

mathematically proven industrial civilisation was on track to “irreversible collapse” (13,000+ shares on Facebook as of writing; 8,800+ tweets)<sup>9</sup>. We see it in that grating internet meme ‘First World Problems’, which assumes that all Westerners are equally, lavishly affluent these days and so the most harrowing experience we can undergo is having too much goat cheese in our salad, and that we have nothing in common with people in the developing world. And we see it in the hectoring craze for ‘local’ food and the rise of the Transition Town movement, eagerly readying itself for the eco-rapture by building backyard chicken coops, water wheels and sawdust-and-pathogen-encrusted compost toilets. There’s a dedicated ‘Collapse of Civilization’ subreddit (<http://reddit.com/r/collapse>). Naomi Oreskes and Erik Conway, the great historians of late capitalism’s phenomenon of scientists working as shills for Big Tobacco and Big Oil in their excellent, top-selling *Merchants of Doubt*, have recently published a new book: *The Collapse of Western Civilization: A view from the future*. Even the relatively sober *New Scientist* magazine in 2008 published a cover story entitled: “The Collapse of Civilization: It’s more precarious than we realized,” complete with a Stygian, sepulchre-hued painting of a city built on a precipice.

Derrick Jensen is fond of talking of his battle against “the dominant culture,” a term taken from anthropology and sociology, believing himself to be a soldier in some sort of Gramscian counterhegemonic battle. Quite the contrary is the case. It is the counter-Enlightenment credo of that clutch of related concepts—degrowth, anti-consumerism, catastrophism, technophobia, localism and small-is-beautiful limits—that so dominates in contemporary culture.

It’s time for progressives to remind themselves of the dark origins of anti-modernism, and understand that however well-meaning many of its supporters may be, this ideology is reactionary with respect to social progress and ultimately won’t ‘save the planet’ anyway.

## Austerity Ecology

The campaign against economic growth and overconsumption should have no place on the left. While its current austerity-ecology incarnation appears to many progressives as a fresh, new argument fit for the Anthropocene, it is in fact the descendent of a very old, dark and Malthusian set of ideas that the left historically did battle with. It is not that our species does not face profound environmental problems. Indeed, it is precisely *because* human society confronts such genuine ecological threats that the focus must be on the real systemic gremlins responsible for our predicament, not growth, let alone progress, industry or even civilisation itself.

Quite the opposite of all this misanthropy is what is imperative. There will need to be *more* growth, *more* progress, *more* industry and, above all, we will need to become *more* civilized, if we are to solve the global biocrisis.

To be clear, many of those on the green left who are concerned about the alleged problems of economic growth mean well, and for the most part, there should be no smug, sectarian derision directed their way. It’s an absence of understanding of political economy that is at fault rather than conscious malevolence.

(Or at least that’s what the po-faced and sensible little angel on my right shoulder tells me. The little devil on my left, a far more charismatic fellow at times, whispers instead: “Grant these hair-shirted GMO-free granola-druids no quarter. Remember that poster advertising a woodland gathering reading poetry ‘to our brothers and sisters the trees’? I rest my case.”)

Naomi Klein distils so much of this anti-humanist line of thinking into her 2014 bestseller, *This Changes Everything: Capitalism vs the Climate*, as well as in a handful of very widely shared essays appearing in *The Nation*, *The Guardian* and the *New Statesman*<sup>10</sup> from 2011 on that served as precursors to her recent opus. Let me note briefly that there is much that she says that I agree with. Above all, I doff my cap to her regular, robust promotion of trade unions and the rights of workers, something that too many other green-minded folks forget (most egregiously the world's most successful Green Party, Germany's *Die Grünen*, who together in government with the social democrats at the turn of the millennium broke the back of the country's union movement, laying the neo-mercantilist foundations of the current ongoing Eurozone crisis, a crisis in which the sizeable *Die Grünen* faction in the European Parliament has regularly backed EU policies that favour central European financial interests over those of the ordinary people of Greece, Spain, Portugal, Italy and Ireland). The single most important task for the left right now is a revival of the confidence of labour and a reversal of the working class's historic defeat by the forces of neoliberalism in the 1980s and 1990s. Nonetheless, due to Klein's prominence as a degrowthist thinker, and how representative she is of a much wider current, her arguments are going to figure prominently in this book's critique of anti-modernist ideology. Further, as we'll see, her degrowth arguments stand opposed to the interests of working people, and are a barrier to labour's advance.

In these texts, she puts forward the idea that climate change is actually something of a gift, a way for progressives to push through everything we've ever wanted but have never achieved. We can do this now because science tells us it's the only way to save the planet.

In her *Nation* essay, "Capitalism vs the Climate," she appears to make a revolutionary case against the market system after visiting a climate-sceptic conference hosted by the hard-right

Heartland Institute.

If you ask the Heartlanders, climate change makes some kind of left-wing revolution virtually inevitable, which is precisely why they are so determined to deny its reality. Perhaps we should listen to their theories more closely—they might just understand something the left still doesn't get ... [C]limate change supercharges the pre-existing case for virtually every progressive demand on the books, binding them into a coherent agenda based on a clear scientific imperative.

She makes a similar argument in her *New Statesman* piece, "How science is telling us all to revolt." Here, Klein alights on the work of a pair of scientists with the Tyndall Centre—Britain's premier climate-research body—Kevin Anderson and Alice Bows, who have concluded: "We are now facing cuts so drastic that they challenge the fundamental logic of prioritising GDP growth above all else." Klein says that this in turn means that:

[F]or any closet revolutionary who has ever dreamed of overthrowing the present economic order in favour of one a little less likely to cause Italian pensioners to hang themselves in their homes, this work should be of particular interest. Because it makes the ditching of that cruel system in favour of something new (and perhaps, with lots of work, better) no longer a matter of mere ideological preference but rather one of species-wide existential necessity.

A shortcut! All these past 200-plus years of systemic critique and political struggle from what we call the 'left', of campaigning, debating, voting, marching, picketing and on occasion revolting—in other words, the grand effort involved in putting forth our "mere ideological preference"—was insufficient because this was political rather than scientific. Now however,

the men and women in lab coats have a secret weapon more effective than any boycotts, sit-ins, leafleting or electioneering; more certain to be victorious than any blockades, occupations or general strikes. All we have to do is present these facts and our ancient enemies will concede. Because all along, the problem in overcoming injustice has been that elites just didn't know the facts.

Okay, you say. So Klein is being a bit glib here about the magical power of The Science, (capital 'T', capital 'S') so what? And she's not saying don't engage in these other tactics of social change. Climate change is just an *additional* political opportunity. More importantly, beneath the hyperbole about the equations of atmospheric scientists and complex systems researchers telling us to man the barricades, isn't the substance of her argument the assertion that economic growth and overconsumption are behind what is causing climate change, indeed causing the wider biocrisis? Isn't she right that the Heartlanders are right?

Let's have a deeper look. Klein's argument involves two premises. The first is that to maintain ourselves within the range of average global temperatures that have been optimum for human flourishing throughout the Holocene geological epoch that began at the end of the last ice age, society must make radical and rapid cuts in carbon emissions, and ultimately move toward a carbon-neutral economy. Bows and Anderson put the scale of global cuts in CO<sub>2</sub> emissions needed after a peak in emissions in 2015 at a rate of 10 percent per year thereafter if we are to have an even chance of meeting the internationally agreed goal of a maximum two-degree temperature increase. Elsewhere, researchers with the Global Carbon Project put the figure at 5.5 percent per year over the next 45 years. For comparison, the fastest decarbonisation programmes in history, the transition to nuclear power by France, Sweden and Belgium in the 1970s and 1980s, with France now producing three quarters of its electricity from this low-carbon source, enjoyed reductions in emissions of

four percent a year over the course of roughly a decade. Regardless of who is correct here, this is a *staggering* rate of carbon emissions mitigation. Klein is not wrong about the magnitude of the challenge.

Klein's second premise is that the main strategies favoured by policy makers up to now are at best inadequate and at worst counterproductive. She highlights in particular the failed strategies of green consumption, biofuels and carbon trading.

Again, so far, Klein is so lamentably accurate: whatever the benefits of driving a Toyota Prius and recycling your lentil tins, household consumption represents a much smaller percent of global CO<sub>2</sub> emissions than industrial emissions servicing business-to-business transactions. (To be fair, it is difficult to disaggregate these two parts of the economy. But to give a rough idea of the sort of ratio involved, Emilia Romagna in Italy, one of the wealthiest and most developed regions in Europe, assesses its ratio of household consumption to broader economic activities in terms of greenhouse gas emissions to be 27 percent to 73 percent<sup>11</sup>.)

Meanwhile, first-generation biofuels have long been recognized as worse than fossil fuels once the emissions from indirect land-use change are taken into account. The sole biofuels that seem to be better than traditional fossil fuels when a full life-cycle analysis is performed are waste chip fat biodiesel (no really—this is a thing) and algae-based fuels. Unfortunately repurposing used chip fat is, to put it mildly, not very scalable, unless humanity started consuming bacon-wrapped jalapeño poppers, corn dogs and other deep-fried comestibles on a volume per capita basis in excess of that of a muumuu-wearing Homer Simpson. In the UK for example, current waste cooking oil supplies could power no more than one 350th of Britain's cars, according to the government's now-defunct Better Regulation Commission. And algae fuels at the moment would only be competitive with petrol if oil cost \$800 a barrel.

And finally, the EU's flagship carbon reduction strategy, the Emissions Trading Scheme (ETS), is a cringeworthy disaster, with carbon credits dropping from around €30 (\$41.50) a tonne in 2008 to under €3 a tonne by early 2013, with the European law enforcement agency Europol describing the system as an "open door" for organized crime<sup>12</sup>. Carbon prices have since picked up somewhat to around €5 a tonne at the time of writing, but this is still far below the €35 a tonne the designers of the scheme have always assumed would be necessary to spur market actors to make serious investments in low-carbon production technologies. Europe's slow but steady decline in carbon emissions since the advent of the ETS has been almost entirely a result of offshoring of production and drops in industrial output due to the economic crisis and nothing to do with carbon trading.

Klein concludes then on the basis of these two premises—that the required emissions reductions are colossal and the existing strategies for reductions aren't working—that the only remaining option with proven effectiveness is steep economic contraction, "what Anderson and Bows describe as 'radical and immediate de-growth strategies in the US, EU and other wealthy nations.'"

"Which is fine," Klein continues, "except that we happen to have an economic system that fetishises GDP growth above all else ... The bottom line is that an ecological crisis that has its roots in the overconsumption of natural resources must be addressed not just by improving the efficiency of our economies but by reducing the amount of material stuff we produce and consume."

De-growth and an end to overconsumption cannot be achieved without combatting capitalism, because capitalism is built upon these pillars—hence Klein's phrase, "Capitalism vs the Climate." It does look at first glance as though revolution becomes, as she puts it, a species-wide existential necessity.

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The first point I really want to underscore here is that one cannot in one breath rage against the imposition of economic austerity—the series of radical cuts to social programmes and depression of wages imposed by most Western governments in the wake of the global economic crisis—while arguing against economic growth. Austerity and 'degrowth' are mathematically and socially identical. They are the same thing. What green degrowth partisans are actually calling for is eco-austerity.

This is because if your starting point is that humans are consuming too much, then *any* cuts to social programmes and wages will result in less money in these same humans' pockets, and hence less consumption. So however cruel austerity may appear, you really should be cheering this on. And yet Klein elsewhere sharply and correctly criticises the injustice of austerity. Likewise, we frequently we see the same people marching against cuts to social programmes and for an increase in wages—whether as part of Occupy Wall Street-type action in New York, or the Fight-for-15 campaign of fast-food workers for a living wage in Chicago and 150 other cities across the US, or in more street-fighting fashion against the fiats of the Eurozone on the streets of Athens or Barcelona—who, come Earth Day or some climate-change protest, will raise different placards, this time damning economic growth. But the two positions are irreconcilable.

