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Heidegger's Threshold/

**Philosophy of Environment and
Education**

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Doctorate in Philosophy,
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*For Jim Devine
And Jamie Irwin*



Abstract

The consumerist lifestyle of modernity has had a detrimental impact on the environment. In part, this is supported by the traditional philosophical conceptualisation of subjectivity, which privileges human subjects from surrounding objects. Concern over our attitude to the environment has been present from the beginning of civilisation and particularly since the emergence of the industrial revolution. This thesis traces a genealogy of these concerns, from the Romantics, to 20th century philosophers such as Heidegger, through the political movements of the 1960-1980s and the recognition of pollution, resource depletion and climate change by pan global organisations from the 1980s to the present day. The changes in epistemology in the wider context of society have influenced the way environmental education has emerged. Philosophy informs the way we understand subjectivity, language, pedagogy, curriculum, and our understanding of the environment. Education also operates in a political context, and the concepts that inform policies permeate educational institutions.

Heidegger's philosophy engages with the scope of the environmental problem, offers a critique of modernity, develops a new conceptualisation of subjectivity and the relationship between humanity and Being, and an analysis of the impact modern technology has mediating that relationship. Heidegger began to develop his ideas on technology during the period between World Wars, in Germany in the 1920s and 1930s. His philosophy was influenced by the Romantic *Volk* movement, and the ideas of Nietzsche, Spengler and Jünger. The tense political surroundings have influenced his thinking, in both constructive and detrimental ways. Heidegger remains one of the most influential philosophers to engage with the framework of technological modernity and its constraints on human subjectivity, and our way of relating to the earth. He challenges traditional ontology and epistemology. He raises the status of poetry from mere lyrical wordplay to a means of developing a more authentic relationship between beings and Beings. I make a critical analysis of his philosophy, to distinguish the elements that remain inherently conservative and nationalistic from those that are immanently helpful

in throwing light on the dilemma of modern life, and the escalating problem of environmental devastation.

Heidegger's ideas about how technology enframes our understanding of ourselves and our environment informs my investigation of the dominant political discourses circulating in local, national and global institutions. The discourse of sustainability has shifted from the earlier concerns that stimulated 'environmental education' in the 1970s to a Neoliberal paradigm of 'education for sustainability' in the 1990s through to the present. Conceptual documents that contribute to policy dialogues, by authors such as Anthony Giddens and Simon Upton, are critically analysed through the lens of Heidegger's philosophy. Neoliberal policy makers tend to encourage managerialism and accountability, advocating a technological and economic method of totalising control through cost/ benefit and risk analyses.

Heidegger's philosophy engages with the parameters of modernity and offers a seminal critique of our relationship with the environment. Yet Heidegger is himself a product of modernity's terror, and his ideas are polluted by nationalism and the philosophical tradition he inherited through his own education. When writing, none of us are able to extract ourselves from the constraints of the capitalist mode of organising society and the technological enframing of the world. Yet, this thesis is an attempt to better define 'lines of escape,' that emerge from the economic paradigm of total surveillance and control. This involves a more constructive understanding of the arts, as a means for retreating from the threshold of environmental calamity, and reintroducing the wild into our language, our self-understanding, and our interactions with the natural world.

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Abbreviations

Acronym	Definition
Brundtland Report	Our Common Futures
IMF	International Monetary Fund
IPCC	Intergovernmental Panel on Climate Change
OECD	Organisation for Economic Development
OPEC	Organisation of Petroleum Exporting Countries
UNCED	United Nations Conference on Environment and Development
UNDP	United Nations Development Programme
WCED	World Commission on Environment and Development
WCS	World Conservation Strategy
WCU	World Conservation Union
WWF	World Wildlife Foundation

1 Introduction

*The world is too much with us; late and soon,
Getting and spending, we lay waste our powers:
Little we see in nature that is ours;
We have given our hearts away, a sordid boon!
This Sea that bares her bosom to the moon;
The Winds that will be howling at all hours
And are up-gathered now like sleeping flowers;
For this, for every thing, we are out of tune;
It moves us not.*

Wordsworth, Poems, 7

Heidegger's threshold/ is a precarious stopping point, almost overbalanced, a shriek into the proximity of nothingness. The /slash topples over, collapsing the line from the enigmatic to the fundamental, from the transcendental to the immanent. Heidegger's threshold is not followed by a colon. There is no gut logic that projects the title from one point to its consecutive double, from a state of art to more practical concerns. The threshold poises at a moment of bubbling Brownian movement that at some unknown moment will transform from its overheated state and seize upon a point of difference, erupting into a new paradigm, from liquid to gas, a metamorphosis from the threshing anxiety of modern technological consumerism. The –hold is the anxious suppression of transfiguration, a careful conservatism, a historic attempt to cool terrible revolutionary tendencies. The –hold attempts to maintain a sustainable context for living beings. We hold on to the paradigm we know because the transformation, while retaining elements of the past, may be unrecognisable and nonwithstanding for a human future. A future of caring. Poised almost at the point of no return, Heidegger's threshold/ resounds. What is needed is a cooling down. A contemplative, restive wakefulness to what will emerge - is always getting on with emerging – rather than the technological challenging forth, the bubbling, busy storage of exponentially 'growing' profiteering, the ever-increasingly hyperactive cycle of crash and burn economics which, possibly this time, will overheat to the point of tipping us all permanently over the edge. Heidegger's crisis discourse, the threshing against the technological enframing of modernity, owes fealty to

Catholic dogma and anti-urban Romanticisation of the rural lifestyle and community. He owes cataclysmic depth to Nietzsche. Any present-day attempt at entrepreneurial cynicism at his critique of modernity just contributes to the furnace.

Heidegger's call is Romantic – he wills us back to the tune of 'Nature.' It is a risky business, with a politics of terror always constraining thinkers of modernity. *Eco-poiesis* may begin afresh, finding the sublime at the face of nothingness, but it will always need adapting. Being needs tampering. When we pause to tamper, dream, and think poetically - the nihilist threshold both comes closer, and recedes.

In the face of the global monolith of technology, terror and capitalist oppression, it is difficult to make such subtle argument as put forward by the Romantics and later Heidegger. The withdrawal from modernity flounders in the prevailing winds of rationality, accounting and technological enframing. We are out of tune. Yet perversely, hope comes forth from within the dangers posed by the modern paradigm. After more than a century of ossification in the harsh Idealist and Positivist climate that has separated the mind from the body and the human subject from all natural objects, philosophy and pedagogy are ripe for new conceptualisation. Pollution and global warming transgress national boundaries and have transformed into the grounding motif driving policy, politics, philosophy and pedagogy, around the planet. Highlighting the environment re-engages humanity in the task of caring about the ethics of our interaction with ecology. At present however, the prevailing paradigm is globalised capitalism, the normalisation of mass consumerism and Neoliberal faith in the market. The relationship between environment and humanity can often be found in the technological assumptions about world resources. My thesis is a polemic for a type of listening, thinking, and enquiring into the existence of the 'nature' of ourselves and our ecological environment in a way that lets it all 'shine forth' as Heidegger puts it, in its own terms. It is not so much a counter-argument, or an alternative systematic treatise but a preparation for a change in attitude. When the world is only understood in terms of rationality and calculation then the attitude of enquiry into the 'Being' of things is closed off. This attitude is not a-political, nor is it Luddite. It does not reinforce the traditional dualism between culture and nature, coming down on the side of the wilderness. It is an ecological recognition that

we live with/in the ecological environment. Our pretensions to consumerist grandeur are a form of alienation that threatens to cross the threshold of planetary conditions that are capable of sustaining life.

This research is a philosophical investigation into the interaction between the environment, technology, and human society. The way technology evokes nature as a resource is based on the modern philosophical ramifications of traditional Idealism. The emerging crisis in the environment is a direct outcome of these utilitarian modes of relating to nature. The problems with the environment can potentially stimulate a change in the educational *raison d'être*, creating a new ambiance, a new dynamic, a totally different set of motives, and a different metaphysical basis. The codes and symbols that constitute human meaningfulness are commensurable with the morphology of natural systems. Vectors of communication rely on code; language, DNA, crystalline consistency, molecular structures, and shape; the human body, the tree, the limestone rock, the lake, the ocean. The question that Heidegger raises about the nature of Being begins the process of renegotiating thinking, knowing, and understanding in a way that faces up to the limitations of the current educational premises – Liberal autonomy and rationalism, managerialism, economic governmentality. The reformulation of the premises of education and culture, constitute in important ways, a *deepening* of Humanism, rather than a revolt against it. I look at Heidegger's analysis of the emerging environmental crisis and the roles that metaphysics, technology, and epistemology play in the relationship between humanity and our environment. Heidegger reconceptualises many of the basic premises of modernity. He formulates a renewal of culture by recognising authentic enquiry into Being as the basis of human meaningfulness.

Along with Nietzsche, Heidegger introduces a substantive shift from the philosophical tradition largely influenced up until the end of the 20th century by Descartes and his separation of the subject from the object. The dominant Cartesian Idealist tradition made the world-as-object *rely* upon human subjective interpretation for its reality. Heidegger had a very thorough working knowledge of Greek philosophy and he used the pre-Socratics, combined with Nietzsche's philosophy to counter the separation of subject and object. From this standpoint he could reimagine a different way in which humanity is

embedded in the world, and at the same time, retain a type of Kantian solipsism that recognizes the primary importance of time, Being, and subjective nominalist understanding. Heidegger's first and most famous book is titled *Being and Time*, which places prime importance on both time and ontology as the metaphysical basis of humanity. Within the finitude of a singular life time, Heidegger's ontological concept of subjectivity, *Dasein* topples towards the future – 'being-there' – consistently anticipating and thinking, as well as empirically and materially utilising equipment in an all-absorbing 'world.'

Heidegger's methodology includes going back to the 'origin' of western philosophy in Ancient Greek thinking.¹ Concern about how human society interacts with our environment is as old as 'civilisation' in the first place. At the dawn of democracy in Ancient Greece, Epicurus (341BC- 270 BCE) was so concerned about the turn towards conspicuous consumption in Athens that he created an alternative community, called the 'Garden' and promoted a simple happy life of friends, freedom and thought as opposed to fame, opulence and power. "Luxurious foods and drinks... in no way produce freedom from harm and a healthy condition in the flesh."² 400 years later such was the concern about advertising and consumerism, that Diogenes, a gentleman in a town called Oinoanda in Asia Minor erected a massive limestone wall through the marketplace with 25,000 words of Epicurus' aphorisms designed to encourage people to consider the true source of their happiness; "One must regard wealth beyond what is natural as of no more use than water to a container that is full to overflowing."³

Heidegger's formulation of the problem of consumerist alienation from a simple and eco-friendly lifestyle is a spiritual quest into how best to enquire about the meaning of Being. He evokes Heraclitus and Parmenides as making the most original contribution in their dynamic concepts of flux and becoming.⁴ Heidegger argues, following Nietzsche, that Plato draws the originating beginnings of philosophy to a close by removing the truth of 'Being' from the immanent world and placing it beyond time and space. Any entity is

¹ Cf. Irwin, 1999 and Foucault, 1977a

² Epicurus cited in de Botton, 2000: 67

³ Epicurus cited in de Botton, 2000: 67

⁴ Heidegger, 1973a

henceforth confined to a mere simulacra of the original, and furthermore human beings can only represent this simulacra through the *logos* of language. Being stiffens into an alienated representation of the 'Good,' and the rational calculation of values becomes the highest power. Heidegger proposes instead, a return to the earlier concepts of Heraclitus and Parmenides in his discussion of *physis* and *aletheia*, the becoming and shining forth of Being. Like the Romantics, Heidegger advocates an open attitude of observation and release, rather than the technological 'challenging forth' of all things as potential reserve for consumption in the marketplace.⁵

Heidegger highlights our use of language to show how technological metaphors along themes of calculation, efficiency, resource, storage and accumulation are shaping all interactions in human society, both in regards to the environment and to each other.⁶ Education remains caught up with this paradigm of positivist calculations, rational deductions, efficient inputs, throughputs and outputs, of which Heidegger is so critical.

Increasingly, education challenges students to develop their potential resource value as human capital. The present overt encouragement both in policy and financial backing for courses which promote information technology is a good example of the latest use of education as an important site for shaping the population for insertion in the technological possibilities of the modern circulation of information and resources.

Analyses of industrial relations by Marx and Weber have provided important concepts for understanding the processes that underlie educational institutional and pedagogical arrangements.⁷ The hidden curriculum for example, domesticates the occupants of schools, both teachers and students, to obey timetabling, a trait very handy for an industrial economy which runs most efficiently when teams of workers turn up to the factory on time to work on synchronized industrial and information processes. These practices rapidly become normalized in support of existing social relations, in this case, capitalist production, consumerism and information circulation.

⁵ Heidegger, 1977a

⁶ Heidegger, 1977a

⁷ Marx, 1887 and Weber, 1968

Education holds a primary position in the practicalities of epistemology and metaphysics. Traditionally education has played a role in the type of independent critical evaluation of society that this thesis attempts and in comparison to private sector research (which needs to sing the tune of the corporation that is paying for the research, the Rand Corporation thinktank for example) university research is cushioned to some (limited and diminishing) extent from having to conform to predominant political and economic pressures. Furthermore, pedagogical relations reflect the dominant conceptualisations of subjectivity, as the inter-relationships within and between communities, and between subject and environment. Education is by definition the place to educate the population in new ways of thinking about human society, and in particular human society in relation to the environment but, at the same time, it tends to confirm the prevailing dominant discourses.

For as long as education has been compulsory and universal, it has been apparent that the use of certain resources has been causing both scarcity and pollution. Coal, for example, had been creating massive atmospheric pollution for a considerable period by the end of the 19th century. Marx had highlighted the concurrent dynamic of alienated work relations associated with industrialisation that removes the intimate relation of worker with their immediate environment.

Luke argues that the 1920s and 30s were a major historical juncture because the class opposition that Marx had analysed underwent a significant change and managed to increase the levels of mass production and mass consumption such that the workers were complicit in the entrepreneurial process.⁸ The critical theory of the Frankfurt School became vocal at this time, as were Heidegger and the grassroots *völkisch* movement. Heidegger began writing during and after the First World War in a milieu of German thinkers who were resisting the increasing reliance on machinery and harking back to a type of Romantic period before Liberal modernity. This intellectual milieu highlighted the people or *Volk* instead of the individual as the primary unit of society. The *völkisch* movement were trying to invent an alternative to the technological corruption they

⁸ Luke, 2003: 246

thought was inherent in modernity.⁹ Amongst these thinkers were many, such as Jünger and Spengler, who interpreted Nietzsche in a manner that regarded violence as fundamental and unavoidable.¹⁰ Hitler's National Socialist party also developed from these concerns for a Romantic *völkisch* tradition. Conservative aspects of Heidegger's thought emerge partly from the influences of *völkischness*, partly from the anti-modernity of the Catholic Church, and partly from his small town Badisch family background. In Heidegger's writing, the conservatism often becomes entangled with conservationism and both are entwined in the volatile political situation.

At the same time, Heidegger has to be one of the most important philosophers for those people interested in the environment and developing a more ethical human relationship towards it. He analysed many of the problems that face us in a world dominated by massive global financial transactions that bear little or no relation to either the location of production or local profitability where technology has enabled storage capacity and massive, global mobility – physically and financially. The deterritorialisation of global finance and production has decoupled responsibility for care of people, places, species, or ecosystems from the places from which resources are wrested.

Heidegger's theory is tinged with a sense of desperation that humankind is trapped in the momentum of the history of western metaphysics and is mired in the depths of nihilism. In the context of a prewar discourse that romanticised the German *Volk*, Heidegger argued that a return to *Heimlichkeit* or homeliness along with a new aesthetic might offer a way out of the technological enframing of our understanding of Being.¹¹ He was not a Luddite, however; it was not tools or technology *per se* that constituted the problem; instead he wants humanity to question the ideas embedded in our grammar and linguistic metaphors, and to reconsider their working relation to the world and find an authentic way to engage with technology. Following the poet Hölderlin, Heidegger considered technology 'the danger' and the 'saving power.'¹²

⁹ cf. Zimmerman, 1990, Young, 1997, Wolin, 1993, Rockmore, 1992

¹⁰ Spengler, 2002, Jünger, 1993

¹¹ Heidegger, 1977a

¹² Heidegger, 1996

Heidegger was born in 1889 and died in 1976. During the 1980s people began to catch up with Heidegger's concerns about the relationship between humanity and environment. From a marginalized issue espoused by green hippies, the environment abruptly shifted to the centre of a global crisis. An ever widening list, including global warming, atmospheric ozone depletion, large scale forest felling at a non-replaceable rate, soil erosion and desertification, water pollution, acid rain, population growth, rubbish disposal and so on, has caused widespread dismay and a feeling of hopelessness. Suddenly the assumption that humanity is in control of technology as though it was merely a tool invented in order to make life 'easy' is being inverted. Human evolution is no longer assumed to be better and better but instead is possibly heading towards dystopia or calamity: the consummately managed 'end of history.' Heidegger's argument is not for some teleological historical direction but rather that technology enframes everything. It constitutes the discursive and material reality that dominates human society and narrows the scope for the subject positions of people to technically referenced individual automatons who are naively convinced of their own agency. Modern technological individualism withdraws meaning from other, older, and more often than not, communal forms of self-understanding. The determinism invoked by the technological frame is not easily averted. It is the discovery of any possible options for overturning the paradigm of enframing that concerns both Heidegger and contemporary ethics of environmental education.

The contemporary solution to environmental problems has been embedded in the discourse of 'sustainability.' This takes a variety of forms. At one end of the spectrum it involves a rejection of capitalism and a return to the Romanticised past. As such, it has been a Luddite response that rejects modern technology as the *cause* of environmental problems. On the other end of the spectrum there is an intensification of capitalism that measures and standardizes acceptable levels of pollution, combined with a call for efficient industry as an outcome of 'green initiatives.' Here, technology itself is regarded as the means by which environmental problems can be 'fixed.' From a notion on the fringe of politics and radical consciousness, the concept of 'sustainability' now dominates global policymaking. Moreover, it is arguable that the enframing of technology has already become integral to 'sustainability' in principle and practice.

Recently, environmental educators have asked how to encourage in society a sustainable frame of mind.¹³ This task is almost outdated, as the discourse of sustainability permeates nearly every institutional policy document, from the global to the local. But the way ‘sustainability’ has been interpreted means that predominantly, education maintains the status quo. Pedagogical practices, institutional structures, architecture, distinctive disciplines and assumptions about the essential mind and the largely ignored body all remain intact. The social organisation of human society with its emphasis on technological economics and efficiency all remains unchallenged.

In contrast, I intend to investigate the premises upon which humans relate to the environment in order to throw the present mode of social relations into question. In turn this highlights some of the assumptions and practices perpetuated by education. The task is to reformulate education so that it can meaningfully take up the challenge posed by environmental problems. Educational institutions cannot, in isolation, begin to change lifestyles and attitudes *en masse* or bring about a sustainable and hopefully more ethical, or as Heidegger would put it, a more ‘authentic’ relation between humanity and the planet. However, education does have a responsibility to draw attention to the problematic, at a range of levels and across all disciplines. The fundamental approach put forth by philosophers of education may inform the policy makers and curriculum development, the assumptions about school architecture and school organisation, not to mention the prevailing notions about the nature of subjectivity and pedagogy. The kinds of curriculum that could emerge from this critique of the metaphysics that has based western culture are yet to be thought through. The changes will happen at many levels, and at different time periods. It is not a question of imposing a sudden revolution in policies and practices. The shift is piecemeal evolution - this thesis is a step in the preparation for a profound cultural shift – not a prescriptive set of answers. Yet as far as prescriptive suggestions go, the collapse of what I phrase, the Idealist distinction that separates mind from body, individual subject from natural objects, immanent events from universal Truths, is necessary to the shift in approach in relationship between humanity and environment. Part of what is required is the introduction of the socio-culturally

¹³ Stables and Scott, 2003

inscribed body into all curriculum topics. At the same time, the sociological particularity of each of our physical identities contributes to the metaphors and 'world' we assume is true, and towards which we actively contribute. The collapse of the Idealist separation between the individual and the natural environment will challenge existing metaphors and discourses that characterises individuals as separate free agents, and the domination and utilisation and management of nature.

The concept of sustainability is one of those key phrases that hold within it a contested realm. The term lends itself to very different modes of community organisation and self-understanding. The way in which the discourse of sustainability is taken up will project support for one or other of these modes of organising society, and condition the relationship between human beings and the environment.

'Sustainability' has made an issue of consumerism, and with it the processes and premises of capitalism as the organising motif of human society. Many people have relied rather lazily upon the possibility of the 'technological fix' to environmental problems. Indeed technology may 'fix' sustainability, but not in order 'heal' the environment; rather the fix seeks to make static, retain, position, conserve, regenerate and nourish the resource base of capitalism. This is the eschatological trajectory of technological enframing. It is the 'end of history' with the calculable technicity of supreme rationality and the relegation of Earth to a recyclable, renewable, and ultimately replaceable resource. It is no longer an issue of how to convince people to accept and promote sustainability, but of whether human control, often in the guise of Liberal rationalism, will be able ever again to ascertain a wonder at the enigma of earthliness best promoted by the Romantics. Or if the demise of Romanticism in the proliferation of corny paintings and films of the last frontier, will only be rediscovered in reproduction in larger scale of new frontiers; in our case, new planets, new solar systems to terraform in exchange for the 'homely,' if exhausted, ground of this one.

Heidegger's theory is not limited to notions such as sustainability, which are too easily co-opted by the existing dynamics of capitalism. Instead he focuses on the philosophical basis of human 'being.' He looks at the epistemology, and onto-theo-logy (as he terms it)

of humanity, and worldliness, and Being itself.¹⁴ He is engaging with the Idealist tradition of solipsist nominalism, both agreeing with it and redefining it in new ways. Idealist solipsism is best characterised by Descartes' aphorism *cogito ego sum*, thinking amounts to being, or more traditionally translated as 'I think therefore I am.' The common translation sets logical deduction as the path from thinking to being. Logic and measurement both forges a connection between the thinking individual and sets the individual apart from natural objects. Idealist solipsism forms one of the founding criteria of modernity. Heidegger reformulates Descartes aphorism as *cogito sum* – thinking being. The rational deduction is removed, thinking and being are brought together, identifying thinking *as* being, and being *as* thinking.¹⁵

In critical contrast to Idealist solipsism Heidegger's philosophy is a reconfiguring of the relationship between entities and the basis of Being. He wishes to create a new Beginning that avoids the pitfalls of the metaphysical tradition and its social formation. The failure of nationalist Nazi Germany to 'begin' a culture that threw light on the Being of the earth, the world, and ourselves, casts doubt on aspects of his project. His theory has limitations in philosophic and political terms, but nevertheless he also has important comments and criticisms of the existing modes of western modernity.

Nature definitions

Heidegger sets up a distinction between Being and existence. Being has significance because it is apprehendable to the subject, *Dasein*. Existence is incomprehensible, outside our realm of knowledge, it is the phenomena beyond human capability. Yet *Dasein* is the German alliteration for 'existence.' Is the ineffable existence the equivalent of Nature? Certainly the 'real' has qualities beyond human scope, whether it be the existence of nature in a time before or after the human species inhabits the earth, or more akin to Kant's thing-in-itself.

Nature has been described in a plethora of ways: the essence, the substance, the matter, the form, the manifold, as wilderness beyond human control, as the thing-in-itself

¹⁴ Heidegger, 1969b

¹⁵ Heidegger, 1962, book II

intrinsically alien to human subjective comprehension, and as the conditions of possibility, the interwoven ecological network. We bump up against the ‘reality’ of nature, especially when our concepts begin to fail in the face of inconsistencies in the evidence that supports a particular way of knowing. ‘Environment’ has ecological and objective connotations. It is physical surroundings, the *Umwelt*, that stretches from the immediate and tangible to fields further away. The environment reaches into distances that become abstract fields of national and global relations. It reaches beyond the limits of oceans, land, and atmosphere, it is the stratosphere, the solar system, galaxies, the Universe. The environment goes beyond the imagination.

What is Nature? What is environment? Each description of the term carries with it a plethora of competing histories, jostling theoretical frameworks, from the mythical, the scientific, the manifold, the rational, manifestations of God’s will, the intrinsically real, the poetic, the political, the material, the sublime.

Environmentalism includes desires to get closer to nature, to preserve it, to leave it alone, to clean it up, and to pass on stewardship of it to next generations. We alternately feel possessive, defensive, protective, harmonious, and alienated towards what we blithely call the ‘environment,’ having very little sense of what the environment actually is. We frequently need to be reminded that the term contains no determining sense of what actually does surround us, of what place we find ourselves in, of how we may recognize or define it, and especially of how we come to value it.¹⁶

Nature itself is not one fixed whole, not merely properties of the physical – but shifts, evolves, transmutes, alters scope, dimension, flows from matter to waves of light and back again. Nature refuses to reside in one simple word, one essence, one interpretation or one framework.

In such an unstable set of relations, it is arguably difficult to ‘fix’ a pathway for ethical values. If humanity is merely one species amongst multitudinous ecological assemblages we would not be alone in becoming the victim of our own success, over-populating and poisoning our ecological niche. We are part of nature. There is no difference between urban, rural or wild environments. Environments are dynamic rather than stable and fixed. That being the case, Oerlemans proposes that nature does not give any indication

¹⁶ Oerlemans, 2002: 5-6

for ethics. “Indeed the fundamental problem in environmentalist thinking is understanding the place of humanity and consciousness in the physical order of things.”¹⁷ Heidegger, Zimmerman, Oerlemans and others end up arguing that not only are we a part of nature, we are apart from nature. The distinctive capability of reflective thinking objectifies nature as the other, opening a space for ethics, truth, and change. Oerlemans quotes Frederick Ferré,

Unless we appeal to the uniquely personal capacities of the human species, we have no leverage for self-restraint, no basis for an eco-logical ethics. Taking a purely organismic view of nature, including the human as literally no more than one more ‘plain citizen’, our species should be allowed to live out its ‘destiny’ without any more moral censure than is applied to other species that trample and consume.¹⁸

The separation of subject from object leaps back again, this time as the *raison d’etat* for ethics and thinking. There is a blindness for humanity in being objects amongst objects. A blind absorption in the evolutionary task of procreation and adaptation. But rather than the traditional Idealist separation of the subject-in-itself from the thing-in-itself, it is possible to think of humanity as a subject amongst subjects, building in ethical regard for otherness. Subjective otherness offers the possibility for an ethics of the environment.

The thesis is divided into three sections: “Environmentalism and Education”; “Heidegger”; “Globalisation and Liberal Modernity.” The initial section is a genealogy of environmental ideas, touching briefly on early anthropocentric attitudes, tarrying on the grounding critique of modernity by the Romantics, briefly alluding to early Liberal ideas, Utilitarianism, and ‘second wave’ environmentalism. The topic is extremely broad so a conventional literature review would have taken too long for the remit of a three year research project. My aim is to examine the different ways of framing the relationship between humanity and the environment as it is threshed out in theories of the environment, politics, and pedagogy and environmental curriculum in education. To do this I have picked up main themes, contradicting currents that have repeated and differed, continued and adapted over the centuries.

¹⁷ Oerlemans, 2002: 6

¹⁸ Ferré, 61 quoted in Oerlemans, 2002: 7

Environmentalisms and Education

“Romanticism” in chapter two, makes an important contribution to reinventing a new and more democratic aptitude of world-view. The concept of ‘Nature’ shifts from the Classical rigour of the God-given ordering of the natural world. The critical reception of the Romantics has been a frustrating reversion to the separation of human subject from natural object that prevails throughout modernity. Thus, the ‘lack’ or ‘presence’ of politics in the ‘pastoral’ accounts of Romantic painting and poetry is read as either a reactionary, naïve Luddite denial of economic realities, or alternatively as a subjectivist over-representation of Nature as sexual, feudal or revolutionary politics. The difficult task for the Romantics has been to bring the body, emotions, mind, economics, culture and especially ‘Nature’ into the ‘body politic,’ particularly in the context of Georgian repression of explicit dialogue in polite society. Nevertheless, Burke’s philosophy on “The Sublime and the Beautiful” has persuasively shifted philosophical ideas from the narrowly conceived phenomenological rationality of the empiricists (especially Locke), and the extreme subjectivism of the Idealists (for example Berkeley). Through Wordsworth, Coleridge, Turner, and other Romanticists, the emotional comportment of embodied ethics and the interaction and communication that arises throughout the ‘kingdom of Nature’ carries weight with a very few important philosophers, such as Heidegger, across the centuries.

Chapter three starts to look at the forces that encouraged “Environmentalisms; Philosophical and Political Trajectories” to emerge more recently and how they have begun to impact on cultural ethics, mores, and education. The chapter is an historical literature review of influential ideas on the environment. It attempts to provide a philosophical overview of the scope of the environmental problem in terms of the human world-view, and the dominant theoretical strands addressing environmental and social arrangements. The previous chapter alluded to the Judeo-Christian-Muslim tradition, the Romantics, Bentham’s Utilitarianism, and this one looks at the rise of environmental concerns about toxins, pollution, and the human population explosion in the 1960s and 1970s. Aldo Leopold, Rachel Carson and Gregory Bateson are among some of these important environmentalists of the 20th century. Leopold wrote on the ‘land ethic,’ which

abounds with anecdotes of integrated ecological lives.¹⁹ Carson drew attention to the devastation of dioxins in the food 'chain' and contributed to heightening awareness of environmental crisis.²⁰ Bateson has written a very important philosophical treatise on the integrations of 'mind and nature.'²¹ He ranges across biology, chemistry, physics, and ethno-anthropology in an astute contribution to the field of philosophy of the environment. His argument on the 'threshold' of environment change, and the importance of *difference* and repetition to both the phenomenological registration of the environment, and the evolutionary process is extraordinary.

During the same period, debates fuelled by the prevailing paradigm of Idealist solipsism about whether nature can be attributed with intrinsic value or not has dominated many philosophy of environment schools of thought. One of the most well-known and enduring groups from the period is the Deep Ecology movement.

The apocalyptic argument is that there is equilibrium in nature that must be maintained within certain boundaries. Once the 'threshold' has been exceeded, then rapid and unpredictable change impacting on multifarious levels of the ecosystem will topple the existing 'balance of nature.' Climate change, for example, is not well understood because it has so many factors involved. Some historical geologists regard the present period of global warming as simply one of many 'cycles,' independent of human impact on the planet. Others point out that the rapid large-scale release of various pollutants, most notably CO₂, has changed the chemical make-up of the atmosphere and the oceans. To some extent forests and oceans can act as a 'carbon sink' that absorbs the emissions and in fact, thrives on the extra availability of elements. But this is within a certain scale or normative range, and once the threshold is exceeded, the oceans will warm up, deep ocean currents will move as temperate vectors change, ocean habitats will alter, Arctic and Antarctic ice caps will melt, and sea levels will rise – dramatically affecting erosion and land loss – and weather patterns will radically alter. At roughly the same time, atmospheric conditions will also be transforming. Again, thresholds apply. Minor emissions of polycarbons are beneficial at low levels in the atmosphere as they reflect

¹⁹ Leopold, 1949

²⁰ Carson, 1963

²¹ Bateson, 1979

some radiation frequencies back *out* of the atmosphere. But the high levels of polycarbons that have made the way up to the stratosphere are detrimental to life, because at that level they diminish the reflecting capacity of high altitude gases by bonding with ozone, creating an ‘ozone hole’ and *letting in* radiation frequencies to the lower hemispheres; hence CO₂ is a ‘greenhouse gas.’

There are two major approaches to climatic change, one is the geologist perspective which tracks the major fluctuations in climate, the emergence of life, shifting of tectonic plates, volcanoes, asteroids, the introduction, evolution, and disappearance of varieties of species over millions of years. The geologists that argue that this period of global warming is merely one of the many fluctuations experienced by the planet make the case that it may cause wide spread extinction of species but this is commensurate with other similar epochs, the most famous example being the sudden extinction of the dinosaurs. The other interpretation of contemporary global warming is that it is induced by human related technologies, most notably release of carbon dioxide and fluorocarbons, dioxins, polymers, and so forth, that have impacted upon the atmosphere, oceans and vegetation in ways we are still only beginning to learn about. These two views are not incommensurate. The former certainly should not alleviate human attention and care for our environment. ‘Care’ of the environment in this era has been interpreted technologically.

The technological view bisects into two further differing interpretations. The dominant view is that humans have agency or control over the technology that they ‘invent.’ This tends to lead some environmentalists to expect human societies to take responsibility for developing ethical mechanisms, most often put forward in terms of critical and democratic processes for ‘contesting’ the utility of particular technological items. The other Heideggerian view is that humans are a vector for the emergence and distribution of technologies, including plants, animals and minerals, throughout the globe. Thus technology itself (and I would include here the ‘technology’ of the ripe fruit, that the plant entices people and other animals to consume, store and distribute thus enhancing the reproduction of the tree) creates the conditions to which humanity responds. We are the vectors of reproduction for a technological epoch. As such we are not innocent of

agency; we can make ethical decisions about the extent and to some degree in what direction our energy is poured – in relation to technology. There is no innocence in being a vector. But like the carriers of an epidemic disease, there is also little or no choice about divesting oneself of it – other than to limit the distribution – through new technologies. My argument here is that education has to consider itself as a vector of technological transmission as well – and by reviewing its role, become more conscious of its ethical responsibilities.

The Deep Ecology movement has done a lot to popularise environmental concerns and provide one of the most important journals of environmentalism, *The Trumpeter, Journal of Ecosophy*. Arne Naess and others have remained embroiled in bitter debates about the human relation to nature, and whether nature can be attributed with intrinsic value. Naess is selectively influenced by the philosophy of Heidegger.

Chapter four continues to examine the prevailing Idealist framework and its resistance in “Contemporary Pragmatism and Critical Environmentalism.” This chapter is a critical evaluation of the related fields of Utilitarianism, Pragmatism, Neoliberal politics and economics. In this chapter critique is not merely destructive, I attempt to build constructive indicators of what is best abandoned and how to begin to embrace the risk of a future with new paradigms and new thinking about the ethics of our relationships with each other and the environment.

Environmental theorists influenced by Utilitarianism and American Pragmatism tend to maintain an Idealist nominal distinction between culture and nature that is also fraught with axiological problems of measuring and attributing ‘value.’ Andrew Light is particularly prone to neo-Pragmatist confusion that theory is separate, abstract and disposable whereas environmentally friendly practice is urgent and most effective when motivated by anthropocentric, economic reasons.²²

Andrew Feenberg is critical of ‘essentialism’ and looks to contemporary Pragmatism to help promote his democratic theory of ‘constructivism.’²³ Feenberg carefully examines

²² Light, 1996, 2000, 2001, 2002a, 2002b

²³ Feenberg, 1999, no date, a

the debate that has raged for over 30 years between the Malthusian populationist, Paul Ehrlich and the sociologist Barry Commoner. Ehrlich argues that over-population of the planet is putting too much pressure on the earth's carrying capacity by forcing wilderness areas back and growing crops in an unsustainable manner. Commoner regards unsustainable resource use and pollution as the result of the inequality of finance and resource distribution between rich nations and 'undeveloped' debtor nations. Feenberg takes insight from both these authors, and tries to resuscitate a 'democratic' version of technology. This accentuates human agency in the design process and ultimately aims to produce a technological fix to environmental problems.

Feenberg is highly disenchanted with Heidegger for being 'essentialist' about the critique of technology. Although he is interested in Heidegger's concept of enframing, he does not accept that the 'essence' of technology is rationality and efficiency because many rational and efficient inventions get lost in the entrepreneurial process. Feenberg hopes that a more democratic process may push forward technologies that have been ignored up until now. The hydrogen-powered car is a good example of a design that has been suppressed, for about 50 years, by the oil industry whose profit seeking motives favoured fossil fuels. Chrysler is finally offering a hydrogen fuelled vehicle to the market in response to the huge public anxiety about fossil fuel pollution.

Tim Luke has taken the Critical Theory of the Frankfurt School into the globalised era of information technology. Critical Theorists from the Frankfurt School illustrated how the working class had 'failed' to revolt against capitalist modes of production because they became increasingly implicated in mass consumer culture. Environmental 'externalities' will have to be paid for eventually, and the upper classes are better able to insulate themselves from the impact of pollution and global warming than the poor. Luke recognises that environmental problems seriously challenge capitalist modes of social organisation and tries to reimagine a better relationship between humanity and the planet.²⁴

²⁴ Luke, 2003

Guattari's critique of 'Integrated World Capitalism' centres on the economic metaphor which has leached any meaning from alternative ways of knowing.²⁵ He is highly critical of the media – and education is culpable here too – for constraining itself to the sound bites of the Neoliberal market metaphor, of the 'knowledge economy,' and for losing sight of the *desire* for any other ways of knowing - reflective, emotional, or the ethical relation to the Earth and to other people.

Chapter five is on "Environmental Education" which emerged in the 1960s in the context of consumer optimism, yet at the same time, an increasing awareness of the detrimental impact of industrialisation on nature. Environmental theory is cross-disciplinary and includes geography and evolution, analytical positivism, utilitarianism, pragmatism, critical theory, theories of ecology, economics, and post-structuralism. Of necessity these themes are not examined to exhaustion. There is a plethora of scientific expertise in specific fields that argue for or against environmental issues, and I have by and large, avoided specific issues in order to focus on the larger picture. Likewise, I have followed the general outline of the many environmental theories, sometimes paying close attention to specific debates in order to build a picture of the main themes of environmental education and its general direction in relation to ecology and Liberal economic globalisation.

The prevailing epistemologies influenced pedagogical theory and shaped the literature on environmental education. Pedagogy was dominated in the 1960s by Skinner's behaviourism and analytic positivism. These theoretical premises served to keep politics and social organisation out of environmental education. In the 1970s a broader epistemological base, which included geological history, social history, sociology, and political science, helped to reconnect environmental education to the implications of prevailing social practises 'on' nature. In the 1980s education caught up with the environmental concerns of wider society and showed some transformative promise, at least in the environmental education literature. By the 1990s Neoliberalism had once again imposed a positivist pedagogical methodology that is occluding politics and social practises, and is taking over earlier ecological discourses such as 'sustainability.' The

²⁵ Guattari, 2000

political engagement of environmental education is fading faster than the realisation of its promise. Heidegger's increasing popularity may yet serve to shift education to a more ethical concern with humanity's relationship with 'Being' and the environment.

Heidegger

The second section explores the contributions and limitations of Heidegger's philosophy towards developing a more ethical relation for humanity and the environment. Heidegger tampers with traditional philosophy and theology, altering the 'ground' of metaphysics, ontology, subjectivity, epistemology, and most importantly, highlighting the relationship of humanity with the environment, or as he describes it, Being. I look at the political context of the terror of the Nazi holocaust and the way it shaped his writing and thinking. His most explicit ideas on education were formed in the context of the Nazi policy of *Gleichschaltung*, bringing-into-line. Heidegger's intellectual pathway gleaned ideas from traditional philosophy, poetry and pedagogy as well as the radical traditions of German thought, which he remixed in his critique of modernity as the technological *Gestell*, or enframing.

Chapter six "The Romantic Heidegger, Technology, Thinking and Education in the Nazi Era" investigates the political and intellectual milieu of Germany, particularly in the interwar years and its impact on Heidegger's period as Rector of Freiburg University. The 'ideas of 1914' were characterised by the heroic, Romantic and Luddite *Volk* movement which influenced most German thinkers.

During this period, Heidegger developed his very substantial critique of modernity and the enframing of technology. The theory emerged partly from his reading of Nietzsche, partly from the Catholic suspicion of modernity, and partly from the *Volk* movement and the technological superheroics put forward by Oswald Spengler and Ernst Jünger.²⁶ In war-like and masculinist language, these two writers developed a comprehensive critical analysis of the potential of the technological boom and a consequent critique of its effects on society and the planet. Their prescience is remarkable. Heidegger developed some of the ideas of both theorists into the concept of *Gestell*, the *enframing of technology*.

²⁶ Spengler, 2002, Jünger, 1993

Spengler theorised technology as an overarching force that is shaping each subjectivity. He argues that the modern interpretation of nature has radically altered from the feudal and the tribal. Making a living has changed from working together with the natural rhythms of the harvest to ‘challenging forth’ nature. The fluctuating cadence of the river, the oscillating flickering light of the candle, the slow cyclic regeneration of the forest; have all been transformed by a technological ‘challenge’ which channels and constrains the natural tempo and demands the storage, enlargement, and redistribution of nature as a ‘resource.’ The wresting of materials and energy has become commodified because technology has produced a capacity for storage so that the seasons, the flow and the fallow periods no longer radically constrain consumption. Following Spengler, Heidegger realised that technology has objectified everything, including humanity, as potential resource.

Jünger took war as the heroic literary/aesthetic metaphor for the ‘destiny of the west.’ He argues that work is totally at the disposal of the war machine, whether it be sewing, sowing or shooting. Even during times of peace, the war machine is at work. Unlike feudal Kings, who had to rally together temporary armies in times of war, modernity maintains standing armies in reserve during periods of war or peace. The war machine poses a constant threat of terror. Jünger called this continuous usurpation of all labour, ‘total mobilisation.’ He took ideas from Nietzsche’s book *Thus Spake Zarathustra*,²⁷ (which had been distributed to soldiers in the German Army) on the concept of the ‘superman’ as the hero who is able to swallow all events, no matter how terrible, and commit to the ‘will to power’ coursing through the body politic. Heidegger took up many of Jünger’s ideas about the total technical mobilisation of the war machine and standing reserve, but criticised his unreflective acceptance of problematic ideas in Nietzsche as being too ‘biological’ and metaphysically essentialist.

The ‘turn’ in Heidegger’s thinking about equipment and technology emerged in the mid 1930s during the term of National Socialist rise to power in Germany. The politics of the day and the somewhat Romantic discourses that were circulating about technology and the *Volk* influenced Heidegger profoundly. For ten months in 1933 he enthusiastically

²⁷ Nietzsche, 1982a

engaged with the National Socialists seeking a new era that returned to home and hearth and rejected the terrors of the technological age. He hoped to make use of National Socialist policies to promote education to the centre of political and cultural concerns, rejecting the busy superfluous categorisations that preoccupied many discipline areas, avoiding the narrow focus on skills and information and resuscitating genuine understanding into the meaning of humanity by attending our relationship with Being. By the opening months of 1934, he realised that the Nazis were intractable in their racial prejudice and their direction of ‘total mobilisation,’ which emphasised employable ‘skills’ rather than thinking. He gave up the idea of elevating university education as the source of intellectual and spiritual leadership for the promised *Volk* utopia. He spent the remaining years of the war giving lectures on Nietzsche and Hölderlin, trying to rescue their writing from Nazi interpretation. While rejecting biological eugenics outright, he would always hold forth on the superiority of the German language as the ‘home’ of original western thinking and the potential source of the examination and extrication of human society from the decadence of modernity. Despite his desperate attempt to think his way out, Heidegger remains caught up in the terrible nationalistic politics of modern Europe.

It is this recognition of the nihilism that pervades modernity that pre-occupied Heidegger’s four volume lecture series written during the war years on Nietzsche.²⁸ In chapter seven “Heidegger’s Nihilism: Life, Being, *Dasein*” Nietzsche and Heidegger signal the threshold between the traditional approach to philosophy and a paradigm shift which abandons the ‘other-worldly’ in favour of the immanent integrity of this one. In slightly different ways, Nietzsche and Heidegger renounce monotheistic and positivist ways of viewing ecology because they are nihilist and exploitative. Heidegger and Nietzsche each range over the debates about the relative merits of Aristotelian or Platonic philosophy as vital sources of modern culture.

The two of them had quite different ideas about the integration of humanity into the environment. Nietzsche argues that the body and mind are one entity. The mind can never fully comprehend the chaos of its phenomenological impressions of the environment.

²⁸ Heidegger, 1982, vol.s I-IV

Any attempt is overwhelming, so a large proportion of the chaotic stimuli that the body and mind must cope with is suppressed and actively forgotten. From this premise the human agent is to a large degree absorbed into her or his surroundings without any overt separation. Furthermore, bodies are constantly touching surfaces, shedding skin, inhaling and exhaling, eating and excreting; at some level swapping physiological components with the environment. The notion that an individual is separate and differentiable from ecology is a convenient misapprehension that makes possible the social identity of the human genus. Where Heidegger concentrates on the becoming of Being, Nietzsche talks about the flux of Life. Nietzsche's term 'life' is not confined to a solipsistic world, revealed by human subjectivity. He incorporates organic and anorganic forms (existence, including particles, rocks, bacteria, viruses, fluids, solids, gases, chemicals, stars) in a continuously changing flow or will, that are reminiscent of the tenuous and changing set of relations and existences at work within an eco-system.

Both philosophers are interested in nihilism and its connection with the western traditions of philosophy and modernity. Their different conceptual bases offer subtly different explanations of the nature of nihilism. For Nietzsche the Will to Nothingness is an idealistic and otherworldly rejection of the inherent value of life we lead in the here and now. For Heidegger nihilism is the nothingness of forgetting to care and enquire into Being. Heidegger's emphasis on the importance of the subject, *Dasein's* world view in relation to Being combined with the totalising enframing of technology, paints a dismal picture for the value of wild existence outside of the realms of human interference.

Nietzsche's interest in the chaotic and unknowable nature of the world opens up space for alternative possibilities, while acknowledging that in its present phase of nihilism, life is devalued to and beyond the threshold of extinction. Life is a precarious and precious thing and may disappear before we resurrect the respect and effort required to overcome the life-denying principles that dominate today.

For both theorists, in subtly different ways, bodies in practice are a central concern of philosophy and of education. There is a tradition of focusing in education, on either one or the other; 'physical education' or something cerebral like English, Maths, History and so on. The disciplining of children's bodies into wriggle-free, self-contained, focused

individuals has become central to schooling. Refocusing on the cultural integration of bodies, minds and surroundings shifts our attention from ‘self’-interested individualism and opens an entirely new basis for culture-nature. This promises to set up new fundamental premises to the ethics, practices and interdisciplinary cooperation in education.

Heidegger asks a question that heads us in a beneficial pathway in terms of attention, scope and care, when he asks What is called Being? The question allows us to address our relation to the environment across the entire metaphysical and post-metaphysical tradition of the history of modern human culture. The next question is what does *Heidegger* mean by ‘Being;’ ‘nothingness,’ ‘becoming,’ ‘*physis*,’ ‘emerging’ (evolving?), or ‘*aletheia*,’ ‘appearance,’ ‘world-view,’ ‘existence.’ And why did he largely ignore ‘Nature,’ ‘earth,’ ‘environment’? Importantly, Heidegger rules out ‘representation’ via a complex argument that traces the history of Being through Heraclitus and Parmenides, to the culmination of philosophy in Plato, to the *logos* of Aristotle which congeals the enquiry into statements or representations.²⁹ This amounts to the stagnant separation of individual ‘subjects’ who are alienated from objects and can only describe events and entities using the endless circulation of signs inherent in the *logos*. Representation as *logos* is the calculation and rational categorisation that emerges from the subject rather than in communion with external objects.³⁰ This critique challenges the high status of scientific positivism, and re-ignites poetry, and especially *eco-poiesis* as the *Quelle* or wellspring of insight into the genuine relationships binding the environment and humanity.

Chapter eight is titled, “Heidegger’s Environment: Equipment and Being.” Heidegger has challenged the Cartesian separation of subject from object and the notion of the autonomous individual. Heidegger’s theory is an early, and highly influential analysis of the emerging environmental crisis and the role that technology plays in the relationship between humanity and our environment. He followed Nietzsche’s critique of the way western philosophy has consistently instituted a separation from the solipsist subject, or

²⁹ Heidegger, 1982, vol. IV

³⁰ Heidegger, 1973a

'mind' and the external object, or physical environment. This tradition of a harsh division between mind and body, or human subject and world has set up conditions for debasing the lived environment as a temporary condition that is little appreciated, as opposed to the 'truer' more 'essential' realm of the mind or soul. The way these dualist oppositions have been conceptualised has altered at varying points during the history of philosophy. When Platonism and Christianity dominated the field the immanence of earth was conceived as counterpoint to an abstract, transcendent, 'Heavenly Ideal,' outside of time and space, perfection and the 'Good' floating somewhere above the clouds.

Later, positivism took its lead from Aristotle and searched for verifiable truth paradoxically situated not in the subject, but in the object. It was a search for minutely detailed generic categorisation that could result in generalisations about the essential and universal nature of a specific thing or phenomenon. Again, individual cases or events never quite qualify because of specific historic anomalies, so it is only across time and space that statistical categorisations can be made. Because of circumstantial accidents, the essential truth is always at one remove from the reality of any particular incident, urging progress to close in on the normalized goal.

In contrast to the separation and contrast of the dualism, subject/object, or incompetent human finitude versus perfect other-worldly Ideal, Heidegger understands the relationship between human subjectivity and the lived environment as inseparable through the integrally human factor of 'equipmentality.'³¹ Coming from an almost anthropological viewpoint that humanity is the tool wielding animal, he argues that human agency is completely absorbed in the understanding of our bodies and surroundings as equipment. We enter an 'always-already' environment invested with signs. Much of this information is so familiar it becomes unnoticed, so that, for example, instead of viewing the chair as an alien object of metal and fibre, I automatically register it as comfortable and capable of taking my weight if I park my bottom on it. My physical demeanour, my activity, social assumptions and thinking are integral and reliant upon the chair-as-equipment. None of this is consciously registered, unless there is a problem with the equipment; the chair is lumpy or broken. Even in this circumstance, the desk, the

³¹ Heidegger, 1962

carpet, the window, the small, framed view, will remain unconsciously integral to the capacity, understanding and predictability of my being-here, and enables the subject to promote or project a reliable future; being-(t)here. The surroundings enable thinking, action, and decision-making to take place. It is not possible to conceive of a subject without surroundings. Heidegger argues that equipment is integral to our conceptualisation of our world, and indistinguishable from the utility of our own body, hands, legs, chair, floor, window and so on.

The chapter goes on to outline some aspects of Heidegger's philosophy; the critique of biology as the foundation or ground of essential substance, evolution, thinking and social potential.³² For Heidegger the 'ground' of thinking is Being. Heidegger has reconceived the traditional philosophical concept of 'Being' from the stale, static and over-generalised version by retrieving the 'original' force of the concept in ancient Greek. He develops the terms *physis* and *aletheia*. *Physis* is variously described as 'nature,' 'earth,' 'world,' 'Being.' Heidegger defines *physis* as the continual dynamic emerging of becoming in Being. The word *lethe* means shrouded or concealed. *Lethe* is the sheltering of Being and *a-letheia* is the *unconcealment* of Being through the attention, care and thought of the authentic subject, *Dasein*. *Aletheia* is very important to Heidegger's metaphysics. The 'unknowable' is what is present, immanent, yet hidden and concealed in Being's *lethe*. For Heidegger our lack of complete knowledge does not *separate* us from Being. It is simply part of the magnificence that continually arouses enquiry and awe. Heidegger argues that any particular historical epoch will be blind to its ownmost essence in terms of Being. What is most familiar, and functions most smoothly is also what hides most effectively in the *lethe*. As with equipment, it is only at the crossing of a threshold, either when something breaks or fails, that we 'notice' and attend to it, or it is made 'strange' by belonging to another epoch (or culture).

The stranger on the edge of a cultural milieu has more insight into the 'truth' of things than someone deeply engrossed in their own normalised way of being. These ideas get developed by Derrida 'on the margins' and others.³³ From our stance in the 21st century

³² Heidegger, 1973a

³³ Derrida, 1982, Cixous 1991

then, some elements of ‘the essence’ of the German cultural milieu in the early half of the 20th century become clearer than it was for Heidegger at the time.

Education reproduces the concealment of Being as well as the lighting of the *lethe*. Many cultural practices are transmitted almost subconsciously, in the architecture, the institutional structure and hierarchy, the assumptions about sanctions and punishment, the prevailing pedagogical practices – these all announce the normative cultural paradigm without specifically critically analysing or becoming conscious of the implications of normal behaviour, language and equipment. The bulk of educational practices fall into the rubric of ‘concealment.’ Thinking is bringing Being into the light of *Dasein*’s attention. Heidegger wants to activate education as the primary site for re-engaging humanity with our central task - asking the question about the meaning of Being. This organically, so to speak, arises when something goes wrong with our equipment; then we have to think about the original function and the framework the function operated in; thus bringing to light the meaning of equipmentality. But education is partly about the transmission of culture and partly preparing the way for enlightened thinking, or a critical aptitude for making ‘autonomous’ decisions. From Heidegger’s perspective critical thinking is another, more abstract example of equipmentality. Thinking only takes another step when it addresses the primary aesthetic relationship between the entity and Being.³⁴

I look more closely at his interpretation of the traditional concerns of philosophy; that of the subject and object, or solipsist agent and the ‘world,’ which he reinvents in terms of *Dasein* and Being. This takes an Aristotelian slant on the notion of an essence that shows up in specific encounters between *Dasein*, or the subject, and an object or event. As with most philosophers since Kant, Heidegger is immensely interested in time and its impact on subjectivity. He notes that the subject’s finitude defines the manner in which we are ‘thrown’ into an already existent environment and confines the possibility for understanding the past and present, and for projecting into the future. His notion of Being *relies upon* the comprehension of *Dasein*, hence to some extent he remains within the nominalist tradition of sceptical solipsism. However, for Heidegger, nominalist

³⁴ Heidegger, 1969b

frameworks 'world' for entire communities rather than separate subjects, so his nominalism has a group orientation rather than isolated individualism. The world only exists insofar as someone is capable of recognizing it. This means he excludes animals from the category of *Dasein* because they are incapable, he argues, of reflecting upon the world. They merely exist within their ecosphere as objects among objects without thinking about it.

Of course, in many ways, that is all that humans do within the work-world of equipment. We operate unconsciously, taking for granted the already given names and utilities for most aspects of our immediate (and not so immediate) surroundings. Thought tends to come into play when an item is not operating as it ought to; and we must think about why, and how to resurrect it into the order of things. Perhaps the enframing of technology has only become obvious since it threatens the very continuation of life. Heidegger sees the problem associated with the enframing of technology not simply as pollution, or species extinction and so forth, but as the forgetting of the meaning of Being itself. This attention and care that *Dasein* exhibits towards Being is the essence of human meaningfulness so forgetting Being is to annihilate the meaning of our existence. We become as important in the scheme of things as a rock, or a pasture.

Education takes its potency from reinvigorating the questions about Being, and enculturating future generations. When he was Rector of Freiburg University, Heidegger wanted to restructure all the discipline areas along these lines. He despaired of the trajectory of science in particular, as merely collating more and more meaningless information and forgetting to approach and ask the crucial questions that define our humanness and the Being of our environment.

In chapter nine, "Heidegger's Turn; Unconcealment and Forgetting" I demonstrate how for Heidegger technology mediates between our senses and our understanding of the environment. The 'enframing of technology' challenges forth a rational interpretation of events that calculates and dissects the 'nature of things.' In contrast to the inaccessible object about which we can only surmise and 'represent,' Heidegger conceives of the concept of *lethe*, or 'concealment.' He thinks of concealment as the sheltering of Being

and unconcealment as the showing forth of Being into the light of *Dasein*'s thinking. Technology, he argues, is another form of limiting and corrupting the enquiring openness of *Dasein* towards Being. Instead, *Dasein* forgets to ask the appropriate questions about Being. Being is concealed in the rhetoric of calculation and rationalism. Appropriate enquiry and care is forgotten because of the alienation of globalised production, transnational economics and corporate finances. It is forgotten by the positivist obsession with counting and statistics (and with Foucault's reading of Heidegger) surveillance and governmentality.³⁵ It is forgotten in endless assessment and evaluation, and the 'added value' of 'skills' and 'qualifications' to our 'human capital.'

Heidegger's concept of concealment broadly agrees with the tradition of nominalism. The naming of things is arbitrary and can only ever hope to describe limited aspects of the item or event. There is no conclusive truth to naming. Categorisation is more about the convenience of explaining to other people, developing a metaphoric world that makes human society possible. Humans are incapable of the Gods' eye view, so for every epoch aspects of Being remain concealed. Heidegger's version does not separate the subject from the object as in strict Idealism as Descartes and Berkeley did. Aspects of Being show forth, it emerges, erupts, and imposes upon the consciousness of *Dasein*. At the same time as truth about Being shows forth to an open and enquiring *Dasein*, there are always elements that remain in concealment. Humanity is bound by a historical context, and this generates a particular openness while occluding other ways of knowing. There is never complete transparency. The truth of Being is infinite, whereas a human being has a limited lifespan.

During and after the upheaval of the Second World War, Heidegger developed a more suspicious approach to equipment or technology. He was appalled by the pernicious development of nuclear bombs and realized that technological developments made destroying the entire planet possible for the first time. While equipment *integrated* humanity into the environment, technology governed human agency by defining the possible. He called this *Gestell*, technological enframing. The danger is when the process of absorption through technological equipment is so complete that the separation of the

³⁵ Foucault, 1979

solipsist subject from the object is completely annihilated - then agency is also annulled. At present the technological frame colours and totalises everything so that all objects, all eco-systems and all of humanity is a resource or potential resource in an all-consuming, ever-deepening, and non-reflective process. Hence the increasing emphasis in educational policy on increasing attributes of 'human capital' rather than critical, reflective *thinking*.

Heidegger's long held complaint about modernity and the philosophical traditions of the occident is that calculation and rationality closes humanity from an open attitude and encourages human beings to forget the question of Being. However during the 1930s Heidegger had a 'turn' in his thinking. He realised that the enframing of technology was so devastating that Being was only safe *if* it was forgotten. Technology, he argues, is the danger and the saving power. However, if *Dasein* forgets that we have forgotten Being, then Being is lost forever into the nothingness of mere existence. Thus, Heidegger argues we are in a very narrowly constrained place. The philosophical and educational leadership that he tried during 1933 and 1934 had failed. Heidegger puts all his faith in the destiny of Being to re-emerge into a clearing and show up anew. Human agency is so taken over by the technological frame that we are no longer capable of directing authentic questioning, except to preserve the knowledge that Being once showed forth in a free relation and hope that this authentic relation can occur again.

Yet Heidegger's revelatory 'turn' is that Being is perversely safeguarded while the question of Being is forgotten in the enframing of technology. Thus technology is the danger which forgets Being, and also the saving power which guards the concealment. Nihilism ultimately, is the forgetting of the forgetting of Being, and our greatest obligation is to avoid allowing Being to become so forgotten that Being (and humanity) descends into the oblivion of non-thought.

Chapter ten is about "Heideggerian Environmental Education: Bowers and Pedagogy." Heidegger's argument is that the enframing of technology has foregrounded our understanding the environment and ourselves in terms of utilisable resource. Chet Bowers is an important writer on technology, educational practices and environmental education and one of the only educationalists who has taken Heidegger's critique of modernity and

technology very seriously and allowed it to inform his approach to information technology in the classroom. Bowers has a tendency to be technophobic, nevertheless he has some very interesting insights into the effects technology has had on changing pedagogical practice. Pedagogy is increasingly modelled as a conduit where the teacher technologically 'enables' the active learner to access information through available research resources. This is vastly different from the creative model of teaching as a creative and largely unpredictable interaction between teachers and students. I try to distinguish between the problems generated by modern Liberal rationalism, individualism, managerialism, and economic governmentality as opposed to the parameters and possibilities of the technology itself.

Globalisation, Liberalism and Sustainability

The last section on globalisation and Liberalism is informed by Heidegger's critique of the technological enframing of modernity and the rigidification of language into the representative calculus and rationalisation of *logos*. Heidegger calls for a poetic aptitude for allowing ecological Being to 'shine forth.' The earliest forms of Liberalism emerged from revolutionary overthrows of a feudal state in favour of the democratic 'general will.' Liberalism wrested the possibility of capitalist accumulation of wealth from the Church and feudal overlords in favour of the merchant middle classes. Neoliberalism has extended the market metaphor so that it takes over all categorisations, pushing technological enframing into enclaves, traditions and relationships that have hitherto withstood its rational calculations. Humanity is increasingly individualised and commodified, bearing barcodes and identification numbers instead of personalities and names, Liberal principles such as 'freedom' are subsumed in the marketisation of 'choice.' Both education and the environment has succumbed in large part to Neoliberalism's 'paucity of metaphor.' The notion of sustainability has been emptied of its content of care towards the environment and increasingly stands in for 'market efficiency.' This has implications for environment education. Yet the 'market' of Neoliberal theory fails to adhere to either rational or divine order. The calculus and accountability of everything, including pollution, emissions, landfill, water contamination, and so forth into economic management fails to find some magic market

‘balance.’ According to Neoliberalism the market never ‘balances’ because it has not been allowed free rein. However the equilibrium, even at Pareto optimality, has imperfections, demand never equals want, the psychological impact of advertising is unacknowledged, full employment is a myth, and so on. Interestingly, despite the constant allusion to science and positivism, whenever events demonstrate the flaws in the Neoliberal market model, they use the Aristotelian argument of accidental anomaly to disallow it as evidence that more complex forces are at work.

The economic disparity of wealth and consumption between rich (‘developed,’ ‘First World,’ ‘western,’ ‘colonizer’) and poor (‘developing,’ ‘Third World,’ ‘southern,’ ‘post-colonial’) nations plays an important part in the politics and philosophy of the environment. So, to a limited extent I look at some efforts aiming at ‘development.’ To do this justice it would have been good to investigate theories of the environment and social practices in various ‘Third World’ nations. My home in the southern hemisphere is thousands of miles from the ‘centre’ of wealth and first-world civilisation. I am a *Pakeha* New Zealander (of Irish/Scots descent) situated in Scotland. My cultural and biological heritage puts me in a strange insider/outsider position. Scotland is the first place I have ever lived where, instead of looking fluorescent, I physically look like everyone else. That recognition applies to culture too. Yet the recognition is a stranger’s appreciation of what is taken here as normal. My upbringing was profoundly influenced by ‘biculturalism’ and a positive engagement with Maori and Polynesian culture. I am acutely aware that the Greek-Judeo-Christian tradition has constituted modernity with imperialist undertones and this thesis attempts a critique of the world domination of these ideas. In this work I have not overtly used theories from outside the occidental traditions to do this. Partly I have not needed to because as a woman and a foreigner I am already marginalized enough to have a fresh perspective on the western philosophic tradition, and partly because I do not want to romanticise the ‘native’ ways of relating to nature which vary considerably over time and place. Furthermore, many indigenous cultures also managed to threaten many local species to extinction. An example from home is the 50 or more varieties of Moa in Aotearoa/ New Zealand hunted to extinction in early times by Maori burning huge tracts of forest. More recently, Maori have developed the *rahui* system, which places a *tapu* or metaphysical and physical ban on specific areas where

species are under threat so that regeneration can occur. The normative paradigm of western Liberalism that is failing the environment on such a massive scale today might be transformed by examining the *rahui* (and other mechanisms, theories and world views). But this is not something that I have looked at in any detail in the thesis.

All ideas and practices change in response to environmental events. I am specifically interested in the modern Liberal tradition because it is having such a profound impact on nearly all parts of the planet. Thus, like Heidegger, my research concentrates on the philosophical tradition which has developed the present normative paradigm, the strands of philosophical theory that are in circulation in environmental theory, educational theory and environmental education.

Heidegger's philosophy is one of the most acute critiques of the paradigm of modernity; technological enframing as the total mobilisation of everything as 'goods,' 'services,' and potential resource in the rational, economic calculation of the circulation and 'growth' of capitalism. Heidegger offers a lens through which to reflect upon contemporary attempts to step back away from the threshold of environmental crisis. Concepts such as 'sustainability' lend themselves to a worldview of calculation, surveillance and managerialism that might alleviate immediate problems with pollution and waste but exacerbate and deepen the technological enframing of rational calculation and control.

It is no accident that the emergence of a discourse of crisis about the state of the environment has coincided with increasing recognition of the processes of globalisation. Chapter eleven, "Global Policy: 'Sustainability' and 'Risk'" engages with a cohort of related theories, ideas, and organisations associated with globalisation: economic theory, various pan-global organisations such as the OECD, UN, World Bank, IMF, global treaties, information and policy initiatives such as the Kyoto Protocol, and Agenda 21 meetings about the environment at Rio de Janeiro and Johannesburg.

The total mobilisation that Heidegger and Jünger discuss in the 1930s is contributing to a new round of empire building in the early 2000s. China, India, OPEC nations, the EU and the U.S.A. are all jockeying for position in the changing world stage. At the level of global treaties, the controversial Kyoto Protocol on acceptable levels of greenhouse gas

emissions was one of the first things to which George W. Bush objected as President of the United States. The significance of his lack of co-operation has been one of the major concerns amongst governments throughout the rest of the world. In the United States (and to a lesser extent Great Britain) there are still prestigious scientists who cast doubt on the scientific reliability of environmental damage. George Bush and advisors insist that global warming is part of the natural cycle of planetary temperature change. However, a team of scientists from different disciplines have analysed nearly all the available data and put together the IPCC document called *Climate Change* published in 2001.³⁶ They have carefully differentiated between long-term predictable cycles and anthropocentric intervention. They have tried to estimate the threshold at which viable conditions for maintaining life as we know it can survive on the planet. Optimistically, there is a leeway of some 6 degrees Celsius. The IPCC have also produced a number of models extrapolating from known data the probable climate change over the next century. It does not make for happy reading. In the United States, the government's Environmental Protection Agency produced a report on global warming in 2003. The White House insisted on introducing 'vagueness, ambivalence, and prevarication' into a publication put out by its own agency on global warming, introducing 'uncertainty where there is none.' The Environmental Protection Agency withdrew the publication. In 2004 the Pentagon described climate change as 'a bigger threat than terrorism.' It remains to be seen whether this pressure will encourage Bush to finally ratify the Kyoto agreement or introduce any other measures for diminishing pollution in the world's richest consumer orientated nation.

Across the earth, environmental agencies are being set up and many governments are taking environmental problems seriously. The OECD spokesman for the environment, Simon Upton, is trying to use Neoliberal theories to incorporate environmental factors into the global market.³⁷ He is attempting to set measurements and introduce exchangeable 'vouchers' that will bring pollution levels within the theoretical balancing rubric of the market's 'Invisible Hand.' Using the notion of Pareto Optimality, the market is thought to adjust to the most efficient exchange rate, taking into account availability,

³⁶ IPCC, 2001

³⁷ Upton, 2001a, 2002a

efficiency and price. Upton presumes that permissible levels of carbon monoxide emissions will find a price where they strike a balance between ‘acceptable’ levels of environmental pollution and the continued possibility for wealthy individuals (or nations) to continue to drive their cars. The United States could buy vouchers from poorer nations that either do not produce their world share of greenhouse gas emissions (through poverty) and/or have natural resources that counterbalance the problem such as large forest ‘reserves.’ This effectively makes a situation where the richer countries in the world pay poorer countries not to cut down forests in an effort to ‘sustain’ healthy conditions in the atmospheric ‘commons.’

Giddens coined the term ‘Third Way,’ to include social equity issues into the Neoliberal transference of the economic metaphor onto all spheres of social organisation.³⁸ He is one of the few Neoliberals to recognise that the finance markets are grossly different from the simple 18th century model first discussed in Adam Smith’s seminal work about the conflicts between domestic consumption and the European export in the corn trade.³⁹ Global financial markets nowadays are 95% arbitrage and 5% actual commodity so the direct appeal to market ‘balance’ is fundamentally corrupted. Giddens tries to incorporate environmental concerns into the economic system by arguing that efficient production will use fewer resources, energy and labour. He then continues to associate ecology with efficiency in all contexts. He advocates a ‘risk matrix’ that uses an insurance model to counter the potential problems of environmental disaster. Giddens puts great faith in global governance, ‘human capital,’ and the social investment state to sort out the risks and costs associated with global warming.

The final chapter “Limits of Liberalism” looks at the philosophical premises of the Enlightenment and how it has played out in Liberal democracy. The chapter shows how empire building is integral to Liberal democracy.

Blühdorn describes how the contemporary Neoliberal lexicon has taken over words such as ‘sustainability’ and shifted the meanings from egalitarian communitarian concerns to the apparently apolitical discourse of market transactions. He argues that Liberalism has

³⁸ Giddens, 1998

³⁹ Smith, Adam, 1904

always been concerned with security. Yet over time security has shifted from a community basis to an issue of privatised individualism. Environmental concerns too, have been privatised and are more the responsibility of the consumer than the producer. He also describes how the discourse of 'risk' has begun to shift to an entrepreneurial awareness of financial opportunity. Blühdorn argues that Neoliberalism empties the older concepts of terms such as 'sustainability' of their content, and shifts everything to the money-making enterprise. He is very despondent that education can alter the prevailing paradigm, or that environmental education is capable of introducing an ethic of care and ecological awareness.

Heidegger's own life history shows how the politics of terror invades attempts to think beyond modernity. Yet from out of Heidegger's despair about the technological enframing of Being emerged a hope that we can conserve the seeds of a preparation for a new beginning; a Romantic openness to communion with the environment, and with each other. "Poetically man dwells." Heidegger's question about the relationship between humanity and Being is the *start* of a more authentic relationship between humanity and the *environment*. His philosophy has some problems, as we shall see, not least because he limits himself to philosophy, and does not read texts in many of the disciplines of the sciences; biology, geology, astronomy, and so forth. It is important that when we critique the rationalist basis of Humanist Idealism we do not abandon the promise of science, rationality, and technology in sweeping over generalisation. The morphology and consistency of natural items and events, the powerful shape of linguistics and meaning are more closely integrated than Heidegger ever realised. His works on the problematic of Modernity are an important component of stimulating the conditions for change in culture and education. From the Modern tendency to accounting, calculation and rational certitude, Heidegger's philosophy raises the openness of questioning. It is a tenuous aptitude, a mere 'readiness' for a new beginning. But it potentially initiates a whole stochastic process of change, a transformation and another very different threshold for the metamorphosis of culture and education into an acknowledgement of our comparative relation with other beings and Being, and a prevailing open ethic of care and thinking.

Environmentalisms and Education

2 Romantic Poetics, Solipsism and Environment

The integrated relationship between nature and humanity evoked by Wordsworth's poetry was completely misunderstood by critics such as Hazlitt, who, backed by Cartesian philosophy, argued that Wordsworth was attributing normative, conservative human behaviour and emotions into the landscape. But in Romantic poetry, something altogether different from dualisms, such as the Idealist separation of subject/ object, culture/ nature, was taking place. In this chapter I argue that eco-poetry, with its roots in Romanticism, is a means to write to a point that transgresses Idealist dualisms. Poetry encourages an emergence from our isolated individuality and allows communication, in Heidegger's words, to 'shine forth.' The chapter looks at the philosophy of language, subjectivity, the processes of thinking, and the significance of poetry. These form the genealogical building blocks for later thinking about an ethics of environmental care.

As Wordsworth illustrates in "The World is Too Much With Us; Late and Soon", in response to the emerging climate of modern emphasis on measurement and rationality,

*The Winds that will be howling at all hours
And are up-gathered now like sleeping flowers;
For this, for every thing, we are out of tune;
It moves us not.*⁴⁰

Romanticism makes an important contribution to reinventing a new and more democratic approach to nature and other peoples. The concept of 'Nature' shifts from the Classical rigour of the God-given ordering of the natural world to something more enigmatic, unknowable, and Sublime. The critical reception of the Romantics has been a frustrating reversion to the separation of human subject from natural object that prevails throughout modernity. Thus, the 'lack' or 'presence' of politics in the 'pastoral' accounts of Romantic painting and poetry is read as two extremes: either a reactionary, naïve Luddite denial of economic realities, or alternatively as a subjectivist over-representation of Nature as sexual, feudal or revolutionary politics. The difficult task for the Romantics has

⁴⁰ Wordsworth, 1806, in Bartleby, 2004

been to bring the body, emotions, mind, economics, culture and especially 'Nature' into the 'body politic,' particularly in the context of Georgian repression of explicit dialogue in polite society. Nevertheless, Burke's philosophy in "The Sublime and the Beautiful" had persuasively shifted philosophical ideas from the narrowly conceived phenomenological rationality of the empiricists, and the extreme subjectivism of the Idealists. Through Wordsworth, Coleridge, Turner, and other Romanticists, the emotional comportment of embodied ethics and the interaction and communication that arises throughout the 'kingdom of Nature' has credence. Unfortunately, that integration of organic and anorganic life has missed its mark with most intervening philosophers across the centuries.

In the face of the global monolith of technology, terror and capitalist oppression, it is difficult to make such subtle argument as put forward by the Romantics and later Heidegger. The withdrawal of eco-social relations from the paradigm of modernity flounders in the prevailing winds of rationality, accounting and technological enframing. We are out of tune. Yet perversely, hope comes forth from within the dangers posed by modernity. After centuries of ossification in a harsh Idealist and positivist climate, philosophy is ripe for new conceptualisation. Pollution and global warming transgress national boundaries and have transformed into the grounding motif driving policy, politics, and philosophy around the planet. Highlighting the environment re-engages humanity in the task of caring about the ethics of our interaction with ecology. At present however, the prevailing paradigm is globalised capitalism, the normalisation of mass consumerism and Neoliberal faith in the market. The relationship between environment and humanity can often be found in the technological assumptions about world resources. This chapter is a polemic for a type of listening, thinking, and enquiring into the 'nature' of ourselves and our ecological environment in a way that lets it all 'shine forth' as Heidegger puts it, in its own terms. It is not so much a counter-argument, or an alternative systematic treatise but a preparation for a change in attitude. When the world is only understood in terms of rationality and calculation then the attitude of enquiry into the 'Being' of things is closed off. This attitude is not a-political, nor is it Luddite. It does not reinforce the traditional dualism between culture and nature, coming down on the side of the wilderness. It is an ecological recognition that we live with/in the ecological

environment. Our pretensions to consumerist grandeur are a form of alienation that threatens to cross the threshold of planetary conditions that are capable of sustaining life.

Idealism, Irony, Tragedy

Individual, subjectivist solipsism is probably best characterised by Descartes. He promoted a type of asceticism and proposed that his own mind was the only thing he, himself, could truly be sure of. Everything else was a nominal interpretation of sensations. Objects might impinge upon his body, creating an imprint on the retina, bruises on the body, roughening the fingertips, exploding sound against the eardrum, or linger on the tastebuds; but these sensations meant nothing without the mind's capacity to name and understand them. Even the mind had to be held with some suspicion, because it was known to do weird things. Sometimes, without overt sensory stimulation, the mind dreamed, or it created mad and uncharacteristic images, identities, and ideas, or it was deceived (possibly by the devil). So it is important not to allow the mind just any kind of fertility; only a limited type of rational deduction can ascertain anything with certainty. The objects 'out there' cannot be taken for granted. The nominalist fallacy separates all imminent events from certitude. It may be that we have got it wrong, and what looks small and close is actually large and far away. Or the furry thing we assumed fell within the Category of 'cat' was actually a rather sleek and smallish 'dog.' Objects are alien. The only thing of which we can be certain, according to Descartes, is the rational deduction of the mind to illuminate the categorical unfolding of God's true plan.

To come up with the notion that rational deduction is the only ground for certainty and truth introduced a groundswell of new ideas, the exploration of scientism, measurement and calculation, a lot of which is in its own way, fascinating. Descartes' rationality centred on the individual's mind, and made all other objects, including other people, unknowable with any certainty. Having built on the ideas of his predecessors, including Ockham's concept of the razor, that the most simplest, rational explanation prevail, Descartes initiated the beginnings of a new paradigm of modernity; free individualism and rationality attached to an ontology of progressive order. The solipsist individual is held apart, yet rational calculations can ascertain the aggregates of behaviour and predict the underlying logic and plan of the world.

A good example of the shift from universalising Ideals of the Classical Age to the Romantic pluralism of knowledge can be found in the forms of tragedy. The Greek premise for tragedy was a comment on the unavoidable lack of knowledge that sets in motion a tragic pathway. If Oedipus had known it was his father Laius, he would not have killed him, thus avoiding the entire tragic story. In Greek times, as Oedipus realises the entire truth of the situation he blinds himself. Ironically blindness signifies *aletheia*, the truth coming to light. In the Classical age the hint for resolution lies with the omnipotent knowledge of God's (and the audience's) eye view. But tragedy in the Romantic period takes a different turn. There are no possible answers to the tragic episode. The production of the problematic pathway is sociological rather than ontological. Berlin's example is the play, "Danton's Death" by the German Romantic, Büchner, where Robespierre puts the revolutionary Danton to death during the Terror. There are no right or wrong answers to the tragedy. Büchner is resolutely socio-political in his writing. The play is engaged with immanent realities, not Absolute knowledge. Danton made errors but did not deserve to have his head sliced off, yet Robespierre was correct in doling out justice. History knows that having made speeches advocating the justice of Terror, that the Assembly put Robespierre himself to death by the guillotine. The audience has no better solution for there is no solution. As Berlin puts it, "It is due not to error, but to some kind of conflict of an unavoidable kind, of loose elements wandering about the earth, of values which cannot be reconciled."⁴¹ Immanent struggle is unavoidable and always political. The Romantics produced a sociological pluralism – which might account for the broad spectrum of political and philosophical beliefs advocated under the 'Romantic' banner. The processes of nature are unpredictable, unknowable, and despite its often tragic consequences, struggle is the creative stuff of life itself. From this position of immanence and inevitable socio-political partiality results a deepening of Humanism, which at the same time, is sceptical of the Idealism embedded in Liberalism without rejecting the ethical tendencies towards, for example, equality.

Romantic Art for art's sake was a deliberate naïveté; it was opposed to utilitarianism and economic materialism, "art as an instrument of social salvation." In the 1980s critics,

⁴¹ Berlin, 1999: 13

influenced I would suggest by Hazlitt, argued that Wordsworth's nature poetry 'evaded' (Marjorie Levinson) or 'denied' (Alan Liu) or 'displaced' (Raymond Williams and David Simpson) political issues by folding the 'sublime area of his own subjectivity' onto the natural realm.⁴² Having expounded wondrously on Wordsworth's 'philosophical pastoral' poems, Hazlitt wrote in 1825 that "The power of his mind preys on itself."⁴³

Wordsworth's poetics, as we shall see, were not as a-political or as solipsist in the Idealist sense as either Hazlitt or some of the historical revisionists of the 1980s assumed.

