**Stiegler’s Ecological Thought:**

**The Politics of Knowledge in the Anthropocene**

**I**

**The Globalisation of Plato’s Cave**

My objective in this article is to consider the implications of Bernard Stiegler’s theory of the neganthropocene for the politics of knowledge and education. In his *The Neganthropocene* (2018) Stiegler is primarily concerned with the environmental unsustainability of the anthropocene which he suggests has become completely divorced from ecological systems that sustain life. On the other side of this problem, he focuses on the issue of moving beyond this situation towards a new period he calls the neganthropocene, where human economic systems would recognise and operate in sympathy with nature. Given this concern, I seek to frame the problem of the anthropocene and the possibility of the neganthropocene in terms of a politics of knowledge and education. Building upon Stiegler’s theory of knowledge from his *States of Shock* (2018), where he opposes a vision of experience based praxis to a model of industrial information processing, I seek to show how an idea of education based upon abstraction and information in the service of economic productivity will not support the move beyond the anthropocene towards the neganthropocene, but only exacerbate the problem of the automatic society where algorithmic power rules. Against this narrow view of education concerned with economic productivity and growth, I argue that an alternative approach to education would be required to escape the unsustainable anthropocene into the sustainable neganthropocene and that this would need to revolve around a politics of embodied experience in the world sensitive to the limits of organic life.

Although Stiegler is never explicit about the critical role of embodiment in the move from the anthropocene to the neganthropocene, I think that this is implicit in his theory of pharmakon which explains (1) the emergence of humanity as a technical species, (2) its subsequent fall into abstraction and technological determinism, and (3) its possible emergence from its estrangement from technology. In attempting to flesh out the emergence of humanity from its estrangement in the anthropocene, which we might also call ‘the mechanocene’ in order to emphasise its technological dimension, I suggest that the body plays a central, but under-theorised role in Stiegler’s philosophy. In making this point, I argue that a focus upon embodiment and experience should become central to a politics of knowledge and education concerned to respond to the Cartesian violence of the anthropocene and found the new sustainable world Stiegler calls the neganthropocene. In order to explain this thesis, the first part of the article focuses upon the politics of knowledge, and centrally the tension between abstraction and experience, played out in perhaps the most famous story of educational becoming in western thought, Plato’s myth of the cave. In the second part of the article, I extend Plato’s debate through a discussion of Stiegler’s history of the anthropocene, which can be seen to be the result of a particular way of knowing the world in abstraction, and his related theory of the neganthropocene that suggests a need to respond to this situation through a new politics of knowledge. In the concluding part of the article I seek to flesh out the idea of the neganthropocene and suggest a politics of knowledge and education centred upon experience and embodiment that emphasises the relationality of thought, body, and world.

Stiegler sets out his theory of the neganthropocene in his recent books, *Automatic Society* (2016) and *The* *Neganthropocene* (2018), in order to respond to what he writes about in terms of the entropic conditions of the hyper-industrial society of the anthropocene. In this respect Stiegler (1998, 2008, 2010b) extends his earlier work on hominisation, technics, technology, and hyper-industrialisation to take in the concept of the anthropocene and related environmental, ecological concerns. His thesis here, which he first articulates across his books on *Disbelief and Discredit* (2011, 2012, 2014b) through the application of psychoanalytic theory to social conditions, is that the late capitalism of the hyper-industrial society results in the rise of a kind of post-structural nihilism. In his *Disbelief and Discredit* (2011, 2012, 2014b) books, Stiegler develops a theory of nihilism based upon a reading of Freudian-Lacanian psychoanalysis. According to this thesis nihilism occurs when desire, which structures action through the subjection of the individual to the symbolic systems that create a meaningful world, collapses into drive, which is beyond structure and operates on the basis of automatic, instinctual, and meaningless behaviour. Following Freud and Lacan, Stiegler regards this as a psychological and sociological problem, because it leads to a process of desubjectivization and individualisation beyond the (oedipal) rules and regulations that structure life.

