

called a terrorist, and a green realist. Your brain exercise for troubling times.

Let's start with the science of collapse.

[The Garrett interview, and the next interview with Keith Farnish transcribed below, is at www.ecoshock.net]

We've just heard Tim Garrett from the University of Utah - and let's take a quick review.

His paper is titled "Are there basic physical constraints on future anthropogenic emissions of carbon dioxide?"

The basic thesis, tested against past industrial development, is that neither population nor standard of living have to be included in modeling prediction of climate change. Garrett concludes that civilization, as measured by gross domestic product, is directly related to the amount of carbon burned. More emissions, more wealth. Less emissions, less economic production.

Here is the exact description of the theory, from an abstract of Garrett's paper:

"Here, it is shown both theoretically and observationally how the evolution of the human system can be considered from a surprisingly simple thermodynamic perspective in which it is unnecessary to explicitly model two of the emissions drivers: population and standard of living. Specifically, the human system grows through a self-perpetuating feedback loop in which the consumption rate of primary energy resources stays tied to the historical accumulation of global economic production—or $p \times g$ —through a time-independent factor of 9.7 ± 0.3 mW per inflation-adjusted 1990 US dollar."

By applying his formula, Garrett says it would take a new nuclear plant built every single day to keep up our current standard of living. As that isn't happening, and may be impossible, the only other solution is economic collapse. In our interview, Garrett suggests a horrible economic crash, which I imagine as diving perhaps to Medieval standards of life, is required just to reach 450 parts per million of greenhouse gases in the atmosphere.

In the conclusion of that paper we find:

Viewed from this perspective, civilization evolves in a spontaneous feedback loop maintained only by energy consumption and incorporation of environmental matter.

Because the current state of the system, by nature, is tied to its unchangeable past, it looks unlikely that there will be any substantial near-term departure from recently observed acceleration in CO₂ emission rates. For predictions over the longer term, however, what is required is thermodynamically based models for how rates of carbonization and energy efficiency evolve. To this end, these rates are almost certainly constrained by the size and availability of environmental resource reservoirs."

Several science journalists picked up on the paper's underlying prediction: global warming is unstoppable, unless the economic system crashes. And that leads to our next guest. He agrees, and suggests it is our duty, all of us, to help the inevitable hard landing come sooner, rather than later. Why wait until Nature is totally used up, on a nearly dead planet?

Here are a bunch of links for Keith Farnish:

His blog: earth-blog.bravejournal.com.

Another blog is unsuitablog.com

Keith's book Time's Up (online version) timesupbook.com

Alex Smith: What if civilization is a disease, fatal to life on Earth as we know it? That's the view of Britain's Keith Farnish, author of the book Time's Up! An Uncivilized Solution to a Global Crisis. You might not like what he has to say – or maybe you will. I'm Alex Smith, fearless host of Radio Ecosocialist, Keith, welcome to the program.

Keith Farnish: Hi Alex, how are you doing?

AS: Well, good, and I gather you tried Greenpeace for about 5 years, but got frustrated with that carousel of protests and then no real change.

KF: Yes, there was only one action that I ever did that was satisfying, and it was the only action that actually involved something really changing. The problem with most of the – and I'm not going to target Greenpeace in particular, only because I've got direct experience with them – but, most of the mainstream environmental groups seem to think that you achieve change by going along with the status quo; by kow-towing to whatever system is in place. And of course you're going to achieve change relative to what's going on at the moment, but it's not significant and if you – and as we go on I'm sure you'll realise that the kind of change that's required is certainly not the kind of change that groups like Greenpeace are looking forward to.

AS: Well, you describe our current society as a Culture of Maximum Harm; can you elaborate on that?