Irony emerged as a politics of being during the early Romantic era. Before that, all those devout Crusaders, whether Christian, Muslim, or something else, had a depth of belief and utter lack of meta-reflection that seems unreal to us now, steeped as we are in the democratic recognition (if not acceptance) of otherness. Irony enabled a promiscuity of faith, a live and let live mentality, and an irreverent jouissance at the dedicated fidelity of others. In the bedrock of democracy lies the ability for a light-hearted regard, a perceptive alleviation of the tendency to judgemental dogma, a respectful recognition of the allure of the alien and different and an ability to take in apparent contradictions, paradox, and playfulness.

Yet this rapidly descended into voyeurism of the exotic, sensual Orientalism, nature tourism. And voyeurism leaves the Liberal individual intact, as the solipsist centre, regarding everything 'else' as objectively distant from the subject. In contrast poetics in general reaches out, breaching that individualised rational solipsism, as language, meter, rhythm and environment, share and interact 'by nature.'

The Romantics were writing in the context of Newton's Copernican revolution, that the earth is not the centre of the universe. Square rigged colonial ships were making exploratory voyages, mapping, charting, collecting, and drawing previously unknown seas and terrain. In Europe in the later half of the 1700s, Linnaeus and Erasmus Darwin were inventing a new taxonomy of animals, and so prepared the conceptual basis for the theory of evolution. Scientific and colonial examination took off across the entire globe with fervour during the Romantic era and persists to this day. Precise descriptive

⁴² Fosso, 2001

⁴³ Hazlitt, 1998: 114

anatomical drawings of individuals, species, and genera were collected. Beetles and butterflies were pinned alive to presentation boards. It was noted that some animals, notably the Dodo, were becoming extinct. This paradigm of surveillance, calculation and rationalised categorisation deepens with the entrenchment of modernity.

The Sublime and the Beautiful

Edmund Burke wrote a treatise called *A Philosophical Enquiry into the Origin of Our Ideas of the Sublime and Beautiful*, (original, 1757).⁴⁴ Burke's philosophy built upon the British Empiricists, who, despite the nominalist fallacy, had even more faith that rationally deducible categorisation could derive from empirical evidence than Descartes. Burke also took empirical sensations as evidence of the integration rather than the separation of human bodies, thoughts and emotions with the physically surrounding environment.

The 'Beautiful' challenges Idealist and empiricist rational individualism without throwing out solipsism altogether. Rather than the individualised, immediate, sensory feeling that runs along a scale between physical pleasure and pain, Burke suggests that it is love or 'society' that is most significant and the scale runs between emotional delight and indifference or disappointment. Positive society is linked to an emotional life of sympathy, imitation, and ambition. Love has a scale of emotional responses ranging from the ambivalence of possible loss, to the affection and tenderness proffered to the 'Beautiful.' The attachment of love or fondness - the "variety of intricacy of relation" of the Beautiful includes affection within humanity and towards other animals.

In contrast to the focus on the other in the Beautiful, the Sublime is intrinsically conceived as solitude. Solitude is assumed to arise at the beginning of life and its inevitable ending. So the terror of the sublime is tied to birth and death, danger and self-preservation. Its grandeur evokes the human capacity for spellbound awe before the veracity of natural immensity and magnificence and is egalitarian in its allegiance. Burke wrote, "The passion caused by the great and sublime in nature... is Astonishment; and astonishment is that state of the soul, in which all its motions are suspended, with some

⁴⁴ Burke, 1987

degree of horror. In this case the mind is so entirely filled with its object, that it cannot entertain any other.”⁴⁵ This awe was ambiguously tied to some form of monotheist God, as a signifier of the complex immensity of the Creation of Nature. The Sublime transcends the particular political or religious crusades of various sects and loyalties.

Wordsworth, Coleridge and Southey, Kant, and the German Romantics, might not have agreed with Burke’s ecclesiastical manifesto, but were all influenced by Burke’s physiological concepts of the Sublime and the Beautiful. Nature is both awesome and sublime in its mountainous, stormy, grandeur and its detailed ordinariness, of wafting daffodils or meandering becks. The Romantics were open to a physical, emotional, and intellectual response to nature that they attempt to put into words. There is no refusal of nature as an object, or alienation of nature as an individualised solipsist and nominalist ‘representation’ of the mind. Burke’s physiological concepts of the Beautiful and Sublime enable a metaphysic of direct apprehension, of intuitive and passionate enthusiasm, that does not rely on universal knowledge, or perfect form. It is the direct experience that has not been alienated by technological rational deduction or mechanistic economics.

Burke’s system of the Sublime and the Beautiful draws on two forms of subjectivity; the individual’s terrible regard for their inevitable death, the Sublime; and the social relationships, or emotional bonds that range from pleasure of Beauty to indifference. Both the Sublime and the Beautiful are governed by the passions, producing physiological ‘tightening’ or ‘loosening’ of the fibres in the body. Burke’s philosophy emphasises that in life, there is ‘society’ or social interconnections between *all* things, and all events, not just human beings.

Romantic eco-politics

Romantic aesthetics arose concurrently with the industrial revolution. As now, the consumerist benefits of industrialisation, struggle with themes of resistance to the ways in which modernity, science, and technology changes the modes of life, behaviour and

⁴⁵ Burke, 2004, orig. 1757: 58

expectations, the meanings and truths and capacities of Europe's many societies and cultures. In 'The Tables Turned' from the *Lyrical Ballads* Wordsworth famously wrote,

One impulse from a vernal wood
May teach you more of man,
Of moral evil and of good,
Than all the sages can.
Sweet is the love which Nature brings;
Our meddling intellect
Misshapes the beauteous forms of things -
We murder to dissect.⁴⁶

Elements of Romanticism infuse all subsequent effective counter-arguments to the pervading characterisation of modernity as categorisation and economics. Romantic ideas keep reappearing in later critiques of modernity, such as Heidegger and many of the 20th century environmentalists. In this passage from 'The Tables Turned' Wordsworth criticises the scientific 'meddling' that dissects and interrogates things while becoming increasingly ignorant of the beauty that, as Heidegger later puts it, 'shines forth.' The Romantic version of nature has itself been criticised for its apolitical, subjectivist, emotional, and culturally conservative ethos and because they appear to attribute 'intrinsic value' to the natural world. 'Nature' is no one thing to any group of thinkers. Nature throughout the western tradition is as heavily interpreted as the 'subject' and if possible, even more alienated.

The subjectivism or 'sublime egoism' suggested by Hazlitt and the historical revisionists created an ambience that replaced any 'figuring of the real.' Miall argues that Wordsworth idealises his view of 'Nature' in "Tintern Abbey" by cutting out of his description the industrial activity of the iron furnaces, the railway tracks or the "beggars lurking in the ruins." Peters agrees that the pastoral image of Romanticism "developed through a series of associations – intuition over rationality, feelings over beliefs, with a sense of mysticism and oneness with Nature; as though it was possible to overcome the alienation and reification that had emerged with capitalism, industrialisation and urbanisation."⁴⁷ Peters cites Miall, who argues that "Nature can never be known directly"

⁴⁶ Wordsworth, 1798, lines 21-28, collected in Bartleby, 2004

⁴⁷ Peters and Irwin, 2000: 2

so that “Wordsworth is deceiving himself (and his readers) in claiming that here he felt a spirit that rolls through everything.”⁴⁸

The charge of pastoral a-politicism then resurrects subjectivist Idealism where the separation of the subject from the object makes all concepts into nominal representations that emerge from the subjects’ intentions, ideas, and language. The Romantics are assumed to be subjectivist, like the predominant positivist model of late modernity.

Jonathan Bate’s book *Romantic Ecology: Wordsworth and the Environmental Tradition* (1991) challenged the easy dismissal of nature as having ever been non-political. Bate wrote that Wordsworth had a kind of ‘green politics.’⁴⁹ I would argue that Wordsworth, Coleridge, Southey, Burns, and others were concerned with urbanisation and industrialism, with the new technologies that tracked through the landscape, like the train, and the enclosure of farmable land along with the clearances of the Highlands that were a direct result of the industrialisation of agriculture. Their poetics does not outright reject change or technology, but it highlights the shifts in way of life, in ethics, and in philosophical relations.

In his later book, *The Song of the Earth*, (2000) Bate’s argument is informed by Heidegger’s resurrection of the Greek *eco-poiesis* which is a kind of ecological green poetics, that makes the most of ‘eco’ as ‘home, or ‘dwelling place.’ This call to ‘homeliness’ is one of the more problematic elements of Heidegger’s philosophy, as it reverberates with nationalism and Nazi politics. In the article we wrote for *The Trumpeter, Journal of Ecosophy*, Michael Peters criticises Bate for idealising Romantic ecopoetics at the expense of ecopolitics.⁵⁰ Fulford argues that Bate’s argument for a Romantic ‘green politics’ is not the full story. During the 18th and 19th centuries, nature and particularly agricultural industrialisation and the privatisation of land ownership was a fundamentally political issue. Land was undergoing rapid transformation as the Commons were enclosed and the King’s ability to gift estates in return for owed fealty was becoming undermined. In Scotland the infamous ‘land clearances’ were underway as

⁴⁸ Miall, 2000 cited in Peters and Irwin 2002: 3

⁴⁹ Bate, 1991: 1-35 referred to in Fulford 2001

⁵⁰ Peters and Irwin, 2002: 4

sheep made more profit for landowners than crofters, and in Cumbria many unemployed labourers were hired to enclose land with dry stone walls. Land ownership was also the criteria for political franchise and membership of Parliament, and justified the disempowerment of the peasants and women. Romantic poetics engaged with all of these things through iconographic metaphor, often of mountains or trees or other natural phenomena. In ‘Discourse of the Wanderer and an Evening Visit to the Lake’ Wordsworth is cognizant of the problems of both modern industrialism – making of nature and humanity a resource, or cog in the big machine – and the deprivations of earlier pastoral ways of life;

When, heretofore, I placed before your sight
A Little-one, subjected to the arts
Of modern ingenuity, and made
The senseless member of a vast machine,
Serving as doth a spindle or a wheel;
Think not, that, pitying him, I could forget
The rustic Boy, who walks the fields, untaught;
The slave of ignorance, and oft of want,
And miserable hunger.⁵¹

Wordsworth’s poem *The Excursion*, which has largely been dismissed by critics for its unwieldy tangents, has the Sage make an impassioned plea for kindness, equality, universal State education, and emigration to solve problems of over-population.

An erstwhile friend of the Lake District poets, the critic Hazlitt described Wordsworth in 1825 as “bold, violent, Jabonical.” Fulford’s rejection of the 1980s historical revisionism agrees with Hazlett’s 19th century political reading of Wordsworth’s landscapes. In “The Prelude,” Hazlett praises Wordsworth for a Republican “mountain liberty.” Hazlett’s description reveals how the mountains create “an impressive discipline of fear,” and a “ministry of fear” as referring to the British government’s oppressive leadership under Prime Minister, Henry Addington.

Paulin (2004) illustrates the relationship between landscape and politics with lines from “Tintern Abbey,”

The tall rock,
The mountain, and the deep and
gloomy wood.

⁵¹ Wordsworth 1814, book IX, lines 156-164 in *Bartleby*, 2004

The mountain in French, I remembered, is 'la montagne', and that was the name given to the sloping benches in the French National Assembly, where Robespierre and his fellow Jacobins sat. Wordsworth is here remembering the Jacobins, and he uses the 'tall rock' not just to describe the slightly sinister cliff face he can see above the River Wye, but as a figure that associates with the Tarpeian Rock, where traitors were thrown to their deaths in ancient Rome. But it also has a contemporary reference for Wordsworth: it signifies the guillotine on which, some scholars argue, he saw a French politician he knew – Gorsas – executed. He doesn't simply describe landscape – he projects contemporary events and ideas into it.⁵²

The political challenge to the monarchy recurs in science, painting, novels and poetry. In paintings by John Constable and George Stubbs the 'pastoral' is not so much nostalgic, as we might interpret it today, as radically egalitarian. In Constable, the landscape is no longer a picturesque setting, as it had been during the Renaissance, but has taken over the entire painting, diminishing the workaday figures to integrate them into the working rural scenes. Stubbs keeps the larger than life portraiture of earlier formal painting, but foregrounds animals, especially the extremely important horse, so that the character and beauty of the animal is just as paramount as the human personalities associated with it. It should not go unremarked that the Romantic revolutionary impulse of heroic pluralism and the new aesthetics coincided with the revolutionary impulse of industrialisation and egalitarian Liberal political organisation. Although the Romantics' reliance on aesthetics, the Sublime and the Beautiful, and their insistence on 'art for arts sake' has been criticised during the early 1980s for its middleclass naivety and essentialism, there is an intuitive and almost intangible aspect of the Romantic respect for nature that has created a powerful countervailing force to the positivist and Idealist separation of subject from object. More recently, historians of the Romantics have established that nature was very political in the predominantly rural based economies of the 18th century, and that the *apparently* politically naive poetry of Wordsworth, Coleridge, and Keats (for example) were commentaries on the lifestyle, the sexual politics, and the political policies of the Pitt government and the eruption in France, of the Terror.

18th Century Science

Many sea faring nations have been exploring the planet for several thousand years. The Polynesian people have spread out from South East Asia into all the thousands of islands

⁵² Paulin, 2004: 6

in the Pacific, across east to the Americas and west to Madagascar. Europe had long held relations with other exotic nations, the spice trade with China, for example, that meant some people knew of new lands over the oceans. But something different was happening during the epoch of European exploration and colonisation beginning in the 16th century with Spain and Portugal's arrival in South America. These expeditions included artists and scientists, who recorded everything they saw, from first impressions of the 'natives' to picturesque images of beautiful panoramas, gentle bays, sublime mountains, startlingly different plants and animals. The success of these early voyages knocked over the fable that the earth was flat, and with it the notion that humanity (in the image of God) was at the centre of the universe. These depictions and collections of new data had a profound impact on those philosophers, scientists, writers, poets and painters that remained at home.

Science also portrayed a startling similarity between the drives and weakness of other species and beings, in a similar way to assumptions about human motivation and behaviour. In science, it was not the rural economy that forged interdependence of human beings with agricultural landscapes and animals that was present in the Romantic integration of 'subjects' and 'objects.' In the later half of the 1700s, both Linnaeus and Erasmus Darwin had written a new taxonomy of animal species that made it clear that humanity had rather more similarities to other forms of life than peculiarities. Fosso describes the systematic integration in the work of Darwin, who,

resituated *homo sapiens* as one animal among many similar, interconnected species. Hence, in the preface to his epidemiological taxonomy, *Zoonomia* (1794), Darwin could argue that, although the "Creator of all things has infinitely diversified the works of his hands," he has also "stamped a certain similitude on the features of nature, that demonstrate to us, that the whole is *one family* of one parent."⁵³

Linnaeus was an important biologist from Sweden who was the first to name humans *homo sapiens* (wise animals) and was criticised for associating both chimpanzees and human beings as 'cave dwellers.' However he insisted his method of naming (which was based on the dualism of the sexes) was not *evolutionary* but merely catalogued God's

⁵³ Fosso 2001: 3

order of things. Erasmus Darwin greatly admired Linnaeus and was criticised in a similar manner for sexualising all relations in the animal, insect, and botanical worlds. In the *Temple of Nature* Darwin wrote,

Hence on green leaves the sexual Pleasures dwell,
And Loves and Beauties crowd the blossom's bell;
The wakeful Anther in his silken bed
O'er the pleas'd Stigma bows his waxen head;
With meeting lips, and mingling smiles, they sup
Ambrosial dew-drops from the nectar'd cup;
Or buoy'd in air the plummy Lover springs,
And seeks his panting bride on Hymen-wings.⁵⁴

Nichols describes Erasmus Darwin's work as ascribing "wilfulness, intention, and pleasure" and probably suffering to the lives of other organic and even anorganic things.

Erasmus Darwin was criticised by his own contemporaries for sexualising nature. The historical revisionists charged all the Romantics, for imposing human qualities, feelings and moral codes on the 'behaviour' of animals and plants. Nowadays plants are assumed to just *grow*, not *behave*. It is certainly the case in his text, "Economy of Vegetation," that Erasmus Darwin described plant reproduction in the language of sexual passion (rather than ecological competition), and he noted through empirical observation the tendencies of plants to favour cross pollination with non-family members, although Darwin's recording describes this as 'extramarital' rather than avoiding incest.

The vegetable passion of love is agreeably seen in the flower of the parnassia, in which the males alternately approach and recede from the female; and in the flower of nigella, or devil in the bush, in which the tall females bend down to their dwarf husbands. But I was this morning surprised to observe... the manifest adultery of several females of the plant Collinsonia, who had bent themselves into contact with the males of other flowers of the same plant in their vicinity, neglectful of their own.⁵⁵

Most interesting is that none of the criticism, whether 250 years ago, or in the last 20 years, has either questioned the empirical methodology or raised astonishment at Erasmus Darwin's title; the "*Economy of Vegetation*." In the 1980s the scholarship on the Romantic period has resuscitated legitimacy for Romantic art because they symbolically

⁵⁴ Darwin, E. vol.II: 263-70 quoted in Nichols, 2001a: 3

⁵⁵ Darwin, E. vol. IV: 121 n. quoted in Nichols, 2001a: 3

made issue of the political and economic relevance of rural life, just as Erasmus Darwin's vegetation is accounted for through economics (albeit in that era, a 'home' economics). The legitimacy of economics has gradually increased its stronghold on our relation with nature. Erasmus Darwin's grandson Charles gathered many ideas for 'competition' in 'survival of the fittest' from the economics in Adam Smith's *Wealth of Nations* (1776). The Romantics had been spurned for granting joy to dancing daffodils until their work was seen once more in economic terms.

The Ecological Whole

In *Zoonomia*, Erasmus Darwin describes "Vegetable Animation," "The fibres of the vegetable world, as well as those of the animal, are excitable into a variety of motions by irritations of external objects. This appears particularly in the mimosa or sensitive plant, whose leaves contract on the slightest injury."⁵⁶ There was a great deal of excitement about plants such as the Mimosa and Venus Flytrap that were being discovered in the late 18th century by colonial explorers across the planet. They obviously exhibit a form of empirical responsiveness very similar to the sensory information that supplies human subjects with the raw data for naming, categorising and making meaningful.

The debate in theology and philosophy about the merits of individual solipsist nominalism - or as the Idealist critic Hazlitt describes it, 'subjectivism' were seen to contradict the monist thesis that interested many of the Romantics that all life is interrelated, an ecological unity, where humanity combines physically and intellectually with the flux of matter. As Goethe described it in his essay, "the Experiment as Mediator between Subject and Object"

Nothing happens in living Nature that does not bear some relation to the whole. The empirical evidence may seem quite isolated, we may view our experiments as mere isolated facts, but this is not to say that they are, in fact, isolated. The question is: how can we find the connection between these phenomena, these events.⁵⁷

In the same text Goethe writes,

⁵⁶ Darwin, E. vol. I: 73, cited in Nichols, 2001a

⁵⁷ Goethe, 1792: 80 cited in Nichols, 2001b: 9

Basic characteristics of an individual organism: to divide, to unite, to merge into the universal, to abide in the particular, to transform itself, to define itself, and, as living things tend to appear under a thousand conditions, to arise and vanish, to solidify and melt, to freeze and flow, to expand and contract... Genesis and decay, creation and destruction, birth and death, joy and pain, all are interwoven with equal effect and weight; thus even the most isolated event always presents itself as an image and metaphor for the most universal.⁵⁸

In the *Temple of Nature*, Erasmus Darwin makes a similar case for the integrated, evolving cohesion of all things, empirically, emotionally, and in language.

With ceaseless change, how restless atoms pass,
From life to life, a transmigrating mass;
How the same organs, which to day compose
The poisonous henbane, or the fragrant rose,
May, with to morrow's sun, new forms compile,
Frown in the Hero, in the Beauty smile.
Whence drew the enlighten'd Sage, the moral plan,
Man should ever be the friend of man;
Should eye with tenderness all living forms,
His brother-emmetts, and his sister-worms.⁵⁹

In contrast to this new philosophy of integration, rationality, and emotion, the important contemporary critic, Hazlitt denounces Locke's empiricism because the mind is a passive empty vessel, responding to phenomenological stimuli (sounds, sight, smell etc.) without an active principle beyond reaction. Idealist subjectivism takes the polar opposite approach, presuming interpretation designates truth, and that Nature slides in there as a secondary aside. Hazlitt's critique emerges from the Idealist tradition, that emphasises the role of each individual's transcendental mind – abstracted from the body - and the deduction of universal truth and contrasts with the immanent interconnectedness that the Romantics emphasised. Hazlitt obscures the integration of humanity in the environmental niche by bringing to the fore the 'power of the mind.' Wordsworth's mind, he writes, "preys on itself. It is as if there were nothing but himself and the universe."⁶⁰

Wordsworth does not abandon solipsism but he regards the mind and body together in an emotional comportment that is embedded in the eco-socio-politic environment. Contrast

⁵⁸ Goethe 1792: 52 cited in Nichols, 2001b: 9

⁵⁹ Darwin, E. vol. IV: 419-28, cited in Nichols, 2001a: 27

⁶⁰ Hazlitt 1825, cited in Paulin, 2004: 4

the rational individualised subjectivist Idealism with Wordsworth's ideas of the intellectual and emotional relation arising in communion with Nature in *The Prelude*.

. . . in all things
I saw one life, and felt that it was joy.⁶¹

Subjectivism is not left out of Wordsworth's poetry but rather he criticises in *The Excursion*, the alienated individualism and a rationality that "examined, pondered, searched / Probed, vexed, and criticised – to be prized / No more than as a mirror that reflect / To proud self-love her own intelligence?"⁶² Wordsworth's solitary rambles amongst mountains or daffodils were not merely about 'sublime egoism.' Wordsworth's subject is integrated in Nature, whereas the rationalist paradigm of science places narcissist Man as the master and centre of the universe. Throughout his oeuvre, as this example from *The Excursion* illustrates, he struck a mode of apprehension both empirical and nominal that seeks to integrate ontology and epistemology rather than separate the two.

There is an active principle alive in all things;
In all things, in all natures, in the flowers
And in the trees, in every pebbly stone
That paves the brooks, the stationary rocks,
The moving water and the invisible air.
All beings have their properties which spread
Beyond themselves, a power by which they make
Some other being conscious of their life⁶³

Wordsworth attributes a mutual communication which is far more than Locke's empirical sensory perception of pleasure or pain. Burke shared a climate of opinion about the emotional response to Beauty and the terror of Sublime infinity. In *The Prelude* Wordsworth writes, "From Nature and her overflowing soul / I had received so much that all my thoughts / Were steeped in feeling."⁶⁴ It takes an integrated view of human bodies,

⁶¹ Wordsworth, book II, 429-30 in Bartleby, 2004

⁶² Wordsworth, 1814, book IV, II, 972-4, 987-8 cited in Hazlitt, 1998: 116

⁶³ Wordsworth, 1814, book IX in Bartleby, 2004

⁶⁴ Wordsworth, 1805, book II, 396-399 in Bartleby, 2004

thought, rationality, and emotional attention being taken up by the active principle, properties, powers and *jouissance* of everything; living or being. “To unorganic natures I transferred / My own enjoyments, or, the power of truth / Coming in revelation, I conversed / With things that really are.”⁶⁵

My focus on Wordsworth has not been because he exclusively enunciates the elegiac type of Romantic nature poetry that forms the basis of eco-poetics – he is one of many of the period who experiment with these ideas. But he is a very good example of what Onno Oerlemans calls the ‘material sublime.’ “These poems pose questions about the origins of thought, and of how thought may spring from, and be connected to, physical objects.”⁶⁶ Very detailed descriptions of natural entities: flowers, trees, lichen, stone, mountains, combine and separate, recombine and dissolve the physical surroundings and the origins of thought, the transient spark of life and the continuity of geological evolution, the human and the environmental. Oerlemans notes that in the *Lyrical Ballads* “The Thorn,” which is emblematic of the body and consciousness of Martha’s dead child, is both “at once dead and alive, permanent and impermanent, organic and inorganic – an extraordinary mixing of categories that perhaps has as its primary tension the opposition of stasis and dissolution.”⁶⁷ At the same time, the poem is ironically conscious of the ‘excitable’ and ‘garrulous’ narrator of the poem. Wordsworth manages to integrate the human subjects in the physical surroundings through emotive verse and intimate description of the landscape and yet hold up the descriptive interpretation for its inevitable subjective personality and bias. The words merge and emerge from the material evidence, and at the same time are held apart as conditioned by the pre-existing history, personality and predilections of the narrator, the author, and the reader. All of whom bring with them criteria for evaluating the ‘truth’ or meaningfulness of the story. The ‘ecological whole’ ties in humanity, as another species, but the linguistic circulation of signs and meaning are on a subtly different plane, and Wordsworth manages to juxtapose them in a manner that holds them together and yet keeps them apart. Oerlemans writes,

⁶⁵ Wordsworth, 1805, book II, 390-394, in Bartleby, 2004

⁶⁶ Oerlemans, 2002: 44

⁶⁷ Oerlemans, 2002: 45

Yet it is probably impossible finally to avoid the charge that such claims are not 'romantic' in the pejorative sense, that subjectivity is being projected onto the somatic realm in the process of attempting to find meaning in the natural world. Meaning is a product of consciousness, even if consciousness is a product of complex, chaotic processes. The universe and its systems would still exist even if there were no self-conscious entities to perceive them.⁶⁸

The inevitability of language and cultural interpretation stamped onto the descriptors of nature leads Liu to claim "There is no nature."⁶⁹ Oerlemans makes clear that Liu is not making a 'quasi-idealist epistemological claim' that innate cognitive limitations combined with universal categories define our perception of nature. Rather, cultural and ideological history impinges on our definitions. Language is never pure in its description of a virginal object. Both object and name embrace contested realms, histories of struggle, pressures, sedimentations and growth. Oerlemans writes that nature always "begins as concept, that the pure materiality of otherness of nature passes first thought the screen of culture and consciousness, even if these forces are ultimately products of physical, determinate processes."⁷⁰

The ontology of nature and humanity is broken up by the factors of interpretation and perception. Even though we are one species amongst others, Oerlemans quotes Robert Pogue Harrison, "this in itself does not prove that humanity is ontologically continuous with the order of nature."⁷¹ Harrison takes the Kantian argument – tools of perception and representation always get in the way of unmediated perception. Kroeber responded that the Romantics knew Kant and regarded social constructs and human consciousness as a result of natural processes. But Oerlemans disagrees with Kroeber's relegation of the Kantian *a priori* to 'critical banality.' Oerlemans argues that although we can accept ourselves as part of the ecological whole,

we nevertheless experience consciousness and selfhood as distinct. Thus any desire we may also feel for a reunion, for knowing our connection with the world, must be to some degree suspect...it is the fundamental paradox that lies at the heart of environmentalist thinking, and forms its central conjunction with Romanticism.⁷²

⁶⁸ Oerlemans, 2002: 10

⁶⁹ Liu, 104fn. In Oerlemans, 2002: 11

⁷⁰ Oerlemans, 2002: 11

⁷¹ Harrison, 200 quoted in Oerlemans, 2002: 11

⁷² Oerlemans, 2002: 11

Having said that, Kant's concept of the parameters and conditions of human subjectivity do not necessarily lend themselves to the Categories he describes in the *Critique of Pure Reason*. Wordsworth wrote in one of his essays, "in nature everything is distinct yet nothing defined into absolute independent singleness"⁷³ Wildness in language as much as landscape resists the stagnant categorisation and ideology. Oerlemans argues that the particularity of place, in "Tintern Abbey" for example, stands against the "dangerous universalising of the French revolution."⁷⁴

Instead of abstracted universal categories, the Romantics look to the particularity of nature. Particular materiality stands in for objective foundations. But Oerlemans warns us that far from being born 'naturalists' the poetic impulse for elegy needs to be learned,

our predominant reaction to the external realm is as petty Platonists, searching for essences, tendencies, characteristic qualities, single meanings, totalising systems of order. It is difficult even to want to see the natural environment 'as it is.' We are easily bored by objects that withhold their meanings, or seem inimical to human being. We characterize entire regions as wastelands when they threaten a sense of our own centrality.⁷⁵

Oerlemans advocates striving to perceive the distinctness of nature; it is the thing-in-itself, uncategorisable, even as we attempt to acknowledge how the natural environment shapes our own physical existence.

Rather than breeding familiarity, or creating an illusion of knowledge, it brings us to the limits of what we know. We can construct an idea of nature, make a useful order, but know too that there is a fundamental order that eludes us. Nor is it a vision of a process, a dialectics or dialogics continually promising completion. It is, rather, part of the originary moment of romanticism, a way in which its writers stand against the Platonism that they very often proceed towards nonetheless. It is a resistant step...⁷⁶

At the one time then, the environmentalist stance tends towards the particularity of landscape which attempts to transgress the subjectivist alienation with a poetics of elegy, but at the same time understands its own subjective limitations and the cultural embeddedness of language. It is a juxtaposition of subject and object that both integrates them and holds them apart, "a desire for an unmediated access to the material realm, a desire that is moderated but not erased by the inevitable failure to achieve this access."⁷⁷

⁷³ Wordsworth 1815 quoted in Oerlemans, 2002: 14

⁷⁴ Oerlemans, following the thesis of Simpson, 2002: 16

⁷⁵ Oerlemans, 2002: 15

⁷⁶ Oerlemans, 2002: 20

⁷⁷ Oerlemans, 2002: 21

Language is the medium of consciousness, and thus poetry offers no final escape from the self or consciousness; nor can it make the material transparent. However, lyric is a key form of the exploration of the otherness of the material or the ground of being, precisely because it can allow for the ostensive moment, which I have been calling an openness to the material. It is...crucially a form of incompleteness, of multiple suggestiveness, and perhaps necessary obscurity. In its 'green' mode, it can reveal not just the lacunae with language, which can allow consciousness to see its own activities as other, but also those of the physical world we find ourselves in. In other words, the extraordinary self-consciousness of lyric language reveals the discontinuity, or wildness, of the physical world. It disturbs the illusion that consciousness is somehow pervasive and continuous with what is perceived, and so reveals the physical in relief as the fundamental ground that cannot be reached.⁷⁸

In the intervening centuries, positivist ideas inspired by the rationality of empiricism and the nominalist categorisation of Descartes and, later, Kant have dominated the world view that shapes humanity's assumptions about our relation with the environment.

Heidegger has called upon the philosophy embedded in Romantic poetry and aesthetics.

It is the Romantics that popularised the shift in human status and began the egalitarian and plural codes of mutual recognition rather than polemical separation of subject from object, nature from culture that characterises Idealism. The Romantics mark another beginning that enables a break from Greek and Judeo-Christian ontology and introduces a new element of awe and wonder at the natural world, a new aesthetic as a paradigm to counter the gradual absorption of society and environment into the technological, industrial, commercial era of modernity. They attempt to break through the threshold dividing the categorisations of 'subject' from 'object' that had been manufactured by Idealism. Romanticism is characterised by its confusing, contradictory impulses of aesthetic heroism, rural primitivism, eccentricity, a certain rejoicing in life and passion, the Beautiful, and also the extreme terror of death, the infinite, and the Sublime. Despite this conglomeration of disparate elements, Romanticism contributes an important countervailing voice to the economic rationality, the managerial individualism and the mastery over Nature that has dominated modernity since its roots in the Classical Age.

⁷⁸ Oerlemans, 2002: 21-22

Heidegger and eco-poetics

Like the Romantic ecological whole, Heidegger also assumes there to be a certain ordering that underlies all things. It is not chaos, mayhem or disarray, but an undisclosed ontological arrangement that produces the entities that shine forth from concealment. During the 18th century, Edmund Burke had developed a philosophy of the Sublime and the Beautiful, which permeated life beyond the merely human. The Copernican Revolution had shifted humanity from our central position on a finite and flat earth, as the image of God, at the peak of the Great Chain of Being. Scholars like Goethe and Erasmus Darwin took Ancient Greek ideas about the inter-related flow of atoms, a holistic metaphor for the universe, and posited the connections as passions and intellect in all aspects of Being, from the pairing of swans, to the attraction of magnetism. Yet at the same moment in history, as Wordsworth complained, the integration of all things was being disaggregated into minutely classified fields of expertise under scientific positivism. Now the prevailing understandings of ecological systems ignore emotion and intellect in favour of the economics of ecology, for example, sustainability as technological enframing. Heidegger argues that technological enframing encourages the measurement and calculation of all things to fit, as a potential resource, inside the consumerist paradigm. There are objects, categories, movements, power relations, but no feeling, and no *thinking*.

Mastery and control over nature is commensurate with the Idealist and positivist emphasis on categorisation. But the privileging of rationality and measurement has been aimed at humanity itself, as much as to the natural realm. Human beings have become objects amongst objects, enframed as much by the technological *Gestell*, as Heidegger puts it, as any other potential resource. Heidegger asks how it is possible to stand in front of a tree in bloom without reducing it to a contributing factor in the machinery of consumption. When we perceive everything rationally there is no alternative but to understand both ourselves and the tree within the technological horizon as a consumable resource. Intrinsic nature is ineffable in rationalist terms. It remains aloof.

Nominal categorisations constrain the circulation of meanings to a particular form of rationality and ideology. Romantic poetics entices new meanings, emotional

compartments and wild transgressions of the social order to emerge as the limits of language nudge up against the particularity of natural events. Heidegger does not deny the solipsism of subjective perception and interpretation, any more than do the Romantics. The circulation of signs in the linguistic system presents a forbidding limitation to reaching into the truth of the realms of nature that are physiologically separate from 'culture' and 'personhood.' Bakhtin develops the attitude of 'play' in the relationship between name and object. Heidegger's hermeneutics tends towards the unveiling of Being through the ontological difference between the underlying Being and the particularity of beings. Like the Romantics, they both attempt to resist stagnant ideology, while recognising that any particular epoch, any language community, has its own pre-existing history that constrains the ability to comprehend outside a socio-cultural worldview. How do we open up to the wild unknowableness that nature presents? With a focus on the material sublime as the foundation for possibility, and with the enquiring attitude that is a prerequisite for thinking. The Idealist rupture between subject and object proves ultimately unhealable. And it is the space between that emerges as the most productive for escaping the limits of technological enframing and total mobilisation in the consumerist epoch of late modernity.

It is possible then, that eco-poetry will conceive of new terminologies that exceed and resist the overarching Neoliberal metaphor that relegates everything to the marketplace. The genealogy of Romantic ideas adds emphasis to the body and emotions, the Beautiful and the Sublime, in the construction of metaphors and the philosophy of language and these ideas emerge in Heidegger. In *Erläuterung zu Hölderlins' Dichtung*,⁷⁹ he evokes the "body of language" rather than the "content of thought."

The crucial element of Romanticism for Heidegger's philosophy is the interface between language, meaning and empirical environment. When Heidegger asks us to contemplate treeness, the first thing to emerge is the physical and sensory connection, the windy whispers of leaves and branches, the smell of loam and bark, the living, residing, becoming of both tree and human. There is very little in this initial meeting about language, rational calculus, or even philosophy. Thinking has a pre-event, a

⁷⁹ Heidegger, 1996d: 153

consciousness of the interwoven ecological consistency of assemblages – tree, air, soil, human - meeting, interspersing, resisting each other. It is not a matter of the tree being a product of the rational human imagination. In the meeting, at first, the Idealist fallacy and the process of categorisation has not get anything to catch hold upon.

The second event is the separation of subject from object, such that conscious thought begins to take place. As Oerlemans puts it, this is the crucial interaction that Romantic eco-poetry brings to light.

Knowing that consciousness is itself a construct of natural forces, or even an epiphenomena of it, does not enable us to overcome the experiential discontinuity that exists between self and the world, consciousness and matter. Although we can know much about the natural world, and can trace our cultural and biological roots to natural objects and processes, we nevertheless experience consciousness and self-hood as distinct.⁸⁰

The Romantic aesthetic engagement with nature challenged the formal and aristocratic conventions of content, meter, style and language. It was based on new philosophical ideas that contravened traditional subjectivist Idealism and contemporary empiricism. Along with the new science, new style and new philosophical ideas, was a new egalitarian approach to the environment and to the beliefs of other people. These controversial ideas have continued to rage ever since, in a plethora of misunderstandings and philosophical misunderstandings in the huge volume of Romantic criticism.

The Romantic change in attitude to the environment emerged in response to growing urbanisation and the severe environmental impact of the industrial revolution. Elements of Romanticism infuse all subsequent effective counter-arguments to the pervading characterisation of modernity as economics. The environmental, the natural, the earthly erupts into our language and thinking, and we inhabit our skins in a way Descartes would never dare dream.

⁸⁰ Oerlemans, 2002: 11

3 Environmentalisms: Philosophical and Political Trajectories

The Romantics set a precedent for second wave environmentalists in the 1970s by challenging anthropocentrism. Dogmatic belief that humanity is morally superior to other beings is now open to question. The possibility of rational explanations for the assigning of intrinsic value to nature began to be explored.⁸¹ In contrast, environmental protection can be argued instrumentally from the anthropocentric perspective in terms of sustaining human well-being, now and in the future. The ongoing debate for many generations has been centred on the separation of ‘culture’ from ‘nature.’ Jonathan Bate explains the prevailing modern premise.

Modern culture is the opposite of nature. We make ourselves modern by setting ourselves against nature. We make ‘nature’ separate and unknowable by setting culture against it. We cannot ever “return to nature” in the manner of Jean-Jacques Rousseau’s noble savage. But nature returns to us. As a green reading of Freud might have it, the repressed returns in the form of flood, famine and pollution. Nature returns in the sublime and the beautiful. This, then, is the troubling paradox: the greening of culture is both a contradiction in terms and a necessity for our very survival on the planet.⁸²

The dualism between culture and nature still tends to dominate contemporary environmental debate, often in the form of raging controversy over whether nature has ‘intrinsic’ value or not. This chapter is an historic literature review of the major ideas and many of the authors in the environmental canon. It looks at the relationship between philosophical concepts and political and social organisation, and the resulting impact on the way we understand our relationship with the natural environment.

Traditional anthropocentric arguments about animals or nature usually involve a deontological approach to morality. Humans have a duty (driven by either a logic of extended self-interest, paternalism or justice) to approach other humans ethically. The issue is to what extent should the parameters be extended: to sentient beings (animals); to all living beings (fish, reptiles, insects, plants, amoeba); or an-organic life (earth, air, water, fire). From the traditional anthropocentric point of view these debates have been

⁸¹ Brennan and Lo, 2002: 2

⁸² Bate, 2001: 26

justified in instrumental human terms. In the text, ‘Duties to Animals and Spirits’ from the *Lecture on Ethics*, Kant argues that cruelty to animals might desensitise the person possibly resulting in cruelty towards humans and *therefore* cruelty to animals is a bad thing.⁸³ The animal fails to really qualify as intrinsically due kindness and respect. Arguments on animal rights often fall into the deontological rubric and centre on ‘intelligence’ as a marker of an entity that *deserves* respect (see below).

Utilitarianism is particularly influential in western Liberal democratic societies. Wide ranging instrumentalism and utility defines the dominating philosophy of twentieth century Utilitarianism. The logic of Utilitarianism is most commonly associated with Jeremy Bentham and James and John Stuart Mill. Jeremy Bentham set up two premises that have become crucial to democracy; ‘Everybody to count for one, and nobody for more than one’ and ‘The greatest good of the greatest number.’ ‘Good’ is judged according to the scale of pleasure or pain it affords. Motives of actions are not as important as the consequences of them. Likewise, individual beliefs or behaviours are not as important as the aggregate number of mass individuals into a democratic decision. The term ‘utilitarian’ refers to judging an event according to its usefulness at affording pleasure to the greatest number of people.

Bentham argued for expanding the franchise of ‘the good’ to whom the ‘rights’ of moral duty is owed. ‘Rights’ are conceived in Liberal-capitalist terms (amidst the controversy of slavery) of the responsibility and ownership over one’s own body. Rather than evaluating intelligence as the marker for a beings ‘rights’ Bentham argued along Utilitarian spectrum of happiness versus suffering:

The day *may* come when the rest of the animal creation may acquire those rights which never could have been withholden from them but by the hand of tyranny. The French have already discovered that the blackness of the skin is no reason why a human being should be abandoned without redress to the caprice of a tormentor. It may one day come to be recognized that the number of the legs, the villosity of the skin, or the termination of the *os sacrum*, are reasons equally insufficient for abandoning a sensitive being to the same fate. What else is it that should trace the insuperable line? Is it the faculty of reason, or perhaps the faculty of discourse? But a full-grown horse or dog is beyond comparison a more rational, as well as a more conversable animal, than an infant of a day, or a week,

⁸³ Kant, synopsis in Brennan and Lo, 2002: 2

or even a month old. But suppose they were otherwise, what would it avail? The question is not, Can they reason? Nor Can they *talk*? But, *Can they suffer?*⁸⁴

In John Stuart Mill's hands, Utilitarianism became increasingly concerned with individual rights and the extent and limits of liberty. He wrote a book on *The Subjection of Women* (1869) arguing for an extension of franchise and property rights to women. In his other important text *On Liberty*, (1859) he wrote, "the sole end for which mankind are warranted, individually or collectively, in interfering with the liberty of action of any of their number, is self-protection."⁸⁵ This negative freedom is fundamental to Liberal and Neoliberal political norms and underlies the justice system in most democratic nations. Although the conventional politics of today in no way extends the concept of 'rights' to animals, as Jeremy Bentham advocated in the 1780s.

Mainstream Utilitarianism has always fallen far short of Bentham's Ideal. Even expanding the franchise of the Utilitarian project to include animals (and instantly questions of where to draw the line arise) does nothing to preclude the reduction of all factors to utility and rational calculation of an aggregate 'good.' Utilitarianism has a pragmatic focus on practical conditions rather than the emphasis on the abstract in the many guises of Idealism. It is pragmatic in that 'good' is the mathematical result that collates the highest number of each member's spectrum of happiness versus suffering. If the population that counts is limited to humanity, then of course, widely available, cheap, consumable 'goods' enhance greater numbers of people's happiness. But if 'happiness' must be attributed to anorganic environments, to entire eco-systems, then the evaluation system must be quite different. Whenever we take a concrete example, oil is the most well known, then the 'happiness' of the immediate vicinity from whence the oil is pumped is compromised, the risks of long distance transportation are unhappy ones, the rubbish that accumulates as a result of distribution is unfortunate, and while consumers (and I am one of them) have their expectations met, the knock on 'externalities' of consumption also have profound and unhappy consequences. Carbon monoxide exhaust is unhappily producing acid rain, that in turn erodes stone, cliffs, buildings and sculpture. The acid rain poisons trees and groundwater, and it creates the 'Greenhouse effect' that

⁸⁴ Bentham cited in Singer, 1986: 221

⁸⁵ Mill, 1999

allows radiation into the atmosphere but at high altitudes the gas reacts like a mirror and refracts the light back towards earth instead of allowing it to harmlessly escape into space. Gradually this heats the planet, which in turn melts the ice caps and expands the oceans so sea levels rise, in turn changing the sea currents, wind and weather patterns. This creates its own challenges; extending deserts, exacerbating storms and damage, drowning and eroding low lying land, and so on! Utilitarianism, by habit if not design, tends to ‘count’ the happiness of the greatest good in narrowly prescribed terms and specifically confined places – at most people in ‘the West,’ more regularly, people in the U.S.A.

‘Good’ in Utilitarian terms does not attempt to reach towards a Platonic Ideal, or an Aristotelian essence, let alone a position of intrinsic respect. Instead the calculus of ‘good’ is most suited to a positivist framework and financial statements of profit and loss. In human terms, the aggregate calculation is suited to democratic social organisation which works on similar principles. So Utilitarianism remains one of the grounding principles of ethics in many environmental policy initiatives.

Recent American Pragmatists (who are thoroughly immersed in Utilitarianism) such as Norton,⁸⁶ Light⁸⁷ and Feenberg⁸⁸ take a ‘prudent’ or cynical view when they argue against intrinsic value for nature. They argue that rather than radicalising and alienating the environmental lobby as idealistic anti-consumerist, left wing, ‘greenies,’ the anthropocentric side of the dualism culture/ nature produces more workable policy outcomes that pragmatically involves local community interests.

20th Century Environmentalism

It was not until the period of industrialisation that the significance of nature arose with any clamour. And it was the intensification of technology that set the industrial revolution in motion. Karl Marx famously initiated early analysis of the ‘alienation’ of humankind from nature, arguing that it was encouraged by the industrialised efficiency of technological modes of production. Unfortunately, Marx remained caught up in the

⁸⁶ Norton, 1996

⁸⁷ Light, 1996

⁸⁸ Feenberg, 1999

industrialised technological frame that he had begun to critique by reiterating the older legacy of human superiority to nature.

In the 1930s Jünger, Spengler and Heidegger were writing in Germany about the violent cultural changes that were being brought about by technology. Heidegger in particular has become a very influential source of philosophical thinking on the environment and technology. Far from asking questions that calculate the efficiency and utility that might best bring about maximum happiness for human beings, Heidegger's central theme was to frame a crucial question; "What is the question of Being?" This has importantly set the stage for later meaningful enquiries into the scope and relationship between humanity and the environment. Heidegger's theory of Being situates humans as integrated into their surroundings, predominantly unconsciously. As the tool-wielding-animal, humans extend them'selves' to the chair, the table, the pen and so on. Through culture, *habitus*, and the intimate bounds with our surroundings, human subjectivity is submerged in objects. What makes human beings of any particular importance in relation to Being is our potential to truly *care* and *question* in an effort to understand the essence of Being. However, Heidegger remains anthropocentric because his definition of the subject, *Dasein* has to have the capability of discourse – which, perhaps inevitably, is construed in human terms. According to Heidegger, this capacity to care and think, rather than a calculation of intelligence, the 'good,' happiness, or the consumerist ethic of technological efficiency is the key to constructive change.

Heidegger's position towards animals remains problematic because he specifically excludes them from the concept of *Dasein*. Heidegger does not even deign to comment on anorganic life, or plants, lizards, fish etc. His reason for excluding animals (but not all other intellectual *beings* e.g. gods) from *Dasein* is on account of their 'paucity of world view.' The solipsist argument is on the one hand upheld; the animals' world-view is uninteresting, but on the other hand undermined; the animals do not extract themselves from the eco-system and reflect on either themselves or their surroundings. They are incapable of creating the subject/object split. That juxtaposition of the subject *against* object produces *thought* and a world 'view.'

Heidegger mounts a sophisticated critique of industrialised modernity that reduces everything, human and environment, to the impersonal utility of a resource. He associates the terrible efficiency of the Nazi Death camps with the efficiency of environmental devastation: neither are accidents of history, they are both integral to the modern project. His critique is based on the concept that we moderns have *forgotten* the question of Being. To achieve a change in culture from the consumerist ethic, Heidegger suggested a somewhat Luddite return to 'home and hearth.' Where community and place are resurrected in importance and environmental responsibility is more visible as consumption directly affects the surrounding landscape. His complex view engages in a desperate struggle with technology as at once the 'danger' and also the 'saving power.' He calls for a more spiritual deism that might hark back, as Nietzsche did, to Greek pagan nature cults, 'only the gods can save us.'

Heidegger's ideas have their limitations, but he indicated the initial scope of the question that needs to be asked. While spelling out what he thought the question was, he showed us that historic epoch, finitude, culture, ecology, technology, world-view, the production of meaning and the capacity for thinking were all at stake.

During the same time period, the early part of the 20th century in the United States, John Muir started one of the earliest and strongest conservation advocacy groups, the 'Sierra Club' to appreciate and protect all that is 'natural, wild and free' in the Rocky Mountains.⁸⁹ As well as writing Romantic, nature books and articles, Muir fought for the establishment of the Yosemite National Park. The Sierra Club has proceeded to bring environmental debate into jurisprudence.

Aldo Leopold wrote *A Sand County Almanac* (1949) in the United States in what has become a founding text for environmental conservation throughout the world. Leopold's concept of the 'land ethic' emphasises the entire eco-system rather than individual species. The land ethic situates humanity within the landscape, placing responsibility for

⁸⁹ Brennan and Lo, 2002: 4

the ethical sphere in the biotic community, “That land is a community is the basic concept of ecology, but that land is to be loved and respected is an extension of ethics.”⁹⁰

It is a century now since Darwin gave us the first glimpse of the origin of species. We know now what was unknown to all the preceding caravan of generations: that men are only fellow-voyagers with other creatures in the odyssey of evolution. This new knowledge should have given us, by this time, a sense of kinship with other fellow-creatures; a wish to live and let live; a sense of wonder over the magnitude and duration of the biotic enterprise.⁹¹

Leopold’s writing is intimate with wilderness and shows his familiarity with the mountains and wildlife in the ranges where he lives in America. “Nature study” as he puts it, “constitutes the first embryonic groping of the mass-mind toward perception. The outstanding characteristic of perception is that it entails no consumption and dilution of any resource.”⁹² Perception is the only genuine creativity. Leopold recognises that knowledge is not confined by the same limits to growth that constrains economics.

Like Wordsworth, Leopold recognises that ‘getting back to nature’ is generating the urban dwellers recreational tourist industry. “Like ions shot from the sun, the week-enders radiate from every town, generating heat and friction as they go.”⁹³ The tourist industry damages the wilderness in a variety of ways. Foot traffic and litter is the most obvious and the antidote to the dilution and damage has been an increase in the husbandry of wilderness ‘parks.’ But while Leopold is not exactly complimentary about the motives of the huntin’, fishin’, shootin’ crowd, he is also not averse to trapping some species, wearing pelts or generally intervening as a part of wildlife. Park management though, is the taming of wilderness areas for human recreational use, which he regards as devastating. “It would be hard to calculate the mutual injuries by and between mammals deprived of their natural predators, and ranges stripped of their natural food plants.”⁹⁴

Leopold tends to refrain from polemic, but this remark clarifies his planetary perspective.

⁹⁰ Leopold, 1949: vii-ix

⁹¹ Leopold, 1949: 109

⁹² Leopold, 1949: 173

⁹³ Leopold, 1949: 165

⁹⁴ Leopold, 1949: 171

Homo sapiens putters no more under his own vine and fig tree; he has poured into his gas tank the stored motivity of countless creatures aspiring through the ages to wiggle their way to pastures new. Ant-like he swarms the continents.⁹⁵

Brennan and Lo contend that Leopold fails to turn the land ethic into a systematic theory. Indeed, various authors and conservation groups have taken up Leopold's ecological principles and turned them to a variety of ends. Norton swears Leopold was a Pragmatist, Katz rejects that thesis, Routley attributes the land ethic to non-anthropocentric ends, in contrast, Holmes Rolston III uses it to argue for a species orientated deontology.⁹⁶

Leopold refrained from turning ecological integration into a fixed systematic framework promoting instead an *attitude*. The integration of human society and the subject into the ecosystem synthesizes anthropocentric and non-anthropocentric perspectives.

“Artificialized management has, in effect, bought fishing at the expense of another and perhaps higher recreation; it has paid dividends to one citizen out of capital stock belonging to all.”⁹⁷ The polarisation of environmental ethics is unnecessary; communities can care for their locale and sustain their livelihoods without reducing the environment to Utilitarian or economic ends.

By the 1960s the affects of the industrial revolution were beginning to show up in popular consciousness. Lifestyle changes, technology and a rapidly increasing global population provoked a reaction in all fields of life. In disparate discipline areas across the sciences and the humanities profound changes were being told. While taking elements from Romanticism, philosophy of the environment takes a scientific turn.

The feeling of crisis made its way into popular books such as Rachel Carson's *Silent Spring* (1963) which details evidence of how pesticides DDT, aldrin and deildrin spreads and concentrates through the entire food network. She argues that short-term economic measures to maximise food crops simultaneously impact on the environment and public health. Science and economics are political.

The historian, Lynn White Jr. published an essay in 1967 on the historical background of the environmental crisis, which, like Nietzsche, she attributes to mainstream Christianity.

⁹⁵ Leopold, 1949: 166

⁹⁶ Brennan and Lo, 2002: 4

⁹⁷ Leopold, 1949: 170

Christianity has encouraged exploitative attitudes through positioning humans in a superior status over the rest of life. White argues that there are occasional minority views, such as St Francis who meliorate the dominant trend to a limited extent but on the whole Christian 'arrogance' is largely responsible for the ecological crisis.

In 1968 NASA published the first photographs of Earth and the image of the fragile swirly blue ball floating in space had a profound affect on the collective consciousness of humanity. That year Paul Ehrlich published *The Population Bomb* arguing that the population had exceeded the planet's ability to remain sustainable long-term. Since then, Ehrlich's prolific 'solutions' have proven very controversial and I look at these arguments in some detail below. Particularly critical of Ehrlich's propositions for population control is Barry Commoner. Commoner argues that Ehrlich's politics are racist and he is too pessimistic about technology. Commoner's sociological environmentalism demands that the divide between poor and wealthy countries need to be addressed if environmentalism is to have a real chance.

In 1972 a team from MIT lead by Donatella and Dennis Meadows wrote the authoritative *Limits to Growth* which argues for a basic change in values and a new model for economics, not unlike the economist E. F. Schumacher's *Small is Beautiful* (1973). The aim of both books is to recognise the finitude of environmental factors (such as oil) and that it is necessary to 'tread lightly on the earth.' They argue for economic 'balance' rather than ever expanding 'growth.'

The scientist, James Lovelock, took the notion of the fragile ball along with ancient ideas of 'mother earth' and turned the planet into a spiritual entity or living being he called Gaia. Cloaked in science, the Gaia hypothesis describes the planet as itself a living organism. He argues that the planet exhibits most of the same characteristics of a living being; it has a finite life span, and this can be shortened by disease and poison or pollution. It defers to the Greek goddess of the Earth, Gaia, and Romanticism, in suggesting a spiritual *and* scientific understanding of Nature as one living system 'in balance.' Lovelock suggests that if humanity does not make the earth too 'sick' then, like other living organisms, she will recover equilibrium or health. Most recently, Lovelock

has become a spokesperson for the Nuclear power industry. Although Lovelock's theory has been criticised for its scientific merit, it remains an example of non-anthropocentric environmentalism and has influenced a great many people to shift their attitudes towards the planet.

Also in 1972 anthropocentric versus non-anthropocentric arguments surfaced in legal debate. Christopher Stone argued that trees and natural objects should have the same legal status as corporations. At the time, Disney Corporation had applied to develop a resort high in the Mineral King Valley with a highway through the Sequoia National Park. The Sierra club argued that the national park ought to have the status of a 'legal person', which allows compensation and discourages the risk of injury. Joel Feinberg (1974) countered that only entities with 'interests' can be represented in court, and therefore also in morality.

As Brennan and Lo note, Feinberg's assessment of interests as the applicable criteria also pertains to the animal rights movements put forward most vocally in the 1970s through to the present by Peter Singer⁹⁸ and the novelist J.M. Coetzee.⁹⁹

Singer argues for animal rights, through an expansion of the democratic franchise to include animals instead of drawing the line at different types of human being. He uses Jeremy Bentham's argument that it is not rationality or language that should be the markers or boundaries on rights, but the capacity to suffer. Thus, a stone does not require 'rights' but a mouse does. He is also adamant that eating meat violates animal rights, as does vivisection and intensive industrial farming. In a similar vein, Regan is a non-anthropocentric individualist. Thus animals enter the Liberal paradigm of 'rights' in the same way as human individuals.¹⁰⁰

One of Coetzee's novels is about a retired academic who embarrasses her son by giving lectures on animal communication, ecology and vegetarianism. It is a commentary on

⁹⁸ Singer 1986 and referred to in Brennan and Lo, 2002

⁹⁹ Coetzee, 2003

¹⁰⁰ Brennan and Lo, 2002: 5

ethics and the difficulties of changing the normative cultural paradigm of conservative capital accumulation.

As noted at the beginning of the chapter, in 1974, John Passmore was writing along lines similar to Lynn White's thesis that the church is predominantly despotic towards nature. However, being sceptical that a radically new ethic could take a hold in society, Passmore proposes that the themes of 'stewardship' and 'perfectors of God's creation' might meliorate the dominant tradition that had in the past, legitimised destructive practices.¹⁰¹

Gregory Bateson

The year before he died Gregory Bateson published one of the most important books on environmental philosophy yet to be released, *Mind and Nature; A Necessary Unity*, (1979). The word limit of the thesis prevents spending more time on Bateson's ideas, and the way in which philosophers such as Deleuze and Guattari have taken him up in more recent years. Gregory Bateson's thesis is that vectors of communication are the keystone for connecting and enabling the two great stochastic processes of change – the individual process of assimilation and learning, and the species process of evolution and transformation. Bateson argues that there is a profound relation between growth (or epigenesis), communication, and evolutionary change. What is essential in all these relations is the connection between code and morphology. The communication of code and shape permeates and connects individuals, species, ecosystems, fields and strata, stratosphere, solar systems, universes.

Education is central to the transmission of code: the communication between individuals, society and ecological systems. Sadly, Bateson is despondent that education is doing anything more than reproducing old patterns. Education is in a key position to enhance communication, learning and evolutionary change for individuals and societies. Across time education encourages the absorption of cultural patterns and learning by individuals and the adaptation and evolution of the species in relation to the environment.

¹⁰¹ Brennan and Lo, 2002: 5

Bateson makes a convincing argument that draws an analogy between language and existence as two examples of similar phenomenon. The notion that language is a distilled and rarefied speciality that occurs in privileged, intelligent, and rational animals (such as humanity) and is attributed to objects via 'representations' is instead seen as patterns of repetition and difference, readiness and stochastic change. Code suffuses objects. All shape is an expression of code within a particular historical, environmental context. The growth of the individual to maturation depends on the grammar of genetics, and the limitations of surrounding context. This is a circular arrangement where context circumscribes growth and brings into being the already-existent regulations of the formula. The code formulates the possibilities for epigenesis or growth – it is the pattern of growth. The individuals grow up and contribute to their community and environmental context, reinforcing and modifying the parameters of the code. This cycle of repetition and difference contrasts with Enlightenment ideas of linear progress. Bateson places emphasis on grammar as the vector which reaches into all morphology and all language,

growth and differentiation must be controlled by communication. The shapes of animals and plants are transforms of messages. Language is itself a form of communication. The structure of the input must somehow be reflected as structure in output. Anatomy *must* contain an analogue of grammar because all anatomy is a transform of message material, which must be contextually shaped. And finally *contextual shaping* is only another term for *grammar*.¹⁰²

Instead of conceiving of the human mind as the highpoint of evolution, 'in the image of God,' Bateson postulates the mind as both operating through and resulting from processes of stochastic change. The mind is a combination of random events being actively selected and transferred. Epistemology is not logical but paradoxical. The initiation of a minute random change that makes a qualitative difference could trigger an epistemological shift, a dynamic evolution in genetic code, a semi-permanent evolution in shape and meaning.

A state of readiness serves to create the conditions that selects a new mode or initiates a new set of regulations. Conditions of readiness create appropriate circumstances for change but cannot control the particular moment and quality whereby the new logical type is triggered. "*Readiness* can serve to select components of the random which thereby become new information. But always a supply of random appearances must be available

¹⁰² Bateson, 1979: 17

from which new information can be made.”¹⁰³ Readiness is the ‘overheating’ of the thresh-hold, that which seeks with a kind of desperation for an abrupt metamorphosis of the entire context. The thresh-hold of readiness shapes up the general potential for change in the manifold of possibility. From these circumstances, the cycle of ordering, evolutionary change, growth and maturation, and learning, can be separated into two stochastic fields; epigenesis (or embryology), and evolution and learning. The production of order is always a tenuous and temporary condition. Order endures longer only in the difference in tempo between one sequence and another that-does-not-endure-as-long. Bateson cautions,

pattern and/ or information are all too easily eaten up by the random. The messages and guidelines for order exist only, as it were, in sand or are written on the surface of waters. Almost any disturbance, even mere Brownian movement, will destroy them. Information can be forgotten or blurred. The code books can be lost.¹⁰⁴

While retaining the nominal separation between the solipsist worlds of things and subjects, Bateson is exploring the vectors of communication between these worlds and the limitations of perception which maintains their separation. Instead of being afraid of the nominal gap as isolating and reifying human individuals into *animal rationalis*, difference is the means of apprehension and connection. Distinguishing difference is not a matter of alienating one view of reality from another, but the means of registering and incorporating the new into the tautological mapping of world view.

Not only does Bateson completely reconceptualise the importance of difference for thinking, but he argues that a failure to register difference can be catastrophic.

It is a nontrivial matter that we are almost always unaware of trends in our changes of state. There is a quasi-scientific fable that if you can get a frog to sit quietly in a saucepan of cold water, and if you then raise the temperature of the water very slowly and smoothly so that there is no moment *marked* to be the moment at which the frog should jump, he will never jump. He will get boiled. Is the human species changing its own environment with slowly increasing pollution and rotting its mind with slowly deteriorating religion and education in such a saucepan?¹⁰⁵

¹⁰³ Bateson, 1979: 47

¹⁰⁴ Bateson, 1979: 46

¹⁰⁵ Bateson, 1979: 98

It is no great leap to apply the metaphor of the frog gradually boiling to the increase in climate temperature, gradually creating a condition of readiness for a transformation from the existing set of conditions to something extremely different. These alliterations are examples of Brownian movement, where the overheating, in this case of human population and pollution pressures continues to build, over-reaching the threshold of viability until a moment of difference is actually registered (the avalanche effect), and suddenly monumental and irreversible change occurs.

Biological stochastic change is the active process of selection of random change being transferred and repeated. Again, it involves the recognition of difference and the transformation of code. Both the environment and the mind work on a combination of similar principles of digital and analogic process. For change to take place, the new description of code must impose in a way that fits the demands of the existing coherence of both organism and ecological surroundings. It is a double requirement, a double description, a double specification: “The possibilities for change are twice fractionated.”¹⁰⁶ Phylogenetic and biological conservatism must agree with environmental suitability for adaptation and change.

We face, then, two great stochastic systems that are partly in interaction and partly isolated from each other. One system is within the individual and is called *learning*; the other is immanent in heredity and in populations and is called *evolution*. One is a matter of the single life-time; the other is a matter of multiple generations of many individuals... The *unity* of the combined system is *necessary*.¹⁰⁷

Communication, growth, change, all adhere to the mind's ability to impose the dynamics of code; repetition and difference, the moiré phenomenon where new patterns of emphasis emerge from the abduction of new codes on existing modes of consistency. These ways of knowing are about pattern not accounting. That is to say, pattern is theories of predictability and consistency, it traverses wildly disparate fields, and it is not the financial accountability of governmentality.

The vectors of communicating code enable the two great stochastic processes of change – the individual process of assimilation and learning, and the species process of evolution

¹⁰⁶ Bateson, 1979: 144

¹⁰⁷ Bateson, 1979: 149

and transformation. For stochastic change to take place, a certain ‘readiness’ is required, an overheating that seizes upon a point of difference to make the metamorphosis from one sphere of consistency to another. Difference is not an insurmountable barrier between the solipsist subject and the external world, but a crucial element of the ability for one organism to ‘know,’ to think, to speak, to change and to exist. Difference is Being. Difference is immanent to being.

Eco-feminism

Eco-feminism constitutes another important vein of environmentalism because it directly links culture, power and environmental devastation. In 1974 Sheila Collins wrote that male dominated patriarchy was supported by sexism, racism, class exploitation, and ecological destruction. There is a wide range of feminist positions on the ways patriarchy impacts on culture and ecology. In the late 1980s Ynestra King argues that nature has long been associated with women and both are inferiorised as ‘other’ to the rational centre of male dominated culture. Val Plumwood cites women and ecology as examples of the oppressive structure of colonisation where the dominant party uses ‘conceptual and rhetorical devices’ to position themselves as privileged over others. ‘Rape’ applies to the destruction and plunder of nature as well as to women.¹⁰⁸ Subjugation may take a variety of forms, but these oppressions mutually reinforce each other. Male centred culture makes use of linguistic oppositions which hierarchically positions logo-centric, individually orientated, male and anthropocentric characteristics over other forms of social and ecological relationships. Feminism problematises these dualist assumptions, such as mind/ body, culture/ nature, reason/ emotion, human/ non-human, subject/ object for falsely privileging one aspect and ascribing lack or inferiority to the other.

Nature, women and emotions have traditionally been subjugated to culture, man, and rationality. The renowned Idealist philosopher, Francis Bacon thought of science as a means of consolidating man’s dominion over nature. Hutchings writes of Bacon’s text *Novum Organum*, “Enlightenment rhetoric that described scientific inquiry—which

¹⁰⁸ Plumwood referred to by Hutchings, 2001: 3

Bacon believed would restore humanity to its originary position of ‘empire’ over nature—as a ‘penetration’ of nature’s ‘womb.’”¹⁰⁹

Eco-feminists have often reversed the dualist hierarchy and claimed a privileged, if problematic, feminine insight into the realms of emotion and nature. Inadvertently, this leaves the dualism intact and fails to challenge men, culture, and rationality to take any responsibility for environmental and cultural alienation.

Mary Midgley takes in the feminist critique in her discussion of the relationship between humanity and environment. Midgley has been writing for decades and the book that best engages with environmentalism is called *The Ethical Primate; Humans, Freedom and Morality*, (1994). As Nietzsche¹¹⁰, White¹¹¹, and Passmore¹¹² have cogently argued, Christianity reinforced the assumption of a special, central position by marking out Man as the only being in His image. Midgley writes that secular philosophy might have been sceptical about the existence of God, but they accepted the mythological position of Man’s supremacy nevertheless. She makes use of feminist theory, astronomy, biology, and geology to disrupt the self-centred, anthropocentric perspective preserved in Idealism without abandoning the most interesting aspects of nominal solipsism.

There is a distinct sense in which subject-centred solipsism is undeniably experienced by each of us. As subjects we experience the manifold impressions of the environment through a self-centred ‘I.’ To pause a moment longer, those subjective impressions make no ‘sense’ unless the understandings that we share with our language community are applied to them. So the isolated individualism of the ‘self-centred’ subject is rapidly overcome by the importance of the environment – as instigator of the original impressions, and the community, as bearers of shared frames of understanding.

Unfortunately the dominant discourse circulating in our shared understanding of the world is the ‘individual, rational, utility maximiser’ which exaggerates the importance of the solipsist centre and reduces the ecological imbrication of the individual with their surroundings to an irrelevant consideration. Kant wrote ‘As the single being upon earth

¹⁰⁹ Bacon, referred to in Hutchings, 2001: 3

¹¹⁰ Nietzsche, *The Antichrist, Beyond Good and Evil, The Genealogy of Morals, and The Will to Power*

¹¹¹ Brennan and Lo, 2002: 5

¹¹² Passmore, 1974 referred to in Brennan and Lo, 2002: 5

that possesses understanding (man) is certainly titular lord of nature and, supposing we regard nature as a teleological system, he is born to be its ultimate end.’¹¹³ Midgley comments on the easy shift from solipsist ‘centre’ to hierarchical ‘titular lord.’

Paradoxically, the metaphoric assumption is both undermined and manages to persevere in science and governmentality. A better understanding of astronomy undermines man as the centre of the universe. No longer are the sun, planets and universe thought to be revolving around the earth. Instead the universe is far more immense than it is possible to conceptualise, and the earth is a mere speck of sand amongst a long wide beach.

Evolutionary biology reveals Homo Sapiens as another example of the general shape of primates, rather than a reflection of the personhood of God. Xenophanes had a good point, Midgley writes, when he surmised that if horses and cattle had gods they would have the shape of horses and cattle. Man made God in his own image. Geography discloses that instead of the firm ‘ground’ philosophy has traditionally referred to, tectonic plates are in fact, constantly moving and changing the shape of the earth.

On the other hand, some scientists hold a belief that the *telos* of history has arrived at its ultimate destination with the human animal. This overblown view seems to owe something to Berkeley’s Idealism – if the tree falls and no-one sees it - did it fall? The scientific answer is that until humans ‘see’ it, probably via scientific residues or ‘evidence,’ it has no significance, thus no ‘reality.’ Furthermore, as humanity progressively understands and codifies the universe (through technology such as computers and telescopes) we will reach an ‘omega’ point of total conscious understanding and becomes godlike. Science has no god in the background, positioning man as mere stewards. “Man replaces god as creator, not just of the earth but of everything.”¹¹⁴ Midgley calls this extreme form of self-centredness ‘anthropolatory.’

This extreme is distinct from the milder and more common anthropocentrism which is “simple human chauvinism, narrowness of sympathy comparable to national or race or

¹¹³ Kant, 1928: 93-94 cited in Midgley, 1994: 104

¹¹⁴ Midgley, 1994: 109

gender chauvinism.”¹¹⁵ She ascribes the exclusion of animals from ethical regard as the equivalent of the 19th and 20th century civil rights battles, where ‘pugnacious’ exclusiveness was reinforced by dualistic metaphors. Midgley’s philosophy is well thought out, but she does not fully engage with the implications for politics, world governance or the processes of economic capitalism.

Deep Ecology

Another influential group to emerge during the late 1970s is the ‘Deep Ecology’ movement. The Norwegian Arne Naess distinguished deep ecology in his early work from the ‘shallow ecology movement’ which is the ‘fight against pollution and resource depletion’ in the interests of the ‘health and affluence of people in developed countries.’ In contrast ‘deep ecology’ attempts to formulate principles that will encourage ‘biospheric egalitarianism’ which places intrinsic value on all living things regardless of their utility for human beings. He conceptualises ecology, including humans, as a ‘relational total field image’ and organisms are like ‘knots’ in the biospheres net. Naess espouses a reverential, ascetic attitude towards nature that was partly influenced by the philosophy of Spinoza and Heidegger, and came partly from a mountain climbing expedition in the Himalayas where he was hugely impressed with the Sherpa sacred devotion to their mountains. As part of the model for achieving this ascetic reverentialism, Naess conceives of an enlarged Self that “extends beyond the boundaries of my skin.”¹¹⁶ Naess follows in the footsteps of the Romantics and Heidegger by trying to conceptualise the relationship between humanity and nature as interdependent. The enlarged boundaries of the Self result in the ego ‘identifying’ with nature.

One of two early journals to publish on the environment and education; *Environmental Ethics* began in 1979 and the e-journal, *The Trumpeter, Journal of Ecosophy* began in 1983. Deep Ecology gained momentum during the Thatcher and Reagan era of voracious capitalism and resistance by major corporations towards any responsibility for the environment. As Tim Luke puts it in his perceptive and critical analysis “Humans and Nature: Tensions and Interdependence” (2004); “The immobilisation of reform

¹¹⁵ Midgley, 1994: 111

¹¹⁶ Brennan and Lo, 2002: 6

environmentalism in the Reagan years, coupled with a reckless disregard for the environment in too many corporate initiatives during the boomtimes of the 1980s”¹¹⁷ contributed to the widespread audience for Deep Ecology’s message of ascetic self-sacrifice, treading lightly on the planet, and the spiritual nature-Romanticism of various ethnic cultures from around the world.

Nicky Duenkel and Bob Henderson outline the pseudo-spiritual, anthroposophic, peacenik, eco-friendliness of Deep Ecology.

Perspectives within include eco-theatre, a naturalists’ view, activism, classroom teaching, travel guiding, personal lifestyle issues, community initiatives and philosophical inquiry. It is certain that all writers approach education experientially with a strong focus on being, experimentation and creativity. There is much happening/ evolving in the name, and in the framing inspiration, of the deep ecology movement in education for all ages. The key players in creating educational programs, lifestyle change, recreational offerings, however, are more than likely working as the innovators themselves, forging their own ideas into practice.¹¹⁸

Deep Ecology maintain the faith that prevailed in the 1970s and 1980s that educational sites are an important tool for influencing society at large through transformational ideas and structures, and egalitarian opportunities for meritocracy that, despite capitalist class hierarchies, will redistribute national income more evenly throughout society. They battle with changing the educational system from within; “The hidden curriculum to avoid fundamental change towards increased social justice and eco-centric practice is strong.”¹¹⁹

Their attempt to change school culture is grounded in a sense of the local and a Heideggerian concept of care. Part of the inheritance from Heidegger is the emphasis on place; “*Ecosophy* literally means the wisdom of the household place. It implies the wisdom to dwell harmoniously and non-destructively in a place.”¹²⁰ *Ecosophy* is reminiscent of the Romantic household economy that emphasised the animals and rural landscape that defined family economic life in the 18th and 19th century at the advent of the Industrial revolution.

¹¹⁷ Luke 2004: 90

¹¹⁸ Duenkel and Henderson, 1997: 2

¹¹⁹ Duenkel and Henderson, 1997: 2

¹²⁰ Duenkel and Henderson, 1997: 3

Later, in the 1980s Deep Ecologies' 'biospheric egalitarianism' transformed into the weaker declaration that human and non-human life have intrinsic value. Naess and Fox tried to separate out 'Ecosophy T' which specifically theorized the Self in relation to ecology from 'Deep Ecology' which attempted to advocate an overarching political allegiance based on commonly agreed ecological 'platforms' which could provide commonalities for divergent environmental groups to convene, agree, and work together.

Deep Ecology has four levels of discourse; ultimate premises, platform principles, policies and practical actions. Emphasis was placed on the secondary platform of principles developed by Naess and George Sessions because it is a level where broad general agreement can be reached as opposed to the first or ultimate level which has too diverse a range of worldviews or religions to be pragmatically informative. Thus, Deep Ecology can claim to be both aiming for a pragmatically "*total* or COMPREHENSIVE VIEW" and remain relatively independent of the deepest or 'ultimate premise' of worldview which is regarded as a problem because it is diverse and non-consensual.

The first of the (second level) Platform principle is the inherent value of Life on Earth "independent of usefulness of the nonhuman world for human purposes." Natural diversity is posed in terms of the liberal notion of 'rights' which humans ought to respect, not reducing them "EXCEPT TO SATISFY *vital* human needs" Furthermore, "nonhuman life requires a decrease" in human population. Policy changes to implement these necessary platforms involve "basic economic, technological and ideological structures." "THE IDEOLOGICAL CHANGE IS MAINLY THAT OF APPRECIATING *life quality* (dwelling in situations of inherent value) rather than adhering to an increasingly higher standard of living."¹²¹

Warwick Fox is the author of an informative text titled "The Meanings of 'Deep Ecology.'¹²² Ecophilosophy offers a critique of the 'modern world view' that has been characterised as assuming a narrow-minded anthropocentrism, a teleology of improving technology and with it, a material history that comprehends the earth as a potentially consumable resource. The Critical Theorist, Luke, agreeing with deep Ecologies concerns

¹²¹ Naess and Sessions. 3-4, capitals and italics in the original

¹²² Fox, 1990

about modernity, describes societies' mechanistic view of nature; "(Nature is no more than a vast machine that can be studied, mastered, and then administered)."¹²³ Fox attempts to pose a radically non-anthropocentric perspective "or, more positively, an ecocentric approach to ecology/ living-in-the-world."¹²⁴ 'Deep' is opposed to 'shallow' environmentalism because the aims are not surface, social tinkering but to question the normative and prescriptive premises of modernity.¹²⁵

In contrast to the inference of its name though, Deep Ecology avoids 'first principles' because they are divisive and the urgency of environmental damage does not allow time for quibbling over religious or philosophical bases. Fox argues that both anthropocentric and ecocentric views can derive from fundamentals such as 'Obey God!' and 'Further the ends of evolution!' and therefore the realm of fundamental philosophy is untenable and not worthwhile. To some extent Deep Ecology is able to encompass the spectrum of eco- to anthro-pocentric values, "It fails to distinguish ecocentric views ... from anthropocentric views."¹²⁶

Naess developed Ecosophy T as a theory of Self-realisation that is inspired by Gandhi and Spinoza that expands the sense of self as widely as possible to 'this-worldly.' The aim of this 'gestalt ontology' is for an expansive, compassionate sense of self rather than a narrow, atomistic and egoistic sense of self. Fox argues that Deep Ecology is different from Ecosophy T because the latter is not primarily interested in the notion that the environment has intrinsic value. Rather Ecosophy T is concerned with a "certain state of being, specifically, the this-worldly realisation of as expansive a sense of self as possible."¹²⁷ They argue that this avoids moral imperatives and the dangers of environmental axiology associated with anthropocentrism.

But despite the best efforts of Fox and Naess, the moral imperative shows its hoary face by ostracizing behaviour they define as undesirable with adjectives such as 'abnormal,' 'neurosis,' and 'sick.' While Naess is clearly trying to put Heideggerian ideas about

¹²³ Luke, 2004: 90

¹²⁴ Fox 1990: 2

¹²⁵ Zimmerman, 1994: 20

¹²⁶ Fox, 1990: 2

¹²⁷ Fox, 1990:3

'care,' 'Being,' 'home,' and the 'local' into more digestible form for a wider audience, he falls into pitfalls that Heidegger himself manages to avoid.

Care flows naturally if the 'self' is widened and deepened so that protection of free Nature is felt and conceived as protection of ourselves ... just as we do not need morals to make us breathe ... (so) if your 'self' in the wide sense embraces another being, you need no moral exhortation to show care ... you care for yourself without feeling any moral pressure to do it – provided you have not succumbed to a neurosis of some kind, developing self-destructive tendencies, or hating yourself.¹²⁸

This notion of the self, while wide, is still *self-interested*. For Naess compassion and care are only achievable by expanding the concept of self to embrace and *identify with* as much as possible because to care for something completely alien and other to oneself is outside their conceptual framework. Of course this is a critique of Naess and Fox's unstated grounding assumptions – that realm which both have deemed out-of-bounds because of the diversity of people's belief systems and the contestable interpretations and results of any given fundamental theory.

During the 1980s there were a plethora of publications making use of scientific and sociological evidence that environmental resources were depleting at alarming rates, that pollutants were having widespread effects in unimagined contexts, like the upper atmosphere, and that the bio-feedback of the ecological system was in danger of warping so far out of kilter that the entire structure may collapse. Naess regards 'apocalyptic pessimism' as demotivating as the entire society is subdued by a kind of catatonic shock. So he advocates ecological optimism, or 'sustainability' as a political device to enhance fundamental change for future generations. Naess tries to distinguish ecological sustainability from economic sustainability. Ecological sustainability "ensures full richness ('abundance') and diversity of life forms on Earth (to the extent *humans* can ensure it)."¹²⁹ Economic sustainability focuses on ambiguous words like 'development.' The development concept is tied to 'growth' of GNP rather than as Naess puts it, life quality.