Unlike some anti-growth proponents, Klein does at least concede that the only historic comparison we have to a 10 percent drop in emissions year after year is that of the economic contraction during the Great Depression. Emissions reductions after the 2008 crash averaged only seven percent across the OECD, and only for one year before rebounding, and the Soviet Union saw reductions of five percent over ten years. To avoid such social catastrophe, Klein says that the economic contraction must be carefully managed. Nevertheless, Klein repeatedly argues that "we all" need to consume less, just like the Buy

Nothing Day activists and thousands of other green campaigners. What is the most famous green slogan, but “Reduce, Re-use, Recycle”? Klein and others—regardless of how they couch their calls to degrowth, no matter if the emphasis for now is on reducing the consumption of the wealthiest first, and only later restricting the consumption of the rest of us—are still saying that even the most equitably managed contraction would involve a *reduction in every Westerner’s standard of living*.

At this point, it is worthwhile revisiting Klein’s choice of the 1970s as one of her favoured eras of eco-arcadia, after which, as she told UK writer Owen Jones in a public talk in London, “we” (everywhere this blasted undifferentiating first-person plural pronoun) “turbo-charged the American Dream in the eighties” and, as she writes in the book, in the 1990s, proceeded to “take it global.” From such phrases, one could be forgiven for thinking that the high rate of expansion of the standard of living of ordinary people that occurred from the late 1940s through to the mid-1970s in most Western countries continued apace into the 1980s and up till today. But this is false. In fact, the opposite is the case. There is a reason the French call this post-war epoch *Les Trente Glorieuses*—The Thirty Glorious Years of high productivity, high wages, full employment, expanding social benefits, powerful trade unions and increasing consumption—and not *Les Soixante-dix Glorieuses* as it surely would be if Klein’s periodisation obtained. By almost every measure you could come up with, the economic standing of ordinary people has stagnated or declined since the late 1970s.

In the late 1960s, the Keynesian mixed economy began to sputter amid rising inflation, diminished profits and a crisis of rising expectations on the part of workers—in other words an increasing trade union militancy that was the natural result of policies of full employment, predicted in Polish economist Michal Kalecki’s famous 1943 essay, “The Political Aspects of Full Employment”:

[U]nder a regime of permanent full employment, the ‘sack’ would cease to play its role as a ‘disciplinary measure’. The social position of the boss would be undermined, and the self-assurance and class-consciousness of the working class would grow. Strikes for wage increases and improvements in conditions of work would create political tension.

(Put very simply: If you can get a job tomorrow somewhere else, why put up with low wages or a domineering boss?)

As a result, the Keynesian consensus broke down, to be replaced with a basket of inegalitarian policies building on neoclassical economics that today are described as ‘neoliberalism’. This austerity was initially sharply resisted by working people and the trade unions throughout the 1970s and early 1980s, but by the end of that decade, the union militancy of the 1970s had largely been smashed and full employment was a distant memory. Although most associated with right-wingers such as Margaret Thatcher in the UK, Ronald Reagan in the US and the Chilean dictator General Augusto Pinochet, neoliberalism has been imposed with similar élan by social democratic governments, trapped as they are by an ideology that has no systemic critique and so restricts the horizon of the possible to more fairly sharing out the spoils of capitalism amid periods of growth and more fairly sharing out the pain amid periods of stagnation or crisis.

Then, to continue with our potted, far-too-brief economic history of the last few decades, in 1991, the Soviet Union collapsed. The USSR was a savage, peasant-consuming Polyphemus of a regime whose demise I unreservedly celebrate. No one of the least progressive bent should have any time for the useful idiots of Stalin or Mao who continue in surprising numbers to this day to apologise for Communist wickedness. Those cool kids sporting ‘Full Communism Now’ t-shirts and clasping the latest publication from...

minimising obscurantist Continental philosopher of the month, deploying the scandalous c-word *pour épater le bourgeois*, can fuck off. Nevertheless, we must be frank and recognize at the same time that until its demise, the USSR served as an outsized, bowelloosening foghorn of a warning to Western elites that immiseration of ordinary people would likely result in their own overthrow, and a subtle reminder to those very ordinary people that while Stalinism may not be the preferred alternative to capitalism, alternatives to capitalism at least existed. So with the Soviet Union gone, both the masters of the universe and their subjects were now convinced that there is no alternative. It was the end of history.

While productivity in the US grew 80.4 percent between 1973 and 2011, according to the centre-left Economic Policy Institute, median worker pay grew just 10.7 percent. Where during *Les Trente Glorieuses*, workers' pay rose in tandem with productivity, since the 1970s, there have been only stagnant or declining wages and benefits. Whichever metrics we use, we arrive at the same result. Working families in America make less than they did 15 years ago—a phenomenon that has not occurred since the Great Depression. Since 2000, weekly earnings for low- and middle-income workers have remained essentially unchanged, after adjustment for inflation. If the median US household income had kept pace with the broader economy since 1970, it would now be \$92,000 instead of \$50,000. And of course, similar numbers can be found for other jurisdictions. From 1990 to 2009, labour's share of national income declined in 26 out of 30 developed economies for which this data is available, according to the OECD. Overall across the advanced economies, labour's share dropped from 66.1 percent to 61.7 percent. Meanwhile the depth of this decline in developing countries is even more pronounced, according to the ILO, with steep falls in Asia and North Africa and stable but still declining shares in Latin America. It's even happening in China.

So Klein's call to roll back "our" standard of living to the 1970s

is simply, egregiously, ahistorical. The truth is that for most people, we never really left the seventies.

It should be noted here that some radical green activists such as Derrick Jensen do however recognize this dissonance between calling for decreased consumption and opposing austerity. Going further than Klein is willing to, they do not shy away from actually embracing economic crisis and its accompanying social fall-out, or they complain that any time union members fight for higher wages, they are mounting a defence of their privilege and waging war against the planet because they will now be able to consume more. Openly favouring other organisms over humans, they argue that a reduction in living standards, contra the historic position of trade unions, is simply the price that must be paid by our one species for the sake of the rest of the biosphere. In a 2000 talk to a convention of the Green Party of Canada, the late Canadian theoretician of the 'left biocentrism' wing of deep-ecology David Orton, echoing the ideas of Rudolf Bahro, a founder and federal executive member of the German Greens, said that he "sees the trade unions as united with their employers in defending industrial society and privilege ... Both unions and employers have an economic interest in the continuation of industrial society and speak with similar anti-ecological voices. In the main, of course there are exceptions, trade unions are generally environmental enemies, not allies, of the environmental and green movements."

Such "checking the privilege" of trade unions must be music to the ears of employers.

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This new paradigm of rejecting growth and embracing limits is also by definition a rejection of progress. It is to say: this much and no more. Or, more precisely, that we can expand but only in *non-material* forms. Klein, for example, emphasises that her

prescription is “selective degrowth,” which she clarifies in a 2014 interview with the New York *Independent* newspaper: “There are parts of our economy that we want to expand that have a minimal environmental impact, such as the care-giving professions, education, the arts. Expanding those sectors creates jobs, well-being and more equal societies.” But the *material* side of the economy—the “extractivist” side, in Klein’s words—has to shrink.

All this voluntary-simplicity, simple-living rhetoric sounds lovely, warm and fuzzy. I’m certainly feeling the feels when I read plaintive yearnings in popular environmentalist magazines like *Orion* or *Grist* about building community, or overhear the kale-wranglers and turnip-whisperers at my local farmers’ market pining for a society where we are more neighbourly and devote more time to friends and family, art, poetry and music. But all this sort of “embracing other, less material ways of well-being” ignores that you can’t make music without instruments or write poetry without ink and paper, and instruments and paper can’t be made without raw materials that need to be chopped down or mined. A whistle is made of tin and a trumpet made of brass. This argument (or mood, really; it’s less an argument than a sentiment) also forgets that it is increased productivity through technological advance (combined with trade union organising) that gives us more free time that would allow us to be more neighbourly and community-oriented. So this immateriality of “other kinds of growth,” of “selective degrowth,” is a fantasy. While we *can* steadily dematerialise production via technological innovation, and though knowledge itself is certainly immaterial, knowledge will always be *linked* to the material, both in its origins and its products. New knowledge depends on old technologies, old *stuff*, and gives rise to new technologies, to new *stuff*.

Think about it this way: if we have retreated to the optimum economic stasis-point of the Kleinian imaginary, where we are

supposed to no longer be overshooting our carrying capacity, then each one of us has all the right amount of ‘stuff’—no more and no less. But now, if through the expansion of our knowledge, we develop a new technology that does not replace—or only partly replaces—a previous technology, and yet we want to put it into production because of its manifest benefits to society, then we will have to give up production of some other technology to make room for it. But hold on—we’ve already decided that we have all the stuff that we need, no more and no less. That means that we cannot give up that old technology. Thus we either invent nothing new (or at least only those new technologies that perfectly replace old technologies without any overall expansion of production), or we have to grow. Therefore, the steady-state economy must by definition refuse most technological advance, and even most new knowledge as well. The steady-state economy is a steady-technology economy, a steady-science economy. It is a static society, the very definition of conservatism.

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Since Karl Marx in 1858 tartly described the Reverend Thomas Robert Malthus as “this baboon” for his 1798 work, *An Essay on the Principle of Population*, which had made some of the very first overconsumption arguments, the left has mounted a fierce battle with these ideas, arguing that for all their seeming society-wide concern, at best they obfuscated the systemic source of injustice and at worst exacerbated capitalist knavery.

But for some reason, the idea of overconsumption in recent years has been getting a warmer welcome in certain leftist quarters, even amongst those who continue to battle the overpopulation discourse. Such a contradictory position is as tenable as a Temperance League gin-tasting fundraiser.

Ecosocialists Ian Angus and Simon Butler in 2011 published *Too Many People?*, in the main a tremendous volume carefully

pulling apart all the false arguments of the advocates of the overpopulation thesis, but only to conclude that economic growth however *is* a problem! Yet they are the self-same discussion. Either you need to restrict the number of people, given a certain amount of resources, or you need to restrict the amount of resources used, given a certain number of people.

Put another way, if we had the egalitarian system that these leftists (and I) want, and if population continued to grow but economic output did not, then there would be an ever-diminishing standard of living as the per capita output shrank. Economic growth must keep pace with population growth. So either the Malthusians are correct and overpopulation is a problem, or overpopulation is not a problem, but then neither are overconsumption and growth.

Even Jensen recognises the identity of the two arguments: "There are simply too many people. You've seen the pictures. Crowded streets in Calcutta, impoverished babies with huge hungry eyes and bloated bellies in Mexico, refugee camps in Africa, masses of Chinese crammed into filthy cities. The earth can't support these numbers. Something's got to give ... Another way to talk about this is to notice the language: overpopulation, zero population growth. How different would our discourse be if we spoke instead of overconsumption and zero consumption growth? This shift in discourse won't happen, of course, because zero consumption growth would destroy the capitalist economy."