However, in his most recent books under consideration in this article - *Automatic Society* (2016) and *The Neganthropocene* (2018) – he extends this thesis to a broader planetary, environmental, and ecological frame. In this context, the nihilism of the hyper-industrial society is no longer simply a psychological and sociological problem, but also an issue that starts to threaten the integrity of the biosphere itself. This is the case because the natural world is unable to cope with the drive of the globalised socio-economic system that operates on the basis uncontrollable individuals who have no sense of the need to defer their wants (desire) into the future, but are instead possessed by the drive to have everything now. It is this short-circuit of desire into drive that Stiegler suggests has created the global consumer society, the unsustainable anthropocene, and the need to pull back from this situation through the creation of what he calls the neganthropocene. Thus the purpose of the neganthropocene is to oppose the endlessly destructive humanisation of the planet, which Stiegler suggests has reached its limit in the global consumer society, and reconnect the human animal to the earth in the name of a more sustainable way of living.

In this way Stiegler suggests that the nihilism of late capitalism has become more than an issue of social cohesion, but also a problem of survival and extinction. This is the case because the global economic system, which is entirely bound up with the exploitation of the biosphere, has become environmentally unsustainable and is in the process of collapsing back towards an entropic state represented by the end of society and beyond this, the annihilation of life itself. Here, Stiegler adopts the language of thermodynamics in order to theorise the cold death of the hyper-industrial energy system in an entropic state brought about by its complete closure in the anthropocene (total humanisation). In this situation the complete closure of the human world and its absolute colonisation of nature is a problem because there is nowhere else to draw energy from with the result that Stiegler sees the emergence of entropic incoherence and system collapse. This is precisely why he imagines the need for a reversal of entropy towards negentropy or the transition from cold disorder back into some form of warm order. This shift would in turn require the transformation of the (human) anthropocene into what he calls the (post- / pre-human) neganthropocene in order to re-scale the human animal within planetary limits and sustain environmental conditions suitable for the reproduction of life on earth.

In this respect the central function of the neganthropocene would be to subject the unleashed drives of the hyper-industrial individual and hyper-industrial society to a structured, symbolic system able to contain their excesses and ensure they remain bound within ecologically sustainable limits. Here, I think Stiegler argues for a kind of natural law / contract between humans and planet set up to remind human beings of their participation in the natural world. This contract would require the creation of a new environmentally sensitive model of thinking to oppose the contemporary unsustainable, growth based model of late capitalist thought that transforms everything into an abstraction that can be commodified and bought and sold on the open market. Thus my objective in this article is to think through the politics of knowledge and education that could make this utopian transformation from an ecologically unsustainable to a sustainable society possible. My central question is therefore concerned with what a politics of knowledge of the neganthropocene would look like and how this new way of knowing the world would work in the context of a late capitalist education system that has itself been based upon teaching abstract information and skills in order to support (unsustainable) economic growth.

In order to respond to the above question I want to start with reference to Plato’s classic myth of the cave. The reason I want to start here is because I want to address the problem of knowledge and systemic stupidity in the hyper-industrial society that Stiegler (2014a) sets out in his work. Starting with perhaps *the* classic metaphorical exploration of the cultural politics of knowledge and stupidity in western thought will enable me to foreground the importance of education in Stiegler’s theory of the neganthropocene, where the essential problem is in a sense the human (in)ability to think otherwise, to think outside of the logic of the capitalist anthropocene, and imagine some other way of living with nature that does not involve abstraction and commodification. Stiegler makes passing reference to Plato’s myth in *The Neganthropocene* (2018)and, I would argue, develops a pharmacological theory of caves over the course of the book. On the one hand, Plato’s ancient cave represents a kind of epistemological prison. On the other hand, the original Neolithic cave paintings at Lascaux symbolise the origins of what Stiegler calls arche-cinema, which we might think about in terms of human imagination and our capacity for utopian projection into a future that is more than simply the endless repetition of the present. Working with these two alternatives, I want to suggest that what we might call a pharmacology of the cave represents a kind of subterranean unconscious running through *The Neganthropocene* that we can excavate in order to capture the contemporary politics of knowledge and education comprising on the one hand (1) a space of abstract information and fascination and on the other hand (2) a world of experience, expression, and the imagination. As such, in what follows I want to explore Plato’s cave in order to capture Stiegler’s epistemological problematic through an environmental metaphor (the cave).

Recall Plato’s original speleology (from the Greek, *spelaion* or cave). In his classic story of truth seeking and educational becoming from the *Republic* (1991), Plato captures the problem of moving from ignorance towards knowledge by imagining a group of people living deep underground, transfixed by shadows cast upon the walls of their cave by the fire that sustains their lives. While the majority of the cave people have no idea they are living underground and spend their lives mistaking shadows for reality, Plato explains the fate of the lonely individual who somehow escapes the subterranean world for the bright sunlight of reality and truth.