KF: Yeah, I must admit those aren't my personal words – I took them from the peerless Derrick Jensen who some of your listeners will be aware of, and Derrick has written long time on the problems of civilization, particularly Industrial Civilization. The Culture of Maximum Harm really is a way of describing how the system that we have tries to achieve its aims. Imagine that you're trying to get from one place to another; most people would go from one place to another, they wouldn't really think about what they're damaging or the way that they're doing it in one particular way or another. The Culture of Maximum Harm tries to achieve its journey by taking as much as it possibly can, and by doing as much damage as it possibly can. And the reason it does this is because it has one primary goal, which is achieve continuous growth – and that's economic growth, in terms of the word "growth" – and economic growth cannot be sustainable. So, this culture, which I believe is unique in human history, is doing something that is uniquely destructive. In other words, it is the Culture of Maximum Harm – it is the most harmful way that humans can exist.

AS: One of your maxims is that corporations cannot be green, why not?

KF: A corporation – and this certainly does follow on from what I just said – a corporation exists in order to achieve economic growth, it exists in order to achieve profit. Worse than just an individual trying to make a bit of money, a corporation wants to make sure that it maximises the amount of return for its shareholders, and in order to do that it has to cause damage in some way, and it does that through a variety of methods. Either it keeps cutting corners, and those can be corners in environmental terms, so it could be ignoring environmental legislation, or it could be paying people as little as it possibly can, or it could be trying to do things as cheaply as possible, in the dirtiest way possible; or it will try

and make this profit by taking something that wasn't there in the first place. So, to take an oil company as an example: you can't make something from nothing, but if you have a source of energy underground then effectively you're taking something from nothing...you're taking that oil, you're going to burn it up; the act of burning it up makes you money, and that is essentially how a corporation runs and makes its profit – by taking something that it didn't have to put back in. Corporations are never going to be sustainable by their nature, because of the way business operates.

AS: You also dismiss governments as any part of the solution; why do you think politics has become so irrelevant?

KF: Well, it's a very sad tale; I think it goes back to the history of empire, and the British Empire is a very good example of this. Empire has been always intrinsically tied up with trade. The British Empire was a trading body; it was so large because it reached out to as many places in the world as had things that it could take. So, Britain essentially owned India, South Africa, Canada, Australia, New Zealand, and many other territories – I think that's a very good example of how governments are tied up with industry. If you listen to any politician give a speech of any length you will always hear the word "growth", you will always hear the word "economy", and that is because the primary role of a government within Industrial Civilization is to keep the economy growing. It's essentially no different to a corporation, and it doesn't necessarily have to be that way, but I don't believe that any government of any size exists in this society that isn't just like a corporation now.

AS: Apparently NASA's James Hansen agrees with you – in his review of your book on Amazon, he writes, and I quote this for listeners: "Keith Farnish has it right, time has practically run out and the system is the problem. Governments are under the thumb of fossil fuel special interests; they will not look after our and the planet's well being until we force them to do so, and that is going to require enormous effort. Professor James Hansen of NASA." Keith, James Hansen is now taking a lot of flak from climate deniers and their ilk for saying that.

KF: I'm not sure it's necessarily worrying him too much; he has been taking flak for at least the last 20 years from everywhere that possibly could give him flak – the coal industry hate him, the oil industry hate him, an awful lot of Senators hate him, and when he stood up in front of the Senate in 1988 to essentially explain to the American government the potential horrors we were going to face from climate change, he was public enemy number one as far as the US government was concerned. So, this is a little bit of a flash in the pan, but it ...the words that are being used in relation to James Hansen, and myself, are certainly strong: I've been described as a "terrorist" and, by connection, so has James Hansen, words like "genocide", "eugenics" they've all been used in relation to my book, and therefore in relation to James Hansen. Absurd, yes, because at no point have I ever said I want to kill anything off or destroy anything, it's...I genuinely do feel for Hansen because he has put probably more than anyone else, of himself into trying to achieve something which is completely dispassionate, it's altruistic – he's not doing it for himself! If he was doing it for himself then he would be a businessman, and James Hansen doesn't make much money; he's an adjunct professor, he's a research scientist. He doesn't really have anything to gain from this, and he's lost an awful lot in terms of what...he could have gone on and become a highly successful scientist working for a corporation; he chose the other alternative, he chose to stick to pure science, objective science, and he gets hit a lot for this. Certainly this isn't the first time, and certainly won't be the last time he's going to get hit for this. I'm proud to call him someone that thinks in a similar way to the way I do.

