**Technocracy, or How to Think About Technology**

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If only the problem was just 'technology'! Unfortunately, the crisis that the world faces, and which Dark Mountain is a reaction to, is not merely an unfortunate and unexpected consequence of industrial technology - it is a result of technocracy, of constructing our entire culture, our civilisation, around the principles of technological control. And, of course, of capitalism, which in general works hand in glove with technocracy. The problem is deeply rooted in our culture; it is hardly possible as the Call for Submissions suggests to transcend 'the often dualistic and divisive frameworks that are set up around the discussion: ….. technocrat versus ‘Luddite’'. Technocracy is pervasive in our society; technocrats are not the occasional person with extreme pro-technology views but the middle-class hegemony. Instead, I will attempt to speak in an authentic Luddite voice, and to talk systematically about the causes of the crisis and ways forward/backward.

I will argue that the crisis is a result not of 'technology' or of social structures (ie capitalism) but of both; the socio-technical totality. Complaining only about technology, as the greens do, or only about capitalism, as the left does, is little more than ideological self-pleasuring. What is needed is an approach that addresses both aspects, the best exponents of which were the Luddites.

**What is technocracy?**

Technocracy is an underused concept, even amongst activists concerned with the politics of technology. Although it was popular in the 1960s to 1980s, it has largely fallen out of use; nowadays, the main arena in which we encounter the word is to describe bureaucrats who are ‘temporarily’ appointed to run governments, sometimes in situations where the political system is in crisis, for example in Greece and Iraq. In many cases, these technocrats are not even scientists or engineers, which points towards an important feature of technocracy: that it is about the use of complex systems of management, based upon expert, although not necessarily scientific, knowledge (which nowadays is bound to involve the use of computers).

The first half of the twentieth century was the only period in which there was an open political Technocracy Movement. In the USA and elsewhere there was a movement of scientists and engineers arguing that democracy and politics were ruining society and what was needed was to put political power in their supposedly apolitical hands. It was such advocacy, and the generally increasing influence of scientists on policy making that led Winston Churchill to famously remark that scientists should be, ‘on tap, not on top.’ But even when scientists and engineers are not in positions of political power or in executive positions in corporations or the military, the influence of technocratic thinking, based upon the enormous prestige of science and technology, is all-pervading in modern societies; executive power is unnecessary.

In speaking of technocracy, I am referring to a number of different things: (i) a set of concepts in which scientists and engineers are trained, which thereby shape the design of technologies and are expressed in them; (ii) the general culture and philosophy of modernity; (iii) a set of large-scale manifestations in society and politics, eg industrialism, bureaucracy; (iv) the hegemony of technical and technocratic discourses over all other ways of thinking.

# The Scientific Revolution and the origins of technocracy

The essence of technocracy is described succinctly by the maxim of its founding father, the 17th century philosopher and statesman, Francis Bacon: Knowledge is Power. It is a system of power over nature and people through technology and technical discourse. Of course, this translates into more power and influence for technologists. In his utopia, *New Atlantis*, Bacon proposed a formal political technocracy, in which society is ruled by a scientific institute.

With the Scientific Revolution of the 17th century, which Bacon developed the philosophical basis for, there developed a new set of ideas about nature and human beings’ place in it and relation to it. Whereas previously nature had been seen as alive, with the Scientific Revolution and the work of the French philosopher Rene Descartes, nature was reconceptualised as a giant clockwork machine – clocks were the most sophisticated machines of the time, and were viewed as instruments of social order. The organic metaphor of nature was condemned as a pagan mystification; instead nature was seen as merely a set of resources to be exploited through technology, without any limits or restraints imposed by seeing the universe as as alive, or the earth as mother. The idea of domination of nature, seen as an unruly female, is very explicit in the writings of Bacon and the founders of the Royal Societyr[[1]](#endnote-1)[[2]](#footnote-1).

The transition marked by the Scientific Revolution is just as significant as the much more often remarked-upon change from feudalism to capitalism. As the greens rediscovered in the mid-20th century, the crucial relationship that provides the material base of any society is that between humans and nature. That material relationship is articulated through technology. What happened in the 17th century with the emergence of technocracy was the creation of a relationship qualitatively different to any earlier civilisation. It is not civilisation itself which is the problem, as the DH manifesto claims. Many cultures and civilisations have survived for millenia without threatening ecological sustainability, because they all abided by cultural and religious restraints upon the technological domination of nature. Even in 15th and 16th century Europe passionate debates raged about the justifiability of mining, which was seen by many as the rape of Mother Earth. The crucial shift that occurred in 17th century England and France was the emergence of a new culture and philosophy emerged in which the control of nature *without any restraint* became identified as progress, and gradually became the material and economic basis of society.