What, then, is the fate of Plato’s original caver? Blinded by the light of reality, the escapee slowly comes to terms with the real world. Their eyes adjust. At this point the escapee starts to think about how to communicate their discovery to the rest of the cave people. This is, of course, an impossible task. How can the cave people come to terms with or accept the madness of the idea of the surface from the perspective of a life lived underground? They have no idea that they have spent their lives in a subterranean world. In light of the impossibility or revealing this to them from inside the cave, Plato’s suggestion is that since it is not possible for the person who has experienced reality to *directly* communicate this truth to those who remain captured by shadows, on the basis that the shadow people must experience the voyage towards the surface and the light of day for themselves, the best the escapee who has seen the light will ever be able to do is try to encourage those in love with shadows to find their own path out of the subterranean world. Thus Plato’s point is to say that it is pointless to try to teach and educate those who live inside a world of shadows by simply exposing them to ever more abstract information, because this will only confuse them and lead to a radical disconnect between their corporeal experience (the dancing shadows they see before them) and the surface dweller’s presentation of reality, which would simply look like abstract madness, theoretical fantasy, or idle philosophical speculation from their point of view. Under these conditions the problem of ever more information is clear. This produces disorientation in a state of abstraction relative to the experience of the body in the world.

Now in the face of the threat of the surface, the cave people are likely to become extremely obstinate, insisting upon the fantastical nature of the real world with the increasing desperation of those who need to save the reality of their world (the reality of the shadows upon the walls), in order to protect themselves from the horror of the unthinkable: the existential shock that their world had never been real and that they *must* step outside. The problem of the cave is, therefore, a largely irresolvable one from the point of the view of the authoritarian teacher who insists upon leading passive students who simply do what they’re told. There is no way to lead the cave people out of their underground prison, unless they themselves are prepared to take a risk on the escapee’s speleological thesis, and make the perilous journey towards the surface on their own. The key point here is that bodily experience trumps abstract information every time in Plato’s story. True education must be based upon knowledge (rather than information) of the embodied mind situated within cultural systems and what Marx (1988) called praxis where theoretical knowledge meets embodied practice in order to evade the problem Stiegler talks about in terms of proletarianisation or the transformation of the human into a kind of machine that receives input to produce output.

According to Stiegler (see 2010a, 2011, 2012, 2014a), praxis relies on the long-term communication of ‘cultural scaffolding’ in order to provide the opportunity for self-discovery and the realisation of wider social and economic transformation. The purpose of this ‘cultural scaffolding’ is to situate the subject within cultural history and provide them with the intellectual tools to question their present reality and the know how to transform their world. In this way Stiegler advances the teaching of a kind of deep cultural grammar that might enable creativity, invention, and thinking beyond existing paradigms. In Stiegler’s view a deep knowledge of culture is able to oppose processes of proletarianisation where people are confronted with abstract information because it sutures humans into a universe of common understandings, shared meanings, and a history to practical know-how. This can, in turn, enable further learning on the basis of its provision of a resource for deep attention (concentration, focus, discipline, and apprenticeship), retention (cultural memory), and protention (the imagination of a future on the basis of a sense of past and present), which we might relate to Marx’s idea of work where humans put thought, knowledge, and skill into practice (praxis) in order to advance their species being and beyond this, the cause of wider civilization, which is centrally, never separate from natural metabolism (Foster and Burkett, 2017).

Under conditions of the anthropocene, Stiegler’s thesis is that the natural ecosystem has been more or less entirely commodified and made subordinate to capitalist coding systems where everything has quantitative value and can be bought and sold on the open market. But in completing the process that started with the original enclosures in early modern Britain (the original capitalist caves), what the capitalist vision of complete commodification neglects to see is that the anthropocene is parasitic on the biosphere, which sustains life and can no longer cope with the expansion of the cycle of production, consumption, waste, and pollution that knows no end. It is because of this situation, where the economic system no longer functions on a scale sustainable for the natural ecosystem of the planet, that Stiegler (2018) moves towards ecology and frames this issue in speleological / epistemological terms. This is the case because escape from the unsustainable, collapsing humanist cave will involve transformative cultural education founded upon embodied experience, creativity, and invention that are sensitive to ecological limits, rather than teaching strategies committed to abstraction, pouring, drilling, deskilling, robotisation, and automation which see the planet as limitless.