Relatedly, for all his deep misanthropy, the primitivist Jensen with his wish for us to return to hunter-gatherer society is at least consistent here compared to zero-growth advocates that pick some other era. If progress and growth are the problem, then we must return to a time when there was no growth or progress, not pick some random period due to aesthetic affinity. There was still progress and growth prior to the Industrial Revolution, and before the Enlightenment, and before the Renaissance, and in the

Mesopotamia. Of all the flavours of degrowthism, only Jensen and Zerzan come the closest to consistency when they look to primitive society, noting that for the bulk of our existence, we were pretty much a zero-growth society: the roughly 178,000 years between the emergence of anatomically modern *homo sapiens* in Africa some 200,000 years ago, and the rise of sedentary agriculture, also known as the Neolithic Revolution, that began an estimated 12,000 years ago in the Fertile Crescent.

But even here, anthropologists do not declare this epoch to be *absolutely* zero-growth, only that growth was so slow as to be imperceptible to those living through it. The shift from an animal ethology (animal behaviour) to behavioural modernity around 50,000 years ago is the site of great controversy amongst researchers. It's a bit of a slippery term, but behavioural modernity describes the point at which our species, *homo sapiens*, began to employ complex symbolic thought. In other words, language, abstract reasoning, advanced problem solving and artistic symbolism—culture; as well as the ability to invent, rather than merely adopt, new practices. The dispute in the scientific community is whether this arose via a technological revolution in the upper Paleolithic over the course of 10,000 years, or, as partisans of the 'continuity hypothesis' suggest, much more gradually over hundreds of thousands of years. But regardless of the true time period, no one should confuse either with stasis.

As for Jensen's favouring of this epoch for it being the last time that humans lived in balance with the rest of nature, never taking too much from the land-base, one has to of course confront the awkward reality of the extinction of Pleistocene megafauna—mastadons, dire wolves, giant condors with wingspans of 16 feet, nine-foot-long saber-toothed salmon—everywhere that Paleolithic humans went, a process known as the Quaternary extinction event. This in turn comprehensively



to the food web when apex predators were removed, involving a reduction in lateral diffusion of mineral nutrients, and perhaps, due to the disappearance of megaherbivores such as woolly mammoths and bison, a sharp reduction in atmospheric methane, which in turn may be implicated in the sudden climatic cooling that lasted for about 1300 years known as the Younger Dryas or Big Freeze. Caveman climate change?

Jensen responds to this by simply denying that this happened, as it does not fit in with his belief system that holds indigenous peoples to have lived a sylvan existence in perfect harmony with the environment, quoting the work of one author, ethnobiologist Eugene Hunn. While it is true that there remains an open debate about this period, there is increasingly wide consensus amongst paleobiologists and ecologists that humans played a major role, either through direct overkill or through out-competing other predators, or in some interplay of various factors. Jensen's dependence on just one source here to deny anthropogenic pleistocene extinction parallels the single-study syndrome of climate sceptics who pounce on one new study in an obscure journal purporting to show that sea-levels aren't rising in order to deny anthropogenic global warming.

It should go without saying that it is more than possible to decry the genocide of the indigenous peoples of the Americas, Australasia and Africa, and to campaign against the wretched racism they continue to face, without having to embrace the ideal of the Noble Savage, which is racist in its own, ethnically essentialising way. American Indian ethnohistorian David Rich Lewis gives a convincing history of the invention of the modern equivalent of the Noble Savage, the trope of 'Ecological Indian', tracing it through 60s counterculture, the Crying Indian of the 1970s' 'Keep America Beautiful' advertising campaigns, a script writer's creation of a fictional speech by Chief Seattle, right up to Disney's *Pocahontas* cartoon and Kevin Costner's white-saviour epic, *Dances With Wolves*.

People searching for a new relationship with nature and a set of spiritual values to counter the individualism, political economy and environmental impact of modern industrial society latched on to the image of the Ecological Indian. Ideals of Indian communalism and ecological relationships rooted in a spiritual harmony with Mother Earth attracted those looking for alternatives ... [T]he ancient belief in a Mother Earth was more the creation of modern scholars looking for religious universals than a pervasive pan-Indian concept, but it filled important rhetorical and emotional needs. Environmental organisations joined native groups in arguing for Indian rights and an Indian-centred environmental model, and Indians in turn internalized the rhetoric of Mother Earth and the Ecological Indian for their own political and intellectual purposes.<sup>13</sup>

Lewis goes on to recount the scholarly consensus that far from encountering a pristine wilderness when Columbus arrived in the New World, he and his fellow butchers that came after found extensively anthropogenic landscapes. Native peoples locally overhunted a number of extant species such as seal, sea lion, musk oxen and caribou; as aquaculturalists were "deadly efficient" in their construction of weirs and dams; and created vast trails and roads serving extensive trade networks. They built cities, terraced hillsides and irrigated fields, shaped the land with intentional fires, and cleared forests, all of which contributed directly to deforestation, soil depletion and erosion. In forgetting all these works, the myth of the Ecological Indian infantilises and denies agency to native peoples, erases civilisations and replaces them with imaginary wildernesses. It too is an act of conquest.

But regardless of contemporary oversimplifications of the tale of flawless indigenous resource management, if the advent of agriculture was the original sin, as Jensen and many others such as the much more moderate Jared Diamond argue, it was a sin that humans in many different places were keen to engage in over thousands of years, as there have been eight to ten different geographic sites with contrasting ecosystems that have been identified by researchers as probable independent locations for the origin of domestication and agriculture, each with distinct sequences, species and methods. The precise causes of the shift from hunting and gathering to agriculture and settlement remains obscure, but all developed though whenever and wherever clever, clever humans experienced local variations on the following thought process that must have happened in the southern Levant in the Near East some 11,400 years ago: "Aha! If I cut and replant branches of these fig trees here that produce sweeter, softer fruits, next year, we'll have more yummy figs and fewer yucky figs!"

The innovation of agriculture, aided by our species' uniquely prodigious capacity for problem-solving and ingenuity, was perhaps driven by the loss of calorific abundance following our driving so many megafaunal beasts to extinction (a very early supersession of Malthusian 'limits to growth'). Or perhaps it was simply a slow but steady, or clunky and herky-jerky, non-linear accumulation of small innovations.

But regardless of the contours of its invention, perhaps Jensen would respond to the advent of such agronomic wickedness: did we really *need* those figs of a finer flavour? Surely our core homeostatic needs of warmth, food, water and oxygen were already largely being met. This was a luxury item, not a need!

Thus we will have to banish all innovation, imagination, intelligence and desire for slightly sweeter figs (or barley or flax or bitter vetch or whatever) if we're going to be able to ban growth. In which case, progress begins tens of thousands of years earlier

than agriculture, with the invention of spears, needles, string, nets, harpoons, snares and fishing tackle. It's a remarkable thing, but canoes, sailing, knowledge of ocean currents, and even celestial navigation pre-date agriculture. We are marvellous creatures. We've been doing nothing but innovating for tens of thousands of years, perhaps much longer than that. The controlled use of fire pre-dates the existence of our species, likely a discovery of our ancestor, *homo erectus*, 400,000 years ago.

So if Jensen and Zerzan and their army of money-wrenching minions were somehow successful in achieving their Glorious Primitivist Revolution, they would have to be ever on their guard against cavemen boffins getting any bright ideas about how to make life easier or more pleasurable. It's all a rather Pol-Pot-ian Year-Zero-type regime they want to inaugurate, no? Or perhaps just an innovation Stasi? (Perhaps this is too ghoulish a joke though. The Khmer Rouge did actually implement Egyptian-French Maoist economist Samir Amin's advice of "rapid disurbanisation" and autarky. Amin continued to endorse the Cambodian regime as late as 1981, before retreating from such a stance, as they had embraced precisely the policies of radically cutting themselves off from the world economy and "self-sufficiency" in agriculture ['food security', in contemporary parlance perhaps?] that he recommended be adopted across Africa. Likewise, when news emerged of intellectuals being deported to the countryside, Malcolm Caldwell, the then-chair of the Campaign for Nuclear Disarmament and the most prominent Western apologist for 'Democratic Kampuchea', wrote: "No doubt it will be hard for some urban dwellers accustomed to pushing pens or turning ledgers to adjust to the labour in rice-fields, but such hardships as may arise cannot be construed as a bloodbath, unless many commit suicide rather than submit to it."<sup>14</sup> However insane Jensen's programme for change may seem, we shouldn't laugh, as it has been put into genocidal practice before, vigorously and callously defended by

leftists such as Caldwell, who himself was ultimately shot in mysterious circumstances during a visit to Phnom Penh.)

Of course, one might argue that I'm being far too loose with the terms growth, progress, and invention, which begin to blur here. But then, as well they should, as perhaps what it means to be human is to invent, to progress, to grow. To constantly strive for an improvement in our condition. To overcome all barriers in our way. To never at any point sit back and relax and say: "Ah, I think we're done here. We have enough. Life does not need to get any better. These bitter figs will do."

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To clarify the contemporary anti-modernist discourse and understand how we have arrived in this intellectual cul-de-sac, perhaps it is worthwhile to revisit some of the ideas of Malthus and his epigones directly. The cleric postulated that left unchecked, population grows geometrically (today, we would say exponentially: two people, then four people, then eight, then 16, 32, 64, 128, and so on) while the amount of food we can produce grows only arithmetically (today, we would say linearly: two sacks of wheat, then three sacks of wheat, then four, then five, six, seven, and so on). Humanity was no different from any other life-form in this regard, and so just as "the constant tendency in all animated life to increase beyond the nourishment prepared for it" results in its being checked by famine and disease, so will the human population. He fervently opposed relief for the poor, as this only encouraged the lower orders to breed, hastening the looming catastrophe, when instead "unwholesome occupations," vice, poverty and disease should be left to work naturally as a check on population growth:

[W]e should facilitate, instead of foolishly and vainly endeavouring to impede, the operations of nature in producing this

mortality; and if we dread the too frequent visitation of the horrid form of famine, we should sedulously encourage the other forms of destruction, which we compel nature to use. Instead of recommending cleanliness to the poor, we should encourage contrary habits. In our towns we should make the streets narrower, crowd more people into the houses, and court the return of the plague.

Without such measures, he says, disaster awaits:

Should success be still incomplete, gigantic inevitable famine stalks in the rear, and with one mighty blow levels the population with the food of the world.

But the predicted Malthusian catastrophe never materialized. Extraordinary productivity increases during the Second Agricultural Revolution resulting from improved crop rotation, better plows, selective breeding, the seed drill and new drainage techniques—but also, we cannot forget, the enclosure of the commons and the rise of capitalist farmers—saw food supplies rise faster than population and a metamorphosis from feudal subsistence to an early market economy. This agrarian transformation revolutionised labour as well, releasing agricultural workers to be employed in the dark Satanic mills of the Industrial Revolution.

Much later, the Green Revolution led by US biologist Norman Borlaug in the 1940s and 50s transformed agriculture via modern plant-breeding, irrigation infrastructure, synthetic fertilisers and pesticides. Scientists developed hybrid rice and wheat varieties that responded better to plant nutrients and grew with shorter, stiffer stalks to support the heavier heads of grain that produced higher yields. Agricultural productivity exploded in this period, simultaneously expanding the food supply and slashing prices. (Contemporary critics of the Green Revolution have some legit-

imate concerns about how these advances led to a preference for monocultural production and a shift from agricultural inputs being generated on-farm to the purchase of inputs, in turn producing greater farmer debtloads, the loss of their land and ultimately the concentration of land ownership in fewer and fewer hands. But all this should be viewed as a criticism of an inegalitarian market-based mode of production rather than of the technological advances.)