At that point that model performed a very important political function. At that time ecological changes, some resulting from the nascent capitalist system, were producing a fear of chaos in nature which in turn led to the rise of millennial Christian movements claiming that the apocalypse was near. The idea of the universe as predictable and rationally controllable, according to a series of fixed laws, served as reassurance amidst the social and political turmoil of the times, which included fundamental challenges to religious conceptual structures, and to the whole system of order in society based upon rule by a divinely appointed monarch, a general feeling of 'the world turned upside down'. The new worldview legitimated the authority of Man, seen as separate from nature, to control and manipulate it, to thereby create order, and it has continued to perform this function through the upheavals of the last four centuries.

The key concepts of technocracy are technical: materialism/mechanistic understanding of nature, efficiency, uniformity, rationalisation, automatic control, etc. Within this framework, the efficient and smoothly-running machine was elevated to a cultural ideal, and the result is a machine-centred not a human-centred society. In technocratic society, everything is conceptualised as a machine and then supposed to work like a machine, from the largest-scale elements of state and market economy, down to the human body. The working out of this plan for order, the gradual elimination of disorder, difference, diversity, anomaly in all aspects of human life and society, was described by 20th century sociologists as ‘rationalisation’.

Technocracy is about power through knowledge: its great strength is that it sticks to what can be proven to work, over and over again, rather than relying upon systems of unprovable philosophical and religious dogmas that had dominated the Middle Ages. The motto of the transition period between feudalism and industrial capitalism might have been, 'Let's Get Practical'. It works through the control of physical reality, the creation of an ordered material environment (eg. industrial agriculture, urban planning), and by creating the conditions of what is possible and what makes sense. The ideas of the Scientific Revolution – metapysical and epistemological materialism, objectivity, evidence rather than dogma - became codified by the French and English philosophers of the late 17th and 18th century Enlightenment as the standards of rationality of modernity, eclipsing and denigrating other ways of understanding and systems of knowledge/wisdom. Thus technocratic thinking became, together with capitalism, the central element of the culture of Western modernity. The bourgeois achieves his/her position in technocratic capitalist society by mastery of technology or, more generally, of technique (systems of rules and technical knowledge, such as medicine and law, or of governance, such as bureaucracy and management), and as the ideology of the bourgeoisie, technocracy is the pervasive and dominant culture of modernity.

Technocracy gives meaning and purpose to modern life through its identification of the ongoing process of perfection of control of nature as both progress and freedom – freedom from the constraints imposed by nature, such as death. The historian of technology, David Noble in his *The Religion of Technology* has traced the development, beginning in the 10th century, of a monastic theological movement aiming, through the improvement of technological control over nature to achieve nothing less than the restoration of Man to his state of grace and dominion over nature, prior to The Fall. Noble shows how this Christian transcendentalism has continued to echo through the writings of scientists and engineers up to the present, for example in the space programme and the idea of colonisation of space. The narrative of progress through technology is indeed the secular religion of our society, one subscribed to by atheistic liberals and the mainstream of the left (although there have been many trenchant critics of technocracy even in the Marxist left, notably the Frankfurt School sociologists).