The original modern utopian, Thomas More, responded to the violence of the first capitalist caves (the enclosures) by imagining a leap to some other place on the map (the island of utopia) (More, 2016). In a similar way Stiegler’s theory of neganthropocene involves responding to the contemporary epistemological impasse of the anthropocene by first, setting out a speleological dystopia and second, imagining the possibility of escape into the real world. In the first moment, humans are trapped within the final, humanist, built cave of global capitalism – the anthropocene – which is in the process of destroying the very conditions of life. In the second moment, Stiegler suggests an escape route through cultural scaffolding, experience-based education, creativity, and invention founded upon a painful recognition of natural finitude (both human and planetary). Building upon previous works, in *The Neganthropocene* Stiegler (2011) identifies this escape route with a new politics of knowledge and education where cultural history, experience in the world, praxis, creativity, and invention are central. In the next section of the article, I propose to explain Stiegler’s history of anthropocene in order to provide context for the political struggle between knowledge founded upon on the one hand abstraction, information, and automation, and on the other hand embodiment, experience, and praxis.

**II**

**The Crisis of the Anthropocene and the Possibility of the Neganthropocene**

Extremism, exposure, and escape towards a post- or non-human world. This is how Stiegler conceives of the pharmakon of the anthropocene / neganthropocene. For Stiegler, we find trauma at the start and the end of the thermodynamic system of the anthropocene. The human is the result of a traumatic break and will end in the same way. Consider the first volume of *Technics and Time, The Fault of Epimetheus* (1998). Here, Stiegler mythologises the origin of humanity through reference to Plato’s *Protagoras* (2009) and the myth of Epimetheus, the less able brother of Prometheus. In this respect Stiegler reimagines the story of the cave. Where Plato’s cave man starts off caught underground before escaping from his subterranean prison, Epimetheus and Prometheus conspire to leave humans naturally lacking, only to throw them into excess through the gift of technology and the power of invention. In the story of Epimetheus and Prometheus, the initial problem of the human is that it is exposed and cannot survive on its own. The human is caught in an ecological bubble or umwelt that cannot sustain its life. The human infant is naked, weak, and will soon die in the natural world. The result of this situation is that technology, invention, and creativity become necessary. Prometheus hands them to humanity and they represent a survival strategy that humans have been pushing ever since.

In his anthropological discussion in *Technics and Time*, which rests on a reading of Leroi-Gourhan’s (1993) work, Stiegler makes the point that hominisation (humanisation) started when the early humans broke out of the ecosystem through tool use and began to create their own world (the human system), that would eventually comprise culture, language, and information. It is on the basis of this fault in the original ecosystem that we can understand the essential modernity, invention, and creativity of *our* (human) history, which has always been premised upon the need to solve problems and make up for our essential lack relative to our lost relation to mother earth, the ecosystem. However, it is precisely the focus on modern technology that Stiegler (2018) wants to throw into question in his critique of the contemporary hyper-industrial society and the anthropocene. Perhaps the original response to the human mistake led to an even more serious mistake? Although Epimetheus and Prometheus may have blundered into the creation of *the* creative creature, and humans have been caught in a struggle between lack and excess ever since, Stiegler’s Heideggerian problem is that the modern expression of creativity is not in itself particularly creative, but rather clearly bounded and limited by a technological system founded upon what we might call a parasitical, abusive relationship to nature.

Perhaps the problem of the anthropocene is, therefore, that we have never moved beyond this original parasitical relationship based in weakness and that a refusal to come to terms with this has resulted in a situation of *terminal excess* in the hyper-modern world. Supporting this idea, Stiegler (2018) explains that the human system emerged from a kind of existential dread, anxiety, and horror of nature, rather than the story of wonder we find in Aristotle, and this shows why we have been happy to remain hidden in our technological cave from pre-history onwards. Nature is still the enemy. Technology is still a security system. Although this situation was liveable for a long time, modernity saw nature become completely uncanny, a kind of strange other to techno-scientific man, with the result that humanity lost all sense of its participation in its environment. Thus the history of modernity becomes the history of estrangement, abstraction, and destructive humanisation. It is this critique of the violence of the anthropocene that leads Stiegler to suggest the need for a new systemic break, a kind of hyper-critique, which would repeat the original moment of Epimetheus and Prometheus with the opposite result. We might capture this revolutionary moment through the idea of a move away from an abusive relationship to nature towards one that we might think about in terms of symbiosis or a relation based in an understanding of co-dependence. This relation would be founded upon an understanding that we cannot live outside of the biosphere and need to come to terms with this in order to stand any chance of creating a sustainable future. Thus transition from the anthropocene to the neganthropocene must pass through the experience of dread and the horror of impending death that led to the emergence of human technicity in the first place.