This remarkable achievement of the Green Revolution was only met with more catastrophism by a new generation of Malthusians. *Famine-1975! America's Decision: Who Will Survive?* was a 1967 data-heavy bestseller by plant pathologist William Paddock, who himself had developed a disease-resistant strain of corn high in Vitamin A, and his diplomat brother, Paul. The book is long-forgotten and a bargain-bin filler at used bookshops today. But *The Population Bomb* by entomologist Paul Ehrlich, arguing like the Malthus that the Green Revolution had only encouraged the damned rabbits to produce more of themselves, made a much bigger splash. He predicted in 1968, according to his extrapolations, that an acceleration in the world's population was certain to produce global food shortages that would result in as many as four billion dead over the course of the 1980s. Also like the dear reverend's call to end poor relief, Ehrlich wanted to see an end to development aid, but even this would probably be insufficient. "The battle to feed all of humanity is over. In the 1970s the world will undergo famines – hundreds of millions of people will starve to death in spite of any crash programmes embarked upon now." A latter-day Malthus in many ways, he advocated cuts to public funding of healthcare ("death control"), making foreign aid conditional to adopting population control measures, the sterilisation of all fathers of three or more children in the developing world, and even considered putting sterilising chemicals in municipal water supplies and punitive taxes on diapers and cribs.<sup>15</sup>

Ehrlich was invited onto the Tonight Show some 20 times, making population growth a hot topic amongst the American public. The book prompted the establishment of the first Earth Day in 1970 as overpopulation was believed to be the cause of all other environmental problems (a concern echoed on Earth Day in 2014 when the Center for Biological Diversity handed out 350,000 Endangered Species Condoms across the US to remind attendees of "runaway human population growth and overconsumption"). Richard Nixon embraced the topic with gusto, declaring the population crisis to be "one of the most serious challenges to human destiny in the last third of this century," while the US Congress established a Commission on Population Growth and the American Future.

What happened? All other things being equal, Ehrlich's models should have been right. But all other things didn't stay equal.

Firstly, the techniques of the Green Revolution were spread still further afield. But much more importantly, by the end of the 20<sup>th</sup> Century, almost all developed countries had seen a sharp drop in fertility rates as the result of the spread of effective birth control, but also as a result of economic development (growth!), education and the lower infant mortality that came with better healthcare. According to the predictions, lower infant mortality was supposed to *add* to the population burden. Instead, as families now could be pretty assured that all their offspring would survive childhood, there was no need to have as many children. Contra Malthus, who believed that an improved standard of living, greater means, would result in a larger number of offspring, the opposite is quite demonstrably the case. Such transformations were beginning to be apparent precisely during the high point of the 70s population scare. While Ehrlich was chatting with Johnny Carson, Karen Singh, India's then population minister, was already declaring: "Development is the best contraceptive."

Today, there is almost no controversy amongst demographers about this phenomenon, known as the 'demographic-economic paradox': the higher per capita GDP of a population group, the fewer children born, even if every few years Chicken Little Ehrlich sounds the alarm once again with fresh extrapolations to prove that this time, he's right. As Angus and Butler point out, we now know that world population growth rates have been slowing down since their peak in 1963—five years *before* the publication of *The Population Bomb*. The total fertility rate—that is, the number of children a woman will have on average over the course of her lifetime—is now below replacement level in more than 116 countries.

We are at the point that some demographers are concerned that the EU's population could drop by a quarter and Japan's by a half within 45 years. The UN Population Database low-variant projection puts global population topping out around mid-century with just over 8 billion people and dropping to around 6 billion by century's end, although the high variant projection assumes continued growth to 16.6 billion by 2100. Angus and Butler quote demographer and mathematical biologist Joel Cohen: "In spite of the abundant data to the contrary, many people believe that the human population grows exponentially. It probably never has and probably never will."

(One might add tangentially here that for decades, computer scientists have been hard at work trying to develop artificial general intelligence supercomputers [or 'strong AI'] that will be able to do incredible, amazing, stupendous things. But already we have 7 billion absolutely incredible supercomputers just walking around farting, fucking, writing symphonies and designing gravitational wave telescopes to peer back in time to the earliest, tiniest fractions of a second of the infant universe. And more humans means more awesomeness. More novels, more jazz, more medical advances, more refrigerator-sized spacecraft landing on comets 515 fucking million kilometres from Earth.

Why would we want fewer of these incredible, amazing, stupendous *meatware* supercomputers anyway?)

So Ehrlich and his co-thinkers were laughably wrong, yet, unlike the contemporary consensus on anthropogenic climate change, there has *never* been any consensus in the scientific community about overpopulation, but this has not prevented organisations such as the Sierra Club, the World Wildlife Fund, the Royal Swedish Academy of Sciences and the UN from showering Ehrlich with awards. Ehrlich, a former adviser to the board of directors of the anti-immigration Federation of Americans for Immigration Reform (indeed, as we will see, overpopulation politics very frequently overlaps with anti-immigrant politics), was also made a fellow of the Royal Society in 2012. All these gongs and laurels are probably why Ehrlich has not felt any need to refrain from every few years just shifting the date for the end of the world a little further.

Indeed, the long-standing establishment embrace of the Malthusian worry explodes any suggestion that anti-growth is a particularly radical position. But then elites have never really liked the vast bulk of humanity, believing us all to be lesser creatures, unlettered, unrefined.

Four years after Ehrlich published his seminal human-hating tract, the Club of Rome think-tank, whose membership is composed of former heads of state, senior UN civil servants and business leaders—a more establishment body one could not find—produced its own report funded by the Volkswagen Foundation called *Limits to Growth*. It predicted similar civilisational "overshoot and collapse," but this time on the basis of then-state-of-the-art computer modelling. Like Ehrlich's book, *Limits to Growth* was a runaway bestseller.

If the present growth trends in world population, industrialisation, pollution, food production, and resource depletion continue unchanged, the limits to growth on this planet will

be reached sometime within the next one hundred years. The most probable result will be a rather sudden and uncontrollable decline in both population and industrial capacity.

There have been decades of criticism from numerous quarters quarrelling with the Malthusian assumptions of the modellers. Angus and Butler zero in on those of economist Christopher Freeman, the founder of the University of Sussex's Science Policy Research Unit, made just months after the report came out:

What is on the computer print-out depends on the assumptions which are made about real-world relationships, and these assumptions in turn are heavily influenced by those contemporary social theories and values to which the computer modellers are exposed.

Angus and Butler ably extend Freeman's argument:

What the model actually tries to do is to use neoclassical economic theory to predict how much economic growth will result from various levels of population growth, and then to estimate the emissions growth that would result ... In short, if your computer model assumes that population growth causes emissions growth, then it will tell you that fewer people produce fewer emissions.

Nevertheless, for all their repeated disconfirmation, and however much their logic leads inevitably and quite regularly to rather nasty, xenophobic lifeboat politics, the "Malthus in, Malthus out" conclusions of such reports, as Freeman describes them, have become a shibboleth of the green left.

## To Infinity and Beyond! (Or: The Myth of Carrying Capacity)

And what is the core erroneous assumption made not just by the *Limits to Growth* modellers, but all partisans of the politics of limits? Applying the concept of *carrying capacity* to humanity.

This population-biology term describes the speculative maximum, equilibrium number of organisms of a particular species that can be supported indefinitely in a given environment. A hundred-acre wood can support the consumption of a maximum of, say, 12 Eeyores. At this point, equilibrium is reached. Any more Eeyores would require more acres of wood, or each of the Eeyores consuming less.

Throughout the *Limits to Growth* report, the authors refer to humans having overshot our carrying capacity. From ex-World Bank economist Herman Daly to Al Gore, the doomsayers don't write "The end is nigh!" on their sandwich boards, but "We've overshot our carrying capacity!" Klein, Kunstler, Kingsnorth and the full coterie of anti-growth partisans repeatedly call attention to carrying capacity "overshoot." It's a reference, consciously or, more likely these days because the concept of carry capacity is so ubiquitous, unconsciously, to the influential 1973 book *Overshoot* by US environmental sociologist William Catton<sup>16</sup> that popularised the subject. The book is also Deep-Green-Resistance guru Derrick Jensen's bible.

"The carrying capacity of the planet," Jensen told an interviewer, urging people to read Catton, "is declining every day, because of the murder of the planet. Where I live, 180 years ago the rivers were literally full of salmon. Now the runs are much smaller. The entire world is diminished. The total weight of the fish in the ocean has decreased by 90 percent in the last 150 years

Sanchez of the same initiative have already developed this trait in tomatoes and lettuce and are now at work extending it to other crops, including corn, rice, cotton and carrots.

No one part of this is enough of course, but taken together, it all points in the direction of how the phosphorus sustainability problem is going to be solved. Realistically, we are talking about international farm-to-fork-to-faeces governance of phosphorus throughout the entire food production and consumption system, coordinating the agricultural, fertiliser, sanitation and waste sectors. Such 'phosphorus security' will likely require brand new and society-wide composting infrastructure—far beyond little green boxes in the kitchen and backyard that we have gotten used to in the last few years—that simultaneously prevents the dispersion of bioaerosols that contain fungal spores and bacteria that present a hazard to human health.<sup>177</sup> This is no small endeavour. But neither is it an impossible feat, even within capitalism (albeit plainly with a major role, once again, for the public sector and for regulation).

We are so used to the doom-mongering (and there are more than enough genuine environmental problems to understand why the doom-mongering is going on), that we just accept without question the latest peakist warning of cataclysm. Foster's metabolic rift conjecture has been widely accepted on the left, well beyond eco-socialist circles, without question. But few really bothered to look into whether soil science and waste management technologies had developed since the 19<sup>th</sup> Century. It turns out however that there just isn't any soil-fertility-based metabolic rift, or at least not one that can't be repaired with a bit of good old fashioned innovation and political reorganisation.

## Small Is Not Beautiful

Leading environmentalist Bill McKibben is perhaps the most well-known latter-day evangelist of *small*. The founder of 350.org, the international green NGO that has the very tightly defined goal of reducing atmospheric CO<sub>2</sub> levels to 350 parts per million, and one of the first to warn of the problem of global warming, published *Eaarth*<sup>178</sup> in 2010, a guide to "making a life on a tough new planet." Written in the wake of the collapse of the 2009 UN climate talks in Copenhagen, it is another pessimistic call for retreat from progress, from growth, for an embrace of the small and modest, declaring that on this new planet, "growth may be the one big habit we finally must break." A former staff writer for the *New Yorker*, he is also a handsome wordsmith:

We're so used to growth that we can't imagine alternatives; at best we embrace the squishy *sustainable*, with its implied claim that we can keep on as before. So here are my candidates for words that may help us think usefully about the future: Durable, Sturdy, Stable, Hardy, Robust. These are squat, solid, stout words. They conjure a world where we no longer grow by leaps and bounds, but where we hunker down, where we dig in. They are words that we associate with maturity, not youth; with steadiness, not flash.

Elsewhere, in a section that almost echoes the anapaestic tetrameter of Dr Seuss (channelling *The Lorax*, perhaps?), McKibben continues:

Most of all, of course, our time has been the time of bigness – the amazing ever-steepening upward curve, where things

grew and grew and then grew some more. Economies and road networks and houses, inflating until there were entire subdivisions filled with starter castles for entry-level monarchs. Stomachs and breasts and lips, cars and debts, portions and bonuses. *Can we imagine smaller?*

After a certain point, bigness spells trouble, he says, because useful feedback diminishes as scale expands. But small things breed a kind of stability. He wants more small businesses, small farms, small banks and small power companies. "Better the Fortune 500,000 than the Fortune 500," he wishes, the conservative fever dream of the yeoman and shopkeeper. An earlier book of McKibben's, 2008's *Deep Economy*, also makes the case for degrowth, and localist food and micro-energy production. It seems like there's enough, ahem, growth in the degrowth book market for two books from the same author about the same thing.