The third main elements of technocracy is the scientific perfection of organisation. Earlier, even ancient societies were also capable of vast feats of organisation, what the writer Lewis Mumford called ‘megamachines’, such as vast armies and feats of construction like the pyramids. But technocracy has gone further than earlier societies in applying scientific method to organisation: the industrial factory system which transformed the material realities of human life over the past 200 years is both a feat of technology and organisation. In this context, it is important to understand the computer as the current highest perfection of technocracy. The early 19th century co-inventor (together with Ada Lovelace) of the concept of the computer, Charles Babbage was also a fervent advocate of industrialism and the factory system. His dream, later realised in Frederick Taylor's system of Scientific Management, was to turn the factory into a single streamlined machine and to overcome the many inefficiencies, bottlenecks, human factors, etc. that plagued 19th century factories. Babbage was clear that his 'Difference Engine' was the necessary tool for this project, a machine for processing and managing information in order to optimise the system's functioning. As his colleague Andrew Ure famously noted, the machine exemplified how ‘This invention …. confirms the great doctrine already propounded, that when capital enlists science in her service, the refractory hand of labour will always be taught docility.’ When Taylor finally realised Babbage's system in the Fordist production line, the result transformed society for most of the 20th century, setting in stone the class distinctions between technically trained managers and de-skilled factory workers and creating the truly industrial society. By the 1950s, spurred on the needs for massive information processing need in war, and large-scale economic and corporate management, mathematicians developed cybernetics (the science of system control), whilst the invention of the silicon chip made the computer a practical tool for state and corporate bureaucracy. But by this point, the rigidity and boredom of the Fordist social system, such as 9 to 5 working and standardised mass consumption and leisure, the sense of literally being a little cog in a vast production and social machine, had become a major factor in the revolt of the 1960s, with its demands for greater freedom and diversity of lifestyles. The personal computer gradually provided the solution to this problem, enabling apparently more flexible working patterns and greater scope for individual creativity and skill, as the hierarchical Fordist pattern gave way to the post-Fordist 'Network Society'. In the background, however bigger computers provided the basis for ever-greater bureaucratic social management and state/corporate surveillance, as Big Brother gave way to Big Data.

The point of this description of the evolution of the role of the computer in technocratic capitalism is to help overcome the liberal naivete of the debate about information technology. The computer is technocracy made flesh; yes we can do many useful things with them and at present it is hard to avoid them, but we need to understand where they come from and whose interests they represent. At the deepest levels they are instruments of control and they shape our minds and actions and integrate them into the world of technocracy and capitalism - to put it crudely, they turn their users into little bourgeoises. To think of them as just tools that we can use 'for good or bad' misses the way that they use us and shape us to fit the technocracy. They are also, of course, products of industry and vast infrastructure, with all the damaging environmental and resource-war induction that creates.

A description of technocracy would be incomplete without mention of biologically-based social control. Obvious examples include eugenics, which aims to eliminate ‘burdens’ on the efficient and ordered functioning of society, such as disabled people and disruptive elements, such as criminals and the mentally ill, whilst pharmaceuticals provide more refined methods to restore productive functioning. Large scale interventions in reproduction such as population control programmes, which may or may not be coercive, provide demographic control, which is vital for managing any society. More subtle examples in the field of psychology include behaviourism, which in the mid 20th century provided hope of controlling human behaviour, through straightforward stimuli, rewards and punishments and IQ testing, which was introduced partly for eugenic purposes, but also in order to provide a simple measurement, by which people could be fitted efficiently into large scale hierarchical systems – initially the US army, but increasingly into structured education systems which led to careers in corporations, the professions and state administrative systems.

An iconic example from the early to mid-20th century, which illustrates the creation of order through disciplining and control of the human body was the Efficiency Movement's practice of mass physical exercising, in which large numbers of people, lined up in a precise grid, performed ‘physical jerks’ in unison, in order to produce ‘healthy minds in healthy bodies’. A current, more high-tech example, illustrating the same tendency is the ‘Quantitative Self Movement’, in which, with the aim of maximising their physical performance, people continuously measure the physical parameters of their bodies, using various sensors and measuring devices. In most cases, technocracy does not rely on forcing you to do what it wants by threatening to send soldiers to kill you. It is a measure of the sophistication and success of this system of social control that, within it, it is possible to allow free speech and democracy, rather than rigidly clamping down upon political dissidents as traditional societies have done.

The overall result of technocracy is that we live in a society in which power is wielded through decisions about introduction of new technologies and the directions of basic scientific research, decisions which have massive effects upon the overall economic and social development of society but remain in the hands of scientific experts and bureaucrats. In the heyday of the technocracy movement a sign over the entrance to the 1933 Chicago World Fair that perfectly expressed the technocratic attitude: ‘Science Discovers, Technology Executes, Man Conforms’. Thus we are subjected to a series of technological and economic revolutions about which there has been very little or no public debate. Not surprisingly, popular movements of resistance to the imposition of new technologies, such as the anti-GM food movement, arise in response. Such movements are forced to question the technocratic ideology of neutrality and depoliticisation that serves as a cloak for the way corporations, the military and the state project their power through technology.