¹²⁸ Naess, 1987:39-40, in Fox: 1990, 3

¹²⁹ Naess, 1992: 1

Pluralism or Relativism

Naess seeks cooperation between the traditional activist movements of Peace and Social Justice. This pick ‘n’ mix encourages a type of pluralism by carefully avoiding religious, philosophical or ethnic world views or ethical motivations. Politics is divided into Green, Red and Blue axes. Naess claims a little of each for deep ecosophy: blue, an “aversion to bureaucracy, emphasis on personal enterprise and initiative, and a reluctance to take certain green utopias too seriously”; red, “the fight on the side of the underdog; green, ecological sustainability” and ethnic pluralism as recouping a type of anthroposophic, revisionist ‘New Age’ spiritualism.

He has a rather confused approach to business and entrepreneurial endeavour. Surprisingly, Naess caters for conspicuous consumption but at the same time advocates no political support for greed or social injustice. Arne Naess envisages a utopian future which still has room in it for his brother’s lucrative job in the oil industry, or at least something with as much status and wealth. He is vague about the exact contours of conspicuous consumption but thinks that the most green utopias are too *dreary* to spark the interest of more than a few modest artists and mild naturalists. Capitalist society might have faults but it is wild and sexy! “We shall need enthusiasts of the extravagant, the luxuriant, the big. But they must not dominate.”

On the face of it, this nod in the direction of capitalist grandeur fails to maintain any consistency with his earlier statement in the same rambling article, “The deep ecology theorists are servants rather than masters.”¹³⁰ But unconsciously I believe Naess has accepted the shift in the meaning of the discourse of ‘service.’ Service within late modern capitalism has taken different connotations from the class distinctions of feudal times. Now ‘servants’ *are* the ‘masters’ – discovering what consumers ‘need’ and ascertaining how to ‘provide’ the services which meets these needs and at the same time taking a slice of the action in profit. In the capitalist marketplace, through devices like focus groups, market indicators, and advertising, as well as a metaphysical faith in the balance of Pareto optimality ‘servants’ are the new masters. The nod that Naess makes in the direction of

¹³⁰ Naess, 1992: 3

social justice is totally unexplored in any other terms. He just gets to be a nice guy with his entrepreneurial brother as well as his left wing friends.

Andrew Light thinks that contemporary Pragmatism can correct Deep Ecologies' inconsistencies. "Pragmatism can help solve the difficulty in determining the correct interpretation of deep ecology."¹³¹ The Pragmatist view on 'correctitude' as we will see below, is based on a strongly held conviction on the anthropocentric economic value of society and nature as well as pluralist rather than relativist political and ethnic interests. Both Pragmatists and Deep Ecologists regard theory, or debate over world view or the independent intrinsic nature of Nature as a waste of time in the face of urgently required ecological action.

Debate about the legitimacy and status of the political interests and world views of a plethora of groups has been the last haunting cries of the universal expansion of democratic 'rights.' The Black Civil Rights movement, feminism, the men's movement, indigenous rights and animal rights have all been contested within the modern democratic framework. The debates on the legitimacy of pluralism versus relativism have political and material consequences. As the 'minimal State' rolls back, freeing up erstwhile commonly held 'resources' such as state forests, parks, the foreshore, fish, or public utilities like rail, buses, electricity, water, gas, radio, television, or infra-red frequencies, private interest groups are being given the opportunity to claim ownership on the basis of indigenous or minority ownership rights, as well as corporate capitalist 'efficiency.'

Representation

In 1997 Arnie Naess wrote a piece in the *Journal of Ecosophy* called "Heidegger, Postmodern Theory and Deep Ecology" in reply to Zimmerman's comments on him in *Contesting Earth's Future: Radical Ecology and Postmodernity* (1994). Ironically for a self-avowed Heideggerian, Naess complains that Zimmerman "painstakingly discusses all...(at the level of) ultimate premises" which Naess argues produces incompatible views and lack of consensus. Along with the anti-intellectualism, anti-poststructuralism

¹³¹ Light and Katz, 1996: 13

and some confusion over the interpretation of Zimmerman, Naess has genuine concern in this dialogue with Derrida's reduction of all 'centrisms' to language.

The first confusion between Zimmerman and Naess is over the term 'construct.' Construction or deconstruction is where Naess takes issue with Derrida, and he obviously thinks Zimmerman is far too influenced by 'postmodern' deconstruction. Zimmerman's explanation of Naess is that, like early Heidegger, he does away with the subject-object distinction and with its primary qualities, essence, substance, or even 'things.' Zimmerman writes, "Things are useful constructs for dealing with constantly changing, internally related phenomena, which constitute 'experience.'"¹³² Naess objects to this interpretation of his ideas because " 'Constructs' reminds me too much of postmodernism and suggests an activity on the part of us humans which is too pretentious. We do not construct things. We construct concepts of things – that is remarkable enough for me." Zimmerman is fully cognizant of this argument and puts it to use, not least in the phrase quoted. But Zimmerman's point is that the ultimate identification of all nature with the Self of gestalt ontology incorporates every 'thing' into the human framework, rather than leaving it to its own, 'other' extrinsic existence.

Naess's maladroit article tries to justify his concept of 'gestalt ontology' combined with Heidegger's notion of the truth of Being 'shining forth,' both of which, importantly, annihilate the separation of subject from object.

Naess takes Zimmerman's argument that gestalt ontology amounts to totalising anthropocentrism and has a critical discussion about Derrida's insistence that everything, in this case 'ecosystem' and 'nature' is a 'social phenomenon.'¹³³ It is a starkly simplified interpretation of Derrida's complex philosophy that fails to take account of 'différance' and therefore fails to understand the temporal relation between meaning and the 'otherness' of 'reality.' Naess objects to Derrida's aphorism that 'reality is a text' or 'Everything is a text.' Derrida appears to revert to the subjectivist Idealism that Heidegger had earlier rejected (see chapter 5 section on epistemology versus ontology).

¹³² Zimmerman, 1994: 123, in Naess, 1997: 2

¹³³ Zimmerman 1994: 138, Naess, 1997: 3

Contradicting his earlier collapse of the distinction between subject and object on the face of it at least, Naess abruptly introduces a traditionally Idealist theme: that “there is an eternal ignoramus” between humanity and nature as thing-in-itself - making it logically impossible for all ‘things’ to be consumed by the naming force of textual circulation.

Jonathan Bate acknowledges the limitations of representation too.

If everything is predetermined by ideology, there can be no unmediated access to nature. Equally, if all artworks and cultural analyses are refracted through the prism of language and other signifying codes, then we can only ever know our representations of nature, not the thing itself...Cultural representations of nature are always mediated. It does not follow that nature somehow does not exist.¹³⁴

Heidegger is highly critical of Descartes separation of the subject from the object and shows how it constitutes the premise for the modern individual. And the total annihilation of any distinction does prove to be a problem in Heidegger’s philosophy. But in his later work, he recognises that failing to have a ‘subject of knowledge’ or regarding us all as ‘objects amongst objects’ is to regard everything as ‘standing reserve.’ It is impossible to ‘know’ nature without reflection and at the same time, we are always confined by our preconceptions. Deconstruction is one means of pushing beyond preconceptions and reconnecting (at the first level) with the undisclosed ‘Being’ of the event, shining forth from ‘concealment.’ These great questions about the relationship between humans, thinking, and Being have been thought – traditionally – through the prism of representation, logic, and language. Heidegger’s question of ‘what is called thinking?’ or ‘what is calling up thinking?’ hints about a new pathway. What Heidegger calls the pathway to thinking is also the pathway to a new mode of relating to nature that holds the hope of exceeding the technological enframing of capitalism without abandoning the peculiar qualities of humanity that has the potential for authentic care. Naess and Deep Ecology contribute to the consideration of that pathway.

Recently *The Journal of Ecosophy*, *The Trumpeter* has taken a more diverse and rigorous tone. The environmental educationalists from Bath, Andrew Stables and William Scott were the guest editors of a recent edition in 2002, that gathered together some of the best philosophers in environmental education in Britain. Influences from this publication are

¹³⁴ Bate, 2001: 26

scattered through my thesis, although the bulk of them are in the chapter on Environmental Education. The section written by Michael Peters on “Earthsongs: Eco-poetics, Heidegger and Dwelling” is referred to earlier in the chapter on the Romantics. Peters criticises the Romantic aversion to industrial reality while referring to an a-political pastoralism that was even then becoming obsolete. Like Heidegger, the Romantics ‘dwell’ in reference to a Luddite past. The Romantic eco-poetics evoked by Bate needs to take account of political and technological culture in a struggle for ‘green’ politics. My part of that paper is reproduced with some alterations in chapter eight on “Heidegger’s Environment: Equipment and Being.” The chapter written by William Scott and Andrew Stables themselves tends towards the pragmatic, a position that is closely examined in the next chapter. Richard Smith and John Foster’s contributions are post-structural critiques of the status quo in education and the environment. Michael Bonnett and John Foster are Heideggerian. The journal has endured many debates in philosophy of the environment over the last 30 years, and the recent turn reflects the Neoliberal turn in politics and our conception of ourselves. Blühdorn’s paper is included in the final chapter on Neoliberalism ‘Societies of Control.’ Heidegger’s analysis is becoming more bracing than ever, and his influence is becoming more overtly the stage on which capitalist thought rages against the eco-poetic.

There are several incommensurate themes running through the environmental canon. One emerges from the tradition of Idealist philosophy that tends to elevate humanity over the natural ecosystem, setting up the dualisms between culture and nature, subject and object, and privileging an *über*-rationality that tends to measure, dissect, calculate and categorise. The second is inspired by Romantic eco-poetics, and it recognises the intrinsic worth and otherness of nature, both recognising the interconnections of humanity in the assemblages of ecological systems, and the peculiar property (not necessarily limited to humanity alone) of thinking, caring, and forging ethics. These two main ideas impact on our interpretations of ourselves, our modes of social and political organisation, our approach towards technology, and the environment. They permeate contemporary theories on the environment.

4 Contemporary Pragmatism and Critical Environmentalism

In the last 35 years, two strands of ideas have dominated popular philosophy of the environment. The one is Pragmatic and the other emerges from Critical Theory. Using the Heideggerian lens I want to trace the genealogy of ideas that informs each philosophy and evaluate the way they are being argued more recently. Both have different implications for modes of social organisation, attitudes and ethics towards the environment.

Both Pragmatism and Critical Theory are peculiarly well suited to both education and theory of the environment because they are *practical*. Dewey, for example, world renowned as a Pragmatic philosopher of education, mounted his critique on the traditions of Idealism and analytic philosophy because it abstracted the mind and rational thought and separated it from lived, recognisable experiences of ecological events. Pragmatism is profoundly influenced by Darwin's *Origin of the Species* (1859) and takes an ecological view of human beings as a species, who alter their ecological niche, and in turn adapt to the shifting conditions of nature. There is no dualism between human culture and nature, or the individual subject and natural objects. Both reciprocally structure the other in ongoing exchanges and ever evolving ontological and epistemological shifts. It is this emphasis on practice, on inquiry, on happenings, events, problematics and ecosystems that is present in both Pragmatism and Heidegger, and that challenges the traditional separation of human thought and epistemology from the 'real.' There are no obvious direct links between Heidegger and German philosophy and the early Pragmatists in America (although I believe Hume informs both strands of philosophy). They both draw on the Romantic and empirical sciences that emphasise humanity as a species amongst many, and our integral relation with the natural environment. This interaction between humanity and environment sets up an important critique of philosophical Idealism that is present in both Continental and Pragmatist philosophy.

Liberal and Utilitarian thought influences both Pragmatism and Critical Theory (at early and later stages). Contemporary Pragmatists and most Critical Theorists assume

themselves to take the normative position. Because the USA is still the largest economy in the world and creates by far the most pollution, their attitudes towards the environment are both particularly important and particularly poor. In this chapter I look closely at several environmental theorists that adhere to Pragmatism and Critical Theory to try and establish where there is promise and where there is dogmatic conservatism entrenched in contemporary environmental care.

Andrew Light is emblematic of conservatist Neopragmatism, with heavy emphasis on maintaining the American way of life as the standard norm, whilst addressing environmental sustainability. Light regards Heidegger's thought as wasting precious time in the urgency of finding solutions for environmental catastrophe. Andrew Feenberg crosses between Pragmatism, Critical Theory, Constructivism, and some awareness of Heidegger's philosophy concerning technology. Feenberg's close examination of the Ehrlich/ Commoner debate is an important example of the practical political and economic consequences of environmental philosophy. Tim Luke takes a Critical Theory approach that has less invested in preserving the American way of life. His neoMarxist critique of modern capitalism allows a fresh and creative examination of the environmental crisis that is deeply ethical and unafraid to imagine new ways of organising human society.

Contemporary American Pragmatism

In the prologue of their book *Environmental Pragmatism*, Light and Katz make extraordinary claims against theorising about the environment – for example that “The ideas within environmental ethics are, apparently, inert – like Hume's *Treatise*, they fall deadborn from the press.” From the perspective of Environmental Pragmatism they “argue that theoretical debates are hindering the ability of the environmental movement to forge agreement on basic policy imperatives.”¹³⁵

The common sense assumptions of contemporary Pragmatist emerge from a very explicit group of Classical Grand Masters; Pierce, Royce, James, Mead, Dewey, and a less explicit set of theoretical influences, most notably Hegel, materialism and Liberal

¹³⁵ Light and Katz, 1996: 7

Utilitarianism. Unlike their predecessors (who were more like Hume than their later name-sakes), contemporary Pragmatists make a stark distinction that separates practice from theory, and they valorise one side of other dualisms such as anthropocentrism over non-anthropocentrism, instrumentality over intrinsic value, and culture over nature.

Light and Katz' book sets out to examine the connection between classical philosophical Pragmatism and environmental issues; address the perceived gap between environmental theorists and policy analysts, activists, and the public; theorise a normative basis that will provide the ground for the convergence of activists on policy choices; and win theoretical and meta-theoretical arguments about moral pluralism as opposed to poststructuralist 'relativism' in 'normative' environmental theory.

Light and Katz complain that there is a 'political correctness' about the debates between individualism/holism, anthropocentrism/ non-anthropocentrism, instrumental/ intrinsic value, and pluralism/ monism. The politically correct view results, they argue, in a unified theoretical field that bears no relationship and thus has no practical effects on policy. "Thus methodological dogmatism may account for the failure of environment ethics in the realm of practical affairs."¹³⁶

Despite the emphasis on the practical, the book itself offers little advice that would affect policy. This is explained by Anthony Weston, who has a Hegelian *telos* that regards the 'birth' of Environmental Pragmatism as a discipline (in 1996) as too 'immature' to have discovered its ultimate, progressive form. Pluralism is at the immature beginning stages but gradually a Pragmatic approach will forge some sort of focal point for environmental practices. Weston writes,

Original stages are the worst possible times at which to demand that we all speak with one voice. Once a set of values is culturally consolidated, it may well be possible, perhaps even necessary, to reduce them to some kind of consistency. But environmental values are unlikely to be in such a position for a very long time. The necessary period of ferment, cultural experimentation, and thus *multi-vocality* is only *beginning*.¹³⁷

¹³⁶ Light and Katz, 1996: 7

¹³⁷ Weston edited by Light and Katz, 1996

Likewise, in their contribution to the volume, Rosenthal and Buchholz state “When the goal of the new evolution of value is undetermined, it would be a serious mistake to attempt to force a theoretical consistency in environmental philosophy.”¹³⁸ Confusing, I imagine, postmodernity with poststructuralism, they go on to warn that pluralism could easily be confused with a lack of a standard for truth in postmodernism. Moral pluralism “sounds dangerously close to the abject relativism of deconstructive postmodernism. And this relativism is something that we may agree ought to be avoided during periods of crisis.”¹³⁹ In contrast to the poststructuralist suspicion of metanarratives (with its debt to the philosophical tradition of the nominalist fallacy and particularly Hume), pluralism incorporates different theoretical stances, for example, “Peter Singer’s criterion of sentience and Paul Taylor’s criterion of respect for all teleological centres of life” that can be subsumed into a coherent “single moral enterprise.” Light and Katz argue that Pragmatism is a “radical correction of modernity.”¹⁴⁰ Juxtaposed against postmodern relativism, they require “a workable, robust and critical environmental philosophy, (that) at best may provide the foundations or guidelines for the types of theory development needed *at this stage in the growth* of environmental philosophy.”¹⁴¹ Their concern about the relativist problems of Postmodernism is because such theorising delays the urgent action that helping the environment requires.

In her contribution to the volume, “Pragmatism and Environmental Thought,” Kelly Parker describes the theoretical underpinnings of the classical Pragmatists, Pierce, Royce, James, Mead, and Dewey. She argues that the classical Pragmatists were critical of traditional western metaphysics and epistemology because humans, along with other organisms, are embedded in a particular location, so knowledge and value are a result of interactions within the worldview of that particular place. Like Hume, (and later Nietzsche) they argue that there are no indubitable givens as foundations for knowledge.¹⁴²

¹³⁸ Rosenthal and Buchholz edited by Light and Katz, 1996: 10

¹³⁹ Rosenthal and Buchholz edited by Light and Katz, 1996: 4

¹⁴⁰ Light and Katz, 1996

¹⁴¹ Light and Katz, 1996: 10, my italics

¹⁴² Parker edited by Light and Katz eds. 1996: 22

According to Parker, James' theory of epistemology is that belief succeeds in making sense of the world if it is not contradicted by experience (in which case new beliefs need to be developed). However, the carefully construed rendition of the Old Masters fails to mention some less palatable ideas put forth by them. Mary Midgley notes that far from being environmentally friendly, William James also makes an argument for taking human aggression and subverting it by directing it against nature, "The Moral Equivalent of War."¹⁴³

For Pierce, the theory of epistemology was that the meanings of ideas derive from the subsequent effects on thought and experience. Parker explains, "We have no *indubitable* beliefs; only a stock of importantly *undoubted* ones." Concepts are not immutable but comparatively stable and sufficiently clear to make good sense of experience. Experience though, can demonstrate that our concepts are too vague or just wrong. With uncanny resemblance to Hume, and writing during the same period as Nietzsche, Pierce contends that epistemology is always contingent; "if we forget that our understanding is fallible, the philosophical quest for wisdom may devolve into a pathological crusade for absolute certainty."¹⁴⁴ Nobody in the book draws attention to the influence of *evolution* on Pragmatism, but this is what unites the North American philosophers with the Scottish Empiricists and the Continental philosophers. In classical Pragmatism there is a "matrix of conceptual constructs, both tacit and theoretical, that bring order to raw experience" from the 'stuff' of chaotic, unassimilated raw experience. "The world we live in is surrounded by the fringe of the unknown, an ineffable but insistent existential reality that is larger than ourselves and our settled knowledge."¹⁴⁵ Pierce keeps coming back to the limits of human knowledge, drawing attention to the necessary conditions and limitations of human understanding and also to the phenomenological experiences and culturally located roots of epistemology. The earth always exceeds the 'world as known.' Both Nietzsche, and the early Pragmatists owe a profound theoretical debt to Hume's critique of causality. So perhaps theory is not stillborn after all.

¹⁴³ Midgley, 1994: 105

¹⁴⁴ Parker edited by Light and Katz, 1996: 22

¹⁴⁵ Parker edited by Light and Katz, 1996: 23

For Pierce, mind is a part of the world. It is an ever-shifting universe of complex relationships that occupies a primordially continuous field of experience. It is an uncertain, doubtful, indeterminate situation that is reconstructed to make sense, to become intelligible. This transforms both the knowing subject and the known object. Pragmatism's theoretical roots confirm pluralism, indeterminacy, chance, change, development, novelty, structures and relations, reality, beings, and radical empiricism.

Parker describes 'Subjectivist' experiences in radical terms that dissolve the separation of the subject from the object, "experience as such is just another name for *the manifestation of what is*. What *is* is the ongoing series of transactions between organism and their environments."¹⁴⁶

Pragmatic axiology seeks to enquire into what it is that people actually need and desire. They do not place value on the utilitarian pleasure – pain axis. The emphasis is on desire and growth as a creative or aesthetic richness of experience rather than the material 'growth' such as measuring well being through per capita Gross Domestic Product.¹⁴⁷

My reading of the roots of classic Pragmatism is that it is an evolutionary theory of interaction with environmental conditions; noting the problematics, inquiring into necessary adaptations, challenging the species and the circumstances to be rethought and introducing a new dynamic to the exchange.¹⁴⁸

When Parker diverges from the close examination of the nineteenth century Masters and resumes the contemporary pragmatic position, she resorts to anthropocentric self-interest. The instrumental mastery of nature is not desirable because if everything is completely settled and predictable then there is no change, or novelty so humans can no longer grow in experience. She never makes this critique of the 'end of history' to dispute contemporary Pragmatic faith in teleological change. Parker is in favour of sustainability for the utilitarian reasons that through diverse ecological environment, a diversity of experiences and knowledge is promoted for human beings.

¹⁴⁶ Parker edited by Light and Katz, 1996: 29

¹⁴⁷ Parker edited by Light and Katz, 1996: 27

¹⁴⁸ Dewey, 1916

Classical Pragmatism is so radically empirical that it is critical of absolutes or dualisms. “The world of experience deals harshly with absolute distinctions.”¹⁴⁹ This ought to dissolve dualist generalisations that privilege one pole of an oppositional pair, understanding them instead as integral aspects along a spectrum, but of the same phenomena. The metaphor of the spectrum (and better again, the rhizome) dissolves the dualist distinctions by not privileging either side of the divide; object or subject, nature or culture, man or woman, and so on.

In contemporary hands there is an interesting shift from empiricism towards Idealist subjectivism. While contemporary Pragmatism remains critical of the concept of the objective environment as separate from humanity, it goes on to privilege the ‘subjective’ interpretation of the environment and fails to acknowledge that nature always exceeds the human ‘world’ such that epistemology is *always* simply beliefs that are contingent upon our natural experiences. For contemporary Pragmatists the privileging of the human side of the culture versus nature dualism results in the statement that there are no non-anthropocentric or intrinsic values. Pragmatic theory derives axiology from the immediate socially empirical context and actively engages in existing political, social, and presumably environmental issues. At the turn of the 19th century, Pragmatism was radically engaged developing a dynamic theoretical framework that cast off subjectivist Idealism. Now these contemporary environmentalists, who should be in a position to take the most challenging, forward thinking, and creative aspects of Pragmatism are instead allowing these ideas to coagulate and stiffen into a protective regard for the status quo. The rejection of dualisms and the interconnection of environmental and subjective experiences is designated a one sided anthropocentric outlook. Pluralism is reduced to a ‘single moral enterprise’ and the fragile unknowability of the manifold world is simply occluded. Contemporary Pragmatists pride themselves on their active engagement with social issues and fail to see that their engrossment with the short term is at the peril of the environment and humanity in the long term.

Sandra Rosenthal and Rogene Buchholz also regard Pragmatism as the “radical correction of modernity” however they seem to cope with the sceptical divide of

¹⁴⁹ Light and Katz eds. 1996: 23

nominalism slightly better than their co-authors. Their critique is that the modern scientific view objectifies nature and separates humanity from the natural world. Science is better understood as creative human activity, rather than the excavator of the essence of things. These are important ideas for confronting the belief that technology and science can sort out environmental problems (should they be so employed). Rosenthal and Buchholz emphasize a relational context, or organic unity, such that the individual is embedded in the locality. Biological creatures are continuous with nature, so there is no need for dualisms such as anthropocentrism/biocentrism, individual/holism, intrinsic/instrumental and so on. They explain the rational and conscious organisation of experience to produce future value as a basis of Pragmatic ethics. Rationality and consciousness gets underlined here, to produce a 'correctness' of world view that only Pragmatism can provide.¹⁵⁰

Ari Santas writing on G. H. Mead's Cosmology, theorises a continuum of existence that connects all entities, especially all living beings. While failing to carry the implications through to the Idealist and capitalist politics of his cohort, he again states that there is no physical distinction of the individual from the environment. Individuals are defined by interactions with their surroundings.¹⁵¹

Larry Hickman continues the theme by writing with Dewey in mind. Hickman argues that nature is not independent from humanity, either as a self-contained machine, or a self-directed being (Lovelock's *Gaia*). Nature is a human construct, he argues. It is a cultural artefact: 'Nature as Culture.' For nature to remain purely nature is a matter of raw experience. Nature's immediate value is posited *in retrospect*. Nature as culture constructs cultural artefacts and connects experiences into a coherent verified whole. This, Hickman argues, is valuable as guides to future human experiences.¹⁵²

By emphasizing subjective solipsism and the nominalist gap at the expense of the empirical integration of everything, contemporary Pragmatism has leaned towards the rationality and dogmatic thrust for absolute Truth promoted by anglo-Analytic

¹⁵⁰ Rosenthal and Buchholz edited by Light and Katz, 1996

¹⁵¹ Santas edited by Light and Katz, 1996

¹⁵² Hickman edited by Light and Katz, 1996

philosophy. This book undermines everything ‘radical’ in 19th century Pragmatism and unnecessarily stiffens the separation of theory from practice. The result is a confirmation of the capitalist way of life in the United States, and a very narrow conception of attending to the relationship between human beings and the environment.

In an article published in *Metaphilosophy* titled “Contemporary Environmental Ethics: From Metaethics to Public Philosophy” (2002), Andrew Light writes an important and up to date survey of the field of environmental ethics.¹⁵³ He has developed an analysis of different theoretical views which predominantly slot into two main camps; the first and apparently dominant is the ‘non-anthropocentric’ theorists who also tend to place inherent, ‘intrinsic’ or ‘non-Utilitarian’ value on the environment. The second is the more traditional type of philosophy that remains anthropocentric and approaches the environment in a humanist manner, which tends towards the Utilitarian.

The latter anthropocentric position emphasizes the solipsist problematic of epistemology; that humans inevitably understand the world (and ‘nature’) through human eyes. An alien construction of meaning (whether it be the perspective of a tree, rabbit or Martian) can to some extent be sympathised with – but never inalienably comprehended. Light solves this problem with a kindly, ‘weak’ anthropocentric viewpoint that seeks to preserve nature rather than develop nature as a resource.¹⁵⁴

Light argues that the antagonism towards anthropocentrism is so pervasive in environmental ethics it has become dogma. His complaint is that theories about the environment based on non-anthropocentric values (or non-Utilitarian values) are mere ‘intramural’ word-play. They do not ground the actions of most environmental activists. Instead, using the example of the Amazon Rainforest, Light notes that the environmentalist Chico Mendes was motivated to protect the Rainforest because it was the livelihood of his entire community. Light looks to American Pragmatism to sort out the theory versus practice debate. The many different theoretical approaches in environmental ethics, whether they be anthropocentric or non-anthropocentric, all seem to end up in a practical ‘convergence’ which tends towards protecting or creating

¹⁵³ Light, 2002a

¹⁵⁴ Light, 2002a: 6

ecological habitats. So, even the animal rights theorists such as Singer, will prudently advise the humane hunting of exogenous rabbits, for example, for the larger good of the Australian Outback.

While I sympathise with the desire for urgent and practical action, I do not think it is a matter of postponing environmental care while we have a think. It is naive and even dangerous to relegate the myriad debates about Utilitarian versus intrinsic value, or anthropocentric versus non-anthropocentric, or individualist versus community aims, and even monad versus pluralist beliefs, to a 'convergent' interest in environmental protection. Clearly not all political views are interested in environmental protection. Some interest groups claim to be environmentally motivated, such as big business including 'sustainability' in their mission statements and advertising without any genuine attempt to alter capitalist practices in a far-reaching way. Conflicting strategies produce divergent politics that play out in the practices of activists, politicians, citizens and schoolteachers. Theoretical premises affect the organising paradigms, self-understanding and the actions of societies, communities, and individuals. In a global world, anthropocentric capitalism dominates the 'view' that the media, advertising, education, work ethic, consumerism and so forth, take on the environment. As Heidegger cogently argues, everything is enframed and understood as potential resource. So *thinking* our way out of these conundrums is vitally important, both short and long term, for realigning the relationship that humanity as a whole has with the earth in all its aspects. *Diverging* ideas about how the relationship between humanity and the earth can be best cared for is a constructive way forward (and impossible to annihilate) because different contexts generate different relationships. Thought is like biodiversity; difference shelters contingent possibilities for unexpected problems, monoculture fails when confronted with new disease, or new weather conditions, new predators, new conditions of possibility.

'Pragmatic' resignation to western prejudice avoids the hard 'development' questions about uneven global wealth distribution, skewed global economic and environmental policy. Avoiding theory results in ignoring the absorption of old Liberal and more recent environmental terms, such as 'choice,' 'freedom,' 'equality,' 'sustainability' into the

Neoliberal lexicon and its resultant policy initiatives that are being implemented in nations around the planet. Ignoring theory is to ignore what is actually going on.

Andrew Light attributes his Pragmatism to Richard Rorty's ability to separate private/public practice that seeks to privatise disputes and display public tolerance. Light argues this will result in "workable and democratic political theory," but also as a regulative ideal "emanating from practice...guiding the construction of political and normative theories"¹⁵⁵

Strangely enough, the major gap in the surveys of Brennan and Lo, and Light from the environmentalist canon are the outright evolutionists, Dewey at the turn of the century and Gregory Bateson, who argued in the 1970s that the basic unit of anthropocentric calculus should not be the individual, nor even the species, but the family-and-ecological-niche. Dewey, along with Heidegger and Bateson, all occlude the traditional philosophical separation between human-subject and earth-object while retaining a nominal space for reflective thinking. Their arrangement recognizes contingent ethical demands, as in the Mendes Amazon Rainforest and the Australian Outback examples, without falling into the either/or polarisation between anthropocentrism and non-anthropocentrism that Light is suggesting dominates the field.

If the environmentalist project is to generate action, then a genuine epistemological shift amongst the global population is required. The piecemeal pockets of revegetation, nature 'enhancement,' isolated national parks, sustainable management, urban recycling and so on may only contribute very limited environmental 'good' and preserve narrow ecological niches, but at the same time, they contribute ideas towards a paradigm shift that normalises concern for ecology rather than the present atomised alienation of humanity from our surroundings.

Light is intrigued by the need to 'convince people' to pursue environmental ends. Unfortunately this is the only element of interest in his essay, "The Case for a Practical Pluralism" which is a superficial skate over what is for him, familiar terrain. He does little to explain the various forms of pluralism apparently advocated by the authors he

¹⁵⁵ Light, 2002a: 11

surveys. He blithely avoids any engagement with “deconstructive poststructuralist *différance*”¹⁵⁶ by naming and shaming it as moral relativism.

Relativism entails abandoning the view that there are some moral stances better than others that could guide our ethical claims about how we should treat nature. If we admit relativism then, one could argue, we would give up on attempts to form a moral response to the cultural justifications put forward to defend the abuse or destruction of other animals, species or ecosystems. *Relativism entails that ethics is relative to different cultural traditions.*¹⁵⁷

Light maintains a North American faith in the ‘normative force’ of American cultural superiority. This criticism of relativism neglects the emphasis on critique, where evaluation based on mutual respect for differing view points can still come to an ethical decision – but quite possibly not a consensus. Misgivings aside, it is effectively the educational project that engages him. Light sees ‘convincing people’ as central to the protection of the environment. But he underestimates the potential for human society to change. Light’s pluralism is based on a despondent view that the American status quo is insurmountable: “when possible we should work within the traditional moral psychologies and ethical theories that most people already have and direct them, where we can, at the same environmental ends.”¹⁵⁸

This social conservatism is combined with a very modern sense of urgency – an urgency to avert impending doom immediately. “Given the environmental crisis we face, how could we afford the sorts of delays seemingly implicit in such talk of ‘cultural experiments’?”¹⁵⁹ This feeling of crisis dominated popular psychology of environmental books in the late 1980s. Books like James Lovelock’s *Gaia Hypothesis*, Schumacher’s *Small is Beautiful* and many others gave voice to the widespread misgivings of the Cold War’s nuclear proliferation, together with growing but largely disbelieved body of evidence about global warming. At the same time, the realisation that fossil fuels might become exhausted, Ehrlich’s exponential population estimates, and mounting numbers of species extinctions and habitat destruction contributes to the discourse of crisis.

¹⁵⁶ Light, 2002b: 15

¹⁵⁷ Light, 2002b: 7

¹⁵⁸ Light, 2002b: 15

¹⁵⁹ Light, 2002a: 7

By now the majority of people, in every nation have become somewhat familiar with the discourse of environmental crisis. I think Light underestimates the significance of this familiarity. The general acceptance that there is a massive, global, environmental problem is providing the conditions for a 'sea change' in the ways humanity interacts with the earth. If we are merely pragmatic and remain with the traditional common sense ideas then we will *not* be 'urgently' helping environmental protection and enhancement to take place. We will be inhibiting the potential for a dramatic and irreversible change, an epistemological shift, for which the world is increasingly ready. A good example of the way common-sense (Liberal-capitalist) views sidetrack this growing concern for the environment is the debate on 'sustainability.' Sustainability is meaningful to people on opposite poles of the environmental spectrum. It is in use by those arguing for the protection of 'pure' Romantic nature, and especially those concerned with endangered species and ecosystems. It has also been taken up with gusto more recently by Neoliberalism and corporations to promote more 'efficient' management of resources in the effort to squeeze more 'growth' out of the market economy.

The 'sustainability' argument emerges from a Malthusian analysis of the basic needs for a healthy life combined with estimations of the finite carrying capacity of the planet. Oftentimes this is set forth in Darwinian terms of competition (an idea Darwin owes to Adam Smith), and increasingly these ideas have been married to economic ways of understanding human society and nature.

A very important contemporary critic of theoretical and political concepts of the environment and society is Andrew Feenberg. Feenberg takes a position informed by Pragmatism, Critical theory, and what he describes as the 'essentialism' of Heidegger, Borgman and Ellul, and Constructivism. He has written a very insightful analysis of the controversy between Ehrlich and Commoner that began in the 1970s. Ehrlich relies on a Malthusian analysis of population pressures and basic needs. Commoner is more politically orientated and notes the implications of the Malthusian argument on specific places and peoples. Feenberg's analysis produces some interesting positions on technology and its implications for the relationship between the environment and humanity.

The Population Argument

A major influence on contemporary environmental philosophy has been Malthus, who in his *Essay on the Principle of Population* (1798), wrote about the over-production of infants in many species, requiring predation or disaster from the environment to maintain a 'balance' of population in relation to available resources. He wrote of a hierarchy of personal 'needs' and related these to environmental conditions: the availability of food, shelter, clothing, followed by the need for companionship, and so forth. This has led to an early analysis of the thresholds of population pressure on ecosystems. Malthus was interested in primary needs, and the capacity of the earth to provide them. He wrote on population increase, civilisation and the limitations of natural resources. This emphasis on statistics, biological and environmental determinism has influenced many discipline areas. The ideas of Malthus have become an early blueprint for statistical analysis as a tool for projecting probable trends, global governance, and the development of social and environmental policy.

Population pressure began to be regarded as a greater threat than wars, pestilence, famine or flood, fire and earthquake. Age old disasters were turned around in the new governmentality of population statistics, into a mechanism for constraining a run away plague of human expansion. Feenberg lists a raft of these Malthusian publications from the early 1970s; Donella Meadows Club of Rome study, *The Limits to Growth* (1972), *The Ecologist's* document *Blueprint for Survival* (1974) and Robert Heilbroner's *Inquiry into the Human Prospect* all of which predict a cycle of growth and crash both in population and economic terms which eventually escalates to complete conflagration. The apocalyptic message has even been tied to radical governmental population controls, and the tolerance or outright advocacy for the devastation caused by famine and diseases such as AIDS.

Most famously, Paul Ehrlich, professor of Population Studies at Stanford University wrote a book in 1968 about the population explosion, *The Population Bomb, How to be a survivor* (1971). His argument has become familiar to many environmentalists, "the causal chain of deterioration is easily followed to its source. Too many cars, too many factories, too much pesticide, ... too little water, too much carbon dioxide – all can be

traced easily to *too many people*.”¹⁶⁰ Ehrlich’s campaign for zero population growth resulted in ambiguous politics – no-growth economics, the Chinese population policy, counter-cultural anti-consumerism, opposition to Mexican immigration and high minority birth-rates. He wrote, “Basically, then, there are only two kinds of solutions to the population problem. One is a ‘birth rate solution’ in which we find ways to lower the birth rate. The other is a death rate solution,’ in which ways to raise the death rate—war, famine, pestilence—*find us*.”¹⁶¹

Feenberg traces the political implications of Ehrlich’s environmental argument on the political, economic and population conditions that exist between ‘first’ and ‘third’ world nations. Ehrlich summarised and agreed with an earlier book called *Famine – 1975!*¹⁶² which proposes that western food aid to the ‘third world’ ought to be based on a ‘triage’ approach. Those third world nations with enough food should be left to fend for themselves, those on the borderline would be given maximum aid presumably resulting ultimately in permanent self sustaining capability. And,

Finally, there is the last tragic category – those countries that are so far behind in the population-food game that there is no hope that our food aid will see them through to self-sufficiency. The Paddocks say that India is probably in this category. If it is, then under the triage system, she should receive no more food... In my opinion, there is no rational choice *except* to adopt some form of the Paddocks’ strategy as far as food distribution is concerned.¹⁶³

At this point Ehrlich is prepared to be ‘brutal and heartless,’ in his own words,

Coercion? Perhaps, but coercion in a good cause. I am sometimes astounded at the attitudes of Americans who are horrified at the prospect of our government insisting on population control as the price of food aid. All too often the very same people are fully in support of applying military force against those who disagree with our form of government or our foreign policy. We must be relentless in pushing for population control around the world.¹⁶⁴

And Feenberg notes a similar set of ideas in Garret Hardin a couple of years later,

¹⁶⁰ Ehrlich, 1968: 66-67, cited in Feenberg, 1999: 46

¹⁶¹ Ehrlich 1968:34 cited in Feenberg, 1999: 46

¹⁶² Paddock and Paddock, 1967 cited in Feenberg, 1999: 51

¹⁶³ Ehrlich, 1968: 160-161 cited in Feenberg, 1999: 51

¹⁶⁴ Ehrlich, 1968: 166 cited in Feenberg, 1999: 51

How can we help a foreign country to escape overpopulation? Clearly the worst thing we can do is send food. The child who is saved today becomes a breeder tomorrow. We send food out of compassion, but if we desired to increase the misery in an overpopulated nation, could we find a more effective way of doing so? Atomic bombs would be kinder.¹⁶⁵

Hardin finishes by favouring the white population; “Fortunate minorities must act as the trustees of a civilisation that is threatened by uninformed good intentions.”¹⁶⁶

Ehrlich believed that in developing countries “the stork passed the plow” in 1958, so ‘only’ 500, 000,000 people per year, in a ten year ‘die-back’ was required to return to a balance of population and resources. Feenberg writes that Ehrlich was aiming to influence “moral, financial and especially coercive legal incentives, applied on an international scale by the US or a world government.”¹⁶⁷

Many black people in the U.S.A. rejected Zero Population Growth as the “movement of prosperous, well educated whites anxious to shift the ecological burden to poor blacks.” Ehrlich tried to redress this with a ‘babytax’ and wrote, “The best way to avoid any hint of genocide is to control the population of the dominant group.”¹⁶⁸ But he never succeeded in avoiding racist associations. The approach resulted in highly controversial ‘law & order’ policies of birth control and black sterilisation.

By 1971 Ehrlich backtracks from such a hardline position on food aid and black sterilisation and published *How To Be a Survivor*. In this text, he suggests a massive Aid programme for the Third World, saying, “The population problem cannot be ‘solved’ by withholding medical services or food and letting people die of disease or starvation.”¹⁶⁹

Force might still be required but now Ehrlich modified the role of the United States in favour of a world government, which could enforce what Hardin called “mutual coercion, mutually agreed upon.”¹⁷⁰

¹⁶⁵ Hardin, 1971: 72 cited in Feenberg 1999: 51-52

¹⁶⁶ Hardin, 1971: 72 cited in Feenberg 1999: 52

¹⁶⁷ Feenberg, 1999: 50

¹⁶⁸ Ehrlich and Harriman, 1971: 23 in Feenberg, 1999: 50

¹⁶⁹ Ehrlich and Harriman, 1971: 17 in Feenberg, 1999: 52

¹⁷⁰ Hardin, 1970: 45 cited in Feenberg, 1999: 52

The population *bomb* resonated with similar arguments then circulating about atomic weapons, that a world government, or failing that, western powers such as the U.S.A., France and Britain could maintain control over ‘rogue’ states by owning and threatening with nuclear capabilities, paradoxically enforcing a world ‘peace.’ Feenberg notes “The kind of world government which would use force to impose demographic controls would be a government *of* the developing countries *by* the developed ones.”¹⁷¹

Feenberg regards Ehrlich’s earlier books as failing in his “earlier alarmist predictions” and despite his modified politics these early errors over the limits of food and resources get carried through to Ehrlich’s later writing “he writes as though *The Population Bomb* had been confirmed on the whole by events.”¹⁷² However, although Ehrlich’s specific speculations on the production and distribution of food and resources may have been inaccurate, it is even more inaccurate to imply that humanity is increasingly *able* to sustainably manage resources. Feenberg criticises Ehrlich for having a stagnant assumption that technology will remain in its 1970s state; reliant upon massive consumption of petroleum, releasing vast quantities of greenhouse gases, pouring thousands of kilograms of nitrate fertilizer onto the soil, and so forth. However, Feenberg relies too heavily on the potential of technology to become increasingly environmentally friendly, thus ‘saving the day.’ Alarm bells about ‘improved’ technology like Monsanto’s high yield, barren seed and genetically modified organisms are largely ignored by national policy makers. In this case technological ‘improvement’ has meant that crosspollination of old seed types has made vast tracts land contaminated with nonreproductive seed and so millions of poor Indian families, whether or not they ‘chose’ to buy and use genetically modified, high yield seed, are forced to buy next years seed – from Monsanto. Nor has Feenberg allowed for the toll of decades of soil loss that mass food production has encouraged. The fact is, that it is already too late for many species, and according to UN Indicators and the World Watch Reports the planet is exhibiting many indications that it is not able to ‘carry’ the human population with its technological lifestyle at 1990 levels let alone its present levels of consumption and pollution.¹⁷³

¹⁷¹ Feenberg, 1999:53

¹⁷² Feenberg, 1999:54

¹⁷³ cf. IPCC 2001, and 2006 forthcoming

Feenberg rallies powerful arguments to legitimately criticise Ehrlich's political 'solutions.' However, the threshold thesis of overpopulation is not without validity.

Feenberg prefers the approach taken by Barry Commoner, the Director of the Centre for the Biology of Natural Systems at Queens College. Commoner is actively politically engaged, for example he ran for President of the United States as the candidate for the Citizen's Party in 1980. He was recently involved with the National Toxics campaign. Commoner's approach to environmentalism is through socialist engagement with inequitable social relations and the effects of that on human habitat. His writing is polemical against populationists. Optimistically, he puts emphasis on the regeneration and unpredictability of change, especially technical change. He writes, "environmental degradation is not simply the outcome of some general expansive process, growth of population, or demand for goods, but of certain very specific changes in the ways goods are produced which are themselves governed by powerful economic and political considerations."¹⁷⁴

Of primary importance is the economic and political north/south divide; richer nations concerned with running out of resources, who advocate economic and population controls, and poorer nations hoping to gain from economic growth so emphasise not growth *per se*, but its unintended consequences; pollution and health hazards. Feenberg explains Ehrlich's position very well; "Fundamentalist environmentalism emphasizes control of growth because it can conceive of no change in the industrial order that would render it ecologically compatible. Technological determinism thus leads straight to a Malthusian position for which environmental and economic values must be traded off against each other."¹⁷⁵ Instead, Commoner (and Feenberg following him) believes in a radical technical transformation that will reconcile economics and environment.

'Demographic transition' occurs when the society is capable of providing stable sustenance, education and health care such that large numbers of children are no longer required to increase the chances of surviving infancy and supporting parents in their old age. The wealthier developed nations have long since slowed their rates of reproduction.

¹⁷⁴ Commoner, 1973a: 53 cited in Feenberg, 1999: 46

¹⁷⁵ Feenberg, 1999: 47

Commoner argues in 1971 that the ‘answer’ to burgeoning global population is to pour aid into developing nations and redress the inequitable disparity between rich and poor nations.

Furthermore, Commoner notes that between 1946 – 1966 the population of the US increased by 42%, pollution rates during the same period went from 200 to 2000 % increase.¹⁷⁶ Of population, affluence, and technological pollution, Commoner argues that it is the last that is the disproportionate culprit in environmental degradation. “Productive technologies with intense impacts on the environment have displaced less destructive ones,” including escalating pesticide and fertilizer use, larger cars, synthetic fibres instead of cotton and wool, and detergents replacing soap.¹⁷⁷ From this Feenberg declares that it is “Thus not biological and technological determinism, but economics (that) lies at the root of the environmental crisis.”¹⁷⁸

Commoner requires a transformed technology to come to terms with “the inescapable demands of the ecosystem.”¹⁷⁹ According to Commoner, “most of the nation’s resources for capital investment would need to be engaged in the task of ecological reconstruction for at least a generation.”¹⁸⁰

For many years Commoner argued that a democratic and socialist economic system could address the problems of the environment. But, Feenberg writes, the fall of the communist bloc in Russia has meliorated his views somewhat and in 1990 he published a text that acknowledged to a limited extent the useful mechanism of a market for “facilitating the flow of goods from producer to consumer; but it becomes a social evil when it is allowed to govern the technology of production.”¹⁸¹

Feenberg’s analysis of the debate between Ehrlich and Commoner is that Ehrlich fixes technology as a static given and therefore “ends up by treating nature as a social

¹⁷⁶ Commoner, 1971 cited in Feenberg, 1999: 56

¹⁷⁷ Commoner, 1971: 175 cited in Feenberg, 1999: 56

¹⁷⁸ Feenberg, 1999: 55

¹⁷⁹ Commoner, 1971: 282 cited in Feenberg, 1999: 56

¹⁸⁰ Commoner, 1971: 284 cited in Feenberg, 1999: 56

¹⁸¹ Feenberg, 1999: 59

object.”¹⁸² Finding biology easier to adjust, Ehrlich’s ‘solution’ is reproduction politics, birth control or sterilisation administered either by individuals or the state. “Social control over personal acts” as Commoner criticises. By contrast, Commoner assumes that technology is changeable and that the locus of the environmental problem is in the organisation of society. This might require, for example, increased public transport to cut CO₂ emissions instead of decreasing the population that requires cars.

Ehrlich responded to Commoner’s criticism in a fierce debate about population pressures on the threshold or natural limits to resource exhaustion which results in diminishing returns. Diminishing returns then require greater pollutant practises, like increased fertilizer on marginal land, to continue use. Commoner replied that increased fertilizer on marginalized land in the U.S.A. was a result of national policies to keep some land out of production, rather than an exhaustion of possible resources. The threshold of diminishing returns was a result of policies designed to maintain capitalist value through scarcity rather than the limits of the land itself. Whether or not we attribute environmental degradation to capitalist modes of production and unfair ownership or over-population, environmentalists today would not deny that depletion of natural ‘resources’ is occurring, take fish stocks for example, and that the theory of thresholds and the pollutant affect of diminishing returns is an important one.

Ehrlich’s proposals on population control have been criticised for being insufficiently cognizant of the very real political implications on policy and lives; population measures either require draconian state measures such as China’s one birth per family policy and the State sterilisation of particular disadvantaged groups, or it is voluntary and individualistic. Neither extreme aims to alter the structures of civil society or alter the dynamics of capitalism. It is worth noting though, that many of the debates about genetic engineering and interventionist fertility treatments are also perceived to be ‘apolitical’ even if they are not amoral. The main thesis of Feenberg’s book is that technology is politically contested at early points of the design process, and often gets transformed due to public debate and intervention. The controversy between Ehrlich and Commoner indicates that notions of democratic contestation do not necessarily arrive at one final

¹⁸² Feenberg, 1999: 59

‘result’ and that the technology itself conditions society as much as society chooses technological avenues.

Ehrlich’s emphasis on individual responsibility for ‘treading lightly on the earth’ and living ‘below’ ones’ means was a threat to the consumerist ethic of capitalism. But Feenberg notes that some corporations quickly found avenues for exploiting the new green ethic by accentuating the individual’s responsibility and playing down the role of companies. For example American Can Company promoted an anti-littering campaign ‘Keep America Beautiful’ where, somewhat cynically, “Hundreds of millions of dollars of free advertising space were devoted to diverting environmental pressures away from business and toward individual action.”¹⁸³

Commoner’s proposal is that environmentalism should be a ‘progressive’ movement in the Marxist or Critical Theory tradition. Economically, pollution is an ‘externality’ that in its early stages, production can ignore. Both labour and capital can allow the problem to be absorbed unnoticed. “But in fact pollution represents a debt to nature that must be repaid. Later when the environmental bill is paid, it is met by labour more than by capital; the buffer is suddenly removed and conflict between these two economic sectors is revealed in full force.”¹⁸⁴ In human terms, those with capital can offload the negative impact of pollution by buying a nice house in the suburbs, and filling it with bottled water, air-conditioning, and imported healthy organic food. The poorer in the community have to bear the physical affects of toxicity and pollution. Furthermore, some ecological niches: whole valleys, plains, rivers, forests, even skylines are rearranged and are unacceptable habitats for millions of species.

Unfortunately Feenberg argues, although this paints a reasonably accurate picture of capitalism’s disinterest in pollution problems, it has not resulted in an alliance between Trade Unions and Environmentalists in the way that Commoner hoped. Feenberg has good reasons for the failure of the labour movement to cohere with environmentalism. Older technologies like glass and paper containers instead of plastic are much better for the environment, but they are also much more labour intensive to produce. Feenberg

¹⁸³ Feenberg, 1999: 61

¹⁸⁴ Commoner, 1971: 271 cited in Feenberg, 1999: 63

draws attention to the benefits of increased welfare and leisure time (and commodities) that workers amass by also excluding pollution as an externality. It is unlikely then, that Commoner's argument for the limits of automation will be considered a viable option by the working classes. Strictly Utilitarian arguments fail to motivate people to change. Feenberg argues that cultural change needs to be included in the progressive analysis, taking a leaf from Ehrlich's book about individual decisions not to over-consume, to encourage recycling and so forth. These small scale, end-use modifications may do little to alter the impact of pollution on the environment, in the scale of things, however they do introduce an important vehicle for people to consider the consequences of consumerism, and thus begin to inform cultural change.

This is no merely verbal point: where a clean and healthful environment is considered not as an exogenous dumping ground but as a component of individual well-being, different environmental practices would be followed spontaneously by the individuals in their pursuit of welfare and would not have to be imposed on them by 'market incentives,' or by political or moral coercion in opposition to their own perceived interests.¹⁸⁵

Feenberg thinks that Ehrlich and the other 'pessimists' have it wrong because they redress the environmental threshold with individualistic spiritualism rather than constructive technological and social change. If contemporary standards of wealth and current technology are the best the human race can hope for, then all adjustments to environmental constraints appear as economic regression. But far from identifying the natural limits of the 'world system,' this position really only establishes the limits of a given type of capitalist economic and technical culture, which it defends against environmental obsolescence with the promise of spiritual compensations.¹⁸⁶

Feenberg diagnoses another problem with the pessimistic threshold theory. It places ultimate reliance on end-use alterations to consumption patterns that tend to blame the individual consumer without addressing corporate advertising or high pollution production processes.

The crux of Feenberg's argument is that "since technology is routinely adapted to changing social and economic conditions, there is no reason of principle why it should

¹⁸⁵ Feenberg, 1999: 66

¹⁸⁶ Feenberg, 1999: 67

not be redesigned to conform to the requirements of such a culture” which values clean air and healthy surroundings.¹⁸⁷ Thus, Feenberg remains within the progressive humanist tradition that believes that humanity is in control of its own destiny. Technology may have caused environmental problems, but in the right hands, and with the right direction for new innovations, we, the agents of change, can fix it. He is very sensitive to the polarity between G8 nations and ‘developing nations.’ He believes that the present precarious environmental conditions,

intensifies the very horrors and upward struggles that threaten survival and yet promise also a precious spark of light to those hitherto excluded from the benefits for technical advance. Insensitivity to this ambiguity leads to a politics of despair that would freeze the current relations of force in the world – and with them the injustices they sustain—as a condition for solving the problem of survival.¹⁸⁸

Commoner brought attention to the lower birth rates of richer countries, which tends to suggest that wealthy consumerism needs to be universalised throughout India, China, Asia, South America and the Eastern bloc, to bring birth-rates in the ‘Third World’ down too. I would argue that it is not an increase in consumer goods that has promoted the reduction in birth-rates, but an increased confidence in reduced child mortality rates (we can predict that most of our offspring will reach maturity) and the social provision of security (Malthus’ food, clothing, housing, medicine) in old age. It is the predictability of basic needs being met that has meant that parents do not need to produce great numbers of children to guarantee care and wellbeing in their old age.

What also needs to be brought back into focus is Schumacher’s argument (1973) that small is beautiful. In an updated version, Luke writes,

The technological myths of modern production assert that the new industrial state produces abundance for all at little or no cost to anyone through technical innovation. Much of this ‘technical innovation,’ however, actually can be tied to reorganizing world trade to benefit capital-controlling regions as well as overriding the ecological balance of Nature, to produce what appears to be an unlimited or inexhaustible supply of material goods and services. Thus, the demands of markets force contemporary farms and factories to overdraw on finite renewable stocks of natural resources available not to the present and, in effect, borrow against the future by using the yet unborn generations’ potential frugal use of resources for truly profligate consumption.¹⁸⁹

¹⁸⁷ Feenberg, 1999: 66-67

¹⁸⁸ Feenberg, 1999: 69

¹⁸⁹ Luke, 2003: 246

Luke's analysis of earth's finite carrying capacity is firmly tied to the present conditions and the underlying assumptions that contribute to the acceptability of flagrant consumerism. Feenberg's analyses of the political implications of Ehrlich's population predictions are also an excellent illustration of the material affects that ideas have. Ideas are practical in their impact, often in ways that are unforeseen by the initial discussants. Thus, Feenberg's excellent analysis of the socio-political impact and performativity of ideas provides the foil to his occasional anti-intellectual tendency that, like other Pragmatists, separates and privileges environmental practice over environmental theory. This position seems ignorant of praxis or Nietzsche and Heidegger's bringing together of practice and theory by rejecting the 'otherworldly' in Idealism.

Critical Theory of Technology

The Frankfurt School, of Marcuse, Adorno, Habermas, Horkheimer have contributed a great deal to Feenberg's analysis. Critical Theory informs his 'Constructivist approach.' In *Critical Theory of Technology* (1991), Feenberg makes a case for three approaches to technology: the instrumental, the substantive, and his own development: the Pragmatic/Constructivist approach. The instrumental is the traditional notion that technology is humanity wielding tools or instruments. Heidegger's significance, along with Ellul and Borgman is the 'substantive' theory of technology. The substantive argument is that technology is the essence of modernity, or its inverse, that modernity enlightens us to technology's essence: rationality and efficiency. Thirdly is Feenberg's critical, or constructivist approach to technology which seeks to revitalise critical democracy in the ethics of technology.

The instrumental approach to technology is the commonly held belief that technology amounts to neutral 'tools' which humanity wields. Modern technology is simply a more sophisticated version of the stone adze, or the ancient fishing hook. Technology is assumed to be politically neutral, rational and universally applicable. It promotes a sensible and efficient ease of living. There are minor limitations brought to bear on the rational and efficient use of technology. Occasionally on an issue by issue basis, decisions must be made about moral tradeoffs about environmental, ethical or religious goals versus efficient technological resource use. Although a 'price' must be paid, under

the instrumental model “the technical sphere can be limited by non-technical values, but not transformed by them.”¹⁹⁰ This model of technology bears a close relation to traditional economics, both of which assume that the human sphere *intersects* with the environmental, rather than technology, economics and all human social organisation residing entirely *within* the environment. The simplicity of the instrumental approach should not serve to underestimate its implications as the normative basis of research in the sciences and the social sciences.

The substantive theory put forward by Heidegger argues that technology is the frame through which the entire world is being transformed into ‘standing reserve.’ Feenberg has a complex approach to Heidegger. Feenberg characterises Heidegger’s philosophy of the ‘essence’ of technology as ‘efficiency’ and ‘rationality.’ He captures Heidegger astutely; “Heidegger asserts that the technical restructuring of modern societies is rooted in a nihilistic will to power, a degradation of man and Being to the level of mere objects.”¹⁹¹

Perhaps because of the ambivalent reception of Heidegger, or perhaps because of Heidegger’s rather awkward and arrogant style, Feenberg has quite an antagonistic interpretation of the field’s most authoritative figure. Feenberg both engages with Heidegger, and tries to better him on rather spurious grounds. Feenberg groups together such disparate authors as Ellul, Borgman, Heidegger and Habermas because they are all ‘representatives of essentialism.’

Essentialism holds that technology reduces everything to functions and raw materials. Goal orientated technological practices replace practices which embody a human meaning. Efficiency sweeps away all other norms and determines an autonomous process of technological development...rational though it may be, technology engulfs its creators, threatening both spiritual and material survival.¹⁹²

Feenberg regards this characterisation of technology as reductionist and too general and that it fails to engage with its positive and creative implications.

Like the Neopragmatist environmentalists, Feenberg is highly cognizant of the urgency of the environmental crisis. But like the Neopragmatists, Feenberg rejects ‘relativist’ truth in

¹⁹⁰ Feenberg, 1991: 6

¹⁹¹ Feenberg, 1991: 7

¹⁹² Feenberg, 1999: viii

favour of 'pluralism.' The problem with post-structuralist relativism, he quips, is they quibble over the relative importance of sushi or hamburgers. Theories are irrelevant. "The anti-technocratic significance" of arguments about epistemological relativism are "obvious but of little practical value."

Practical questions of technology are not decided on epistemological grounds. Whatever the ultimate status of scientific-technical knowledge, it is what we *use for truth* in making policy. We need far more specific arguments against technocracy than can play at that level.¹⁹³

He takes a kind of *über*pragmatism that makes use of Pierce's critique of truth and therefore over-rides all efforts at philosophical analysis.

According to substantivism, modernity is also an epistemological event that discloses the hidden secret of the essence of technology. And what was hidden? Rationality itself, the pure drive for efficiency, for increasing control and calculability. This process unfolds autonomously once technology is released from the restraints that surround it in premodern societies.¹⁹⁴

Essentialist progress moves towards distopia and 'advances' to total control. Feenberg is critical of the eschatology bound up in 'essence.' Spiritualism seeks solace in theological redemption rather than immanent practicalities.

In his article on "The end of History" Feenberg makes the point so well articulated by Francis Fukuyama, that the ultimate end of the consumer society is the total, rational and efficient control over all corners of the globe. Struggle between peoples, ways of life and ideas, will cease in the service of the self-engrossed fashionable replacements of last years' consumer products. Karl Mannheim (the editor of Heidegger's book *An Introduction to Metaphysics*) wrote,

It is possible, therefore, that in the future, in a world in which there is never anything new, in which all is finished and each moment is a repetition of the past, there can exist a condition in which thought will be utterly devoid of all ideological and utopian elements. But the complete elimination of reality-transcending elements from our world would...bring about a static state of affairs in which man himself becomes no more than a thing... Thus, after a long tortuous, but heroic development, just at the highest stage of awareness, when history is ceasing to be blind fate, and is becoming more and more

¹⁹³ Feenberg, 1999: 13-14

¹⁹⁴ Feenberg, 1999: 3

man's own creation, with the relinquishment of utopias, man would lose his will to shape history and therewith his ability to understand it.¹⁹⁵

As Heidegger puts it, we will become objects amongst objects, incapable of reflection and thought, but endlessly repeating the cycle of consumerism as both beings in the environment and human beings are merely potential resource, waiting for insertion into the consumption machine. Feenberg has a 'solution' to the total control society. He argues that micropolitics is a viable antidote to technocracy.¹⁹⁶ In his essay *Technology and Freedom* he argues that existing elites channel rather than control the advantages of technology.¹⁹⁷ Fiddling with the design process introduces democratic agonism into the 'total control society' and somehow, this solves the problem.

Design is only controversial while it is in flux. Resolved conflicts over technology are quickly forgotten. Their outcomes, a welter of taken-for-granted technical and legal standards, are embodied in a stable code, and form the background against which economic actors manipulate the unstable portions of the environment in the pursuit of efficiency. The code itself is not normally varied in real world economic calculations, and as further advance occurs on the basis of it, movement backward no longer seems technically feasible.¹⁹⁸

Drawing attention to the design process is similar to Foucault's genealogical methodology. Stripping back normalized codes of practise that seem to have produced its ultimate end in the present day's utility exposes the battles, chances and contingent decisions that contributed to the normalisation of the artefacts.¹⁹⁹ The meaning attributed to the 'evolution' of a particular technological practice is often imposed, after the fact, on history by the social groups that benefit from the present days norms. Prevailing 'governmentality' can be shown as instituting behaviours that conspire to protect some social groups while occluding and excluding others.

Micropolitics engages at the level of end-use aims for design and this will at times affect and consider environmental concerns. However it falls far short of addressing the consumerist ethic, or the uneven distribution of technological goods, know-how and lifestyle benefits. Nor does it ask questions on a larger scale about the way in which

¹⁹⁵ Mannheim cited in Feenberg, no date, b: 5

¹⁹⁶ Feenberg, 1999: 5

¹⁹⁷ Feenberg, 1995: 8

¹⁹⁸ Feenberg, 1999: 96-97

¹⁹⁹ Foucault, 1977a and Irwin, 2001

technology enframes the field of possibility so that some relationships and ways of knowing are no longer possible and other new ways are created.

Feenberg has an astute understanding of politics and does not regard market choice as a democratic tool -

there are rather narrow limits to what can be done by isolated individuals on the market. To call such a system consumer 'sovereignty' is a pathetic exaggeration of the actual power consumers wield in advanced capitalist societies. Even with the help of state regulation they usually cannot break through the imposing façade of fiscal power and technical resources of modern corporations.²⁰⁰

Finally, in true Hegelian style, Feenberg finds a synthesis between the 'substantive' theory of technology and the 'instrumental' theory, as both approaches present technology as destiny; a destiny that through democratic choices we may actively pursue or delimit. Feenberg argues, "the conquest of nature is not a metaphysical event, but begins in social domination. The remedy is therefore not to be found in spiritual renewal but in a democratic advance."²⁰¹

Feenberg has faith that 'all this debate' will have a positive and democratic effect on technological devices, introducing them to the public sphere from the hidden realm of private corporate design. "The technological world we will inhabit in the years to come will be a product of public activity to a great extent." Feenberg is so enthusiastic that technology will open new possibilities in ways of living with the environment, that he even describes nuclear power as potentially 'safe.'²⁰² Technology as a discipline is apolitical in that it 'forgets' that various devices have been modified by public pressure from their originally conceived utility, to a wide variety of unforeseen new meanings and use factors. He writes, "Technical disciplines are constituted around devices conceived as *essentially* functional, and therefore as *essentially* orientated toward efficiency. In the pursuit of efficiency, technical disciplines systematically abstract from social aspects of their own activities."²⁰³

²⁰⁰ Feenberg: no date, b: 10

²⁰¹ Feenberg, no date, b: 11

²⁰² Feenberg, 1995: 5

²⁰³ Feenberg, 1999: ix

Feenberg goes on to conflate his own analysis of the existing technological disciplines that are essentially interested in efficiency (and I would add, modern capitalism) with Heidegger (along with Ellul and Borgmann) and their use of the term 'essential.' "The only difference is that essentialism deplors the social consequences of technology the technical disciplines ignore."

Andrew Light agrees with Feenberg in a review essay called "Questioning Technology." Light agrees with the explanation of the emergence of specific technologies being contingent upon the interests of the players. Chance rather than efficiency dominates which particular technology will dominate and be developed and utilised and which will disappear into obscurity. The myriad possibilities that open up at the beginning of technical inventions tend to congeal into defined use values along dominant pathways, and other avenues ossify and disappear.²⁰⁴

Feenberg is excited about the democratic possibilities of technological intervention. In his essay "Technology and Freedom" he enthuses that at its beginning in the 1960s the French Minitel computer network was transformed from simple coded data sharing hardware. Users hacked in and introduced communication applications and converted it into a sophisticated system that could cope with public communication.²⁰⁵ I would argue that this is not so much an example of *democratic* intervention but rather wild resistant intrusion; anarchy, unauthorised intervention. Because it is high status, it is acceptable crime.

Feenberg argues that Heidegger (and Ellul, Habermas and Borgman) define the 'essence' of technology as rationality and efficiency.²⁰⁶ Given Heidegger's essay 'Letter on Humanism' where many of the critical ideas about humanism and modernity that are now commonly circulating in the social sciences derive, this blithe combination of Heidegger with what amounts to unreflective corporate technological discussion is too quick and rather ill-conceived. It has become commonplace to set up a sociological or constructivist critique of 'essentialism' in association with Christian dogma, and the popular analytic

²⁰⁴ Light, 1999: 10-12

²⁰⁵ Feenberg, 1995: 9

²⁰⁶ Feenberg, 1999: viii

interpretation of essential truth as universal foundation and fixed 'core.' However Heidegger is familiar with this argument, indeed, to a large extent he initiated and propounded it. So Feenberg's characterisation is from the outset simplistic. His description of Heidegger as essentialist entirely ignores Heidegger's complex interpretation of the term 'essence.' In Heidegger *wesen* holds a complicated and dynamic position that owes to both 'being' (*esse* in Latin is the infinitive form of *sum*, or 'being') and epistemology.

Heidegger's theory about the essence of technology is far more totalising than Feenberg is suggesting. The essence of technology is not merely rationality and efficiency – they are the instruments for transforming every thing and every one into 'standing reserve' or 'potential resource.' The limited space for the agency to confine or pursue technology via democratic rationality is an illusory freedom which merely promulgates the technological world view. The entire world, including our thinking, is created by technology. There is no 'outside' of the technological frame. It is only *through* technology that perhaps we may also discover the source of its 'saving power.' And of course, for Heidegger, this means taking a new stance, and imagining afresh the basic philosophical question: the relationship between *Dasein* and Being. Far from a simple decision to confine or pursue technology, Heidegger denies that there is any such possibility for such agency to take place. We were 'always-already' born into a technological universe. The technological universe shapes our lived environment as well as our thought-constructs. The machine breaking of the Luddites at the end of the 1700s, or the opting-out of the Arts and Crafts era in the late 1900s, or the hippies during the 1960s and 1970s are all reactions to the prevailing technological era. As such Luddite thinking remains thoroughly engaged with the realm of technology by purposefully resisting its use. No-one can reverse awareness. Once one 'knows,' forgetting is a conscious and partial sublimation of that knowledge. But forgetting is concealment, not obliteration into nothingness.

Feenberg devotes repeated attention to Heidegger's text *The Question Concerning Technology* in many of his articles and books, which demonstrate his recognition of the importance of Heidegger's philosophy to environmentalism, and the role of technology in modernity. Feenberg seems to misconstrue Heidegger's intention of *critical inquiry* about

the enframing of technology. Feenberg quotes “Everything loses its integrity as part of a coherent world and is levelled down to an object of pure will.”²⁰⁷ The concepts of universal will, pure will, general will, individual free will are common throughout Enlightenment thinking. However, Heidegger associated will with the nihilistic *will to power* which is reminiscent of the Nazi reading of Nietzsche and from which Heidegger angrily distanced himself. He spent four years during the Second World War analysing Nietzsche and argued that the will was the remnants of metaphysical thinking that meant Nietzsche’s philosophy belongs to modernity.²⁰⁸ It is the disintegration between object and subject, that earlier in his career he had been at such pains to spell out, that Heidegger hints may, in the end, be the final loss of humanity’s ability to separate ourselves out enough for thought to take place at all. It is precisely because the subject is no longer the object of thinking; that all objects are lost in the solipsism of technology that thinking is threatened. The completeness of the annihilation of the division between subject and object, so hard won from Descartes and positivism, becomes, ironically, the source of technology’s ‘danger.’ Under technological enframing, everything is an object for utilisation.

Feenberg takes Heidegger’s *critique* of modernity and the technological *Gestell* (enframing) without understanding Heidegger’s ambivalence about thinking or ‘The end of Philosophy.’ Heidegger argues that human agency is so caught up by the enframing of technology that we have forgotten any other ways of knowing. The human ability to genuinely apprehend Being is ‘forgotten’ and remains in concealment. What Feenberg missed was the significance of concealment. Concealment does the same ‘work’ as Hume and Pierces’ thesis of unknowability. The emphasis is put on aspects of the environment to erupt into human conscious thought – despite the apparent determinism of technology. Thinking and change emerge from the united coalition between *Dasein* (Heidegger’s term for the subject) and Being; not an Idealist separation of the subject from the object, nor the Appearance from the Idea, nor theory from practice. Clearly, Feenberg recognises the importance of Heidegger to the enterprise of thinking about the relationship of humanity with the environment. He has a book coming out on Heidegger where he has

²⁰⁷ Heidegger 1977 cited in Feenberg, 1999: 3

²⁰⁸ Irwin, 2000

probably engaged more fully with Heidegger's philosophy. Feenberg makes a beginning, and in the next section this thesis will look even closer at Heidegger's philosophy to better realise his ideas and limitations for philosophy of the environment and philosophy of education.

Feenberg is making a challenge for society to open up and repoliticise discussion about technology. Once the particular artefact has become familiar and normal, the social tensions about its purpose and the displacement that it causes in society become rapidly forgotten. The political and economic consequences of these small scale decisions amount to the Neoliberal paradigm of market choice that dominates global policies and assumptions today. The Neoliberal paradigm invites particular forms of subjective identity that are *not* inquiring, they are merely consuming.

Rather than set up a dualism that sets technology versus meaning, Feenberg argues we need to "recognise our subordinate position in the technical systems that enrol us, and begin to intervene in the design process in the defence of the conditions of a meaningful life and a liveable environment."²⁰⁹ From this recognition and focus on the subsumed political nature of technical design, Feenberg goes on to argue that protest about globalised corporations, consumer culture and environmental degradation are 'immature' because there are no unifying articulation for identity based protest groups. He seeks a "utopian vision of a redeemed modernity"²¹⁰ to unify the left, post Marx. Feenberg has set upon an interesting path, and is by no means as conservative as Andrew Light, but both Americans appear despondent that alternative ways of living a democratic yet environmentally ethical way of life can come about.

Feenberg traces a progressive trajectory in thinking about technology that sinks into the mire of the determinism versus agency debate that haunted the Frankfurt School for so long. This progression starts with assumptions that technology is neutral and instrumental, moved to technological determinism which critically evaluated the essence of technology as efficiency and rationality, and finally ends in the social constructivism position that tries to re-politicise technology by activating individual agency in the design

²⁰⁹ Feenberg, 1999: xiv

²¹⁰ Feenberg, 1999: xv

process, without however, thoroughly criticizing consumer culture. This last is influenced by separating out Marxist arguments for the redistribution of wealth and Third World development while ignoring the environmental constraints of material alienation and accelerated consumerism. However not all Critical theorists have made this separation.

Critical Theory and Ecological Consciousness

In the early 20th century, the Frankfurt School wrote on the failure of Marx's revolutionary dialectic to take place. During the rise of capitalist corporatism, the State and consumer culture managed to stall the eruption of working class discontent into revolutionary overthrow. The State apparatus suppressed many uprisings on the one hand, and increasingly on the other, offered a minimal welfare safety net through employment measures, minimum wage legislation, increasingly universal education, health-care, and modest welfare benefits. Consumable commodities also apparently eased the odour of exploitation, providing "soothing reified goods of a very comfortable alienation whose domination over independent thinking has made active resistance against capitalism even more difficult."²¹¹

Max Horkheimer and Theadore Adorno wrote a critique of the classical Marxist view of nature in 1969. In classical Marxism, workers are alienated from nature because of the capitalist mode of production which conceives everything as merely a potential resource for exploitation. Indeed, Marx agreed with the capitalist refusal to 'Romantically' deify nature.

Horchheimer and Adorno argue that Marx himself contributes to this alienation through a narrow positivist conception of rationality. They critique the teleological assumptions that rationalism is an instrument for pursuing power, technological improvement, and observable calculation, measurement and control. Combining these rational faculties with 'Romantic' values of expression, aesthetics, sensuality and morality allows the vulnerable 'inner nature' of human life take expression and the 'outer nature' to be unleashed from capitalist domination.

²¹¹ Luke, 2003: 240, Kellner, 1995

Tim Luke has written many important articles and books contributing to a 'Critical Theory of the Environment.' Luke notes that Critical Theory is prepared to speak from a "standpoint of totality" (which is a characteristic of many philosophies of environment but unfashionable in a lot of social theory). The processes of capitalism and "the commodity in all its many iterations through the production of society and the reproduction of nature remains a central preoccupation for an effective critical theory."²¹²

Traditionally, the presumption has been that nature pre-dates society. This conception of nature as primal existence and the object of scientific knowledge, contrasting with society as thinking subject was shared by Lukas, 1971, and Habermas, 1971, 1975.²¹³ The prevailing positivist assumptions of modernity, from 17th century Newtonian physics, through Popper's 20th century extortions for disciplined methods of observation, experimentation and verification define an empirical nature as 'out there.'²¹⁴ These 'proofs' of mathematics, physics and engineering provide the foundation for 'modernity's technological proficiency.'²¹⁵

Marcuse, Adorno, and Horkheimer retain Marx's 'philosophy of practise' but would leave behind the dualist categorical distinctions 'subject/object,' 'mind/body,' 'society/nature' as bourgeois alienation. Luke regards these dualist antimonies as a crucial discursive means for empowering "'the economic' to sustainably develop 'the environmental' or licence 'the social' to regulate 'the environmental.'"²¹⁶ Philosophy of practice allows society to become 'second nature' and nature to become a 'second society.' "Nature is always social, the environment is already economy, and ecologies also are activated communities of human and nonhuman life."²¹⁷

Luke outlines the resistance to the positivist predilection for categorizing and alienating nature in all its epistemological, ontological and technological guises.²¹⁸ The scientific and technological advocates sing the praises of increased industrial output, the cures for

²¹² Luke, 2003: 239

²¹³ Luke, 2003: 240

²¹⁴ Adorno, 1973 cited in Luke, 2003: 240

²¹⁵ Horkheimer, 1972 cited in Luke, 2003: 240

²¹⁶ Luke, 2003: 240

²¹⁷ Horkheimer and Adorno, 1972 cited in Luke, 2003: 240

²¹⁸ Mumford, 1963, 1970 referred to by Luke, 2003: 240

deadly diseases, speed of travel and the distribution of information. Increasingly however, the impact on the ‘commons’ of the noxious, time-consuming, rubbish-producing, resource depleting ‘externalities’ of these processes are being noticed and actively resisted.

Conversely, these movements of resistance to the dominance of scientific-technological modes of ever-increasing consumable outputs are themselves resisted because cultural pace, economic comfort and political empires are deeply committed to preserving modern consumerism. They struggle to let “science continue to amplify its technological proficiencies.”

There has been a shift in the legitimating discourse of late modernity from discerning the inherent rationality or epistemological essence of nature to an operational achievement and technical-economic performance.²¹⁹ But as Luke writes, even the apparently a-political normalisation of market rationality and technical improvement is at threat when,

instances of technical-economic performances, like Auschwitz, Bhopal or Chernobyl, shake scientific technology’s legitimacy, and a reflexive realisation that anthropogenic changes in the Earth’s climate, soils, atmosphere, waters, and biomass make any incorrigible epistemic certainty about the planet’s autogenic activities very difficult, if not impossible, to maintain.²²⁰

Globalisation and the Information Age

Further to the ‘compromise’ initiated by Keynesian type welfare states and the proliferation of consumer goods, globalisation has changed the nature of industrial capitalism, societies and environments. A massive increase in transport and information flows has allowed the globalisation and deregulation of corporations on such a scale that traditional categorisations have collapsed. Such fixed conceptual definitions that served in the 19th century as national boundaries or the currency gold standard, or even state responsibility for domestic security, economy and welfare have eroded into the shifting sands of the globalised market. The ‘externalities’ that technical-industrialisation produces – pollution, resource depletion, alienation, are all inextricably tied to the local

²¹⁹ Idhe, 1990, Luke, 2003: 241

²²⁰ Luke, 2003: 241

and the trans-national organisation of corporate administration further removes people in control from industrial responsibility.

By developing new informational modes of production, which are designed and managed by decentralized networks of professional-technical workers from a web of large complex techno-bureaucratic firms and small flexible corporate alliances, local and global capital are reconstructing the economic and political conditions of social reproduction as the ultimate guarantor of humanity's 'sustainable development' and 'environmental security'.²²¹

Globalisation of production relies on incredibly cheap freight transport, which allows manufacturing to move to nations where labour is cheapest and tax reduction is largest. Thus sweatshops in China, Malaysia and parts of Polynesia create the labour intensive elements of manufacturing in textiles, electronic, automotive and so on. These disparate parts from all over the planet may be collected and assembled in a location close to their markets: in Britain, Europe, America and other wealthy nations. The transnational location and large scale mobility of manufacturing displaces responsibility for the preservation of primary resources, the maintenance of pristine conditions in the manufacturing locality, or the maintenance of fair working conditions and national welfare, education and health provision.

Since the late 1970s, saturation of goods and services has left entrepreneurial capitalists in a bind. The Neoliberal ideology that has saturated governments and pan-global organisations like the World Bank have proven to be the perfect vehicle for private capitalism to expand into the sure money-making areas of fundamentally necessary realms such as energy, transport, and tele-communication provision (if not infrastructure). The Neoliberal belief in the 'minimal state' is based on the assumption that State Owned Enterprises (SOE) have expanded because of 'provider capture' where employees expand their empires in order to safeguard their jobs. Neoliberalism also assumes that self-interest includes laziness and that SOEs are full of people who, having life-time job security would operate in semi-retirement which somehow, the corporate model of administration would limit, thereby making gains on efficiency. On the grounds of efficiency and free enterprise it was advisable to minimise the State by privatisation.

²²¹ Luke, 2003: 242-243

However, if the assets held by the State were sold at genuine market prices, the State would effectively, remain as 'large' as before. On the stock exchange assets or money both contribute to the estimation of the financial value of a corporation, or in this case, a corporate State. Thus, to decrease the size of the State, the public assets must be sold at a loss. This has resulted in massive energy, telecommunications, water, transport, health and education sites and institutions being sold for scandalously low prices that have fantastically enriched a handful of already exceptionally wealthy gentlemen.