Declaring himself both a patriot and a dissenter, he declares the American revolution to be:

the defence of the small against the big ... That is, the Minutemen were, at the outset, defending less the idea of America than the idea of Chelmsford, of small and tight and connected communities. Of small and local economies without the margin to easily afford the various taxes and duties the British imposed. Of the idea that they should be able to figure out their own destiny – which at the time they hashed out in local town meetings each spring.

Sneering at how we once put a man on the moon, McKibben compares such national projects of bigness to those roadside attractions you find across North America, like the world's biggest fibreglass cow, "the world's biggest coffeepot, the world's biggest strawberry, watermelon and artichoke":

Theoretically, we're committed to sending a man to Mars, but I know very few people who either believe we will or care ... The project we're now undertaking – maintenance, graceful decline, hunkering down, holding on against the storm – requires a different scale. Instead of continents and vast nations, we need to think about states, about towns, about neighbourhoods, about blocks. Big was dynamic; when the project was growth, we could stand the side effects. But now the side effects of that size – climate change, for instance – are sapping us. We need to scale back, to go to ground.

McKibben, like Klein and the rest, is of course hardly the first to declare bigness to be the root of all evil. They all consciously or unconsciously draw upon the seminal 1973 collection of essays by British economist E.F. Schumacher, *Small is Beautiful: a study of economics as if people mattered*, assessed by the *Times Literary Supplement* as the 17<sup>th</sup> most influential book published since World War Two<sup>179</sup>. After a career with the British Coal Board, in 1955, Schumacher visited Burma, working as an advisor to the government. While in the country, he had an epiphany that that he described as 'Buddhist economics' – a vision of an economy designed placing harmony, community and ecological values at its centre. Core to the philosophy was small-scale, localist, labour-intensive production, self-reliance; and 'people-centred', community-scale *appropriate technology* (originally termed 'intermediate technology'). What does and doesn't count as appropriate in the latter concept isn't always clear, ranging from pico-hydro electricity generation to bike-powered water pumps to herbalist tinctures, animal-powered transport and cob houses – but also LED flashlights and photovoltaic solar panels – but advocates know it when they see it. Similar to the concept of 'conviviality' from Austrian theologian Ivan Illich, also writing in the 1970s, who argued that advanced technology was the preserve of elite groups with a monopoly on knowledge that



“robs peasant societies of their vital skills and know-how.”<sup>180</sup> Schumacher founded what would these days be called an NGO, the Intermediate Technology Development Group, which aimed to put into practice his thinking. The group still exists, now operating under the name Practical Action, and is just one of a family of organisations in the UK—including the New Economics Foundation, the Centre for Alternative Technology, and the Soil Association, the British organic farming organisation—that refer to themselves as the Schumacher Circle. Founded in his memory or inspired by his work, the Circle organisations cooperate informally to support each other’s work.

A convert to Catholicism, Schumacher recognised the parallels between his philosophy and the culturally traditionalist and agrarian Catholic economic ideology of distributism formulated by G.K. Chesterton and Hilaire Belloc. A simultaneously anti-socialist and anti-capitalist philosophy that was also critical of the Enlightenment, distributism emphasised local culture and opposed mass production, viewing the just social order as being achieved by ensuring that property is spread widely, with a maximal amount of small-holders, artisans and shopkeepers, so that people can earn a living without having to rely on the state (socialism) or a small number of individuals (capitalism). It was a sort of English Catholic micro-Toryism, and indeed distributism influenced continental post-war European Christian Democratic parties, and the youthful US conservative commentators Ross Douhat and Reihan Salam describe their prescription for renovating the GOP for the 21<sup>st</sup> Century as distributist. Phillip Blond, the conservative political philosopher and counsellor to UK Prime Minister David Cameron pitches an updated version of distributism that he told the Washington Post is a mash-up of Occupy Wall Street and the Tea Party, emphasising neither markets nor government, but what is small and local.<sup>181</sup> “Distributism is very closely related to what we now call environmental and ecological questions,” wrote Schumacher’s friend and

Catholic writer Christopher Derrick.

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### Blood & Soil

It is fruitful here to consider the person of Jorian Jenks, one of the Soil Association’s founders, the editor of their journal, *Mother Earth*, and a self-described “critic of modern economy.” A dominant figure in the founding of the organic movement, Jenks was also the British Union of Fascists’ agricultural advisor and a close associate of its leader, Oswald Mosley, authorised to carry on the work of Mosley in the event of his arrest. Jenks was inspired by the catastrophist German historian Oswald Spengler’s 1918–23 bestseller *The Decline of the West*, in which the proto-Nazi intellectual argued that Western civilisation was experiencing its final season—its wintertime. According to a Graham Macklin, a biographer of Mosley, Jenks also “harboured a congenital dislike and suspicion of science” and sought to “replenish the bond between man and soil.”

Rural historian Richard Moore-Coyler describes the catastrophist panic of the interwar right:

Underlying its concerns and anxieties was the belief in a general cultural decline, born of industrialization and urbanization, which was somehow reducing the nation’s vigour and sense of purpose and which, unless countered, would steadily erode the structure of society itself. As the social consequences of economic growth, and more especially urbanization, became self-evident, so the Right looked to the countryside as a renew-able source of vitality which would serve as a ‘spiritual’ antidote to the perceived dislocation of city life. National regeneration, it was believed, might be achieved by a re-examination of the nation’s rural roots; a sort

of revival of the agrarian tradition wherein lay the 'true' spiritual strength and cultural and moral virtues of the British people. This rural-nostalgic and usually organicist theme formed a common thread woven into the policies of most ultra-Right groupings of the 1920s and 1930s.<sup>182</sup>

Sound familiar? How alike this all seems to the anti-modernism of the contemporary crunchie left! But hold on to your fork; there's pie! It gets much, much better. Jenks had already been involved with Kinship in Husbandry, a precursor of the Soil Association and national socialist club promoting ruralism and self-sufficiency founded by Nazi sympathizer Rolf Gardiner. Macklin writes that along with Jenks, its members "percolated" the Soil Association, where as editorial secretary he promoted in his words "an anti-modernist philosophy ... the paramountcy of agriculture, the subordination of mechanization to organicism, the localization of economies and the cultivation of a consciousness of ties of blood and soil."

This is of course a direct reference to the Nazis' anti-industrial *Blut und Boden* (blood and soil) doctrine of SS *Obergruppenführer*, *Reichsbauernführer* (Reich Peasant Leader) and Reichsminister of Food and Agriculture Richard Walther Darré. Blut und Boden embraced a back to the land attitude and called for the re-adoption of rural values and skills. Blood and Soil idealised a 'peasant nobility', with their capacity for loyalty, community, morality and of course their racial purity, who represented the opposite of all that had been lost or ruined by the cosmopolitan, urban, Jewish intellectuals.

Beyond Jenks, the Soil Association Council also enjoyed the company of other far-right figures, including Archibald Ramsay, who was interned during the war for his Nazi sympathies. Indeed until the organisation shifted leftward in the 1960s after Jenks' death, the Soil Association had been a creature of the far right, as concerned with far-right agitation as with ecological

concerns.<sup>183</sup>

It is more than disconcerting to anyone familiar with the contemporary green left, New Age eco-mysticist or alternative health scenes to stumble across the following remarkable quote from Nazi botanist Ernst Lehmann, again uncovered by Staudenmeier. Until the final clause of the last sentence, you could be forgiven for thinking it came from a leaflet at a 21<sup>st</sup> Century local farmers' market (or for that matter, a book by Derrick Jensen or Paul Kingsnorth):

We recognize that separating humanity from nature, from the whole of life, leads to humankind's own destruction and to the death of nations. Only through a re-integration of humanity into the whole of nature can our people be made stronger. That is the fundamental point of the biological tasks of our age. Humankind alone is no longer the focus of thought, but rather life as a whole ... This striving toward connectedness with the totality of life, with nature itself, a nature into which we are born, this is the deepest meaning and the true essence of National Socialist thought.

Contemporarily, we see the brown ecologists of *Umwelt und Aktiv*, an environmentalist magazine in contemporary Germany linked to the neo-Nazi National Democratic Party (NPD), and infiltration of the organic movement, by the far right. The state of Rhineland-Palatinate is sufficiently concerned at the trend that it has published a pamphlet for organic farmers on how to combat the phenomenon.

In Italy too, since 2009, we have seen the rise of the Five Star Movement (M5S) of 'anti-politics' comedian Beppe Grillo, who manages to combine opposition to EU austerity politics with localist environmentalism, degrowth economics and anti-immigration rhetoric. Grillo himself has flirted with far-right politicians domestically while in the European Parliament, M5S

sits with a grouping that includes the UK Independence Party and the far-right Sweden Democrats.

Meanwhile across the Atlantic, in 1978, John Tanton, the former chairperson of the National Population Committee of the Sierra Club, one of the largest and oldest American environmental groups (and, incidentally, the publisher of Paul Ehrlich's *The Population Bomb*), founded the Federation for American Immigration Reform (FAIR), designated in 2007 as a hate group by the Southern Poverty Law Center. In the 1980s, Ehrlich's wife, Anne, along with a number of other Sierra Club members, urged the organisation to support immigration reduction.<sup>184</sup> In 2004, anti-immigrant candidates almost won a majority of the Sierra Club off the back of an argument that the US standard of living is not sustainable. Similarly, Dave Foreman, a co-founder of the deep ecology movement Earth First! and more latterly the Rewilding Institute, also in the 1980s advocated a reduction of the world's population by denying food aid to Ethiopian famine victims and banning all immigration to the US. Today, along with Earth Policy Institute founder Lester Brown, Foreman is a leader of Apply the Brakes, a California-based ecological and anti-immigration lobby group.<sup>185</sup> Virginia Abernethy, the president of the Carrying Capacity Network—another resource conservation and immigration reduction group—is a self-described white separatist<sup>186</sup>. Environmental philosopher David Skrbina, writing on the Rewilding Institute's website in 2013, explains why green campaigners need to get over the 'immigration taboo':

The remaining piece of the eco-justice puzzle is figuring out how to live on the half of the landscape that we allocate to ourselves. There are two ways to approach this. If we insist on continuing with our present luxurious lifestyle, and its concomitant 25 acre footprint, we can certainly do this. But it means that our 1 billion acres can only support 40 million people—an 87% reduction from current levels. Too draconian?

Too 'radical'? Not really. If we allowed ourselves 100 years to bring the population down, this would require only a 2% annual decrease. This could be easily achieved with a rigorous anti-immigration policy and an aggressive family planning regimen—including, perhaps, government-paid contraceptives, abortions, and sterilizations.<sup>187</sup>

But the argument I am trying to make here is of course not that all contemporary organic farmers are fascists, that all environmentalists are anti-immigrant racists. This is plainly false and to suggest otherwise tips over to green-baiting. The vast majority of eco activists in the 21<sup>st</sup> Century remain in most other regards highly progressive. You will regularly see the same campaigners at climate camps and immigrant solidarity rallies.

Rather, the point is to recognise the anti-modernist ideological overlap between contemporary green back-to-the-land ideology and *volkisch* agrarian mystique, resulting from common romanticist origins that were deeply antipathetic toward the Enlightenment. Such patterns of green xenophobia keep appearing over and over not due to environmental concern, but specifically because anti-modernism and the logic of limits leads inexorably to population control and immigration restrictions. And while community spirit is certainly a harmless delight, an anti-modernist political emphasis on returning to traditional customs or localist economics in opposition to outside products or influences is by definition exclusionary, no less so than nationalism. It is important for those who quite rightly care deeply about the threat to humanity represented by myriad ecological problems to inoculate themselves against such thinking, to foreswear anti-modernism and the lifeboat politics of limits to growth.