In this respect the new systemic break, the revolutionary moment for returning to nature, would involve speleological thinking in order escape from our human-built cave, and plunging back into the original anxiety that led to our humanisation in the first place. Thus Stiegler’s (2018) pharmacological negativity (neg-entropy, neg-anthropocene) suggests that we must face up to the darkness and the exposure, the noise and the confusion, that comes with extra-systemic thinking, creativity, and invention in the name of recognising the problem of our original default – our unpaid debt to nature which we have been trading off ever since on the basis of the way we have transformed the planet into a Heideggerian (2013) standing reserve. Although Stiegler never really elaborates upon the existential dimensions of the idea of neganthropocene, it is clear that what he proposes would involve a kind of existential revolution. This is the case because it would take an enormous transformation for a species based in weakness, lack, exploitation, and parasitism to somehow recognise its debts and start to live within its means relative to the natural world. Despite this call to austerity, Stiegler is no neoliberal conservative. What he proposes represents a leap beyond the existing global capitalist economy towards a kind of existential austerity founded upon a different relation to nature. This would involve rethinking human history from its very start in the original cities, where humans first drew up the grammar of civilization, law, economy, and technology, and the vision for the anthropocentric future, into an entirely new world defined by a new respect for the necessity of natural limits.

Although it is possible to establish a straightforward relationship between the emergence of the original humans and the excess of the anthropocene, Stiegler is sensitive to the transformative moments that led to our current enclosure within the cave of hyper-industrialism. Indeed, it is possible flesh out his theory of the anthropocene by reading the works that led up to *The Neganthropocene* (2018). Stiegler considers the first of these transformative moments in his early works on technics and time (see *Technics and Time: Volume I*, 1998). In these works the Heideggerian (2013) revolution, relates to the transformation of ancient tekhne, where people worked in sympathy with nature, into modern technology, where nature becomes a thing open to use and abuse in the name of progress. Following this shift, the second transformative moment Stiegler identifies in his works on disbelief and discredit (2011, 2012, 2014b) is Weberian, relating to the shift from value rationality to instrumental rationality. Following the first two volumes of *Disbelief and Discredit* (2011, 2012), where Stiegler develops his theories of proletarianisation, technics, and the failure of libidinal economy under conditions of neoliberal capitalism, in the third volume of this work (*The Lost Spirit of Capitalism,* 2014b) he focuses upon the relationship between his general thesis and Weber’s sociology of capitalism.

Expanding upon Weber’s (2010, 2013) theory of religion and rationalisation, Stiegler explains that capitalism sought to replace its original economic theology (its original outside) with a libidinal economy based in consumerism. In his *States of Shock* (2014a) Stiegler makes this case by linking Weber to Adorno and Horkheimer’s (1997) culture industry thesis. Here, he shows that the problem with consumer capitalism is that the commodity, which takes on life in proportion to proletarianisation of the worker who becomes a kind of zombie, was always a weak replacement for God. While God was able to offset the violence of industrial capitalism, precisely because He sat outside of the system and explained the world through value (for example, the extra-economic notion of love for others), the problem with investing everything in the commodity was that it was inside the capitalist circuit, a product of the system, and in this respect proved unable to carry the weight of existential value necessary to really make people believe.

Building upon this idea, Stiegler makes the point that even though Edward Bernays’ appropriation of Freudian psychoanalysis (marketing, advertising) has been extremely successful in transforming consumerism into a kind of religion with its own vision of Heaven founded upon the consumption of stuff, by the late 1970s late capitalism had set about killing its own replacement God by flooding the market with things and making sure everybody could access them with cheap credit. In this way Stiegler shows how late capitalism has become a kind of Freudian (2003) death drive that undermines its own coherence, the wider social systems that rely upon it, and, in *The Neganthropocene* (2018), starts to destroy the conditions of life itself by virtue of its parasitical relationship to the natural world. Despite its virtuality, abstraction, and obsessive flight from the world, capitalism remains a system founded upon extraction, exploitation, and the abuse of nature.