**Technical defects of technocracy**

A major problem with the technocratic manipulation of nature as it has been practised for the last 400 years has been the lack of a sophisticated scientific understanding of nature to underpin it, for most of that period. Technologists and engineers have relied upon crude mechanistic models and upon reductionism: the idea that natural systems can be completely understood by studying the properties and interactions of their constituent parts. In biology, this has taken the form of crude genetic determinism which has led to socio-biology and evolutionary psychology. The overall result of such simplistic models, especially when combined with the capitalist drive to exploit nature for profit has been a kind of domineering brutality with respect to nature, and a refusal to understand that natural evolution has produced systems that deserve respect and gentle handling. It was not until the mid-20th century that efforts to develop a more holistic and more scientifically-sophisticated approach resulted in the ecological/green movement.

A major part of the problems caused by large-scale manipulation of nature is the overconfidence of technologists and engineers. Boosted by past successes, they pursue their ambitions to control nature at greater and greater scale. Perhaps the most dangerous current example of this is the nuclear power/nuclear weapons complex, a global system using the most dangerous and toxic materials known to humanity, and capable of rendering the planet little more than a radioactive desert. Although it seems so to engineers, how can it be reasonable to use materials which will not be safe for 250,000 years and for which there is no adequate solution for their storage? Like geoengineering (the idea of engineering the global climate system to counter climate change), nuclear power raises serious questions about the rationality of that reason which engineers and scientists say guide their actions.

# The technofix mentality

A major problem with technocracy is the way that technocrats conceive all problems as being amenable to and best dealt with through technical solutions. Because their focus is on technical issues, they tend to be like the proverbial person whose only tool is a hammer: every problem looks to them like a nail. In reality, almost all social and environmental problems are due to a combination of social and technical issues, mostly resulting from the distortion of social, economic and material arrangements in industrial capitalist society. Frustrated by these complexities and by the need to address them by making political commitments, scientists perpetually try to cut the Gordian knot with technical solutions.

A general characteristic of these technofixes is a supposed depoliticisation, and a narrative of benevolence, in which the scientists involved genuinely believe. But because of the technocratic misframing of the problem, these solutions generally create as many or greater problems than that which they were intended to solve. Because they occur within a capitalist social context, they serve the interests of corporations by giving them new products (drugs, seeds, gadgets etc) to sell. In fact, there could be nothing more political than the supposed depoliticisation of the technofix approach.

A classic example of the problems caused by the technofix mentality is the Green Revolution of the 1960s, in which scientists at the newly-established International Agricultural Research Centres perceived that traditional agricultural practices in India and other Asian countries were inefficient, producing poor crop yields that they believed were the cause of famine crises, which were leading to social unrest and political radicalisation. (In reality the causes of unrest and hunger were social – poverty rather than lack of available food). The funders of the research centres in Washington were at that time concerned about the threatening spread of communism in Asia, and commissioned the scientists to fix the problem by producing new high yielding varieties of crops. This was primarily achieved by breeding dwarf varieties in which the yield of seed was higher because the plant put less energy into growth of the stem. These new varieties of wheat and rice were also chosen to respond well to chemical fertilisers and to need increased irrigation. Thus, the scientists produced a technical fix for a problem that was primarily caused by unjust economic and political systems, especially the lack of access to land of huge peasant populations in those countries. The consequence of this technofix, which certainly succeeded in raising overall grain production, were multiple environmental and social problems: lowering of water tables and pesticide/fertiliser pollution leading to cancer epidemics; shortages of straw; indebtedness (due to the need to purchase expensive seeds, fertilisers, and machinery, etc), leading to suicide epidemics and further concentration of land in the hands of larger farmers; exodus of impoverished peasants to urban shanty towns, leading, in the Punjab, to the rise of Sikh nationalism and terrorism. In her book, Vandana Shiva aptly describes all this as the ‘Violence of the Green Revolution’ - it is the violence done to complex societies by the imposition of misconceived and simplistic technical 'solutions'. Of course, this story is a classic example of the problems of the Western technology-led model of third world development, and is repeated today in the argument that GM crops are needed to feed the world. It is the story of industrial capitalism throughout the world: forcible exile from the land, wage slavery, destruction of community and dependence on industrial technology for the basics of life, until you become, as consumer, part of the Earth's problem.