AS: Getting back to your book, I think we all fear that our economic system is on life-support. You've called for an end to industrialised civilization, saying it will fall apart anyway; why should we help it go down – wouldn't we be sabotaging our own way of living?

KF: well, we would be sabotaging the way of living that is highly destructive – it depends how dependent you are upon it. I believe that there are certain dependencies that we can do without. I'm not talking about immediately walking away, going off grid, throwing away your job or anything like that; we've all got to live, we've all got to feed our families, we've all got to keep warm, got to have a roof over our heads and there are many situations in which people are tied to this system, so I would be reckless to say that you must abandon this immediately. However, economic growth is not something that can ever be sustainable, so essentially by not having economic growth what you've taking away is something that always takes, something that always destroys – and that's got to be a good thing. And I don't believe that not having economic growth will be destructive to anything but the systems of power that dominate the way we live.

I think that undermining, or sabotaging the economic growth machine is a fundamentally good thing; some people have said and written that that is effectively terrorism – well, yes, in a way because the...there is something, and I don't know what the term that is used in the USA but in Britain it's called Critical National Infrastructure, and the large financial organisations within the UK are protected under various laws, various security laws, and no doubt they are protected under the various Patriot Acts and other laws in the USA because they are considered to be fundamental – they make money for the economy. It is a complete misnomer to place them in the same context as the kinds of things that actively save peoples' lives like medical services. Yet, they are considered – these financial organisations – are considered by governments to be just as important as medical services, as the water supply, as the food supply, and there's got to be something wrong there.

AS: This is Radio Ecoshock with Alex Smith. We're talking about kicking it all over with author Keith Farnish. One key idea in your book "Time's Up!" is that of Connection – can you describe that for us?

KF: It's very difficult to describe more than one's personal idea of connection but I can give you an idea of the background. If you look at the way humanity has existed for hundreds of thousands of years, it has required a fundamental connection to the cycles and the processes that take place around the various groups and communities. These groups and communities wouldn't be able to survive if they didn't understand the cycles of nature; if they didn't understand the different ways that animal and plant life, and other forms of biological entities co-exist. So, in effect, these people, as have existed for far longer than civilization has, are part of nature – they are deeply connected to the natural ecosystem. Civilization tries to pull us away from that – it gives us this alternative way of living which requires us to be disconnected and, what I've written about extensively in the book is that we have to become reconnected, otherwise I don't think that we can really understand how disconnected we have become.

There is a myriad of different ways of connecting; it's unique to the individual: writer Carolyn Baker talks about this in far more strident terms than I do, and she considers the idea of Connection to be a deeply spiritual thing and, in a way, it is because it brings things out of you that most people – certainly people within civilization – haven't realised have been within themselves. So, when you sit on a beach, or when you sit in the woods, or when you walk around and listen...you really listen, and really smell and taste and touch what's around you, then it does bring something out in yourself that is spiritual, in a way. But that's the Connection coming out, this is something that is fundamental to who we are as human beings and unless we understand that deep connection between humanity and the rest of nature then I don't believe we're in a position to really understand what we're doing to the world and how we can get back.

AS: The next step, you say, is to focus on the Tools of Disconnection. What are some of the ways we become separated from real being and the natural reality?

KF: I put down ten Tools, but there may be even more of these; it was really a way of making people understand the different ways that we live have, all of them, disconnected parts within them, so for instance some of the Tools I've suggested are, for instance, the way that we're advertised to – this idea that we can have a wonderful way of living, but as long as it's in terms that the corporations sell to us. There are other Tools like authority and if you look at the work of Stanley Milgram, for instance, in the 1950s he demonstrated unequivocally that you could make people do whatever you want them to do providing you have this chain of command – this form of authority; and authority is fundamental to the way that civilization works. You have a hierarchy, you look up to people, some people look down upon others, but essentially we play our parts because there is this authority.

