

## **Three Meanings of Climate Change: lamenting Eden, presaging Apocalypse, constructing Babel**

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*'What is not always so clear – what the history of environmental rhetoric amply illustrates – is just how hard it is to predict the effect of a particular discourse on an audience at any given time.'*

Killingsworth & Palmer, 1996, p.41

*'The climate change 'activist' world, and indeed the environmental world, has all too often sought refuge in random use of apocalyptic imagery without seeking to harness the power of narrative. Without narrative, few people are ever moved to change or adapt. [But] the faiths have been masters of [such narratives] for centuries.'*

Alliance of Religions and Conservation (2007)  
ARC/UNDP Programme Statement on Climate Change

### **Abstract**

The dominating construction of climate change as an overly physical phenomenon (what we might designate as lower case climate change), readily allows the imaginative idea of climate change to be appropriated uncritically in support of an expanding range of ideologies ... the ideologies, for example, of green colonialism, of the commodification of Nature, of national security, of celebrity culture, and many others (let's designate this as upper case Climate Change). I am not arguing here whether or not any of these creeds are desirable. My central point is that the existing framing of climate change – with its dominating material and universal properties and its commensurate exclusion of cultural anchors – endows it with a near infinite plasticity.

This paper suggests three ways in which climate change (lower case) gets loaded with deeper sets of assumptions about the natural world and our relationship with it – in other words how climate change becomes Climate Change. I am not suggesting that these are the only myths or ideologies in circulation, nor even claiming that they are the three most important ones; but they are ones that have struck me repeatedly over recent years as I have observed the language and rhetoric of Climate Change discourse. I have attached Biblical metaphors to these three myths: lamenting Eden, presaging Apocalypse and constructing Babel.

We need to use the magnifying power of Climate Change, the things it teaches us – its focus on the long-term implications of short-term choices, its global reach, its revelation of new centres of power, its attention to both material and cultural values - to attend more closely to what we really want to achieve for humanity: whether this be affluence, justice or mere survival.

## **Introduction**

The relationship between climate and society has been dynamic throughout human history and pre-history, a relationship that has been variously elemental, creative and fearful. This relationship has now taken a more intimate turn. Human actions, globally aggregated, are changing the composition of the atmosphere and – as Joseph Fourier, John Tyndall and Svante Arrhenius knew in the 19C – changing the gaseous composition of the atmosphere alters the functioning of the climate system. Future climates will not be like past climates.

We humans have often worried about this possibility and now the knowledge claims of science have offered new reasons for us to be concerned. Humanity is firmly embedded *within* the functioning of the climate system, whilst at the same time the imaginative *idea* of anthropogenic climate change is penetrating and changing society in novel ways. The past (through historic emissions of greenhouse gases) and the future (through predictive descriptions of climates to come) are interacting in new ways to provide a novel motor for cultural change. And this is all happening under the symbolism of global warming.

Yet the construction of narratives around global warming remain strongly tied to roots within the natural sciences, to their expectations of improving ‘predictions’ and to a problem-solution policy framing, a framing which claims both global reach and universal authority. So, for example, the EU policy goal of restricting global warming to no more than 2°C above 19C global temperature is seemingly powerful, yet fundamentally fragile: powerful because it traces its lineage to the positivist and predictive sciences; fragile because it is largely a construction of elite and neo-liberal Western minds. This constructed policy goal is unlikely to be one around which the world will be re-engineered willingly. Neither positivist science nor Western neo-liberalism seems likely to retain global hegemony.

The emergent phenomenon of climate change therefore needs a new examination. And this re-examination must have a different starting point from that

adopted in the 20C. Those origins – particularly in the 1980s - were to be found in the scientific disciplines of the natural sciences and in the institutional process of the Intergovernmental Panel on Climate Change (IPCC), a process whose outcomes rapidly came to dominate climate change discourse. They still do, as evidenced in the award of the Nobel Peace Prize to the IPCC. Instead, our re-examination of climate change today needs to start with contributions from the interpretative humanities and social sciences, married to a critical reading of the natural sciences, and informed by a spatially and historically contingent view of knowledge.