The Neoliberal theory advocating the privatisation of SOEs is supposed to improve the economy through a combination of improved efficiency, Pareto optimality, the 'Invisible Hand,' and the trickle down effect. The market balance of Pareto optimality is where a certain number of inefficient or unsustainable producers might go bankrupt, until the product has scarcity value and the prices increase producing viable conditions for increased production. The effects of price fixing between providers counteracts Pareto optimality and must be regulated by the State, which still has a role in protective legislation and the judiciary. The Invisible Hand is a divinely inspired metaphor of the miraculous way that the competitive forces of the market drives down prices to the level that producers and consumers can bear, creating market 'balance.' The 'trickle down' effect is the increased spending power of those wealthy individuals who newly own and make a profit out of institutions that had previously been 'locked up' by the State. The trickle down effect is assumed to improve the circulation of money through the market by stimulating the economy.²²²

As opposed to the post-war period where consumer demand was immense for consumer goods, since the 1980s the markets in developed nations are largely saturated. Manufacturing has dropped in Great Britain from around 75% of GDP in the post-war era to less than 20% now. Some new regions have broken open to increased consumerism – most notably Asia. Many under-developed nations have either gone bankrupt trying to keep up (Argentina, Brazil) or simply been unable to participate in globalised consumer culture (most of Africa). Luke's analysis is that there is a tripartite arrangement of capitalism; 'producer choices to organize adding value,' the contribution of labour, and

²²² Devine, 2005

consumer decisions (technologies of the self). In developed nations consumption patterns have moved from absorption with goods to an emphasis on service, transport and information.

Having expanded dramatically into the fundamentals of the energy, water, transport, and telecommunications infrastructure of nation states in the 1990s, privatisation is now encroaching into communication technologies and the 'knowledge economy.' Britain's experiment with the 'private/public partnership' of school assets being owned and maintained by private corporations and rented back by State schools is one good example. Rupert Murdoch's expansion and commercialisation of newspapers is another example. The invasion of advertising on television, the Internet and mobile telephones are another. More profound perhaps is the sheer expansion of access to vast quantities of banal information.

Luke argues that corporate reality is pervading all aspects of society and nature. Neoliberal administration is closely bound to the technological capabilities of information technologies.

Not only can the raw resources of the earth, the manufactured things of social production, and the social services of human institutions be submitted to capital's logic of reproduction, but even words, codes, memories, sounds, images, and symbols now are designed as value-added, fungible products to circulate in mass markets as efficient instruments of production, accumulation, reproduction and circulation.²²³

The fine degree of minute calculation, commodification, and surveillance is astonishing. Paedophiles in England are being trailed with GPS satellite surveillance systems that can identify their position to within three meters. They have to carry a mobile phone with them at all times so they are constantly contactable if they stray into tempting areas like school playgrounds. Some supermarket items (for example razor blades) have a minute chip on them that traces their whereabouts from production line to dissemination. The networked 'bits' that make up computer memory are changing the nature of governance of peoples, individuals, and things.

²²³ Luke, 2003: 243, see also Haraway, 1991

The flow of bits over telematic networks is moving many to think about forsaking the government of people to embrace the administration of things, which, in turn, will remediate new modes of control out of bits as a vision for digital governance over people and things is expressed in many more partial, privatised, and productive practices.²²⁴

Along with the intensification of the technological ability to assess, monitor and manage the mechanics of bodies, reproductions, organisations, and flows, is an overload of information. The disorder of the criminal is a good indicator of how the surplus of surveillance overloads the ability of policing systems to sift through an ever-increasing abundance of evidence. One street might have thousands of hours of video footage for each hour of real time. Luke's argument is that like atomic particles, digital bits are the new model for consumerism.

Recasting the world as bits in order to surpass, but also acquire greater control over, the world as atoms, is today's commodification project. Like all previous markets, these global informatic exchanges also are devoted to 'systematizing something that is resolutely unsystematic, and historicizing something that is resolutely ahistorical.'²²⁵

In contrast to the wholehearted embracement of the digital metaphor of measurement and administration, and the globalisation of production through cheap transport, and information, a Critical Theory approach to environmentalism begins by "illustrating how the creation, circulation and accumulation of commodities on a mass scale now mutilates the ecological order of the planet."²²⁶

What has been present throughout modernity, is a counter-discourse of eco-friendly living that can be intellectually and organisationally set against the dominant paradigm of surveillance, economic efficiency and the marketplace. It involves recognition that the planet has a limited carrying capacity of biotic production. Eco-friendliness involves planning for permanence rather than obsolescence, sustaining biological diversity rather than genetically modified monocultures, negotiating regeneration of existing sites of industrial damage with current needs and future ecological renewal. It is not, therefore, the anarchic absence of planning, foresight, or technology. But there is a different emphasis and meaning to the production of culture – and it is not about capitalist consumerism, or the objectification of everyone and everything as a potential resource.

²²⁴ Luke 1998

²²⁵ Luke, 2003: 244

²²⁶ Luke, 2003: 244

Luke argues that environmental sensitivity frees up eco-political spaces for “non-hierarchical social relations, technical simplicity, small scale economics, political decentralisation, reasonable science, and cultural vitality.”²²⁷ Ecological and socially responsible technology, production and consumption practices are good ideals. Luke tends to put technology in the same box as corporate economy and oppose them both to a box called culture and nature. But what Luke is advocating with small scale communities that are closely affiliated with their inherent possibilities of their local place is a very sophisticated integration of people, technology and ecology. If these exclusive categories are reintegrated successfully then a radically new social construction of nature will have taken place, “making it subject not an object, an agency not an instrumentalist, and an equal partner not a dominated resource.”²²⁸ At the same time as it ‘frees’ nature, integration of eco-communities will free millions of people “whose autonomy suffers in nature’s abusive indenturement to the global market’s instrumental rationality.”²²⁹

The theme of local, ecologically sustainable communities echoes Heidegger, Schumacher, and Marcuse, Adorno and Horkheimer of the Frankfurt School. It is concurrent with Feenberg’s ideas and the popularisation of ‘think global, act local.’ It also brings to mind a Romantic, volklore type of reversal of urbanisation as the most meaningful, environmentally and economically viable way of organising societies. To put all this in practice, Luke and also Feenberg advocate a careful examination of the relationship between technology and cultural practices.

Environmental changes, then, should be realized by reimagining how technologies create particular conventional cultural understandings in commercialised acts and artefacts, produce specific exchange-driven power effects, and generate peculiar social practices through commodification.²³⁰

This is a very Heideggerian view of the problem, and the way forward. It is shared by a variety of contemporary commentators of modern culture, some more and some less aware of Heidegger’s philosophy. Feenberg regards the political contestation of the

²²⁷ Luke, 2003: 247

²²⁸ Luke, 2003: 248

²²⁹ Luke, 2003: 248

²³⁰ Luke, 2003: 249

outcomes of technology as crucial to the democratic processes of western societal organisation.

Guattari

Felix Guattari is a psychiatrist, best known for his books with co-author Gilles Deleuze on philosophy and late modernity. He engages with the massive increase in communication and the commodification of knowledge in the 'knowledge economy' of late modernity. He criticises the media (and the argument also adheres to education) in his book *Three Ecologies* (2001) for participating in the Neoliberal frame by making the language and metaphors available for self-understanding impoverished and mediocre. In contrast, a concept of ecology that incorporates the psyche, the social, and physical produces understandings which can enrich and transform our relationship with the planet and our sense of ourselves.

In an argument that clearly owes considerably to Heidegger's concept of technological enframing, Guattari, along with others such as Noam Chomsky charges the media with being largely responsible for confining the available metaphors for self-knowing to a limited range closely affiliated with 'Integrated World Capitalism.' This is partly a result of the increasingly global ownership of newspapers and telecommunication channels by corporations such as Rupert Murdoch's media empire with an associated 'dumbing down' to a normative common denominator that sells easily and reinforces the status quo. But even independent or educational communication technologies tend to adhere to the dominant discursive paradigms instigated and perpetuated by globalisation. Guattari argues that 'Integrated World Capitalism' is implicated in all organisations that produce signs, metaphors, or syntax: the media, advertising, opinion polls and education.

Neoliberal, or at best Liberal concepts and principles dominate policies across the globe. These concepts rest on an anthropocentric set of values: individualism, equality, liberty, fraternity, rights, justice, choice, and freedom of speech, the free market and so forth. The surrounding ecology is invisible in these metaphors. When the environment does impose on human affairs, it is transformed by the totalising capitalist account of potential 'resource' or the economic reductionism of 'externality.'

The increasing deterioration of human relations with the socius, the psyche and 'nature', is due not only to environmental and objective pollution but is also the result of a certain incomprehension and fatalistic passivity towards these issues as a whole, among both individuals and governments.²³¹

Guattari's primary concern in *The Three Ecologies* is with the 'paucity' of metaphor and understanding that is creeping through every aspect of the human socius.²³² This is, I think, somewhat similar to Heidegger when he speaks of an 'impoverished world' (although Heidegger speaks of animals in contrast to humanity). It is a paucity of view, self-image and interaction both between individuals, cultures, and between humanity and the environment or 'world'. The paucity is not strictly speaking a 'devaluation' or underestimation of the importance of people and nature but a reductionism in available spaces for knowledge and interaction. The paucity results from positivist, structuralist, globalised, and commodified forms of knowledge order that drives social regimes along conformist and restrictive lines of legitimacy; 'efficiency,' 'rationality,' and 'success'.

Guattari writes that the media "verges on a strategic infantilisation of opinion and a destructive neutralisation of democracy."²³³ By failing to connect together the three domains of the psyche, the socius and the environment, institutions amplify the existing silence which disables people from perceiving and relating as co-habitants. Instead, regions of silence are expanding. "It is not only the species that are becoming extinct but also the words, phrases, and gestures of human solidarity."²³⁴

This habit of drawing hard distinctions between the three domains the social, the psychic and the physical emerges from a long philosophical tradition. Solipsism relies on the disaggregated subject starkly separated from the object, which 'he' then 're-presents' in language or art. The earth, as has been famously argued with many nuances and flavours, is *reliant upon* the world view of the subject.

Ecology sets up a fundamentally different approach to human existence. Whether individual, family or community – all humanity operates in conjunction with our

²³¹ Guattari, 2001: 41

²³² Guattari, 2001: 50

²³³ Guattari, 2001: 41

²³⁴ Guattari, 2001: 44

surroundings. Life still activates through a subjective ‘singularity’ but this channel is not individuated in the same way that Theology or the Enlightenment presumes. The primary unit becomes the ecological niche instead of the isolated human being. This simple principle challenges the entire Liberal capitalistic enterprise. The ‘rational individual utility maximiser’ becomes situated, interconnected and responsible!

The poststructuralist metaphor for the underlying governing principles of the universe – if we can put it that way at all – is a question of scale: amplification, diminishment, repetitions, lines, planes, oscillations, and also disruptions, edges, doublings, folds, excesses. As Deleuze and Guattari put it in *A Thousand Plateaus*,²³⁵ it is territory and a rhizome. The ecological niche becomes the supporting metaphor for philosophy.

For Deleuze and Guattari, philosophy resonates with an interest in language, but one that supersedes structural linguistics. The concept of the intensities and flows exceed any systematic approach to language and meaning. Guattari suggests,

While the logic of discursive sets endeavours to completely delimit its objects, the logic of intensities, or eco-logic, is concerned only with the movement and intensity of evolutive processes. Process, which I oppose here to system or to structure, strives to capture existence in the very act of its constitution, definition and deterritorialization. This process of ‘fixing-into-being’ relates only to expressive subsets that have broken out of their totalizing frame and have begun to work on their own account, overcoming their referential sets and manifesting themselves as their own existential indices, processual lines of flight.²³⁶

Instead of psychologising the individual or contextualizing each one as the primary unit of an aggregated society, Guattari has theorized an integration of the psychic, the social, and the physical into a ‘cartography’ with trajectories which map simultaneously on all three fields. Not ‘seamless’ linear progress but a three dimensional fusion that sometimes coheres and at others interrupts. A ‘territory’ that follows the flow of repetitive coagulations in which it is possible to spontaneously recognise the points of rupture – where a chain of events or signifiers suddenly amounts to something altogether different, and sets off a new flow, of unknown consequences or direction. Guattari writes of

²³⁵ Deleuze and Guattari, 1999

²³⁶ Guattari, 2001: 44

subjectivity as ‘mental ecology’; “It is a logic of intensities, of auto-referential existential assemblages engaging in irreversible durations.”²³⁷

Imaginative disruptions to the normal discursive regimes are an important source of possibilities for extricating ourselves from the belittling normalisation of global capitalism. Technical advance has been refashioning our sense of the possible so vastly that norms of conventionality no longer revolt at notions of flight, galactic travel, atomic shattering and dispersal, the sending and recapturing of images and sound over thousands of miles in a millisecond, instantaneous, multifarious global communication, and so on. Yet all these things defy the logic of ‘common sense’ held through the ages, and enter the realm traditionally occupied by magic.

Unfortunately, just at the point when anything really has become possible, Integrated World Capitalism has recolonised subjectivities with an insidious normalisation. Globalised Capitalism accepts the magic of technology that presses open the bounds of the imagination but reintroduces a new set of limits on what is admissible in regimes of knowledge. Physical boundaries are no longer the edge of society’s norms. Instead it is our collective imagination that has become the limiting factor. It has become a matter of impressing a narrow range of discursive options – the Neoliberal rational individual utility maximiser, for example, to colonise the psyche of populations across national boundaries, at all levels of class and culture, in every societal institution; family, education, media, health, vocation, entertainment.

The economic paradigm has initiated a range of global agencies that perceive their role as managing the diverse range of human cultures and radically different environmental circumstances according to the same set of financial stratagems. Neoliberal precepts have dominated global policy making institutions such as the World Bank, International Monetary Fund, World Trade Organisation, United Nations, and so forth. Financial incentives to ‘develop’ nation states are tied to national policy directives on completely separate issues, such as devolving and privatising education. In the name of the free market, consumer rights and the equal playing field, most nations in the world have

²³⁷ Guattari, 2001: 44

privatised realms that under the Keynesian settlement were the prerogatives of the stable nation and the Welfare State; education, health, welfare, infrastructure, transport, communications. Neoliberal rhetoric masks the (new) access privatisation allows for capitalist profit making.

The basic unit of modern individualism alters subtly and importantly when emphasis is placed on the niche, or place-and-people as the standard paradigm instead of the individual-as-utility-maximiser.

The problems with new ecological existentialities are that they feel frightening and unspeakable. For most teachers there is a range of responses to Integrated World Capitalism, from a belief in modern progress to an inability to verbalise their informed and overwhelming fear of cataclysmic devastation that continuing capitalism entails. Furthermore, in a society that accentuates economic efficiency and positivist accountability, wholehearted environmentalism seems wishy washy, vague, unfashionable and unattainable.

At the heart of all ecological praxes there is an a-signifying rupture, in which the catalysts of existential change are close at hand, but lack expressive support from the assemblage of enunciation; they therefore remain passive and are in danger of losing their consistency.²³⁸

A philosophy of environmental education involves anxiety, guilt, and pathologies associated with leaving behind the known arrangement of societies' relations of consumption, production and greed in regard to the surrounding planet. Students seem better able to enunciate these fears and hopes perhaps because, as yet, they have less 'invested' in the current system.

Guattari and Luke are by no means alone when they advocate outright new way of looking at technology and capitalism, in order to re-ignite a more authentic community and environmental consciousness. There have been a number of popular books arguing against consumer culture in the last couple of years, for example: Naomi Klein, *No Logo*, Eric Schlosser, *Fast Food Nation*. Michael Moore's films, *Roger and Me* (1989),

²³⁸ Guattari, 2001: 45

Bowling for Columbine (2002), and *Fahrenheit 9/11* (2004), and his book, *Stupid White Men* that rails against North American gun culture, and the consumerist ethic.

John Gray, in his book *Straw Dogs*, (2003) argues against his erstwhile Neoliberal convictions, that modern information technologies, especially the media, are depressing the possibility of reimagining our world outside the calculating rationality of science and economics.²³⁹ Noam Chomsky, has a long-held conviction that the media is responsible for corrupting the politics and imagination of the general public.²⁴⁰ George Monbiot writes frequent articles about American cultural and political imperialism and the technological alienation of the environment.²⁴¹ Joseph Stiglitz, who was on President Clinton's Council of Economic Advisors for four years and then three years as Chief Economist and Senior Vice President of the World Bank is so disillusioned with the governance that influential organisations imposes on nation states, that he has written a very important book on supra-national policy and its problems.²⁴² These books are important for stating the problem. What I am attempting to do in this thesis is begin the preparation for a cultural metamorphosis, to generate the point of difference that can instigate a new platform, new connections, new rhizomes and pathways into the future.

In much the same way Leopold refrained from turning ecological integration into a fixed systematic framework, the ideas offered here are for an ecological attitude. I set forth a new set of metaphors that emerge from eco-philosophy, eco-politics, and eco-poetics, as much as from rational calculation, for an ecologically integrated subject and community along the metaphoric connections of the rhizome. The integration of human society and the subject into the ecosystem synthesizes anthropocentric and non-anthropocentric perspectives. The polarisation of environmental ethics into 'intrinsic' or 'anthropocentric' is unnecessary; communities can care for their locale and sustain their livelihoods without reducing the environment to utilitarian ends. In these circumstances, ethical principles can maintain their influence while being contestable and mutable in different historical and political circumstances.

²³⁹ Gray, 2003 and see also Gray, 2002

²⁴⁰ Chomsky, 1995

²⁴¹ Monbiot, 2001, 2003, 2004

²⁴² Stiglitz, 2003

The environment defines the conditions within which we must act. At the same time, our behaviour shapes and conditions our material surroundings. Theories about the environment emerge from the epistemological assumptions and variety of discourses circulating in a given socio-historical epoch. The next chapter looks at how the prevailing understandings of epistemology and pedagogy have impacted on the newly emerging field of environmental education. At the same time, the impact of technological industrialism, capitalism, and politics have shaped the ways that are possible to think and educate about the environment.

Addressing the culture of modernity and particularly the way technology is changing the human understanding of our planet, ourselves and each other is the role of environmentalism. Engaging with politics, economics, policy and culture would seem the obvious place for environmental education to begin, but surprisingly at its inception the environmental education curriculum attempted to be completely apolitical. Epistemology has an impact on material culture, just as it has an impact on education. As the prevailing ideas change, so do the approaches to environmental curriculum, policy and pedagogy.

5 Environmental Education

Environmental education materialized as a discipline in the late 1960s, during the Cold War, at a time when humans were walking on the moon, viewing the planet from the perspective of the solar system for the first time. A conglomeration of ideas, including geological time, positivism, scientific environmental data, Skinner's positivist pedagogy of behaviourism, and the increasing emphasis on individual children as autonomous learners, all contribute to early environmental education. In 1968 student revolts in France against early Neoliberal policies transformed the political left's reliance on Marxism, most famously transfigured by Foucault's theory of Power/Knowledge. This change in the State settlement from Keynesian Welfarism to increasingly privatised contractualism and Neoliberal politics impacted on theories of epistemology and education. The connection between environmental pollution, over-population, and economic disparity between developed and 'undeveloped' nations dominates environmental education from the late 1970s until today.

Environmental education emerges in a context affected by both the prevailing historical pedagogical theory, the dominating policy framework operating globally, and ecological interaction with the surrounding environment. Both the Classical Idealist separation of the subject from the object and resulting positivism and the critique emerging from Romantic eco-poetics play a role in environmental education. This chapter looks at a selection of particular texts on environmental education to examine the changing prerogatives over time, and give an indication of where the field is at present. It is by no means exhaustive, but is intended to sketch the changing concerns and emphases in both attitudes to the environment and educational prerogatives.

The 1960s was an era that was dominated by a positivist basis to epistemology and pedagogy. The defining models of pedagogy were based on Piaget's 'stages' of learning and development, a behaviour modification model, and one that promotes the 'objective' ascertainment of empirical facts. This combines two apparently contradictory impulses in

pedagogy; the disciplining of students into normative behaviour and the promotion of the 'independent' learner who could discover that the 'truth was out there.' At the same time, publications of scientific evidence were becoming prolific in the public arena, and to a large extent, they demonstrated that human consumer society was generating environmental hazards. In the 1970s and 1980s the response to the strengthening environmental movement and the decline in a universal commitment to analytic theory were fertile ground for key texts with political clout, for example those published by the World Wildlife Foundation, that really have not been bettered since. By the time environmental education has begun to be introduced to schools with any sort of systematic commitment in the 1990s and 2000s the concept of 'sustainability' had entered the lexicon of global agencies, and undertakes a subtle but important Neoliberal shift. Environmental education has shifted to 'sustainable education' and began to lose its political acumen once more, as it has increasingly been tied to utilitarianism, vocationalism, and positivist epistemology.

Positivism

An early British text on *Environmental Studies*, written by D.G. Watts in 1969 gives an indication of the concerns that permeated educational theory during the Keynesian period. Watts advocates an empirical methodology and appears naively convinced of his Liberal prerogatives. This book contrasts starkly with later texts that are better informed of the politics of the colonial consequences of globalisation and less well informed on classical philosophy.

Watts advocates a pedagogy based on direct observation. This is a specifically Liberal education, designed partly in reaction to the older traditional model of authoritarian, didactic pedagogy where the teacher intoned from a podium at the front of the classroom and the students, like passive, empty vessels, were 'filled' with knowledge. Watts' argues that students should be 'active learners' whose interest is engaged by the local environment through activities such as field work. Discussion, debate, questions and disagreement would emerge democratically, with the teacher merely guiding students around a topic via field questionnaires, and tasks that emphasise estimating, measuring and calculating. The 'active learner' still dominates large sections of pedagogical

practise. It has been used to demote the teacher's expertise entirely to a mere 'facilitator' of pre-ordained curriculum packages that are often designed around precisely these types of 'direct observation' projects. The students learn 'methodology' and can collate vast quantities of data, without making any critical associations of data or methodology with the political or ecological context. This was the kind of busy information gathering that Heidegger was so critical of, in German universities in the first half of the 20th century.

Watts has an extensive chapter on the history of ideas, which traces the roots of Idealism to the rivalry between Locke and Berkeley. Locke rejected the Aristotelian tradition of defining the mind as growing like a seed, and set up an empiricist concept of the mind developing in response to material external input. Berkeley refuted this with harsh solipsism; our understanding predetermines our experience of the world. Watts then skates over Kant's 'synthesis' of the ideas of Berkeley and Locke and their influence on classical Idealism and its development into Hegel's dialectic. Finally, Watts writes that Froebel had the right idea when he wrote that God is the 'eternal law' and 'Unity' of nature, and the source of all things. Watts associates this with a Hegelian/ Darwinian rationality and progress. This scholastic gloss on analytical metaphysics, combined with a mishmash of German and British educationalists (whose names rather than ideas are mentioned) and a sprinkling of American Pragmatism justifies his notion of 'environmental studies' as 'direct observation.'

Watts prescribes a very narrowly confined definition of 'environment' that is based on the neighbourhood. Subsequently this engagement with the local built environment dropped out of environmental philosophy for many years. Geographers have recently begun exploring local built environments as socio-political ecologies again. But Watts specifically excludes politics or social concerns in his emphasis on the neighbourhood because he wants to find strictly objective environmental 'data' for students to 'observe.' This obsession with objective methodology remains a dominant trend in the British education system. In order to maintain this style of 'objectivity,' Watts describes the wider environment as 'abstract.' As unavoidably political, he wishes his students to avoid the abstract dimensions the wider world. Watts writes,

Beyond this neighbourhood environment is the wider world, of which the child will have only occasional direct experience. This, though in a different sense from the school, *is an artificial environment, transmitted and shaped by the agencies of communication*. The school of course concerns itself with this world, with national issues, world affairs, natural resources, high and pop culture; but the educational principles and methods relevant to its exploration are very different from those involved in direct observation.²⁴³

He fails to recognise that positivist methodology of local data can also never be apolitical, because the process of measuring and naming imposes a set of normative evaluations from the outset. There is no unbiased position. In contrast to the conservatism of positivism, I think the transmission of discourses that shape the ‘abstract’ field on the wider environment are the reason that sites of communication like education and the media are important. It is the critical evaluation of all discourse, including positivism that ‘enlightens’ students to our inevitably political world. And given the popular media often avoids asking large problematic questions about international agencies, multinational corporations, financial flows, and the vast inequalities of wealth and consumption patterns, or questions about environmental damage, the impact of pollution or global warming – as another agency of communication, education is left with an increased rather than a diminished responsibility to begin engaging with these difficult questions.

Politics and the Environment

Watts is, however, one of the few writers on environmental education to specifically engage with philosophy. The others seem to fall into two broad camps. Firstly, emerging largely from geology and biology, is the mapping of the emergence of life on this surprising planet. Then the geologists discuss the relatively recent and dramatic changes initiated by industrialisation and the state of affairs as it is now. These books tend to be actively encouraging a pedagogy of politicisation, ecology, and environmental care.

The second category tends toward policy and has been co-opted by the rhetoric of ‘sustainability’ and the slippage that assumes this means capitalist ‘efficiency.’ Often these texts utilise the same sets of key words as the ecologists, but in the ‘sustainability’ discourse the terms are assembled to promote and extend the existing order of things,

²⁴³ Watts, 1969: 4, my italics

rather than question at any fundamental level the concepts of utility, resources, or distribution.

Environmental Education; Principles and Practice (1978), edited by Sean Carson, falls into the category of a ‘geographical’ or ecological book. It places life in an evolutionary context and draws correlations between the affects of human technology, culture, and expansion and climate change, species extinctions and so forth.

The emergence of environmental education in Britain was informed by a series of associations. Carson documents the transfiguration of the National Rural Studies Association formed in 1960. It transformed into the National Association for Environmental Education in 1972 and became increasingly philosophical and politicised. They were importantly influenced by the Club of Rome, Donella Meadows, *Blueprint for Survival*, 1972 (see below).

Population, industrialisation, urbanisation, oil crisis, nuclear waste and weapons, pollution, desertification, and the shrinking of biodiversity are key issues that Carson argues need to be introduced to schools. “These problems will all intensify during the lifetime of pupils still at school and will constitute the background to their lives. It is urgent, significant and appropriate that (environmental concerns) should form a major element of their education.”²⁴⁴

Ever since the photographs returned from the moon landing, the planet earth has been seen as a geographical space capsule. Peter Berry’s article, “Planet Earth” argues that the geographical time scale has its own form of politics,

to see the present within the context not only of historic but also of evolutionary, geological and cosmological time; to appreciate the long protracted preparation of the planet for life; the slow evolution towards man; and the deep roots of present-day social and economic problems.²⁴⁵

There are critical points in history where paradigm shifts occur –the first living cell, the beginning of terrestrial life, the transformation from cold-blooded creatures to mammals,

²⁴⁴ Carson, 1978:1-2;

²⁴⁵ Berry edited by Carson, 1978: 55

the emergence of humans, and now possibly, the demise of planetary conditions suitable for carbon based life. The geological perspective enhanced the urgency of political action in education.

Berry quotes from *Education for our Future* published by the Conservation Trust (1973) that aims its suggestions at curriculum development for teachers. They situate humanity in terms of the 'critical nature' of the times, to promote ecological study and field work of 'man's present predicament.' Education could inform students about the three spheres (borrowed from Brundtland), population, resources, and environment, and encourage "a smooth transition to a sustainable society" along with increased involvement of educational institutions with their communities.²⁴⁶

Another article in the Carson volume, interesting because it illustrates the problems of unmediated scientism, is by Ann Trotman, "Ecology – The Basic Pattern of thinking in Environmental Education." She suggests that scientific method underlines the areas of concern but cannot solve the conflicts and ideas associated with them, "it is the containing and resolving of these conflicts on the basis of the limitations of which we are made aware by the pattern of ecological thought, that is the present concern of environmentalists the world over." Unfortunately she then proceeds to outline curriculum suggestions that are constrained to scientific approaches to ecological issues. Trotman applies 'natural' containment of animal proliferation that occurs spontaneously for example, as possible solutions to the human over-population problem. Clearly even from the scientific point of view, different species have vastly different ecological parameters and are susceptible to widely disparate conditions that might undermine their potential for expansion. In contrast to Trotman, biologists would not assert that the dispersal and emigration of Aphid populations bears any resemblance to the nomadic lifestyle of some human cultures.²⁴⁷ This crude scientific approach also lends itself to the critique levelled by Feenberg at Ehrlich, that population control tends to encourage inhumane and draconian measures mostly aimed at 'third world' communities while preserving the status quo in terms of economic disparity between countries.

²⁴⁶ Conservation Trust 1973 cited in Carson, 43.

²⁴⁷ Trotman edited by Carson 1978:112

Environmental education tends to take an approach that rests heavily on geology, biology, human over-population, and industrial resource depletion and pollution. The scope of the field means that traditional disciplinary boundaries are often breached (with more and sometimes less success) in an attempt to grapple with these complex global, ethical, political, economic, technological and scientific issues.

The highlight of the book is the chapter by Paul Rogers titled “Economic and Social Influences.” He discusses the impact of Rachel Carson’s book *Silent Spring* (1963) on environmental theory and education. Rachel Carson investigated the impact of accruing pesticide residues. Together with *Blueprint for Survival* published by *The Ecologist* magazine on resource depletion, the two texts have stimulated a huge expansion in the awareness and action about the environment. Rogers argues that this new awareness of world environmental trends must be understood in the context of a world economic and social system that persists in maintaining, if not exacerbating, huge “disparities in wealth and well-being between different sectors of the world community.”²⁴⁸

Many environmentalists of education place present day conditions in the context of the evolution of the earth.²⁴⁹ The planet formed between 4 and 5 billion years ago. Life began perhaps 3 billion years ago, marine life emerged one billion years ago and over four hundred million years ago is evidence of terrestrial life. It is likely that for millions of years pre-humanoid types of animals have roamed the planet, wielding tools with relatively little detrimental impact on their surrounding ecosystem. Eventually several species of primates (Neanderthals and Homo Sapiens) learned how to control and use fire. Between four to eight thousand years and some 500 generations ago, agricultural technology began to substantially change the landscape.

The industrial revolution was only eight generations ago, steam engines, carbon fuels, motorcars, powered flight, electricity grid, radio, television, nuclear fusion and space travel all developed within living memory. The impact on population growth, global pollution, deforestation and desertification, climate change, and depletion of minerals, biodiversity, and clean air and water are recent and extreme in the scale of planetary

²⁴⁸ Rogers edited by Carson, 1978: 149

²⁴⁹ Berry, Rogers, Silvertown and Sarre, Greig, Pike, Selby and others

change. In 2001 the IPCC published *Climate Change* which is a very comprehensive document that assesses the level of geological fluctuation over the planets history.²⁵⁰ They have attempted to calculate how much climate change is part of regular fluctuations and how much is due to the interference of human technological pollution. Results are modelled for the next 100 years and are very frightening.

In the 1970s there was poverty in Africa, South America, the Pacific, Asia and South East Asia, the Middle East and large areas of the Soviet Bloc. These areas are not merely unmodified traditional lifestyles that do not tally up to riches in a modern sense. The poverty came about in countries where years of western extraction of materials and often people in the form of slavery or indentured labour had decimated the ability of local populations to maintain viable lives. Although some of these regions have improved in the ensuing 30 years, particularly South East Asia, many remain in the same trap of extreme poverty. The complexity of the situation and the distances involved seem to alleviate modern nations of any responsibility. But the 'west' should acknowledge their parts in the historical causes and the continuing exploitation of the 'third world' which includes,

past slavery and colonial exploitation, not forgetting current incompetence and mismanagement. But transcending these in importance is the extent to which the countries of the third world have become the suppliers of cheap raw materials to the industrialized countries. The latter, primarily producers of manufactured goods, have consistently dominated world trade and have helped to ensure that their trading position has invariably been maintained at the expense of the less developed countries... (The third world has) effectively found themselves in a trade trap, a world economic system which has worked to their continued disadvantage and which they have been virtually powerless to overcome.²⁵¹

The thesis of Donella Meadow's important text, *Limits to Growth* (1972) is that worldwide disorder is the product of humanity exceeding the earth's 'carrying capacity.' The limits to growth have a political nature. The specific estimates of resource depletion and associated predictions of the consequences have proved inaccurate and problematic, but the argument of finitude and thresholds to resources continues to carry a lot of weight.

²⁵⁰ IPCC, 2001

²⁵¹ Rogers edited by Carson, 1978: 150

Interestingly, the *discourse* of finite resources has had important consequences on the global economic markets. A few Third World countries were beginning to realize the potential political and economic strength of their position as producers and exporters of primary products. The best example is the oil trade. In 1960 Venezuela joined Iran, Iraq, Kuwait and Saudi Arabia in the Organisation of Petroleum Exporting Countries (OPEC). In the 1970s these countries together produced 60 % of the world's oil. In 1973 the United States consumption of oil exceeded its own production and it became, like most other western industrialised nations, reliant on importing oil from OPEC states. As the discourse of finite resources circulated through the modern world OPEC cohesively acted to raise the crude price of oil by 400%.

The effects of the oil shocks of the 1970s still reverberate today. It impacted upon other Third World countries as well as wealthier industrialised nations. But Rogers' point is that most importantly,

these price rises and shortages had been engineered by the producing countries many years before the expected depletion of known oil reserves. In other words, political considerations were more important than the more long-term factors of physical resource depletion, even though these provided a powerful stimulus to undertake immediate action.²⁵²

It is hard to grasp how great the impact of the oil crisis was on the circulation of finance throughout the globe. From the west, money drained towards OPEC nations, particularly Saudi Arabia. It could be argued that the International Stock Exchange really took off in response to this event. Saudi Arabia was saturated with consumer products and already owned the bulk of the world's most valuable resource, 'black gold.' The Stock Market gave Saudi Arabia the opportunity to buy other income bearing commodities in the form of shares, while stimulating international financial flows, pulling the world back out of the 1970s depression. The New York, London and Tokyo exchanges have remained the main conduits of financial flows ever since, buoying up the dollar, the pound, and the yen, and with these currencies, their local economies, despite the significant collapse of manufacturing in all three nations.

²⁵² Rogers edited by Carson, 1978: 151

During the same period of 1973-1976 other strategic alliances by third world countries formed to control the price of copper, bauxite, rubber and other raw materials. OPEC avoided becoming another oppressive regime in terms of third world nations by maintaining political alliances and offering foreign aid without the Neoliberal reformative strings that the World Bank and International Monetary Fund (IMF) attach. A new strategic bloc called the 'Group of 77' had developed. Their attempts to set up a United Nations based Commodities Programme was opposed principally by the major importing nations; United States, Britain, West Germany and Japan.

From the vantage point of 1978, Roger's prescience is remarkable. He thinks that there are three possible options; firstly, the First World may succumb to pressures from OPEC and other trading blocs and lose comparative affluence. Secondly, the First World may overtly use their existing power to control the rest of the world, maintaining and exacerbating their colossal consumption patterns. Thirdly, the First World may voluntarily reduce consumption patterns and democratise global organisations, making the world more equitable and more sustainable.²⁵³ By 2003, it looks as though the Bush's destabilisation of 'terrorist nations' (Afghanistan and Iraq, with Syria, Iran and North Korea on the hit-list) has successfully averted the first option. The second time war was initiated in Iraq has been the U.S.A. and Britain united against UN protocol with open resistance from Germany and France. This internal division between the historic English Empire and the other major United Nations countries has effectively splintered and destabilized one of the other major competing trading blocs; the European Union. America has also challenged the development of global government by refusing to be accountable to the International Court, and systematically undermining, both politically and financially, organisations such as the United Nations. Furthermore, under Bush the second, America failed to ratify the Kyoto protocol which attempts to limit and modify consumption patterns by recognising and agreeing upon international standards for pollution levels. As it stands, the three options recognised by Roger are still grappling with each other, but George Bush looks very determined to overtly wrest control over the rest of the world.

²⁵³ Rogers edited by Carson, 1978: 153-154

Rogers concludes by noting that it is a very difficult task to educate teachers about international or intercontinental relations especially when the implications will affect the living standards of those concerned. Environmental education, he argues, needs to be interdisciplinary and politically engaged.

J.C. Smith has edited a very good book called *Learning for Living; Environmental Education in Scotland* that was published in 1985 by the Scottish Environmental Education Council. Smith remarks enthusiastically that the 1970s,

have been marked for many people by an extension of the boundaries within which they lead their conscious lives. Many have become more aware of the spread of both their influence and their dependence on distant places and peoples, of environmental problems which are transnational, and of the national and international agencies which attempt to manage the associated complex of resources and relationships...For all these reasons it has become steadily more important to extend the range of Environmental Education outwards to the less familiar and the unfamiliar, so that these issues can be tackled with more understanding by a better informed citizenry.²⁵⁴

Education, like the media, is a potent force for informing and mobilising the wider population. Television familiarises us with both the beauty of foreign environments and the circumstances of urban poverty in other parts of the planet. But partly as a result of the nature of the technology, television is in danger of sanitising these episodes, leaving significant responsibility of pedagogy to educational institutions.

Shorn of sounds and smells and the presence of misery which would have made some to them intolerable and unforgettable if directly experienced. Instead they are described in language which sometimes verges on Orwell's nu-speak. Thus there is a danger that people become habituated to them, accepting them and their attendant violence as something inevitable in the world outside, regrettable but beyond influence other than through the despatch of money or material aid. Education has a responsibility to bring home the realities of a global environment and to prepare people for constructive policies that may help to prevent disasters.²⁵⁵

A decade later, in the *Education for Sustainability*, (1996) Ken Webster also complains that teachers tend to reduce the political component of their environmental education, which defeats its purpose as a mobilising, transformative subject into a sanitised 'weak' topic that reinforces societies' status quo. Environmental education,

²⁵⁴ Smith, 1985:48

²⁵⁵ Smith, 1985:48

urges teachers to assess the extent to which the curriculum is riddled with modernism and schools as institutions filter initiatives, taking from there what they want but generally removing their critical core. Education for weak sustainability is more acceptable than education for strong sustainability and teachers who seek the latter are advised that there is important work for them to do in their everyday interactions with students.²⁵⁶

1989 was a prolific year for books on environmental education. Damian Randle wrote *Teaching Green; A parent's guide to education for life on Earth*. In it he quoted Jonathan Porritt *Seeing Green* along similar political lines to the WWF, "teaching is a subversive activity. But teachers and parents alike must find some way of organising themselves if holistic education, *education for life on earth*, is to have any significant bearing on the future."²⁵⁷

Environment and Society (1990) is an edited collection by Silvertown and Sarre, produced as a text book for a university level course. It is a cross-disciplinary approach to environmental education, combining "scientific evidence and theory, analysis of social processes, knowledge of technical possibilities and awareness of underlying value positions."²⁵⁸ The bulk of this book is geological combined with examples of scientific accounts of human-generated pollutants (such as Sellafield's Nuclear Reactor and associated radiation) and naturally occurring disasters. The term 'environment' is initially defined as 'surroundings.'

In Malthusian and biological terms Silvertown and Sarre begin with the processes that support any species needs for food, water and shelter; "the individual's environment is its life support system." But quickly, and in line with Humanist, Malthusian and Liberal paradigms, they position humanity as particularly important. "Clearly, a human being's environment is much more extensive than that of an insect or plant, in that the human depends on other people for companionship and in that human food and shelter depend on a world system of agriculture, industry and trade and on structures built in the past."²⁵⁹ Any one of these 'clearly' held criteria are subject to challenge; rats occupy precisely the same habitats as humanity, and many species require companionship. What is interesting

²⁵⁶ Webster edited by Huckle and Stirling, 1996

²⁵⁷ Porritt cited in Randle, 1989

²⁵⁸ Silvertown and Sarre, 1990: 1

²⁵⁹ Silvertown and Sarre, 1990: 2

is their argument takes a particularly modern and technological angle for positioning humanity at the top of a reorganised Great Chain of Being. Furthermore, this emphasis on the special place of humanity (not as a *species*, but as a *society*) goes on to justify or enrich the definition of environment ‘in human terms’ that ends up somewhere close to Pragmatic destabilisation of the Cartesian separation of subject from object. This movement follows the same pattern, leaving behind individual subjectivism in favour of a shared understanding and shared impact on the environment by society as a whole. “Because the concept of environment now stresses vital connections between object and environment, it is to some extent arbitrary where the boundary is drawn between society and environment.”²⁶⁰ The editors of this book are the earliest example I have come across in environmental education of the trend that dominates the 1990s and 2000s, where the relationship between humanity and the environment is defined instrumentally, and the separation between subject and object is achieved by objectifying *everything*.

For our purposes, the most interesting chapter in *Environment and Society* is a historical genealogy written by Stuart Brown “Humans and their environment: changing attitudes.” Brown traces a genealogy of a few well known historical tales as early examples of some of the prevailing attitudes and conceptualisations of nature or environment. Noah’s Ark is an early Jewish tale of humanheld obligations of *stewardship* and *conservation* towards other animals. It places humanity with a role of responsibility in the event of climatic disaster. *Genesis* opens with the Great Chain of Being which explicitly positions humanity with *dominion* over the other birds and beasts. God’s instructions to Adam were to “replenish the Earth, and subdue it: and have dominion over the fish of the sea, and over the fowl of the air and over every living thing that moveth upon the Earth.”²⁶¹ Since the writing of the Bible, Christian attitudes to the status and responsibility of humanity in relation to Nature have undergone some change. Francis Bacon (1561-1626) promoted a Christian Scientific Imperialist attitude towards Nature. The continued influence of Bacon’s imperialist stance makes it worth quoting from *Novum Organum* in full.

²⁶⁰ Silvertown and Sarre, 1990: 2

²⁶¹ Genesis I: 28

It will, perhaps, be as well to distinguish three species and degrees of ambition. First, that of men who are anxious to enlarge their own power in their country, which is a vulgar and degenerate kind; next, that of men who strive to enlarge the power and empire of their country over mankind, which is more dignified but not less covetous; but if one were to endeavour to renew and enlarge the power and empire of mankind in general over the universe, such ambition is both more sound and more noble than the other two. Now the empire of man over things is founded on the arts and sciences alone, for nature is only to be commanded by obeying her.²⁶²

Carolyn Merchant (1980) has argued that Bacon's continual reference to nature as female was associated with his virulent antagonism to witchcraft and paganism. The extended metaphor of nature with femininity has produced a modern earthly misogyny.

Seventeenth century imperialism was contested by the ideas of the Romantics. The Rime of the Ancient Mariner (1798) differs from the Classical because humans and animals are placed by Coleridge on an equal footing before God. However humans still have a *duty* of stewardship in Coleridge's Romantic poem. Romanticism emerged during the beginnings of industrialisation, urbanisation and the opening up of the countryside by Rail.

Romanticism also popularised, somewhat ironically, a new past-time - hillwalking and tourism.

In the 1970s environmentalism had emerged through various protest groups such as Greenpeace, CND, the World Wildlife Fund, and Friends of the Earth. At the same time 'establishment environmentalism' saw everything from encyclopaedias, national Green politics to the United Nations collating, discussing and producing material on the environment. There was still a great deal of debate at this stage about whether there was truly a 'crisis' or whether there is 'no sense in being unduly alarmist' and that piecemeal management of localised pollution problems could be solved with a little forethought and new technology.

Brown traces the influence of the earlier varieties of political and philosophical principles on the emerging forms of environmentalism; steward, imperialist, Romantic, and Utilitarian. Imperialism seems to be as entrenched now as it was in Bacon's time. Often writers and policy-makers on the environment limit their views to a superficial modification of the existing capitalist consumer paradigm rather than a complete

²⁶² Bacon, 1620, Book I, para 129 cited in Brown, edited by Silverton and Sarre, 1990: 242

overhaul of a system that is clearly advancing the cause of a select few at the expense of the bulk of both humanity and the rest of ecology. 'Sustainability' is a good example of colonial imperialism in process, as the four discourses; steward, imperialist, Romantic, and Utilitarian, attribute competing meanings to the term.

Brown argues that stewardship influenced Arne Naess's movement 'Deep Ecology.'

Deep Ecology tries to theorise in non-anthropological terms. Brown quotes Naess:

The ecological field-worker acquires a deep-seated respect, or even veneration, for ways and forms of life. He reaches an understanding from within, a kind of understanding that others reserve for fellow men and for a narrow section of ways and forms of life. To the ecological field-worker, *the equal right to live and blossom* is an intuitively clear and obvious value axiom. Its restriction to humans is an anthropocentrism with detrimental effects on the life quality of humans themselves. This quality depends in part upon the deep pleasure and satisfaction we receive from close partnership with other forms of life.²⁶³

Romanticism clearly echoes here. I argue in the chapter on Deep Ecology that Naess is significantly influenced by Heidegger, who is himself influenced by the poetry and literature of Goethe and Hölderlin. Unfortunately, I do not think that Naess is entirely consistent in his attempt to generate a non-anthropological philosophy of the environment. This is partly due to his metaphysics of *Gestalt* - identity and his desire to 'pragmatically' compromise with any other type of environmentalism, no matter how they conceptualise the relationship between humanity and the earth. There are problems that are inherent in Heidegger's work to do with the status of humanity in relation to other animals of which Naess is oblivious.

Utilitarianism still plays a large role in influencing politics in general and arguably, the dominant forms of environmentalism. American Pragmatism, the rhetoric on sustainability, and Neoliberal policy all adhere to many Utilitarian concepts. Actions are acceptable according to Utilitarianism if they accord pleasure to a maximum number of sentient beings, most notably humans. At this period in history, Brown's literature review ends, and we have to fill in the intervening decade ourselves. Brown delves into the

²⁶³ Naess cited in Brown, edited by Silvertown and Sarre, 1990: 244

historical roots of four important discourses that prevail in our attitude towards the environment. His methodology is reminiscent of Foucault and Nietzsche's genealogy.²⁶⁴

Written at about the same time, *Greenprints for changing schools* edited by Sue Greig, Graham Pike, David Selby, (1989), emerges from a three year World Wildlife Fund project called 'Global Impact.' Rather than a geological or historical methodology, their methodology introduces a rhizome of interconnectedness as the primary framework. Their approach relies on the work of Gregory Bateson, who has also been very influential on Deleuze and Guattari. Greig, Pike and Selby argue for the interconnectedness of individuals with their immediate surroundings, with their nation and with the relations with multitudinous other nations through trade, ideas and ecosystem. In contrast, they argue that the dominant worldview is fragmented into segregated realms of expertise. It compartmentalises different resources into brackets with little or no relation to other segments of the environment, and objectifies the whole lot of it. It also separates out the human mind from the rest of nature. Since the 1700s (as better outlined above by Brown) a materialist, rationalist, Utilitarian and reductionist paradigm has dominated the advanced capitalist countries, and their ideas now dominate the entire globe.

Greig, Pike and Selby put this modern Idealist set of assumptions at the feet of Rene Descartes' idea *cogito ergo sum*, that because I think, therefore I am. Quoting Gregory Bateson, they assess the results of Cartesian dualism as distressingly arrogant and exploitative of the environment. "As you arrogate all mind to yourself, you will see the world around you as mindless and therefore not entitled to moral and ethical consideration. The environment will seem yours to exploit."²⁶⁵

This notion of exploitation is present in the founding texts of Christianity, in the opening few pages of Genesis which admonishes Man to take dominion over the birds and beasts. Although Greig, Pike and Selby remember that there is an alternative Christian strand of stewardship "struggling to be heard."

²⁶⁴ cf. Irwin, 1998

²⁶⁵ Bateson cited in Greig, Pike and Selby, 1989: 8

They argue that Descartes and Newton set up the dualism “that which is not mind is machine.” The dualism simplifies and systematises the alienated and objectified environment into something that makes rational sense. Otherwise such stringent alienation between mind and environment would result in complete unknowableness of nature and the mind could make of it no sense nor thought. The mind can understand the fragmented parts of the machine through scientific enquiry.

In their second book from the same WWF project, *Earthrights; education as if the planet really mattered*, (1989b) Greig, Pike, Selby Networks challenge individuated models of learning. Referring to Hine’s paper ‘The Basic paradigm of a future sociocultural system’ in *World Issues*, they describe community networking as flexible rather than weak and disaggregated. It,

encourages full utilisation of individual and small group innovation whilst minimising the results of failure, it promotes maximum penetration of ideas across socio-economic and cultural barriers while preserving cultural and sub-cultural diversity, it is flexible enough to adapt quickly to changing conditions and it puts a structural premium on egalitarian, personalistic skills in contrast to the impersonalistic modes of interaction suited to the bureaucratic paradigm.²⁶⁶

The rhizome of grass-roots innovation that engages politically without recourse to monolithic institutional frameworks is also to be found in Guattari’s *Three Ecologies*, released the same year. The rest of the Greig, Pike, and Selby’s book is full of detailed practical advice for teaching environmental concerns in schools across all disciplines.

Neoliberal Environmental Education

The 1990s show the influence of Neoliberalism, a disregard, or disbelief in the human influence on ecosystems and climate change, combined with a growing faith that increasingly sophisticated and sensitive technology can fix any niggling environmental problems. The Neoconservative turn in education is impacting on the way we conceptualise and teach about our relationship with the environment.

A good example is Plimmer, Parkinson and Carlton book, *The Environment; A Primary Teacher’s Guide*, (1996). They approach ‘Spaceship Earth’ from a biological point of

²⁶⁶ Hine, V.H., April/May, 1977, 19 cited in Greig, Pike, Selby 1989b: 25

view. There is a detailed and informative explanation of the interconnectedness of biology followed by an examination of the potential situation should the human population ever reach the 40 billion it has been estimated might occur by the end of this century. They have a somewhat inconsistent approach to biotechnology. The 'Green Revolution' in the 1970s of modified wheat varieties that took India and South-east Asia by storm has been sternly criticised. These types of wheat require much more irrigation and very high levels of artificial fertilizer which has had unfortunate effects on surrounding waterways. Pollution from run off has poisoned streams, damaged fish and duck populations and contaminated the water table. High levels of fertilizer has meant that only wealthier land owners could afford to continue to plant high yield crops, and the gap between rich and poor within third world nations has been exacerbated. It should be added that increased irrigation has resulted in permanent soil loss. As importantly, the high-yielding modified varieties of wheat are infertile and next year's seed must be bought from the international companies that own the brand (Monsanto) draining money from within poor nations out to multinational corporations.

The writers are far more positive about genetic engineering, although they do not take note that the critique of the Green Revolution took 20 years to become public. They speak positively of some examples of genetic modification, particularly those that produce medicinal cures for human diseases, such as genetically modified sheep whose milk secretes the blood clotting Human Factor IX necessary for haemophiliacs. Or the production of protein-rich "food material" which is a bacteria harvested from starch and oil waste that could theoretically supplement the "tapioca, yams, sago and breadfruit" starchy food types. The unwritten assumption behind these 'improvements' is that they are aimed at the world's poor. It is not westernised countries that will have to give up fish and chips in favour of crispy bacteria.

For Plimmer, Parkinson and Carlton the environment is a resource base, and conserving it is to properly manage one's estate. They make one throw away reference to bio-ethical obligations which subsides rapidly into conserving biodiversity so that disease will not be able to wipe out whole crops and threaten human populations with starvation, as with the potato blights in Ireland during the 1800 and 1900s. The book is full of examples of

environmental damage and the effects it has on humanity. Schools are encouraged to plant more trees and so forth, to enhance environmental utility value. The environment is conceived in terms of a 'sustainable' resource.

Environmental Education versus Education for Sustainability

In a recent article, Dirk Postma, "Taking the Future Seriously: On the Inadequacies of the Framework of Liberalism for Environmental Education" writes a cutting critique of Liberal anthropocentrism because it co-opts the discourse of sustainability to maintain the consumerist status quo. He notes that there has been a slide from environmental education to education for environmental sustainability. This is largely based on the Brundtland report, *Our Common Future*, which assumes environmental sustainability to be a universal moral framework.²⁶⁷

Postma argues "We should conceive ourselves as citizens of an intergenerational community of justice." He argues that Rawlsian Liberal ethics cannot cope with future obligations; there is no reciprocity, a great deal of ignorance (of the future), and a paternalistic attitude. Liberalism has idealised the market metaphor. This was reinforced by Hobbes' notion of the contractual state, which safeguards against the brutal nature of individuals and anarchy. But procedural contractualism assumes a form of reciprocity – safety in return for the curtailment of freedoms. However the market's ever-increasing demands on raw resources fails to recognise or have regard for the future. The market metaphor of reciprocity has degenerated into public/private consumerism. Postma argues that Liberalism gives "rise to a privatisation of moral dilemmas."²⁶⁸

Individualized preferences fail to recognise either the way market structures organise their choices, or how these choices impact on the environment. Sustainable development is not neutral; it is an economic distribution and anthropocentric lack of moral regard for other living things. The market discourse of sustainable *development* impoverishes understanding of environmental morality and politics. We need struggle and debate in politics and education to find ecological justice. Objectifying the planet and ourselves in

²⁶⁷ Postma, 2002: 42-44

²⁶⁸ Postma, 2002: 51

the reductionist discourse of ‘potential resource’ stipulated by Neoliberalism fails to protect or enhance conditions of life for human ecosystems. When education limits its environmental curriculum to Neoliberal ends, the result is to discourage genuine communication, critical reflection and thinking, and to accentuate the reduction of all educational means and ends to assessable ‘skills.’ The struggle over environmental education is a good example of the alternatives; on the one hand is the Neoliberal ‘emptying’ of all discourse to the consumerist ethos of the market, on the other is the deepening, political examination of environment, technology, aesthetics, and subjectivity through methodologies that owe conceptual influence to Heidegger, Bateson, Foucault, Deleuze and Guattari.

Bjørn Lomborg, in his book, *The Skeptical Environmentalist* (2001), cites evidence that the economic measures of wellbeing are improving and that therefore environmental problems are a problem of representation rather than fact. On the other hand, Eric Neumayer, an environmental economist at the London School of Economics describes how Lomborg was captured by Simon and Beckman’s optimistic economic theories.²⁶⁹ Beckman famously won a bet with the ‘pessimist’ Ehrlich about the rate of worldwide resource depletion in the face of exponential population increases. The arguments of Simon and Beckman is that technology, along with the market’s Invisible Hand, will alter the way resources are used, therefore there is no limit to either human ingenuity, natural capital, or economic growth. Lomborg agrees that all environmentalist estimates about pollution or resource depletion seem to get ‘fixed’ technologically, or prove not to be as bad a problem as first estimated. But Neumayer notes that even if Lomborg’s revised figures of environmental problems are accepted, the minor lowering of emissions such as CO₂ occludes the real damage that is occurring, no matter what number crunching we apply. Furthermore, Lomborg regards the ‘environmental crisis’ as an exaggerated discourse, yet the impact this discourse has had on changing the attitudes and behaviours of people, (if not the genuine ecological relationship) is highly significant.

In his inaugural lecture as Chair of Education at Bath, William Scott notes that there are over 300 definitions of ‘sustainable development’ in relation to social imperatives, “and

²⁶⁹ Neumayer, 2001: chapter 2

disputation continues with rival meanings being used as competing rhetorical currencies in a market for which, and whose, worldviews will best save the planet.”²⁷⁰ His image of competing ‘currencies’ reveals an initial indicator that he has accepted the Neoliberal market metaphor pertaining to all things, including world views.

Scott reinvokes the nominalist separation, arguing that Wordsworth is mistaken to regard ‘nature as teacher;’ “we should remember that what we read in the book of nature, we have socially constructed.” Scott’s aim for environmental education is ‘building capacity’ to ‘live and to learn.’ He makes use of sustainable development, citing the Brundtland Report, and many other sources with emphasis on the humanistic ends of sustaining environmental ‘resource capital.’ Scott designs a Utilitarian hierarchy, reminiscent of Marx’s analysis of capital, that ‘nests human activity’ on the base line of ‘natural capital:’ ‘built/ human capital’ is the next tier, via science and technology; ‘human/ social capital’ next, via political economy and ‘well-being’ atop that through theology and ethics.²⁷¹ Scott is an environmental optimist; he regards the ‘doom and gloom’ scenarios of impending environmental devastation as exaggerated in order to raise public interest and funds.²⁷²

William Scott and his colleague, Andrew Stables edited a special volume of *The Journal of Ecosophy, The Trumpeter*, (2002) about the role of education in producing a sustainable ‘frame’ of mind in the population. The journal draws together many of the active philosophical environmental educators in Great Britain at present.

Scott’s contribution is that traditional educational discipline areas focus on a widely divergent range of issues to learn about the environment. Atmospheric smog in science, “the pathetic fallacy” of ascribing “human emotions and sympathies to nature” in art and literature, different cultural world-views about the nature-humanity relationship in social sciences, as well as equitable social and environmental justice. Over-arching conceptual frameworks may not be helpful.²⁷³ While education may not be instrumental in changing

²⁷⁰ Scott, 2002b: 101

²⁷¹ Scott, 2002a: 3

²⁷² Scott, 2002a: 8

²⁷³ Scott, 2002a: 10

cultural conditions, he argues, for democratic reasons the environment should be raised in the classroom, so that potential voters can make informed decisions.

While not particularly well known, William Scott has a lot of influence in environmental education as he edits two journals including *Environmental Education Research*, and is a Professor of Education at Bath, who directs one of the only overtly environmental education centres in Britain; the Centre for Research in Education and the Environment. He also has connections to the North American Association for Environmental Education. So when he complains that the environmental curriculum is being ‘prescribed’ for education by many diverse groups including Qualifications and Curriculum Authority and the World Wildlife Fund it has rather far reaching implications. Scott describes the World Wildlife school resource as ‘tendentious and determinist’ when they say in *Lessons for Life*,

We have a responsibility to help young people to understand the reasons for sustainable development, and to develop the knowledge, skills and values on which to base their future decisions and actions.²⁷⁴

Scott’s colleague Andrew Stables is in broad agreement. He argues that, “environmentalist rhetoric has cleverly combined palaeontological, cultural, and personal timeframes to create a sense of imminent disaster.”²⁷⁵ At least, however, while refusing any sympathetic genuine relationship with ‘nature’ because of the nominalist fallacy, Stables is prepared to acknowledge the limitations of our current ‘frame’ because the whole is a lot greater than the part will ever apprehend.²⁷⁶ The pursuit of the unknowable suggests, he argues, that we need to acknowledge “some force, a mind, greater than our own, individually, collectively, or historically.” Thus we might understand ourselves, “as mechanical agents within a mysteriously purposeful universe: little technicians who have often lost sight of our significant insignificance in the greater scheme of things that will always, in its entirety, remain closed to us.”²⁷⁷

²⁷⁴ World Wildlife Fund cited in Scott, 2002b: 102

²⁷⁵ Stables, 2002: 53

²⁷⁶ Stables, 2002: 54

²⁷⁷ Stables, 2002: 55

Stables does not recline in his passive technological facilitation for long, his concluding remarks refer to Finkelkraut's critique of modern rationality, who, like Hannah Arendt, discusses Stalinism and Nazism "as the excesses of a coldly instrumental rationality that demonised difference in the pursuit ... of Utopia."²⁷⁸ In the face of answering his own question about suitable 'frames' for environmental education, Stables finishes by asking a further question, loaded with the calculating market rationality from which he had earlier tried to retreat; "What *price* an education that makes us grateful for life on Earth?"²⁷⁹

Stephen Gough is also a member of the 'Bath School.' He has a better knowledge of the sociology of education, noting that requiring education to change the 'frame' of society in relation to the environment is quite possibly overestimating the potential for educational institutions to establish large scale socio-political or ideological change. "Learning always takes place within a pre-existing context of power relations, rules, expectations, historical narratives, and perceptions of group and individual interests, which affect not only what learners learn, but what they think it is important to learn and why."²⁸⁰

Environmental education for informed citizenship is a positivist view of educational institutions, Gough argues, that perceives the institution as a tool to implement in facilitating environmental literacy. He goes on to claim that socially critical theorists challenged the positivists with the perceived need for a new paradigm, which Gough thinks is also contestable.²⁸¹ Given the "manifest and numerous uncertainties" in both environment and education he argues for an agonistic approach to the environment, that recognises that different people and institutions have different cultural paradigms, or 'world-views' about the relationship between humanity and the environment.²⁸²

Ultimately Gough takes an *entrepreneurial* approach to environmental education that even amongst the midst of crisis, looks for opportunity in our changing institutions, practices, literacies and interaction with our biogeophysical surroundings.²⁸³

²⁷⁸ Stables, 2002: 56

²⁷⁹ Stables, 2002: 56, my italics

²⁸⁰ Gough, 2002: 87

²⁸¹ Gough, 2002: 87

²⁸² Gough, 2002: 87

²⁸³ Gough, 2002: 96

The Ministry of Education in New Zealand has a discussion document for the government offering advice on sustainable education, called “Sea Change: Learning and Education for Sustainability” (2004). Chapter three is particularly important as it outlines the history of environmental education, and the proposals for a sustainable education ‘futures’ outlook. Environmental ‘pessimists’ are criticised for being old fashioned and are linked with ‘environmental education.’ Optimists are akin to those in favour of ‘education for sustainability.’ Since the Brundtland report sustainability has been widened, they argue, from purely ecological concerns to include economic, cultural, and social matters as much as environmental ones. Education is important for raising public awareness about consumption and production patterns and the need for change in the face of global pollution and climate change. The New Zealand government confirms the United Nations goal that 2005-2014 be the Decade for Education for Sustainable Development.²⁸⁴

The optimistic framework is very future orientated. It includes critical analysis of past and present practices to discover more than simple scientific and technological solutions, but also “their root social, political and economic causes.”²⁸⁵ It is a constructive attempt to invent values that can contribute to better ways of living and understanding in the future. Education for sustainability lends itself to a transformative education for future generations. The scope is not merely cross-disciplinary in terms of curricula, but crosses the boundaries of traditional educational institutions. Education for sustainable futures aims at the media, the family, businesses, and the workforce, to reach into realms of the population that are not involved with formal educational institutions. But the authors caution, although the strong aims of education for sustainability aim at engaging the population in a democratic restructuring of society, it should not merely be the responsibility of individuals to constitute change.

The document outlines the ways in which the NZ government has been involved and committed to many of the global meetings on the environment, including Agenda 21 and the UNESCO meetings. Yet despite the commitment for entrenching education for

²⁸⁴ NZ govt 2004: 37

²⁸⁵ Huckle, quoted in NZ govt, 2004: 44

environmental sustainability, there is almost no mention of the environment in either the *Early childhood strategic plan* (2003) or the *Tertiary education strategy* (2003).²⁸⁶ An earlier document called *Learning to care for our environment* (1998) sought to involve and integrate environmental education in schools across the entire curriculum, *tangata whenua*, businesses, and all sectors of the community. The commitment to evaluating this initiative has been abandoned because it belonged to the previous party who was in power in the mid 1990s. The short term nature of democracy tends to inhibit these long term deep changes that are unpopular because they impact on the immediate lifestyle and comfort of the present population. In fact a connection to educating for environment sustainability does not even reach across all government strategies let alone all sectors of the community. The document surveys exactly what is, and what is not happening in reaching into the population to inform and educate for environmental sustainability.

The document is cognizant of the need for an imaginative generation of ‘futures’ and manages to take up the dominant discourse of sustainability (in contrast to the ‘old fashioned’ environmental education) without adhering to marketised society or rational individualism. Written as it is for a Neoliberal government, its critique is low key but nevertheless is, if you like, ‘post Neoliberal,’ warning that transformation and responsibility can not be reduced to the individual or the balance of consumer choices on the market.

Continental Philosophy and Environmental Education

Not all environmental educationalists in the 2000s are so Utilitarian as the Bath school. Richard Smith’s article in Scott and Williams volume of *The Journal of Ecosophy, The Trumpeter*, “Sustainable learning” takes a position informed by post-structuralism. Like I have done in this chapter, Smith begins with the pedagogical and shows how this informs the types of subjectivity and environment we expect and encourage in education. Rousseau’s child centred learning forms a Romantic version of the subject *au naturel* and the environment as innocent in its God-given form, but which becomes degenerate and

²⁸⁶ NZ govt 2004: 53

disfigured by society. Another discourse emerges from Plato, whose rigorous ‘dialogues’ prepare the field for rationality over all other ways of knowing.

The instrumental, techno-rationalism that runs through current educational pedagogy is incapable, Smith argues, of framing a lifestyle of genuine sustainability. Managerialism, efficiency and performativity that turns human beings into resources has been “deified rather than critiqued” by the “school effectiveness movement.”²⁸⁷ The emphasis on assessment and visible performance results in short term, marketable, educational goals rather than any commitment to the joys and pleasures of new understanding, creative exploration, or the expanding consciousness that results from reading a demanding book.

The Platonic strand in education has also encouraged the development of the mind as separate from the body, which is largely treated with indifference. The architecture, the classroom design, the division of disciplines all adds up to the discipline and separation of the mind from the body. What is more, he argues, except for a vague nod in the direction of consumerism, the purpose of education has become increasingly vague. The Dearing Report conceives, for example, education “primarily in instrumental and economic terms.”²⁸⁸ The phenomenal expansion of the numbers of the population gaining degrees was initiated partly, I think, for egalitarian reasons. But lately this has been understood as contributing to the ‘Knowledge Economy.’ The Dearing report states, “looking twenty years ahead, the UK must progress further and faster in the creation of such a society to sustain a competitive society.” Of particular interest to an environmentalist is the context for the term ‘sustain’ which has been removed from ecology altogether and become a mechanism for economic management. The purpose of debate in education has been so completely co-opted by Neoliberal objectives of consumerism and the rational calculation of assessment, evaluation, attendance as methods of surveillance and governmentality, that debates over the purposes or styles of pedagogy have almost died out. Richard Smith protests -

Instrumentalism, techno-rationalism, short-term thinking, managerialism, a refusal to think about what, after all, education is *for*, a neglect of, or indifference towards, the

²⁸⁷ Smith, R., 2002: 141

²⁸⁸ Smith, R., 2002: 143

embodied *experience* of the pupil or learner; not just a failure to nurture in him or her a love of the things of this world, but an encouragement to disdain them: how, under these circumstance, could we ever foster the frame of mind sympathetic to sustainable development?²⁸⁹

John Foster is in broad agreement with Richard Smith, and is critical of the prudential, economic management model of sustainability. Foster argues that trying to control risk is to forfeit evolutionary possibility. Foster proposes that we are “fundamentally sense-makers” which puts education at the centre of meaningfulness in regards to society. This is not to set up a set of rules by which society should abide. Sense making is not as arbitrary as some policy makers and academics have lately been arguing. He states,

we cannot take any criterion as a guide to sense-making, since the application of any criterion in judgement is itself only a matter of making sense. *A fortiori* we cannot take any naturally-endorsed criterion as a guide. But sense-making cannot be *unguided*—the idea of gratuitous sense-making, sense-making at radical liberty, itself makes no sense.

Foster’s sense making is phenomenological in the manner of Hume and Nietzsche; the physical constraints and capabilities of the body produce a certain ‘focus,’ a certain resolution, or capacity to attend upon things. The *a priori* of the body is as a sense-making organism that will tend towards certain ways of categorising because of our physical capacities: not because of some pre-ordained and fixed ‘truth.’

Specific styles of sense making are ‘sedimented’ over time, nevertheless, education needs to avoid static techno-managerial approaches to pedagogy because it produces a pre-ordered attempt at risk management and a narrowly conceived workforce, rather than enabling students to have open-ended, responsive lives in a ‘learning society.’²⁹⁰ A learning society,

would quickly generate a wider context of social and corporate institutions as learning organizations, capable of collective life-intelligent responsiveness to their changing economic, cultural, and physical environments, and of exploratory-heuristic planning at all levels, with the minimum structural locking-in of inflexible goals and assumptions.²⁹¹

Foster’s model is natural evolution, which layers historical sediment together with the unexpected pressures of forces that will not yield to any totalising predictability. To press

²⁸⁹ Smith, R., 2002: 143-4

²⁹⁰ Foster, 2002: 46

²⁹¹ Foster, 2002: 46

the analogy further, globalised capitalism has been in place long enough to have built up intolerable pressure, and the potential for volcanic eruption is high. Human subjectivity and society are both more able to flexibly accommodate unexpected change if devotion to conserving capitalist modes of production and distribution are seen as merely one approach to organising human society, a mode that can be displaced and superseded by more flexible attentiveness to all the other factors in our environment.

Blühdorn's contribution to the journal contextualises the discourse of 'sustainability' in various historical periods of the Liberal concern for 'security' and 'freedom.'²⁹² I examine Blühdorn's argument in detail in the last chapter.

In our contribution to *The Journal of Ecosophy, The Trumpeter*, Michael Peters and I wrote that the discourse of sustainability is so all-pervasive that requiring education to introduce it as a 'mindframe' is outdated. Having written extensively on Neoliberalism elsewhere, we focused on future avenues for social and ecological co-habitation. We assumed a Heideggerian stance towards environmental education and began to scrutinise both the Romantic roots of '*eco-poiesis*' and Heidegger's metaphysics for the lack of political engagement and the narrow frame of reference in 'Being' and '*Dasein*.'²⁹³ It became clear from conference discussions that the 'Bath School' were outlining the prevailing problematic, for 'solutions,' whereas we were seeking a new basis for an attitude to the future that could overcome the prevailing model of modernity.

James Simon takes a stance informed by Heidegger and Buddhism, drawing attention to our 'bodily comportment' that might foster a mode of being that elicits a "nontechnological... 'releasement toward things.'"²⁹⁴ Simon draws directly on Heidegger's critique of technological enframing, where every 'thing' shows up as potential resource, or 'standing reserve.' Simon explains, "the technological world is a world in which things no longer disclose themselves as things, but a world in which they have evaporated into a groundless, constantly shifting matrix of instrumental

²⁹² Blühdorn, 2002

²⁹³ Irwin and Peters, 2002

²⁹⁴ Simon, 2002: 31

relations.”²⁹⁵ The calculating rationality of the technological frame produces a *telos* of ever increasing efficiency. Heidegger argues that the change from the ‘craft’ era to the technological frame of modernity is about the forced extraction and storage of energy, that ignores the ‘natural’ tempo of the flows, the rhythms, the growth and ebb of the seasons, and instead ‘challenges forth’ events and entities as potential resource. “The way of revealing that rules in modern technology is a challenging, which puts to nature the unreasonable demand that it supply energy which can be extracted and stored as such.”²⁹⁶ This results in an alienation of humankind from the earth. The estrangement is a kind of existential ‘homelessness,’ the loss of a ‘dwelling place’ from which to build, and think. “Technological man (sic), swept along in the blind currents of fashion, fluid money markets and job flexibility, is portrayed as being no longer in touch with the earthiness of things...distracted by mobile phones, televisions, and the Internet, his attention is constantly *elsewhere*.”²⁹⁷

Heidegger’s ‘solution’ to what he describes as rootless homelessness, is to attend respectfully to the thing, in itself, rather than as an indifferent cipher or ‘placeholder’ in the production of consumerism. To let objects be (a hammer, a journey, a painting) and *care* about them so that they can show up in their own way, and at their own tempo allows things to ‘gather world.’ Simon explains this very well; “The idea here is that attending to a thing can illuminate a world, a world, that is, understood not as an object (planet Earth for instance) but as an arena within which things show up as significant things in the first place.”²⁹⁸

To drag us away from the empty business of technological enframing, Simon accepts uncritically Heidegger’s tendency towards homeliness, dwelling, nostalgia and a certain Buddhist influence in “letting things be.” Homely dwelling is not so much frame of mind, as a bodily comportment, a habitual conditioning to the environment as it ‘worlds.’ Physical ways of being affect thinking and understanding as much as the other way around. Technological man also has an efficient bodily comportment: “He grabs an

²⁹⁵ Simon, 2002: 32

²⁹⁶ Heidegger, cited in Simon, 2002: 32

²⁹⁷ Simon, 2002: 33

²⁹⁸ Simon, 2002: 33

energy bar on the way to work to stand in for breakfast; he gobbles down his five servings of fruit and vegetables to keep healthy.” Simon approves of the nostalgia in Heidegger as a means of “coming home... out of the alienating grip of technology.”

Michael Bonnett

Michael Bonnett’s chapter in *The Trumpeter* advocates flexibility and openness to new forms of knowledge, as does Simon and Foster. He puts forward a Heideggerian stance, without declaring Heidegger’s influence. Bonnett advocates *poiesis*, or ‘genuine, receptive openness’ to nature.

A poetic apprehension in which that which is currently withdrawn is allowed to show itself, where the inchoate and strange (as central elements of nature as the self-originary) are acknowledged and allowed to stand, and we participate in things in their many sidedness and intrinsic mystery.²⁹⁹

Bonnett’s position counters the Idealist subjectivism put forward by William Scott and others. “There is a nature, an integrity, recognized as external to our will with which we have to find a harmony.”³⁰⁰ This seems to counter Idealism; we neither author nature, nor have the authority to dispose of it. Echoing subjectivism to some degree, Bonnett maintains, like Heidegger, that nature only ‘shows up’ in human cultural practices and language.

Though it cannot matter in the slightest to biophysical nature whether humankind survives—some equilibrium will always be established, with or without us—nature only has significance in that space which is human consciousness, or its equivalent.³⁰¹

Bonnett makes the same move that Heidegger does in the description of *Dasein*; individual solipsism is not adequate to describe the interaction between humanity and the environment. Better is a collective description of the earth ‘worlding’ circulating through language and comportment. Yet it is the unique questioning ability of human consciousness that raises Nature into the realm of significance.

The poetic openness to nature, is at the centre of an ‘authentic’ relationship between human beings and the environment (which Heidegger terms Being). Letting things ‘be’

²⁹⁹ Bonnett, 2002: 9

³⁰⁰ Bonnett, 2002: 6

³⁰¹ Bonnett, 2002: 6

involves considerable responsibility, given that nature will simply exist and that it is humanity that notices and cares and produces its significance. Attention, care, and an adequate aesthetics and language are not an end, but the essential meaningfulness of human life. Thus humanity has a duty “truly to safeguard, to preserve, to conserve” as this relationship is what provides meaning for nature and for ourselves. That responsibility, that Heidegger describes as the authentic *Dasein*, allowing Being to ‘shine forth’ from concealment (*aletheia*) and is the motivation for *poiesis* rather than the rational calculation of all things.

From this Heideggerian basis, Bonnett asserts that embedded in modern rationality are certain aspirations towards nature which aim to: “classify, explain, predict, assess, control, possess and exploit it.”³⁰²

In contrast to the exploitation of nature by rationalist positivism, humanity needs to develop authenticity. In our present era of alienation, “will require, above all” Bonnett stipulates, “a radical re-evaluation and re-positioning of the calculative motives and understandings that dominate modern Western consciousness and society.”³⁰³

Otherwise we risk the likelihood of preoccupying pupils with symptoms masquerading as causes. (For example, measuring pollutant levels and devising scientific remedies rather than addressing the underlying motives and conceptions embedded in social practices which give rise to pollution.)³⁰⁴

He argues against education being ‘procedurally neutral’ (or positivist) when so many other institutions in society are not. “In a social-economic-political climate that privileges consumerism and the free market how pure is the rationality of pupils and other agents in local decision-making likely to be?”

The environmental ethic we seek must be one in which perception and action become apt to things themselves. An ethic not of rules but of receptive response, where discernment is given priority over definition.³⁰⁵

³⁰² Bonnett, 2002: 11

³⁰³ Bonnett, 2002: 7

³⁰⁴ Bonnett, 2002: 7

³⁰⁵ Bonnett, 2002: 9

Educationalists such as Bonnett are making important attempts at creating the space for reconceptualising metaphysics, epistemology, pedagogy and the human relationship with the environment. It is no accident that he is so influenced by Heidegger, who initiated the scope of the question that informs this ability to stand back and really critically analyse the habits, norms and governmentality that pervades educational practices.

Bonnett's monograph titled "Retrieving Nature; Education in a destitute time" in the *Journal of Philosophy of Education* (2003) sets out to challenge the normative metaphysics that are taken for granted in present day education and reconfigure them in more 'authentic' Heideggerian and environmental terms. His argument is very reminiscent of my own, that metaphysics structures the way we understand our own 'humanity' and 'nature' and in turn, the relationship thus built up constitutes the ways we organise our educational institutions, policy, the curriculum and approaches to pedagogy. He writes,

Environmental issues can disturb the traditional contours of educational space and produce a landscape of a different complexion and ambience whose internal quality reverberates to a different set of motives, a different metaphysics. This means that raising the question of environmental education is to raise questions about the nature of educational learning, knowledge and understanding in ways that will challenge many recent and current conceptions of education itself, such as liberal-rationalist, managerial and market orientated.³⁰⁶

Both Michael Bonnett and I are engaging with Heidegger as crucial to a reimagining of the bases of globalised liberal culture, knowledge, subjectivity and education (although Bonnett suggests the 'answers must emerge from the West, whereas unlike both him and Heidegger, I am much more eclectic in where 'legitimate' ideas might emerge). We have had some contact and three conferences in 2001 and 2002 but emerge from different nations and have substantially similar ideas about politics and environmental concerns but subtly different approaches to philosophy and education. Bonnett adheres more closely to Heidegger whereas my approach is more critical and influenced by the Post-structuralist tradition rather than the Analytic. Both of us draw broadly similar arguments from Heidegger, including his critique of the rational consumerist paradigm or technological enframing that reduces everything to a 'resource.' We both consider the

³⁰⁶ Bonnett, 2003: 575, compare to Irwin, R. GBPES 2001: 166.

revisiting of philosophy in the face of environmental crisis as necessary (in a philosophical and evolutionary sense) for producing deep-seated social, ecological and educational changes. Bonnett describes this requirement,

Perhaps most fundamentally, coming to terms with environmental issues ultimately requires us to reconsider the nature of things themselves and how they are known, and to contemplate some views on this that are different from those that standardly underpin education today.³⁰⁷

Bonnett describes the history of culture and philosophy in the west as not only ‘largely innocent’ of awareness about environmental issues, but “whose central motive was the subjugation and exploitation of nature.” From this position of master, both nature and community began to be constructed as primarily a resource.

Thus environmental concern alerts us to the possibility of certain aggressive motives holding sway within traditional subject knowledge. It thereby raises fundamental educational questions not only about what kinds of knowledge will best illuminate environmental problems, but also about the nature of educational knowledge itself – the spirit in which it is acquired and how it conditions our outlook.³⁰⁸

He is very explicit about the dangers associated with “that great paradigm of the rationalist project, scientific knowledge.” As Bonnett is at pains to point out, the critique of rationalism in Heidegger seriously challenges the dominant educational mores operating in traditional curriculum areas. Bonnett argues that we require “more receptive-responsive motives towards nature.”