Other current technofixes include the development of biofuels to combat fossil fuel dependency and, of course, geoengineering to directly remedy the problems of climate change rather than deal with the deep economic and social problems that have produced this. It is unfortunately the case that most elements of the green movement share the technofix mentality, and that this springs directly from its underlying philosophy. In essence, green/ecological thinking arose in the mid-20th-century as a critique of the crude reductionism of industrial capitalism: its attempts to simply suppress nature, e.g. with pesticides; its lack of understanding of ecosystems; its willingness to write off pollution and other environmental destruction as 'externalities'. The green critique of technocracy is technical, not political - 'we have a better scientific theory (ecology)'. So mainstream environmentalism, because it tends to focus on the effects of industrialism rather than look at the social and political causes of environmental problems, and lacks an adequate social politics has pursued the supposedly apolitical policy of 'neither left nor right but straight ahead'.

What the green movement has failed to learn from the story of the Green Revolution and many other examples, is the lesson learnt (for a while) by the appropriate technology movement: that the first criteria of appropriateness are social, cultural and political, not technical. If you want to introduce new technology into a society without doing huge damage, you must first find a technology that is culturally and socially appropriate, one that does not polarise wealth and destroy subsistence. With its focus on better, 'cleaner' technology, rather than better society, the mainstream green movement has fallen into the technofix trap of thinking that complex socio-technical problems can be solved technically. It has, for example supported biofuels, leading to corporate land grabs in many countries and industrial windfarms. These techno-fixes are always well-meaning, but they fall into the same 'progress through technology' mythology that has characterised mainstream technocracy, and end up benefiting those who control technology.

**The current crisis**

The current crisis is the logical result of both the capitalist imperative of growth and the technocratic drive for total control over nature. It is the bursting of the 200 year-old techno-social industrial capitalist bubble. In the face of this crisis, the system is responding in the way it always does - with technologies designed to open new opportunities for commodification and profit and hopeful technofixes for the problem. Technologies that are developed within the overall culture of technocracy express that culture. This is particularly clear in the current wave of revolutionary technologies: nanotechnology, synthetic biology, geoengineering, AI/Robotics, human genetic engineering.

In synthetic biology and geoengineering, we see the drive toward total control of nature at the smallest and largest scales. Synthetic biology is genetic engineering 2.0 - the synthesis of entire genomes, aiming to create new species and mould life to the demands of industrial systems; the eventual goal is the creation of entirely synthetic lifeforms, thereby escaping from the constraints of nature. Austen Heinz, CEO of synthetic biology company, Cambrian Genomics, recently spoke for many of his colleagues: “We want to make everything that is alive on the planet. Everything that is alive is not optimal. It can be made better. We want to make totally new organisms that have never existed and replace every existing organism with a better one. It just seems obvious that eventually every human will be designed on a computer.” In geoengineering we see the equally megalomaniac and entirely unrealistic aim of predictably manipulating the entire global climate system, with the aim of allowing capitalist business as usual - the ultimate techno-fix for the problems created by industrial capitalism, letting the people who burnt down the forest tell us how to replant it.

In the AI/Robotics, cyborgs and human genetic engineering we see another aspect of technocracy: the Darwinist fundamentalism that the system with the highest performance must win. The cultural shift that took place at the end of the mediaeval period, and underlies both the capitalist and technocratic philosophies, was that nothing shall be allowed to stand in the way of the most powerful entity. Traditional ideas which cannot prove themselves by creating palpable material facts, such as religion and the natural superiority of the aristocracy must be swept away. In economics this is the doctrine of unrestricted market competition to establish the most efficient producer. In technocratic philosophy, the worship of the machine is about the fact that machines can work faster, more efficiently and more reliably than human beings. The apostle of technocratic capitalism, Frederick Taylor, (who developed the Fordist system of mechanisation in which factory work was reduced to a few simple motions to operate machines) put it very simply when he said: "In the past the man was first. In the future the system will be first". To systems engineers, human beings are a source of error and inefficiency that should be eliminated wherever possible, and of course this fits perfectly with their bosses' desire to reduce labour costs. In the 21st century digital technology has provided a radical new importance to the drive for automation which is threatening to massively disrupt economies and create social turmoil as jobs vanish. Machine 'intelligence' is reaching the point where it can replace many human functions. Thus, it is no surprise that there have arisen 'transhumanist' movements (and a fashionable academic 'post-humanism'), which view the attachment of human beings to their continued existence and current biological form as mere arbitrary sentimentality and irrelevant traditionalism. First we will become cyborgs in which our weak muscles and soft parts will be made stronger and invulnerable, and finally we will cease to exist in physical form altogether, becoming creatures of pure spirit, running on computers. No doubt some environmentalists will argue that this is more eco-friendly, while 'deep greens' will view the passing of humanity with equanimity. Whether these speculations, aired in a hundred novels and Hollywood films are actually feasible or will come to pass is not really the point: the writers and filmmakers have correctly understood the logic of technocracy, to which the existence of human beings is a matter of no concern in comparison to the importance of realising a more efficient system. The Final Solution to the Jewish Question will become the Final Solution to the Human Question. It is perhaps not surprising that faced with these tendencies in technocratic technologies, even the futurists, whose job it is to extol the wonders of technology and the utopias it will create have become nervous, setting up 'institutes for the study of existential risk to humanity' (e.g. at Cambridge University).