But why is such a re-examination necessary? It is necessary I believe because the dominating construction of climate change as an overly physical phenomenon (what we might designate as lower case climate change), readily allows climate change to be appropriated uncritically in support of an expanding range of ideologies ... the ideologies, for example, of green colonialism, of the commodification of Nature, of national security, of celebrity culture, and many others (let's designate this as upper case Climate Change). I am not arguing here whether or not these creeds are desirable. My central point is that the existing framing of climate change – with its dominating material and global properties and its commensurate exclusion of cultural anchors – endows it with a near infinite plasticity. Climate Change is therefore used to justify, *inter alia*, emissions trading, geo-engineering, wind turbines, nuclear power, national identity cards, flight rationing, carbon offsetting, etc. Climate Change becomes a malleable envoy enlisted in support of too many rulers.

This paper makes a small contribution to this re-examination by suggesting three ways in which climate change (lower case) gets loaded with deeper sets of assumptions about the natural world and our relationship with it – in other words how climate change becomes Climate Change. I am not suggesting necessarily that these are the only myths or ideologies<sup>1</sup>, nor even claiming that they are the three most important ones – but they are three that have struck me repeatedly over recent years as I have observed the language and rhetoric of Climate Change discourse. I have given Biblical metaphors to these three myths: lamenting Eden, presaging Apocalypse and constructing Babel.

### **Lamenting Eden**

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<sup>1</sup> Ideology = 'the body of doctrine, myth, belief, etc., that guides an individual, social movement, institution, class, or large group.'

I am suggesting that this ideology views climate as a repository of what is natural, something that is pure and pristine and (should be) beyond the reach of humans. Climate therefore becomes something that is fragile and needs to be protected or ‘saved’, just as much as do ‘wild’ landscapes or animal species. These are goals which have fuelled the Romantic, wilderness and environmental movements of the Western Enlightenment over two centuries or more.

To characterise this myth I adopt the image of a lost Eden, the idea of loss, lament, and a yearning for restoration ...

*‘So the Lord God banished him from the Garden of Eden to work the ground from which he had been taken. After he drove the man out, he placed on the east side of the Garden of Eden cherubim and a flaming sword flashing back and forth to guard the way to the tree of life’.* [Genesis 3/23-24]

This idea in relation to climate change has been developed in part by the sociologist Steve Yearley. He proposes that rather than being concerned about climate change for its substantive diminution of human welfare, there is a strong element of symbolism involved. We are so concerned about anthropogenic climate change because our climate has come to symbolise the last stronghold of Nature, untainted by Man.

Bill McKibbin, in his classic book *The End of Nature*, adopted this position with respect to why we are concerned about climate change. His powerful lament for the end of nature finds its highest expression in the transition from a natural climate to a climate which is being modified through human interference with the global atmosphere. That ‘... a child will now never know a natural summer’ is for McKibbin a cause of deep sadness and of loss. If global climate is no longer safe from the contaminating influences of the human species this speaks symbolically of just how deeply humans have penetrated the idea of the natural.

Now of course when and why Nature first became a separate category in the human imagination can be argued about, or indeed whether an independent category of wildness exists in any substantive sense. Many anthropologists and environmental historians (such as Julie Cruikshank, Michael Thompson, Bill Cronon) will argue that the idea of Nature *as* a separate category, distinct from Culture, something that can be objectively studied and therefore ‘damaged’ by us, is an idea – an ideology – originating in the Enlightenment. It is an interpretation of the world that finds rarer expression in traditional or non-Western societies where Nature and Culture are

consistently viewed as mutually embedded categories – there is no Nature unless interpreted by Culture and no Culture disembodied from Nature. There is no denying, however, that the idea of wildness – Nature *as* separate - has been a persistent mode of discourse in Western rationalist cultures over recent centuries ever since that proto-Romantic Jean-Jacques Rousseau proposed a project to reclaim a pure Nature freed from human oppression.