Similarly, we may seek to reveal and re-appraise the metaphors of nature that different kinds of knowledge assume and employ, and to ponder the epistemological foundations of a curriculum germane to a genuinely ‘organic’ conception of reality.³⁰⁹

I suggested to Michael Bonnett at Oxford in 2002 that the re-appraisal might be understood as a suspicion of metanarratives rather than a renewal of metaphysics. This directs attention to the basis of Heidegger’s philosophy; the ontological difference between Being and beings. The ontological difference is a reworking of Aristotle’s conceptualisation of the One and the many. Yet Heidegger tries to avert the subsequent tendency in the philosophical tradition to interpret the ‘One’ as a fixed underlying form or Idea from which specific examples (the many) deviate. Heidegger’s ontology of Being

³⁰⁷ Bonnett, 2003: 572-573

³⁰⁸ Bonnett, 2003: 573

³⁰⁹ Bonnett, 2003: 573

attempts to be more flexible and embracing of change, yet its metaphysical predecessor consistently haunts the concept.

There is increasing interest in the relationship between subjects and the surrounding environment because, as Bonnett has pointed out, embedded in Idealist solipsism, is a tendency to control and manage nature that clearly is detrimentally impacting on the planetary conditions viable for organic life. Idealist solipsism, or 'subjectivism' as Heidegger terms it takes seriously the ancient philosophical concept of the nominalist fallacy. That is, any name which we attach to an object emerges from the linguistic base of the community, and the individual's personal and peculiar understanding of the meaning of the term. Taken to extremes, the naming of an object emerges from the initiating, enunciating subject rather than the object to which it is nominally attached. In the Idealist tradition the subject has become increasingly privileged, and the pathway to correctly identifying a particular object has been circumscribed to rational categorisation. Heidegger is scathing, not of the nominalist fallacy or solipsism *per se*, but of the rationalist paradigm, the emphasis on calculation, and the attempts at universal categories put forth by Descartes and Kant, amongst others.

Like Bowers, Bonnett is most interested in the critique of individual subjectivism, and the associated undermining of rationalism. In the monograph the widest disparity between his understanding of the application of Heidegger and its implication for contemporary philosophy and theory are about his gloss on 'postmodernity' and in particular Derrida's epistemology. For Derrida *differance* defers to the not-present (in much the same way Heidegger's *Dasein* is not simply being (here) but is directed to the future; being-*there*). Bonnett is most aggrieved by Derrida's concept that there is no 'extra-text,' which he regards as subjectivist in the mode that Heidegger critiqued.

There is a shift in the focus of relations from the ontological 'difference between' Being and beings to the post-ontological 'deferring' of text with context. What is at stake is the status of truth, structure, and Being; a competition between a totalising ontology and a totalising epistemology and how these two approaches affect the question of an ethics of nature, an ecology of relations, and education.

'Nature'

Bonnett spends some time on the definition of 'nature.' Aristotle defines nature as the essence of things. It is also commonsense, that comes as 'second nature.' At some point during modernity nature became understood as a dangerous wilderness that needs to be tamed and subjugated. Bonnett asserts that this "modern metaphysics of mastery"³¹⁰ "is reflected in both our actions and our ascendant forms of knowledge, such as science and technology."³¹¹ With a few important exceptions, such as Aldo Leopold, many of the texts on environmental ethics reside within this rationalist paradigm, which has stimulated much debate about whether there is an 'intrinsic nature' that is more than, and external to, human understanding and human nature. Bonnett describes the liberal rational paradigm as creating the model of nature as a resource to be used rather than a reciprocal cohabitation of respectful otherness. Heidegger's definition of nature is that in late modernity the environment has become understood as a resource for human consumption. To contrast with the narrow definition of nature as a resources, and to emphasise its 'intrinsic' status, Bonnett describes nature as the 'self-arising.'

(T)he reality of nature as the self-arising exhibits the following: it is epistemologically mysterious; it possesses its own integrity as a spatially and temporally continuous whole; it is inescapable and everything that occurs within it is unique, cannot be 'replayed'; it has intrinsic value. Thus characterised, nature is that dimension of experience that, simply, we have to accept and that because of its essential otherness, from which we can genuinely learn and be inspired, can save us from an essential stultification... Expressions of nature are best understood in terms of a metaphysics of open, infinitely-faceted, essentially mysterious *things* rather than stabilised, heavily categorised, intellectually possessed *objects* – things here also understood in the Heideggerian sense of arisings that gather a neighbourhood; through their inscrutable presencing a world of significance is opened up. It follows that if we are to know nature so characterised, we must learn to develop the receptive/ responsive – that is to say, poetic – attitude that itself is a key characteristic of authentic dwelling, a dwelling that is in touch with what ultimately sustains it.³¹²

Bonnett's reaction to the problematic modern attitude toward nature derives from Heidegger's later philosophy, where nature is intrinsically 'self-arising' and humanity's openness to nature's mystery and fluid integrity comes from both 'authentic dwelling'

³¹⁰ Bonnett, 2003: 603

³¹¹ Bonnett, 2003: 570

³¹² Bonnett, 2003: 692

and poetic intuition. Bonnett is suggesting a renewal of a more 'authentic' metaphysics rather than a 'suspicion of metanarratives.'

If all of nature is understood as a resource, then, following the argument of Francis Fukuyama to its ultimate conclusion, the endless rational calculation of the most efficient utilisation tends towards the 'end of nature.' All of nature becomes 'the same' in an endless repetition of meaningless consumption. Yet Bonnett rejects the endless repetition of 'the same' as argued by the end of nature thesis. There is still 'wilderness' of the unexpected present in the otherness of natural phenomena. *Aletheia*, Heidegger's ontological concept of truth is the coming to light of 'things' rather than categorised objects. Rather than the 'play' with language, with irony, and paradox, poetics in Heidegger (and Bonnett) is the unearthing of nature into language. It requires a receptive enquiring attitude on the part of the subject, raises the question of poetic authenticity, and is best secured through homely 'dwelling.' He foregrounds the many ways in which nature affects *us* from the flow of natural processes on which our bodily health depends to recalcitrant cancers, from moonlight on water and the recycling of the Earth's atmosphere by innumerable microflora to earthquakes and volcanic eruptions. We are constantly dependent upon, and subject to, natural processes at both micro and macro levels. Unlike Heidegger, who does not delve into the intrinsic/ extrinsic argument, Bonnett regards nature as the Other, "nature remains always beyond us," which ethically requires respect rather than alienation. Bonnett raises the question of the status of truth, and its relation between the subject and the natural 'thing.'

Modern subjectivism derives from Descartes and earlier, Plato (amongst many others). Any faith in truth comes, according to Descartes, from rational thinking – rather than some simple tautological correspondence between an object and our nominal description of it. In the nominalist gap between the object and the understanding, arise all sorts of possible errors. It could be that the subject misunderstands a bright and yellow flecked rock for a genuine valuable metal, rather than crystalline fools gold. Or worse, the deception might occur because the subject is not actually experiencing the situation as he thought at all – he is dreaming, or mad, or convinced by demons. Descartes insists that the only true reckoning of knowledge is through deduction and rational thought. If

everybody deduces the rock contains gold then universal truth is ascertained; indeed the gold standard has been found.

Bonnett does not raise the issue, so dear to Heidegger's heart, that modern rationality emerged in connection with the harsh separation between subject and object set out by Descartes (and others). Instead, Bonnett concentrates on the 'intrinsic nature' debate that is so often raised by the environmental ethics canon, from Peter Singer's respect for animals, implicitly in Aldo Leopold and explicitly by the contemporary Neo-pragmatists. In contrast to the Pragmatists who argue that everything is a subjective interpretation Bonnett argues for an intrinsic nature that is 'self-arising.' He describes nature as, "the self-arising whose features furnish fundamental aspects of our metaphysical space, that is to say, our *reality*."³¹³ In contemporary terms it marks two subtly different stances – the suspicion of metanarratives or a renewal of metaphysics.

Ontology versus epistemology

Substantially Bonnett's thesis is similar to mine: a Heideggerian reading of philosophy of environment and philosophy of education, reworking the basic premises and presumptions of Liberalism and particularly managerial Neoliberalism because it is based on a rationalist paradigm that we argue is not only philosophically 'outdated' but dangerous because it is embedded in a paradigm of 'mastery' 'over' nature.

Michael Bonnett raises an interesting point in chapter four of his monograph in the *Journal of Philosophy of Education* which amounts to the juxtaposition of contradicting views about the relationship between ontology and epistemology. Bonnett takes a stance, informed by Heideggerian 'onto-theo-logy,' that there is a 'mystery' in 'intrinsic nature' that is retrievable through a poetic approach to the real. Heidegger's terminology is rather different to Bonnett's, and I would argue importantly so. Heidegger conceives of the truth ontologically as *aletheia*, which emerges from Being into unconcealment. Bonnett's shorthand for *aletheia* is the 'mystery' (of Being). 'Nature' is rarely referred to in Heidegger as directly as in Bonnett.

³¹³ Bonnett, 2003: 692

As I argue in more detail in chapter eight, in early Heidegger 'Nature' is an interpretation that comes *after* the full absorption of humanity in equipmentality.³¹⁴ Nature has Aristotelian overtones but these are not simply 'essence' (or *wesen* in German) as has been understood by the philosophical tradition. Heidegger argues that essence is a degradation of the term 'Being' from its ancient Greek origin, *physis*, to the Latin interpretation, *esse*, to the English, *essence*. 'Wesen' avoids the Latin corruption into essence which has become a static and fixed kernel. *Wesen* is the verb form of Being, better understood in English as 'are.'³¹⁵ Through a complicated series of philosophical arguments (that I explain below in chapter eight) Heidegger incorporates 'becoming' into Being, so that from its traditional interpretation as a static and all encompassing term, it engages with change and process, becoming an 'event ontology.'

It is only during the 'turn' of the 1930s that Heidegger begins to significantly acknowledge nature as 'self-arising' which to a significant extent he incorporates into his key concept of 'Being' as *Physis*. As I describe in detail on the section titled *physis* and *aletheia* (below, chapter eight) Heidegger conceptualises truth, Being and subjectivity in ontological terms. Truth or *aletheia* is the 'revealing' of aspects of Being that ontologically preside in relationship to the ability of *Dasein* to care and apprehend.

While Heidegger sometimes interprets Being as 'earth,' in his later philosophy he implies (in marginal references that are not fully explained or dwelt upon in his text) that 'earth' rises up and erupts into the 'world' of social relations. In these fleeting glimpses Heidegger seems to imply that the earth as self-arising only underlies 'being *and* the 'world' as a subterranean strata – but he insists – never as the stable foundation for truth, rather as the juxtaposition against which the dynamic relation between beings and Being is played out.

For Heidegger, poetics is the ability for *Dasein* to bring forth nature as the self-arising, or the becoming of Being, *physis*, into language. Poetics is a process of allegory which touches upon the 'real' and transforms the whole 'world' with its subtle shift in meaningful metaphor towards the renewed uncovering or revealing of the truth of Being.

³¹⁴ Heidegger, 1962: 70

³¹⁵ Heidegger, 1982 book II, Irwin, 2000

Quoting Charles Taylor, Bonnett refers us to the Romantic method of poetic elegy, the poet makes us aware of something in nature for which there are as yet no adequate words. The poems are finding the words for us. In this “subtler language” - the term is borrowed from Shelley - something is created and defined as well as manifested.’³¹⁶

Poetics breaches the nominalist gap – but not via rationality as is the case in Idealism. Heidegger’s ontological approach is intended to mount criticism at the philosophical tradition for totalising subjectivism, as in Descartes, Berkeley and other members of the Idealist tradition who insist upon a harsh separation between the subject and the object, or thing-in-itself. Heidegger is very critical of Idealist subjectivism whose basic argument is that the object can only become known through rational deduction and categorisation that vouches to be universal. To put it another way, Idealist subjectivist Truth has a ‘capital’ T of the absolute. Truth aims at universal categorisation and rational calculation when the subjects’ interpretation generates all truth. This combination of rational calculation, universal categorisation and an over-emphasis on the solipsist nature of the subject’s mind exhibits subjectivist ‘mastery’ *over* nature rather than the poetic ontological relation of *Dasein* with Being.

In contrast to the onto-theo-logical account sketched above, Bonnett challenges ‘postmodern’ authors because he believes they exhibit subjectivist mastery. The problem with postmodern subjectivism is, Bonnett assumes, technological and rational mastery ‘over’ nature.

Bonnett has misunderstood post *modernism* for Derrida’s post-structuralism and Rorty’s neo-pragmatism. The confusion is to some extent understandable. All three reject (in a variety of importantly different ways) absolute or essential Truth.

Bonnett wishes to defend his concept of Nature as the self-arising that furnishes “fundamental aspects or our metaphysical space” against, what he perceives as postmodern objections, “I accepted that our concepts of nature are socially produced, but not necessarily that they are all thereby rendered optional, arbitrary or function

³¹⁶ Taylor, 1991: 85 cited in Bonnett, 2003: 595

politically.”³¹⁷ His objection is that post-modernism renders all interpretations, including the ‘self-arising Nature’ as a human construction and therefore a matter of conscious, if social, choices and decisions. Rorty in particular is a good example of the problematic postmodern desire for conscious ‘choice.’

One particularly influential articulation of the social constructivist thesis is given by Richard Rorty, who develops the notion that man invents (that is, constantly re-invents) nature through descriptions whose point of reference is other descriptions rather than some externally existing world. Thus, in *Philosophy and the Mirror of Nature*, he refutes the idea that language in some way represents reality and that truth is therefore a matter of correspondence with that reality. Rather, we just have descriptions that reflect the norms of the day. Truth about reality is always truth about ‘reality-under-a-certain-description’ and these descriptions are optional -- we could always choose others.³¹⁸

For Bonnett ‘Nature’ needs to constitute the foundational ‘ground’ of truth. When he is less careful, Bonnett rhetorically enquires that nature has “*everything* to do with objectivity, accurate representation and correspondence.”³¹⁹

Heidegger overtly argues against nature (or Being) as a ‘ground’ of truth, although whether Nature as foundational is still present in his concept of Being is a moot point (see chapter 9). Heidegger was the student of Husserl and is very familiar with the linguistic critique of the correspondence theory between signifiers and the signified. In his critique of Descartes he rejected the ‘correctitude’ of representation as the Idealist recourse to logic to create the only legitimate bridge between the subjectivist mind and the intrinsic reality of the object. While Bonnett accepts the critique of the object and rationality, he does not refer to the long philosophical tradition from whence the arguments emerge.

Heidegger’s concept of Being relies upon Aristotle’s metaphysics of the One and the many. The relationship between the totality of beings over time, and the particular event or article at any given time is the *ontological* relation, and this is the focus of all articulations of Being and beings.³²⁰

Unlike Heidegger who avoids recourse to terms like ‘value’ and ‘ethics’ because they resonate with the Idealist mastery of modernity and metaphysics of which he is so

³¹⁷ Bonnett, 2003: 692

³¹⁸ Rorty, 1994: 379 referred to by Bonnett, 2003: 598

³¹⁹ Bonnett, 2003: 598

³²⁰ Heidegger, 1969b and 1973a

suspicious (see chapter 10). Bonnett argues that there is a ‘right relation’ to Nature, which exhibits “such a thing as proper authority.”³²¹

Bonnett’s difficulty arises from two sources: the metaphysical ‘ground’ he attributes to nature and his misunderstanding of the critique of philosophical ‘subjectivism.’ A metaphysical ground embedded in nature is which is clearly *not* what Heidegger intended, although I argue an essentially inert onto-theo-logical ground is still ‘concealed’ in Heidegger’s concept of Being (see chapter 9).

Bonnett argues for a genuine, authentic knowledge: truth with a purchase on Nature. Yet somehow this is not ‘objective’ truth, instead it is poetic truth. The poetic approach to the truth of nature contrasts with what he regards as a postmodern fickleness for truth as something to control and play with: “finding ‘more interesting,’ ‘more fruitful’ ways of speaking.” He quotes Rorty’s disregard for authoritative truth, which “is a way of allowing a description of reality to be *imposed* on us, rather than taking responsibility for choice among competing ideas and words, theories and vocabularies.” Language has become the primary structure (rather than Descartes’ epistemology of rational deduction). So, as with de Saussure’s linguistic structuralism, sentences are “connected with other sentences rather than the world.”³²²

Bonnett is very startled by the totalising epistemology advocated by Rorty, who says, “we are shoved around by physical reality. Yet what does being shoved around have to do with objectivity, accurate representation, or correspondence? Nothing, I think, unless we confuse *contact* with reality with *dealing* with reality.”³²³ Bonnett challenges Rorty’s dualism between *contact* with reality and *dealing* with reality. Both dealing and contact are significant; “Is it *significant* contact, that is, part of conscious experience in which case does it not have to be linguistically mediated on this view.”³²⁴

Cannot this be interpreted as the world’s resistance and correction to our linguistically structured (and other) intentions, a resistance and correction that provide us with a sense

³²¹ Bonnett, 2003: 692

³²² Rorty, 1994: 372 quoted by Bonnett, 2003: 597

³²³ Rorty, 1994: 375 quoted by Bonnett, 2003, 598

³²⁴ Bonnett, 2003: 598

of what is 'other' and its properties - and thus define such intentional activity in 'real' terms?³²⁵

Rorty seems to argue that truth is not out there: it is sentences that are true or false and these are human constructions.

Truth cannot be out there - cannot exist independently of the human mind - because sentences cannot so exist, or be out there. The world is out there, but descriptions of the world are not. Only descriptions of the world can be true or false. The world on its own - unaided by the describing abilities of human beings - cannot.³²⁶

Rorty's 'postmodernism' emerges from American pragmatism rather than Continental structuralism: Pierce and Dewey rather than Nietzsche. Though both traditions made the same amendments to truth in relation to 'reality' that Bonnett advocates. That is to say, when a 'truth' that has been 'working' adequately for a long period of time begins to 'fail' to explain events often and an ongoing way, then the 'anomalies' become a much more far-reaching challenge to the maintenance of what has hitherto been taken as given. For example, capitalist growth has (arguably) provided a satisfactory motif for structuring modern societies, providing modes of 'excellence,' differentiating rank via entrepreneurial initiative rather than hand to hand combat. The differentials in wealth have been on the one hand criticised on the grounds of inequitable distribution and the deprivations of poverty, yet the countervailing discourse of meritocracy has at the same time been present in the liberal democratic general will. The struggle between rich and poor has been *essential* to democracy and there is no way to isolate and remove capitalist growth from the liberal democratic mode of organising society. However, the devastation of resource depletion and pollution – which were described in economic terms as 'externalities' – or outside the rational calculation of cost-benefit analyses - are now so pressing that they threaten the 'truth' of capitalist growth altogether. There are some attempts to modify the truth of capitalism by incorporating externalities of pollution and the finitude of resources into the financial equation and making corporations, individuals and nation states accountable for them (see final section of the thesis) but ultimately the pressure of these 'anomalies' will collapse the 'truth' of capitalism as the Ideal mode of

³²⁵ Bonnett, 2003: 598

³²⁶ Rorty, 1989: 4-5 cited in Bonnett, 2003: 599

constructing modern societies and it will be replaced with another paradigm that acknowledges the integration of human society and nature in altogether different ways.

I suspect that Rorty is making a more traditionally Idealist and subjectivist move than Derrida. The similarities that inform Bonnett to group together Rorty, Derrida and Giddens fall flat when one understands their conflicting approaches to epistemology. There is no likeness between the Neopragmatist and the Post-structuralist approaches to nature, epistemology, ontology or metaphysics.

Post-modernism formulates a change in modes of capitalist production, such that instead of the Fordist structured production lines, constant change, flexibility, efficiency and life-long learning characterise social and capitalist organisation. I agree with Bonnett that postmodernity coheres with Heidegger's critique of nature and humanity as a 'resource' susceptible to rational mastery. Post-structuralism mounts an enlightened, or post-enlightened *critique* of all metanarratives. No mode of social organisation is sacred, including the grand narrative of 'economic growth' which governs, increasingly, all modes of human-nature interaction. Neo-pragmatism has modified the critique of Truth mounted by Pierce, Dewey and Jameson at the turn of the 20th century, and tends to *modify* rather than completely deconstruct liberal democracy, justice, empiricism, empire and economics.

Poststructuralists advocate regarding the tradition of metaphysics, including the 'ground' of truth in nature, as a structuring metanarrative, that has legitimised many concepts and proffers the standard for truth. Metanarratives are not a matter of 'choice.' We are born into cultures that already operate in a given paradigm. The 'suspicion of metanarratives' is a call for critical thought about orthodoxy reminiscent of Kant's short essay "*Was ist Aufklärung?*" –What is Enlightenment? Critical thinking is not a rejection of the significance of matter, objects, environment or context in the same way that Bonnett describes postmodernism.

While grappling with the status of truth and the nominalist separation of languages from nature, Bonnett fails to distinguish (as Heidegger does) between nature, earth and world. For Heidegger, 'world' is cultural, emanating from an important 'work of art' a

signifying and symbolic artefact (such as the Greek Temple) which symbolises the epistemological norms of that epoch.³²⁷ The world relates to Nature by bringing to light (*aletheia*) an aspect of Being that hitherto may have been concealed. ‘Things’ ‘world’ according to Heidegger – they have meaning which reinforces a paradigm of meanings within a socio-historical and cultural epoch.

Bonnett does refer to the way things ‘world,’ in contrast to the Idealist tradition that separates out natural ‘objects,’ at once alienating them from subjectivist interpretation and yet remaining essential as juxtaposition against which we evaluate ourselves. Objects are only understandable through rational deduction, overcoming the nominalist barrier via measurement, calculation and categorisation. A reasoned reckoning that Heidegger calls ‘correctitude.’

Bonnett raises a very interesting point in relation to the anthropocentrism embedded in some post-structuralism and post-modernism. Although Bonnett does not frame the problem in this way, it appears to be a contest between epistemology and ontology: between Derrida’s totalising epistemology and Heidegger’s totalising onto-theo-logy. As Derrida puts it, “*il n’y a pas de hors-texte*,” there is nothing outside the text. This is an important issue. Epistemology seems to have ‘won’ in the argument that philosophers have been tossing around for over two and a half thousand years.

Bonnett makes no reference to de Saussure, the important realms of *langue* and *parole*, the structure of language or the community in which it circulates, or the distinction between the signifier and the signified. De Saussure comes out of a long tradition of distinguishing between the subject, the fallacy of nominalism, and the object so named. I do not claim to know Rorty and possibly he has rested on structural linguistics, but if, as Bonnett suggests, Rorty has “clear resonances” with Derrida, then a ‘post’ structuralism is at play. The circulation of signs does not rely on rational deduction, but rather on culturally consistent assumptions about metaphysics, or the metanarrative of metaphysics. Bonnett writes, the

view that what appears to be given and self-evident is generated by and dependent upon language and other sign systems. For Derrida, signs have meaning only through their

³²⁷ Heidegger, 1977f and 1977d

relations with other absent signs -- the play of difference. Nothing refers only to itself -- and certainly not to some extratextual reality. Meaning is achieved only through the interweaving of significances that is the text, and everything is constituted on the basis of a trace within it of other elements of the 'chain', this 'textile' that is the text.³²⁸ There is nothing before the text; there is no pretext that is not already text.³²⁹

In 1995 Willy Maley argues that this interpretation of Derrida overlooks Derrida's 'true intentions.'

In *Of Grammatology* (1967), Derrida first formulated the phrase that has haunted him ever since: 'There is no extra-text', or there is no frame, often interpreted as: 'There is nothing outside - or beyond - the text'. This is the impression of deconstruction that sees it as a form of close reading that is blind to larger questions of history and politics, a sort of ultra-formalism. But when Derrida used the phrase he had something else in mind, specifically a desire to undo the opposition between close readings and contextual ones. Thus in a recent essay in *Critical Inquiry* he writes:³³⁰

'there is no outside-the-text' signifies that one never accedes to a text without some relation to its contextual opening and that a context is not made up only of what is so trivially called a text, that is, the words of a book or the more or less biodegradable paper document in a library.³³¹

Elsewhere Derrida writes about the way any text exceeds its own boundaries, both in terms of the concrete conditions of the writer's surroundings and the moment of textual exegesis, whenever it is read.

(A)ll those boundaries that form the running border of what used to be called a text, of what we once thought this word could identify, i.e. the supposed end and beginning of a work, the unity of a corpus, the title, the margins, the signatures, the referential realm outside the frame, and so forth. What has happened ... is a sort of overrun that spoils all these boundaries and divisions and forces us to extend the accredited concept, the dominant notion of a 'text' ... that is no longer a finished corpus of writing, some content enclosed in a book or its margins, but a differential network, a fabric of traces referring endlessly to something other than itself, to other differential traces.³³²

In fact Derrida turns out to be arguing almost exclusively for context, for what Bonnett (and others) have assumed was the 'outside' but which Derrida insists is not a question of intrinsic or extrinsic because the over-run of boundaries is unavoidable. The subject can never be completely divided from the object -- whether it be a text or a tree -- and neither

³²⁸ Derrida, 1981b: 26 paraphrased by Bonnett, 2003: 598

³²⁹ Derrida, 1981a: 328 cited by Bonnett, 2003: 597

³³⁰ Maley, 1995: §1

³³¹ Derrida, 1989 vol 15, 4: 841 quoted in Maley, 1995: §1

³³² Derrida, 1979: 81; 83-84 quoted in Maley, 1995: §1

can the *parole*, the circulation of signs, be separate from the socio-historical situation of either reader or author. In the essay “Biodegradables; seven diary fragments” he writes,

An ‘internal’ reading will always be insufficient. And moreover impossible. Question of context, as everyone knows, there is nothing but context, and therefore: there is no outside-the-text.³³³

Maley goes on to explain, “So, for deconstruction the distinction between text and context is bogus. A con-text, because this text is not impervious to politics, culture, history and so on, and this context is not something non-textual.” Instead of deconstruction or post-structuralism adhering to the rules of subjectivism as Bonnett implies, it challenges subjectivism by permeating all aspects of nature with coding and overcoding and any text defers to these other elements, without necessarily consciously recognising them at all.

There is still solipsism as the subject encounters some aspect of nature that has not yet made it into terminology, and this recalls the elegy in Heidegger and Bonnett’s methodology of poetics. Yet this enunciation or ‘iterability’ does not directly define one element or item of nature. In an interview titled “This strange institution called literature” Derrida argues that iterability, “both puts down roots in the unity of a context and immediately opens this non-saturable context onto a recontextualisation.”³³⁴ Effectively any introduction into *langue* is also an introduction into the historical layers of *parole*. The iteration is not so much a recourse to a more authentic truth about Being or Nature, but the destabilisation of such concepts because all *parole* shakes up the concrete by deferring to the contextual politics, the shifts and movements of power, and the overlaying of meaning through translation and mistranslation of terms, however technical. Maley describes the power, historical and political impositions on the text; “Deconstruction can also be seen as an allegorics, or analogics of power. A politics of linkage. Because there is nothing outside the text - everything is included in ‘reading’, everything counts - connections are constantly made with the so-called ‘real’ or ‘outside’ world.”³³⁵ Or as Derrida describes it in “Limited Inc” in the journal *Glyph 2*,

³³³ Derrida, 1989: 873 quoted in Maley, 1995: §1

³³⁴ Derrida in Attridge 1992: 63 quoted by Maley: 1995: §1

³³⁵ Maley 1995: §4

Either the contextual difference changes everything, because it determines *from within*: in this case, it can hardly be bracketed, even provisionally. *Or* it leaves certain aspects intact, and this signifies that these aspects can always separate themselves from the allegedly ‘original’ context in order to export or to graft themselves elsewhere while continuing to function in one way or another ... In order that this either/or not be an alternative or an insurmountable logical contradiction, the value of context must be reelaborated according to a new logic ... Every sign ... can ... break with every given context, is absolutely illimitable. This does not imply that the mark is valid outside of a context, but on the contrary that there are only contexts without any centre or absolute anchoring.³³⁶

So not only does Derrida resist getting captured by the text/ context dualism, he destabilises the authentic ground of truth in Being or Nature, constituting a very important critique of Heidegger (and subsequently Bonnett’s) project.

Certainly Derrida was very aware of Bakhtin’s argument for an expansive play in the meaning of words in relation to objects. This contrasts with Heidegger’s hermeneutics which is designed to narrow down interpretive breadth and consign precision as much as possible on the meaning of the text, not simply of the author’s intention, but the historical emergence of the truth of Being.³³⁷

Bakhtin pre-empts post-structuralism with a clearly enunciated antagonism towards Idealism, in this case Kant’s thing-in-itself.

The direct word, as traditional stylistics understands it, encounters in its orientation toward the object only the resistance of the object itself (the impossibility of its being exhausted by a word, the impossibility of saying it all). But no living word relates to its object in a *singular* way: between the word and its object, between the word and the speaking subject, there exists an elastic environment of other, alien words about the same object, the same theme, and this is an environment that it is often difficult to penetrate.³³⁸

The ‘richness’ in interpretation in the circulation of language is supposed to extricate the interpretation from poetic realism which Bakhtin describes as narrow homoglossia and instead valorises narrative play, humour, and multivarious wordiness of heteroglossia.

Any concrete discourse (utterance) finds the object at which it was directed already as it were overlain with qualifications, open to dispute, charged with value, already enveloped in an obscuring mist – or, on the contrary, by the ‘light’ of alien words that have already been spoken about it. It is entangled, shot through with shared thoughts, points of view, alien value judgements and accents. The word, directed toward its object, enters a dialogically agitated and tension-filled environment of alien words, value judgements and

³³⁶ Derrida, 1977: 220 quoted in Maley: 1995: §1

³³⁷ cf. Ruth Irwin, 2000, chapter 4

³³⁸ Bakhtin, 1994: 276

accents, weaves in and out of complex interrelationships, merges with some, recoils from others, intersects with yet a third group: and all this may crucially shape discourse, may leave a trace in all its semantic layers, may complicate its expression and influence its entire stylistic profile.³³⁹

Compare this to Derrida's discussion of the text and the historical assemblages of power.

One of the most necessary gestures of a deconstructive understanding of history consists ... in transforming things by exhibiting writings, genres, textual strata (which is also to say - since there is no outside-the-text, right - exhibiting institutional, economic, political, pulsive [and so on] 'realities') that have been repulsed, repressed, devalorized, minoritized, deligitimated, occulted by hegemonic canons, in short, all that which certain forces have attempted to melt down into the anonymous mass of an unrecognisable culture, to '(bio)degrade' in the common compost of a memory said to be living and organic.³⁴⁰

Bakhtin goes on to explain how the word designated to a particular object or event defers to the whole system of language and articulation, never able to attach itself in isolation as signifier to signified. Nor is the word able to extricate itself from the layers of history incumbent in the object itself, the sedimented change, the upheavals and power struggles, the entangled interwoven affects and counter affects.

In the poetic image narrowly conceived (in the image-as-trope), all activity – the dynamics of the image-as-word – is completely exhausted by the play between the word (with all its aspects) and the object (in all its aspects). The word plunges into the inexhaustible wealth and contradictory multiplicity of the object itself, with its 'virginal,' still unuttered' nature; therefore it presumes nothing beyond the borders of its own context (except, of course, what can be found in the treasure-house of language itself). The word forgets that its object has its own history of contradictory acts of verbal recognition, as well as that heteroglossia that is always present in such acts of recognition.³⁴¹

Bakhtin – in direct contrast to Descartes' fear of dreaming, and madness, plays up the 'Carnival' as the anti-rational moment, a time when the *Narren*, Joker's wild, sexual, mad, masked, playful, - can arouse new meanings from the layers and layers of historical associations that spring up in deference to the Other.

The object reveals first of all precisely the socially heteroglot multiplicity of its names, definitions and value judgements. Instead of the virginal fullness and inexhaustibility of the object itself, the prose writer confronts a multitude of routes, roads and paths that have been laid down in the object by social consciousness. Along with the internal contradictions inside the object itself, the prose writer witnesses as well the unfolding of social heteroglossia *surrounding* the object, the Tower-of-Babel mixing of languages that goes on around any object; the dialectics of the object are interwoven with the social

³³⁹ Bakhtin, 1994: 276

³⁴⁰ Derrida, 1989: 821 quoted in Maley, 1995: §5

³⁴¹ Bakhtin, 1994: 278

dialogue surrounding it. For the prose writer, the object is a focal point for heteroglot voices among which his own voice must also sound; these voices create the background necessary for his own voice, outside of which his artistic prose nuances cannot be perceived, and without which they “do not sound.”³⁴²

When Derrida claims “*il n’y a pas de hors-texte*,” there is no extra-text, he is taking human reflection, knowledge and language out of a separated and privileged realm and reintegrating us into the ecology of the natural world. Derrida has rarely (if ever) been interpreted as doing this. The confusion of subjectivism tends to remain because, like Heidegger, philosophers and literary critics have remained caught in the modernist and Idealist paradigm. Our very grammar, as Nietzsche notes, tends to separate and privilege the subject from the verb, the individual from their own physical actions, the interpreter from the interpreted. Heidegger too, remains caught up in this paradigm and it requires careful critique that goes beyond the scope of his philosophical rubric to recognise the limitations of the conceptualisation of *Dasein*, Being and his reliance on the poetic to introduce new correspondence ‘from’ nature (Being) into language. Bonnet writes that Derrida finds, “even Heidegger... guilty of striving for a foundation in what is immediately and self-evidently present.”³⁴³ De Saussure himself, the master of structuralism, writes that language is one system that is comparable to other systems that may enunciate themselves in completely different ways. The codes and *langue*, permeates social systems, “Language is a system of signs that express ideas and is thus comparable to the system of writing, to the alphabet of deaf-mutes, to symbolic rituals, to forms of etiquette, to military signals, etc. It is but the most important of these systems.”³⁴⁴

Bateson, Deleuze and Guattari, as different examples of the post-structuralist approach to the environment, extend the coda of *langue* and apply it to assemblages in the natural world. So the system of signs permeates everything. Nature is not separated from culture, or from humanity. It is not concealed, not extra-textual. Deleuze and Guattari, along with Bateson explain this much better than Derrida ever has. The ‘language’ of repetition, predictability, form, growth and atavistic procreation operate as much as natural events

³⁴² Bakhtin, 1994: 278

³⁴³ Bonnett, 2003: 598

³⁴⁴ De Saussure, 1960: 16 quoted in Maley,

and objects in the unfolding of species and genera, in the gradual sedimentation and stratafication of rocks, in the consistency of oceans and atmospheres, as they do in the peculiar shared phenomena of reproduction of the system, the code, the grammar, and the vocabulary of any given language. The signs and grammatical structures that are shared amongst language communities – the *langue*– has the same internal qualities of consistency as the genetic code that is shared by any particular species of shellfish. They are both ‘text’; that is, coda, form and sign, sequence, pattern, repetition and difference.

Bonnett describes Anthony Giddens work as an amalgam of Rorty and Derrida all of whom mount “ontological attacks on our intuitive sense of nature as some innocent non-human realm.”³⁴⁵ Giddens (whom, unlike the other two, really is a postmodernist) claims “Nature no longer exists” making the end of history argument that everything is ultimately managed as a calculable, potential resource (see ‘Giddens and the Third Way’ in section three of my thesis). Bonnett’s rejection of the End of Nature thesis is important. However his assumption that Derrida makes the same case is erroneous.

Dwelling, Authenticity, Aletheia, Being,

To tie together his thesis, Bonnett’s last chapter focuses on Heidegger’s concept of dwelling. A potential problem is the nationalist, conservative, sedimentation of preserving, conserving, safeguarding in the local dwelling place. One of the ways of avoiding (rather than ignoring) nationalist politics embedded in Heidegger’s philosophy is nomadology. A nomadic approach is also in tune with the natural tempo of the seasons, the flows, growth and decay of the passing events in the environment. Yet the nomad safeguards without being possessive, and it is the social organisation of privatised ownership and rights that is much a part of technological enframing as any other principle of Liberal modernity. In fact Bonnett’s simply rejects the political problematic associated with Heidegger ‘*blut und boden,*’ blood and soil, that resides in his concept of ‘dwelling.’³⁴⁶

³⁴⁵ Bonnett, 2003: 601

³⁴⁶ Bonnett, 2003: 655

Bonnett argues that an educational focus brings the question of *authenticity* to the fore. ‘Intrinsic nature produces particular kinds of knowledge and ‘right’ relationship that should be the “prime goal of environmental education.” Authenticity brings up questions about legitimacy, lies, mimicry, and degrees of value. These worries emerge from the concept of a stable foundation for truth that hides in the essential ‘mystery’ of nature.

The subjectivist discernment of nature as the self-arising is always vulnerable to misperception “it can be faked, that what is essentially a matter of optional convention can be presented as a matter of irrefutable nature.”³⁴⁷ Bonnett argues that there are degrees of naturalness; a harebell is “clearly natural in not bearing the imprint of human intention” whereas a plastic cup or an automobile is nature’s opposite. However it is the simulacra of nature – perhaps regenerated forests – that present “cause for suspicion.” These problems (which crop up often in the environmental ethics literature) stem from the desire for nature to serve as foundational truth. Heidegger dropped his discussion of ‘authenticity,’ which he always meant in terms of care, having seen the way Sartre tried to make it the existential standard in *Being and Nothingness* (). Bonnett avoids any discussion of Heidegger’s concept of Being. Yet avoiding Heidegger’s key term, the conceptual centre of *all* Heidegger’s mature work since 1927 is a failure to engage with Heidegger’s own rejection of Nature (or biology) as either ontological or epistemological ‘ground’ or foundation for truth. That is why Heidegger resorts to the Greek concept of *aletheia* or on-going revealing of Being – which Bonnett has interpreted, in a form that slides rather easily into the essential realm, as the *mystery* of nature. Tied up with the problem of authenticity, is that Bonnett, again following the tradition of environmental literature over the last 20 years, reverts to the ‘intrinsic’ nature argument – which Heidegger’s concept of Being avoids. Heidegger’s subject, *Dasein* cares about Being, Being is not mere existence *because Dasein* cares. Through emotional and intellectual compartment Heidegger ties together nature (in the guise of Being) and human society. For Heidegger and Bonnett poetry is an ideal means for ‘evoking’ truth. For Heidegger,

³⁴⁷ Bonnett, 2003: 692-693

the truth is held in the concealment of Being, whereas for Bonnett, truth is ‘out there’³⁴⁸ in the otherness, the ‘inherent mystery and fluid integrity of intrinsic nature.’³⁴⁹

By recalling the ‘intrinsic nature’ argument, Bonnett is forced to regard nature as alien or ‘other’ from human beings. Otherness implies the Idealist alienation and the nominal fallacy that evokes an irreducible chasm between one subjectivity and another, between the subject and the object, between humanity and nature. The poststructuralist concept of ‘difference’ on the other hand holds within it a greater sense of repetition, that many elements are similar, yet what is noticeable is minute aspects of change. Bonnett tries to bring ‘intrinsic nature’ back to Heidegger’s philosophical framework by ranking what is authentically natural from what is inauthentic, the artificial human artefact. “Ultimately in such cases,” Bonnett claims, “we may need to contemplate how a thing sits within our form of sensibility in its many modes and nuances, which range from direct sensuous contact to science, art and poetry.”³⁵⁰

So we can see that although his question is a good one, Bonnett’s thesis, to a greater extent even than Heidegger, is still constrained by an epistemology that resorts to an ultimate foundation for truth; the key characteristic of the Enlightenment. Dwelling entails,

the Heideggerian sense of arisings that gather a neighbourhood; through their inscrutable presencing a world of significances is opened up. It follows that if we are to know nature so characterised, we must learn to develop the receptive/responsive—that is to say, poetic—attitude that itself is a key characteristic of authentic dwelling, a dwelling that is in touch with what ultimately sustains it. Thus we were brought up against the issues of nature’s intrinsic value and of the kinds of knowledge appropriate to the apprehension of nature. Both of these constitute central elements in that ‘right’ relationship with nature that I have argued to be the prime goal of environmental education.³⁵¹

Bonnett dwells comfortably within Heidegger’s philosophical rubric, not pushing at the internal inconsistencies or the limits of Heidegger’s thought. There is an important regard in which Bonnett exceeds Heidegger’s philosophy: the recognition of the ‘other.’ Despite his ethos of ‘care’ in the authentic relation between *Dasein* and Being, Heidegger rarely, if ever, mentioned any commitment to social relations; loving they neighbour,

³⁴⁸ Bonnett, 2003: 598

³⁴⁹ Bonnett, 2003: 694

³⁵⁰ Bonnett, 2003: 693

³⁵¹ Bonnett, 2003: 692

respectfulness, equality or even hierarchy. In respect to education, Heidegger focuses on leadership, knowledge (rather than skills) and philosophical enquiry. Bonnett develops his ethics of environmental education in reference to authentic respect and a critique of the Neoliberal colonisation of the concept of sustainability.

ontologically, human consciousness is neither the author of things, nor a contingent spectator, but the ‘occasioner’ of things – it is the space (world) where meaning and value is discerned, there being no significant things without consciousness and no consciousness without things... It is through such a disposition that we may truly come home. Recognition of the respectful, other-sensitive, receptive responsive or ‘poetic’ thinking that this involves—and that is expressed as much in making as in perceiving—leads to interpreting sustainability as both necessary to authentic human being and as eschewing the overweening instrumentalism and mastery tacit in policies of sustainable development, such motives constituting the currently dominant metaphysics that has brought us to our present environmental situation of alienation and irresponsible dependence.³⁵²

Bonnett’s critique of the discourse of sustainability is powerful. It derives, subtly, not from a suspicion of metanarratives but rather from the desire to generate a renewal of metaphysics. In many ways this is just a question of semantics, but as I clarified above, it does have some interesting philosophical implications.

For Heidegger the core philosophical question is the ontological difference between Being and beings, which harks back to Aristotle’s concept of the One and the many. Heidegger highlights the problem of Idealist subjectivism, that draws such a harsh separation between the subject and the object and the problem of nominal representation. This has implications of the Cartesian emphasis on rationality and categorisation. Bonnett makes a strong case, based on this Heidegger critique of modernity, for reinvigorating a concept of the ‘mystery’ of nature as the ‘self-arising’ and an eco-poetics as a legitimate form of knowledge that might form the basis of political, social and educational organisation.

Derrida mounts a strong critique to some fundamental elements in Heidegger’s philosophical framework. *Differánce* defers to the not-present, the text always exceeds itself and defers to contextual, political struggles that impact on the meanings of words both at the point of writing and the point of reading. There is no extra-text; ontology is epistemological, epistemology is ontological.

³⁵² Bonnett, 2003: 693

The question of an ethics of nature, an ecology of relations, and the implications for education are reinvigorated by Derrida and Bakhtin by opening up the struggle of heteroglossia in a similar way to the way Being comes to light within the enframing ‘world’ of a given historical epoch. Both sets of philosophy: Heidegger and Poststructuralism, recognise the inevitable struggle that Heraclitus mentions, in drawing distinctions, in recognising the difference, or ‘Otherness’ of nature, as much as persons.

Notwithstanding our differences in opinion about the status of truth in regards nature and the environment, Bonnett has announced a brave program of change by challenging the normative standards that prevail in a conservative and Neoliberal era. He is prepared to be ‘politically uncongenial’ in his approach and I find his advice on environmental education highly commendable.

Environmental Education

Bonnett makes the case that the liberal-rationalist paradigm dominates contemporary politics, education, and philosophy and that it needs re-examining at the metaphysical level. He says, “the political consequences of certain interpretations of our environmental problems are highly uncongenial to consumerist market orientated economies and on these views their long term resolution will require a radical overhaul of such systems.”³⁵³

Bonnett argues that conventional education as we know it operates in the paradigm of rationality, observation and categorisation. He indicates how the European Environmental School’s initiative adheres to the liberal rational model by privileging economics, and individual production and consumption as the key goals that are embedded in terms like ‘sustainability.’ Sustainability “presumes to predict and to control the self-arising”³⁵⁴ He writes that the

inherent mystery and fluid integrity of nature conceived as self-arising – the world of open, infinitely faceted ‘things’ – is not susceptible to an engagement that is preoccupied with intellectual (and other) possession and that is *articulated exclusively through systematised conceptual schemes*.³⁵⁵

Like myself, Bonnett advocates learning across the curriculum, especially “geography, science, personal, social and health education, and citizenship.” In some respects a fairly traditional education system is what we each have in mind. But I agree with Bonnett completely when he argues that the

³⁵³ Bonnett, 2003: 552

³⁵⁴ Bonnett, 2003: 689

³⁵⁵ Bonnett, 2003: 694

radical shift in philosophical premises also results in a new set of prerogatives in social organisation, governance, and education.

Thus the possibility of education for sustainable development seen from this perspective involves a radical interpretation of the notion that retrieves non-instrumental conceptions of development and human flourishing and that, at the same time, recognises the special place that humankind has in the cosmos. While drawing on strands of thought central to the Western tradition, it clearly runs counter to many motives and values that are currently ascendant in Western society, and is therefore likely to be viewed as politically uncongenial.³⁵⁶

Bonnet has written a really exemplary account of environment, Heidegger's philosophy and education. Yet Bonnett remains trapped within the threshold of Heidegger's onto-theo-logical rubric, part of the western tradition of philosophical metaphysics. Heidegger is vitally important because he marks a 'beginning,' or at least the *intimations* of the beginning of the scope required with his question "What is Being?" The metaphysical remains within the scope of the question, so put, in the terminology of 'Being' and the hermeneutical tightening of language to the Greek etiological and grammatical origins from whence the nominalist fallacy emerged. These problems are examined more closely in the following section on Heidegger.

In the next few chapters in my section on Heidegger I examine how Heidegger developed his critique, the complications of his politics, the inherently conservative aspects of nostalgic homeliness and, having begun to frame the scope of the necessary questions, how we might redefine Being in more ecological terms. It is to a closer examination of Heidegger that we shall now turn.

³⁵⁶ Bonnett, 2003: 689

Heidegger

6 The Romantic Heidegger, Technology, Thinking and Education in the Nazi Era

Heidegger's ideas are proving to be amongst the most interesting in present day philosophy of the environment. He describes the scope of the question that we need to ask – it is not just an instrumental insertion of 'sustainability' but a renegotiation, a poetic awakening, and a fundamental reconceptualisation of the relationship between humanity and the environment. Yet it is already apparent to me, that embedded in Heidegger's philosophy are some subtle flaws that constitute a symbiosis with the terror of Fascism and fail to relinquish us from the modern paradigm of technological enframing. A close, and critical examination of Heidegger's philosophy, historical context and influences will put environmental philosophers of education in a better position to understand the crucial elements of his philosophy, to rework the conservative, static problems that reside in the metaphysics, epistemology and ontology that recur throughout the centuries of theology and philosophy.

The ideas and politics that imbue our times shape our expectations, the focus of our endeavour and actions, and the horizon of our thinking in the most thoroughgoing and mundane ways. It was turbulent times in the early half of the 20th century in Germany when Heidegger began his career and people coped in a variety of ways. In this chapter we will look more directly at Heidegger's politics and ideas, and his intellectual milieu, particularly in the early 1930s during the interwar period.

There is a continuity from the Romantic period when modern technology was beginning to emerge and, along with industrialism, the French Revolution introduced western Enlightenment thinking to democracy in its first fully fledged form. The *Gestell*, or enframing of modernity, industrial technology and individual rationality, have shaped western, and increasingly, global society, up to the terrible events that are happening in Iraq at present. Heidegger attempts to reconceptualise modernity, arguing that Plato is the 'culmination of the beginning' of philosophy, and that Nietzsche is the final member of the long line of philosophers of modernity. He has been able to throw up some ideas that

exceed the philosophical emphasis on individuality, the separation of the subject from the object, the possibilities of and constraints of language, and the alienation of nature by technological enframing. But Heidegger's thought is complicated by his connection with the terror of the Nazis during the 1930s in Germany. To what extent he managed to think his way beyond the structures of modernity is highly controversial and contested. Yet since Romantic poets like Wordsworth and Hölderlin, Heidegger is one of the few philosophers to really engage with the scope of the problem of the relationship between humanity and nature, from early Greek thinking, to present day technology and the social organisation of modernity. His philosophy and his life story also throws some light on the politics of globalisation and the terrorism being unleashed as North American and British Christians and Middle East Muslims battle over correctitude and control of Oil and sovereignty.

From his earliest writing, Heidegger found the historicity of thinking important. At his most acute, he points out the hidden conditions that determine the thinking that is possible within a particular epoch. Within a specific epoch the 'concealed' aspects of Being constrains thinking. In relation to Descartes, for example, Heidegger argues that his own position as an 'outsider' rather than someone imbued in the socio-historic context can be a better position to ascertain Descartes' 'true' meaning behind the text.³⁵⁷

In the early 1930s, just two or three years after his spring to fame with the publication of his first book *Being and Time*, Heidegger was flying high and his confidence in his philosophy and ability leapt ahead of the practical conditions of Germany's attempt to create a Third Reich. In 'Facts and Thoughts' (1945) Heidegger wrote, "At the time I saw in the movement that had come to power the possibility of an inner self-collection of the *Volk*, and a path towards the discovery of its historical-western destiny."³⁵⁸

Despite his hermeneutical claims that being on the 'outside' lends him privileged access to interpreting the 'truth' of earlier writing, Heidegger also privileges the German language as the only language capable of returning thinking to the Greek origin and therefore the only possibility of a new beginning and a new pathway. His experience

³⁵⁷ Irwin, 2000: chapter 4

³⁵⁸ Heidegger, 1945: 16 cited in Young, 1997: 12

during and after the war shook his self assurance and revealed the risks of thinking. But he never abandoned the patriotism of his hermeneutics.

During the 1930s Heidegger tried to engage German society in this holy endeavour to care and think about the relation of beings to Being. He never advocates the giving over of the destiny of Being to fate. The role of *Dasein* is to wrest the truth of Being from its concealment. This requires agency of a kind, and it was this care towards Being that guided his engagement with thinking, politics and the governance of education. By the end of the Second World War, he became acutely aware of his own provisional role in thinking, on which he wrote a number of books.

For good reason, Heidegger has been described as one of the ‘master thinkers’ of contemporary theory in the humanities and social sciences. It is the depth and quality of his thinking that gives him such authoritative status and calls the attention of those writers interested in reconceptualising society. However, many writers after World War Two obscured his influence by forgetting to reference him. There has also been a great deal of unease, sometimes published, about his affiliations with the Nazis before and during the war. In the 1980s this became a flood of publications as the status of Heidegger’s theory *vis a vis* his politics and life was widely contested. Heidegger’s theory deals with the major issues of contemporary society; technology and its impact on the relationship between humanity and the environment. He is one of the most exacting and profound writers of the 20th century. As the humanities and social sciences seek ‘answers’ or paths through the complexities and decadent over-consumption of modern (or post-modern) life, Heidegger is clearly someone, who has we might say, prepared the ground for seeking alternative thinking and modes of being. As one of the best exemplars of western thought, his association with Fascism highlights in the simplest way, the failure of the west to be able to extricate itself, at least initially, from the metaphysical nihilism he so strongly wanted to leave behind.

Of necessity, Heidegger uses the common philosophical language, including all its traditional metaphysical resonance, such as essence, Being, existence, etc. It is impossible to redefine all terms in detail (although he certainly invented a few!) but his frustration at

the inadequacies of metaphysics is palpable at times, especially in *A Letter on Humanism*.³⁵⁹ So he attempts to ‘torque’ the meanings of words by making them strange. He emphasizes the verbal, active qualities of prefixes and makes alliterations and linguistic connections to older meanings contained within terms. He uses etymology as a methodological device in such a way that it pinpoints meaning rather than loosening it. Language in Heidegger’s hands becomes a convergent rather than divergent field. Questions hold within themselves the intimation of an ‘answer.’ Thus, Heidegger’s emphasis on the question (concerning technology, or thinking, or the sway of Being) implants, ‘prethinkingly,’ the seeds from which the response must grow. The question stakes out the parameters of the field of enquiry. Heidegger himself was aware of this. As he wrote in the 1933 Rectoral address,

Questioning will then no longer be simply the preliminary stage to the answer as knowledge, a stage that we can put behind us, but questioning will itself become the highest form of knowledge. Questioning will then unfold its ownmost power for disclosing the essence of all things. Then questioning will compel us to simplify our gaze to the extreme in order to focus on what is inescapable.³⁶⁰

In Western democratic societies, independent ‘critical thinking’ is the fundamental justification for the necessity of enquiry and thinking. Autonomous thinking is vital in democratic decision making. For Heidegger, the relationship between the *Volk* and the state was not individually atomised, and so voting was not the guiding stratagem behind educating students to think. He perceived thinking as a spiritual pursuit that seeks the essence of the relationship between humanity and Being. The clearing is an aspect of Being within which human being dwells. It is the difference between beings and Being that *ek-statically* attends to thinking.³⁶¹ His thinking about political practises was vague and badly formed. He rejected modern Liberalism without fully formulating any viable alternative. In the early 1930s Heidegger’s writing intimates the tendency to subtly Romanticise Fascism and violence as ‘the *Volk*.’

And the *spiritual world* of a *Volk* is not its cultural superstructure, just as little as it is its arsenal of useful knowledge (*Kentnisse*) and values; rather it is the power that comes from preserving at the most profound level the forces that are rooted in the soil and blood

³⁵⁹ Heidegger, 1949

³⁶⁰ Heidegger edited by Wolin, 1993: 33

³⁶¹ Heidegger, 2000

of a *Volk*, the power to arouse most inwardly and to shake most extensively the *Volk*'s existence. A spiritual world alone will guarantee our *Volk* greatness. For it will make the constant decision between the will to greatness and the toleration of the decline the law that establishes the pace for the march upon which our *Volk* has embarked on the way to its future history.³⁶²

The German concept of the 'people' or *Volk* is very different from the aggregate of individuals necessary to democracy. The role of thinking and of knowledge is intimately connected to the stratagems of social organisation and coherence. The educative endeavour is political at its foundation. To clarify matters by seeking an educative origin is no easy matter. Inevitably there is a confusion of influences in historic sources.

Widespread education emerged with industrialisation, and Enlightenment thinking came about during the same period. The close connection between education and the needs of the workforce are often assumed in the language and policy of Neoliberalism. Often too, education is held responsible for encouraging docile or disciplined behaviour in society. It occupies teenage time during this epoch of underemployment, thereby minimising the boredom and anomie of disillusioned vagrancy, opportunist theft and vandalism. More often than not, research is situated in educational institutions, although increasingly it is closely connected with the immediate needs of industry. These types of research are predominantly limited to a positivist range of enquiry and typifies what Heidegger (following Jünger) calls the total mobilisation of technology. Under this kind of regime education is no longer associated with original thinking. Heidegger's philosophy and his brief overt political engagement focus on these educative issues about the nature of knowledge. During 1933, because of Hitler's rise to power, the previous Jewish Rector had to resign and Heidegger was persuaded to become Rector of Freiburg University. During his short spell as Rector, he tried to reorganise the Faculties and disciplines in terms of a cohesive desire for knowledge, rather than the overproduction of information and skills. He tried to reconstitute the role of the university in regard to the State.

Heidegger was badly burnt by his involvement with the Nazis, both professionally and personally. Many of his best students and some of his most important professors and oldest friends found it difficult to maintain good relations with him after he openly

³⁶² Heidegger cited in Wolin, 1993: 33-34

became a member of the National Socialist Party in 1933. He is still regarded with huge suspicion by many people, and most of these personal relationships never recovered.

Heidegger began lecturing at the University of Freiburg in 1915. Before having published anything of significance, in 1923 he was given a permanent position at Marburg University on the strength of the lectures he was giving on modern philosophy, literature, poetry, Bach Beethoven, Rilke, and Thomas Mann. He published his first book, *Being and Time* in 1927. Two years later he was elected to his erstwhile mentor's job, as Husserl's successor as Professor back at Freiburg University. Although he never sought the post, as a well liked and 'fair' replacement for the existing Jewish Rector whom the Nazis forced to resign, Heidegger was elected Rector of Freiburg University in 1933. He never spoke to Husserl again. He resigned from being Rector early in 1934.

Heidegger's active promotion of National Socialism was predominantly limited to 1933, although after this, he did not or could not disassociate himself from a being a part of their propaganda machine. Löwith, his Jewish, former student recounts, for example, that in 1936 he wore a swastika pin while visiting him during a trip to Italy.³⁶³ There are significant items of evidence countering the 'official story' he promoted after 1945. At the very least letters and documents indicate that on an opportunist basis during the 1920s and 1930s Heidegger sometimes indulged in racist comments designed to cast suspicion on students or colleagues in a professional capacity. But this opportunism, while making use of the tone of the times, was not aimed at biological eugenic purity but rather at his notions of intellectual rigor; Heidegger had his own philosophical motives for restructuring the university, that assumed that Germany was a crucial locus for changing the direction of the historical destiny of the West, and he put to use whatever tools were at his disposal.

The 'official story' of Heidegger's Nazi involvement is that it was a brief, 10 month episode and after seeing his error he underwent an 'inner emigration' and increasingly

³⁶³ Löwith referred to by Zimmerman, 1990: 40. Although the letters Heidegger sent to Löwith in 1921 and 1927 indicate their relationship was full of tension and bitter resentment throughout, Löwith, 1995: 235-243

opposed the evils of National Socialism, dissociating himself from 1934.³⁶⁴ As Rector of Freiburg his famous inaugural speech was titled “The Self-Assertion of the German University” indicating a desire for leadership rather than subjection in relation to the political interventions of the Nazi regime. Documents from this time also include many speeches and articles in student publications. He refused to fire anti-Nazi lecturers, forbade anti-Semitic posters on campus, and finally resigned when he felt political interference compromised his position to an intolerable extent.³⁶⁵ As I will go on to outline, this period is subject to highly charged debate.

In the ensuing years of the Nazi regime, Nazi officials treated Heidegger with increasing suspicion. Zimmerman explains “He was subjected to scathing criticism by party ideologues, who claimed that his was a kind of ‘personal’ National Socialism.”³⁶⁶ Journals and publishers were secretly instructed not to publish his articles and books. He was excluded from German visits to foreign academic conferences, even when specifically invited. His classes were watched by the *Gestapo*. He was not included on the list of 500 most ‘treasured’ scholars and artists. Quite the reverse in fact; in 1944, when he was 55 years old, he was designated one of the ‘most expendable’ professors and was sent off to work on the fortifications on the Rhine. When he was finished there he started to teach another lecture course on Hölderlin but after delivering only two lectures he was called up to join the *Volkssturm*.³⁶⁷

Directly after the war, the new Germany also silenced Heidegger. His status was such that he was the first Professor to be called in front of the Denazification trials. He found the hearings very disturbing and had a nervous breakdown in 1946.³⁶⁸ For five years after the war he was given a pension so he could continue his writing but forbidden from teaching ‘vulnerable’ students. But Heidegger was not silent forever. His book *What is Called Thinking*³⁶⁹ was published in Germany in 1954 but written as the first lecture course he was allowed to teach in 1951 and 1952. He quite directly mentions

³⁶⁴ Zimmerman, 1990: 40

³⁶⁵ Zimmerman, 1990: 40

³⁶⁶ Zimmerman, 1990: 40

³⁶⁷ Wolin, 1993: 102

³⁶⁸ Zimmerman, 1990: 45

³⁶⁹ Heidegger, 1968a

contemporary German circumstances, again in reference to silence: the spirit of his times. “What did the Second World War really decide? (We shall not mention here its fearful consequences for my country, cut in two.) This world war has decided nothing.” He goes on to readjust the scope of the question - to prethinkingly align the decision as “man’s essential fate on this earth.”

(T)he danger is growing again that those matters in this undecided area which are moving toward a decision, and which concern world government as a whole –that these matters, which now must be decided, will once again be forced into politico-social and moral categories that are in all respects too narrow and faint-hearted, and thus will be deprived of a possible befitting consideration and reflection.³⁷⁰

In 1966, apparently after a long silence and certainly with an absence of public apology about his Nazi involvement, he finally gave an interview with *Spiegel* magazine about his philosophy and actions before and during the war, ‘Only a god can save us;’ “Nur noch ein Gott kann uns retten: Rudolf Augstein in Gespräch mit Martin Heidegger”³⁷¹ to be published posthumously. He lived until 1976. His final word indicates the conservative and Romantic elements remained hand in hand with his anti-modern radicalism until the end.

Heidegger’s Critics

Much, though not all, of the critique of Heidegger has the privilege of hindsight and tends to be astonished at how involved, yet ignorant Heidegger was of the unfolding of the horrors of Nazi Germany. Philosophy can speculate but cannot be asked to prophesy specific coming events. Philosophy, thinking, and writing is a very *reflective* exercise, usually addressing events and repetitions that have taken place historically in an effort to describe trends and uncover commonplace assumptions that create the conditions of readiness for a certain scope of future events. But speculation is always just that – a limited (if necessary) attempt to bring together events and ideas into themes of recurrence. Reflective thinking sets up change in the scope of comprehension and awareness but it cannot claim ‘accuracy’ or definitiveness. Heidegger’s experience

³⁷⁰ Heidegger, 1968a: 66

³⁷¹ Heidegger, 1990

indicates that philosophy is sorely placed to even posit leadership (including the missionary zeal that often drives the desire to teach).

It has become a methodological common place to situate theorists in terms of their cultural context. Somewhat ironically, this owes something to Heidegger's theory of hermeneutics. In Heidegger's case, despite being well-known, many post war writers use his ideas but distance themselves from his political allegiances during and before World War II by rarely or never acknowledging their debt to him as an author. More recently, there has been a plethora of work on Heidegger and politics which both vilifies him and yet acknowledges the importance of his work. This acknowledgement of his importance has been partly overt, and partly through the maintenance of so much intense interest. The silence has finally broken.

There is no doubt that the historical context and ideas circulating in Germany that produced National Socialism also profoundly shaped and influenced Heidegger. It may be an impossible task to make some sort of calculation that separates out the 'evil' Nazi strands from the 'good' concepts. Hence, Heidegger's work has been categorised by Adorno,³⁷² Farias,³⁷³ Lyotard,³⁷⁴ and Bourdieu³⁷⁵ as inherently fascist. Post-war, Arendt fiercely denounced him in writing and then over the years, gradually changed her mind, or forgave him about his motives.³⁷⁶ Derrida regards his thought, in *Of Spirit; Heidegger and the Question* (1989), as part of the history of the West, not dastardly but conservative.³⁷⁷ Young acknowledges Heidegger's Nazism but rejects the charge that his theory is inherently, metaphysically fascist.³⁷⁸ Foucault declared how profoundly he had been influenced by Heidegger in his last set of interviews, preferring before then to remain silent about his influence.³⁷⁹ Others ignore his short association with politics and simply find him productive. In *The Political Ontology of Martin Heidegger* (1991), Bourdieu describes well the confusion his political engagement elicits -

³⁷² Adorno, 2004

³⁷³ Farias, 1989

³⁷⁴ Lyotard, 1990

³⁷⁵ Bourdieu, 1991

³⁷⁶ Arendt, cf Lang, 1996

³⁷⁷ Derrida, 1989

³⁷⁸ Young, 1997

³⁷⁹ Foucault, 1980 and cited in Dreyfus, 1998a

Measured by philosophical standards, his discourse is from beginning to end of a rare ambiguity, for it manages to subordinate existential and ontological categories to the historical “moment” so that they create the illusion that their philosophical intentions have an *a priori* applicability to the political situation, as when he relates freedom of research to State coercion, and makes “labour service” and “armed service” coincide with “knowledge service”, so that by the end of the lecture the listener does not know whether to turn to read Diels on the “pre-Socratics” or join the S.A.³⁸⁰

Which is why Beistegui writes, “Any confrontation with Heidegger’s relation to National Socialism is, at bottom, a confrontation with the thought of Being.”³⁸¹ As Beistegui puts it, Heidegger’s political ‘misadventure’ had nothing to do with his role as professor or Rector. It was not his biography, but his *thinking*. His politics emerged, not “*despite* his thought, but *because* of it.”³⁸²

In *Heidegger and the “jews”* (1990), Lyotard has mounted a sophisticated critique of Heidegger around the politics of the voice, and the status, in Heidegger’s own theory, of forgetting.³⁸³ Heidegger criticises humankind for forgetting the crucial question – the question of Being. His entire polemic rests on this concept of forgetting. After the Second World War Heidegger wrote on the risks of thinking. Thinking, speaking had become too political and difficult for him to fully enunciate his complex relationship with the Nazi party before and during the war. Much has been made of Heidegger’s ‘silence.’ Lyotard makes the association between the forgetting of Being and the ‘forgetting’ of the humanity of the Jews incarcerated and gassed in the concentration camps. On the very rare occasions when Heidegger did mention the atrocities of the war he related it, importantly in some ways, together with atomic bombs and industrialisation to technological enframing. For Lyotard this short paragraph just amounts to relegating the incredible suffering of real people to those of machines. In general, Heidegger’s silence on the subject of war crimes is a kind of forgetting which many Germans of his generation actively maintained. Lyotard’s point is that one of the country’s leading academics is an exemplar through his teaching, his actions, his politics, even his forgetting, silence, and especially his *thinking*.

³⁸⁰ Bourdieu, 1991: 5

³⁸¹ Beistegui, 1998: 5

³⁸² Beistegui, 1998: 3

³⁸³ Lyotard, 1990

Some authors regard the problem as a deep naivety. The project of *Being and Time* (1927) is a *fundamental* ontology which is set up to be prior to politics (and ethics, anthropology, physics, psychology, science). Fundamental ontology is the pre-political ground of Being. Philosophy prioritises over other fields of enquiry, so Heidegger's philosophy is *radically* apolitical. Heidegger's colleague Jaspers described Heidegger as "unpolitical by nature."³⁸⁴ Beistegui wrote

Because of his philosophical presuppositions, Heidegger was able to see in Nazism a historical mission that was never there (a historico-political response to the essence of our time as dominated by planetary technology) and was never able to see, even after the war, what was really there (a form of terror and a power of destruction hitherto unknown).³⁸⁵

Volk

Strangely, though Heidegger clearly underestimated the extent of the atrocities of which the Nazis were later capable, in the inter-war period his environmental focus on the relation between human beings and Being gave him a unique insight into, for want of a better phrase, the essence of technology as it has shown up in the modern and post-modern epoch.

During the interwar period, Germany suffered humiliation and financial hardship having lost World War One. They owed immense debts for reparation and the economic hardship must have been exacerbated by the general economic depression that all the countries of the west suffered in the 1930s.

Despite having lost the war, Germany saw itself as squashed between two polarised ideologies that were both intent on dominating the social organisation of the globe. The 'ideas of 1914' were characterised by a suspicion of Enlightenment, of greedy individualism and a waryness of the explosion of industrialised technology. Germany was seen as trapped between the twin evils of modern, individualised democracy and commercialism in France and Britain and communism in Russia, both of which were trying to take over the world. Instead, the *völkisch* writers were trying to find a 'Third Way' with emphasis on the roots of the *Volk* in the soil and villages of Germany, the

³⁸⁴ Jaspers cited in Ott, 1993: 244

³⁸⁵ Beistegui, 1998: 10

people as the basic unit of society (rather than the individual-and-his-family) and the immanent identity of the *Volk* with the nation State. They respected German '*Kultur*' as opposed to Enlightenment *Zivilisation*. The key terms of *Kultur* were; community, blood, will, self, creativity, craft, strength, race: and *Zivilisation*; reason, intellect, internationalism, materialism, finance. Communism was regarded as total technological order, which meant virtual slavery. Heidegger commented that communism and democracy involved - "the same dreary technological frenzy, the same unrestricted organisation of the average man." His aversion to modernism was totally consistent with Nazi propaganda.³⁸⁶

Germany was trying to create a Third Way that was neither communist nor democratic. Individual and institutions ought to subsume themselves in the needs of the *Volk*. Young explains this very well. "In *völkisch* thinking, the state, when legitimately constituted, exists as the vehicle and outward expression of the *Volk*. A *völkisch* thinker would, thus, in Hegelian terms, expect the laws of a state to correspond to the '*ethos*' of a community. The state is, therefore, not an artefact, not the product of human creative activity. In that sense it is a natural entity."³⁸⁷

National Socialism was strictly hierarchical, and not at all egalitarian in its organisation. Young writes that the individual was expected to serve the state and reject egotistic self-serving pleasure.³⁸⁸ National Socialism was idealistic rather than materialistic. They rejected Marx's analysis of the inevitable class war and believed that under National Socialism, different forms of labour could harmoniously, indeed, interdependently co-exist. They also rejected Marxist internationalism. The root of conflict was between nations, not between classes. Hitler was presumably aiming to rebuild the Reich that would ultimately have enlarged the economy to transnational proportions but only as long as all these nations were directed by the *Führer*.

The *völkisch* aim was German co-operation not British greedy individualism: the unification of the nation in 'national socialism.' Heidegger's thinking easily slid towards

³⁸⁶ Zimmerman, 1990: 42

³⁸⁷ Young, 1997: 20

³⁸⁸ Young, 1997: 24

Fascism at this point. The people, he wrote, “should submerge their identity within the unity of the *völkisch* state, taking as their sole purpose the promotion of the interest of the *Volk* as such.”³⁸⁹

In its early phases, *völkisch* ideas were characterised by a Romanticisation of village life and a rejection of the industrialised and urban ways of the city. These ideas were transformed unevenly by the Nazis. At first the ideas of the *Volk* held together a blend of people from a wide spectrum of political affiliations (including many Jews). Some authors have coined the term ‘reactionary modernists’ to describe the shift that took place within National Socialism from the Luddite views of 1914 to a point where technology was utilised to promote *Kultur*. There is a crucial transition from rejecting technology or at least seeing it as a temporary contingency utilized during wartime so that urbanisation could be reversed and the rural traditions of the German *Volk* could be returned. At some point this link was broken, and the Nazi’s took up technology with a view to its permanent place in the German Reich. Hitler was later able to build immense *Autobahn* systems, promote industry, and wield together a war machine that was thoroughly technological. This corresponds with the ‘turn’ in Heidegger’s work where he realizes that technology is the ‘danger’ but also ‘the saving power.’³⁹⁰

Zimmerman describes reactionary modernism and its *völkisch* roots as three inter-related elements:

Firstly, to restore German importance with a suitably German appropriation of modern technology and industry. Secondly, to find a ‘third way’ between the dual evils of boundless egoism (the spirit of Manchester) and blind collectivism (godless communism). Thirdly, to exchange the Enlightenment calculation of rational individualism with the self-sacrificing and danger loving hero.³⁹¹

Germany was aiming to avoid the totalising impetus of communism and democracy and set up its own form of social organisation based on the history and identity of the German *Reich*.

³⁸⁹ Heidegger in Young, 1997: 23

³⁹⁰ Young, 1997: 29 “reactionary modernism” posits an ‘essence’ to Nazism, according to Young. Taken up by commentators of Heidegger, such as Thomas Sheehan 1981: 44, and Richard Wolin 1993: 94, and Zimmerman, 1990: 29, who all see Heidegger in the early 1930s as a reactionary modernist rather than an anti-modernist.

³⁹¹ Zimmerman, 1990: 47

Home

The roots of Heidegger's anti-modernism reach back to his Catholic education. Martin Heidegger was born in a small village in Bavaria called Messkirch in 1889. He was brought up Roman Catholic and attended a Catholic Seminary with the view to becoming a priest. In 1910 the Catholic hierarchy declared that every cleric must take an 'oath against modernism.'

If the Church wants to remain faithful to the treasure of eternal truth it will rightly work against the destructive influence of modernism which is not aware of the sharpest of oppositions in which the modern view of life stands to the ancient wisdom of the Christian tradition.³⁹²

These anti-modern tendencies first emerge in his earliest published articles in Catholic journals while he was a theology student. In 1910 he wrote a review of F.W Foerster's *Autorität und Freiheit (Authority and Freedom)* in which he warns Foerster had not defended the traditional sufficiently from the 'treacherous appearance' (*trügerischer Schein*) of the modern spirit.³⁹³ Clearly the Catholic antagonism to modernity (evolution, freedom and secularism) had a lasting influence on Heidegger's thinking.

Heidegger maintained a close relationship to his family and the Bavarian Alps where he had grown up, throughout his life. His brother farmed in the district, and Heidegger had a simple hut near a village high in the mountains where he and his wife spent a great deal of time. Stefan Schimanski wrote of meeting him in this hut after the War. "When he emerged from the small skiing hut, high up in the mountains, to greet me, he was dressed in the costume of a Schwabian peasant, a dress he often also used to wear when he was Rector of Freiburg University. His heavy, squarish skiing boots (it was summer) emphasized still more strongly his relationship to the soil."³⁹⁴ He rarely travelled. On several occasions he was offered a Chair at the University of Berlin but he refused to leave Freiburg.

According to Zimmerman, Heidegger commended comments made by Novalis about the profound implications of homesickness. In *Die Grundbegriffe der Metaphysik, The*

³⁹² Catholic Church quoted by Ott, 1993

³⁹³ Ott, 1993

³⁹⁴ Schimanski, cited in Heidegger, 1949: 9.

Groundwork of Metaphysics, (1929/30) he wrote, “philosophy is authentic homesickness (*Heimweh*), a drive at all times to be at home...” going on to say,

A remarkable definition, naturally Romantic. Homesickness – is there still something like this in general today? Has it not become an incomprehensible word, even in everyday life? For has not the contemporary urban man and ape of civilisation long since abolished homesickness? And (to think of) homesickness as the absolute determination of philosophy!³⁹⁵

He had already analysed ‘boredom’ as the basic mood (*Stimmung*) of modernity in *Being and Time* (1927). He associated boredom with nihilism because it obscures the enquiry into the nature of Being. It is a turning away from thinking. In *The Groundwork of Metaphysics*, he made the association between boredom and homesickness.

This *deep boredom* is the *basic mood* ... If (time) becomes long for us, we drive it and this boring-character (*Langwerden*) away! We want to have no long time and yet also have it. Boredom, long time (*Langeweile, lange Zeit*) – in Alemannian linguistic usage especially – ‘to have a long time’ means, not accidentally, much the same as “to have homesickness.”³⁹⁶

Boredom is not incidental or of passing relevance. It changes the essential characteristics of subjectivity: “Es ist einem langweilig – it is for one, boring.” Complete indifference transforms *Dasein* into some(one) impersonal.

Have we become for ourselves so devoid of meaning (*unbedeutend*) that we need a role? Why do we find for ourselves no meaning, i.e., no more essential possibility of being? ... But who want us to speak thus, where world-commerce, technology, the economy seizes man and keeps him moving? ... *Is it in the end with us thus, that a deep boredom draws in and out in the abysses of Dasein like a silent fog?*³⁹⁷

Living dangerously is to escape the boredom of the technological economics of calculation and control. Through danger the subject surrenders to the higher power working through them; it is the self-abandonment of the disclosure; freedom as the affirmation of necessity; the *Blick* of destiny; authenticity.

The philosophical notion of danger and struggle met with support in Jünger’s writings about the soldier and the sublime nature of war. In the volatile days of the 1930s macho talk was on many people’s lips. Heidegger’s rhetoric supported discourses of war. He

³⁹⁵ Heidegger, GA, 29/30: 7 cited in Zimmerman, 1990: 23

³⁹⁶ Heidegger, GA, 29/30: 120 cited in Zimmerman, 1990: 31

³⁹⁷ Heidegger, GA, 29/30: 115 cited in Zimmerman, 1990: 31

believed in making a decision and had a high regard for his own role in promoting the course of the leaders and the people. His anti-urban tendencies concurred with Nazi rhetoric and justified the expansion of German boundaries in order to resettle the city dwellers back on the land.

The Influence of Spengler and Jünger

Two of Heidegger's contemporaries were important influences on both his philosophy and his politics. All three of them were in turn influenced by a similar intellectual mixture, including Darwin, Fichte, Schopenhauer and Nietzsche. I owe my analysis of the importance of Spengler and Jünger to the detailed examination of their works in Zimmerman.³⁹⁸ Heidegger was in an interesting position in regards to Nazi propaganda and theory. He does not appear to be racist and consistently criticised theorists such as Spengler and Jünger for reducing their analysis of humanity to questions of biology. He was anxious about the impact of technology, the disintegration of traditional German culture and he was anti the individualism inherent in modernity, at the expense of the *Volk*.

In *The Decline of the West* (1918, 1922) and *Man and Technics* (1931), Oswald Spengler wrote that Europeans are degenerate and thus enslaved to technology that has sprung out of control. He considered that biologically produced 'morphological types' struggle to impose their will and control the world through technology.

Heidegger was interested in the analysis of technology and nihilism, but rejected Spengler's metaphysics. Heidegger argued that the biological or racial analysis of mankind is based on a misguided metaphysical conception of man as the rational animal. Heidegger's concept of subjectivity is the antithesis of a biological or racial subject. He had put forth his concept of *Dasein* in his first book *Being and Time* as early as 1927. Heidegger regarded biological notions of humanity as quasi-scientific theory that is based on misguided Darwinism. He argued that the biology of the subject is tied to reductionist assumptions based on the Enlightenment belief in the rationality of all knowledge and is therefore bound by a narrow focus on calculus that can never ascertain the truth of Being.

³⁹⁸ Zimmerman, 1990: 18-65

The Enlightenment of Britain and France portrayed themselves as the new self-assertion of human reason and freedom. Heidegger was critical of modernity for its idealism and nihilism. He regarded it not as free but mathematical. The calculus of rational science imposes and fixes universal value judgements over every thing.

Spengler argued that man turns nature into a stockpile of raw materials. With remarkable foresight, he noticed that climate warming would result from things like the transformation of great forests into newsprint. In *Man and Technics* Spengler wrote,

All things organic are dying in the grip of the vice of organisation. An artificial world is permeating and poisoning the natural. The civilisation itself has become a machine that does, or tries to do, everything in mechanical fashion. We think only in horsepower now; we cannot look at a waterfall without mentally turning it into electric power.³⁹⁹

Spengler made an important reversal that was also followed by Heidegger – that humanity was *not* the locus of control in the invention and utilisation of technology. Spengler wrote, “the master of the world becomes the slave of machine. It compels him, us, and indeed all without exception, in the direction of its course, whether we know and want it, or not.”⁴⁰⁰

Zimmerman draws attention to the direct parallel with the example in Heidegger’s important essay “On the Question Concerning Technology.”