**What would Ned Ludd do?**

If it is the total techno-social system, the combination of technocracy and capitalism that has produced the current crisis, the imminent bursting of the 250-year bubble of industrial capitalism, it is vital that solutions address both aspects. If we fail to develop a theory and practice that it is both anti-capitalist and anti-technocratic, we will remain enmeshed in either technocracy or capitalism. I have indicated above how both the mainstream of left and green politics, in failing to address the technocratic philosophies underlying their own thinking, have failed to come to terms with the crisis.

Where are we to look for examples to emulate? In the British story, the main example, notorious for their fight against technocracy were the Luddites. The Luddites fought their incorporation into the machine of industrial capitalism, by breaking the machines that were the proximate causes of their oppression. But they were perfectly aware that they were fighting free-market capitalism as well: General Ludd’s Triumph, the song of the Notts Luddites, condemns both the cutting of wages and the imposition of machines. Just as we need to overcome the history written by the victors, that the Luddites were anti-technology and anti-progress primitivists, the uncritical appropriation of that narrative by greens also needs to be corrected. The Luddites were not environmentalists – they were engaged in class struggle, but with a crucial difference from later socialist movements: they understood that the machinery was not 'neutral', but was in fact the very principle of their oppression. Luddism is not an anti-technology movement but an anti-technocracy movement.

What the Luddites were fighting for can be summed up in their slogan that they would 'put down machinery hurtful to Commonality'. The word Commonality is rich in meanings. Firstly, it can simply mean the common people, (who were in the process of being transformed into the industrial working class) as opposed to what were charmingly referred to at the time as ‘the quality’ i.e. the gentry and the new bourgeoisie. That meaning also carries with it a sense of the ordinary good enoughness of the common people, in contrast to the capitalist ethic of constant improvement and upgrading. A second meaning of the word refers to the existence of real community and solidarity and the notion of a common good which was more important than individual gain, and which was being assaulted by the new individualistic competitive free-market society that went with the Industrial Revolution. This meaning is similar to Ivan Illich’s concept of 'convivial society’. A third meaning refers specifically to the system of access to common land for the grazing of animals, foraging for food and firewood that was being destroyed at the time by Parliamentary enclosures (in 1812 parliament passed 133 enclosure bills). Contrary to Garrett Hardin’s “Tragedy Of The Commons”, the notion of commonality and common good included a clear understanding of environmental conservation that prevented the degradation of the ecosystems of common land. Luddite textile workers sometimes still gained part of their subsistence from the commons, or were within living memory of it, and they were resisting the degradation of their own lives involved in becoming proletarian wage slaves, dependent purely upon employment and wages for subsistence.

The set of values embodied in the Luddite notion of Commonality are social values, the values of the communitarian rural society that existed before the onset of industrial capitalism. They were later taken up by socialists in their struggle against capitalist exploitation. These values also express an opposition to the spirit of the techno-capitalist system of domination of both people and nature, that tends to be embodied in machines. So the true legacy of the Luddites for green movements is a reminder that we can only protect the wild by fighting for a society that is not based upon class oppression and exploitation. Put simply, we will not save the planet without the help of the common/working class people and working with them means fighting the socio-economic system that degrades and exploits them and prevents them from conserving nature.