This narrative position – what I call the lament for Eden – contends that by changing the climate - by losing wildness in one of the last ‘untouched’ places - humans are diminishing not just themselves, but also something beyond themselves. We are the poorer for it. This is a lament which underpins the deep ecology movement and strains of this thinking in relation to climate change have I believe seeped more widely into mainstream environmentalism. They perhaps lie hidden in even broader climate change discourses across liberal Western societies. Thus we find ecological economist Paul Baer challenging the World Bank economists by rhetorically asking what an ice-sheet is worth, and the polar bear - that hackneyed icon of climate change - ends up not just worrying about its own survival but has to carry a huge additional weight on its shoulders, the weight of human anguish. Camille Seaman’s haunting photographic exhibition *The Last Iceberg*<sup>2</sup> plays to this lament.

But if we approach Climate Change through *this* mythic position, we have to ask exactly what is it that is being lost as climates change? Climate is not like biodiversity – an absolute decline in species numbers or a loss of ecosystem function, or even like ozone – a direct physiological health hazard. As climates change the various categories of weather are simply being re-arranged to occur in difference places and in different sequences. We are not losing clouds, abandoning rainfall, denying the sun. Certain climatic types may become extinct in one place, but only for new climates to emerge somewhere else; there is no such thing as a ‘good’ climate or a ‘bad’ climate, only ‘good’ or ‘bad’ ways of imagining and living with climate.

And if this position is merely lamenting the loss of the ‘natural’ as McKibbin suggests, then climate change is simply one more staging post on the long human journey starting half a million years ago with the domestication of fire as an agent of

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<sup>2</sup> “*The Last Iceberg* chronicles just a handful of the many thousands of icebergs that are currently headed to their end. I approach the images of icebergs as portraits of individuals, much like family photos of my ancestors. I seek a moment in their life in which they convey their unique personality, some connection to our own experience and a glimpse of their soul which endures.” [www.camilleseaman.com](http://www.camilleseaman.com)

manipulation and control. Climate change then is no new category; and lamenting Eden really is romantic idealism.

### **Presaging Apocalypse**

Environmental discourses have for long been clothed with the language of apocalypse (and here I use the word apocalypse in its popular sense, meaning destruction, rather than in its original Greek – and Biblical form - meaning simply disclosure or revelation). Over ten years ago, Jimmie Killingworth and Jacquie Palmer traced part of this genealogy from the appearance of Rachel Carson's seminal book *Silent Spring* in 1962 to what they identified then as the new apocalypse of global warming, passing along the way through Paul Ehrlich's 1968 *The Population Bomb* and the Club of Rome's 1972 *Limits to Growth*. Since they wrote this in 1996, and especially over the last three or four years in Western Europe and North America (since 9/11 in fact), I suggest that this apocalyptic narrative of Climate Change has become even more dominant.

The linguistic repertoire of the Apocalypse draws upon categories such as 'impending disaster', 'approaching tipping points', 'species wiped out', 'billions of humans at risk of devastation, if not death'. There is an endless supply of headlines in print and on screen that are so phrased ('Global warming: be worried; be very worried' said *Time Magazine* in April 2006). A separate category of climate change is invented - 'catastrophic' Climate Change as distinct from climate change (just notice how many times you now see and hear climate change qualified with an adjective – catastrophic, abrupt, dangerous, devastating, etc.). It's as though there are now two distinct sub-species of the phenomenon.

We see evidence of this linguistic trope not just in the places we would expect it – in the media, via environmental campaigners – but also in the words of civil servants,

*'I believe that climate change is a bigger threat than global terrorism'*  
[Sir David King, January 2004]

and in some scientists,

*'... we [humans] are now so abusing the Earth that it may rise and move back to the hot state it was in fifty-five million years ago and if it does, most of us and our descendants will die.'*  
[Jim Lovelock, 2006]

This contrasts, for example, with the less passionate and loaded language used by the IPCC ...