Since the time of the scientific revolution and the political revolutions that accompanied it—most especially the French Revolution—elites whose privileges seemingly daily were being

eroded have reacted forcefully both ideologically and physically to this new modern era. The liberal philosopher Isaiah Berlin wrote of a "Counter-Enlightenment" tradition dating back to the 18<sup>th</sup> Century, a body of ideas that arose in reaction to the rationalism, empiricism and universalism of the Age of Reason. Berlin emphasised the role of the German Romantic movement, which looked to the Medieval period as a simpler, more integrated time. Leftist Israeli historian Zeev Sternhell goes even further than Berlin, describing this intellectual tendency as the 'Anti-Enlightenment'. Berlin was willing to offer the Counter-Enlightenment a tip of the hat for correcting what he felt were the excesses of Enlightenment's tendency toward hubris. Sternhell, a scholar of the rise of fascism and recently thrust into the spotlight when a West Bank settler set off a bomb at his residence and for his comparison of the atmosphere of contemporary Israel to that of 1940s France and his warnings of the collapse of Israeli democracy, gives this intellectual tendency no quarter. He describes the Anti-Enlightenment tradition as a "second modernity," but one that "revolted against rationalism, the autonomy of the individual, and all that unites people: their condition as rational beings with natural rights." For Sternhell, since the 18<sup>th</sup> Century, the world has been engaged in a ferocious battle between Enlightenment and Anti-Enlightenment modes of thought.

Peter Staudenmaier, German history professor at Marquette University in Milwaukee, who has explored the marriage of nature mysticism and nationalism under the aegis of Prussian anti-Enlightenment irrationalism in the 19<sup>th</sup> Century, highlights the writings of two key figures, Ernst Moritz Arndt and Wilhelm Heinrich Riehl. The latter is known for his nationalism, but, as Staudenmaier writes:

His remarkable 1815 article *On the Care and Conservation of Forests*, written at the dawn of industrialization in Central

Europe, rails against shortsighted exploitation of woodlands and soil, condemning deforestation and its economic causes. At times he wrote in terms strikingly similar to those of contemporary biocentrism: 'When one sees nature in a necessary connectedness and interrelationship, then all things are equally important—shrub, worm, plant, human, stone, nothing first or last, but all one single unity.'<sup>188</sup>

Staudenmaier finds other striking passages in the work of Arndt's student, Riehl, an 1853 essay, "Field and Forest" which "ended with a call to fight for 'the rights of wilderness.' But even here nationalist pathos set the tone: 'We must save the forest, not only so that our ovens do not become cold in winter, but also so that the pulse of life of the people continues to beat warm and joyfully, so that Germany remains German.'"

We can continue this narrative through the *volkisch* Artaman League of the 1920s, named after the concept of *Artamanen* or 'agriculture man' of blood-and-soil agrarian writer and biologist Willibald Hentschel who argued that his countrymen should retreat from the decadence of urban life and return to a rural idyll, to the aforementioned Oswald Spengler and his fellow ideologue of the Weimar Revolutionary Right, jurist Carl Schmitt, who raged against the "asphalt culture" of modernity and preference for *Volksgemeinschaft* (folk community) rather than class struggle. Many scholars have articulated the centrality of the apocalyptic, of a loathing of modernity running through all varieties of fascism, and agrarian retreat as solution.

We should be careful not to over-emphasise the German role in the history of Counter-Enlightenment ideas. Berlin also speaks of the Anglo-Irish political theorist and philosophical founder of conservatism, Edmund Burke, "respectful towards church and state and the authority of aristocracies and élites sanctified by history, these doctrines clearly constitute a resistance to attempts at a rational reorganisation of society in the name of universal

moral and intellectual ideals,” and the “abhorrence of scientific expertise inspired radical protest in the works of William Blake.”<sup>189</sup>

Canadian literary theorist Northrop Frye wryly noted that despite Spengler’s argument having been disproved multiple times, it remained “one of the great Romantic poems.” Frye believed that the declinist meme has been kicking around since the time of Napoleon. The anti-modernist *Weltschmerz* is an inescapable element of modernity: “The decline of the West is as much a part of our mental outlook today as the electron or the dinosaur, and in that sense, we are all Spenglerians.”

Yet socialists of the 19<sup>th</sup> Century such as Friedrich Engels and Karl Marx saw themselves as continuing the Enlightenment tradition, embracing a staunch faith in progress and a conception of history as the steady expansion of human capabilities through rational political economic organization certainly, but also via the emancipatory possibilities of science, technology and medicine, securing ever greater material comforts, banishing irrationality and superstition. Freed of the shackles of capitalism, humanity would stride ever forward out of the realm of necessity and, through greater and greater realisation of our potential, into a cosmos of ever-expanding freedom. Not blind to the hypocrisies of many individual Enlightenment thinkers such as Locke, Smith and Newton, socialists criticised their apologetics and errors of liberal naïveté. Yet their position was not an abandonment of Enlightenment, but a correction.

So how did we get from there to here, where Enlightenment and modernity are cast as villains not only by the various iterations of the Counter-Enlightenment Right since the 18<sup>th</sup> Century, but also by so many figures on the Left? If we are to rehabilitate progress, Enlightenment, modernity, growth and ambition—*prometheanism*—we need to ask where the left took a wrong turn.

And when we do, we cannot avoid the recognition that Theodor Adorno and Max Horkheimer’s *Dialectic of*

*Enlightenment*, completed in 1944 and published in 1947—one of the seminal texts of critical theory and perhaps the central text of the Frankfurt School—is the bridge that links the conservative Counter-Enlightenment anti-modernist reaction to the contemporary growth-fearing, limit-embracing leftist worldview. It would go on to have far-reaching influence on the New Left of the 1960s, and from thence the dominance of post-modernist scholarship in the humanities in the 1980s and 1990s. I am not going to put forward an extensive critique of the ideas of Adorno and like-minded thinkers, as this would simply be a repetition of critiques that have been already developed elsewhere by a variety of far better authors than I. I am simply interested in a sketch of the authors’ ideas insofar as this is useful for unpacking the origins of the contemporary degrowth, progress-sceptic, anti-civilisational mood on the green left.

*Dialectic of Enlightenment* was a product of understandably deep cultural despair toward the end of the Second World War. Adorno and Horkheimer asked themselves what could possibly explain the depth of horror that had been mounted by Nazism. Man had been a wolf to man throughout history, but never on such a vast, industrialised scale. Similar pessimism about the human condition had first set in amidst the unprecedented savagery of the First World War. And indeed the anguish of Adorno and Horkheimer can be read as a further descent into melancholia beyond even the psychic abyss that accompanied the slaughter in the fields of Flanders.

“Enlightenment, understood in the widest sense as the advance of thought, has always aimed at liberating human beings from fear and installing them as masters. Yet the wholly enlightened earth is radiant with triumphant calamity,” they wrote, opening the book.

Their conclusion, one of the most thorough-going critiques of modernity yet to have been mounted, was that the horrors of the 20<sup>th</sup> Century<sup>190</sup> were no aberration. Auschwitz and Hiroshima

were the inevitable result of the pursuit of Enlightenment. Tracing this pursuit back to Ancient Greece and Hebrew scripture, they find a repeating pattern throughout history: the hubristic urge toward Enlightenment is unavoidably and precisely a desire for domination of external nature, humans' internal nature, and domination of society.

"Terror and civilisation are inseparable," they concluded. "It is impossible to abolish the terror and retain civilization." In this work, and Adorno's 1951 work *Minima Moralia*, what once was a Marxist critique of capitalism metastasises into a defeatist, fatalist critique of Western civilisation in its entirety. But how is a critique of Enlightenment to be mounted outside of Enlightenment? All possibility of emancipation now seems lost. "That this harshness might be moderated in the future ... seems no more than a dream."

There appears no way out for humanity. In *Minima Moralia*, Adorno wonders whether the only hope for redemption from civilisation's tyrannical urge for dominion is via a kind of tranquil, almost Buddhist, pastoralist relinquishment of want:

Perhaps the true society will grow tired of development and out of freedom, leave possibilities unused, instead of storming under a confused compulsion to the conquest of strange stars. A mankind which no longer knows want will begin to have an inkling of the delusory, futile nature of all the arrangements hitherto made in order to escape want, which used wealth to reproduce want on a larger scale. Enjoyment would be affected, just as its present framework is inseparable from operating, planning, having one's way, subjugating. *Rien faire comme une bête*, lying on water and looking peacefully at the sky, 'being, nothing else, without any further definition and fulfilment,' might take the place of process, act, satisfaction.

How similar this sentiment is to that of the primitivism of Derrick

Jensen! Or for that matter, anarcho-primitivist philosopher John Zerzan's belief that even the invention of symbolic thought or representative language is a practice of domination and form of violence, calling instead for a "non-symbolic consciousness" that he imagines Neanderthals must have had!<sup>191</sup>

We find a kindred anti-modernist bent in yet another foundational text of the New Left, critical theorist Herbert Marcuse's *One-Dimensional Man: Studies in the Ideology of Advanced Industrial Society*. The book, published in 1964 and widely described as one of the most important texts of the 20<sup>th</sup> Century, established for the first time the concept of consumerism as social control. A guru of the 60s street-fighters and counter-culturalists, Marcuse declared class struggle to have been extinguished due to the consumer society's soporific effects, as well as those of the mass media, advertising and managerialism. "The people recognize themselves in their commodities; they find their soul in their automobiles, hi-fi sets, split-level homes, kitchen equipment. The very mechanism which ties the individual to his society has changed, and social control is anchored in the new needs which it has produced."<sup>192</sup> Such false needs breed integration into the capitalist system,

Marcuse extends arguments of Adorno and Horkheimer regarding the Enlightenment to the question of technology. He declares that "technological rationality" and the "logic of domination" that hides within the idea of technological progress impoverishes all aspects of contemporary life. Technological advance only leads to more subjugation:

Technology, as a mode of production [sic], as the totality of instruments, devices and contrivances which characterize the machine age is thus at the same time a mode of organization and perpetuating (or changing) social relationships, a manifestation of prevalent thought and behaviour patterns, an instrument for control and domination.

We see here in Marcuse multiple parallels with the 1930s anti-technology writings of American historian and civilisation critic Lewis Mumford, with his belief that it was technology—indeed the clock—that caused capitalism, and his concept of the megamachine, vast hierarchical machine-like organisations that use humans as its parts. A critic of the city as well, he argued that the vast Megalopolis would collapse under its own weight into Necropolis, the city of the dead. Mumford, unsurprisingly, is regularly referenced as a visionary by contemporary deep ecologists such as Derrick Jensen and Paul Kingsnorth. Marcuse, like Mumford, also prefigures the neo-luddite positions of anarcho-primitivist philosopher John Zerzan and SDS activist turned advocate of small government Kirkpatrick Sale.

There is also a similar thread of radical anti-prometheanism in the writing of another of the 20<sup>th</sup> Century's most important Continental philosophers, Martin Heidegger, who in his 1954 essay "The Question Concerning Technology" attacked what he viewed as the monstrous nihilism of modern technological culture, the technological mode of being not merely for its destruction of nature, but for its reduction of all to resource merely waiting for exploitation. All is but an instrument for other ends—without end—obliterating any sense of awe and wonder. The Rhine River ceases to be a river, but instead a source of hydroelectric power. Contrasting modernity with pre-modern, traditional artisanship, Heidegger says that the latter was acceptable because it is not gripped by this instrumentality but rather made use of natural materials in a way that 'brings forth their essence' and that of their environment. In his final text, on the work of German romantic lyric poet Friedrich Hölderlin<sup>193</sup>, written just a few days before he died in 1976, he declared: "Because it is necessary to think about whether and if in the age of the technologized uniform world civilization *Heimat* is still possible," referencing the German concept of *Heimat*—an untranslatable word somewhere between 'home' and 'homeland'.