But all of this is different; this is not connected to the real world. There's other Tools of Disconnection which are much more obvious, like abuse – physical abuse – you have military forces which are, all around the world, abusing people, are killing people; and you look at, for instance, what goes on in China constantly then whenever anyone steps out of line and goes against the status quo in China then they are "disappeared". They are taken out of the system because there is the potential that they may make other people realise that this isn't quite the way to live – it isn't quite the way that we should be going along with things.

One of the Tools of Disconnection which is particularly powerful which, unfortunately, a lot of environmentalists are guilty of is the idea of Hope. And I think it's very, very telling that Obama used hope as his most powerful tool for looking towards the future. This message was coming from someone who is, to all intents and purposes, at the head of the system. He has some good intentions; however, the idea of giving someone hope takes away your ability to act: rather than going out and actually doing something, if you can just be given enough hope – if you can be given the idea that if you just hope enough then things are going to get better then it disables you. It stops you doing things. So I consider Hope to be one of these Tools of Disconnection as well.

AS: Paul Simon famously sang that there are a Hundred Ways to Leave Your Lover and, Keith Farnish, you've found over a hundred ways to undermine the system. Can you give us just a couple of examples?

KF: There's an article I have written on The Earth Blog which is...it's not complete yet, because I keep discovering all these little things. I mean I want to be very clear that the idea of Undermining the System is not about...this is not about the things that have been written about in the blogs recently about destroying cities and blowing up dams and things like this; the Undermining is about undermining these Tools of Disconnection. It's about giving people their freedom back, it's about giving people their minds back so they can reconnect – so they can live in a way that humanity was meant to live.

But there's lots of these ways, and one very easy example is simply turning televisions off; so if you can turn a television off in a public place people actually realise – and I've experimented doing this in public places – people suddenly come back to their senses! They were blindly watching this screen churning out adverts, and the TV went off - and I've got a remote control device that actually does this – and suddenly they're looking around going "Oh!" and then they go back to their normal lives. But there's lots more of these things: you could subvertise advertising billboards, so writing things on billboards that actually go counter to the messages the advertisers want you to do. You could send out fake press releases as a company representative, actually giving the truth about what the company are doing. So, "PRESS RELEASE: So-and-so company admits to environmental mismanagement." Well, of course, the company wouldn't do that but if you manage to do it and you make it look convincing enough then you've undermined that company. But there are dozens and dozens of these things, and I think they're only limited by the imagination.

AS: If I understand you correctly, a few people can start a trend that radiates into much bigger things. You speak of the power of Pioneers and Early Adopters; tell us about that.

KF: The idea of stratifying society, for want of a better term...it's really something that you see all the time: the concept is called Diffusion of Innovations and it's just one of the ideas that I touch upon, but it's...you're always going to have these Pioneers, you're going to have people that take up an idea and they don't just agree with the idea, they actually act on it. So there are an awful lot of people out there – a surprising number of people – who are really taking the bit between their teeth and starting to live in ways that are far closer to the way that humanity was meant to live. And there are other people who are a bit further up, they are a bit further on the timescale and it's a larger chunk of people – these Early Adopters – and they may be influenced by these Pioneers because they might be in the same peer group or the same social group, and so they're more likely to change than had these Pioneers not been there. And then you have the much larger chunks of people which are the bulk of society, the Early and the Late Majority and this is what you would probably call in America the Middle Classes, in Britain we call it Middle England: the people who the governments are always trying to appeal to. This is going to come much later, these kinds of changes, but it can't happen unless these earlier groups start changing, I believe.

It's a little bit more complicated than that because you also need these Connectors and Mavens and Salespeople, which people have read about in The Tipping Point; these things all fit together as does the Undermining. But you don't actually need millions of people to be actively changing to create change. As long as the momentum gets started up and it's done in the right way, then quite fundamental change can happen with just a few people.