In this way we can understand the violence of the neoliberal revolution - capitalism unleashed from the social consensus, the social contract, and the need to worry about the other / the outside – and the emergence of the voracious consumer who produces and consumes to the point of exhaustion in sympathy with the system they live inside. This is, of course, the late capitalist cave – an utterly profane way of thinking and knowing the world through commodification and objectification. In Stiegler’s (2018) recent work it is this monstrous system that has now reached its limit in the nihilism, parasitism, and unpaid debts revealed by the current economic / ecological crisis of late capitalism. In practical, economic terms the start of the current global crisis was largely founded upon the mountains of unpaid and unpayable debts that resulted in the near bankruptcy (dis-credit) of the entire capitalist system. However, Stiegler is more interested in the psycho-philosophical impacts of this situation. Thus in his books on disbelief and discredit (2011, 2012, 2014b), he concentrates upon the way in which excessive commodification, easy credit, and extreme marketing focused upon speeding up consumption in order to offset a potential slowdown in growth led to:

1. the collapse of the libidinal economy of desire (where we want and wait) into addictogenic drive (where we have now, but feel empty, and so consume ad nauseam);
2. the progressive dis-investment, dis-enchantment, and dis-belief in capitalist society; and
3. a much more generalised ecological crisis he captures in his vision of the entropic collapse of the anthropocene.

This final generalised crisis is brought about by hyper-consumption and the extremism of a system based upon technological excess.

In this respect Stiegler’s (2011, 2012, 2014b) disbelief and discredit books show how the neoliberal revolution has undermined the capitalist dreamworld through its pursuit of endless growth, expansion, and globalisation. However, the innovation of his recent *The Neganthropocene* (2018) is to show how this extreme form of capitalism which knows no outside has also problematised the very idea of the human. As such, Stiegler makes two key points. In the first instance, he shows how late capitalism (and we might connect the idea of ‘lateness’ to notions of mortality, zombification, post-mortemism, thanatology, and the dying of the system) has undermined its own conditions of possibility. Beyond this, he also enables us to understand how the extreme nature of the crisis hyper-industrial capitalism has brought about by virtue of its globalisation has thrown into doubt the basic relation between the human system (from the origins of hominisation through to the period of the anthropocene) and the natural ecosystem (which pre-dates the Neolithic period where Stiegler starts his story), with catastrophic consequences for life itself.

On the basis of this situation Stiegler (2018) sees the anthropocene as a lost cause. The old world is full up. There is no other space, no other time to grow into because late capitalist space-time has been fully realised, and saturated in the form of the anthropocene. Since there is nowhere for this system to develop towards in its current form, Stiegler offers a tragic vision of hyper-industrialism, characterised by the absolute polarity of high tech abstraction and savage materialism, which plays upon the contrast between ever increasing automation and uncontrollable, violent competition. In his *States of Shock* (2014a) Stiegler writes of the four horsemen of the apocalypse - Amazon, Apple, Facebook, and Google – and shows how they come together to create a kind of electronic Leviathan, a cold electric neo-Hobbesian monster for the early 21st century, who takes the idea of the body politic to extremes. In Hobbes’ (2008) original vision of the social contract the people come together in the body of the sovereign (the body politic), trading their freedom for security in order to escape the violence of the state of nature. Although the electronic Leviathan strikes a similar bargain, the problem is that its monstrous law – automation – founded upon the algorithmic power to calculate and decide upon everything at light speed (including the governance of expression and language itself through technologies such as auto-correct / auto-complete) ends up producing the opposite effect to the Hobbesian monster, who created civilized humans on the basis of absorbing their violence into its own body.