Cosmopolitan modernity<sup>194</sup> cast against nature, regional identity and *volk* community. We might recognise here an affinity with the petty bourgeois localist, small-is-beautiful mindset, but also *Blut und Boden*. Are we at all surprised about Heidegger's scandalous membership in the NSDAP anymore?

And, influenced by this thought, the New Left in America, from its birth in the early 1960s, turned away from the expansive ambition and productivism of earlier social democratic and Communist left, and toward this fear of the large, the modern, the technological. The 1962 Port Huron Statement of the Students for a Democratic Society (SDS), the 25,700-word founding document of the American New Left, was a salmagundi of concerns over "supertechnology," overpopulation, "uncontrolled housing," and the "problems of the city." For all its anti-racism and solidarity with the "worldwide outbreak of revolution against colonialism and imperialism," it is fundamentally a conservative, anti-urbanist document.

And this general attitude established by these thinkers has continued to frame so much of the Left ever since, from what we think of as 'The Sixties', or more specifically the events of '1968'—a year that continued for some time after its calendar ended, from the street-fighters of Paris in May to the riots of Chicago to the 'hot autumn' of industrial Italy the following year—up to the anti-globalisation movement of my formative years and the return of street battles from Seattle to Genoa, and the horizontalism of Occupy in 2011. Meanwhile, the anti-universalism, anti-positivism, relativism and science-scepticism of the postmodern academy, with its slander of Enlightenment as imperialist and Eurocentric<sup>195</sup>, opposition to 'grand narratives', and imprisoning of the word *truth* in scare quotes, continues the philosophical project of Heidegger, Adorno and friends, a project of modesty and regress. Two generations of student activists now, or at least those studying the humanities, have been trained in such anti-utopian, anti-rationalist thinking.

I do not want to dismiss this left by any means. It is my left, the one I grew up in.<sup>196</sup> And it has achieved a great many feats advancing the general welfare: It is this left that won so many civil rights battles in America, renewed the struggle for women's liberation, launched the gay rights movement and placed environmental problems firmly at the centre of the international conversation. But just as sections of the earlier left made the mistake of not seeing the Soviet Union for the macabre wretch that it was, this now quite old, fifty-something New Left has made its own ideological mistakes. And the primary mistake we have made is the turn away from Promethean ambition and embrace of this basket of conservative, romantic small-is-beautiful ideas.

Chinese-American geographer Yi-Fu Tuan wrote in 1974 that back-to-the-land arguments appear to have been with us since the rise of the town, finding instances of such anti-urban attitudes in urban settings, of the desire of the civilised to escape civilisation, in ancient Greek and Roman writings, and even in the Epic of Gilgamesh from Mesopotamia—humanity's first great piece of literature. This recurring pattern of a wistful, sentimental appreciation of nature and lamentation of a lost Eden arises from a certain level of city-dwelling privilege forgetful of the tribulations of rural life and ever-present menace that is the wilderness. It takes a certain kind of forgetfulness to be able to romanticise the hard-knock life of the peasant. The peasant would trade places with the gentleman horticulturalist—or, more latterly, the Stoke Newington subscriber to *Modern Farmer* magazine—any day.

We learn in school that the Enlightenment was an intellectual rupture that happened in Europe and America in the 17<sup>th</sup> Century, but it is better described as a recurring impulse in humanity toward reason over received authority and tradition than a definite period in history. Bertrand Russell in his history of Western philosophy pointed to its origins in antiquity. Others,

stressing this universal urge rather than Enlightenment's specifically European origins, have pointed to thinkers and movements pushing for a similar basket of ideas as far afield as ancient Persia, Judea, Arabia, Tang dynasty China, and early modern India.

If the drive toward Enlightenment has always been with us and, following Yi-Fu Tuan's argument that reactions against urbanity have always been with us—that anti-modernity in effect existed long before the modern period—we can see how the argument against economic growth and allied anti-Promethean ideas is ultimately not in any way a *novel* phenomenon, but just another iteration of ancient anti-Enlightenment reaction. It is the latest episode in what appears to be an eternal battle between the proponents of human progress and its conservative opponents. It is a battle between those who recognise that within our species while there is the potential both for greatness and for wickedness, overall, we are ascending, and those who focus only on our wickedness and believe us to have fallen long ago.<sup>197</sup>

Along these optimistic lines, Steven Pinker, the liberal evolutionary psychologist, has written one of the most important, if flawed, works of historical research ever published, 2011's *The Better Angels of Our Nature*. It is in essence an 832-page review article, drawing upon the work of many other researchers across many fields in which he patiently, carefully expounds how, contrary to the popular belief that society is increasingly violent, robust statistical evidence and quantitative historical investigation shows how the human story is one of steadily *decreasing* violence. Drawing on scholars' work tracking court and county records in England, he writes how they have found that homicide rates have plunged from 110 homicides per 100,000 people per year in Oxford in the 14<sup>th</sup> Century to fewer than one homicide per 100,000 in London in the middle of the 20<sup>th</sup> Century. Research covering Italy, Germany, the Netherlands,



Scandinavia and Switzerland, reports similar trends. Expanding the geography under consideration, Pinker shows how violent deaths of all description have plummeted, from roughly 500 per 100,000 people per year in prestate societies to roughly 50 in the Middle Ages, to six to eight today globally, and fewer than one in most of Europe. Importantly, he notes that this evidence says nothing about how smooth the path downward has been or that this pattern will continue.

This of course is fantastic news. If human civilisation can produce ever greater cooperation and empathy and a colossal reduction in violence, it follows that there is nothing in principle—nothing inherent to human civilisation—to prevent us from cooperating to resolve the climate crisis and parallel environmental problems. It is time to abandon the pessimism, crippled ambition and human-hating of Heidegger, Adorno, the Counter-Enlightenment, the postmodernist academy and the primitivist left to return to the essence of socialist humanism: a celebration of our species' proven capacity for moral and material improvement.

Against the degrowth advocates, critics of progress and the Enlightenment, those who favour an improvement in the human condition must rehabilitate Prometheism—the idea that there are no limits other than the laws of physics to how we can re-engineer ourselves and the world around us. We, alone in nature, possess the ability to condition that which conditions us, giving us near infinite malleability. There is no fixed human nature; we are not 'dehumanised' (that is, some human essence removed) by technology or modernity or civilisation. This Promethean conception is not alien to the left; indeed, to give our plasticity full rein, it requires a breaking with the current mode of production.

"When the limited bourgeois form is stripped away," wrote Marx in the *Grundrisse*,

what is wealth other than the universality of individual needs, capacities, pleasures, productive forces created through universal exchange? Full development of human mastery over the forces of nature, those of so-called nature as well as of humanity's own nature? The absolute working-out of his creative potentialities, with no presupposition other than the previous historic development, which makes this totality of development, i.e. the development of all human powers as such the end in itself, not as measured on a *predetermined yardstick*? Where he does not reproduce himself in one specificity, but produces his totality? Strives not to remain something he has become, but is in the *absolute movement of becoming*?<sup>198</sup>

Such an epoch, this "true realm of freedom," depends upon the wealth of society constantly expanding, permitting over time for us all to work less and less, or for the line between work and leisure to begin to blur. This is why the socialist must defend economic growth, productivism, Prometheism. The long-standing promise of socialism was not that we'd have the same stuff as under capitalism, but shared out equally; rather it was that through equality, we could release the forces of production from the fetters place upon them by capitalism. We would have so much *more stuff* that under capitalism.

In *All that is Solid Melts into Air*, the late American philosopher and socialist Marshall Berman's classic celebration of fizzing, thrusting, transfiguring, luminous, *contradictory* modernity (and paeon to his beloved New York), he describes the modern condition perfectly: "To be modern is to find ourselves in an environment that promises us adventure, power, joy, growth, transformation of ourselves and the world – and, at the same time, that threatens to destroy everything we have, everything we know, everything we are." Berman cheers "human adventure, progress, faith in the future, all the heroic ideals of

the age into which I was born" and condemns the "widespread and often desperate fear of the freedom that modernity opens up for every individual."

It's often forgotten, but Marx and Engels in *The Communist Manifesto* express great admiration for the best of what capitalist dynamism had wrought by the time of their writing in 1848, arguing that capitalism, in comparison to all the "slothful indolence" that went before, is a progressive force in the world. No greater paean to capitalism has yet been written by a capitalist:

It has accomplished wonders far surpassing Egyptian pyramids, Roman aqueducts, and Gothic cathedrals; it has conducted expeditions that put in the shade all former Exoduses of nations and crusades.

The bourgeoisie cannot exist without constantly revolutionizing the instruments of production, and thereby the relations of production, and with them the whole relations of society. Conservation of the old modes of production in unaltered form, was, on the contrary, the first condition of existence for all earlier industrial classes. Constant revolutionizing of production, uninterrupted disturbance of all social conditions, everlasting uncertainty, and agitation distinguish the bourgeois epoch from all earlier ones. All fixed, fast frozen relations, with their train of ancient and venerable prejudices and opinions, are swept away, all new-formed ones become antiquated before they can ossify. All that is solid melts into air, all which is holy is profaned, and man is at last compelled to face with sober senses his real condition of life and his relations with his kind.

...The bourgeoisie, during its rule of scarce one hundred years, has created more massive and more colossal productive forces than have all preceding generations together. Subjection of Nature's forces to man, machinery, application of

chemistry to industry and agriculture, steam-navigation, railways, electric telegraphs, clearing of whole continents for cultivation, canalisation of rivers, whole populations conjured out of the ground – what earlier century had even a presentiment that such productive forces slumbered in the lap of social labour?

But however admiring, Marx and Engels do not blindly celebrate capitalism. The rest of their oeuvre is devoted to exposing its horrors. Philosopher Steven Shaviro outlines the distinction between the attitude of anti-socialist economist Joseph Schumpeter, who popularised the concept of 'creative destruction' so embraced by contemporary captains of finance, and Marx's position on capitalist dynamism. Schumpeter and the right say that because our grandchildren will be better off, we should just "suck it up." Given how dependent the construction of capitalist society has been upon the primitive accumulation of enclosure and clearances of the commons, upon slavery in the United States, upon the genocide of first nations peoples across the America and Australia, upon colonialism in Africa and India, upon the millions ripped apart on assembly lines or suffocated down mineshafts, and upon the hundreds of millions massacred by the bullets, bombs and gas of imperialist war, the gentle phrase 'creative destruction' is rather so formidable a euphemism as to make Orwell's Ministry of Love appear amateurish. Meanwhile, Shaviro notes, Marx is compassionate to the victims of history, the victims of what French philosophers Gilles Deleuze and Félix Guattari describe as 'deterritorialization' – the constant radical uprooting of fixity under capitalism – *while being "relentlessly non-nostalgic."* For Marx, and most socialists after him, there is no going back to the modes of production that went before the current one, which had their own peculiar brutalities of injustice and diabolical scarcity. Instead, the aim must be to "construct a process of advance, but

with a managed deterritorialization."<sup>199</sup>

In other words, the point is to take command of this dynamic yet barbaric machine. To retain the vitality of modernity, indeed to unleash its heretofore stifled energies, while doing away with its villainy.

