the tramlines. Starting in the 1950s, the car gradually took over as the main form of transport and significantly influenced the location and layout of new suburbs. These suburbs are now the largest areas of our cities and are very dependent on oil-powered cars.

Jago Dodson from Griffith University's Urban Research Program thinks that 'for those on the fringe the failure to extend public transport has meant transport disadvantage, forced car dependence and, what .... I have termed oil vulnerability'<sup>6</sup>. He is sceptical of recent claims of abundant oil supplies from non-

conventional sources like tar sands. With oil supply likely to remain constrained, a strategy is required to address the needs of the large areas of oil vulnerability in the major cities.

The shift away from oil-dependent transport, according to Dodson, will not come from technologies like electric cars. He says it's unlikely in the short to medium term that there will be a market-led shift to electric cars because of difficulties in setting up standardised and convenient refuelling away from home. He believes the required transition strategy for the suburbs should be to massively 'scale up' walking and cycling facilities and bus services (including electric buses).

The conventional wisdom in transport planning is that the population density of the suburbs is too low to support high quality public transport. Transport planner Paul Mees from RMIT University doesn't accept this, and points to places like the Canton of Graubunden in Switzerland (about the same area as the Richmond-Tweed region in northern NSW, and with fewer residents) as examples of high public transport usage in low density areas<sup>7</sup>.

According to Mees, we need to reform public transport 'so that first class public transport can take its place alongside walking



and cycling as part of the alternative to auto-dependence'. This would involve a networked bus system offering 'anywhere to anywhere' services with acceptable travel times. In order to support public transport, walking and cycling, the transition strategy would also mean little new road construction, and the introduction of bus priority and congestion charges for driver-only cars in higher traffic volume areas. In addition, there would be little further spending on high cost public transport infrastructure (such as the proposed Brisbane underground bus and train tunnel), with spending diverted to cycleways and more buses.

Increased capacity for cycling could be achieved quickly by reducing the speed limit on most residential streets to 30km/hr and taking over whole lanes on multi-lane roads. Streets providing local property access only could be rebadged as shared spaces where cars have to give way to walkers and cyclists. Parts of these streets could also be reclaimed for food production and communal activities. Car and truck sharing could be available for those with special needs, freeing people from individual car ownership.