Thus the problem with the electronic Leviathan is brought about by the absorption of human intelligence into the extreme levels of control it exercises through its algorithmic power that destroys the minimal, human level of freedom the Hobbesian sovereign enabled. In this way Stiegler shows how the electronic Leviathan ironically creates an uncontrollable mob of high tech savages who play out Hobbes’ original civil war of all against all against the background of the new anthropocentric state of second nature where everything organic (natural) is waste product that provokes disgust and revulsion. Expanding upon this view, Stiegler explains how the hyper-modern, high tech universe of meaningless signs creates and contrasts with the low, base, instinctual, and savage space of monstrous post-humans who are transformed into nobodies. These nobodies are anonymous, and quickly transformed into code, despite their best attempts to stand out from the crowd. The problem of the high tech anthropocene is, therefore, that it comprises the worst excesses of the abstract and the natural (the objective violence of tech / the savage indifference of nature) and has no way to step outside of these profane alternatives. In this situation the Hobbesian bargain struck in the early days of modernity collapses. There is no social contract in the electronic Leviathan, but rather violent economic struggle, and the desperate attempt to establish what Stiegler calls negative sublimation. Developing the psychoanalytic concept of sublimation, Stiegler suggests that in a historical period of meaningless signs, where every symbol refers to economic value, the only way to matter is through explosions of violence which make a mark upon an otherwise careless world.

This is why when Stiegler writes of late capitalism in terms of an episteme, and a civilizational idea founded upon techno-science and neoliberal economics, he immediately shifts into reverse by saying that this form of knowledge is actually anti-epistemological, and that it would be better to say that the late capitalist system is an anti-episteme. This is the case because, in his view, late capitalism relies on a kind idiocy and philistinism that produces cave people who cannot see beyond the shadows cast by the fires raging behind their backs. On the basis of these shadows, the cave men are captivated by the notion of pure potential and the idea that humans are Gods with infinite (technological) reach – the ultimate Cartesian conceit – and have absolutely no sense of their own natural finitude. Indeed, even when everything is set out before them – for example, the contemporary case of climate change which provides evidence of our finitude – the cave people are unable to recognise and process the information that might enlighten them because they no longer have the grammar to translate this raw material into thought that might change their view and as a consequence their situation. What, then, must be done to escape from the cave of the anthropocene? In Stiegler’s (2018) vision the thermodynamic system that burned hot in Marx’s industrial period is now cooling towards a new cold electric hell that is no kind of home for humans. Indeed, this home will soon become completely unhomely and literally unliveable. This is because the globalisation of the hyper-industrial system (the anthropocene), and the coming entropic state that will signal its death, is completely bound up with the biosphere, which means that system collapse is likely to cause ecological catastrophe and as a consequence progressive species extinction.

**III**

**Imagining Stiegler’s Ecology**

In his recent works Stiegler (2016, 2018) opposes a dystopian vision of the anthropocene, which has become entirely unsustainable, to the utopian possibility of the neganthropocene, where humans would live in sympathy with the natural world. According to this theory the problem of the anthropocene ironically concerns its technological determinism and abstract way of knowing organic life. In this respect, we could replace the idea of the anthropocene with the idea of the mechanocene in order to capture the abstraction of this way of living in or beyond the world. But regardless of whether we focus on the violence of humans or machines, the result of this situation is that the limits of the ecological system seems to disappear before a model of global capitalism – what Jason Moore (2016) calls the Capitalocene - that appears limitless by virtue of its refusal of material reality. The result of this lack of proportion between natural and human systems is the emergence of a principle of endless exploitation and abuse. Thus Stiegler conceives of the anthropocene as a kind of apocalyptic limit that threatens the end of world, but also the possibility of a new way of being human based upon the dreadful necessity of recognising the finitude of the planet.

Although the nightmare of automation, algorithmic power, and the disappearance of the human into the negative abyss of the screen represents the end of human thought, and a kind of mis-education into the absolute power of technology, I think that Stiegler’s pharmacology suggests the necessary emergence of alternative ways of knowing the world founded upon the need to survive. While Derrida’s (1981) theory of the pharmakon starts with the gift of writing, which is simultaneously a remedy and poison for the problem of forgetfulness, I want to suggest that Stiegler’s pharmacology of the anthropocene / neganthropocene reverses the story towards the necessity of the rediscovery of the body and its relation to the environment. If the story of technics starts with the separation of humanity from itself in writing, language, and tool use, then Stiegler’s theory imagines the conclusion of this history of difference in the return of humanity to its animal body. This does not mean a return to a mythical state of self-presence, where humans would simply be lost in the world, because this is precisely what Heidegger, Derrida, and Stiegler critique, but rather a different, more intimate understanding of the object beyond commodification. Thus the return to the body suggests the end of the estrangement of humanity and technology and the re-emergence of the essential difference of the technical being on the borderline between body, machine, and world. Against the cybernetic fantasy of the limitless post-human, who knows the world through alienation, abstraction, information, and instrumental ways of thinking, Stiegler’s theory of the neganthropocene suggests a return to the earth-bound creature who lives in the world and comes to know about it from embodied experience. Humans are technical beings, and they use tools, but this does not mean they are released from their bodies through which they ultimately know the world. I think that this is meaning of the idea of the neganthropocene.