*'Abrupt climate changes, such as the collapse of the West Antarctic Ice Sheet, the rapid loss of the Greenland Ice Sheet or large-scale changes in ocean circulation systems, are not considered likely to occur in the twenty-first century.'*  
[IPCC AR4, 2007, p.123]

Visual imagery too becomes deployed in support of this myth of Apocalypse, the calving of ice from the Greenland ice sheet and the model simulations of a world without summer Arctic sea ice being the most evocative.

What does this framing of climate change do to audiences around the world? It undoubtedly lends a sense of danger, fear and urgency to discourses around climate change (e.g. *The Independent*, 28 April 2007; 'Will this be the summer when Britain reaches 40 degrees?'). Such stark language certainly denies audiences the choice to ignore the phenomenon. Thus we hear the claim that we only have ten (or maybe eight or maybe fifteen) years to 'save the planet' (e.g. *The Times*, January 2007) or to 'reduce emissions'. The UK civil movement *Stop Climate Chaos* has become expert in deploying such urgency in their lobbying of Parliament and in their public protestation (e.g. against expansion of Heathrow Airport).

Yet heightening saliency and awareness of climate change is rather too easy a goal. The counter-intuitive outcome of such language is that it leads to disempowerment, apathy and scepticism amongst its audience. Several studies – not only in relation to climate change – have shown that promoting fear is an ineffective, even counterproductive, way of inducing attitudinal and behavioural change. If such change really is what this ideology is seeking, then it may be self-defeating.

So why should Climate Change be couched this way? It has not always been thus (cf. the 1980s). I suggest there are perhaps three dimensions to the consolidation of Apocalypse that we have seen in recent years:

- First, drawing from the myth of a fragile Earth and a disappearing climate – as seen above – the enduring human fear of the future has fuelled these descriptions of a climate system on the point of collapse. It fits with a particular view of Nature as fragile or ephemeral, as originally proposed by Buzz Holling in 1986.

- Second, the rhetoric has also been fuelled by the new paradigm now affecting Earth system science, the idea of complexity, thresholds and tipping points. Working within this paradigm models are able to find an increasing number of ‘choke points’ in their model worlds where non-linear changes in climate function can occur.
- And third, I think it has been partly a response of frustration to the apparent failures of international measures and agreements to start slowing the growth in carbon emissions. Global carbon emissions are growing at about 3 per cent per year, indeed have accelerated in recent years. The instinctive reaction to such perceived failure is to turn the dial on the amplifier a notch higher and proclaim that the risks of climate change are even greater than first thought.

Of course the purpose of environmental rhetoric has always been to change the future and not to predict it. Paul Ehrlich, for example, claims that by painting in the late 1960s a scenario of a dysfunctional and Malthusian world owing to unfettered population growth he in fact contributed to a slowing down of population growth thereby averting the very scenario he foresaw. But I sense there is now a new literalism pervading this heightened discourse of climate Apocalypse; spokes-persons such as Jim Lovelock and Jim Hansen claim to be basing *their* claims on the science of the IPCC, a body not acting in an advocacy role. I am not sure that these spokes-persons believe they are being rhetorical.

Climate as Apocalypse is essentially a call to arms, but rather than mere rhetoric a call that invokes sound science as its legitimiser. In this sense then it is different from 1960s environmental radicalism. This is demonstrated in the fact that it can easily bifurcate into a number of quite different policy discourses – radical ecology, ecological modernisation, social activism, neo-liberal conservatism are all projects which can claim ascendancy from the promotion of Climate Change as fear. The one thing they all share, however, is the ideology of control.