AS: Suppose we hurry the process of crashing civilization; what do you picture happening next?

KF: It's not a nice thing to think about, this idea of crashing civilization. There are various writers like James Kunstler, and Carolyn Baker who I mentioned, who are very much of the mindset that it's going to happen anyway, and it's going to happen soon; and, in fact, is happening as we speak. Certainly with the economy we've seen a few of these effects, of what happens when a mismanaged economy collapses – and the people at the top continue to cream off what they want, but the people at the very bottom suffer the most. This is a symptom of the kinds of things that are happening at the moment: this is crash. Oil crises are going to happen – I believe we've reached the oil peak; you're going to have other kinds of peaks as well, you're going to have peak gas, you're going to have peak nuclear. As the energy supplies run out then you're going to get a strange situation which probably mimics what's happened with the economy, whereby the people at the top get what they want, and the people right at the bottom suffer the most. And it's the people who are economically at the bottom who, and particularly urban people, who do tend to suffer most when anything like this does happen.

I don't think you can be too explicit about this: if you are in a situation when you're going to suffer anyway, because of any of these crashes – and they are going to happen – then you're the people who really need to gear yourselves up for this situation. Read authors like Sharon Astyk, who writes wonderfully about gearing yourself up for hard times, and try and get out of being so dependent on Industrial Civilization. It's not easy but there's certain things you can do to simplify your life that can protect yourself against it. I don't want to cause a destructive crash; I want to somehow get the situation where we're in control of this slow downfall of civilization. And I think that's a much kinder way of going through the motions of a collapsing civilization than just having this shock, after shock, after shock which is going to happen as the economy, the energy, water and all these other things start crashing.

AS: Where can people find your blog if they want to follow up on this?

KF: Right, well I've got a website that's got the whole book on, which is the unprinted version – that's www.amatterofscale.com. I run something called The Earth Blog, which is www.theearthblog.org, and on this I publish various essays which, many of them have been extensions of what I've written. And there's also a site called The Unsuitablog - that's just www.unsuitablog.com - and that's starting to contain these ideas, these Undermining Tasks; it's been about greenwashing up to now, but I think we've got to start getting a bit active, and start thinking about how to get round this system that tries to take everything away from us. The Unsuitablog's going to get a bit edgy in the future, and that's probably the one to keep an eye on.

AS: This is Radio Ecoshock with Alex Smith. We've been delving into deep green thought with one of Britain's more controversial thinkers, Keith Farnish. He's the author of the book, *Time's Up! An Uncivilized Solution to a Global Crisis*, published by Green Books. Thank you so much, Keith.

KF: Thank you, Alex.

[Alex Smith continues with the same show, and helps his audience understand the political problem with the integrity of the Intergovernmental Panel on Climate Change:]

I attended two meetings via web casts this week.

One was a re-assessment of Copenhagen, and the way forward, from the British publisher Earthscan.

There I met David Satterthwaite, our radio guest next week. His recent work on the realities of human settlement, slums, and western consumerism - fits in perfectly with the new Worldwatch 2010 State of the World Report. I interview that report's project director, Erik Assadourian, as we ask "Is it them, or is it us?" Next week, on Radio Ecoshock.

My second web cast was provided by the Center for American Progress, and hosted by uber-blogger Joe Romm. His spot climateprogress.org really is the indispensable climate blog, as author and New York Times columnist Tom Friedman called it.

On the web cast, we got to hear from two top American scientists, who have helped organize IPCC reports: Dr. Michael MacCracken and Dr. Christopher Field. Dr. MacCracken has been a Radio Ecoshock guest.

I'm not going to lie to you. At time the web cast was timid to boring, as the two scientists were so careful about the limits of the IPCC process. You had to re-interpret wonk speak, to realize this Intergovernmental Panel on Climate Change is not really up to the task of warning the world about the real threat.

Why not? Let me count just a few reasons.