Shouting back to that passage in the *Grundrisse*, Berman reminds us that "Marx wants a truly infinite pursuit of wealth for everyone: not wealth in money—the limited bourgeois form—but wealth of desires, of experiences, capacities, sensitivities, of transformations and developments."<sup>200</sup> Socialism, for Berman, will bring forth so much more of modernity's upheaval: more skyscrapers, more technology, more radical triumphs in art and science and thought, but, crucially, now consciously controlled and democratically organised in the interest of all humanity, instead of unleashed blindly and in the service of the rich minority as occurs under the rule of the market. (It is this latter aspect that distinguishes the socialist modernist from the panglossian liberal, libertarian or militarist cheerleaders of technology, from the young Italian Futurists in 1914 hurling themselves off to "war, the world's only hygiene" through post-war American social scientists' hagiographies of the rhythms of the modern factory and business-management-jargon-spouting 'futurologists' of the 1970s such as Alvin Toffler to today's Randian anarcho-capitalist geek supremacists of Silicon Valley.)

If we can permit ourselves to dream a little, we can go beyond the need to hush the ambient small-is-beautiful rhetoric and defeat the politics of limits for the sake of the scale of ambition necessary to solve the climate and wider 'biocrisis'. We can also say that a rehabilitation of prometheanism is required because to do otherwise requires the human race to abandon its grandest of dreams, of, for example, eliminating disease and of space exploration. The first represents a radical reduction in suffering—surely the primary task of any socialist—and the second ensures the survival of our species beyond the life of our sun.

Intriguingly, in Russia in the 1880s, there emerged a school of thought, Cosmism, whose key thinkers such as Konstantin Tsiolkovsky, one of the founding fathers of rocketry and later a Soviet rocket scientist, and Nikolai Fyodorov, who developed the first serious scientific proposals for space travel, believed that it was our species' destiny to settle other worlds and colonise the universe. Though Cosmism was an eclectic salmagundi of science, philosophy and Russian Orthodox mysticism, it ultimately inspired the Soviets' visions of space exploration. Prefiguring today's 'transhumanists', Cosmists also believed that one day, science and medicine would deliver radical life extension and effective immortality. In a 2013 essay on the cosmists, Benedict Singleton, an architect and writer on the politics of technology, captured the essence of their philosophy well: "Storm the heavens and conquer death."<sup>201</sup>

Today, we can extend such lofty but *specific* goals to a more generalised *principle of audacity*: that *our species must continue to achieve ever more impressive feats, that we must never stop reaching, never stop progressing*. We, uniquely in nature, have an infinite capacity for ingenuity, what Julian Simon, the libertarian economist and arch-enemy of over-population Cassandra Paul Ehrlich, called the *ultimate resource*. Theoretical physicist David Deutsch explains how we share this phenomenal, open-ended attribute with no other species on Earth:

Using knowledge to cause automated physical transformations is, in itself, not unique to humans. It is the basic method by which all organisms keep themselves alive: every cell is a chemical factory. The difference between humans and other species is in what kind of knowledge they can use (explanatory instead of rule-of-thumb) and in how they create it (conjecture and criticism of ideas, rather than variation and selection of genes). It is precisely those two differences that explain why every other organism can function only in a

certain range of environments that are hospitable to it, while humans transform inhospitable environments like the biosphere into support systems for themselves. And while every other organism is a factory for converting resources of a fixed type into more such organisms, human bodies (including their brains) are factories for transforming anything into anything. They are 'universal constructors'.<sup>202</sup>

Cosmologist Stephen Hawking is often quoted as reminding us how *unremarkable* we are: "The human race is just a chemical scum on a moderate size planet, orbiting round a very average star in the outer suburb of one among a billion galaxies." Such vigorous Copernican displacement of the centrality of man in the universe has its uses. It is important that we abandon the essentially religious mode of thinking that assumes that evolution is goal-oriented, that the universe was created for the benefit of us, and even that the universe exists for a reason. Evolution is purposeless and unguided; the universe just *is*. Nevertheless, Hawking is quite wrong with regard to our unremarkableness, argues his colleague Deutsch: we are instead, "chemical scum that dream of distant quasars." We are very remarkable indeed and unlike anything else we've yet discovered in the universe. Our species is just 200,000 years old; our behavioural modernity 50,000. Our age as a scientific civilisation a mere 400–500 years, and the Industrial Revolution is even younger than the Scientific Revolution. In this very brief time, we have achieved great marvels (as well as monstrous horrors, certainly—but, as Stephen Pinker has shown, over the millennia, steadily fewer and fewer of them). Yet we are still only in our infancy when we compare this span of time to the average lifetime of a species, ten million years. Imagine what wonders a ten-million-year-old scientific civilisation will have achieved! To call for a steady-state economy, to oppose growth, is to foreclose all the rest of the spectacular deeds that would otherwise lie in humanity's future.

Moreover, given how robust life is on Earth, how microbes are able to keep on keepin' on happily in some of the most inhospitable environments, from dessicating deserts to the heavy pressures of deep ocean trenches to well below freezing and well above boiling, I have a strong suspicion that simple life is abundant in the universe. I am betting that sometime in the next few decades, we will discover life beyond Earth, either microbial life on Mars or Europa, Enceladus or Titan, or perhaps glimpse the very particular spectroscopic signature of plants' leaves through the atmosphere of distant exoplanets.<sup>203</sup> But as of now, we have a sample size of just one—Earth. For all the hopes of astrobiologists and the billions of others who dream one day of making contact with extra-terrestrial life, we simply don't know yet. If it turns out that in fact life is *not* an intrinsic property of chemical reactivity; if we consistently find no life anywhere else in the universe; if we find dozens, hundreds, thousands of watery, rocky planets in the habitable 'goldilocks' zone around their suns, but it turns out unhappily that they are all barren, then the most profound consequence of this realisation that we are likely the only life in the universe would be that humanity's self-awareness must also be thought of as the universe—nature—becoming *aware of itself*. There is also the possibility that life is abundant in the universe but *intelligent* life is rare or unique. Either way, such a realisation would make the human species all the more precious a thing to behold and take care of. This preciousness would require that we get our act together in terms of assuring an optimal climate for humans and our continued flourishing. But it would also require that we continue to grow economically so that we can, for example, build and maintain effective near-Earth asteroid deflection systems to protect the Earth; spread throughout the galaxy so as to assure the continued existence of the species in the life-vitiating event of a local supernova; and ultimately advance to a level of technology and understanding of reality that perhaps we can

figure out a way to permit intelligence to escape the heat death of the universe. We have no reason to believe one way or the other right now that we are the only intelligent life in the universe, but we may as well act as if we are until proven otherwise. And even if the universe turns out to be teeming with intelligent life, we should still want the human race to, ahem, live long and prosper.

Looking forward to what else we can achieve is not to treat scientists, doctors and engineers as the priesthood of a new religion of science or, more prosaically, 'techno-utopianism', as many libel the position. Techno-boosterism blindly optimistically assumes that we need not worry about problems because the right innovation will arrive in the nick of time to save us. The mirror argument, of the neo-Luddites and their precautionary principle, demands that we avoid ever moving forward until we are absolutely sure that it is safe. This blindly pessimistic position is a stance that involves its own set of risks.<sup>204</sup> Between techno-utopianism and neo-luddism there is the aforementioned Promethean optimism that recognises that while at each stage of our history, as a result of our solving past problems, new problems are created, we then must work—and often work very hard indeed—to overcome them. As Deutsch argues, problems are *inevitable*. But problems are also *soluble*.

Over the course of human history, we can see that energy throughput—whether via human or animal labour, wood and dung, fossil fuels or ultimately hydroelectric, solar power and nuclear fission (and one day fusion)—can be seen as a rough proxy for a society's wealth. At each stage, we are solving problems thrown up by the solutions to earlier problems. Along the way, more and more human labour is substituted, increasing productivity; driving up living standards; releasing us from drudgery; curing disease, expanding our understanding of life, the universe and everything; and giving us more time to engage in pleasurable activities. In this way, energy can also be seen as a rough proxy for a society's freedom. As a result of our audacity,

our ultimate resource, each of the limits imposed upon us by nature that we have breached—from fire that allowed us to expend less food energy intake on digestion and permitted more energy to be given over to our expanding brain, through electric lighting that allows us to stay up after dark, to the technologies of the bicycle, the washing machine, the pill, abortion, and fertility treatments that have chipped away at patriarchy—has required a growing consumption of energy. All of these natural limits were imposed as arbitrarily as the rules and dictates of any illegitimate government. For this reason, one would think that the most defiant possible demand of anarchism—the political philosophy that challenges not just the power of the state, but all illegitimate authority—would be for the ever greater degrees of freedom delivered by the liberatory power of more energy. Indeed the entirety of the left, not just anarchists, in recognition of this potential for liberation, used to argue not against energy expenditure or technology, but that these advances be shared by everyone, rather than just the elite few.

Energy is freedom. Growth is freedom.

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We now understand of course that all of this advance has to occur on a sustainable basis—or, more precisely, on a basis that does not inadvertently inhibit open-ended human flourishing—but for the most part, we already know what technologies and organisation of the economy are needed to achieve this sustainability. So while in practice this shift is difficult due to vested interests within capitalism, there is nothing in principle that stops us from achieving it.

Progress and growth need not hold back sustainability. But the politics of limits, like capitalism, certainly hold back progress.

The left needs to recapture the vaulting ambition of idealists

like the Cosmists, of the universalist spirit of liberty, equality, democracy and reason of the Radical Enlightenment of Spinoza and Diderot and Paine. We need to embrace once again continent-transforming projects like those of Lenin and Roosevelt. We need to paint on our placards and banners Pankhurst's demand of cornucopian abundance. And, as so many billions around the world did when Neil Armstrong became the first man to step foot on another world, we must learn again how to weep hot tears of pride at the best of what our species can do.

It is time for the left to return, without apology, to the side of progress.

We call ourselves *progressives*, after all, do we not?

## Endnotes

1. We called it the Global Justice Movement, while in France it was *Le mouvement altermondialiste*.
2. Naomi Klein, "Capitalism vs the climate", *The Nation*, 28 November, 2011. <http://www.thenation.com/article/164497/capitalism-vs-climate?page=full>
3. Naomi Klein, *This Changes Everything*, (New York: Simon and Shuster, 2014), Epub location 146.
4. Klein, Epub location 259.
5. Naomi Klein, "Gulf Oil Spill: A hole in the world," *The Guardian*, 19 June 2010 <http://www.theguardian.com/theguardian/2010/jun/19/naomi-klein-gulf-oil-spill>.
6. She develops this idea further in another interview in *In These Times* magazine: "What's clear is that the further we go down this road, and the more this Francis Bacon idea of progress becomes equated with taming and controlling nature, the more these ever-larger and higher-risk technologies are going to take hold." Micah Uetricht, "Naomi Klein: 'We can't dodge this fight' between capitalism and climate change" In *These Times*, 18 September 2014. [http://inthesetimes.com/article/17181/naomi\\_klein\\_we\\_cant\\_dodge\\_this\\_fight\\_between\\_capitalism\\_and\\_climate\\_change](http://inthesetimes.com/article/17181/naomi_klein_we_cant_dodge_this_fight_between_capitalism_and_climate_change)
7. Klein, Epub location 122.
8. The Dark Mountain Project, <http://dark-mountain.net/stories/books/> (7 March, 2015).
9. Ahmed is also the co-director with Dean Puckett of the 2011 documentary *The Crisis of Civilization*: <http://crisisofcivilization.com/>
10. In particular: Naomi Klein, "Capitalism vs the climate", *The Nation*, 28 November, 2011. <http://www.thenation.com/>