## Conclusion

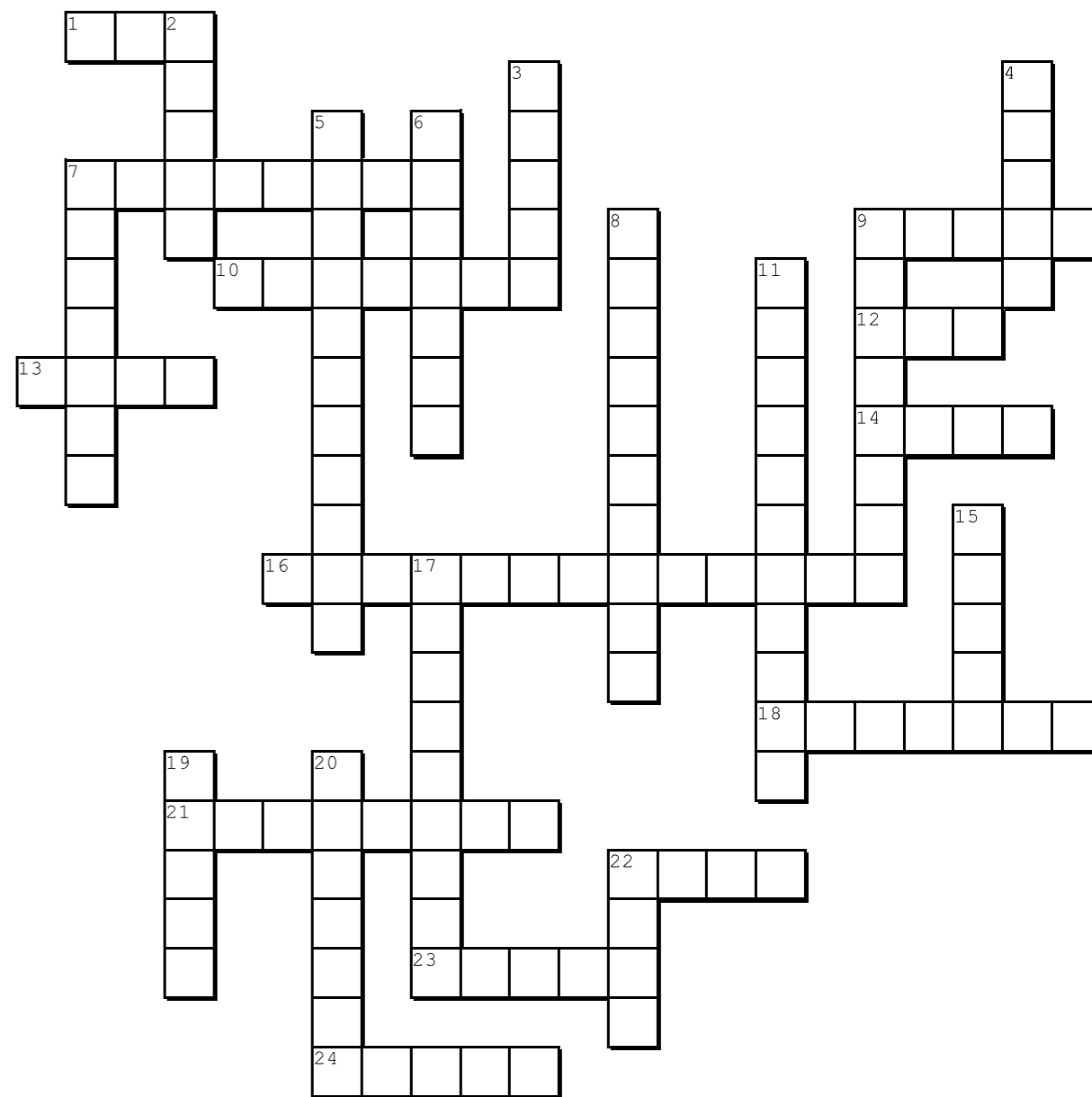
It is entirely feasible for the suburbs – where most of us live – to adapt to a low carbon future. Technology is already available to implement a powerdown strategy, involving home retrofitting, local food production and low carbon transport. Permaculture design principles provide a proven template for adapting the suburbs to support a local sharing economy.

These tools are ready. We need to create a catalyst for widespread community action.



## The Powerdown Cryptic Crossword

....the ultimate low tech, low energy and totally hip entertainment device....



Created on © TheTeachersCorner.net

### Across

1. Go ask someone starts to asphyxiate.
7. Switch it off to get some sort of clout back.
9. 'What about the election results?' starts to give life to plants.
10. Love tag messed up potential.
12. Boiled innards for peaking fuel.
13. Hate bad effect of climate change.
14. Endless fun with Spanish beginnings drives us all.
16. Automobile on famous beach rusts and traps infrared.
18. Buried underwear generates heat.
21. Dirty distillation regarding ostentatious clothes.
22. Wrap around flatulence.
23. Sounds like diet brand, illuminating..
24. Inventor of crazy slate.

### Down

2. Sing G and A for a bright future
3. Energy in the crown.
4. Pull out what ever rots. Initial instructions for fridge salvage gives energy over time.
5. Methane came salsa go crazy.
6. The lone mistaken petrol substitute.
7. Try beat rearranged cells.
8. Throw away the MDMA and come bust ions in singular ignition.
9. The wide roof makes a cold night cosy.
11. Vote then start radical innovation before the metropolis charges flow.
15. Bad mates have a head full of this watery vapour.
17. Life story of the fifth fraction of crude.
19. Drill and pump right in the middle of the beef racket.
20. Round and round we chased the snake out of the circus, it was fun.
22. Questionable power unit.





“

It's no measure of health to be well adjusted to a profoundly sick society.

Jiddu Krishnamurti