The hydroelectric plant is set into the current of the Rhine...In the context of the interlocking processes pertaining to the orderly disposition of electrical energy, even the Rhine itself appears as something at our command... What the river is now, namely, a water power supplier, derives from out of the essence of the power station... But, it will be replied, the Rhine is still a river in the landscape, is it not? Perhaps. But how? In no other way than as an object on call for inspection by a tour group ordered there by the vacation industry.⁴⁰¹

Heidegger developed his theory of the enframing of technology on precisely the same examples of the hydro-electric dam on the Rhine. The important change from the water-wheel to the hydro dam is that the earlier activates power with the rhythm of the river, grinding wheat into flour when the crop and the force of the water are both optimum. The

³⁹⁹ Spengler, 1931: 94 cited in Bourdieu, 1991: 16 and paraphrased in Zimmerman, 1990: 28

⁴⁰⁰ Spengler, 1932: 75 cited in Zimmerman, 1990: 28

⁴⁰¹ Spengler, 1932: 15-16 cited in Zimmerman, 1990: 28.

latter *stores* the potential force of the river and expends it when it is consumable. This creates the illusion that humanity has increased its control in the war against nature.

This technological change from the natural rhythm to a challenge and storage of everything as potential resource also profoundly alters the human mode of existing: to ourselves, to one another, and in relation to the environment. During the gradual rise of modernity there has developed an emphasis on the individual subject as the centre of interpretation and the source of truth. But Heidegger contends that ‘subjective’ interpretation is illusory within the overarching context or *Gestell* that everything is calculated in terms of present or future use-value – ‘standing reserve.’ Technology not only characterises *all* beings as resource but both reaffirms the traditional notion of humanity as the solipsist master and yet inverts that solipsism from a free and creative nominalist relation to a proud, if anonymous calculating machine.

As soon as what is unconcealed no longer concerns man even as object, but does so, rather, exclusively as standing-reserve, and man in the midst of objectlessness is nothing but the orderer of the standing-reserve, then he comes to the very brink of a precipitous fall; that is, he comes to the point where he himself will have to be taken as standing-reserve. Meanwhile man, precisely as the one so threatened exalts himself to the posture of lord of the earth. In this way the impression comes to prevail that everything man encounters exists only insofar as it is his construct.⁴⁰²

At the point where humanity is an object amongst objects, having forgotten the art of self-reflection in the enthusiasm and commitment to calculus and rationality, the technological *Gestell* is at its peak. At this point of sheer objectification, humanity exacerbates the illusion that we are the locus of control. The enframing of technology exposes the loss of status of humankind as a meaning-maker and then, in the same moment, obscures the truth of nihilism by an immodest ‘posture’ of mastery. This very significant understanding of the combined affects of Idealist solipsism and technology on modern culture is crucial to my reading of environmental philosophy, education, and the processes of global capitalism.

The other important influence on Heidegger’s work in the 1920s and 30s was Ernst Jünger. They remained correspondents throughout their lives. Unlike Spengler’s

⁴⁰² Heidegger, 1977: 26-27

despondent determinism, Jünger was more inclined to refract technology “though the prism of literary-aesthetic categories.” Jünger was a veteran of World War One, had spent a great deal of time on the front and personally fitted the ‘heroic’ model. He took the Nietzschean stance that, as there is no going back, all events in life must be ‘swallowed’ and affirmed. He *willed* war as a way of coping with it.

Wolin makes clear that Jünger played a vital role in the shift between the ‘idealized, pre-capitalist’ ideas that were circulating before World War One, and the ‘conservative revolutionary’ ideas of the 1930s that promoted a *Kultur* community that restored German values whilst meeting the demands of industrialisation. Jünger saw the ‘masculine warrior virtues’ as a counter force to the “effete, decadent, and materialistic bourgeois *Zivilisation*”⁴⁰³

Heidegger read both the article “Total Mobilisation” published in an edited collection titled *Krieg und Krieger (War and Warrior)* in 1930 and the book *Der Arbeiter (The Worker)* published in 1932. The pair carried on an intellectual conversation ‘Over the line’ for many decades.⁴⁰⁴ Zimmerman describes eloquently the thesis of *The Worker*; “Jünger portrayed the titanic process of modern technology as aesthetic phenomenon, as a terrifying but sublime spectacle that was ‘beyond good and evil.’”⁴⁰⁵ Jünger interprets war as a technological form of the sublime that profoundly alters the soldiers’ attitude towards death.

One begins to acquire a disposition for higher temperatures, the icy geometry of light, and the white glare of superheated metals. The environment becomes more constructive and more dangerous, colder and more luminous; there disappear from it the last remains of *Gemütlichkeit* (comfort)... One avoids secondary goals such as taste; one elevates the formulation of technical questions to the decisive position; and one does well thereby, since more than the technological is concealed behind these questions.⁴⁰⁶

Walter Benjamin criticised Jünger for imposing wholesale the Romantic ‘art for art’s sake’ argument on the business of war. Benjamin’s contemporaneous review is explicitly

⁴⁰³ Wolin, 1993: 119

⁴⁰⁴ Heidegger, Jünger correspondence, cf. Heidegger, 1999.

⁴⁰⁵ Zimmerman, 1990: 46

⁴⁰⁶ Jünger, 1931: 183 cited in Zimmerman, 1990: 46

titled “Theories of German Fascism.”⁴⁰⁷ In “Total Mobilisation” Jünger argues that there was no longer a difference between war and peace.

In feudal times, armies were expensive enterprises that were called up occasionally. In the shift towards industrialisation, standing armies are waiting in constant reserve. All sectors of society would be ‘integrated’ into the mobilisation when the call was made. Jünger described total mobilisation “where no fixed budget is enough; taxation on every transaction, where every effort of each member of the populace is focused on the war effort be it sewing, sowing or shooting.”⁴⁰⁸ In other words, in the technological era, every thing and every one is potential resource including the circulation of effort, service, goods and currency. The shift to total mobilisation is integral to the modern war machine. He wrote,

In this unlimited marshalling of potential energies, which transforms the warring industrial countries into volcanic forges, we perhaps find the most striking sign of the dawn of the age of labor (*Arbeitszeitalter*).⁴⁰⁹

Jünger regarded Nietzsche’s theory of the will to power in these very determining warlike terms. The realisation of the task of total mobilisation “an act which, as if through a single grasp of the control panel, conveys the extensively branched and densely veined power supply of modern life towards the great current of martial energy.”⁴¹⁰

Heidegger’s reading was not unreservedly affirmative. He agreed with Jünger’s analysis of total mobilisation as the ‘destiny of the west,’ but was scathing of some of Jünger’s other ideas, including his reliance on Nietzsche’s concept of Will, as a metaphysical construct. Heidegger wrote about the biological misinterpretation of the Will extensively in his lectures on Nietzsche in the late 1930s. He regarded both technology and art as ways of disclosing the Being of entities. Neither can be merely pragmatic or purposive. Disclosure of Being is driven by the Will to Will, ever expanding as a network of energy and knock on effects.⁴¹¹

⁴⁰⁷ Wolin, 1993: 122

⁴⁰⁸ Jünger cited in Zimmerman, 1990: 125

⁴⁰⁹ Jünger cited in Zimmerman, 1990: 126

⁴¹⁰ Jünger cited in Zimmerman, 1990: 126 - 127

⁴¹¹ Irwin, 2000

Heidegger understood total mobilisation as the Volk being gripped by the technological *Gestalt*. Humanity overlooks the originary event, (*Anfang*), the ontological movement of “jointing and fateful dispensing” (*Fügung und Schickung*) of the destiny of Being.⁴¹² He disagreed with Jünger’s Nietzschean interpretation of *Gestalt*. Jünger assumed it is humanity that ‘stamps’ meaning on an unformed existence, in other words, that humanity has the agency to ‘decide’ and shape the environment’s meaning in terms of ‘work.’ Heidegger wrote a letter to Jünger in 1955 saying “You also think of the relationship of *Gestalt* to that which it ‘forms’ as the relationship of stamp and impression (*Stempel und Prägung*). To be sure, you understand the stamping in the modern sense as bestowing ‘meaning’ on the meaning-less. *Gestalt* is the ‘source of meaning bestowing...’⁴¹³ Heidegger understood *Gestalt* in a more deterministic manner as the final phase of the historical trajectory of western metaphysics that produces technological humanity as orientated by continuous production as standing reserve. For Heidegger, the ontological foundation is in the fluid coming-to-presence of Being, and thus shapes the parameters (or foundation) of human subjectivity. Human agency is not in control of social conventions or the manner in which work shows up. Heidegger’s speeches to the students reflect the impact of *Gestalt* on work.

Zimmerman notes that Jünger’s conception of the Will to Power and *Gestalten* is not so easily usurped by Heidegger’s schematisation. Heidegger attempted to slot Nietzsche into his history of Being unsuccessfully. Jünger’s theory rests explicitly on Nietzsche’s on these points. The Will to Power is not a ‘cause’ and Jünger’s *Gestalt* is the way in which both work and humanity shows up in the modern period. Nietzsche’s Will to Power is influential on Heidegger’s theory of *physis*, or the dynamism of Being, although he would never acknowledge this, and indeed attempts to subsume and finally make unrecognisable, Nietzsche’s insights.⁴¹⁴

Facing up to the fact that entities *are* involves risk because it calls into question the Idealist basis of the previous way of understanding and constructing the world. Acknowledging and letting things simply ‘be’ risks a new way of comprehending, and

⁴¹² Zimmerman, 1990: 80

⁴¹³ Heidegger, 1927: 53 cited in Zimmerman, 1990: 82

⁴¹⁴ Irwin, 2000, chapter 7

generates a new path, or series in an altogether alternative direction. The dynamic of *physis* is a movement that tends to reverberate with the individual actions of each agent, and reinforces and enlarges the tendency that was already emerging. Like a frequency, or a wave *physis* resonates in a series. The ocean has waves, swells and tides that might all be heading in different directions, echoing at different rates and crossing over and under one another all the time. There is no one *telos* to the becoming of Being. Wind, evaporation, stillness, rain, gravity, the moon; all these things, along with the reinforcement or dissipation of underlying swells impact on the pattern of the waves, wiping them off the ocean's surface, or turning them into greater and more energetic breakers. Paradoxically, the exuberance of things simply being reminds us that there is no fundamental ground.

Most men avert their gaze from the overpowering presencing of things, which reminds them of their own ultimate groundlessness, and which also threatens constantly to overturn every historical project of community. Preferring security to the courageous venture with truth, most people focus on how to gain some control over entities that appear *within* the given historical world.⁴¹⁵

Whereas Heidegger brings forth the optimistic dispensation of Providence, of '*Fügung*,' and destiny in relation to the *Gestalt*, or shape of things, Jünger has a more fatalist view of the enframing of technology. He regards total mobilisation of the technological war machine as beyond good and evil, as a totalising force that we must 'swallow' in order to preserve the illusion of our own potent agency and meaning.

It goes against the grain of the heroic spirit to seek out the image of war in a source that can be determined by human action. Still the multitudinous transformations and disguises which the pure form (*Gestalt*) of war endures amid the vicissitudes of human time and space offers this spirit a gripping spectacle to behold.⁴¹⁶

War is like a volcano; Jünger writes "at the point where authentic passion breaks through – above all, in the naked and immediate struggle for life and death – it becomes a matter of secondary importance in which century, for what ideas, and with what weapons the battle is being fought."⁴¹⁷

⁴¹⁵ Zimmerman, 1990: 83

⁴¹⁶ Jünger cited in Zimmerman, 1990: 122

⁴¹⁷ Jünger cited in Zimmerman, 1990: 123

Leadership and a 'New Beginning'

Heidegger believed Germany was the 'centre,' from which the 'decision' would emanate, to wrest a new spiritual epoch from the threat of annihilation. "We are certain of this vocation, but our people will be able to wrest a destiny from it only if *within itself* it creates a resonance (*Widerhall*), a possibility of response for this vocation, and grasps its tradition creatively." The destiny wrenching of the people required a leader. An authentic *Gemeinschaft*, or society,

stands in the rooted unity of an essential deed. All and everyone, we are those assigned by a slogan, followers of a program, but *no one is the manager (Verwalter)* of the inner greatness of *Dasein* and its necessities. This leaving-empty in the end vibrates in our *Dasein*, its emptiness is the staying away of an essential affliction. The *mystery* is lacking in our *Dasein*, and thereby stays away the inner terror which every mystery bears within itself and which gives to *Dasein* its greatness.⁴¹⁸

Much earlier, shortly after the First World War in 1921-22, Heidegger had argued that people had to learn to see philosophically "without prophets and *Führer* illusions." By 1930 he was calling for a powerful leader, "who would restore the inner greatness of *Dasein*" by renewing the sublime mystery and terror of existence. During his role as Rector, he supported Hitler in his speeches to the students, "Not doctrinal propositions and 'ideas' are the rule of your being. The *Führer* himself and only he is the contemporary and future German reality and your law."⁴¹⁹

After reading Spengler, Jünger, and the famous novelist and poet Hölderlin, Heidegger began to see technology as the 'danger' and the 'saving power.' Danger was also reinforced by his knowledge of the ancient Greek philosopher, Heraclitus, who saw struggle as the dynamic of life, that sets things apart from one another; *Aus-ein-ander-setzung*. Struggle that differentiates elements from the general chaos of existence and introduces rank.⁴²⁰ According to Heidegger's reading of Heraclitus, hierarchical differentiation is part of the dynamic of becoming. Struggle is the dynamo of Being. Struggle, Heidegger wrote, "brings about the *complete transformation of our German Dasein*." In one of his speeches to the students, Heidegger advised,

⁴¹⁸ Zimmerman, 1990: 244.

⁴¹⁹ Heidegger cited in Wolin, 1993: 47

⁴²⁰ Irwin, 2002: 159-161

Whoever does not endure the struggle, remains left behind. The new courage must accustom itself to steadiness, because the struggle for the educational places of the leaders will last a long time. It gets fought from the forces of the New Reich, which the *Volk*-Chancellor Hitler will bring to reality. A hard stock (*Geschlecht*) without the thought for itself must be equal to it; this stock lives from constant testing and for the goal which it assigns for itself.⁴²¹

At this point Germany was not at war. Heidegger was advocating an intellectual and *educational* struggle for the “places of the leaders” albeit in militaristic terms.

In the critical period of 1933-4 when, for the only time, Heidegger had political functions and responsibilities, he regarded the reconstitution and protection of authentic thinking and knowledge to be in the service of the people (*Volk*) and destiny. Knowledge is the vital leadership role of the university. Heidegger wrote that *Wissenschaft*, academic knowledge “must become the fundamental event of our spiritual existence as a *Volk*”⁴²²

As Rector, he was concerned with responsibility for the university, the role of ‘education’ and ‘leadership.’ Consistent with his theory, he wished to use his role to remodel the University so that knowledge would constructively problematise technology and the western relationship between Being and humanity. With this concept of authentic knowledge firmly in mind the universities could educate future leaders and begin a new destiny for Germany and eventually the west.

Interestingly, it is during Heidegger’s shortlived office as Rector of Freiburg University that is the only time he became political engaged and consciously applied his ideas to the political contingencies of education. This was a time of great upheaval in education (as in other aspects of society), and there was a real possibility that the ancient institution of ‘university’ as it had been understood might be abolished and replaced, along lines similar to today’s rhetoric about life-long learning, with skills based educational camps. In fact the similarity in ideas between elements of National Socialism and Neoliberalism, such as the narrow association of education with vocational skills or the constraint of knowledge to the accumulation of facts and skills, are fascinating. In his Rector’s address, Heidegger focuses on knowledge as the central calling of education; “That

⁴²¹ In Schneeberger, 1962

⁴²² Heidegger cited in Wolin, 1993: 33

knowledge should exist at all has never been unconditionally necessary. But if knowledge should exist, and should exist *for* us and *through* us, then under what conditions can it truly exist?”⁴²³

Heidegger was very specific about what constitutes knowledge, and what is derivative and of lesser importance. He differentiated between *Wissenschaft* and *Kenntnisse*. *Wissenschaft* is a broad concept, too quickly translated as ‘science’ but actually more attuned with awareness as in Heidegger’s demand for a reconfiguration of *Dasein* in terms of Being than the positivist endeavour. It is academic knowledge rather than information. He writes that *Wissenschaft* “needs reclaiming in the face of knowledge being understood as the mere accumulation of commonplaces and facts (*Kenntnisse*).”

Although he actively took up the National Socialist cause, Heidegger contested the reduction of academic knowledge to skills at every turn. He supported the Nazi programme of *Gleichschaltung* (bringing into line). However, he did not situate the university in subordination to the state but the reverse. Young argues that he inverted the role that the Party intended for education by interpreting the *Gleichschaltung* as positioning the university as the source which offers and shapes (in other words, educates) students who would shortly become the leaders of the *Volk*. Heidegger wanted the university to be the prime site for constituting the (re)orientation of the people of the State in terms of their socio-political and spiritual relation to the earth. In his inaugural speech “The Self-Assertion of the University,” Heidegger regarded the university as “the locus of spiritual legislation.”

The self-assertion of the German university is the original, common will to its essence. We regard the German university as the ‘high’ school which from knowledge (*Wissenschaft*) and through knowledge, educates and disciplines the leaders and guardians of the fate of the German *Volk*. The will to the essence of the German university is the will to knowledge as the will to the historical spiritual mission of the German *Volk* as a *Volk* that knows itself in its state. Knowledge and German fate must come to power at *the same time* in the will to essence. And they will do this then and *only* then when we – the teachers and students – expose knowledge to its innermost necessity, *on the one hand*, and, *on the other*, when we stand firm in the face of German fate extreme in its extreme necessity (*Not*).⁴²⁴

⁴²³ Heidegger cited in Wolin, 1993: 30-31

⁴²⁴ Heidegger, 1933, edited by Wolin, 1993: 30 translation modified

Universities ideally strike a balance between research and teaching, but Heidegger believed that research was disintegrating into an obsession with an economy of knowledge production and teaching was becoming increasingly irrelevant. This irrelevance was masked by the maintenance and justification of teaching through the system of examinations. Teaching and research was becoming an inauthentic production line. In “The University in the New Reich” he announced, “Research *got out of hand* and concealed its uncertainty behind the idea of international scientific and scholarly progress. Teaching that had become aimless hidden behind examination requirements.”⁴²⁵

There are two versions of Heidegger’s support of *Gleichschaltung* (that are not entirely incommensurate with one another): fascist Nazi or enlightened influencer of National Socialism. The former is that for the period 1933-34, Heidegger was unequivocally pro-Nazi. Zimmerman writes that

Heidegger allowed himself to be called *Führer* of the university, and eagerly co-operated with the *Gleichschaltung*; the coordination of the university into the totalitarian Nationalist state. Shortly before resigning as Rector he spoke of his ‘initial principle and the authentic aim’ of his leadership was to ‘reside in the radical transformation of intellectual education into a function of the forces and demands of the Nationalist Socialist state.’⁴²⁶

To this end, Heidegger envisaged reforming the organisation of the university faculties by looking freshly at the distinctions between discipline areas and at Freiburg University assigning new and younger people to the heads of each Faculty. “The departments are only departments if they are deployed in a power of spiritual legislation that is rooted in a capacity consistent with their essence, in order that they might transform the force of *Dasein* which besieges *them* into a *single* spiritual world of the Volk.”⁴²⁷ He (unsuccessfully) advocated national reform with the Reich Minister for Education.

Heidegger wanted to halt the prevailing assumption that theory is separate from practice. It is not that he was attempting to bring them both into line with one another. The wish is not “to bring practice into line with theory, but the other way around: to understand

⁴²⁵ Heidegger, June 30, 1933, edited by Wolin, 1993: 43

⁴²⁶ Zimmerman 1990: 44

⁴²⁷ Heidegger, June 30, 1933, edited by Wolin, 1993: 63

theory as the supreme realisation of genuine practice.” Zimmerman explains Heidegger’s views on the ‘fit’ of the university with the *Volk*.

The university is not a cultural institution superficially imposed on top of society like a product of surplus value. Heidegger saw the university as the venue for sheltering and re-awakening the *Volk*’s spiritual knowledge about Being.⁴²⁸

In effect, Young suggests that Heidegger had in mind the Philosopher King in Plato’s *Republic* when he supported *Gleichschaltung*.⁴²⁹ Indeed, Young notes, Heidegger rarely mentions the term ‘State’ or ‘government.’ In his speeches he refers to the *Volk*: *Volksgemeinschaft*; community of the people: *Volksgenossenschaft*; people’s co-operative: *Volkskörper*; body of the people. Heidegger did not see the state or leadership as superimposed on the masses but as the embodiment of the people. If it were properly attuned to the reawakening and preservation of Being, the people’s thought, including critique of existing structures would emanate freely within Heidegger’s conception. Knowledge should not be a ‘cultural treasure,’ “but the innermost determining center of their entire existence as a Volk and a state. Knowledge is also not merely the means of making the unconscious conscious, but the force that keeps all of existence in focus and embraces it.”⁴³⁰ His project was in many ways more enlightened than democracy. At the same time, the reality was that the Fascism inherent in Nazi doctrines warped his ability to think and constrained his freedom to express his thought. It was ultimately the antithesis of *Volksgemeinschaft*.

The very basis of Heidegger’s aims for reform conflicted with the outright Fascism of key Nazi bureaucrats, but at this stage Heidegger had not become disillusioned with National Socialism to the point of calling it a lost cause. Even after resigning, in 1935 his faith remained in the ‘inner truth and greatness’ of National Socialism to reformulate the *Volk* into the authenticity of *Dasein* in relation to Being. Later he wrote that he meant during his term as Rector to -

express my opposition to (Alfred) Rosenberg’s conception, according to which, conversely, spirit and the world of spirit are merely an ‘expression’ and emanation of

⁴²⁸ Zimmerman, 1990: 105

⁴²⁹ Young, 1997: 19

⁴³⁰ Heidegger cited in Wolin, 1993: 32, modified translation

racial facts and of the physical constitution of man. According to the dogma of 'politicized science,' which was then propagated by the National Socialist student organisations, the sciences should serve as a model for vocational goals, and the value or the lack of value of knowledge should be measured according to the needs of 'life.'⁴³¹

He specifically rejected the biological and eugenic interpretation of 'will' and 'life' that derive from Nietzsche and Darwin. He also emphasizes in this later address a line delivered in his inaugural speech as epitomising his attempted project as Rector "clearly and unambiguously." He wrote, "Knowledge does not stand in the service of the professions, but the reverse: the professions effectuate and administer this highest, essential knowledge of the *Volk* concerning its entire *Dasein*."⁴³²

Postwar Remarks

In his interview with the *Spiegel* magazine, "Nur noch ein Gott kann uns retten" (Only a god can redeem us), Heidegger justified, for the first time publicly, his involvement with the Nazi regime.⁴³³ In this interview he is remarkably tentative about the role of philosophy having an 'effect' in discerning the essence of technology and thereby transforming the relation humanity has with the earth. "Philosophy is at an end," he says. Philosophy is tied inexonerably to metaphysics, and as he states in *Letter on Humanism* the stagnation of metaphysical philosophy has put all thinking at risk.

Bearing in mind that after reading Spengler and Jünger, Heidegger was awake to the enframing of technology as the 'destiny' of the west. He regarded technology as totally mobilising human society in the objectification of everything as potential resource. In the *Spiegel* interview with Augstein, he continued to believe that National Socialism *moved in the direction* of helping humankind "think" an "adequate relationship to the essence of technology." He then argued, "those people were far too limited in their thinking to acquire an explicit relationship to what is happening today and what has been underway for three centuries."⁴³⁴

⁴³¹ Heidegger cited in Wolin, 1993: 62

⁴³² Heidegger cited in Wolin, 1993: 62

⁴³³ Heidegger, (ed.s) Neske and Kettering, 1990, and also ed. Wolin, 1993

⁴³⁴ Heidegger ed. Wolin, 1993: 107

His complete loss of hope about the possibility of philosophy or even thinking to have any role, let alone a 'causal' effect is a long remove from his belief in 1933 that the University, and in particular his ideas of a reformed university knitted together by philosophy, could lead the leadership and provide a *Führer* or Philosopher King, to initiate a 'new beginning' that would abandon the nihilistic path followed by the technological enframing of modernity.

There is, however, a deeply conservative element in Heidegger's theory. Despite the far-reaching influence of Nietzsche and also Dilthey on Heidegger's concepts,⁴³⁵ he stuck to his description of an inevitable spirit or teleology to western philosophy. Terms such as *Schicksal*, or destiny and *Wesen*, essence along with *Sein*, Being play an enormous role in his philosophy. Knowledge, for example, is included with the military and work as three essentially human spheres in the Rectoral address, paraphrasing the traditional Catholic triptich. The only element that is superior to knowledge is Fate; "Knowledge is the questioning standing firm in the midst of the totality of being as it continually conceals itself. This active perseverance knows of its impotence in the face of Fate."⁴³⁶ The internal dynamics of Heidegger's technical terms are exquisitely examined in fine works of philosophy but the 'essential' 'inner' '*geistig*,' or 'spiritual' association of Being, for example, converges with his antimodern, anti-urban, German nationalism. The convergence demands a conservative revolution in similar ways to those of National Socialism. Under these circumstances, Adorno can write that Heidegger's thought is "fascist in its most intimate components."⁴³⁷

A theme that does have some continuity from early to late Heidegger, albeit in a variety of forms, is a certain assertion of spirituality or faith. The *Geist* and god rise late in his writing and overtake thinking and philosophy as the potent force affecting destiny. Although he abandoned Christianity in the form advocated by the Catholic Seminary, the notions of the *Geist* (spirit) remained very important during the war years, often in association with *völkisch* ideas. Destiny also retains great importance despite its

⁴³⁵ Zimmerman, 1990: 11 mentions the influence of Wilhelm Dilthey on Heidegger, who argued that there is no plan, nor purpose, nor transcendence to history

⁴³⁶ Heidegger cited in Wolin, 1993: 32

⁴³⁷ Beistegui, 1998: 5

somewhat uneasy segregation from progressive *telos*. Finally, in his later writings, the notion of a god (with a small ‘g’) reappears, further retiring the agency of philosophy. At the beginning of *From Enowning* Heidegger comments on the articulation of thinking from Being in terms of the godly,

the enquivering of Be-ing’s essential sway will determine the jointure of the work of thinking. This enquivering then grows stronger, becoming the power of a gentle release into the *intimacy* to the *goddling* of the god of gods, from out of which *Dasein*’s *allotment* to Be-ing comes into its own, as grounding truth for Be-ing.”⁴³⁸

In the *Letter on Humanism* he refutes the *indifference* of atheism towards the holy. And at the end of “The Question Concerning Technology” he concludes with a quest, description, and something of a plea for a mode of thinking quite different from the traditional status and logic of philosophy, but containing a referral to the theological traditions; “Questioning is the *piety* of thought” (my italics). In the *Spiegel* interview, Heidegger explains, “philosophy will not be able to effect an immediate transformation of the present condition of the world.” Famously, he claims, “Only a god can save us.”⁴³⁹ This religious motif permeates his theory, including the ‘transcendent’ concept of Being. *Schicksal*, destiny or fatalism often stands in for a god. The teleology and structuralism of destiny is ‘unknowable’ but not random. He avoids all reference to chance, and limits the range of options for change to the return to a beginning. The topic of god is concordant with Heidegger’s realisation this late in his career that “this is connected with the fact that what I name with the word Being, a word which is of long standing, traditional, multifaceted, and worn out, needs man for its revelation, preservation, and formation.”⁴⁴⁰

There is present in his thought, a significant element of Christian conservatism, or might one say, cultural chauvinism that wishes to preserve a certain status quo that might have approximated the norm of society in Heidegger’s childhood and teenage years in Baden during the late 1800s. His viewpoint is by no means irrelevant because of its specificity. The cultural chauvinism might limit his ability to find a new beginning but not the clarity and bravery of speaking about the danger. We have to take seriously a crucial insight of this undoubtedly industrious and often profoundly thoughtful person, especially when he

⁴³⁸ Heidegger, 2000: 3-4

⁴³⁹ Heidegger cited in Wolin, 1993: 107

⁴⁴⁰ Heidegger, 1949: 20

writes (with a humility unfamiliar in a lot of his other writing) about the *Ge-stell*, or enframing of technology.

Heidegger writes “The frame holding sway means: the essence of man is framed, claimed, and challenged by a power which manifests itself in the essence of technology, a power which man himself does not control. To help with this realisation is all that one can expect of thought.”⁴⁴¹ Thus the *Ge-stell* is modified subtly and importantly, from Spengler’s inescapable totalisation. Limited agency does not emerge from philosophy or thought let alone speech but what is possible is the preparation or a readiness for thinking and change to take place in the future.

Apparently resting on his theory of hermeneutics and the limitations of translation, Heidegger continues to elevate the status of Germany to the locus and centre of western thought, from whence any (even if its possibility is extremely curtailed) thinking which will have an effect on transforming, or opening, or preparing a readiness – will emerge. “I have in mind especially the inner relationship of the German language with the language of the Greeks and with their thought. This has been confirmed for me today⁴⁴² again by the French. When they begin to think, they speak German, being sure that they could not make it with their own language.”⁴⁴³ He goes on,

It is my conviction that a reversal can be prepared only in the same place in the world where the modern technological world originated, and that it cannot happen because of any takeover by Zen Buddhism or any other Eastern experiences of the world. There is need for a rethinking which is to be carried out with the help of the European tradition and of a new appropriation of that tradition. Thinking itself can be transformed only by a thinking which has the same origin and calling.⁴⁴⁴

Does this cultural chauvinism that directly concurs with the mess he found himself entangled during the war relegate his entire theoretical edifice to politically incorrect, or worse, immoral Nazi propaganda which ought to be actively countered? Certainly this national chauvinism overpowers his ability to think in some ways. It confines and limits

⁴⁴¹ Heidegger cited in Wolin, 1993: 107

⁴⁴² 1966, two years before the student uprisings in France and the important shift in thinking that initiated post-structuralist theory there. Cf. James Marshall, edited by Peters, 1995, for fuller exploration of this episode

⁴⁴³ Heidegger cited in Wolin, 1993: 113

⁴⁴⁴ Heidegger cited in Wolin, 1993: 113

some key features of his theory, such as the inherent conservatism embedded in the concept of Being, that even association with the dynamic of *physis* does not entirely dislodge (cf. Nietzsche's disparaging remarks on the static rigidity of 'Being' in *The Will to Power*). These elements inhibit his ability to think 'beyond' western traditions. Indeed, his cultural chauvinism virtually forbids any culture beyond western traditions to enter and dislodge the technological *Gestell*, despite his long held conviction that modernity and Enlightenment democracy is a nihilistic enterprise. Ironically this nationalism about the German language contradicts his own philosophy of Hermeneutics, that suggests that the outsider's viewpoint brings to light aspects of Being that are concealed in the commonplace assumptions of another time and place. Unfortunately cultural chauvinism has obscured not only Heidegger's ability to think, but many of the thinkers that have taken up his important ideas since then too. Thus, though Heidegger does not claim to have the 'answer' to the question concerning technology, where he hints to look has not always or ultimately proved most productive. Thinking has not been transformed from the *same* origin. Heidegger claims that the technological world needs to be "transcended (*aufgehoben*) in the Hegelian sense, not pushed aside, but transcended, but not through man alone."⁴⁴⁵

In no way can anybody claim that the technological world is overcome, or even that the beginnings of the end of the technological frame has opened up. But post-structuralist thinkers (writing in French and coming in extraordinary large proportion from the outskirts of the French colonial empire; Algeria) have begun to think to a certain extent, beyond the west, beyond man, and beyond the Hegelian dialectic of transcendence. Instead of a homely dwelling place, it is the nomads who are opening new pathways and preparing the ground for a new set of strategies and attitudes to the earth.

Ultimately, Heidegger did not face up to the manner in which National Socialism was actually bringing things, such as the death-camps, to pass. Turning a blind eye, like so many Germans during and after the war, avoided asking questions about his assumptions that Germany was the privileged *Ursprung*,⁴⁴⁶ or springing-place for the new, better

⁴⁴⁵ Heidegger cited in Wolin, 1993: 113

⁴⁴⁶ cf. Irwin 2000: chapter 4

beginning. Something new had occurred, but it was almost a direct inversion of Heidegger's intimations for the 'beginning' of a new destiny. Technology was showing up in Germany at its most ignoble, dare one say, evil, form.

Nevertheless, Heidegger's theory in regards to Being, technology and the human relation to the Earth is an important jumping off point for encouraging an ecological ethics for humanity. His historical context was both a prompt and a distortion of his crucial engagement with modernity and technology, which is not to say that as a one-time Nazi, his theory ought to be disregarded. But his nationalist convictions do need to be taken into consideration when trying to consider the ramifications of the past and the present in terms of the future.

Ramifications of Nazism

The status of Heidegger's philosophy in regards to his role as a leading philosopher on modernity, technology and the environment, yet unavoidably associated with Nazi ideology, has caused some highly charged academic discussions. What is at stake is the designation of responsibility for the horrors of the holocaust. Many writers wish to align German society and German ideas as the only place such devastation could occur. But Heidegger's theory is closely tied to the history of ideas in the West, from Greek times, through Descartes, Kant, Hegel, Schopenhauer, and Nietzsche to the contemporary engagement with the technological enframing of western society. Themes that emerge from all these sources go into the make up of his philosophy. Picking out the peculiarly German aspects of his theory may satisfy the argument that the holocaust was a German responsibility. Certainly it occurred under an extremely nationalist German regime. On the other hand, anti-Semitism and anxiety about nomadic Gypsies was rife in Britain, Russia, France Czechoslovakia, Romania, Italy, and many other countries at the time, and had been for many, many centuries. Furthermore, the *Gestell*, or enframing of technology has successfully permeated nearly every facet of the globe, and in what I regard as a compelling argument this is, according to Heidegger, the source of Nazi death camps and nuclear bomb proliferation as much as it is alienating factory conditions and hydro dams on the river Rhine. The dangers of patriotic empire building would not be lost on any European, but this mindset, in the context of a global deepening of the technological

Gestell, is alive and well at the moment in the United States. Heidegger, like many people, presumed that his philosophy was radically *prepolitical*. Events in Germany during the 1930s and 1940s proved that politics and the environment challenge, shape, and cut short philosophy as much, if not more than philosophical thought can provide the grounding motifs for the world-view that motivates politics, education, consumerism, and the relationship between humanity and the environment.

A major aspect of Heidegger's theory is that the history of western metaphysics began its decline with the ideas of Plato and Aristotle, and culminated in Nietzsche's assertion of the death of God. It is in the context of nihilism that the reduction of all things, including humanity gets reduced to a potential 'resource' in the machine of consumerist culture. Heidegger hoped that philosophy could initiate a 'new beginning' on a par with thinking such as Parmenides and Heraclitus in Ancient Greece, that would re-engage humanity by *thinking* in refreshing and authentic ways about Being itself. His careful and detailed expositions on this subject examined and avoided reducing Being to Life because Nietzsche had closely associated the 'Will to Will' with life and Heidegger regarded Nietzsche's philosophy as an expedient culmination of the history of western metaphysics rather than the essence of organic and anorganic existence. His engagement with Nietzsche in particular (often through or in response to Nietzsche's interpretation by various contemporary writers influenced by Nietzsche, such as Bäumler, Jünger, Spengler and Jaspers), attempts to position Heidegger himself as the beginning of post-metaphysical philosophy. It is his commitment to a new beginning that leads Heidegger to believe in National Socialism as a force for providing Germany and the west with a new historical trajectory.

But despite all this, possibly *because* of the fascist limitations on Heidegger's thinking, he has developed the critique of technology further than anyone else since and found the limits to thinking *within* the extremes of modernity. Thus, he is in many ways a very productive path to follow, and in other ways a warning against the revolutionary impulse to impose radical new beginnings in an abrupt, urgent and fascist manner. Thinking is a *critical* occupation in that it is often a negative critique of the status quo and therefore politically threatening and of positive, vital, 'critical' importance. Thinking needs a safe

public space in which to occur. Tyranny constrains thinking, and this is the primary reason for the emergence of democracy. The role of education, as Heidegger saw in the 1930s, is to safeguard this safe space and promote a culture ready to take intellectual risks: to think in far reaching ways, about the inter-relationship between humanity and environment.

7 Heidegger's Nihilism: Life, Being, *Dasein*

Heidegger made a definition of metaphysics which owes to Aristotle, as the inquiry into the relation between the many and the One, the plurality and the universal, or as Heidegger put it, beings and Being.⁴⁴⁷ Rather than the unknown tangents essential to evolutionary emergence, or Nietzsche's concept of life, necessity and chaos, Heidegger clearly defines the legitimate field of inquiry of Being into the ontological, epistemological parameters that can be ascertained by *Dasein*. The reciprocal 'sameness' referred to by Parmenides of thinking and being, or Being and *Dasein*, is carefully outlined in opposition to extraneous 'busy' alien existence, which he defines as nothingness. Heidegger is wary of nothingness as a way leading to loss, annihilation, or the nihilist forgetting of Being. Heidegger argues that instead of overcoming nihilism through the transvaluation of values, Nietzsche brings about the culmination of metaphysics. Nietzsche inverts the Platonic and Christian 'beyond' in a dualistic opposition that does not transform the problem that humanity is forgetting to authentically inquire into the profound nature of Being.⁴⁴⁸

Michael Peters suggests that Heidegger's thesis sets forth "a deepening of humanism, but a deepening that, at the same time, recognises forces somehow beyond 'Man.'"⁴⁴⁹

Beyond Man is Heidegger's concept of the unique quality of *Dasein* as the ability to ascertain the nature of Being without relying on a rationalist or positivist position of control 'over' nature. Heidegger puts emphasis on the hubris of Humanism, which he argues, in the busy pursuit of rational positivism, 'forgets' the unique ability of *Dasein* to apprehend Being. He writes, "Humanism is opposed because it does not set the *humanitas* of man high enough."⁴⁵⁰

⁴⁴⁷ Heidegger, 1969b

⁴⁴⁸ Heidegger, 1973a

⁴⁴⁹ Peters, 2001

⁴⁵⁰ Heidegger, 1996: 233-234

Heidegger's critique of Humanism and his construction of a new ontological philosophy aims to provide a guiding paradigm for social organisation, in counter distinction to the prevailing norms or rational individualism, market consumerism, and economic growth. The most important relationship that Heidegger challenges is the mastery over 'nature.' He conceived of an ontological conceptualisation of Being, rather than the universal categorisation that breaches the inaccessibility of truly understanding the thing-in-itself.

Being

The crucial, guiding question that Heidegger finds in the crucible of western metaphysics in surviving fragments of Greek thinking is "What is Being?" The style, approach, and form to the questioning is what creates vitality and ignites the 'answer.' Yet style does not simply reside in the etymology and grammar of the question. Words alone will not release the factor of most importance. To prepare for this question – "What is Being?" initially, the most fertile mode of inquiry has to be discovered. Many iterations of this task engrossed Heidegger's thought throughout his career. The term 'Being' is so huge and all-encompassing that Nietzsche argues that it's meaning has become 'empty' and 'vaporous.' Logically, the more comprehensive a term, "the more indeterminate and empty is its content."⁴⁵¹ Thus, Heidegger says it is easy for the question 'What is called Being?' to become "merely a mechanical repetition of the question about the Being as such." What is required is an engagement with Being which allows its "appropriate unfolding."⁴⁵² Heidegger emphasises many elements in this seemingly simple question, sometimes the 'origin' of the term, sometimes concentrating on *who* is capable of asking and being receptive to what unfolds. He advocates poetry as making the term Being 'strange' and thereby enabling a discerning and fresh revealing of the Being of beings. Plato assumed that the Ideal nature of Being was *a priori* and inaccessible to the temporality of a human. But this is not a limitation that Heidegger takes seriously because although humans may never have an all-encompassing view, the *questioning* is only viable through a peculiarly human ability to apprehend the ground from which

⁴⁵¹ Heidegger, 1973a: 40

⁴⁵² Heidegger, 1973a: 17

Being springs. As Peters argues, in this way Heidegger is advocating a deepening of Humanism, not a rejection of it.⁴⁵³

Heidegger looks to the poetry of the early Greeks; Parmenides, Heraclitus and Sophocles in his book *An Introduction to Metaphysics*, as an originating experience of Being.⁴⁵⁴ He shows how these ‘originary’ poetic authors have their fresh, vital concept of Being ‘degraded’ to a fixed metaphysical Truth of Being by Plato and, to a lesser extent, Aristotle. The consequence of the rigid ‘otherworldly’ designation is a stale turning away from the original poetic attention to the light of Being, which has been exacerbated by western metaphysics down the years up until, and including, Nietzsche. Heidegger posits himself as the beginning of the ‘post’ metaphysical era, although as investigated in the previous chapter, his philosophy has remained caught up in the modern terrors of his time. As Charles Guignon puts it, in the foreground of the book is “the dawn of metaphysics in ancient Greece, its decline and calcification up to the present, and the prospects for rejuvenation today”⁴⁵⁵ which to some extent, turned out to become synonymous with National Socialism.

Nothingness

The Ancient Greeks, those ‘originary’ authors, had initially set up the dualism between Being and Nothingness. Heidegger rarely mentions nothingness, yet it is fundamental to his concept of Being. Nothingness is indescribable and, Heidegger suggests, best approximated through poetry rather than philosophy: “Authentic speaking about nothing always remains extraordinary. It cannot be vulgarised. It dissolves if it is placed in the cheap acid of a merely logical intelligence.”⁴⁵⁶ Nothingness is not based upon ‘the void,’ or ‘madness,’ ‘chaos,’ or even the abstraction of infinite space, which might be juxtaposed with Being, but rather on the Buddhist notion of not-being, or Being, which is the removal of the once-being such as the absence of the cup from the bench or death. Heidegger asks - “Why are there beings rather than nothing?”⁴⁵⁷ Nothingness frames

⁴⁵³ Peters, 2002.

⁴⁵⁴ Heidegger, 1973a

⁴⁵⁵ Guignon, 2001: 39

⁴⁵⁶ Heidegger, 1973a: 26

⁴⁵⁷ Heidegger, 1973a: 2

Being. Or to put it another way, Being elicits the possibility of nothing – and in that possibility reveals itself.⁴⁵⁸ He argues that Being and Nothingness combine with one another, because Being “*is* nothing.” Nothingness marks the boundaries to finitude. It is integral to Being. What is surprising is the way Heidegger distinguishes between ‘existence’ and Being:

Nonbeing means accordingly to depart from such generated permanence: *existasthai*, ‘existence,’ ‘to exist,’ meant for the Greeks nonbeing. The thoughtless habit of using the words ‘existence’ and ‘exist’ as designations for Being is one more indication of our estrangement both from Being and from radical, forceful, and definite exegesis of Being.⁴⁵⁹

Comprehension by other animals does not qualify for entry into the peculiarly reflective human language of Being. Anything truly gone from the purposive, solipsist centre of knowing as an object of understanding is mere ‘existence.’ Mundane ‘existence’ is oblivion; it ‘exits’ from *Dasein*’s co-representation of Being. If something is taken for granted, or hidden or obscured then it still contributes towards Being. But something lost or forgotten holds a precarious place, on the threshold between Being and existence. Heidegger will find great danger in ‘forgetting.’ This distinction between existence and Being illustrates how anthropocentric Heidegger’s version of Being really is, when it only ‘shows’ itself apprehendable to human thought (and possibly to gods). The notion that existence as nonbeing exits from the immanent emerging of Being makes the subtleties of the ‘substance’ of Heidegger’s concept of Being clearer. Nonbeing or Being is subtly, but profoundly, different from *lethe*, or ‘concealment’ because where Being is hidden it remains there, simply obscured from view.⁴⁶⁰ Nonbeing or Being is partly not-present, but primarily not-present to human apprehension. For example, a corpse might be literally present, but there is no glimmer of Being in its being. The fear of death reappears in the authentic relation to Being on many occasions. Just to add to the confusion, Being does not, however, mean life, in either a biological or Nietzschean sense. There are always aspects of Being which are ‘concealed’ to the present cultural and linguistic potential for apprehension, but that is different from ‘nonBeing.’ Many aspects of life also abound in a manner that humans are physically, emotionally and

⁴⁵⁸ Heidegger, 1973a: 29

⁴⁵⁹ Heidegger, 1973a: 64

⁴⁶⁰ Heidegger, 2000

intellectually incapable of ever becoming aware, and this is *existence*, not Being. Indeed, Heidegger argues that the technological expansion of the boundaries of human comprehension in regard to the natural environment via magnification, frequencies, chemical engineering, and so forth, simply results in ‘busyness’ rather than increased access to the truth of Being.

Nietzsche talks about ‘life’ rather than Being or existence. His theory of the Will to Power attributes perspectives to other forms of existence that are outside the parameters of human comprehension. The concept is anorganic, including the strata of magma, rock, ocean, atmosphere, solar systems and so forth, rather than being limited to breathing, ‘living’ things. He regards each mode of being as having its own perspective and thus its own ‘world.’⁴⁶¹

Event Ontology

For Heidegger, there are two related ways of understanding *das Seiende*, Being: the boundaries of Being with nothingness (as outlined above), and the manner in which Being is discernible through beings. The relationship of ‘Being’ to ‘beings’ is fundamentally immanent, (and Aristotelian) because “thinking Being in abstraction from being is artificial.”⁴⁶² Human apprehension in relation to Being, and through beings, is vital because Being presents to a view. Oblivion (or existence) is a poverty of viewing. The human apprehension of Being is limited to its appearance in examples of being. The traditional view of Being as the static ground and the Idealist separation of subjects from objects tends to itemise ‘things’ rather than the more Aristotelian concept of individuals as examples of the emerging species. Heidegger describes the changing becoming of things, as the exemplars of Being in action. It is an event ontology. Because of his philosophical aversion to ‘existence’ as part of the definition for Being, Heidegger has completely altered the meaning of the traditional German term for existence, *Dasein*. *Dasein* is a very specific technical term which Heidegger uses to refer to humans (and conceivably other beings) which *care* about ‘being as a whole.’ Without the enquiry, the care, the apprehension, and the shared language community of *Dasein*, the Being in

⁴⁶¹ Nietzsche, 1909, Heidegger, 1982, vol II and Irwin, 2000, chapter 7

⁴⁶² Heidegger, 1973a: 32

beings could not enlighten or ‘shine forth,’ and all would be *mere* existence, or nothing. *Dasein* are the subjects (so to speak) who make the call, we are the callers, our enquiry and thinking is capable of asking, “What is called Being?”

The mode of enquiry into Being shapes the parameters of apprehension. It is the *difference* between beings and Being that needs bringing into focus.⁴⁶³ Heidegger regards this relation in what he describes as Aristotelian philosophy, as beings *ascending* towards Being.⁴⁶⁴ *Dasein* moves from ascertaining a particular and transient being to comprehending what endures throughout Being. *Time* then, is essential to the enquiry into Being.

Nietzsche complains that according to the philosophical tradition, ‘Being’ has a static feel to it, as in ‘ground.’ Being is usually associated with ‘substance ontology’; it ‘is’ a *thing* that endures, rests, and has weight and importance. Guignon best puts Heidegger’s conceptual shift from the static to the dynamic; “Heidegger conceives of human existence not as a thing or object, but rather as an *event*, the unfolding realisation of a life story as a whole.”⁴⁶⁵ In Aristotle’s dualism between Being and beings, the specific entities were assumed to change because of accidents in the environment that meant deviations from the essence of the entity. ‘Becoming’ was associated with entities or beings, not overall Being. Heidegger incorporates the dynamism of ‘becoming’ into beings as a whole. Being itself is immanent in the unfolding of events. Heidegger takes the Greek term *physis* as Being, that is the power of emerging and holding sway,

In this power rest and motion are opened out of original unity. This power is the overpowering presence that is not yet mastered (*bewältigt*) in thought, wherein that which is present manifests itself as a (being). But this power first issues from concealment i.e. in Greek *aletheia* (unconcealment) when the power accomplishes itself as a world.⁴⁶⁶

Guignon argues that this ‘retrieval’ of an early Greek ‘pre-metaphysical’ experience of Being that Heidegger makes, rescues Being from substance ontology and replaces it with event ontology.

⁴⁶³ Heidegger, 1969b

⁴⁶⁴ Heidegger, 1968a: 222-223

⁴⁶⁵ Guignon, 2000: 67

⁴⁶⁶ Heidegger, 1973a: 61

What this retrieval is supposed to provide is a way of replacing the dominant substance ontology in the Western world with an alternative understanding of Being, an understanding that emphasizes the way beings show up in (and as) an unfolding *happening* or *event*.⁴⁶⁷

By focusing on the philosophical tradition, Heidegger manages to avoid the evolutionary implications of *physis* as emerging, becoming, changing, *evolving*. An evolutionary perspective of *physis* challenges his anthropocentric emphasis and the distinction between Being and existence.

Das Dasein

Aristotle's notion of essence bears a strong relation to the 'potential' and 'fruition' encompassed in Being. The essence 'causes' the substance to be formed in a way that shows what it *is* although it is sometimes difficult to distinguish what is *essential* and what is *accidental* to the particular configuration of an entity. Guignon argues that neither Being nor *Dasein* has Aristotle's inevitable *telos*. Neither does Heidegger bother with analysing biological genera, species, or individuals, which lend themselves to a philosophy of evolution. Instead, as with most other modern philosophers, Heidegger concentrates on the anticipated finitude of an individual's lifespan. Heidegger's *Dasein* 'styles' her/himself by projecting towards the future, and recouping the past within the finite parameters of birth to death. *Dasein* makes decisions and promises in the context of one's life as a whole. Life-as-a-whole has clear boundaries and a process of unfolding, yet the future is not linear, as it is, arguably, for Aristotle. The finitude of the individual's life-as-a-whole does not lend itself to the Ideal of the 'good' or heaven, nor to a precise goal or meaning. Each of us is born into a larger pre-existent collection of beings as a whole. Heidegger presumes that unlike any other entity (except perhaps, gods) what makes humanity meaningful is that we are open to comprehending the appearance of Being which 'shines forth' from beings. The crucial distinguishing characteristics of *Dasein* are the capacity for enquiring into our unique relation to Being.

(A) privileged, unique relation arises between (beings as a whole) and the act of questioning. For through this questioning beings as a whole are for the first time opened

⁴⁶⁷ Guignon, 2001: 38

up *as such* with a view to its possible ground, and in the act of questioning it is kept open.⁴⁶⁸

Yet Heidegger's emphasis on the unique capacity of *Dasein* in relation to Being does not remain entirely ignorant of the eons of life on the planet before humanity. He is not a creationist. Though rarely enunciated, Heidegger recognises that humans are insignificant in the scale of the history of the earth, let alone the universe. "What is the temporal extension of a human life amid all the millions of years?"⁴⁶⁹ Yet Heidegger cleverly repositions human history as the centre of the only interesting epoch of the planets evolution by developing Kant's theory of time, such that time is not simply *a priori* to individual subjectivity but emerges commensurately with *Dasein*.

There is the pure possibility that man might not be at all. After all there was a time when man was not. But strictly speaking we cannot say: There was a time when man *was* not. At all *times* man was and is and will be, because time produces itself only insofar as man is. There is no time when man was not, not because man was from all eternity and will be for all eternity but because time is not eternity and time fashions itself into a time only as a human, historical being-there (*Dasein*).⁴⁷⁰

Heidegger has shifted the meaning of the German term *Dasein* from broad 'existence' into a technical designation for someone capable of an authentic enquiring relation with the Being. *Das Dasein* is a play on words. *Dasein* translates as 'das,' gender neutral 'the' and 'ein' or 'one'; 'the one' or 'any one.' In a certain sense *Dasein* remains within the solipsist, nominalist tradition and 'any one' universalises the capacity for enquiry to all humanity (and gods). Heidegger enlarges his concept of *Dasein* from an individual consciousness to include a group consciousness in his later writing.

Another examination of the etymology of the term shows that '*Da*' means 'there' and '*sein*' is 'being;' 'being-there.' Anyone being *there* projects the existence of *Dasein* from static being to dynamic becoming, away from 'here' towards a future. Being-there is the movement of potentiality that both remains collected as a knowing centre, and also moves beyond the already understood towards the unknown future. The *Da* gives *Sein* a space to come forth. Manheim explains that, "he means man's conscious, historical

⁴⁶⁸ Heidegger, 1973a: 4

⁴⁶⁹ Heidegger, 1973a: 4

⁴⁷⁰ Heidegger, 1973a: 84

existence in the world, which is always projected into a there beyond its here.”⁴⁷¹ Being emerges in relationship to *Dasein*; the future directed being-there, of becoming in relation to the finite, enquiring, and caring capacity of *Dasein*.

In *A Letter on Humanism* (1949) Heidegger shifts existence again, towards the ‘ex-sisting, ex-static’ that thoroughly incorporates the emotional being of what we once separated out as ‘subject’ with the broad existence of Beings in the entirety of being. There is no separation in *Da-Sein*, it indicates

that ‘essence’ is now being defined neither from *esse essentiae* nor from *esse existentiae* but rather from the ex-static character of *Dasein*. As ex-sisting, the human being sustains *Da-sein* in that he takes the *Da*, the clearing of being, into ‘care.’⁴⁷²

He goes on to say that *Dasein* “unfolds essentially in the throw of being as a destinal sending.” This later work, after the ‘turn’ in the mid 1930s contrasts, I think, with the earlier characterisation of *Dasein* from *Being and Time*, although Heidegger never overtly states that he has left behind the subjective elements that characterise his earlier work.

In his first major publication, *Being and Time* (1927), Heidegger developed the concept of subjectivity as *Dasein* who must face the anxiety of her/his own ‘finitude,’ in what Heidegger calls being-toward-death. He accepts the commonplace discourse that each individual faces their own death alone – whereas death might be regarded as the uncoupling of an entity from individuality and its return to the swirling motions of existence (or environment). Heidegger regards finitude as offering the chance for *Dasein* to comprehend their life, past, present and future, as a whole. While constrained by the historical conditions and possibilities into which they are ‘thrown,’ *Dasein* can take a stand and, from the perspective of finitude, style an authentic life.⁴⁷³ Heidegger places an enormous amount of weight on the finitude of being-toward-death because it is the condition in which thinking happens as an openness and receptivity which projects ‘there’ and apprehends Being. The projection allows *Dasein* to put perspective on the

⁴⁷¹ Manheim’s note in Heidegger, 1973a: 9

⁴⁷² Heidegger, 1949a: 249

⁴⁷³ Guignon, private communication, 1999

immediate surroundings, which Heidegger argues conceals the present state of affairs through over-familiarity with the local socio-historical environment.

Heidegger's concept of *Dasein* is situated in a public environment that predates and postdates any given individual. *Dasein* is 'thrown' into an 'always already' socio-historic context. Having been brought up in an always-already 'world' of equipment, the complete familiarity with the social surroundings 'world' as undifferentiated from the self. Guignon explains, "Heidegger's 'phenomenological' approach to understanding the human starts by describing our lives as they unfold in familiar, everyday contexts of action, prior to theorizing and reflection."⁴⁷⁴ For Heidegger this integration, the 'worlding' of equipment, or 'equipmentality' has the characteristic that it is too normal and everyday to be overtly noticeable. Conscious reflective thought is a tiny element of the predominantly unconscious submersion in our surrounding world. For the most part, we are 'objects amongst objects,' and are indistinguishable from our environment.

In its early form, *Dasein* was not very different from many other configurations of the Idealist solipsist subject. Yet Heidegger had criticised Descartes for his stark separation of the subject from the object, and continued to vilify 'subjectivism' throughout his life. So in the 1930s when the *Volk* movement was at its peak, Heidegger expanded the concept of *Dasein* to encompass the people: "Even to speak of our capacity for *selfhood* 'does not mean that man (insofar as he is *Dasein*) is primarily an 'I' and an individual...any more than he is a We and a community'."⁴⁷⁵ This effectively diffused the problem inherent to stark solipsism that when the subject constitutes 'the world', it expires with the death of the subject. Guignon explains that Heidegger's concept *Dasein*,

refers to the fact *that* there is a (finite) understanding of Being. On the assumption that humans are the only beings with an understanding of Being, *Dasein* appears in, or at least arises only where there are humans. Having an understanding of Being (i.e. being the opening in which beings can show up) is humanity's most essential trait.⁴⁷⁶

Being and *Dasein* emerge reciprocally, both the same and yet set apart, they are co-dependent on each other for meaning, language and thought. Being is not conditioned by

⁴⁷⁴ Guignon, 2000: 67

⁴⁷⁵ Guignon, 2001: footnote 5, including a quote from Heidegger 1959: 156

⁴⁷⁶ Guignon, 2001: 156

individual subjects as in Idealist solipsism nor is it intrinsically independent as in 'Nature' or 'existence,' but it retains a certain Idealist mega-solipsism on the part of human language communities (*das Volk*) who share a meaningful world and enable enlightened enquiring into the question of Being.

Struggle; Being and Becoming

Heidegger specifically rejects the historical presumption that Being is a static foundation to existence. He finds evidence of the dynamism involved in Being in three ways; through the coming to presence of Being through beings, the growth and fulfilment of potential, or 'form,' and finally through the active grammar of language. Although the significance of Being emerges into the care of *Dasein*, the dynamism of Being is not achieved strictly through human apprehension and language. Change is the precondition, the 'nature' of Being and it is only when our expectations stagnate and ossify into 'statements' rather than an attitude of enquiry, respect and awe that we fail to find it.

Perhaps one of the most important, and the most underworked aspects of Heidegger's theory is this precondition of change. It shows up in his exploration of Heraclitus and the concept of strife. Heidegger cites Heraclitus as the first to 'think' Being as conflict and the 'becoming' of flux: "In the conflict (*Aus-einandersetzung*, setting-apart) a world comes into being. (Conflict does not split, much less destroy unity. It constitutes unity, it is a binding-together, *logos*.)"⁴⁷⁷

The particular relation of Being to *Dasein*, and the difference between Being and beings do not bring us to its *origin*. Heidegger looks to the 'originary' poets and philosophers in Ancient Greece and finds in fragment 53 of Heraclitus a description of Being as struggle. The English translation of Heidegger's translation of ancient Greek reads,

Conflict is for all (that is present) the creator that causes to emerge, but (also) for all the dominant preserver. For it makes some to appear as gods, others as men; it creates (shows) some as slaves, others as freemen.⁴⁷⁸

⁴⁷⁷ Heidegger, 1973a: 62

⁴⁷⁸ Heidegger, 1973a: 61-62

Struggle initiates rank through difference – by setting (gods, men, slaves) apart from one another. Struggle “sets forth their Being.”⁴⁷⁹ The traditional view of the concept of struggle is to conflate it with violence. Violence in the Judeo-Christian-Muslim tradition is a form of evil that causes suffering and must be righted through retribution. The struggles and conflict over comparative rank and the competition for resources is a significant component of the field of ethics. Hence, while reading Heidegger’s (and Nietzsche’s) description of struggle, it is important to be wary of the ethical domain. Likewise the Cornucopian revolution destabilized God and Man from the Centre of the Universe, and Heidegger’s persistent attempts to re-issue the concept of Being that is anthropocentrically ranked (like Darwin’s Great Chain of Being for example) is problematic. The ordering of chaotic existence into hierarchical rank inevitably brings with it conflicts of interest. Ethics will continue to grapple with these problems while abandoning the utopian ideal of absolute Truth and a world without struggle. The subtle shift is, as Guignon explains, that gods or men do not initiate (an ordered) ‘world’; struggle itself does. Heidegger clarifies the manner in which struggle ‘works’ to order chaos,

Against the overwhelming chaos they set the barrier of their work, and in their work they capture the world thus opened up. It is with these works that the elemental power, the *physis* first comes to stand. Only now does the being become being as such. This world-building is history in the authentic sense...Where struggle ceases, the being does not vanish, but the world turns away. The being is no longer asserted (i.e. preserved as such). Now it is merely found ready-made, it is datum.⁴⁸⁰

This insight from Heraclitus along with Nietzsche’s concept of the Will to Power as the driving force of life initiates the rethinking of strife and power in post-structuralist thought. Deleuze and Guattari have generated a theory that strife produces a positive distribution of difference rather than an oppressive negation of the ‘other’ and similarly, Foucault has developed a more positive evaluation of the effects of power that is in the process of shifting the ground of ethics and educational issues.

At first glance the root of Greek thought seems to contrast Being against becoming. Parmenides’ exposition on Being as all that is ultimate and enduring appears to oppose

⁴⁷⁹ Guignon, 2001: 43, quoting Heidegger, 1973a: 157

⁴⁸⁰ Heidegger, 1973a: 62

Heraclitus saying “*panta rhei*”; everything is in flux. The philosophical tradition has set up a dualism, opposing Parmenides’ static foundational Being to Heraclitus’ chaotic changing Becoming: everything ‘is’ becoming.⁴⁸¹ Heidegger marks the emphasis on ‘is,’ thereby bringing the flux of becoming into the same realm as the endurance of Being. Heidegger brings Parmenides’ Being together with Heraclitus’ flux for the first time, arguing that they are both essentially talking about the same thing. Becoming is the engagement of Being with the existence of beings. At the centre of this engagement is dynamic struggle.

Parmenides also wrote a fragment that is often translated as “thinking and Being are the same.” The fragment could be understood from Descartes’ perspective that thinking is subjective and, therefore, Being is subjectively fashioned. But Heidegger argues against the subjectivist interpretation which creates an oppositional dualism between subjective thinking and the objective characteristics of Being. He argues that ‘the same’ has reciprocity. Yet the two are ‘the same’ in *relation* to each other, inferring Heraclitus *auseinandersetzung* is also at work; ‘the same’ is also ‘set apart’ allowing both the *being* of thinking humans and, reciprocally, the apprehending (*vernehmen*) of Being to shine forth. For Heidegger, “Thinking and Being are the same” translates into “There is a reciprocal bond between apprehension and Being.”⁴⁸² Being is a shining or emerging for thinking. Heidegger explains it as “the particularity of being-human will grow from the particularity of its belonging to Being as dominant appearing.”⁴⁸³

Being and Appearance

In the same way that he had conflated Being and becoming, Heidegger conflates Being and appearance. Plato designated Being to the Universal, outside of time and space, with our own phenomenological perceptions limited to ascertaining the mere ‘appearance’ of beings, themselves a shadowy copy of the original Being. Heidegger manages to bring Being and appearance together in the same reciprocal relation, while acknowledging a remnant of the nominal fallacy enabled by Plato’s dualism that divides Being from

⁴⁸¹ Heidegger, 1973a: 97

⁴⁸² Heidegger, 1973a: 145

⁴⁸³ Heidegger, 1973a: 139

appearance. He draws attention to three aspects of appearance that are based on the ‘shining’ forth of Being into the clearing of human perception and thought. The ‘appearance’ projects from an object and has to be interpreted by a subject; it is the nominalist divide between subject and object in its very early phase. Heidegger argues that there is an interpretive scale for appearance (*Schein*): firstly as ‘radiance’ or glow, secondly as ‘appearing’ or coming to light, and thirdly, as ‘mere appearance’ or semblance.⁴⁸⁴ At one end of the scale, appearance reveals Being by letting it emanate from beings. Along the other end, individual experience of the appearance of the being is subject to so many variations, and interpretations, it has to be, in Platonic terms, a deviation, a copy, or even an illusion of Being. Heidegger takes a very different position that the shining forth of Being has to be ‘wrested’ from the being.⁴⁸⁵ Taking Nietzsche’s critique of Absolute Truth and the ‘otherworldly’ nature of Being in Plato, Heidegger refuses to accept a particular version of the appearance as correctness. Arguing that the traditional philosophical categories of ‘subjective,’ ‘objective,’ ‘realistic,’ or ‘idealistic’ are irrelevant to the mode of questioning Being. ‘*Schein*’ in its full spectrum as coming to light, as the appearance of Being, the radiance of Being, or the semblance of Being, still facilitates Being to be apprehended by *Dasein* through beings. Appearing is crucial as a means by which Being emerges from unconcealment. Heidegger argues, “Appearing is the very essence of Being.”⁴⁸⁶ Becoming and appearance both contribute to *Dasein*’s relationship to the truth of Being, through manifest appearance and the enduring sway. Far from being alienated from Being, through ‘being-there,’ *Dasein* can evoke the unconcealed radiance of the Being as it is manifested in beings.

Heidegger summarises that Being as *Physis* was divided at this early point in Greek thought into three facets; firstly as *emerging*; secondly, *becoming* to presence; and finally, manifesting as the *appearance*. Plato and the Sophists congealed the distinction between appearance and Being by making a distinct separation between concealment and distortion – appearance. Heidegger counters the rigid Platonist desecration of appearance as distortion by regarding the *Schein* as the unconcealment that reveals Being towards

⁴⁸⁴ Heidegger, 1973a: 100

⁴⁸⁵ Although later he argued that the challenging forth (*Begriff*) of Being in the enframing of technology needs to shift back to a more contemplative openness rather than ‘wresting.’

⁴⁸⁶ Heidegger, 1973a: 101

Dasein. Yet for Heidegger, Plato marks on origin, the ‘culmination of the beginning of philosophy’⁴⁸⁷ Parmenides more poetic and original conceptualisation of the question of Being ‘falls away’ with Plato, into a hardened, otherworldly quest for ‘values’ rather than ontology. Plato emphasized the *mimesis* of the appearance, which implies that being is a replica and Being the original. The appearance is the shadow and insufficient copy of the Absolute Being, implying that the appearances of beings are mere replica: re-present themselves as appearance, or simulacra of the original Being. This set up representation as the only means that human subjects can apprehend any thing, a philosophy of nominalism that recurs through Thomas Aquinas, Peter Abelard, Dun Scotus, William of Ockham, David Hume and permeates philosophy today.

The third aspect of Being also resides in the Platonic schema of metaphysics. Heidegger makes an etymological argument that *eidōs*, or Idea is derived from *ousia*, or enduring manifestation. The enduring manifestation is not simply a slowing down of *physis* or emerging into a static or stagnant tempo. The falling away from *physis* to *ousia* is actually a divorce in terms. As *ousia*, the permanence of Being is juxtaposed against the temporal limits of beings. As *eidōs*, the Idea is opposed to the illusory deficiency of appearance. Being is removed from the immanent ground, to a transcendental position that lights up the mere apprehension of transient objects. New constraints on epistemology result from this extraction of Being from beings, and it is much more querulous to apprehend things. According to the new ontology truth “becomes a correctness of vision, of apprehension as representation.”⁴⁸⁸

Heidegger argues that Plato’s conception of Being as indiscernible except as the simulacra, the enduring manifestation of Ideal truth, ‘correctness of representation’ falls into a stale understanding of *logos* as statement. The logical statement has an obvious, positivist reference in relation to appearance that Heidegger argues is ‘always already’ unconcealed in relation to appearance. The appearance no longer has the ability to inquire into the truth of the ground of Being because *logos* is always limited to a nominal representation that cannot ‘wrest’ Being from unconcealment. The dynamics of *physis*

⁴⁸⁷ Heidegger, 1973a: 180

⁴⁸⁸ Heidegger, 1973a: 185

has congealed with *logos* so that *Schein* as emerging radiance, and not distinguished radically from subjectivity, can now only be perceived as an apparent, surface appearance. The appearance of the entity is bound by time and space and only interpreted through the representation of the subject. The dialectical method of deduction gives rise to a language that privileges calculating logic. *Logos* describes an entity's quidity - its *whatness* - and appearance designates its quodity - or *thatness*. The appearance can be measured in size, volume, weight and so forth, it can be positioned in terms of place and history. Being can be *represented* as having different properties, such as magnitude and extension. Heidegger argues that Aristotle too, derives his philosophy of language from *logos*.

Being as emerging unconcealment has been shifted to the statements of *logos*, to representations of correctness. While the *logos* lends itself to rational calculation, the idea and statement have taken over, and now ground the possibility of finding the truth of Being.⁴⁸⁹ Christianity and modernity, Heidegger admonishes, adheres to the metaphysical traditions' "paralysis of all passion for questioning."⁴⁹⁰

Clearly, it is here that the role of education is most vital. According to a Heideggerian reading, the ethical task of education is to inspire a psychology of awe: to *care* about Being as such. As teachers know, in the moments when we do achieve this, as opposed to the long hours where students are struggling not to fall asleep, 'the penny drops' and real learning and thinking occurs.

To summarize, Heidegger's argument of the 'degradation' of the inquiry into Being by Plato, then Aristotle and the tradition of Western metaphysics, several key shifts take place. Through Plato's shift from *physis*, Being to *eidos*, Idea, Being is no longer immanent and welling up through all beings, it is reserved as the *model* of beings. Modern languages have evolved from Plato and Aristotle's philosophical assumptions. We are born into communities with a language that pre-exists any individual, and in European languages the terminology and grammatical structures reinforce the separation of subject from the environment because appearance and 'representation' is always

⁴⁸⁹ Heidegger, 1973a: 186-188

⁴⁹⁰ Heidegger, 1973a: 142

inserted in the meanings that we attach to names. The appearance is the semblance or simulacra of Being which thinking can 'correctly' ascertain.

Because Being has lost its 'ground' in beings, and is now held fast by the verifiable *logos*, it is susceptible to Plato's transcending it with 'the good.' Values impose a transcendental 'ought' upon Being, and so there *is* no longer an intrinsically radiant, immanent unconcealment through beings. Value judgements are posed in the language of calculation and rationality, imposing a technological measurement on Being.

Representation and calculations of value hierarchically supersede Being. Logical deduction is assumed to produce universal moral values, imprinting the subjectivist construction of truth above Being and thus annihilating any possibility of Being to 'shine forth.' Because Being is removed from the daily existence of time and place, the reciprocal relationship where thinking both 'is' and at the same time apprehends Being can no longer coalesce. What Heidegger calls the 'staleness' of the *logos* mediates between the replica or representation and the human. Since the culmination of the beginning of philosophy, thought remains captured by the *logos* of values and statements. For Heidegger, language as representation is the essence of metaphysics.

Being as emerging, or becoming, also changes from the viewpoint of the metaphysical *logos*. Being is no longer the immanent, enduring presence that belongs, but is instead the calculable magnitude and movement of space and time. Becoming shifts its emphasis to movement and away from permanent presence, its velocity being calculable as distance divided by time. This emphasis that Heidegger places on permanent presence explains his continual reference to the homely place of *dwelling*. His resistance to movement, whether nomadic peoples or the technological development of engines, transport, globalised consumerism all find justification in the rather static conceptualisation of *physis* as emerging from enduring presence.

Where Plato was characterised as the 'culmination of the beginning,' Heidegger positions Nietzsche as the culmination of metaphysics. He argues that Nietzsche's thought is merely the inversion of the Platonic Idea.⁴⁹¹ Nietzsche rejects the 'otherworldly' but

⁴⁹¹ Heidegger, 1982, vol. II: 95

elevates nature, or 'life' to take its place. A generation before Heidegger, Nietzsche wrote that Plato initiated the degeneration in philosophical metaphysics by creating an 'otherworldly' alienation of the Idea. He wrote in his notes for *The Will to Power*,

The great concepts "good" and "just" are divorced from the first principles of which they form a part, and, as "ideas" *become free*, degenerate into subjects for discussion. A certain truth is sought behind them; they are regarded as entities or as symbols of entities: a world is *invented* where they are "at home," and from which they are supposed to hail. *In short*: the scandal reaches its apotheosis in Plato.⁴⁹²

In regards to the history of western metaphysics, Heidegger does not acknowledge his debt to Nietzsche's thinking. Instead he disposes of Nietzsche's awesome analysis of the history of western metaphysics by arguing, in effect, that Nietzsche's concept of the transvaluation of values is a reimposition of the hierarchy between the World of Appearance and the World of Ideas.⁴⁹³ Nietzsche proposes a series of metamorphoses, that overcome the dichotomy created by metaphysics, but Heidegger argues that Nietzsche wishes to 'naturalise' humanity and 'deify' the appearance rather than the 'otherworldly' value of the 'good.' According to Heidegger's careful explication of the ancient dichotomy between appearance and Idea, Nietzsche succeeds only in inverting the two, and thus the dichotomy is not transcended, it is *preserved*.⁴⁹⁴ The tussle between them amounts to vastly different approaches to the concepts they use in regards to the environment. Heidegger claims the ancient philosophical term Being, and Nietzsche relies on Life.

Nietzsche

Nietzsche's critique of the theological and philosophical is highlighted in his declaration "God is dead." With this flash of insight he proposes that the entire edifice of Western metaphysics with its faith in universal truth will collapse. Nietzsche talks instead in terms of the 'Will to Power' which generates a particular constellation of perspective(s), a flow of forces, and constitutes a relatively stable 'ground' from which a person or group will understand their world.

⁴⁹² Nietzsche, 1909a, vol. I, # 430: 351

⁴⁹³ Heidegger, 1982, vol. I: 171, and vol II: 95

⁴⁹⁴ Heidegger, 1982: vol. I: 171

Nietzsche's philosophy of values is a complex and apparently contradictory set of ideas, made harder to coherently apprehend because of his style of short, oblique aphorisms that do not directly associate with one another. He presents a variety of perspectives that together amount to both a critique and an acknowledgement of the contribution of different points of view. The moral perspectives of various groups in society can be judged according to their contribution to the overall health of the planet. The active 'noble,' the reactive, plebeian *ressentiment* – they are sometimes poisonous to the health of society, but poison can also in some circumstances be the unlikely and dangerous medicine required to save us from disease and death.

In *Towards a Genealogy of Morals*, Nietzsche defines the 'Will to Nothingness' as nihilism.⁴⁹⁵ In that text he makes a comprehensive argument that monotheistic belief systems tend towards idealising the 'otherworldly;' Judeo-Christian-Muslim religions with heaven, Buddhists with nirvana, and so forth. Aiming the attention, will, and purpose at something 'beyond' the immanent, daily reality of this life is, by his definition, the will to nothingness. By insisting on universal purpose and teleology, whole societies deny the meaning of living in the often incomprehensible, mundane, daily world of the living environment. Nietzsche's argument is that we need to rejuvenate the '*Blick*' of existing in the here and now by making the decision to will the inevitable in our own lives.

Nietzsche himself has often been accused of being a nihilist. And in a restricted sense this has some validity. In *The Will to Power* Nietzsche notes that disillusionment with the belief in God has resulted in a loss of meaningfulness; "And thus the belief in the utter immorality of nature, and in the absence of all purpose and sense...as though there were no meaning in existence at all, as though everything were in vain."⁴⁹⁶ But he does not abandon thinking or decision making in this void. Nietzsche argues that the significance of human life is the ability to be creative and enquire about our environment and ourselves. He calls this the transvaluation of values. These enquiries have no recourse to the authority of God, or Being, or the legitimacy of the State, or less still the Pragmatic

⁴⁹⁵ Nietzsche, 1989

⁴⁹⁶ Nietzsche, 1909a, vol I, # 55: 47-48

paramount importance of the ‘good of the greatest number.’ Knowledge is contestable at every level. It is constantly in a state of flux. It is the differentiation, as Deleuze and Guattari put it, that produces a dynamic democratic ‘rhizome’ of links, overlays, missed connections, and multiplications of meaning.⁴⁹⁷ The will to power of different perspectives generates institutions, communities and modes of social organisation, rather than assuming that societal structures are rigid, permanent and serve as a source of legitimation.

Heidegger has a subtly different concept of nihilism to Nietzsche. Heidegger describes nihilism as the *forgetting* of Being. ‘Nothingness’ is simply existence for Heidegger, which is outside the scope of *Dasein*’s openness to Being. While nothingness subtly coalesces with Being, it is also a false or unavailable path of enquiry. He follows Nietzsche’s lead and associates metaphysics with nihilism, for fixing truth into rigid ‘correctitude’ and ‘forgetting’ Being.

Heidegger’s case is that the Platonic Idea is a corruption of the earlier dynamic, emerging *physis* into the representation of the highest value of the ‘good’ which imposes a transcendental logic for universal morals *above* the truth of Being. The enduring presence of Being has also been affected by *ousia* and ‘becoming’ or ‘emerging’ has shifted to the magnitude and movement through space and time. Instead of the appearance shining forth towards thinking, the appearance degenerates into a representation or copy of universal Being. Plato’s ‘Idea’ consolidates appearance into the simulacra, so that the entity is a finite and limited copy of Being. Aristotle developed *logos* into logical discourse, or statement, constraining the space for the unexpected to emerge from concealment, and instead designating the appearance into an always-already developed language with a well-established system of names and categories. The idea can only be *represented* by *logos*. It is repeatable, and communicable, as correctness, but *logos* loses the capability of freshly allowing Being to stand and exude its own full glory.

Being retreats into an Ideal that is inaccessible to humanity, bound as we are by time and space. So Being becomes a heavenly model which earthly beings simulate. But the model

⁴⁹⁷ Deleuze and Guattari, 1999

of Being has increasingly become artificial because it has lost validity through the removal of groundedness in actual things and events. To compensate, Plato added gravity to the Idea of Being by attributing an 'Ought' which transcends Being as an *a priori* supreme model of the 'good.' The 'Ought' of values overtakes Being as the highest purpose that directs human endeavour. Aristotle brought Being back to beings by focussing on the 'essence' of entities. Yet he did not make the same revision of values, which, like essence, he attributes with a universality that transcends the finitude of the individual and instead resides in the entire species, over time. The categories were designed to transcend individual whim. Categories and universal values can be deduced by the *logos*. Heidegger argues that values and categories have fixed philosophy into an increasingly technological specificity, where the minute details of species, genera, and so forth, are busily logged and theorised, and at the same time, the genuine relationship with Being is lost to view. Having forgotten to enquire into Being, the *logos* which has become modern, positivist science is trapped in nihilism according to Heidegger, and he believed that Nietzsche was also caught up in the same rubric of reducing Being to values, or in Nietzsche's terminology the Will to Power as a 're-evaluating' force for 're-evaluating values.'⁴⁹⁸

In contrast to Heidegger's analysis of nihilism, which is the forgetting to care, the failing to enquire into the nature of Being, Nietzsche regards nihilism as a psychological phenomenon. Nietzsche's nihilism is a phase of disillusionment which humanity must pass through when we face up to the problem that are integral to our previous sources of meaning. Nihilism derives from an ethos of purpose that has lost its significance, or ground. Instead of being the ultimate end in disillusionment, nihilism is a crucial part of a cycle of decision making as we rid ourselves of outdated moral truth concepts that have become life degenerating rather than life enhancing. The 'otherworldly' values that have lost their meaning can be overcome through a transvaluation of all values. Nihilism is something to be overcome as we find a deeper regard for life. Willing permeates life, and willing provides the impetus for choosing values to motivate our own actions, in the

⁴⁹⁸ Heidegger, 1973a, last chapter

knowledge however, that these motivations will also be subject to question and the disorientation of disillusionment.