### **Constructing Babel**

Which brings us to our third ideology, what I call ‘constructing Babel’, an ideology not necessarily orthogonal to either of the previous two (indeed it gains some of its legitimacy from narrating Climate Change as catastrophe). As the Genesis myth of

Babel relates, a confident and independent humanity, re-populated after the traumas of the Flood, claimed ...

*'Come, let us build ourselves a city, with a tower that reaches to the heavens, so that we might make a name for ourselves and not be scattered over the face of the Earth'*

[Genesis, 11/4].

This aspiration towards god-like status, acclaim and personal glory exemplifies the Greek idea of hubris.

And I want to suggest that this confident belief in the human ability to control is the dominant mind-set of the civil intelligentsia of the West. The challenges of climate change are seen in essentially modernist terms. As with clean air, with tobacco smoking, and with ozone depletion ... once a risk is identified then the apparatus of the State – or in the case of climate change the apparatus of many States – needs to be mobilised to mitigate the risk. Perhaps drawing emotional power from the bullying language of Climate Change as Apocalypse, the management of climate change becomes the latest project over which human governance, control and mastery is demanded. Thus Jim Hansen's recent appeal to the 'loss' of control as a reason for concern ... '*an important point is that the nonlinear response could easily run out of control, because of positive feedbacks and system inertias*' [Environmental Research Letters, 2007, p.4].

This instinct for control can explain the fanfares which greeted the Kyoto Protocol on its signing in 1997 and its ratification in 2005, an agreement which mimicked the Montreal Ozone Protocol and suggested we were on the way to full climate control. It can explain the urgent tones to the Stern Review in 2006 which laid out using the tools of neo-classical economics a rational argument as to why stabilisation of carbon dioxide concentrations at between 450 and 550ppm could and should be achieved. It explains, too, a range of advocacy from biofuels, to emissions trading, to green taxes – the climate needs saving and we can do it. For example this has sparked a green 'gold' rush for carbon offsetting, thus ...

*'The growing political salience of environmental politics has sparked a "green gold rush", which has seen a dramatic expansion in the number of businesses offering both companies and individuals the chance to go "carbon neutral", offsetting their own energy use by buying carbon credits that cancel out their contribution to global warming.'*

(Financial Times, April 25 2007)

This ideology of political control and climatic mastery also has an interesting variant, the sub-ideology of geo-engineering. This narrative – drawing power from the new modelling claims of the Earth system scientists – argues that exactly because we are *unlikely* to realise our Tower of Babel using the conventional instruments of diplomacy, trade and fiscal regulation, we need a new form of intervention to bring a runaway climate under human management. Jim Lovelock and Chris Rapley capture this mood perfectly,

*‘... [amplifying] feedbacks, the inertia of the Earth System - and that of our response - make it doubtful that any of the well-intentioned technical or social schemes for carbon dieting will restore the status quo.’*

[Lovelock and Rapley, *Nature*, 27 September, 2007, p.403]

They then propose a large-scale scheme for sucking up cold, nutrient rich waters from the deep ocean to the surface where they can fertilise algae who will feed on carbon dioxide in the atmosphere.

*‘If we can’t heal the planet directly, we may be able to help the planet heal itself.’*

[Lovelock and Rapley, *Nature*, 27 September, 2007, p.403]

There is a deep irony here. (a) The inadvertent side-effects of carbon-fuelled economic growth are charged with de-stabilising climate; (b) all efforts of using conventional human control systems to reign in the damage are deemed to be failing; so (c) a *new* large-scale deliberate geo-physical experiment with the planet is proposed. The only difference between this experiment and the last one is that we now have the wisdom of Earth system models to guide us.

Whether one believes in the finance offices of the World Bank, the efficacy of the traditional nation state, or the scientific high priests of Gaia ... believing that we can ‘make a name for ourselves’ by stabilising global climate requires an inordinate degree of faith.