One: the whole pile of summaries, the things you, and I, and politicians actually read, must be agreed to, line-by-line, by each and every government in the world. That means, for example, Saudi Arabia, the giant oil producer who denies climate change, has to sign on. It's almost like having Dick Cheney approve everything the Obama administration does. Oh wait, it seems like that's happening in the Senate anyway.

Two: when incompetence, and possibly corruption in the case of grand-leader Pachauri show up, the IPCC has no agency to investigate, to correct the problem, or even to handle the press. Pachauri was involved with the unscientific and botched prediction about the Himalayan glaciers melting by 2030 - now shown to be contrary to the common knowledge of most glacier experts. A member of the team acknowledged they knew the information to be false.

Yet Pachauri helped get that wrong prediction into the report, and then personally profited from the panic by the Indian government. His company got fairly big money to find out more, about a problem with did not exist at the levels claimed.

It stinks of corruption, not a new idea at the United Nations. I've posted a list of Pachauri 's various businesses, and it's a long list, in my blog for this week. He should resign.

Here is an article which claims a direct conflict of interest for Dr. Pachauri , when it comes to carbon trading.

The same blog goes into detail about Pachauri 's business holdings and roles. It doesn't look good.

And let's not forget that Pachauri is essentially President George W. Bush's man. Bush objected to Robert Watson heading the IPCC, and pushed for Pachauri instead. Another very bad sign.

None of this was mentioned by the upright scientists at the American Progress web cast. They admit a major mistake was made, but don't criticize either the man, or the system that let him get away with it. Pitiful.

Three: there are a lot of things that science simply can't address, that matter a lot. For example, when the assembled scientists realized they didn't know how to predict Arctic ice melt, they just left that out of the calculations of sea level rise. So their prediction of a few millimeters rise by 2100 was laughable.

There's a lot more unknown unknowns, including public panic, climate wars, and climate trauma, and mass migration, just to name a few. Those demons are outside the realm of science, but definitely part of what we need to understand, or at least plan out with the best guesses.

Four: the IPCC is always 5 years behind current science. And why do we only report every five years, on a problem that suggests we only have ten years left to act, if that, before Nature takes over control of the greenhouse? We need a permanent climate war room, or rather a peace room.

Five: experience with past reports shows, the IPCC always underestimates both the urgency, and the severity of the impacts of climate disruption.

I run a couple of the best clips from the web cast, which you can see in full here.

In our first radio clip, Dr. Christopher Field echoes, almost exactly, the theory we heard in our first interview, with Tim Garrett. Carbon equals wealth.

Then Field adds to a list of climate change impacts, already begun by Michael MacCracken.

And finally, Dr. Michael MacCracken expands on everyone's nightmare, melting permafrost.

Still, it was a worthwhile web cast by the Center for American Progress, February 2nd, 2020. My thanks to Joe Romm, super-climate blogger at climateprogress.org, for at least trying to keep it lively.

Most of the talk about the Intergovernmental Panel on Climate Change, the IPCC, was diplomatic - and disappointing.

The Intergovernmental Panel on Climate Change, and in fact the whole U.N. system for negotiations, isn't working. If anything, it's working against us.

Frankly, we need a new public body to measure and predict the climate threat in real time. Let scientists say what they can prove, without censorship from Saudi Arabia, George Bush, or whoever. Maybe it can all be built as a knowledge machine on the Internet. Heaven knows who will fund and control it. Maybe some billionaire will care enough about the

future to fund it, and let it go, without strings. Maybe we can find a few honest women and men?

Something has to change, or we are toast.

Can the public stomach the awful truth? Or, will we go down in a sea of denial and business-as-usual?

It's almost to the point, where the danger to the world as we know it, might matter as much as the Toyota recall, or who won the Oscars. I know that's a big claim, but that's the way I see it.

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The Radio Ecoshock website is ecoshock.org.

Listen to the Jan Lundberg (Culture Change) show on Radio Ecoshock, recorded late August 2009: When the Great Correction Comes.