The dominant form of political and social organisation in most modern democratic (and many non-democratic) states is Neoliberalism. It uses the market as a metaphor for all aspects of society, including education. The marketisation of everything, including 'human resources' has exacerbated the danger and the disillusionment of the self-serving degeneration of a civil society because we have no regard for other living beings, the biosphere, the world's poor or even our own future generations. This fall into depravation and selfish greed has generated unease in all caring and thinking people. That disillusionment with contemporary values creates the nihilism that is for Nietzsche, a necessary pre-condition for the creation of new values that will reshape society into an entirely new, ethical configuration. Not that we should imagine all problems will be solved, for struggle and change will show up in new arrangements of rank, new distributions of difference. Education has potentially a central role to play in this metamorphosis of the relationship between human society and the environment we live with.

The tone of redemption is not absent from either Nietzsche or Heidegger's accounts of nihilism or its nemesis. But present at the core of their work is a recognition that strife generates life itself. In the form of suffering, strife is not something we can eliminate or return in kind, explain or redeem. Strife is *how* differentiation occurs. No two items are ever identical. Differences generate the flux of positions that create identifiable perspectives and meaning. But neither is strife of differentiation the Terror of governmentality that is embedded in the modern state. Strife is not *why* life is unbearable or meaningless, it is simply the powerful, chaotic, generation of movement and change.

There is considerably more that could be said about Nietzsche's concept of nihilism, the will to nothingness and the will to power, life and the eternal recurrence. I disagree with Heidegger about Nietzsche's position as the culmination of western metaphysics, but in terms of bringing Heidegger's philosophy into focus, the comparison with the two

different versions of nihilism, life and Being is important. Heidegger continued to engage with Nietzsche's thought throughout his life.

By focusing on the significance of the relationship between *Dasein* and Being, Heidegger has avoided the technological minimalisation of site specific scientific 'fixits' to problems such as pollution and human caused extinction. Nietzsche was taken up by the Nazis in precisely this manner; the Nazi will to power sought to technologically 'solve' the 'Jew problem.' Attention to language, a refusal to fall into the 'stale representation' of the *logos*, and an awareness of the creative possibilities of all knowledge as means to a vital, life enhancing culture is the massive task of humanity in general, and education in particular.

Education teaches values in a variety of curriculum areas, for example Citizenship, Environment, Religious Education, and Modern Studies, and the values will have to deal with these issues of scope and the relationship between humanity and the environment at the same time as we analyse our modes of social organisation and struggles over equity and difference, war and peace. Heidegger's analysis of the nihilism embedded in the language, *logos*, and universal transcendence of 'values' initiates a new critical turn in our approach to education and ethics. He advocates that a new framework for ethics might emerge from the focus on the relationship between beings and Being.

The tensions that are brought to light between the philosophy of Heidegger and Nietzsche indicate that the concept of Being needs closer investigation. I think the scope of a new focus for educational ethics might also look at the relationship between beings and environment, or as Nietzsche calls it, Life. It is not a return to Liberal justifications for vocationalism or critical democratic participation, nor is it exactly a mode of redemption. The debate over educational values needs to engage with the shift in relationship between humanity and life such that consumerism gives way to an ethic of attention, care and co-existence.

8 Heidegger's version of Environment: Equipmentality and Being

Encrusted in the ancient term Being,' there seems to remain a conservative eschatology that's tends to the transcendental. To some extent this derives from the historico-political circumstances of 20th century Germany and to some extent is a relic of Heidegger's onto-theo-logical genealogy of the term 'Being.' In this chapter we will look closely at Heidegger's conceptualisation of 'foundations,' 'equipment,' '*physis*,' '*aletheia*,' 'worlds' and 'epochs.' Heidegger's philosophy is hugely influential for rethinking the scope, the purposes, and the grounding for epistemology in an era which is beginning to recognise the failings of modernity. Yet some of these failings creep in and reside in Heidegger's thought. I attempt here to critically examine some fundamental aspects of Heidegger's concepts, while recognising that his ideas are crucially important for reconfiguring economic transactions, global consumerism, international relations, politics, policy, social structures and institutions, and the educational project.

Foundations

The Earth has been traditionally associated in philosophy with the physiological source or substructure of the human animal. Biology has been the 'ground,' the 'substance,' or the 'substratum' upon which human animals build on a 'superstructure' of social relations, knowledges, politics and technology. Heidegger completely rejects biology as the ground of thinking.⁴⁹⁹ While he made use of Marx's materialist methodology, he rejected the notion of an intellectual superstructure. For Heidegger, thinking is grounded in the home of Being. Thinking is fundamentally ontological. There is no civilised hierarchy that offers a 'wealth' of opportunity for the privilege of education and thought. Rather than biology, Heidegger offers an alternative 'ground' to thinking and ontology: Being. Being could arguably be a physical, environmental, and immanent ontology. Heidegger insists on leaving Being enigmatic. "Whenever a *being is*, Be-ing must sway. But how does Be-

⁴⁹⁹ Heidegger, 1973a

ing sway? But *is* a being?”⁵⁰⁰ The continual reframing of the question “What is Being?” draws different elements of the Be-ing to light. There is no definitive answer, but the questioning intimates a genealogy of meanings which contribute to contemporary and future understandings. If in that genealogy is the problem of anthropocentric nominalist Idealism, or technological enframing, then the questioning, the terminology somehow needs transforming or disrupting, to allow a new set of relations and a new pathway to emerge for human beings and the planet.

Equipment

In Heidegger’s 1927 text *Being and Time*, the substrata of Nature is not exactly inverted but his concept of being in-the-world places primary emphasis on equipment rather than physiology. The ‘ground’ is shifted from ‘earth’ and biology to the ‘world’ of normalised social relations. Heidegger’s early writing ontologically prioritises equipment as an integral part of human subjectivity. The majority of the time equipment is indistinguishable from the self. ‘I’ stoop over desk and paper and squiggle with a pen but am consciously engaged with the communication of ideas rather than the manipulation of tools. Unless, that is, some item ‘fails,’ for example my elbow twinges with repetitive stress syndrome or the pen runs out of ink. Then ‘the problem’ is isolated out as object of enquiry but the rest of the time, unreflective absorption in equipment constitutes the world.⁵⁰¹

Nature is rarely brought up in Heidegger’s early work. But after the ‘turn’ of the 1930s he began to approach nature, modernity, and equipment in a subtly different way. Feenberg argues that he has two distinct classes of equipment; premodern ‘craftwork’ that is ontologically privileged, and then modern enframing where everything is reduced to a resource.⁵⁰² There certainly is a significant shift, I would argue of disillusionment during and after the National Socialist period. In some moments this presents as a dualism; the skill and comfort of Luddite premodern ‘craft’ being contrasted with a degraded, dangerous and alienating modern industrialism. However there are many ways in which

⁵⁰⁰ Heidegger, 2000: 5

⁵⁰¹ Cf. Charles Guignon, 2000: 67 and Hubert Dreyfus 2003 for examples of the way equipmentality functions together with subjectivity.

⁵⁰² Feenberg, 1999: 184, 208

Heidegger's earlier analysis of the ontological basis of tools holds in the later discussion of enframing. The Cartesian model of individuated subjectivity is negated in both, firstly by ontological absorption in tools which 'world' and secondly, and similarly, in enframing which also creates a world that encompasses human subjects as much as it does earth and particular technological items.

According to the second more cynical approach to technology as enframing, the initial challenging forth by humanity and environment is of utility, potential resource and capacity to store. Nature and humanity are instrumentalised. The forest is a place to exercise and a reserve of building materials and paper, rather than an autonomous sublime landscape. In fact, Heidegger argues that the presence of 'pure nature' is *derived* as an abstraction from the ready-at-hand (*Zuhandenheit*) of the relational field of equipment. Present-at-hand (*Vorhandenheit*) is a secondary concept rather than a metaphysical 'ground.' Both of these relationships with nature are oblivious to its raw power or autonomous force. The (Romantic) nature "which overwhelms us and enthrals us as landscape"⁵⁰³ is not derivative nor reducible to *Zuhandenheit* or *Vorhandenheit*. This hidden aspect of nature is present but unexplored in early Heidegger.

Heidegger is interested in where the nominalist separation of subjectivity from nature is imposed and if, where, and how it is transgressed. The 'world' is a network of interdependent relations at a variety of levels; equipment, politics, morality, and so forth. The 'world' of relations conceptualised in human terms limits our ability to comprehend natural earthliness. Or put in Heidegger's words, "All that we will ever be able to say, or think or experience of supposedly 'natural' phenomena is necessarily situated within the world."⁵⁰⁴ Somehow, despite his notion of humans 'being-in-the-world,' dissolving the separation between subject and object that was posed by Descartes, Heidegger retains a sense of the Idealist separation between nature and humanity. The 'world' is a nominally different conceptual space to the 'earth.'

⁵⁰³ Heidegger, 1962: 70

⁵⁰⁴ Heidegger, 1962: 70

Physis and aletheia

During the 1930s Heidegger's thought took an acclaimed 'turn' during which he developed another approach to nature. In *An Introduction to Metaphysics* (1935) and *The Origin of the Work of Art* (1936), he rejuvenated two related Greek terms, *physis* and *aletheia*. This new conceptualisation reinstates the independence of nature, he wrote in *Einführung in die Metaphysik*, "(What does 'physis' mean? It means that which arises *on its own*)"⁵⁰⁵ but it also struggles to transgress the rupture posed by Idealism. In *Holzwege*, "The world is founded on the Earth and the Earth thrusts up in the world."⁵⁰⁶

Physis began to stand in sometimes for 'Earth,' sometimes for 'Nature,' and sometimes for 'Being.' In a variety of texts, Heidegger wrote, "This appearing and arising itself and on the whole was early on called *physis* by the Greeks. In a single stroke this name clarifies that upon which and in which man grounds his abode. We name it *Earth*"⁵⁰⁷, "*Physis* is Being itself"⁵⁰⁸ and also in the works on Hölderlin, "The inaugural arising of what is present in all being, but also falls askew, even falls into oblivion: Nature (*physis*)"⁵⁰⁹.

There arises a complex set of relations and important distinctions between Being, *aletheia*, *physis*, and Earth and Nature. While at times *Physis* takes the title of Earth or Nature or Being, each of these is different. Michael Haar expounds in his book, *Song of the Earth: Heidegger and the Grounds of History of Being* (1993), "if the Earth appears, manifests itself in the world, it must enter into being. But it does not *stem* from Being; it does not identify with Being. If the Earth is neither the appearance of Being nor, as Heidegger will make clear, the name of its withdrawal, then does not its proper, autonomous power remain unthought?"⁵¹⁰

Crucially *physis* does not rely on the materiality of the planet, but rather on its dynamic of obscurity and emergence into the light of truth, *aletheia*. *Physis* is at once, aspects of

⁵⁰⁵ Heidegger, 1953: 11 cited in Haar, 1993: 11

⁵⁰⁶ Heidegger, 1979: 37 cited in Haar, 1993: 13

⁵⁰⁷ Heidegger, 1979: 31 cited in Haar, 1993: 13

⁵⁰⁸ Heidegger, 11 cited in Haar, 1993: 13

⁵⁰⁹ Heidegger, 1951:64-65 cited in Haar, 1993:12

⁵¹⁰ Haar, 1993: 12

the earth coming forth and at the same time, necessarily, retaining a hidden element. “More precisely” Haar explains, “Earth belongs to the dimension of withdrawal, of concealing (*lethe*) which holds sway in un-concealment, in *a-letheia*.”⁵¹¹ Earth is not exclusively a secret, or a hiddenness or even the ‘unthought.’ It is always *both* impenetrable, hiding elements of itself *and* allowing aspects of its being to show forth. Dissecting the flower and mapping its veins, cells and photo-chemical processes in minute detail cannot ascertain the texture, delicacy, smell, imperfections of its flowerness. The flower *is*. Heidegger explains, “Earth is the spontaneous arising of what is continually self-secluding.” To comprehend the Being of the flower we are better served by poetry than rationality. *Aletheia* is the process of *physis*. The concealing or revealing is directed towards an audience – those who care, *Dasein*.

It would be overstating the case to say that *aletheia* and *physis* seals the rupture of Idealism. Earth is arising into the world, and this projection constitutes an upheaval that is never satisfactory. Movement is not quite the right word, but Haar is on to something when he writes that because the Earth keeps its own depths hidden, “Being essentially this movement of again taking up and going back into itself, it makes this covering rise up and visibly appear in the very midst of the world.”⁵¹² The Earth exudes with fundamental familiarity, something that is undiscoverable and incalculable in rational, or even worldly terms. But Heidegger wants to say something further, and in *Erläuterungen zu Hölderlins Dichtung* he wrote that the “Earth cannot renounce the Open of the world if it is itself to appear as Earth.”⁵¹³ *Aletheia* has many facets. It is concealment that becomes manifest in the ‘clearing,’ the rising or unconcealment of elements of Being into the open, and it is the forgetting or obscurement of Being in the guiding paradigms of the world. Truth is fundamental to the relations that extend between beings and Being, or Earth, or Nature.

According to Heidegger, it is not scientific positivism but poetry that is one of the best ways that people have to bring the Earthly into language. This does not occur through an ‘apparent’ representation but through a truth factor that is irreducible to the calculus of

⁵¹¹ Haar, 1993: 57.

⁵¹² Haar, 1993: 57

⁵¹³ Heidegger, 1951: 38, cited in Haar, 1993: 57

science or governmentality. In his book *The Song of the Earth* (2000), Bate draws attention to the way Heidegger associates *poiesis* and *physis* in *The Question Concerning Technology* (original lecture 1953).⁵¹⁴ From Plato, Heidegger argues that *poiesis* brings something into the world that was not previously there, bringing it forth into the clearing, *aletheia*. This is the same process as the emerging, revealing, or ‘coming into presence’ of *physis* in *aletheia*.

Physis, also, the arising of something from out of itself, is a bringing-forth, *poiesis*. *Physis* is indeed *poiesis* in the highest sense. For what presences by means of *physis* has the irruption belonging to bringing-forth, e.g. the bursting of a blossom into bloom, in itself.⁵¹⁵

Heidegger distinguishes between the *poiesis* arising from itself, and the technological arising of instrumental activity in the craftsman, for example. The bringing forth gets transferred to the craftsman, rather than the instrument that ‘causes’ the production of an artefact. The truth (*aletheia*) gets attached to the person rather than the being. Heidegger reverts to Idealism again.

Harking back to the Romantics, particularly Wordsworth, ecologically aware poetry, or *Ecopoiesis* is not a-political but is a poetic principle of politics. This means ecological poetry might be held and contested by a variety of political spectrums. The blossoming tree reveals itself in an always-already political landscape. Many political forms claim to mimic nature, Burke justified inheritory land ownership through natural evolution,⁵¹⁶ Capitalist economics is associated with natural competition, and ‘survival of the fittest.’ Heidegger tried to regulate an ‘authentic’ relationship; *Dasein* and Being, as a kind of authentic eco-politics and ultimately true *ecopoiesis*. Yet Heidegger too, places so great an emphasis on the local; home, hearth, and dwelling, that he confuses eco-politics with nationalism.

World

Heidegger puts together nature, truth and human agency in an integral whole, that is shaped by an aesthetic ‘decision.’ The decision is the principle of action. The decision –

⁵¹⁴ Heidegger, 1977

⁵¹⁵ Heidegger, 1977, cited in Bate, 2000: 253

⁵¹⁶ Bate, 2000: 278-279

this is the point of interest to educators! It is the guide and reference point to all our interactions, both with each other and in relation to nature. The aesthetic decision is what political activism is motivated by, and works to change. It is what teaching is aimed at. It is the 'reason' that the Scots will vocally object to queue jumping but casually ignore littering. Green consciousness is a decision that has far reaching consequences on institutional policy making, on personal effort, on lifestyle choices, on ethics, on physically and metaphorically creating a 'world.'

Heidegger's concepts of *physis* and *aletheia* radically challenge metaphysics and the guiding principles of modernity and the Enlightenment. Truth and knowledge are not a superlative add-on to the fundamental structure of material physiology but essential to nature itself. The foundations have changed. Understanding Nature via a first premise such as equipment or instrumentality is no longer adequate as an initial focus.

Unlike traditional Idealism which accentuates the sceptical gap between subjective mind and nature as the object of knowledge, *Physis* and *aletheia* integrate the human need to seek truth in the ground of Being. Heidegger's concept of poetry is a potent force for surmounting the subjectivism of Idealist principles that have separated human society from Nature. Nominalism is still at work, but instead of believing it emerges only from the individual's subjective mind, *aletheia* is firmly anchored to the erupting forces of Earth as it pushes forth into unconcealment *in relation* to human beings.

Animals

Bate (2000) and Haar's (1993) commentary on Heidegger and the poetry of 'earthsongs' dissolve modern and Enlightenment distinctions between subject and object and should democratise the Great Chain of Being. But when it comes to the status of humanity in relation to other forms of life, Heidegger retains the prejudice of his times. Although no theorists want to associate with Heidegger's politics because of its Nazi associations, his prejudice based on the Christian hierarchy is accepted by most Heideggerians, including Guignon and Haar. Humans are superior because they are capable of poetic insights. Animals on the other hand, are restricted to unreflective absorption in their environment.

In Heidegger's schema, there are three important distinctions between humanity and animals, remembering that he wants to abandon biology as the substratum of human *being*. Firstly, animals are so engrossed in the environment that they have little or no agency. Secondly their 'world' is an impoverished one. Thirdly, he thinks that animals have no anxiety about death – a concept crucial to Heidegger's notion of authentic subjectivity.

Animals are unable to discern beings *as* beings. They are totally engrossed in their form of environment.⁵¹⁷ One might say – although Heidegger would extend them the capability of wielding tools – that animals are completely engrossed in their world of equipment “only as non-isolable elements of its environment.”⁵¹⁸

Heidegger tries to avoid being arrogant about the status of animals, in *Die Grundbegriffe der Metaphysik*, he says it “does not mean that life is of less value or of an inferior degree compared to human existence. Rather, life is a domain which possesses a rich openness (*Offensein*) the likes of which the human world perhaps knows nothing.”⁵¹⁹ However, for the most part, animals are not seen in honourable terms of alternative worlds to which we have little access, but in terms of an *impoverished* world.⁵²⁰ Furthermore, to envisage a 'rich' animal-world is attributing human values to animal realities. Haar agrees with Heidegger's stance “We much too quickly shift animals into a genuine world, forgetting that an animal lives in the limited space of an environment.”⁵²¹ Animals are firstly *organisms*, from which the root word, 'organ' describes the physiological means of carrying out the will of the faculties, i.e. an 'organ' is a tool.

Heidegger also makes a distinction between animal *behaviour* and human *conduct*. Behaviour is limited to operating in an environment in an absorbed and self-referential manner. The utter absorption in the lived environment (often called 'instinct') is a

⁵¹⁷ Heidegger makes a distinction between 'environment' and 'world.' The 19th century German term for environment is *dasein*; the term he co-opts as the being who is open to Being. 'Environment' is degraded to mere existence, little removed from nothingness. See chapter 8

⁵¹⁸ Haar, 1993: 25

⁵¹⁹ Heidegger, GA 29/30: 371-2 cited in Haar, 1993: 25

⁵²⁰ Heidegger, GA 29/30, 274, 275 referred to by Haar, 1993: 12

⁵²¹ Haar 1993: 26, Furthermore, Heidegger believes that there is an *abyss* between humans and animals deeper than that between us and the divine. Cf. Heidegger, 1949: 313

compulsion that excludes awareness and agency. Heidegger regards behaviour as closed and captured by existence. Conduct on the other hand, is the openness to the manifest experience of things in the 'open of the world.' Although elsewhere Heidegger is happy to acknowledge that humanity has little insight into the 'essence of life' itself. On a larger scale Heidegger's notion of the epoch and the Enframing of technology is just such a finite and totalising system as the all-engrossing environment he attributes to animals, and subsumes agency in a similar manner.

The third vital difference that Heidegger wants to posit between humans and animals is their differing attitudes towards death. Anxiety towards death is a crucial part of Heidegger's philosophy in *Being and Time*. It forms the framework for his concept of time and history. Humans always conceive of their lives as finite and thus it is possible for the blick of the present moment to contain the entirety of the past and a projection in the knowledge of this inevitable future endpoint. Holding this entirety together lends a perspective on the life we lead that is, he would argue, unavailable to animals. He writes,

And thus, just as it remains questionable to speak of an organism as a historical (*geschichtlich*) or even historiological being, it is questionable whether death for man and death for an animal are the same, even though physio-chemical, physiological correlations can be ascertained.⁵²²

Many mammals pine for their dead loved ones and obviously understand that death is profound non-being. For all Heidegger's exposition on allowing Being to shine forth, he seems oddly unsympathetic and closed off from many aspects of the world he lived in.

Epoch

Again harking back to the tradition of philosophy which assumes that a teleological process guides history, Heidegger seems undecided about the *telos* of change. On the one hand he is influenced by Dilthey and Nietzsche who both reject any teleological direction, on the other hand he often posits an unfolding, a *telos*, or destiny to history. Haar regards Heidegger's theory as an inversion of the *telos* of Hegelianism, although Haar is not arguing that the destiny of Being is in any way a dialectical process. Destiny (*Geschick*) holds within it all the potential possibilities of history. This does not resonate

⁵²² Heidegger, GA 29/30: 388 in Haar, 1993: 8

with Hegel, I would argue, but with Aristotle's notion of the essence as a 'seed' that defines the potential pattern of growth. This is why the 'commencement' is so important to Heidegger. The sending of destiny (*Geschick*) is held in its commencement. Humanity is merely in the position to note aspects of the essence that have already unfolded. The 'essence' however, is the totality of possibility held within the commencement. Owing considerably to Aristotle's teacher Plato, the essence of Being supersedes the historical contingencies of time and space.

Heidegger's teleology does not reach towards a heavenly otherworldliness, or a technological and social utopia because the beginning (*Anfang*) was corrupted. He pessimistically characterises the evolution of the world in *Sein und Zeit* as an escalating 'fall' from grace. "The History of Being is the history of the increasing oblivion of Being."⁵²³ This process is not a logical inevitability, nor does it follow a law of causality that, to some extent following Nietzsche, Heidegger rejects. He explains that,

Between the epochal metamorphoses of being and the withdrawal one can perceive a relation which nevertheless has nothing to do with a relation of causality. One can say that the further away one is from the dawn of western thinking and from *aletheia*, the greater is the oblivion into which it falls, the clearer is the manner in which knowledge and consciousness break into the open, and the manner in which Being thus withdraws.⁵²⁴

Heidegger believes each epochal manifestation of Being has a finitude that excludes it from being able to comprehend dimensions other than its own disclosure. The destiny of Being has reached its closure with the technological apprehension of everything as resource. But Haar says

Final totalisation does not mean that History is a total unveiling. What could the term *Geschick* mean if not that being gives itself, "sends itself" (*schicken*), gathers itself at each moment into a domain of unity (*Ge-*)? This unity is that of an epoch. But each epoch is completely closed and blind to what does not enter into it. There is a radical finitude to an epoch and to all epochs. Every epoch of History is *epoché*, which means a "holding itself back," "self-suspension," or "withdrawal," of being which goes hand in hand with its manifestation. The epochal or historical as such is deployed on the basis of a free emergence closed in itself.⁵²⁵

⁵²³ Heidegger, 1977: 56 in Haar, 1993: 72

⁵²⁴ Heidegger, 1977: 56 in Haar, 1993: 73

⁵²⁵ Haar, 1993: 2

The (unlooked for) defining principles make an enclosed, finite epochal period, and the inhabitants of any epoch are not in the position to be able to activate pathways or even 'see' outside it. The enclosure or enframing; in our case of technology, generates the field of possibility.

Openness to beings *as* Being, the role of agency, creative conscience and responsibility seem to form the critical differences between animals and humans, between existence and *Dasein*. Our world of equipment is more encompassing, and has with it a greater responsibility for damage control. The epoch though, is a peculiarly human example of 'worldliness' and while we imagine that it is superior to the worlds of other animals or beings we will be incapable of calling forth, in poetry or otherwise, a decision to care (which is the very motif of *Dasein*) in a manner which will guide politics and science from mere calculative rationality to a honouring and revealing of Being in its primary form.

Unless we genuinely approach the animal world with an attitude of equity it is impossible to advocate an authentically ethical relation between humanity and environment. In this regard I think Heidegger began a process of thinking outside of the Christian ethos of rank and the Heavenly Will to Nothingness, as Nietzsche described it, but does not sufficiently leave behind these ideas to avoid the pitfalls of denying life on this planet in *this* moment, including the finitude of life itself and not simply the finitude of the individual.

Earth as 'substratum' has been disinterred by a combination of the global flows of finance capital and the new information technologies where cyberspace has become the 'place' where relationships between people, organisations and production occur.

In contrast, Heidegger recognized that the 'home' is significant because it is *physis*, the abode of the enduring presence of Being. Home involves safeguarding the ground as something that matters in every place, frontier or not. The decoupling of responsibility from the planet is the latest example of other-worldly nihilism and its associated devastation and degeneration of 'earth' and 'world.' Education is an important site for rethinking and promulgating a more hopeful, caring and constructive relationship

between humanity and the environment that recognizes our absorption both in terms of biology and thought, as a part of a delicate ecological sphere that must be approached almost with tenderness.

There are some important internal contradictions in Heidegger's theory, particularly his changing attitude towards tools and technology. In *Being and Time* (1927) he developed the theory that tools are ready-to-hand (*Zuhandenheit*) and present-at-hand (*Vorhandenheit*) which he approves of as a counterargument to the separation of subject from object initiated by Descartes. However his later work is engrossed with how to escape the enframing of technology that reduces everything and everyone as a resource. His earlier reduction of the environment to sets of tools obviously fits in to the technological enframing he later argued against. This is not to say that he is wrong on either of these points, but that humanity as the tool-wielding animal by definition is equally as problematic as humanity as *animal rationalis*.

An associated problem is the space generated by solipsism between *Dasein*, world, and nature. In some instances Heidegger rails against 'representation' as an artificial mimicry or dissembling objectification that intervenes between subject and object. He 'solves' this Idealist dilemma with his theory of *Aletheia* and *Physis*, the revealing and enduring presence of Being that integrates thinking into the ontology of beingness. At other times though, he holds open this solipsistic space between subject and object as vitally important in distinguishing, for example, between the non-reflective existence of animals and the superior analysis of (human) *Dasein*. But a difficulty remains in how we can hold open the distance of sceptical nominalism while integrating the human being with the world.

Heidegger's critical re-examination of Descartes is valuable to questions about sustainability and public attitudes. Descartes famously tried to describe a division between the mind and body via the concept of sceptical doubt and the subjective source of representation. This is a crucial philosophical element of the Enlightenment privileging human individuals as the centre of the knowing universe. Heidegger's refusal to accept this division between mind and body and his consequential rejection of the role of

representation signals a beginning, although not the fulfilment of a new, unorthodox, dare we say, original or originating *Anfang* or commencement, which will develop into a poetics, a politics and a consciousness that obviates the necessity for distinctions such as nature/culture. Heidegger begins to show the path where dismantling the anthropocentric hierarchy that has traditionally separated and superimposed Man upon Nature might possibly be thrown away. His association with Nazi politics and the Nationalist Romanticisation of 'home and hearth' and the 'craftsman' are not necessarily easy to accept nowadays, but nevertheless Heidegger makes some important points and his theory is both leading the way and illustrating some dead end paths for reimagining new sets of social and ecological relationships.

9 Heidegger's Turn: Unconcealment and Forgetting

Technology has driven the industrial revolution that has made mass consumerism possible. Heidegger's insight into the profound importance of technology on the relationship between humanity and society is incredibly important. Heidegger places technology as central to the relationship between the subject and the *Umwelt* or surrounding environment. Later, he borrowed Jünger's concept of 'total mobilisation' where technological production has enframed the modern epoch.

The public's most prevailing assumption about technology is that it is a set of neutral tools, which the ingenuity of humankind has both invented and controls. There are two versions of opposition to the neutral tool. The 'technophobe' is someone who fears or fails to understand how to use the technological tool. Someone who fiddles, but can never get the video tuned in, but is still the *operator* of the technology. Or, further than mere inadequacy, some people are technophobic because they fear the side effects of technology; the magnetic field generated by high voltage overhead power lines for example, as a health hazard. This Luddite view is characterized both as 'green' and often as a Romanticizing of the past when life was simple and the horse and cart prevailed.

Heidegger's view is that technological tools define our understanding of the world we live in. Far from being neutral, the tools shape our sensory perception, our expectations, and our relation to both other people and Being in general. Technology is enframing.

As Nigel Blake, Paul Smeyers, Richard Smith and Paul Standish put it in their book *Education in an Age of Nihilism* (2000);

Technological instruments, it might be argued, refine or extend our sensory perceptions... the dentist's probe enables the dentist to register fine differences in the surface of the tooth of a kind that would not be evident to the fingers directly. It amplifies the sense of touch. The microscope and telescope enables us to see with clarity objects which otherwise would be invisible because of either their small size or their distance from us. But just as this amplification occurs, so too is there a reduction in other aspects of our normal perception of the world such that what might otherwise be available is concealed. The probe does not register the wetness of the tooth; the microscope and telescope alike present things to a view in a kind of flat, homogenized, and framed near-distance that is strangely insulated from us, both limiting in curiously identical ways the

visual field. The amplification that, undoubtedly fruitful in so many ways, brings with it a reduction or concealment of certain aspects of our ordinary experience of the world.⁵²⁶

Technology increasingly mediates our experiences and relationships with our environment (and with each other). Most obviously, education is a means to extend our ability to utilise technology – teachers can explain how the signal is sent, what tuning is for, the limitations of the screen, pixels versus digital images. More subtly, these practices shape our subjectivity. Students are offered the vocational opportunity to become a Video Sales Representative. They slot into a pre-existing set of economic relations, a play of consumption, with the resources obscured behind a plethora of technological devices. Being thus obscured and forgotten is the centre of what Heidegger defines as the modern problematic of ‘technological enframing.’

Heidegger’s project is to highlight the relationship between humanity and Being. On the way, he sets up a strong critique of modernity for “forgetting the question of Being.” His argument is that there has been a shift in our ability to ascertain Being from the early Greek thinkers, pivoting on Plato and later, Descartes. The ‘revealing’ of the Being of beings through *poiesis* has been displaced by the enframing of technology which ‘challenges forth’ and ‘demands’ entities to conform to the ordering of consumerism. This reading makes Heidegger one of the most important philosophers of the 20th century. He requires educators to question their own practices in terms of the human relationship to the environment. His philosophy challenges environmentalists to set upon their task with the appropriate scope and care, without falling back into endless arguments about the relative merits of ‘values.’

Heidegger stakes out the territory for questioning the limits of solipsist scepticism and the extent to which we are still engulfed in the paradigm of modernity. These questions over subjectivity and knowledge are too easily relegated to austere and elitist philosophy. The ideas are written in a language that is hard to access, deeply sexist, and subject to the difficulties of translation. I have endeavoured to touch upon the important issues brought up by Heidegger with the intention of engaging with his ideas, while being aware of their limitations. Education happens in the context of modernity, the technological frame, and

⁵²⁶ Blake, Smeyers, Smith and Standish, 2000: 6-7

the relationship between humanity and existence. These sets of references govern the way we make decisions and maintain our assumptions. By bringing these modes of operation to the fore and asking questions and thinking about our taken for granted relationships we can begin to at least open an avenue for discussing options. Having a resolve to approach these questions in the classroom, both as a part of critical learning in the subject 'technology' and also as awareness of the technological enframing of all aspects of schooling, educators can open up the possibility of disrupting the unhesitating reproduction of students as participants in an economy of consumption.

Heidegger's ontological philosophy places central concern to the 'question of Being.' In his early work from the 1920s he spells out in detail his coherences and differences with the philosophical tradition, particularly thinkers such as Descartes and Kant. He argues that Descartes is the representational thinker who sets subjectivity against objectivity. Not only does this result in the subject becoming the foundational principle for the world, but it sets thinking along an abstracted and mathematical path which arrests the human ability to discern Being in its originary aspect. This is the core of his criticism of modernity and it grounds my critical reading of contemporary globalisation and (Neo)liberalism.

Heidegger explicates his alternative theory. Also ontological, and to a significant extent remaining within the modern project which he suggests is formulated by Descartes and then later Kant. He has strong criticism of the individualism inherent in the modern project. However his characterisation of the subject as '*Dasein*' with its public and personal relation to Being does not create a significant gulf from the paradigm of modernity. Furthermore, his phenomenological method revolves around a concept of the work-world which assumes a technological use value to the environment. Heidegger's later work critiques the assumption that humanity is 'in control' of technology. He argues that technology is the frame which permeates all human relations with the world. His criticism is extremely important in the context of the dominant scientific assumption that humanity is capable of compensating for irreversible global damage by developing new technology. He also suggests that the whole concept of 'nature' which the green movement relies upon is a construct of modernity, and inherently part of the problem itself.

Heidegger sets us on the right path, but many of his hints towards a solution remain essentially conservative and not particularly helpful for extracting us from our dilemma. The ontological basis of Being, the calling forth of new gods and the ultimately passive approach to destiny all remains within the rubric of Catholic theology.⁵²⁷ Yet Heidegger is one of the most forceful writers to collect together insights into the '*Geist*,' or spirit of our times and shine a light on them. His theory of forgetting, *Vergessenheit* takes an abrupt 'turn' in the 1930s when he argues that there is a passive obliviousness to Being hidden within the technological frame. Ironically, forgetting 'saves' *because* Being is not registered by *Dasein*.

By interrogating his earlier assumptions about everyday environing and the parameters of *Dasein*, hopefully, we may discover fissures and excesses by which to decompose the technological frame. While I agree broadly with Heidegger's argument about the 'descent' of the human relationship to Being - or I would want to take more of an evolutionary and less of a theological position and say ecological environment - I want to investigate Heidegger's own loyalty to modernity, his resolute Idealism and particularly his concepts of Being, the work-world and science as it relates to what in traditional terms has been called the human relationship with 'nature.'

This chapter examines Heidegger's central concepts of Being and *Dasein* with an eye to the major problematic in western metaphysics which is the sceptical rupture between the knowing subject and the object of knowledge. Heidegger's concept of equipmentality operates in an always-already work world. He anguishes that the modern lifestyle is nihilistic because it encourages us to forget to ask the most crucial and authentic question; what is Being? The enframing of technology has shifted the language, self-concept, and relationship with the earth from one of contemplative releasement of Being from the daily encounters with beings to a challenging of storage and power from beings for potential consumption. Finally, during the midst of the terrible upheaval of Nazi Germany in the 1930s, Heidegger underwent an epiphany. He realised that the notion of forgetting Being was not entirely nihilistic. Forgetting actually sheltered Being as well,

⁵²⁷ Heidegger, 1916

and he ‘turned’ his ideas in relation to the enframing of technology, of oblivion, which he goes on to argue ‘saves’ us from the danger of the progressive *telos* of modernity.

Being and Dasein

Being shows up, in Heidegger’s terms, in beings, entities, or things. Being does not have an abstract existence, independent of the material world. It is not floating outside of time and space, as Plato would have it. Being is the lasting, enduring, presence that pertains in entities. Each entity is different from anything else to a certain extent, but Heidegger is interested in the continuity that ‘shows up’ and can be ascertained and safeguarded by humanity. There are several precedents to this idea. Although he does not claim to be expounding a new interpretation of Aristotle, Heidegger’s concept of Being coincides closely with Aristotle’s concept of *entelechia*. The concept of Being enduring and ‘showing up’ in the interstice between entities and Being is strongly reminiscent of Aristotle’s theory of substance and accident. Aristotle too, refutes Plato’s notion of the Idea of Being, outside of time and space. The essence or substance is based in the material world, although for both Aristotle and Heidegger it is not limited to particular objects or items. Schopenhauer too has a metaphysics based on the will which is the connecting force between the One and the many. Heidegger tempers the philosophical tradition of Being with the ‘originary’ ideas of Heraclitus and Parmenides.

Charles Darwin’s ideas had been extremely influential for 50 years when Heidegger began to write, and Erasmus Darwin’s more Romantic and poetic texts were closer again to Heidegger’s thinking. But early in his career when he developed the concept of ‘Being’ Heidegger was steeped in Catholic theology so evolution was regarded as heathen. His concept of ‘Being’ is influenced by the theological ontology of Duns Scottus which Heidegger wrote on in his Master’s thesis (1916).⁵²⁸ The *theological* ontology was later tempered by his intense engagement with Husserl’s phenomenological existentialism. Heidegger decided to forego traditional Catholicism but never entirely abandoned his theological approach to Being.

⁵²⁸ Heidegger, 1916

Heidegger did not describe Being as universal. As I explained in chapter seven, there are limits. Being *is* not existence. Whereas existence can also be understood as ‘ecology’ or ‘environment’ in Darwinian terms, Heidegger defined it very metaphysically. Heidegger regards ‘existence’ as an etymological corruption through translation of the Greek through Latin and then into modern European languages. The distinction between mere existence and Being hinges upon the ability of *Dasein* to apprehend. Thus Heidegger remains faithful to the eschatological gist of German Idealism. The human subject (in the guise of *Dasein*) is the channel through which apprehension and understanding must pass for the world of Being to come forth. Anything that does not show up in relation to *Dasein* is abstract ‘existence’ rather than the ‘generated permanence’ of Being. Such abstractions are ‘nothing.’ *Dasein* takes on a peculiar significance in relation to Being, as everything that shows up for a horse, for example, does not count. That is nothing. Heidegger argues that Being shows up in relation to the ability of *Dasein* to apprehend. That is to say, that while Being is present throughout, it is only apprehendable by beings who can think and reflect. *Dasein* is not, strictly speaking, limited to humanity, however, as it happens, Heidegger does not believe that there are any other beings who are capable of gathering up, saving and preserving Being, except perhaps, gods.

Ironically, the term *Dasein* in German is a 19th century designation for what we call in English ‘existence.’ However, Heidegger has narrowed and defined *Dasein* into a specialised and specific knowing subject which has the ability to ask questions about the relationship between beings and Being. He plays on the components within the term *da sein*; ‘being there.’ This both grounds and projects a subject into the future, a ‘there’ beyond the ‘here.’ This resonates with Being as an event or happening - not a fixed position or truth but a generated permanence. The ontological ground of *Dasein* is being and time coupled with the ability to *think*. Far from the broad concept of ‘existence’ *Dasein* corresponds to a particular type of human who is aware both of their own finitude (as being-towards-death) and Being (which extends beyond the individual life-span).

The concept of *Dasein* differs from the canon of German Idealism in several important ways. One of the major differences between Heidegger’s concept of *Dasein* and the sceptical subject of Idealism is that *Dasein* is not limited to the individual. It is the public

das-ein; 'any-one.' Although to be meticulous, in his work on the German Romantic *Hölderlins Hymnen 'Germanien' und 'Der Rhein'* Heidegger writes extensive material on the individual's acknowledgement of their own approaching death, which is an existential account of the vulnerability and pathos of each subjective life.

The nearness of death as a sacrifice stood before each one in the same nullity, so that this could become the source of unconditioned belonging-together. Precisely death, which each individual man must die for himself, which individualizes each individual in the uttermost way, precisely death and the readiness for its sacrifice creates first the space of community, from which comradeship arises.⁵²⁹

It is this projection that forms the basis of the 'authentic' *Dasein* and reinforces the element of time in relation to Being. *Every* human being is constrained, as Kant pointed out, by space and time, every human is capable of authentic *Dasein*.

Scepticism

Heidegger has a complex resistance to the anthropocentric hubris of sceptical modernity. Scepticism has set up a series of questions about the relationship (or lack of) between the subject and his or her access to the reality of the external world. Heidegger asserts that the separation of the subject from the object, most famously proposed by Descartes, sets up the incapacity for someone to be sure of the thing-in-itself is a phenomenon essential to modernity. Inevitably every name the subject gives an object emerges from a human interpretation. Berkeley's old joke about the whether or not the tree truly fell down in the middle of the Amazon if someone did not see it depends on this anthropocentric conditioning of 'reality' by the subject. Heidegger both challenges and remains within this problematic.

The very important content of Heidegger's work is his critical account of modernity and the hubris of man in relation to the environment. The separation of subject from object occurs with a series of almost unassailable divisions between reason, sense perception, the affect of the object, the appearance of the object, and the Being of the object. The stark separation of the subject's reason from sense perception and then object both separates and externalises the object by exclusion, but paradoxically brings the object

⁵²⁹ Heidegger, 1934/35, cited in Zimmerman, 1990: 73.

against which the subject is posed into close proximity. The juxtaposition of the object operates to reinforce the subject's conditioning of the world-as-object through representation.

Descartes wrote that we represent the object to ourselves in an unavoidable nominalism. The truth of the representation cannot pass through the Idealist rupture between subject and object, so the representation has to be a product of the subjective mind. Heidegger notes that the rupture is not as great as Descartes assumed. The subject only comes across sense if s/he is juxtaposed against an object.

Re-present (*vor-stellen*) means to bring what is present at hand (*das Vorhandene*) before oneself as something standing over against, to relate it to oneself, to the one representing it, and to force it back into this relationship to oneself as the normative realm.⁵³⁰

Heidegger's extensive critique of Descartes extends to the problematic of modernity in general. The subject has become, for the first time, the ground from which all ordering of the world is generated. The notion that there is a distinct separation of subject from object brings the object into a normative relation with the subject through representation. This is a form of solipsism that Heidegger largely rejects. The subject of modernity becomes the ground from which the ordering of the world emerges. Man,

puts himself into the scene, i.e., into the open sphere of that which is generally and publicly represented. Therewith man sets himself up as the setting which whatever is must henceforth set itself forth, must present itself (*sich... präsentieren*), i.e., be picture. Man becomes the representative (*der Repräsentant*) of that which is, in the sense of that which has the character of object.⁵³¹

Medieval and ancient Man were also in 'the centre' of what is. What is new is that modernity sets the subject as ground, rather than the gods, the Good, god, fate, Being or ecological environment. "What is decisive" Heidegger writes, "is that man himself expressly takes up this position as one constituted by himself, that he intentionally maintains it as that taken up by himself, and that he makes it secure as the solid footing for a possible development of humanity."⁵³² Nietzsche's famous quote "God is dead."⁵³³ -

⁵³⁰ Heidegger, 1977d: 131

⁵³¹ Heidegger, 1977d: 131-2

⁵³² Heidegger, 1977d: 132

⁵³³ Nietzsche, 1979, see also Nietzsche, 1982a: 370-379 and Heidegger, 1977e

encapsulates this anthropocentric movement perfectly. If God is dead then humanity takes over the role of the creating meaning. Heidegger draws out the implications -

There begins that way of being human which mans the realm of human capability as a domain given over to measuring and executing, for the purpose of gaining mastery over that which is as a whole.⁵³⁴

Technologies which aim to ‘improve’ our ability to measure, concepts such as metrics, numerics, logic and so forth, tend to rationalise items and events into categories. The rationality of calculating and measuring encloses items into what Heidegger calls a familiar world picture. The hubris of modernity in relation to the whole of existence is the problem of the centralisation of the subject-as-ground (child-centred learning springs to mind). The *modus operandi* of anthropocentric modernity is a selfishness exacerbated by Liberal and Neoliberal individualism which contributes to a greedy and instantaneous consumerism at the expense of the environment and future generations.

Man contends for the position in which he can be that particular being who gives the measure and draws up the guidelines for everything that is. Because this position secures, organizes, and articulates itself as a world view, the modern relationship to that which is, is one that becomes, in its decisive unfolding, a confrontation of world views; and indeed not of random world views, but only of those that have already taken up the fundamental position of man that is most extreme, and have done so with the utmost resoluteness.⁵³⁵

This world view is what Heidegger calls “The Age of the World Picture.”⁵³⁶ Heidegger argues that it is not simply Descartes’ shifting of the ground of metaphysics away from the medieval faith in God towards a new essential subjectivity which spells out the characterisation of modernity. It is the notion of the modern ‘world picture’ which places Man as central to cosmology in its entirety. “What is, in its entirety, is now taken in such a way that it first is in being and only is in being to the extent that it is set up by man, who represents and sets forth.”⁵³⁷ He argues that this is a profound rupture from earlier medieval and Greek concepts of nature and of humanity. They had no picture or representation of the world, no *Weltanschauung* at all.

⁵³⁴ Heidegger, 1977d: 132

⁵³⁵ Heidegger, 1977d: 134

⁵³⁶ Heidegger, 1977d

⁵³⁷ Heidegger, 1977d: 129-130

The Work-World

The 'clearing' of the work-world is Heidegger's description of the fundamental integration of people within their environment. Charles Guignon (1983) draws attention to the familiarity of objects such as the pen, or the keyboard which is completely integral to writing. Although the tool is essential, it is not where the writer's attention is focused, unless it ceases to function effectively. For Heidegger the object, such as pen, is 'worlding.' The pen, and other equipment operate in a system of items in relation to one another as an always-already world within which writing is a part. The person writing then, is not a subject specifically divided from the external reality of the pen. The writer and the pen and all the other objects present in the room and the locality are the all familiar, unconsciously taken-for-granted work-world. The exercise of writing is a good example of the non-differentiation between subject and objects. Heidegger calls this unconscious familiarity with the work-world 'the clearing.'

Dasein as being-in-the-world in the sense of concern is absorbed in its world in which it is preoccupied, is so to speak exhausted by that world, so that precisely in the most natural and the most immediate being-in-the-world the world in its worldhood is not experienced thematically at all.⁵³⁸

The work-world assumes a technological familiarity which dissolves the harsh separation between subject and object, thus eliminating the unassailable externality of 'reality' and with it, the necessity of all knowledge of the 'world' to be subjectively interpreted.

In his lecture series from 1924, published as *The History of the Concept of Time*, Heidegger explains that "world is the wherein of *Dasein*'s being."⁵³⁹ The 'world' is a far cry from an independent external existence, or even Being. World is characteristic. However, this reintroduces a certain element of solipsism into Heidegger's theory. He argues that there is the need to "circumvent the obscurity of knowing 'worldhood' understood not as a character of the Being of the entity but rather as the *character of the Being of Dasein*, and only through it and along with it that of the entity!"⁵⁴⁰ The world is not an epistemological function of the knowing subject (an interpretation) but an

⁵³⁸ Heidegger, 1985: 185

⁵³⁹ Heidegger, 1985: 168

⁵⁴⁰ Heidegger, 1985: 169

ontological function. The world is subjectively experienced and the discourses about the meaning and function of things are collectively maintained.

It is not an individualised solipsism but a public understanding of the items of reference as a whole. The public is appresent with the personal work-world. The room I am writing in for example, ‘belongs’ to the University rather than myself. My position in this locality is part of a greater set of relations. “We always think of the world-thing in advance as a *world-thing*.”⁵⁴¹

The environing world is the aroundness - it is the in-being of place and space, or the locale wherein *Dasein* dwells. However, the familiarity of in-being an environing world is an openness to the encounter with things rather than a narrative about an external object. It is “not a narrative report of world-occurrences but an *interpretation of worldhood*, which characterizes everything that does occur as *worldly*.” It is not just a question of the “reality of the external world”⁵⁴² but the surroundings of everyday worldliness. That is to say, being-in-the-world is not originally an abstracted notion of geometry, or the metric measurement of space. It is not a representation of the world, but rather an absorption *as world*. For Heidegger, “*care* as the constitution of the being of *Dasein* uncovers the world.”⁵⁴³

The difference between sceptical solipsism and Heidegger’s solipsism is that *Dasein* is communal as much as it is individual, and the interpretation of the world is built on the functional familiarity of dwelling-in rather than the abstracted narrative of scientific ordering which is always somewhat sceptically attached to external ‘reality.’

Heidegger rejects the tradition which considers the Being of the world *as nature*⁵⁴⁴ because he regards this as an externalised thing-in-itself which emerges from research, itself based on a narrative of abstract ordering. Patrick Fitzsimons explains this very well in his chapter “Enframed Education: Heidegger and the Question of Technology” which contributes to the book *Heidegger, Education and Modernity* (2002).

⁵⁴¹ Heidegger, 1985: 169

⁵⁴² Heidegger, 1985: 170

⁵⁴³ Heidegger, 1985: 170

⁵⁴⁴ Heidegger, 1985: 171

Scientific research operates by setting up a total view of some region of reality and then attempts to show that the anomalies that emerge can be fitted into the total picture. It takes for granted that its plan is correct, and that the anomalies have no truth to tell; they must merely be brought under the projected total order.⁵⁴⁵

The scientific projection of the system is defined beforehand in terms of “spatiotemporal magnitudes of motion.” Positivist science has a new attitude towards the functioning locale, that is a significant shift from the being-at-hand earlier described. ‘Nature’ is a representation. Heidegger writes,

that stipulating has to do with nothing less than the plan or projection of that which must henceforth, for the knowing of nature that is sought after, *be* nature: the self-contained system of motion of units of mass related spatiotemporally.⁵⁴⁶

Science as technological research constructs everything as an ordered entity including people themselves, “everywhere everything is ordered to stand by, to be immediately at hand, indeed to stand there just so that it may be on call for a further ordering⁵⁴⁷ This notion of the ‘standing reserve’ in his essay “The Question Concerning Technology” (1954) is the central tenet of *enframing*.⁵⁴⁸

Forgetting Being

Heidegger regards Kant as following up and helping to expound the insights of Descartes. In *The History of the Concept of Time* (1924) he quotes Kant; “being is not a real predicate.” This follows the solipsist conditioning of the world by the subject which rests on Descartes separation of the subject from the object. The subject is only able to sense the affects of the appearance of the object, not its Beingness. That is, Heidegger writes,

Being is not a datum which can be apprehended by way of any kind of receptivity and affection. Precisely because we are not capable of apprehending the Being of entities primarily and in isolation, but always first apprehend *what* an entity is, in Greek the εἶδος, its outward appearance, we must therefore, even in the apprehension of the Being of the authentic entity, start with the attributes, through which the nature of the entity and its Being are then presented. This peculiar principle, that Being for itself cannot be experienced by us in the entity because it does not affect us, is perhaps, without

⁵⁴⁵ Fitzsimons, 2002: 6, see also Dreyfus, 1993:293

⁵⁴⁶ Heidegger, 1977d: 119

⁵⁴⁷ Heidegger:1977a: 17 cited in Fitzsimons, 2002: 6

⁵⁴⁸ Heidegger, 1977a

Descartes knowing it and also perhaps without Kant ultimately understanding it in his thesis, the most clear-cut formulation of the Being of the entity which we call world.⁵⁴⁹

This aspect of incomprehensibility of Being is what Heidegger terms concealment. Whilst necessarily obscure, this notion of concealment is crucial to Heidegger's theory. Concealment replaces the nominal scepticism of traditional Idealism. Its presence is not representable but neither is it separate, it endures without phenomenologically affecting our senses or arising to our conscious attention.

It also presents a difficulty in Heidegger's argument, where he wants to dissociate himself from the traditional harsh segregation of solipsist subject from independent object. The connection is forged in nonphysiological terms as the concealment of Being. Yet later we will find that just as absolute subjectivism is problematic, so is uniform objectification of humanity and things as 'potential resource.' At that point Heidegger will reintroduce the knowing subject and the object of knowledge.

What becomes concealed by the modern formulation of the solipsist subject, or *subiectum*, and his calculation of world is the Romantic ability to simply let nature be, and allowing things to reveal themselves without any function in the calculability of technological enframing. Thus, concealment of the truth of Being rests upon the separation of subject from object.

Heidegger goes on to argue that the technological enframing of nature as 'standing reserve' obscures its Beingness from view. The calculation of everything as a component or potential component in the economics of consumerism obliterates the possibility of its Being showing up in any other way. The theoretical imprint of measurement in science pre-empts any other possibility for existence other than that which the subject first greets it with. This means the worldly understanding of magnitude, or *res extensa* maps out a framework within which items can be inserted. Sensory data then confirms or disproves according to a pre-existing schema of truth how an item ought to slot into the scientific world. Heidegger's point is that because of the methodology of scientific research, the results in the philosophical 'gap' between sensory perception and interpretation have

⁵⁴⁹ Heidegger, 1985: 175

been inverted, so that interpretation (taken as truth) proclaims what the senses will perceive according to criteria of validity.

But it is also already evident that the Being of the world, which on the basis of certain judgements is first conceived as nature, cannot even be obtained by a theoretical reconstruction which goes from the *res extensa* back to the sensory thing and then to the value-laden thing, but that by doing so the specific theoretical objectification is retained and the analysis is led astray even further. The world would be *deprived of its worldhood*, since the primary exhibition of the authentic reality of the world should be referred to the original task of an analysis of reality itself, which would first have to disregard every specifically theoretical objectification. The course of the scientific inquiry into reality shows, however, that the original mode of encounter of the environing world is always already given up in favor of the established view of the world as the reality of nature, so that we may interpret the specific phenomena of the world in terms of its theoretical knowledge of the objectivity of nature.⁵⁵⁰

The 'natural' asserts an untouched externality of which Heidegger is justifiably very suspicious.

Enframing

The enframing of technology has taken its toll on modern ethics. It seems that the universal categorical imperative is no longer maintaining its grip on the social order. The potential of technology is so magical, so diverse, so unheard of, that scientists end up inventing bizarre and controversial things without much reflection on the ethical consequences.

The debates in the scientific community and society at large have hardly begun to touch some of the major issues brought up by genetic technology. An example is the experiment where a Rhesus monkey has had a fluorescent gene from a jellyfish introduced at the cellular zygote stage via a 'harmless' virus. The purpose of this experiment appears to simply be that 'we can' - a proof that humanity is able to creatively change and control the parameters of species diversity. Other experiments are more functional and closely aligned with medicine. At the government genetic engineering farm at Ruakura in New Zealand approval has just been granted (during a moratorium on genetic engineering experiments) for a flock of sheep to be manufactured without the gene which inhibits muscle growth. This is of interest to those researching muscular

⁵⁵⁰ Heidegger, 1985: 183

dystrophy although clearly farmers will be keen on animals which potentially are more efficient meat producers. Nanotechnology enables interventions so minute that the pervasiveness can barely be imagined.

As those supporting genetic engineering technology point out, humanity has bred for efficient production for thousands of years. Genetic engineering is simply the latest, more technologically sophisticated mechanism in a long history of the teleological drive for efficiency. Technology has alleviated the saturation point of human population growth, allowing exponential increases in the last one or two hundred years.

As explored in chapter five, Heidegger's theories on technology emerged in the prewar years and became even more urgent with the realisation that the nuclear bomb makes total annihilation of humanity and the planet possible for the first time. Clearly the benevolence of technology had irrefutably shifted. The claims that humanity was 'in control' of the instrumentality of technology was largely unbelievable in the face of the volatility and expansionism of the cold war.

Nietzsche positions science and rationality as another ascetic attempt to find an absolute external truth, which he regards as stultifying. Heidegger's argument holds similar connotations in regards to science. But his own concept of Being is also susceptible to Nietzsche's critique. 'Being' holds an ontological function which constitutes an underlying foundation, as with Aristotle's substance. Aristotle categorises and Heidegger retains a certain Idealist anthropocentrism in his concept of the relationship between *Dasein* and Being. A genealogy of ideas through Aristotle, Nietzsche, and Heidegger all allude to a *necessary* relation, unknowable, enduring over time, but each philosopher has a different idea of the metaphysics that 'grounds' or binds everything into connection. For Nietzsche, science and Substance *and* Being are already loaded interpretations. Science is based on a rationality that we might call ontological to the human condition. Science-as-interpretation is inadequate because it focuses on rational measurement instead of an originary and poetic 'wresting open' of the truth of Being. But Nietzsche's argument destabilizes Being, Substance and science equally as systems of thought that are generated by a historically situated society rather than a-historic and universal truths.

The Turning

Because of the very familiarity of the ‘world,’ Heidegger suggests that much of Being operates in concealedness. It is present but hidden. The event that occurs between *Dasein* and Being through thinking and questioning, is a coming to light from concealedness. That is why in his work from the 1920s he opens with the complaint that the gravest error of humanity is that we have *forgotten* to ask the question of Being.

According to Heidegger, the crucial ‘turn’ (*Kehre*) in his work is the realisation that the forgetting (*Vergessenheit*) of Being in the case of the enframing of technology is not such a bad thing. Forgetting means failing to notice, or remaining unconscious of the concealment of Being. It owes something to the Greek term *lethe* which has connotations of oblivion, as well as the carelessness or culpability of the ‘hidden’ or overlooked. However forgetting is NOT oblivion (into mere existence) until the process of forgetting is itself forgotten.

When forgetting is doubled, when the forgetting of Being is forgotten then, Heidegger proposes, *Vergessenheit* turns in on itself. He calls this *turn* the danger. The forgetting of forgetting Being is the most dangerous event for it deprives humanity of the possibility of being *Dasein* but at the same time it offers the possibility of saving Being. The turn of forgetting hides and preserves Being.

This risk of losing *Dasein*’s relationship with Being, the dangerous lack of regard for Being is the result of technological enframing, “that setting-upon which challenges forth” nature as standing reserve. As can be seen in his earlier work on the phenomenology of *Dasein* and his rejection of solipsism, Heidegger argues that *handiness* is what generates the worldliness of our familiar localities. We operate in an always-already extant, public work-world. This system of references, equipment, and relationships is largely so familiar that there is no separating *Dasein* from world.

Heidegger argues that technology encompasses the Being of humanity. Some people hold the idea that humanity is ‘in control’ of technology, but on the contrary, Heidegger states, “in truth, it is the coming to presence of man that is now being ordered forth to lend a

hand to the coming to presence of technology.”⁵⁵¹ Humanity is necessary for the technological frame to unfold. But is no longer possible for humanity to operate in a world outside of the ordering belonging to enframing.

The argument is that through an inventory of all things into charts and graphs that order all aspects of life into a rational calculation, humanity has become unable to appraise nature, or as Heidegger defines it, Being, as anything other than potential resource for the consumption of capitalism. This rational calculation pervades our common usage language, our metaphysics and ontology, our subjectivity and the sceptical removal of objects, and our understanding of ‘truth’ and knowledge. Rational calculus characterises modernity.

Technological enframing is part of this all-pervasive calculation of all things, people, oceans, deserts, stars, atoms, chemical bonds, DNA codes, and so on. Humanity has entered the service of the technological *Gestell* by putting all our effort, our self-understanding and ideas about the environment towards the ‘progress,’ the reproduction, and the development of more and more technology.

Zizek points out that for Heidegger,

The true problem is not ecological crisis in its ontic dimension, including a possible global catastrophe (hole in the ozone, layer, melting of the ice caps, etc.), but the technological mode of relating to entities around us – this true crisis will confront us even more radically if the expected catastrophe does *not* occur; that is, if humankind does succeed in technologically ‘mastering’ the critical situation⁵⁵²

Economic consumerism is simply an example of the rational calculus of all things as standing reserve. The question then, in view of Heidegger’s faith in destiny is whether the enframing of technology, or the system of consumerism has to arrive at its ultimate conclusion, fulfil its cataclysmic destiny. Keynesian and Neoliberal solutions simply serve to prolong the nightmare. As Zizek puts it,

Heidegger devalues the effort to constrain the system – to maintain its ‘human face’...as an escape from the inner truth of the system that becomes perceptible in such excesses:

⁵⁵¹ Heidegger, 1977b: 37

⁵⁵² Zizek, 1999: 12

such half-hearted efforts to keep the system in check are the worst way to remain within its horizon.⁵⁵³

Heidegger might be susceptible to a faith in systems and the logic of a *telos* of repetitions. The consistency of the technological frame may be affected by events ‘concealed’ from human awareness; like global warming. It is these concepts of concealment and forgetfulness that allow the incursion of some unforeseen force to affect the enframing of technology in a manner beyond our wildest dreams. Unlike Bateson (1979), Heidegger does not leave it to chance. But nor does he confine the field of possibility to human agency and endeavour.

As, for humanity, there is no ‘outside’ of the technological frame, there is not much possibility that humanity can think our way to wresting open a new destiny for Being. This is why Heidegger is so intrigued with the ‘danger’ and the ‘saving power’ of forgetting. When Being abides in forgetfulness it is thus preserved in a fashion without showing up as enframed.

In the coming to presence of the danger there comes to presence and dwells a favor, namely, the favor of the turning about of the oblivion of Being into the truth of Being. In the coming to presence of the danger, where it *is* as the danger, is the turning about into the safekeeping, is this safekeeping itself, is the saving power of Being.⁵⁵⁴

Nothing however, is saved, if Being can no longer come-to-presence in the awareness, thought and language of *Dasein*. The *preserving* of Being only has validity if its truth is once more released, so to speak. The next stage in the turning is a lightning flash of insight.

Insight into that which is -- this designation now names the disclosing that brings into its own that is the coming-to-pass of the turning within Being, of the turning of the denial of Being’s coming to presence into the disclosing coming-to-pass of Being’s safekeeping.⁵⁵⁵

This necessity for Being to disclose itself to *Dasein* is a concrete example of Heidegger’s affinity to a type of Idealism. Being and time *make no sense* without the attention and appraisal of ‘man.’ “When insight comes disclosingly to pass, then men are the ones who

⁵⁵³ Zizek, 1999: 12

⁵⁵⁴ Heidegger, 1977b: 44

⁵⁵⁵ Heidegger, 1977b: 46

are struck in their essence by the flashing of Being. In insight, men are the ones who are caught sight of.”⁵⁵⁶

Enframing is ‘that setting upon which challenges forth’ the environment as ‘standing reserve.’ This serves to promote one ‘destining’ of Being at the expense of all others. The calculation and measurement involved in enframing results in a stale forgetfulness of Being. This is the problematic of modernity which has caused us to forget the question of Being. The enframing is so all pervasive that it is itself impossible for humanity to escape from. Whenever we think or use language like ‘value,’ ‘evaluate,’ ‘account,’ ‘price,’ ‘merit,’ ‘goods’ ‘estimate,’ ‘worth,’ ‘importance’ we are enframed. Therefore the answer to this dilemma lies not with humanity but with Being.

Enframing itself is a coming-to-presence of Being even if it does tend to inhibit the ability of *Dasein* to apprehend Being with any original force. The forgetfulness turns in on itself and becomes oblivion.

When this entrapping-with-oblivion does come expressly to pass, then oblivion as such turns in and abides. Thus rescued through this abiding from falling away out of remembrance, it is no longer oblivion. With such in-turning, the oblivion relating to Being’s safekeeping is no longer the oblivion of Being; but rather, turning in thus, it turns about into the safekeeping of Being. When the danger is as the danger, with the turning about of oblivion, the safekeeping of Being comes to pass; world comes to pass.⁵⁵⁷

This turn is the critical point that is outside of human agency. “When and how it will come to pass after the manner of a destining no one knows.”⁵⁵⁸ Being is preserved in the oblivion and it *continues to world*. The disclosure of Being through the ‘blick’ of insight is the conscientisation of worlding. Both oblivion and disclosure sustains and conserves the nominalist obscurity or ‘*primal corresponding*’ between *Dasein* and Being.

Over many books, and decades of thinking, a multiple series of moves has occurred in Heidegger’s theory. Firstly, Being forms the *epistemological* ground as a ‘meaning of existence’ for humanity in the form of *Dasein*. Otherwise the fact that man remains

⁵⁵⁶ Heidegger, 1977b: 47

⁵⁵⁷ Heidegger, 1977b: 43

⁵⁵⁸ Heidegger, 1977b: 41

oblivious to Being would not be a problem, as it is not presumably, for that-which-is-not-*Dasein*.

As a result, the forgetting of the question of Being is, in the first instance, the failure of modernity. Modernity has been subsumed by the essence of technology to the point of enclosure, or enframing.

Humanity is incapable of extracting itself from the technological frame because we are not in control of it, and it permeates our very language and thought. We cannot think our way out of the calculation and measurement of everything as resource or potential resource. Tinkering with technological 'fixes' will not solve the essential dilemma.

The answer emanates from the Being implicit in technology itself. The coming to presence of technology both relies on humanity as a tool for its arising, and encourages us to forget the question of Being. Once we have forgotten that we forgot to question Being, the oblivion turns and protects and safeguards Being. At the same time Being continues to 'world.' Which is to say, it continues to hold relevance in a set of references which form an entirety within which *Dasein* operates.

The work-world generates the familiarity which makes *Dasein* cohesive with entities. This familiarity is the clearing. The clearing dissolves the distinction between subject and object, which is the foundation of modernity. The work-world also relies on a technological understanding of the surrounding environment as equipment. Heidegger tries to draw a distinction between a positive association with tools which are at hand (*Vorhanden*) and technological enframing. He makes this distinction by connecting the work-world to the pre-Socratic 'essence' of technology which 'shows up' Being or allows it to be 'disclosed,' while enframing is a 'challenging forth' of Being which demands that everything (even in its wild state) is storage of a potential resource.

The obscurity of Being is released by insight. On *Dasein's* part, it is the contemplation of the sublime that allows us to be open to insight. It might have taken on a new 'vista' from the traditional Romantic landscapes, if the sublime is to be found in the enframing of technology itself.

Assuming not that we have control over the future, but that we make some contribution to its character is, I think, implicit in the project of education, and in Heidegger's body of work too. Schools operate within the technological enframing of the modern paradigm. Passive openness to insight seems a rather passive and conservative approach to take to the realisation that technology is not neutral or merely instrumental but permeates every interaction between *Dasein* and Being. At the same time, Heidegger tried a more active approach when he attempted to lead the leaders of the national socialist party in 1933 and 1934. He assumed at that stage, that the philosophical question of Being could bring society 'into line.' Consciously attempting to change the paradigm that is worlding proved catastrophic. Heidegger concluded that philosophy was at an end.⁵⁵⁹

More constructively, questioning the separation of object from subject seems to me a very good place to start education. Heidegger's work clearly discards the individualism inherent in Liberalism and Neoliberalism. Selfish individualism, or the 'rational individual utility maximiser' tends to maximise resource consumption within one life time. This emphasis on instant satisfaction is transformed by the communal, intergenerational time-frame of *Dasein*. In the context of schooling this is an important insight. Heidegger's theory might be seen to position aesthetics, and the arts in general to a much more important standing than the sciences. It is the arts that seek sublime insight whereas the rationality of the sciences dissects 'nature' into categories. However if the Being of the technological frame itself is to re-emerge in a profound way this historical separation of art from science may be disrupted. Technology is the saving power.

Expanding the concepts of *Dasein* and Being to encompass a far wider idea of existence and life is another possible path for extracting ourselves from the enframing of technology. Once the anthropocentric mega-solipsism of Heidegger's theory is dropped but the notion of the vitality of poetic openness to existence outside of the human realm is invigorated then I think technology would diminish in significance. Opportunities for exceeding the technological frame might emerge from energizing respect for existence, life, in an expanded concept of Being.

⁵⁵⁹ Heidegger, 1973b

Associated with the 'turn,' (*Kehre*) of the 1930s, Heidegger began to think that technology was both the 'danger' in terms of human obliviousness to Being and also the 'saving power.' The destiny of Being has metamorphosed into an epoch inescapably enframed by technology. The spark of life that is humanity is beginning to envisage itself more positively than as the polluter of the Earth. In Kim Stanley Robinson's *Mars* trilogy (1996), terraforming other planets was both the possibility and the result of the political and ecological mess produced by consumer capitalism and technology. But going off planet did not solve any of our human problems – we take our alienation with us. Technological creativity *might* make it possible to take *all* life elsewhere in a fast forward version of evolution. But the conditions for life quite possibly only exist on this planet, as the only suitable abode in the billions of stars and solar systems of the universe. Safeguarding, nurturing and regenerating Earth is the potential, the responsibility, and the future of technology and humanity.

10 Heidegger and Bowers; Technology and Pedagogy

Technology clearly plays an important role in the speed and growth of consumerism across the globe. 'Globalisation' has in many respects been a result of colonialism, but it has reached its present crescendo with the emergence of the Internet and widespread availability of computer ports. Aeroplanes and automobiles, fossil fuel consumption and increasing sophisticated methods of resource depletion all contribute, or arguably *constitute* a view of the planet as a global resource ready for human consumption. Understanding technology as a neutral tool in the hands of human agents is to misapprehend the way technology shapes our reality. The prior question to the question of 'neutrality' is how, in Heidegger's terms, does the technological *Ge-stell* narrow the frame of human awareness.

Heidegger's critique of technology has important implications for education. This chapter attempts to discern what elements of information communication technologies 'enframe' our subjective experiences of the world as distinct from the interpolation of students into the Liberal capitalist paradigm. Liberal capitalist concepts of subjectivity, society and the environment dominate contemporary computer programmes, teaching materials, curriculum, and pedagogy. Technology also intervenes phenomenologically in our subjective experience of our environment. Separating out the two elements could give us a *starting* point for developing social and environmental interaction with a deeper commitment to ecological, equitable and ethical living arrangements, that moves forward carrying with it technological innovation rather than harking back to a Luddite utopian past. I do not intend to prescribe future curriculum in this thesis. My intentions are to open up the possibilities for future directions from the postmodern paradigm that presently dominates education and society.

It is often argued that humanity is unique amongst living beings because we are capable of self reflection and reflection on the world that we live in. It is very difficult to abandon the active agency that believes that reflective thinking might influence predominant

world views and instigate change. The environment has been in sore need of reflection and in sore need of a change in the attitudes and life style that dominates western culture and that is increasingly becoming a global phenomenon. Consumerism has become the ‘right’ of people everywhere, to the detriment of the entire planet. The ability to think our way out of the enframing of technology has some potential, although such thinking is often sidelined as impossible dreaming, or it is co-opted into the increasing science of governmentality.⁵⁶⁰ This chapter looks closely at the way technology constructs subjectivity in education.

C.A. Bowers is one of the earliest and important Heideggerian educators writing in the field of environmental education and technology. He argues in the *Canadian Journal of Environmental Education* (1998) that it is “mainstream consumer orientated, technologically dependent culture that has such an adverse impact on natural systems” and that this is being globalised. As an educationalist, he attributes a “widespread failure of teachers and students to recognize the deep symbolic roots of the ecological crisis – which are visible in curriculum materials and in classroom discourse.”⁵⁶¹

The way in which computers are presented in schools sheds some light on the nature of technology itself, and the contemporary approaches to teaching, learning, language, meaning and the question of thinking. According to discourse analysis, a constellation of ideas ‘produces’ a particular type of subjectivity. In the case of computers and computer language, Bowers argues that the subjectivity produced is based on a 19th century, positivist, rational individual. Bowers develops a case that the computer amplifies a rationalist, technicist framework of understanding the world which assumes that language is a *conduit*, that reduces the emotional, corporeal, historically contextualised aspects of culture.

While I agree with Bowers’ Heideggerian argument about the calculating, rational emphasis in computer programming, he has believed too readily in the self-image of ‘cyberspace’ where the body is extracted and the mind is abstracted into a new, clean dimension, sexy but unsullied. He associates the individualised alienation of cyberspace

⁵⁶⁰ Foucault, 1979

⁵⁶¹ Bowers, 1998: 60

with abstract thought and the historical specificity of the body with practice, falling into the crude and clichéd separation of theory from practice. I will argue that there is a complex interaction between the 'world' disclosed in language and the 'world' shaped by material conditions.

Technology is a specifically human artefact but has an impact far larger than any individual, any community, or any generation. Some anthropologists have characterised humanity as the 'tool wielding animal' which suggests that humanity controls and manipulates the environment through tools. It might be more helpful to understand humanity as being wielded by technology as a means of reproduction, or coming into being. Technology shapes the discursive and political reality as much as it does our material interaction with the environment. Bowers' treatment of computers in the classroom tends to focus on discourse analysis without distinguishing the material impact and parameters of technical devices on human corporeality, or the intrusion, except in terms of sociology, of the body's excessive and unavoidable invasions of the dominant discourses of 'cyber-space.'

Notwithstanding this objection to the easy separation of practice from theory, Bowers soundly argues that many of the assumptions made by computer programmers and the teaching of technology shroud a hidden curriculum that reinforces a world governed by a technicist framework. His elaboration about the impact of this on programming, language and pedagogy are clear and insightful.

Bowers' book *The Cultural Dimensions of Educational Computing; Understanding the Non-Neutrality of Technology* (1988) is an outstanding, close examination of the assumptions made about computer use in the classroom. He takes seriously Heidegger's concept of technological enframing. Since then, Bowers has written extensively on technology in educational practice and environmental education.

During the last 20 years, 'computer literacy' has been held up as a key ingredient of education. It is regarded as far more than a 'skill,' such as typing. Computers are touted as an essential means to access copious quantities of information and furthermore a means of developing or processing knowledge. Once a non-compulsory subject,

technology is increasingly entering the core curriculum. This shift in status in the curriculum is associated with a raft of other policy initiatives, such as ‘life-long-learning’ that are an attempt to re-orientate the workforce to be more flexible and encourage people to be able to continually retrain as redundancies and short term contracts become the norm in the labour market. Computer literacy is both a marketable skill in itself (adding value), and a valuable ‘search engine’ for finding new employment niches. Computer literacy contributes ‘added value’ to life-long learners who are employable resources on the labour market.

Technology is thus closely associated with the educational emphasis on vocationalism. While an emphasis on vocationalism should not necessarily be at the expense of critical thinking or creativity, Bowers points out that the binary language of computing amplifies a technicist view of the world and reduces the historical contexts of concepts and metaphor. The technicist view presents itself as a-political but it perpetuates the consumer view of the planet as a resource to be efficiently exploited.

The Heideggerian argument is that technology shifts our phenomenological sensibility, radically changing our relationship with the Earth from a sublime awareness of nature to a framework that incorporates everything as a resource. All technology makes tangible changes to the way in which we apprehend the world we live in.

Artificial Intelligence

Influenced by Heidegger, Don Ihde explains that examining an item with a magnifying glass or telescope, for example, results in a loss of smell and tactile impressions while it accentuates the ‘view’ of that which is usually unseen. Sensation is amplified or reduced by technology.⁵⁶² Computers reduce the activity of the physical body and enhance a remote and decontextualised self in cyberspace. Some aspects of personality can be accentuated and played with in this space but the physical body and the cultural context the body inhabits is largely untranslatable through such a medium.

⁵⁶² Ihde, cited in Bowers, 1988: 32

However, while technology enframes our relationships with each other and our environment, it also presents us with a 'saving power' from the total mobilisation of capitalist consumerism. I think it is important to remember that the clean abstraction of cyberspace is a myth. In an online commentary on cyber-reality, the Krokors illustrate -

The ruling illusion of digital reality is its antiseptic cleanliness. A virtual hygiene movement that launches a global tech style that is so clean, so cool, so cold that it shifts the myth of virtuality from the conceptual realm to material experience. Not alienation, reification or simulation, but virtualisation as about the digital scrubbing of the world.⁵⁶³

The absence of the body is itself a myth. The cyber-self still relies on fingers to punch the keyboard, stooping shoulders to weather the tiny incessant movements combined with a badly positioned desk and chair, an aching bottom, slumping back and jutting chin. The guiding metaphor of cyberspace is of a floating personality decoupled from a physical body. This is reinforced by the nature of the technology and in turn the obscurity of the body reinforced by the Liberal paradigm of the rational individual.

Culture and politics also invade cyberspace. The technological frame has altered our emphasis, but older discourses are also perpetuated online. Sexism, including 'cyber-rape',⁵⁶⁴ ethnic and class relations, and other unnameable cultural assumptions that have shaped the personality of the real-time person continue to show up in cyber-personalities, webpages, academic texts, and all cultural artefacts. Political assumptions about access, authority, whose cultural norms are universal, include but are not entirely limited to the prevailing Neoliberal paradigm of rational calculation and selfish individualism. The debate over 'shareware' for example, have emerged as contradicting Neoliberal assumptions about rational self-interest because sophisticated programs have been made freely available on the web without participating in capitalist profit making.

Virtual people and artificial intelligence form the stereotypical, science fiction basis of associating people and computers. The debate tends to fit in neatly with the traditional dualism of the mind versus body, so that the intelligent, learning machine is the most reified mind possible. Mary Midgley is scathing that computer intelligence can be analogous to human thought. The debate assumes a *telos* where computers will become

⁵⁶³ Kroker, 2001

⁵⁶⁴ Dibbell, 1993

conscious, and humans “are already, in some fairly literal sense, themselves programmes run on computers made of meat.”⁵⁶⁵ This critique is fairly understandable in the light of how much the literature on artificial intelligence make use of age old philosophical presumptions that separate the mind from the body, making it plausible to posit ‘programs’ (mind) that could run on any given ‘hardware’ (body). The cosmologists John Barrow and Frank Tipler write “The essence of a human being is not the body but the program which controls the body; we might even identify the program which controls the body with the religious notion of a *soul*, for both are defined to be non-material entities which are the essence of human personality.”⁵⁶⁶ The impetus behind Barrow and Tipler’s push to recognise people as machines seems to make us immortal: “An intelligent program can in principle be run on many types of hardware, and, even in the far future of a flat Friedman universe, matter in the form of electrons, positrons and radiation will continue to exist.”⁵⁶⁷ Although, as Midgley points out, this immortality prolonged into an epoch where there is no organised matter at all, hardly provides circumstances for much conversation, except perhaps abstract mathematics.

With close attention to various teaching programmes, Bowers outlines how he thinks that the technologies of print and computing have constructed language in a manner that accentuates 19th century positivist views of knowledge and subjectivity. The body tends to be separated from the mind, some forms of information are readily transmitted while the subtleties of spoken communication are often lost. A technicist framework produces certain metaphors and ignores others.