## **Conclusion**

I have suggested three underlying ideologies – or myths - that shape and inflect our narratives about climate change: Climate Change as lament, Climate Change as fear, Climate Change as hubris. These are not exclusive positions; indeed, very likely one finds threads of all three entangling themselves in the beliefs about Climate Change

held by many of us and in the expressed claims of what must be done. And they are not I am sure the only ideological positions that could be taken.

But I do think it is very important that we analyse this phenomenon of Climate Change at this deeper level. It is simplistic and trite to suggest that there are those who believe in the science of climate change and those who are sceptical. This really tells us nothing, certainly nothing about Climate Change; science thrives on dissent. Equally, it gets us no-where to castigate George Bush and American Republicans as being the *real* obstacle to progress on tackling climate change. Are people really suggesting that under the leadership of Democrats, American society would have turned around and become exemplary in their consumption habits?

What science can tell us about climate change – whether through IPCC reports, National Science Foundation reviews, *Nature* and *Science* papers - does not present us with a script from which any of these ideologies can be read. Science endorses only itself, not any other ideology. We are allowing ourselves to get into a hopeless muddle by confusing the lower case and upper case variants of the phenomenon, i.e., Climate change or climate Change.

I believe it is only at this deeper level of analysis that we can see what really is at stake over Climate Change.

Should our real focus of concern lie with the diminution of this category we in the West have invented called Nature? In which case Climate Change really *is* about a symbolic loss, a loss to our imaginative capacities rather than a loss of something substantive. If this is so, it would certainly help to explain why the reaction to climate change is so heterogeneous and disputed – the imaginative symbolism of climate has a wide diversity of interpretations across cultures and traditions.

Or maybe anthropogenic climate change really has introduced a new non-negotiable absolute limit to human survival on the planet: is the melting of the Greenland Ice Sheet really the end of civilisation and do we really only have ten years to save the world? Has science, once and for all, replaced the prophets of religion and astrology by telling us the end of the world is at hand?

Or is climate change all about global governance – new institutions for a new millennium? Here, Climate Change demands that we deliver on the hubristic goal of re-stabilising world climate at some new safe level by inventing new institutions of governance and then seeing our social behaviour engineered towards this long-term goal. In the history of humanity we certainly have never got close to achieving such a

project before – Stalin’s Five Year Plans and The Great Leap Forward in China were doomed to disaster.

Now these are of course rhetorical questions I am asking.

So let me end with an alternative proposition. Here I suggest that we are using Climate Change to distract ourselves from the really rather uncomfortable perversions that exist in our world – so many of them a result of our infatuation with economic growth at the expense of human health and social justice. The unavoidable question to ask is why do we not see the same political energy and social capital being invested in the achievement of the Millennium Development Goals as we see daily in the drive to establish a global climate regime? The MDGs - e.g. eradicate extreme poverty and hunger, reduce child mortality, achieve universal primary education – are now only seven years away from delivery. Is Climate Change a case of convenient transference of ethical concern away from the urgent and important to the distant and unachievable? Is Climate Change, rather than being an inconvenient truth, in fact being used as a very convenient category because it offers us a psychological focus for our loss of the past, our fear of the future and our instinct for hubris? We are using climate change to act as a conduit for serving our deeper psychological needs.

The function of Climate Change I suggest then is *not* as a lower case physical phenomenon to be ‘solved’. It really is *not* about stopping climate chaos. Instead, we need to see how we can use the idea of Climate Change – the matrix of power relationships, social meanings and cultural discourses that Climate Change reveals and spawns - to re-think how we take forward our political, social and economic projects over the decades to come. We should *use* Climate Change as a magnifying glass in more forensic and honest examinations than we have been used to of each of these projects – projects of economic growth, free trade, poverty reduction, community-building, demographic management, social health, etc. Let us use the magnifying power of Climate Change, the things that Climate Change teaches us – its focus on the long-term implications of short-term choices, its global reach, its revelation of new centres of power, its attention to both material and cultural values - to attend more closely to what we really want to achieve for humanity: whether this be affluence, justice or mere survival.