Everything starts from the body and, I want to suggest, a politics of the body able to open up a space for a new more humble relation between humans and the environment. Thus I want to suggest that the new natural law of the future beyond the anthropocene (moving towards the neganthropocene) would have to focus upon the experience of the body in the world, which has been rendered largely worthless by the Cartesian violence of the hyper-industrial techno-scientific system that understands the human in terms of a kind of will to abstraction (value is always quantitative and the body is a thing to be used and abused), because we learn through our sensory relationship to our environment from our first to final moments (Winnicott, 2005). It is precisely this kind of sensory, experiential learning that I would suggest we must institutionalise in the (global) education system, which has become a space of estrangement, abstraction, and information processing under conditions of late capitalism, because this will enable the leap beyond the unsustainable anthropocene. The effect of emphasising this model of embodied, experiential learning in a new politics of knowledge and education would be to simultaneously demonstrate the natural finitude of the human (which is, after all, part of the natural world), but also the infinite reach of thought based upon sensory imagination which is never limited by abstract systems. The ultimate aim of this approach would be to rescale the anthropocene, bring it back down to earth, and reconnect it to nature through a new natural contract beyond the logic of technological exploitation and abuse.

**References**

Adorno, T. and Horkheimer, M. (1997) *Dialectic of Enlightenment*. London: Verso.

Derrida, J. (1981) *Dissemination*. Chicago: University of Chicago Press.

Foster. J. B. and Burkett, P. (2017) *Marx and the Earth*. Chicago: Haymarket.

Freud, S. (2003) *Beyond the Pleasure Principle: And Other Writings*. London: Penguin.

Heidegger, M. (2013) *The Question Concerning Technology: And Other Essays*. New York: Harper.

Hobbes, T. (2008) *Leviathan*. Oxford: Oxford University Press.

Leroi-Gourhan, A. (1993) *Gesture and Speech*. Cambridge, Mass: MIT Press.

Marx, K. (1988) *The Economic and Philosophic Manuscripts of 1844*. New York: Prometheus Books.

Moore, J. W. (Ed.) (2016) *Anthropocene or Capitalocene? : Nature, History, and the Crisis of Capitalism*. Oakland, CA: PM Press.

More, T. (2016) *Utopia*. London: Verso.

Plato. (1991) *The Republic*. New York: Basic Books.

Plato. (2009) *Protagoras*. Oxford: Oxford University Press.

Stiegler, B. (1998) *Technics and Time: Volume I: The Fault of Epimetheus*. Palo Alto, CA: Stanford University Press.

Stiegler, B. (2008) *Technics and Time: Volume II: Disorientation*. Palo Alto, CA: Stanford University Press.

Stiegler, B. (2010a) *Taking Care of Youth and the Generations*. Palo Alto, CA: Stanford University Press.

Stiegler, B. (2010b) *Technics and Time: Volume III: Cinematic Time and the Question of Malaise*. Palo Alto, CA: Stanford University Press.

Stiegler, B. (2011) *The Decadence of Industrial Democracies: Disbelief and Discredit: Volume I*. Cambridge: Polity.

Stiegler, B. (2012) *Uncontrollable Societies of Disaffected Individuals: Disbelief and Discredit: Volume II*. Cambridge: Polity.

Stiegler, B. (2013) *What Makes Life Worth Living: On Pharmacology*. Cambridge: Polity.

Stiegler, B. (2014a) *States of Shock: Stupidity and Knowledge in the 21st Century*. Cambridge: Polity.

Stiegler, B. (2014b) *The Lost Spirit of Capitalism: Disbelief and Discredit: Volume III*. Cambridge: Polity.

Stiegler, B. (2016) *Automatic Society: Volume I: The Future of Work*. Cambridge: Polity.

Stiegler, B. (2018) *The Neganthropocene*. London: Open Humanities Press.

Weber, M. (2010) *The Protestant Ethic and the Spirit of Capitalism*. Oxford: Oxford University Press.

Weber, M. (2013) *Economy and Society: Volumes I and II*. Berkeley: University of California Press.

Winnicott, D. W. (2005) *Playing and Reality*. London: Routledge.