For our present purposes, the lesson is that the system of commoning, which both preserved human subsistence and ecological integrity is the techno-social solution to the techno-social problem of industrial capitalism. The mode of life and interaction with nature that has sustained the survival over millennia of the uncivilised people (who the DM manifesto doesn't actually mention), is not 'wildness' but commoning - primitive communism and the stewardship of nature, in the interests of both humans and nature. The point is that both uncivilised and uncivilised social relations can be sustainably combined with a non-dominative relationship to nature embodied in appropriate technologies .

People will fight for that, and still do today, everywhere where commoning is under assault from 'development', and unlike the Greens in industrialised countries, they don't see any distinction between fighting for social justice and protecting nature: they are one and the same struggle.

Thus the fundamental mistake of the mainstream environmental movement and even of its 'radical elements' like DM, springs from its underlying technocratic thinking; conceive the problem in technical terms (too many people, bad technologies) that erase any reference to social dynamics such as exploitation and inequality, and the solution becomes another technofix - less (or no) people and 'clean technology’. The lesson from the Luddites is to think and act techno-socially and to fight for both people and nature. I find it depressing that the DM manifesto can talk about the 21st century crisis without mentioning the main source of hope from human beings for the last 700 years - the power of human beings to fight together for justice, community and nature and against The Machine of technocratic capitalism. How are we to win without harnessing that power? Perhaps the worst sentence in the Manifesto is “And it is not political writing, with which the world is already flooded, for politics is a human confection, complicit in ecocide and decaying from within”. Only middle-class Englishmen could have that disdain for the politics of the rough common human herd.

No. The only route to saving the planet actually lies in fighting for social justice as well as for nature, in getting your hands dirty with politics and fighting side-by-side with the common people. The Manifesto says it want to reclaim what is truly human: well, man is a political animal. As Ivan Illich said, “The transition to socialism cannot be effected without an inversion of our present institutions and the substitution of convivial for industrial tools. At the same time, the retooling of society will remain a pious dream unless the ideals of socialist justice prevail.” You might find that, despite working class people's resentment at your privilege, and your fear of that resentment, you will be welcomed with open arms and you will find the community and wholeness that you crave. Will you take that risk to achieve your goal? Or is it more comfortable to sit behind your computer writing 'uncivilised' poetry? A recent post on the DM blog mentioned Derrick Jensen's satire on those who will happily go quietly into the apocalypse, as long as they can feel good about themselves by buying eco-lightbulbs. Might not the DM project be much the same thing – we’ll go happily into the apocalypse while feeling good by writing poems about the joys of wildness and declaring that we deserve what's coming to us? (I'll admit that the DM attitude is a little more honest - it at least openly embraces apocalypse.) Do you want to actually solve the problem? As the manifesto says, it is hard to believe nowadays that a king would quail at the words of a poet; we live in an era when the main sources of power are not rhetoric, but technology and money. In the face of that, the only weapon we really have is people-power, not misanthropy. The words of the American labour activist, Joe Hill, framed and murdered for his trade unionism, are a fitting rejoinder to the DM stance: "Don't mourn me: organise!”

**Conclusion: how to think about technology**

So, the problem is not technology, but technocracy. It may be that in theory technology can be designed and selected to serve human beings and protect nature or to be their master – but under a regime which makes unrestrained control of nature the central principle and religion of society, you will get almost entirely the latter. The reason we are in such trouble at the start of the 21st century is that is technocracy has become the consensus philosophy of our society. The domination of nature without restraint has achieved in more by way of global destruction of nature in the last 250 years of industrial capitalism than the previous 8-10,000 years of civilisation or the earlier 200,000 years of human existence.

Even if you don't want to more than think and write about it, you will not be able to think properly unless you overcome the key tenets of technocratic ideology – that technology is politically neutral and can be discussed without reference to social and political power interests, (eg through abstract philosophical concepts such as techné). Once we have overcome technocracy we might be able to revisit the philosophical questions, but until then attempts to think in that way are not merely futile but positively misleading and unhelpful. We need to think and act as politically committed and engaged citizens, as the Luddites did.

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1. [↑](#endnote-ref-1)
2. Carolyn Merchant’s ground breaking account of the Scientific Revolution, *The Death of Nature* (1980) provides many examples of the way that 17th century scientists saw nature as the unruly female in need of discipline. [↑](#footnote-ref-1)