The technology also reduces the recognition that language, and thus the foundations of thought itself, is metaphorical in nature. The binary logic that so strongly amplifies the sense of objective facts and data-based thinking serves, at the same time, to reduce the importance of meaning, ambiguity, and perspective.⁵⁶⁸

The language of computer programmes rests on the yes or no logic of binary code. Bowers argues that this limits the capacity for allegory, metaphor and metonym, paradox, alliteration and countless other subtle examples of communication that must be missing

⁵⁶⁵ Midgley, 1994: 9

⁵⁶⁶ Barrow and Tipler cited in Midgley, 1994: 9

⁵⁶⁷ Barrow and Tipler cited in Midgley, 1994: 9

⁵⁶⁸ Bowers, 1988: 33

from the territory that computer technology occupies. According to Gregory Bateson (1979) though, the human brain works on a similar combination of algorithm and stochastic change. In brief, Bateson's argument is that synapses in the brain are like a binary system. They respond to stimulus and fire – yes - or do not - no. Hundreds of nerves are stimulated at any given time and the binary yes/ no of each synapse combines statistically to form a resulting analogue; 'maybe.' The combination of binary and analogue enables the brain to interpret complex phenomena into sophisticated ideas in black and white and shades of grey.⁵⁶⁹ The distaste for relating the subtleties of human personality to a machine may just be technophobia. It is debatable.

For Bowers, the assumption that technology is neutral is a major problem for education. He is particularly critical of software packages. He makes the important point that interactive educational materials available on computer tend to decontextualise the cultural and environmental parameters of social existence and instead promote a rational, universal model based on efficiency, maximum utilisation and individualism.

Software packages tend to assume a Liberal model based on the basic tenets of modernity, but this may be a historical interpretation of the possibilities presented by the technology rather than parameters defined by the machine itself. Indeed, the network possibilities of computers have hardly begun to be tapped. At present, the most common examples of interactive networking are often found mostly in Internet war simulation games but these popular past-times barely scratch the surface of potential networking possibilities. The social limitations seem to me, to be about access; access to end use interface and more crucially perhaps, the resources and confidence for marginalised peoples to write interesting and constructive programmes.

For Bowers, the significant limitation to binary code is the cultural bias of software programming, and the general assumption that the computer is an excellent and neutral conduit through which information can pass. But furthermore he argues, binary code inevitably results in the logical reduction of all language to a true – false dichotomy. This is why, despite the phenomenal capabilities of computers to accumulate, 'remember' and

⁵⁶⁹ Bateson, 1979: 18-19

calculate information, they will never have 'real' intelligence. They are too black and white. Human consciousness is 'hardwired' to accommodate paradox, humour, play, and contradiction, as well as emotion, sexuality, irrationality, madness, mood, self-reflection, and creative inspiration and countless unnameable sources of comprehension and communication. As Bowers puts it:

Since computers function on an algorithmic system, it is impossible to program forms of knowledge that cannot be made explicit and organized into discrete components or whose operational rules cannot be formally represented.⁵⁷⁰

Nothing is neutral, and like Nietzsche and Heidegger's argument about grammar, the machinery itself does set up certain parameters for the software. These limitations are about the social orientation of readable print language, and furthermore, on the mediating languages of Basic, Pascal or Fortran operations that computers use to convert binary code into language. Computers operate essentially on a logic of yes or not-yes, one or zero. A key difference between Bowers' assumptions about the binary code and my own is that he believes the binary – yes/no, one/zero sets up a finite range of capabilities. I think that Gregory Bateson's theory of stochastic change illustrates how there are infinite possibilities for combining zero, one in multitudinous and often ambiguous ways. Different varieties of computers, Acorn, Apple and IBM for example, set up their binary code in different configurations. For those that know the problems of sending and decoding files through the Internet, you will have met up with some of the incompatibilities between these different configurations of code, language, and systems. The software programmes completely vary from company to company for the same reason. IBM has developed remarkably similar word processing programmes to Apple, but the languages between binary code and 'natural' programming languages are different and not easily translatable between one system and another. IBM is clumsier and more difficult to programme, their software requires longer to operate, takes up more memory, and introduces a multitude of faults.

The Krokors' suggest that the sterile image of computer interaction is not 'clean' and indeed requires 'dirt' to generate new pathways, new 'thought.'

⁵⁷⁰ Bowers, 1988: 33

The will to virtual hygiene is so powerful because the really existent animating force of digital life is dirt. Noise in the machine, liquid in the wires, waste in the system, accidents in the codes, distortions in the .gifs, mutations in design: it's the absence of dirt that haunts the virtual hygiene machine and without which the system as a whole loses energy, and runs towards digital entropy.⁵⁷¹

Conduit model

Bowers argues that the algorithmic nodes of cyberspace displace bodies and their cultural contexts. Alongside invisible bodies, the cultural relativism of student and software writer's interpretative frameworks are out of focus. What gets cut out of the mix in computer interaction is cultured and gendered conceptual categories, 'tacit-heuristic forms of knowledge.' Bowers argues that computer literacy ought to shift from a technician emphasis on manipulating the machine to a sociological awareness of the political and historical context that the machine reinforces: "from technical questions of how to input and output data to a concern with how the symbol-manipulation processes of computers alter consciousness and reinforce certain cultural orientations."⁵⁷² He wants to institute a shift from the dominant paradigm of Cartesian individualist rationality, such that "individuals are assumed to have the autonomous rationality and agency to control the throughput of information/knowledge."⁵⁷³

Bowers cites Seymour Papert (1980) as a typical example of the individualist and Neoliberal assumptions about classroom computer use. Papert argues that computers in every classroom would make education "more of a private act" free of school bureaucracy.⁵⁷⁴ Eventually schools themselves might be made redundant if the teacher shortage and the privatisation of education encourages students to work from home, each individually networked. Cyberspace certainly challenges conventional methods of pedagogy. It generates networks of isolated and lonely individuals where crucial physical components of communication and touch are unavailable.

Bowers argues convincingly that on the whole computers in classrooms tend to reinforce the conduit model of language and information. The argument is that the paradigm

⁵⁷¹ Kroker, 2001

⁵⁷² Bowers, 1988:27

⁵⁷³ Bowers, 1988: 41

⁵⁷⁴ Papert, cited by Bowers, 1988: 23

dominating the technology curriculum and policy documents encouraging technology and education is one where computers are seen as an instrumental conduit of language that originates with one individual and is delivered via a neutral delivery system. The computer is perceived as a neutral tool made up of metal, plastic and glass which facilitates the input, output, storage, memory, and retrieval of data or information to the individual end-user; the student. This “assumes (computer) language is an efficient transmission system of transferring ideas that originate in the first speaker, inputted into code, transferred, stored, manipulated, and then retrieved and decoded by the listener or receiver.”⁵⁷⁵

The sender-receiver model assumes “that information is *contained* in a transmitted message.”⁵⁷⁶ If all that is needed were to simply uplift the contents of the message then “learning would be effortless and accurate.”⁵⁷⁷ The computer is utilised as a neutral storehouse that various people load with information and as end-users, students can access and absorb this information. This minimalises the need for teacher intervention except on the level of offering the student technical assistance to operate the keyboard and find the programme pathways. The ‘student centred’ learning rhetoric coincides with the notion that knowledge (or information) can be reduced to data entry, storage and data retrieval. The ideal self-motivated student learns to independently sift and uplift data in order to become knowledgeable. The teacher ‘facilitates’ this retrieval of information. The age old trap of unquestioned acceptance of the authority of the printed word comes into play here. But because the computer is an interactive tool, the notion of ‘blind acceptance’ of the selective basis of the information is further obscured. It appears as though agency by the end-user is operating. However while students can ‘play the game’ they cannot rewrite the programme. Therefore, they cannot alter the dominant assumptions of the software unless they engage critically in discussions within their immediate vicinity; in the traditional, physical, and immediate interaction of classroom teaching in order to develop an enlightened attitude to the material they encounter on the Web. “If language is viewed as non-neutral – that is, as a dynamic process that shapes our

⁵⁷⁵ Bowers, 1988: 39

⁵⁷⁶ Reddy, 1979 quoted in Bowers, 1988: 42

⁵⁷⁷ Bowers, 1988: 42

thoughts as we use it to communicate with others – we would be forced to rethink our view of the autonomous individual and the rational process as free of cultural influence.”⁵⁷⁸

The conduit theory ignores the often haphazard nature of the way the data was collected. Taking ideas from Heidegger about how ‘language speaks us’⁵⁷⁹ Bowers notes that the conduit model has a series of implicit assumptions:

Far from being a neutral vessel that can transport and transmit meaning to others, language metaphorically constructs and translates, in other words, it ‘names and frames’ conceptual boundaries and delimits or constrains the scope of thinking.⁵⁸⁰

The conduit view of objective knowledge and its transmission misrepresents how knowledge is humanly constructed over time in culturally specific ways and continually reconstructed as it is communicated to others.⁵⁸¹

In the conduit model, the dynamic interplay between language and thought also gets lost. Master narratives and metaphor condition the social organisations we live in and form the relationship between humanity and the planet. This function of language still operates in the conduit model of language. The rational packaging of individualism and consumerism is the governing metaphor promoting an approach to the environment based on use value.

The educational use of the microcomputer reinforces the more Cartesian view of the individual as the detached observer who is empowered through the acquisition of objective knowledge. This Cartesian view of knowledge is based on a mind-body dualism that not only established the primacy of procedural thinking and a mechanistic view of the external world but also a sense of detachment from the rhythms of culture and nature.⁵⁸²

The networked society has alleviated the need for local communities to fit in with the seasonal cycles and tempo of local production. The storage capacity generated by a wide variety of technologies combined with cheap transport and immediate communication technologies have generated a consumer culture that is ‘virtually’ ‘decoupled’ from the restraints of the natural cycles and limitations of particular areas. It is only in the last

⁵⁷⁸ Bowers, 1988: 41

⁵⁷⁹ Heidegger, 1982: 124

⁵⁸⁰ Bowers, 1988: 45

⁵⁸¹ Bowers, 1988: 43

⁵⁸² Bowers, 1988: 71-72

decade that the globalised effect of pollution and resource depletion has begun to impact on this phenomenon of ever increasing consumerism.

The point Bowers makes about the primacy of procedural and mechanistic worldview is important. However, although the dominant discourses surrounding technology tend towards the Cartesian mind/body dualism, we need to draw attention to the fact that when closely analysed this separation fails on a number of levels. The body exists somewhere, it is fingers that punch keys on the keyboard, electrical impulses are transmitted on physical wires. Cyberspace is not merely ethereal; it is physically located – often in government sponsored computer banks.

The networked society does not simply alienate and individualise people through the technological reinforcing of Descartes' dualism between the mind and the body. It increases the domestication and docility of students by tying technological networks to government surveillance.⁵⁸³ This is classically the case with the Internet which is mostly physically located in two enormous storage centres; one run by the CIA and the other by the government in France. Store cards and mobile telephones are more examples of the increasing flexibility of communication technology and its enhancement of surveillance. Each mobile telephone can be located via satellite tracking its owner's movements and conversations (and not just their telephone conversations). Information technologies are transforming pedagogy, subjectivity, consumerism, and the science of governance.

Alienation and Individualism

Bowers finds evidence of Cartesian individualism in the technological enframing of computing software and also in older forms of print technology. Following Walter Ong and the Scollons, Bowers argues that the early technological shift from oral traditions of disseminating knowledge to the written tradition introduces an alienating and individualising abstraction to the field of social relations.⁵⁸⁴ Quoting Ong, he writes that “writing, print, and electronic verbalisation ... have restructured consciousness, affecting

⁵⁸³ cf. Foucault, 1979

⁵⁸⁴ Bowers, 1988: 80-81

men's and women's presence to the world and to themselves and creating new interior distances within the psyche."⁵⁸⁵

Literacy contributes to two basic forms of modern alienation – what the Scollons (1985) refer to as the separation of the word from the body (the reification of the printed word) and separation in our personal relationships... This reordering of our psychic space, where the abstraction of the printed word becomes more real than experience itself is complemented by the alienation that literacy fosters between persons. Writing – whether it takes the form of an article, novel, or instructional program – separates the sender from the receiver, turning communication ... into an asymmetrical power relationship. The writer and reader do not stand in an immediate relationship that allows for reciprocal communication. Instead, the writer and reader must enter into a highly privatized world wherein the writer transmits and the reader receives and reflects on the message.⁵⁸⁶

Ironically this assumes a conduit type of interaction between writer and reader. It obliterates the idiosyncratic history and degree of attention and agency that any given reader brings to the text. Moments of quiet aloneness do not necessarily constitute lonely isolation. Furthermore, distributions of power do not adhere so simply to the model writer-has-power, reader-is-passive. Although I think there is some merit in Bowers' argument that the Liberal individual is often the underlying metaphorical figure to whom various software 'speaks,' the analysis of *all* print media to an individualistic framework underestimates the specifics of mass publishing and the networked nature of computers. It could be argued that a speech to an audience of hundreds is a communal and physically immediate form of communication, but in Bowers' analysis, this form of communication is also uni-directional in that, short of a mass walk-out or some other mass response, there is no means for the audience to reciprocally dialogue with the Speaker. He thinks the printed book operates in a similar manner. It is mass-produced and seeks a large audience. I would argue that there is an important response factor, carefully orchestrated via journals in the academic world, but practised informally by all readers through the personal and selective interpretation of the ideas presented in the text. It is an *activity* of reading, and individual only to the extent of all acts of interpretation.⁵⁸⁷ Reading is individual but it is also in the context of a shared speech community and often the ideas are discussed informally or formally amongst acquaintances. The network capacity of computers adds a further dimension of sharing where both immediate interaction with the

⁵⁸⁵ Ong, 1977: 1 cited in Bowers, 1988: 80

⁵⁸⁶ Bowers, 1988: 80-81

⁵⁸⁷ cf. Barthes, 1989

text and forwarding it (sometimes altered) to other people interested in the content, forecloses individualism as too narrow an understanding of computer generated communication. Deleuze and Guattari's concept of the rhizome is more apt to describe computer interaction.⁵⁸⁸ Having said all that, the technology may not ensure an individualist framework but the content posted often does.

Unfortunately, at some level, Bowers confuses and conflates the invisibility of the body in cyberspace with the sceptical separation of the body from the mind set up by Descartes. Following Heidegger's critique of Cartesian modernity, he disapproves of the dualist approach to bodies and minds as the governing motif of male dominated cultural imperialism, Bowers develops a tendency towards anti-intellectualism. There are some fundamental problems with Bowers' interpretation of the activity of reading. "As a technology print amplifies an autonomous sense of individualism (the isolating nature of writing and reading) and analytical thought."⁵⁸⁹ He is trying to find evidence of the problematic Liberal individual which as the base metaphor of modern society. But, while his thesis has merit, his examples are not always helpful. This emphasis on the isolation of the activity of writing and reading confines it to a form of alienation and abstraction. The elements of engagement and communication are obscured, just as the body is obscured in his understanding of cyberspace. This emphasis on alienation and abstraction produces a crude theory versus practice distinction that tries to disparage abstract thought:

Analytical thought involves this mental distancing, which is facilitated through print. Ironically, the fixed nature of the text, which provides the needed reference points for analysis, also means that the content is no longer part of lived experience.⁵⁹⁰

Clearly, these ideas are influenced in unfortunate ways by Ong, who Bowers quotes in relation to the alienation and individuation of writing and reading: "... to assume that the printed word is the real word, and the spoken word is inconsequential. Permanent unreality is more plausible and comforting than reality that is transient."⁵⁹¹ This 'unreality' of the text seems to be a result of its permanence (a relative concept at the best

⁵⁸⁸ Deleuze and Guattari, 1994

⁵⁸⁹ Bowers, 1988: 81

⁵⁹⁰ Bowers, 1988: 81

⁵⁹¹ Ong, 1977: 21 cited in Bowers, 1988: 82

of times). 'Permanent unreality' misses the point that any statement, oral or textual, confines the chaos of the moment into a fixed position or ordering as confinement and delimitation is the premise of making sense. If we do not impose some limits then there is nothing to say. Or, impossibly, *all* to say.

It seems a little ironic to read a book that clearly articulates complex ideas that are not reducible to measurement or objectivity, but that complains that printed texts are inevitably tantamount to Cartesian dualism and the reduction of all knowledge to objectivity. This muddling of anti-intellectual suspicion of abstract thought is combined with high levels of anxiety about Liberal individualism at the expense of community cohesion.

The possibility of viable communities may be further weakened by internal processes, including a form of education that strengthens a form of rootless individualism by socializing students to a decontextualizing forms of thinking, by ignoring the forms of knowledge and values essential to the authority of community life, and by reinforcing the liberal ideology that represent the person as an autonomous, self-directing individual. In effect, the educational process carried on in schools may equip the individual to operate within the larger society by undermining the symbolic foundations of the community.⁵⁹²

The contrast between individual freedom and community law has worried Liberals for many generations. Deleuze and Guattari point out that the networked society is no longer particularly interested in free individuals, but rather itemised, numbered, coded masses.⁵⁹³ The surveillance techniques made available by information technologies is enhancing the governmentality of the masses, offering them autonomous consumer choices and advocating a 'calculus of consent' without developing the subject capable of critique, independence, or genuine creativity.

Bowers also makes the important point that anomie is a significant concern in our modern individualistic society. Although it is hard to know whether today's high levels of youth suicide and the oft spoken of breakdown of the nuclear family is actually worse than our Romanticised versions of a pre-technological past. However, the valorisation of community at the expense of abstract enlightened thinking (by subgroups or individuals)

⁵⁹² Bowers, 1988: 13

⁵⁹³ Deleuze and Guattari

could easily degenerate into the sort of fascist tyranny which Heidegger found himself supporting, a result which I am sure is not what Bowers had in mind.

Bowers' critique of individualism emerges from a similar source to my own; he is highly critical of our modern consumer society for its detrimental impact on ecosystems and the way in which it elevates some areas of expertise to exorbitant levels and devalues other (usually feminised) forms of labour to below the survival line. Individualism is the basis of Liberal democracy, the most successful form of modern society, and combined with capitalism, responsible for the exponential escalation of resource depletion and pollution on the planet. Individualism has been critiqued by feminist theory for postulating that the lone male is the core unit of society, rather than the more communally orientated unit of mother-and-children. The emergence of individualism is usually attributed to Descartes' *Discourse on Method*⁵⁹⁴ which transformed the nominal tradition of philosophy by sceptically separating the mind from the body (of the individual) and postulated that nothing was certain except that which could be reasonably deduced. Descartes has had an enormous and by now often unacknowledged influence on modern thought. The premises of individualism, positivist objectivity, and a male orientation permeate our language and are thus conceptually almost unavoidable. From this critical perspective, and somewhat ironically for a man clearly competent as an intellectual himself, Bowers falls into an anti-intellectual disparagement of "abstract-decontextualized knowledge."⁵⁹⁵ There is a well placed anxiety about the tendency of computers, software programmers, technicians and teachers to adhere to the dominant paradigm of individualism, separating the mind from the body and regulating the sphere of knowledge through the sceptical metaphor of positivist objectivity. The questions raised by such insights into the premises of modernity are important to raise in the classroom.

Heidegger's insights about technology and the phenomenological implications of highlighting one form of sensory experience (often sight) at the expense of occluding other sensory apprehension is important and Bowers has shown how computers reinforce the activity of the mind and obscures the cultural practises, the movements and the very

⁵⁹⁴ Descartes, 1980. An interpretation of Descartes influenced by Berkeley and possibly not what Descartes intended.

⁵⁹⁵ Bowers, 1988: 11

existence of the body. The dominant understanding of technology as 'neutral' feeds into Cartesian theories of dualist scepticism that separates the individual's mind from the body via rational objectivity. Holding this critical attitude towards technology and computing in particular, Bowers shows how teaching the technology curriculum often utilises these discourses without evaluation or any attempt to ascertain the relevance or detrimental impact to the cultural context of the particular classroom. While computers are assumed to be 'neutral' tools, the technological sphere can expand without limitations. His book with David Flinders *Responsive Teaching; An Ecological Approach to Classroom Patterns of Language, Culture, and Thought* (1990) expands on these issues. In it he attempts to redress these absences from the curriculum and to reinvent the teacher as an active participant rather than a technological assistant to the computer facilitated conduit of student access to colossal quantities of information.

My reservations about his work is its rather unsophisticated association of abstract thought with alienated individualism through a faulty understanding of the processes of print technology; writing, reading and dissemination. He highlights the limitations of the dominant discourse surrounding computers that obscures the historico-political context of the body at the computer. The body or the cultural context impacts on cyberspace anyway, the network fails to live up to its clean and sober image by crashing, failing to load, accepting spam mail, succumbing to a virus, *und so weiter*.

Technology is not neutral. But neither is it evil. As Heidegger put it, rather famously quoting Hölderlin 'technology is the danger, but also the saving power.'⁵⁹⁶ Where could that take us? The question prior to technologies' supposed neutrality is how does it frame human understanding? Bowers has in large part begun to process this question. He has recharged the educational task, so it hums with questions about meaning, context and power dynamics, so the environment and our relationship to it is brought to the forefront instead of hiding behind the rhetoric and practises of consumerism. The classroom according to Bowers ought to ask critical questions about what is obscured, and what is emphasised instead of dryly reducing information to a consumable product available in the technological marketplace.

⁵⁹⁶ Heidegger, 1977b: 34

What I have attempted to do in this chapter is begin to distinguish between the dominant narratives about technology which tend towards individualism and an abstract domain called 'cyberspace' and begin to see where the parameters are set up by the machinery and where the parameters are set up by the narratives of modernity. The chances are that the technological *Gestell* is capable of a new poetics of apprehension. Stretching to the outer limits of the known Universe, the telescope reintroduces us to the sublime. This time, it does not taste or smell. In fact at this point of realisation it presents a boring and monotonous buzz of 'background' X-rays emitted, it is thought, by the Big Bang. But this is an example of how technology can reinvigorate our association with our environment, and recontextualise our place in it. For the last 200 years technology has enhanced the regime of consumerism to the point of annihilating many species and habitats, and more recently destabilizing the global climate so that it is endangering humanity too. It may be the case that technology can 'make right' some of these catastrophes but many events, extinctions for example, are already irreversible. Nature, however, is not dead. And the phenomenological affects of technology, including the computer and the Internet, may open up and awaken our understanding of our relative importance (or lack thereof) and the unique significance of the planet we inhabit.

Technology in the classroom has the chance to address these powerful and vital issues. Through a 'turn' towards a new set of metaphors and a the potential for a new grammarology that does not enhance the separation of the subject from the object, education can enlighten and constructively engage with the way we produce technology and technology produces us. Heidegger's idea of technological enframing was taken up by Bowers and applied to classroom Internet Technology. He also tried to show how technological enframing produces the modern individual. Without throwing either of these important concepts out, I have tried to show where they have significance, and where they are a result of other, contingent processes. Showing up the limitations, the parameters and the constructive associations of teacher, students and computer technology can help us to begin to think in new ways, with new stories, new metaphors, new languages and the possibility of a new 'world.'

Globalisation, Liberalism and Sustainability

11 Global Policy: ‘Sustainability’ and ‘Risk’

Heidegger analysed many of the problems that face us in a world dominated by technological change: formidable alteration in capitalist production, patterns of economic exchange, and the changing priorities of knowledge. Nowadays economy is characterised by massive global financial transactions that bear little or no relation to the locale of production or local profitability. The deterritorialisation of global finance and production has decoupled responsibility for care of people, places, species, and ecosystems. Heidegger called this ‘technological enframing,’ the ‘forgetting of Being.’ One of his attempts to resist the ‘total mobilisation’ of technology was a reviving of ‘home and hearth’ in an effort to reconnect people with the immediate parameters of our environment, rather than the ‘decoupled’ *über*-consumption of globalised production and evermore potential standing reserve. He connects ‘poetic dwelling upon the earth’ with regenerating the authentic relationship between humanity and environment,⁵⁹⁷ or Being, as the pause that will bring us back from the threshold of devastating meaninglessness. His philosophy is tinged with a sense of desperation that humankind is trapped in the momentum of the history of western metaphysics and this is mired in the depths of nihilism.

At the time that Heidegger was writing, the industrialism had been underway for over 200 years and Marx’s analysis of the modes of capitalist production coupled with Darwin’s ideas about ‘survival of the fittest’ seemed to offer an adequate explanation for the various examples of species extinctions that were occurring across the globe.

Marx tends to cast capitalism as the inescapable structure which crushes the possibility for authentic and unalienated work to take place. Heidegger’s structuralism is the similar alienation caused by a technological enframing and he argues that technology is what inhibits authentic work to bring a person (*Dasein*) into close proximity with earth. Marx’s determinism is marked by the hope of dialectical reason gradually taking us to a utopian

⁵⁹⁷ Heidegger, 1977b: 34

era of small, close knit communities with a direct relation to resources and production. Heidegger's determinism does not have the same faith in an inevitable *telos*, and while the utopian ideal is very similar to Marx's, he looks to the unknowable disruptions of the enframing of technology that could be made ready if *Dasein* remembers to remain open to the unconcealment of Being. As I outlined in the previous section on Heidegger, bearing in mind the reservations I have about the concept of Being and *Dasein*, I would like to take a Heideggerian position when examining the processes of modernity, contemporary globalisation, and Modern Liberalism.

At the present time, technology has deepened its characterisation of humanity's relationship with the earth, and yet there is a diffuse politicisation of environmental concerns in a wide range of regions, ecological spheres, and discipline areas. These revolve around many technological resource issues from fossil fuel consumption, emerging evidence of global warming, the health concerns of pesticides and fertilizer on humans, animals and water reservoirs, soil erosion, non-replaceable virgin forest-felling, and so on, and so on. The reservations about technological interference and over-consumption are the site for a significant change in the eco-social sphere.

During the 1970s the relationship between humanity and environment shifted from the periphery of human concern into a crisis with which humanity must deal. The 'answers' have been a growing interest in the threshold of 'sustainability.' At one end of the spectrum sustainability is interpreted as either a rejection of capitalism because of the inequitable social divide between 'developed' and 'non-developed' nations and at the other end of the spectrum is the intensification of capitalism that measures and standardises acceptable levels of pollution combined with a call for efficient industry as an outcome of 'green initiatives.' Global warming, the transference of inert 'sinks' of carbon-fossil deposits (coal, oil, gas) into active CO₂ emissions released into the atmosphere, atmospheric ozone depletion, large scale forest felling at a non-replaceable rate, soil erosion and desertification, water pollution, acid rain, population growth, rubbish disposal and so on, have in a variety of ways required an ecological frame of mind. These concerns have encouraged environmental efforts that 'tread lightly on the earth.' For policy makers at national and international levels technology itself is where

relief might occur from the environmentally devastating practices of the industrial revolution, the production of poisons, and the long term over-consumption of massive quantities of fossil fuels.

Heidegger's critique of technological enframing has not yet infiltrated the top echelon of the global community. They have become aware of the thresholds of sustainability, finally commissioning interdisciplinary scientific studies to ascertain as closely as possible the 'natural' fluctuation of global climate change, and model the potential changes initiated by human CO₂ emissions.⁵⁹⁸ But these models are advanced to pan-global organisations with the view to developing the economic policy and the new technology required for alleviating the situation. The full impact of the teetering threshold is only just coming into view. The continuation of the same mechanisms, the same strategies, and the same philosophical and social paradigms that have gotten us into this mess still pervade the policy makers, the bankers, the world trade organisations. They peer over the brink, trying to hold onto what they now recognise as a stable set of conditions for mammalian life, but do not know how to pause and reflect, how to stop the juggernaut of exponential economic 'growth,' how to make dwell authentically and ready the possibility for *eco-poiesis*. They do not understand that what is required is a fundamental change in the expectations, assumptions, and interrelationship between human beings and the environment, a new coda of respect and releasement, rather than the challenging forth into standing reserve.

During the last 30 years grassroots concerns from politically active individuals and non-governmental organisations forced their way into mainstream media and government organisations. By the 1990s the governing mantra of environmental concern has become 'sustainable development.' For example these high profile, international organisations all adhere to some form of sustainability; The United Nations Development Programme (UNDP) promotes '*sustainable human development*'; The International Monetary Fund (IMF) and the Organisation for Economic Development (OECD) promote '*sustainable economic growth*'; The World Bank is committed to '*sustainable development and equitable development*'; The European Union (EU), since Maastricht, examines the

⁵⁹⁸ Wigley 2002 and Wigley, 2004

notion of *'sustainable economic and social development'*; and at the local level, British Local Authorities and institutions such as Universities, adopt the *'criteria of sustainability and sustainable development.'*

There have been five main international conventions on the global impact of human society on the environment. The first was the World Conservation Union (WCU) in 1980 that struggled to make these issues significant, the second was the World Commission on Environment and Development (WCED) in 1987 that began to establish international protocol, and the third was the United Nations Conference on Environment and Development (UNCED) in 1992, Rio De Janeiro. The Kyoto Conference agreed on Agenda 21 in 1997. UNCED was recently followed up in Johannesburg in 2002.

The World Conservation Union came up with a document published in 1980 titled *'World Conservation Strategy.'* The strategy is a motif for explaining the relationship between human kind and the ecosystems we live in by tying together the disparate themes of *'conservation'* and *'development,'* "The integration of conservation and development to ensure that modifications to the planet do indeed secure the survival and well-being of all people."⁵⁹⁹ There is an important (and largely unrecognised) difference between sustainable resource use and sustainable ecology. Conservation is to retain an existing form, in this case, of ecosystems. Development on the other hand illustrates Heidegger's argument with frightening accuracy; it is to shift our understanding of an ecosystem towards a socially and economically viable potential resource suitable for transformation. The incompatibility of these two concepts has been increasingly ignored by capitalist, pan-global organisations.

The first acknowledgement of the ecological problem at a global policy level was the World Commission on Environment and Development in 1987. They produced a publication *'Our Common Future,'* often known as the Brundtland Report after the chairman of the Commission. In the Brundtland Report, it is noted that seeing the world from space offered a new perspective on the fragility and finitude of the small planet, covered in clouds, oceans, vegetation and soils and that human activity was so remote, it

⁵⁹⁹ WCS, section 1.2, cited in Brundtland, 1987: preface

was unseen. This shift in perspective has fired the imagination of science fiction, astronomy, art, poetry, and changed the configuration of human consciousness towards the singular planet in the universe that is known to support life.

The Brundtland Report is most well known for its focus and definition on ‘sustainability’ or its tangent, ‘sustainable development.’ There are three distinct categories of ‘sustainability’ each with vastly different approaches to the relationship between humanity and the environment: sustainable resources, sustainable ecosystems, and sustainable development.

A sustainable resource is the replacement, maintenance, re-use, or at worst, slow consumption of non-renewable resources. Energy is a good example: solar heating, wind turbines and hydro energy are continually renewable sources of energy. Large scale however, they each have various detrimental impact on locations; the damming of rivers, the water levels of lakes, extensive wind farms disrupting bird habitats and so forth. Nuclear energy is also ‘renewable’ but the radioactivity of exhausted uranium is so excessively dangerous that there are no methods of safe disposal. Sustainability includes continuity of the initial resource and a commitment to little or no pollution in the production, consumption, and disposal of the resource. In contrast, fossil sources of energy have massive pollutant problems *and* they are non-renewable.

Sustainable ecosystems bear no relation to ‘resource use’ at all. Ecological sustainability is the protection of the dynamics of ecological niches and emerges from the ethics of ‘conservation.’ It does have static overtones because there is an implied assumption that an ‘original wilderness’ can be resuscitated. But ecological sustainability can adjust and adapt to many of the global introductions of new species that occur either via vectors of human transmission or other means of expansion. It is the global effects of pollutants, deforestation, and climate change that are threatening ecosystems all over the world, regardless of direct human intervention.

The WCED define the third category of ‘sustainable development’ in anthropocentric terms of maintaining resources and lifestyles across generations, “developments which meet the needs of the present generation without compromising the chances of future

generations to meet their own needs.”⁶⁰⁰ Elsewhere they state, “Sustainable development seeks to meet the needs and aspirations of the present without compromising the ability to meet those of the future.”⁶⁰¹

The remit of the Brundtland Report is clearly attempting to politically activate the will of governments around the world to produce policy initiatives and regulations which at least begin to become environmentally sound. Key points are:

to propose long-term environmental strategies for achieving sustainable development by the year 2000 and beyond;

to recommend ways that concern for the environment may translate into greater co-operation among developing countries and between countries at different stages of economic and social development and lead to the achievement of common and mutually supportive objectives that take account of the interrelationships between people, resources, environment and development;

to consider ways and means by which the international community can deal more effectively with environmental concerns;

to help define shared perceptions of long-term environmental issues and the appropriate efforts needed to deal successfully with the problems of protecting and enhancing the environment, a long-term agenda for action during the coming decades, and aspirational goals for the world community⁶⁰²

Right from the beginning the Brundtland Report addresses the long term relationship between people, resources, environment and development – a set of relationships that had hitherto been virtually neglected. The Brundtland Report directly addresses economic inequity between nation states and the need to conceive of a constructive environmental policy that will equitably address these huge differences. This should be compared with the World Trade Organisation that consigns these differences to a shadowy silence and uses market metaphors to shroud issues of inequity and ‘development’ to maintain and enhance the ‘G8’ wealthiest nations at the expense of resource depletion and living standards of poorer nations. However, the inclusion of ‘development’ and ‘resource’ in the WCED’s Brundtland report clearly indicates that the relationship between humanity and environment is anthropocentric and illustrate Heidegger’s point that *everything*,

⁶⁰⁰ Brundtland, 1987: preface

⁶⁰¹ Brundtland, 1987: 40

⁶⁰² Brundtland, 1987, ix

including humanity is regarded as a potential ‘resource’ in ‘standing reserve’ for capitalist consumption. The combination of ‘development’ with environment compacts this problem. It assumes that the environment can be managed or ‘gardened.’ This makes humankind the manager of a technological enterprise named ‘earth.’ These reservations though, at this point in time, are unavoidable dimensions of the technological enframing of the relationship between humanity and earth particularly in view of the inequities in the distribution of wealth, money, and products, globally.

The United Nations Conference on Environment and Development (UNCED) met for the first time in 1992 at Rio de Janeiro. Again, even the title of the conference shows the close links and assumptions that bind a management relation to the environment and to humans around the notion of development. Despite the inauspicious framing of the environment in such Utilitarian terms, Rio was the beginning of very important debates. The scale of environmental issues cannot produce instant answers. At the same time, it was an unsatisfactory convention in many regards. Huge discussions ensued about the relationship between industrialised and ‘developing’ countries about the limits of resources. However they did manage to concur on 5 ‘Earth Summit’ agreements and an action plan for sustainable development titled *Agenda 21* was produced. The United Nations congratulated itself on producing “an elaborate tool that could set the planet on a new course towards global sustainable development.” *Agenda 21* is divided into four main sections;

- Social and economic development;
- The conservation and management of resources for development;
- Strengthening the role of major groups involve in achieving sustainable development;
- means of implementation

It includes financial and technology ‘transfers’ to implement ecological initiatives. The UNCED is explicitly anthropocentric in outlook and the technological enframing is more visible than in the Brundtland Report.

It is impossible to separate policies and financial initiatives aimed at environmental protection from social and economic issues in the locality. In other words, the attitudes and understanding that we have towards the environment are closely connected to our

attitudes to one another (interpersonally and across continents). The economic divides that have resulted from post-colonial international economic and political relations are deeply implicated in the environmental problems that have become so startlingly obvious in the last 30 years.

The recognition that colonialism extends its influence today, and detrimentally impacts not only on peoples but also on the environment is extremely important and refreshingly honest. In *Agenda 21*, they noted that “methods for assessing interactions between different sectoral environmental, demographic, social and developmental parameters are not sufficiently developed or applied.” Nevertheless, they urged countries to “develop the concept of indicators of sustainable development” in a way that would “contribute to a self-regulating sustainability of integrated environment and development systems.”⁶⁰³

In 1997, 38 developed nations met in Japan to assemble another version of *Agenda 21* called the Kyoto Agreement. This time they began to firmly fix figures and goals for CO₂ emissions. They used 1990 levels of emissions as a base line and bickered with one another over fair and realistic goals for ‘safe’ levels of national emission. The United States insisted, with good reason, that India and China ought to be included in the Agreement. Controversially, no levels were set for ‘developing’ nations. It was during the Kyoto Summit that the United States introduced the idea of emission vouchers that is being advocated by OECD spokesman for the environment, Simon Upton (see below). The United States’ proposal is to permit a trade in emission quotas, which would allow richer countries to ‘buy in’ the right to pollute the environment from countries which do not use up their full emission quota. This proposal is very undeveloped but has a great deal of political commitment. Questions of measurement about value, population quota, and environmental impact will arise. But as with fish quota, this solution is likely to eventually be put in place.⁶⁰⁴

⁶⁰³ Upton, 2001

⁶⁰⁴ Fish quota are also a classic example as to why vouchers are deeply problematic. Fish have to be over a certain size to be legally viable. However the fertility of fish increases exponentially with size, making very large fish much more important for reproduction than juveniles. The codes defeat the original purpose of regenerating fish numbers.

In 1997, critics complained that only 38 industrial nations offered to join the treaty, promising to cut their emissions of greenhouse gases by 5.2% by 2008-12. Under the Presidency of Clinton the United States as the world's biggest polluter offered to cut by 7%, the European Union by 8%, Canada and Japan by 6%, from 1990 emission levels in the next 15 years. Other countries, according to the beginning of quota estimates, were allowed to *increase* their CO₂ emissions. Australia was allowed to increase emissions by 8%, Norway to increase by 1% and Iceland to rise by 10%. Russia is allowed no change under the draft.

In Johannesburg 2002, the United Nations Conference on Environment and Development met again. At the beginning of 2004 178 nations had signed the agreement. However, after the elections in the U.S.A., President George W. Bush refuses to acknowledge that the U.S.A is by far the world's most prolific consumer and polluter or sign the Kyoto Agreement. Despite this major setback, the UNCED conferences are informing a paradigm shift in the aims and objectives of many key international organisations, governments at national and local levels and the media and popular culture. If anything, educational policy and curriculum is lagging behind in these changes.

OECD

The OECD is an excellent example of an important international organisation that has substantially altered its mission since Rio. In 1960 the first article of the OECD Convention read;

- to achieve the highest sustainable economic growth and employment and a rising standard of living in Member countries, while maintaining financial stability, and thus to contribute to the development of the world economy;
- to contribute to sound economic expansion in Member as well as non-member countries in the process of economic development; and
- to contribute to the expansion of world trade on a multilateral, non-discriminatory basis in accordance with international obligations.⁶⁰⁵

In contrast to its earlier economic and exclusively human orientation, the OECD adopted an Environmental Strategy in 2001 that has four central policy objectives that

⁶⁰⁵ OECD, 1960

increasingly recognise the interdependence of one region's social and environmental situation with another's. The mechanisms of measurement and governmentality are emphasised. There is also a growing acceptance at this stage of a climate of global environmental crisis. They state, "We must place the health of ecosystems and their carrying capacity at the centre of our preoccupations."⁶⁰⁶

Maintaining the integrity of ecosystems through the efficient management of natural resources.

De-coupling environmental pressures from economic growth.

Improving information for decision-making by using indicators to measure progress.

Enhancing the quality of life: The social and environmental interface.

Improving governance and co-operation: Global environmental interdependence.⁶⁰⁷

These key points have been so influential we will spend some time unpicking them. The initial aspect to notice, through a reading informed by Heidegger, is the emphasis on *managing* the environment as 'natural resources.' Secondly, the economic belief that it is possible to 'decouple' continuous exponential economic growth divorced from the existent parameters of the ecosystem. And finally, the perceived need for better quality information and 'indicators' or attributes of value that enhance economic management of the 'social and environmental.' This includes 'risk' assessment. They go on to place environmental concerns at the centre of OECD policy, and take a decisively Neoliberal attitude to addressing these problems;

Unsustainable production and consumption patterns are increasingly threatening the health of global ecosystems and biological diversity, climate patterns and the global environment. Human pressures on the environment are not expected to ease unless strong policy actions are taken to protect ecosystems and maintain the essential services they provide. OECD countries will need to remove or reform subsidies and other policies that encourage unsustainable use of natural resources and ensure the full costs of natural resource use are taken into account through market and other policy instruments, reflecting the User Pays Principle and the Polluter Pays Principle.⁶⁰⁸

The OECD have put out a series of publications aimed at environmental education. The environment has taken an increasingly central role. In their 1995 publication *Environmental Learning for the 21st Century*, the remit is merely to "promote the active

⁶⁰⁶ OECD Environmental Strategy, 2001

⁶⁰⁷ OECD Environmental Strategy, 2001

⁶⁰⁸ OECD Environmental Strategy, 2001

engagement of teachers and their students in identifying, developing knowledge on, and acting to resolve *local* environmental problems.”⁶⁰⁹

The OECD methodology was via action research to compare local environmental education in five countries; Australia, Austria, Finland, Germany and Norway. A network was set up in 12 participating countries where schools were interested in environmental education initiatives. They state,

Given the growing ‘environmental imperative’ the following criteria were seen to constitute a ‘new’ responsibility of the education system – that is, the promotion of environmental awareness and of ‘dynamic’ qualities in students, such as initiative, independence, commitment, and readiness to accept responsibility.⁶¹⁰

In environmental education, ‘responsibility’ requires that “the concept of environment to be broadly defined, not limiting school initiatives to the natural environment but including social, economic, cultural, and technological dimensions.”⁶¹¹ The OECD encourages a broad scope and personal initiative for environmental education. They have gone on to do some even more intensive and vital research that encompasses the controversial issue of climate change and global warming.

The Brundtland Report (1987) has provided guiding principles for the proliferation of policy initiatives, environmental theory, and environmental education in most nations throughout the world. The phrase “meets the needs of the present without compromising the ability of future generations to meet their own needs” must be one of the most often quoted sentences in literary history.⁶¹² As the Deep Ecologists and the contemporary Pragmatists advocate, this ‘platform’ is providing a marriage of convenience between humanity, environment, and management of the future that is proving an inclusive bridge across many types of environmental theory. The notion of Environmental Futures does emerge from Neoliberal principles, as OECD spokesman on the environment, Simon Upton ‘less cautiously’ and ‘more provocatively’ acknowledges.⁶¹³ Upton writes that the Brundtland formula “meets the needs of the present without compromising the ability of

⁶⁰⁹ OECD, 1995, my emphasis

⁶¹⁰ Kelley-Lainé, 1993: 414 cited in OECD 1995:7

⁶¹¹ OECD 1995:ii

⁶¹² Brundtland, 1987: preface

⁶¹³ Upton, 2001b

future generations to meet their own needs” is a definition that does not require basic philosophical principles or “metaphysical leaps.” The antagonism to philosophy resounds with Neopragmatism and Deep Ecology.

Indeed, one of the founding motifs of modernity is the emphasis on the *present day*. Humanist self-help guides and maxims advise us that genuine appreciation of life is to ‘live in the moment.’ In Neoliberalism, the ultra-modern emphasis on the present lends itself to maximising consumption, with a faith in the market’s ability to meliorate decisions, including political decisions. But this concentration on the immediate (live for today, tomorrow may never come) has been importantly modified by the notion of sustainable *futures* and the increasingly evident impact of human consumption on the environment. Upton explains this shift in emphasis from the immediate to the future in economic terms. There are “numerous environmental variables where the externalities are simply not linear. Thus, continual pressure on a resource (or species) can be applied with no apparent effect for a considerable time until suddenly a threshold is crossed and the negative effects begin to rise sharply.”⁶¹⁴

The first UNCED conference at Rio, very sensibly according to Upton, affirms the “anthropocentric nature of our interest in sustainability. ‘Human beings,’ it states, ‘are at the centre of concerns for sustainable development.’” The ‘ingenuity’ and ‘efficiency’ that humanity creatively apply to the transformation of nature is unending. But Upton is careful to distinguish the social and economic aspects (such as distribution) of sustainability from the finitude of natural resources. As Upton states “there are boundary conditions for the stability of the linked biological, chemical and physical systems that form the global life-support system on which human life ultimately depends.” Not only can we intuit and sometimes find scientific evidence for the limitations of nature, in terms of resources, but there is no sure way of discerning what the threshold to over-use, or over pollution might be until it is too late. Upton asks,

⁶¹⁴ Upton, 2002a

can we identify which human claims on some key elements of the bio-physical environment place us at risk of crossing thresholds beyond which lie very significant environmental perturbations with high economic, social and environmental costs?⁶¹⁵

This ‘uncertainty’ is taken more seriously by Upton than many of the other policy initiatives on environmental sustainability. Upton’s paper “Measuring What?” explores the problems of generating environmental indicators.⁶¹⁶

Upton understands the threshold argument put forward by ecologists in the 1970s in terms of the economic paradigm of ‘risk’ and costs/benefit analysis. He takes seriously the *Climate Change* Report published by his organisation in 2001. After extensive analysis of *all* known data, a team of scientists put together all the information into a range of models projecting global climate temperatures over the next century (and beyond). The models suggest a rise in temperature from at best 1.4 degree to 5.8 degrees depending on a range of variables, including the extent of carbon absorption by oceans and forests, and the rate of continuing release of greenhouse gases by humankind across the globe.⁶¹⁷ Upton readily acknowledges that climate change is directly attributable to complex by-products of human technological industrialisation, consumerism and globalised transport. For at least the last half a million years, atmospheric CO₂ emissions have remained within stable and specific limits of 180 and 280/290 ppm. Upton faces the brutal facts of fossil fuel pollution;

We also know that human activities have broken these bounds, with current carbon dioxide concentration approaching 370 ppm and that these have risen to that level at a rate at least 10 and possibly 100 times faster than at any other time during the last half-million years. But we do not yet know the full implications of this change for the stability of the climate. Nor do we actually know whether we have crossed or are poised to cross a threshold that will lead to rapid climate change.⁶¹⁸

In response to the evidence collated and presented by science, Simon Upton, and the OECD in general are trying to tie together economic cost/benefit calculations with risk analysis that estimates the threshold when climate viability swings to catastrophic escalation.⁶¹⁹ This is similar to the estimations that insurance companies use to calculate

⁶¹⁵ Upton, 2002a

⁶¹⁶ Upton, 2002a

⁶¹⁷ Wigley and Raper, 2001: 79 cited in Upton, 2002a, and Wigley, 2004

⁶¹⁸ Upton, 2002a

⁶¹⁹ Upton, 2002c

the probable risks of earthquakes, volcanoes or accident rates for males between the ages of 15 and 25. The costs associated with dramatic global warming are on a vastly different scale from the relatively contained results of tectonic plate movement.

Any significant warming will entail costs in fields as diverse as agricultural and public health. What are not fully understood are the thresholds at which catastrophic or irreversible changes could be triggered. To manage the risk, precautionary action would seem prudent. But concluding a binding treaty to take the first steps is proving extremely difficult.⁶²⁰

From the Neoliberal standpoint of minimal government intervention and economic assessment of the risks and costs of global warming, Upton is advocating global regulation of environmental hazards. He specifically outlines greenhouse gas emissions, clean water, coastal marine environments and fish stocks, terrestrial biodiversity and soil erosion and important sites of global environmental risk.

The trajectories of resource use indicate severe disruption to bio-physical systems, in many cases at the regional level and in some cases (pre-eminently climate change) at the global level. While the thresholds at which the need for adaptation changes to crisis response are not precisely known, most trends indicate accumulating rather than decreasing risk, even allowing for technological change.⁶²¹

It is interesting that these outcomes of anthropocentric behaviour have not been framed (unlike the WTO) in terms of economic ‘externalities.’ And very reassuring that someone of Upton’s stature is not wholly relying on technology to miraculously fix the problem of environmental damage. Indeed like the WCED and the UNCED, Upton recognises, early in his OECD role, that sustainability is entangled with the massive economic disparity between the ‘developing world’ and the rich nations. In 2001 Upton notes that non-renewable resource use in rich nations is careless, but “there is nothing environmentally sustainable about poverty.”⁶²² Although later he extricates himself and the OECD from so much responsibility for equitable redistribution across the globe.⁶²³

Simon Upton believes that positivist epistemology ought to enable us to roughly calculate the complex processes of pollutant reactions on the biosphere, such as the hole in the

⁶²⁰ Upton, 2001b

⁶²¹ Upton, 2001b

⁶²² Upton, 2001b

⁶²³ Upton, 2002b

ozone layer as a result of fluorocarbon use since the 1950s, or the amounts of CO₂ releases etc. that are disturbing the 'balance' of delicate ecological systems. According to Heidegger, even if these calculations could occur (which they have not), measurement will not fundamentally redress the failure of humanity to apprehend the profoundness of Being, but constitutes part of the problem, which is that calculation and measurement obscures our relation to the planet, instead of enhancing it. Upton acknowledges that accuracy can never be achieved, (just as he avoids metaphysical leaps, it is unclear whether this is a Pragmatic, Empiricist or Post-structuralist acknowledgement that absolutes are impossible). However he argues with a great degree of *reasonableness*, that some form of environmental indicators are important for international policy directives, and national accountability towards those policy agreements.

Upton's attempt to place measurements and scales on pollution has a sophisticated disclaimer that acknowledges that all such measurements are artificial and inaccurate. His rough guides are to insert aspects of ecology such as atmosphere and water pollution into metaphors and meters capable of entering the commodity market of economic transaction. He soundly surmises that vouchers that can be tradable are more likely to be respected and acted upon; in other words, economically accounted for, by countries such as the United States of America which are the major sources of planetary pollution. The idea is that rich polluter nations should pay poorer nations that, the argument goes, are less developed and therefore have untapped resources such as forests that are working as the 'lungs' of the planet. Not felling those forests will to some extent offset the pollution released elsewhere. Presumably the voucher system could be privatised – providing another set of commodities on the stock exchange. A good example of environmental vouchers is the NZ government's attempt to introduce the 'fart tax' in 2003 which charged farmers a sum for each head of stock, on the grounds that cattle, sheep and pigs release so many kilograms of CO₂ per year. Thus far (and completely irrationally) CO₂ tax has not been attached to motor vehicle use, but it could quite easily be added to petrol prices or based on vehicle mileage. Rich nations can buy clean air vouchers off poorer (forested) nations, shifting money to 'developing' nations, and alleviating the urgency of

richer ones to pollute less.⁶²⁴ Unfortunately, economic disparities between rich and poor nations are unlikely to be solved by ecologically driven economic initiatives and it seems to me to be more likely that vouchers will appease (for a while anyway) the populations in wealthier countries while environmental devastation continues with little real improvement throughout the world.

Ever since the Rio conference in 1992, the United Nation's Department of Economic and Social Affairs has had a firm commitment to environmental *development*. The United Nations has been calling for more specific modes of measuring environmental indicators; "simple, elegant and effective measures that do not compromise the underlying complexity" of sustainable development.⁶²⁵ Clear measurement guidelines make policy initiative easier, and national comparisons possible. Simon Upton is very interested in encouraging this type of environmental measurement. The United Nations, the European Union and the OECD are all working on environmental indicators. The European Union too, wants to "simplify complex information so that is it quantifiable (and) can be understood and communicated." Upton is in a central position in regards to the issue of environmental indicators and he warns that to be useful, there must be an environmental premise from which they emerge. He says "In the absence of agreement on a more specific and tractable list of goals, assessing progress on sustainable development risks degenerating into lists of measures, arbitrarily chosen to suit the interests of the measuring entity."⁶²⁶

In *Strategy for Sustainable Development*, the European Commission proposed 36 *structural* indicators to assess the internal conditions of nations in a comparable way. The indicators were very general, along the themes of: economic background; employment; innovation and research; economic reform; social cohesion and the environment. A few examples from the list are;

- Unemployment rate (economic background)
- Life-long learning (employment)

⁶²⁴ see above in this chapter for UNCED estimates of 'allowable' national CO₂ emissions and subsequent room for CO₂ trade

⁶²⁵ quoted in Upton, 2002a

⁶²⁶ Upton, 2002a

- Level of Internet access (innovation and research)
- Prices in the network industries (economic reform)
- Early school leavers not in further education or training (social cohesion)
- Energy intensity of the economy (environment)⁶²⁷

Upton describes the efforts by the European Commission and other organisations as having come up with *ad hoc* lists of things to measure that coincide with their own political interests. “They’re the priorities of the particular members” he complains. The OECD have developed their own list of ‘critical indicators’ that do seem to be more cohesive and less erratic. But clearly the Neoliberal interest in ‘human capital’ and ‘resources’ is highly prominent. The categories that include production are set in financial terms that occlude many aspects of global corporations whereas the consumer end is more visible and susceptible to policy initiatives and responsibility. The OECD’s *Sustainable Development – Critical Issues* list sustainable development indicators:

Environmental assets

Air quality	GHG emission index and CO ₂ emissions
NOx emissions	
Water resources	Intensity of water use (abstractions / renewable resources)
Energy resources	Consumption of energy resources
Biodiversity	Size of protected areas as a share of total area

Economic assets

Produced assets	Volume of net capital stock
Technological change	Multi-factor productivity growth rate
Financial assets	Net foreign assets and current account balance

Human capital

Stock of human capital qualifications	Proportion of the population with upper secondary/tertiary
Investment in human capital	Education expenditure
Depreciation of human capital	Rate and level of unemployment

Outcome indicators: Are we satisfying current needs?

Consumption	Household final consumption expenditure
Municipal waste	generation intensities
Income distribution	Gini coefficients

⁶²⁷ European Commission, cited in Upton, 2002a

Health	Life expectancy at birth, Urban air quality
Work status/Employment	Employment to population ratio
Education	Participation rates ⁶²⁸

Because of difficulties reconciling adequate categories for standardising sustainability, in 2002 OECD membership countries decided not to attempt definitive, comparable measurements. Having read the critique of sustainability put forward by Daniel Esty – that the term ‘sustainability’ is ‘empty of content,’ Upton asks “does sustainable development evaporate or become, at most, a bland agenda for policy integration without any real content?”⁶²⁹

Perhaps it is this indeterminacy at the heart of the concept of sustainable development that led OECD countries this year to decide that it is better *not* to attempt to establish a definitive – if arbitrary - set of issues to measure as proposed in the *Policy Report*. Rather, they have decided to generate a ‘menu’ of *policy issues* which involve trade-offs between the different dimensions of sustainable development.⁶³⁰

Global poverty is certainly intricately bound up with environmental concerns. At the international conventions it has been an important task to educate wealthier countries – who have often already largely consumed their irreplaceable natural resources – that environmental conservation in poorer nations might limit their potential for economic ‘development.’ But although the problems of international redistribution and poverty impact on the environment, ‘development’ is not the same as the impact of technological human occupation on ecosystems, oceans and atmosphere. Shifting from his earlier acceptance of the inescapable interaction between environment and the massive disparities in wealth between ‘northern’ and ‘southern’ hemispheres, in 2002 Upton had become increasingly aware of the politicisation of sustainability. Under the influence of Daniel Esty, Upton shifts to defending the concept of sustainability in terms that sound less concerned with the social sphere, and much more profoundly concerned with the devastating potential of pollution on global warming. Esty makes the point that development issues are drowning out environmental concerns. He argues that they are separable, in direct contradiction to the Brundtland Report. In his article with the rather long winded title, “Poverty, Demography, Economics and Sustainable Development:

⁶²⁸ OECD, 2001: 72

⁶²⁹ Upton, 2002a

⁶³⁰ Upton, 2002a

perspectives from the developing worlds; What are the realistic prospects for Sustainable Development in the first decade of the new millennium?”⁶³¹ Upton writes about the ‘three pillars that constitute eco-society. Upton is also in the process of realising that the ‘three pillars;’ economic, social, and environmental, that have been tied inextricably together in European commission literature are laying too heavy an emphasis on anthropocentric concerns.

The European Commission has artfully described the relationship between the pillars as ‘economic growth (that) supports social progress and respects the environment, social policy (that) underpins economic performance, and environmental policy (that) is cost-effective.’ The notion is of a virtuous triangle of reinforcing policies that advance ‘a society that is more prosperous and more just, and which promises a cleaner, safer, healthier environment’ not just in the near term but the long term.⁶³²

This mutually supporting arrangement occludes inevitable tradeoffs – environmental sustainability is not just about ‘efficiency.’ The three pillars imply that everything is tradable, and, as Upton criticises, there are “no environmental bottom lines.”

Upton is worried that the three pillars of social, economic and environmental sustainability, along with the loosely organised, issue by issue approach of the OECD, threatens to ‘empty’ the concept of sustainability by enlarging it beyond any meaningfulness. Upton wants to return to the analysis of scientifically based environmental indicators, no matter how rough they may be as guides, because it is only with positivist measurement that nations can be held accountable. He seems at first glance to be avoiding the simplistic market metaphor of Neoliberal theory: that once firm measurements can be counted upon, economic transactions can be created, presumably (for the idealistic) with some transparency, and the market can magically adjust the political dimensions of redistribution. Instead the real complexities of the disparities between north and south mean that sustainable indicators, especially social ones, tend to reflect the normative values of the host nation. Because the physical conditions of north and south are so disparate it is impossible to make any universal claims for ‘fair’ indicators. Upton’s example is based on the first OECD social indicator of retirement funds; a matter of primary concern to the babyboomers about to retire in western nations,

⁶³¹ Upton, 2002b

⁶³² Upton, 2002b

but of absolutely no relevance to Sub Saharan Africa where the average life expectancy is 49, there is no pension or welfare scheme, and the elderly and the very young rely on family bonds of gathering and sharing to survive. Upton makes an intelligent case that the concept of ‘sustainability’ ought to be applied to the solid boundaries of absolute poverty and morbidity, as thresholds in the same way that rates of carbon dioxide in the atmosphere presents a real toxic boundary, the limits of which are the limits of life. This still takes an anthropocentric ‘bottomline’ as Upton asks “are there thresholds beyond which natural systems, on which everyone relies, will cease to deliver the so-called ‘ecological services’ needed to sustain life?”⁶³³

According to Upton, because of these irreducible variations in cultural norms over generally acceptable levels of wealth (such as clean running water, electricity, housing, and clean clothes) inequities between north and south are likely to be ‘insoluble.’ Equity is a more general issue than sustainability that, Upton argues, should not be ignored but treated politically and morally, but *elsewhere*. He writes “But there are also good instrumental reasons of an economic and environmental nature and they will command support where more ambitious, all embracing notions about ‘equity’ will founder.” This is the most overt admission I have ever come across that equality is not one of the Humanist principles that underpins Neoliberalism. Usually the extensive Neoliberal jargon about equity enshrouds the tangible facts that the extremes of wealth and poverty are exacerbated under Neoliberal regimes. Upton’s argument is a much more sophisticated version of Ehrlich’s population argument and subject to the same critique put forward by Commoner and Feenberg. Similarly to Ehrlich’s estimates of population, and food crop ‘carrying capacity’ Upton searches for “scientifically demonstrable thresholds” in an “analytically tractable world.”⁶³⁴ Upton is able to avoid looking politically incorrect by the use of already acceptable categorisations that are current in a wide variety of organisations that look as though they include most aspects of economic, social and environmental life, without falling into the obvious disparities of specific conditions, policies, and issues of concern between countries.

⁶³³ Upton, 2002a

⁶³⁴ Upton, 2002b

Some of these social indicators that are already in use are the ‘health, wealth and wisdom’ of UN’s Human Development Index that relies on data about health, education and income indices (such as GDP). The regulations of global organisations like the UN and the OECD have to begin by scientifically “establishing whether there are global thresholds within which humanity must stay if it is to avoid significant disruption to the planet’s life support systems.”

Furthermore, Upton makes use of trade – the magical market – to illuminate how environmental indicators can help negotiate the minefield of political anxieties that cause friction at the UNCED conferences. Wealthy nations might present a healthier version of pollutants or resource consumption than is fair, if accurate indicators do not show how globalised trade impacts on carbon release, for example. Carbon is embedded in plastics, steel, aluminium and many other goods that are consumed in the north but produced in the south. Taking the mobility of trade into account would more accurately reflect how the north is more responsible for the carbon release in poorer nations. This is a classic Neoliberal argument that the market will account for and ‘balance’ all the significant factors without resorting to political interests.

Upton’s desire for more trans-boundary information to fill the scientific gaps are shared by many in the environmental community. Institutions are opening several new discipline areas, especially ‘earth monitoring.’ A good example is the *International Geosphere-Biosphere Programme* which seeks to establish;

A more comprehensive model of atmospheric chemistry to identify any other weak links such as were discovered in relate to ozone depleting substances.

A more comprehensive, data-rich understanding of ocean circulation and the extent to which anthropogenic forcing could trigger major changes.

An understanding of the relationship between biological diversity and ecosystem resilience (this appears to be a particularly under-defined area).⁶³⁵

Furthermore Upton advocates better surveillance and assessment of development money flowing from OECD nations, and estimates of the “the market destroying and distorting consequences of trade barriers and subsidies” By ‘weighting and bundling’ these interventions, a ‘synthetic indicator’ of the ‘aggregated impact’ of trade subsidies versus

⁶³⁵ International Geosphere-Biosphere Programme quoted in Upton, 2002a

charity could be included in the normal flow of market factors, that consumer choice will struggle with scarcity of supply due to biophysical limits, until a market value is set and 'balanced.'⁶³⁶

At this point he is returning to the initial goals outlined by the OECD (above) which state that one of the primary objectives is to 'decouple' economic growth from environmental limitations. The idea is that continued exponential economic growth can be achieved in environmentally sound ways by increasing 'efficiency' in production and distribution, and presumably increasing price while diminishing costs. The service and information sector, specifically the 'Knowledge Economy, also offer opportunities for economic growth that has been 'decoupled' from environment constraints. Uniquely, this sector has relatively few problems with end-of-line disposal of consumable products (except for the increasing mountain of outdated computers), paper and ink consumption and so on. Costs of electricity, storage, and surveillance remain hidden in the expenditure accounts of the general population's living standard. The increased capacity and abundance of information technologies expands the opportunities for making capitalist profit through both the distribution and the with-holding of knowledge and services. Life-long learning plays an important role in promoting this sector of the economy, and shrouding problems of domestic unemployment.

Dramatic alterations to the 'self-regulating' machine of the environment poses unknown, but potentially calamitous 'risk' to the maintenance of conditions that can maintain the possibility of life on earth. Upton's position is a complex and sophisticated amalgamation of environmental scientific 'realism' and faith in the Neoliberal market to iron out problems as long as environmental problems can be included in the accounting of cost/benefit and risk analysis. His acceptance of the threshold of conditions suitable to life that are threatened by global climate change and is traceable to the technological lifestyle of humanity in many countries in the world is refreshingly straight forward. The technological enframing of the theoretical methodology that permeates all pan-global institutions is absolutely uncritically received. Admittedly it is improbable that any other

⁶³⁶ Upton, 2002b

means of changing the technological and economic approach to environment problems could have such immediate short term effect.

Giddens and the Third Way

Anthony Giddens makes a comparison between Socialism and Neoliberalism in his book *The Third Way; The Renewal of Social Democracy*, (1998). It is an important text because Giddens has been very influential on Tony Blair's ideas of developing a 'Third Way' that is 'economics with a social conscience' to guide public policy. As Giddens puts it, "market economy but not market society." Giddens is apt to take a more nuanced account of economics than straight Neoliberal policy allows, but still falls back on the familiar rubric of the market metaphor accommodating all spheres of life.

Giddens optimistically believes that economics and environmental protection can be amalgamated. He sets out this utopian ecological modernisation in the context of increasing globalisation where "domestic strategies of national economic management are increasingly irrelevant."⁶³⁷ Giddens echoes the European Commissions' 'three pillars' approach that the social, the economic, and the environment, mutually *support* one another as environmental protection is met by increasing the efficiency of resource use rather than increasing the extraction of consumption of the resource.

In classical social democratic thinking, it had been assumed that there was a trade-off between economic development and protection of the environment. According to the new theme of ecological modernisation, environmental protection is seen as a source of economic growth rather than its opposite.⁶³⁸

There is no doubt that the massive expansion of the financial markets since the 1970s has profoundly influenced late modernity. There has been a huge increase in money circulation and a massive increase in 'middle men' who manipulate the exchange of goods, as opposed to the simple model of the cornmarket used by early economists like Adam Smith. In 1998 Giddens notes with awe "A trillion dollars a day is turned over in currency exchange transactions. The proportion of financial exchanges in relation to trade has grown by a factor of five over the fifteen years. 'Disconnected capital' –

⁶³⁷ Giddens, 1998: 19

⁶³⁸ Giddens, 1998: 19

institutionally managed money – has increased by 1,100 per cent on a world scale since 1970 in proportion to other forms of capital.”⁶³⁹

During the same period, ecological issues emerged as the defining problem facing people and planet. Giddens has written an extraordinary number of books over the last 30 years, that are sociological accounts of various ‘issues’ including class relations, civil rights, feminism, and poverty, and I suspect that the environment remains for this experienced and perhaps jaded campaigner, just another ‘issue.’ He contextualises the outpouring of grass-root organisations, political activism, technical and popular books as a 1960s crisis discourse.⁶⁴⁰ According to Neoliberal theory, scarcity will increase prices whereas oversupply will reduce prices. So the endangerment of resources such as trees, oil, and soil run-off should result in higher prices for commodities such as wood, petrol, and crops, resulting in more careful consumption. But in actual fact, as Giddens notes, prices have dropped in real terms. This could be taken as an indicator that there is *abundance* rather than *scarcity* affecting the market. Or, alternatively, it could mean that the market is not a reliable indicator of all the empirical factors.

In the past, faith in the market ignored ‘externalities’ such as pollution, which do not enter the producer/consumer equation in the short term. Simon Upton is a good example of how increasingly sophisticated measurement of environmental indicators might include these previously ignored factors into the market equation. However Neoliberal theorists continue to remain oblivious, as noted earlier, that the market has changed from a simple and direct trade of goods between suppliers and customers to now include a fantastic proportion of middlemen. Production (and externalities) are now dispersed and globalised, and ownership is indirect through stocks and shares. The disassociation of ownership from place or persons through shares, the massive increases in corporate middlemen and organisation are enabled by the shift from the technological enclosing of production from the family to the factory, into the assembly lines of early industrialism, to the globalised networked era of transnational production. Globalised ownership and production along with a concurrent lack of global regulation or taxation contribute to

⁶³⁹ Giddens, 1998: 30

⁶⁴⁰ Giddens, 1998: 54

unsustainably extreme low prices for irreplaceable resources. The globalisation of the market transgresses national boundaries. Perhaps this helps source commodities from resource rich areas, thereby fulfilling the market requirement of cheap prices for abundant goods. Or it can be understood as a corporate mechanism for avoiding the local national laws that attempt to regulate the unsustainable extraction of raw resources from particular areas, and to pay a reasonable wage to local workers.

Another reason for the decrease in prices in real terms in developed nations is because of the 'free trade' agreements. These agreements are proselytised and enforced by irreversible, ratcheted agreements set up by the World Trade Organisation and have resulted in lower and lower income flowing into poorer nations. Free trade agreements have effectively ensured that poor nations are only allowed to export raw materials, rather than selling more valuable finished products, while large rich blocs of consumers – such as the U.S.A. and E.U. have benefited by domestically adding value to foreign raw resources by protecting local production and manufacturing. One set of rules applying to developing nations and altogether different rules applying to the wealthy. These uneven trade treaties are reinforced by World Bank loans which are only given to nations prepared to privatise more and more of State owned assets and infrastructure, releasing significant assets to multinational corporations with no responsibility for local environments and populations. But freeing *all* markets of tariffs would also not produce a miraculous redistribution of wealth from one part of the world to the other.

Part of the Neoliberal armoury for improving development is using free trade agreements to attempt to lever the EU and USA into reducing or abandoning their agricultural and manufacturing protections.⁶⁴¹ In Britain, for example, the agricultural subsidies have been in place since after the Second World War when, having been terrified by their dependency on vulnerable supply ships from overseas, Britain initiated the self-sufficient food policy. This has resulted in a vast 'improvement' of efficiency of land utilisation because land which is capable of bearing stock is eligible for subsidies whereas land that 'lies fallow' is not. This has resulted in the demise of hedgerows and stone walls (habitat

⁶⁴¹ Johan Norberg (2003). Interestingly, Neoliberal members of pan-global organisations such as the OECD and WTO recognize that this is so unlikely to occur that they do not even bring it up for debate eg. Simon Upton (OECD) and Michael Moore (WTO).

for many birds and small animals), and the shift to an industrialised scale of small fields into massive ones and small farms into factory farming. As a result of the massive subsidies involved, Britain's farms are over supplied with breeding stock. The spread of BSE disease in 2001 was exacerbated by the centralised large scale slaughter factories which require trucking of live beasts across very long distances. But the large scale destruction of Britain's live stock, though distressing, was from the government's viewpoint beneficial for meeting British commitment to reduce live stock and subsidies to farming.

Giddens addresses the 'very malleable concept' of sustainable development put forward by the Brundtland report and endorsed by Agenda 21. He is critical of Margaret Thatcher's 1970s declaration that Britain is sustainable. He makes the point that in Holland, sustainable development is avoidance of 'end of pipeline' technologies that attempt to 'clean up' environmental disasters after the fact, in favour of avoidance of pollution at the stage of initial production. He refers to Maarten Hajer, who advocates the concept of 'ecological modernisation'; there is a preference for anticipation rather than cure; and the equating of pollution with inefficiency provide the defining principles of economic growth.⁶⁴² Environmental regulation and economic growth are seen as mutually beneficial. But in a thorough reading of these vast tracts of global policy, Giddens puts a similar argument to Simon Upton – that 'development' and 'environment' are two distinct problems.

It isn't really convincing to suppose that environmental protection and economic development fit together comfortably – the one is bound sometime to come into conflict with the other. Moreover, ecological modernisation is largely a matter of national policy, but environmental hazards mostly cut across the borders of nations and some are global in scope.⁶⁴³

This very important acknowledgment of the difference between protection and economic expansion, or development is a good starting point for all serious environmental theory to begin - although my reasons are not the same as Giddons and Uptons.' From this beginning it is possible to argue that economics is not the only explanatory and

⁶⁴² Hajer, referred to by Giddens, 1998: 56

⁶⁴³ Giddens, 1998: 58

theoretical principle capable of advancing arguments and solutions to the vast interrelated cosmos of environmental problems.

Giddens is British, and like most people brought up in this heavily populated island, extrapolates and universalises that everywhere was also once famously forested and now is farmed to the point that accounts for every inch. There are layers upon layers of human history visible from every vantage point in the British Isles. It is hard to imagine from there, the wide and wild Steppes of Siberia, or the wandering dunes of the Sinai desert, or the teeming, plunging damp, and rotten swamps of the Amazon. As Heidegger noted before the Second World War, it is easy, in Europe, to imagine human management pervades everywhere.

We might think of ‘the environment’ as the natural world, but of course it isn’t that any longer. Much of what used to be natural is now either the product of, or influenced by, human activity – not just the external world, including possibly the earth’s climate, but the ‘internal environment’ of the body. For better or for worse, science and technology have invaded the human body, and have redrawn the boundary between what can be humanly achieved and what we simply have to ‘accept’ from nature.⁶⁴⁴

Globalisation is characterised for Giddens by permeable boundaries. The Cyborg becomes the metaphor for human intervention in all ecosystems, and all ecosystems are increasingly understood as human artefacts. A rhizome of sorts, Giddens’ version of the relationship between humanity and the environment elevates solipsism at the expense of the ‘wild card.’ The human relation to everything means the measurement and calculation of it all on a human scale. It is the hubris of ultimate administration and management.

From this position of total faith in the measurement of all-important environmental indicators, Giddens asserts that it is possible to assess and insure against ‘natural disaster.’ Instead of being pessimistic, Giddens is positively entrepreneurial; “A positive engagement with risk is a necessary component of social and economic mobilisation.”⁶⁴⁵ He is nowhere near as aware of the gravity of environmental pollutants and their affects on climate change, (writing 4 years before the release of the OECD *Climate Change 2001*

⁶⁴⁴ Giddens, 1998: 58

⁶⁴⁵ Giddens, 1998: 63

report).⁶⁴⁶ In the intervening years a very important shift in the general acceptance of these pollutant problems has taken place in global institutions and in the wider population. The Risk Matrix has no analysis to the ongoing detrimental impact of capitalism and consumerism on local ecosystems or social relations. Environmentally friendly institutions are linked to increased efficiency rather than any substantial shift in the relative importance of humans in relation to the rest of life.

Giddens has a list of Third Way values that tries to resurrect older Liberal notions alongside Neoliberal ones. Third Way values include: equality, protection of the vulnerable, freedom as autonomy, no rights without responsibilities, no authority without democracy, cosmopolitan pluralism, and philosophic conservatism.⁶⁴⁷ To conjoin the traditional social principles of the left with the market metaphors, and emphasis on individual autonomy of the right, Giddens argues “The cosmopolitan nation helps promote social inclusion but also has a key role in fostering transnational systems of governance.”⁶⁴⁸ To some degree he is countering the Neoliberal call for a minimal state. Vaguely put, this allows the State to play some part in the tax provided, welfare provision that is crucial to the Keynesian Settlement, ensuring that a safety net of welfare, education and health provisions are provided for workers so that the stable conditions necessary for capitalism are in place. The role of the State can be understood in terms of Human Capital theory where everything, as Heidegger puts it, is understood as potential resource which can have ‘value added.’ “Government has an essential role to play in investing in the human resources and infrastructure needed to develop an entrepreneurial culture.”⁶⁴⁹ At the same time Giddens argues, like many left wing Liberals, that State mechanisms for these provisions have room for improvement. With dubious understanding of ecology (which he has confused with efficiency) Giddens writes “The restructuring of government should follow the ecological principle of ‘getting more from less,’ understood not as downsizing but as improving delivered value.”⁶⁵⁰ Although he acknowledged the ‘uncomfortable’ relationship between ecology and capitalism due to

⁶⁴⁶ IPCC, 2001

⁶⁴⁷ Giddens, 1998: 66

⁶⁴⁸ Giddens, 1998: 69

⁶⁴⁹ Giddens, 1998: 99

⁶⁵⁰ Giddens, 1998: 74

the increasing transparency of wealth discrepancies between the northern and southern hemispheres, Giddens is relying heavily on the tying together of efficiency and ecology. The cosmopolitan state needs to remain large enough to efficiently promote social inclusion and stability. It should also promote a democratically responsible form of global government to regulate global business.

The State's obligations to provide universally accessible welfare, education, and health services are expanded further to the calculation and regulation of pollution. In the past both the owners of capital and the labourers ignored the pollution consequences of production as an 'external cost.' Labourers were as culpable for passing on pollution to future generations to redress as factory owners. The failure to insist on environmentally friendly production practices have been put down to the increasing accessibility of consumable items from low cost, mass production that meant the workers had an increasing investment in industrialisation too. The Brundtland Report specifically aims to make the present generation responsible for its own pollution and consumption practices. Thus the State settlement must now also include the limitation and regulation of pollution. Giddens supports this role, stating, "The reduction of environmental pollution, for example, is a general benefit. Indeed ecological strategies are a core element of lifestyle bargains, since most ecological benefits cut across classes."⁶⁵¹

But in fact, in the face of increasingly globalised production, Keynes' pragmatic socialism falls down. The basis of Lord Keynes' settlement was creating the stable conditions necessary for capitalism, and requiring capitalism to meet social responsibilities through taxation. Increasingly, corporations are deciding to work in tax-free enclaves in traditionally poverty stricken nations such as Malaysia, Indonesia and Polynesia, where indentured labour returns wages into the national economy even if the corporations are almost tax-free. Existing welfare societies in 'developed nations' can no longer contain negotiated worker settlements, for example, less hours for a moderate full time wage because of the global nature of production and consumption. Even where governments settle agreements with each other over the location and levels of taxation from transnational production, the scale of global corporations are so immense that their

⁶⁵¹ Giddens, 1998: 109

legal and political weight overpowers the attempts by national governments to institute revenue gathering and environment regulation over resource extraction and pollutant externalities. Rather famously, the largest economies in the world are not countries but corporations.

Giddens response to the crisis in national infrastructure is a Neoliberal one, “The guideline is investment in *human capital* wherever possible, rather than the direct provision of economic maintenance. In place of the welfare state we should put the *social investment state*, operating in the context of a positive welfare society.”⁶⁵² From here it is easy to understand Tony Blair’s faith in Private-Public Partnerships for education and health provision. Human capital theory is the guiding paradigm that assumes that individual’s desire, and are responsible for their own ‘added value.’ This goes hand in hand with policies such as Life-long learning and the Knowledge economy where individuals continuously upgrade their skills and marketability in the workforce by investing in education. The ‘social good’ of an educated population is privatised, individualised and predominantly vocational.

In a world of globalisation, the role of the smaller nation state has become a residual one; advocating human resources and infrastructure, and passing over regulation and policing to pan-global organisations like the United Nations, the OECD, WTO, and the World Bank The nation state remains a stabilizing force that is helpful for capitalism but it also fosters nationalist identity and is potentially divisive. National boundaries are becoming frontiers; not from inadequate control but rather the processes of globalisation.⁶⁵³

In response to the globalisation of capital, and the expansion of the stock market, Giddens appears to want to take many of the responsibilities that used to belong to the nation state and create global infrastructure or global government. Global agencies and legal systems are pushing into the regulation of the markets, which includes making many market externalities like the pollution of environment more possible to police. His emphasis on *social responsibility* fades away in practical terms. Certainly the Keynesian Settlement does rely on nation states in a tradeoff of minimal universal conditions of education, health, welfare (and now environmental regulation) in return for provision of optimal stable conditions for capitalist production and consumption. At the moment, production is

⁶⁵² Giddens, 1998: 117

⁶⁵³ Giddens, 1998: 129-130

being dislocated from these hard fought legislative ideals and responsibilities. But global governing bodies are not being asked to regulate against indentured labour, or ensure health, education and welfare provision in sweatshops in Indonesia, Malaysia, Polynesia, and elsewhere.

Modes of Governance

From a far more traditionally 'Labour' Liberal viewpoint than Giddens' Third Way, Paehike and Turgerson have a different argument for democratic questions about the processes of governmental and legislative control arise from the promotion of global centralisation. The same issues come up in the questions that have dogged nation states about the extent of centralisation, responsibility and decision making. In *Managing Leviathan: Environmental Politics and the Administrative State*, Paehike and Turgerson make a distinction between a left wing type of participatory democracy which sweeps aside bureaucratic and corporate self interest and focus on the well-being of environment and people as opposed to the right wing assumptions that governance ought to exclude narrow 'interest groups' because political lobbies limit objectivity and threaten the existing hierarchical government structure. "Conventional approaches to administration presuppose a central position of planning and control, a unified will privileged by superior knowledge."⁶⁵⁴ For a decade, people had been arguing against the tyranny of central control because the strong hand of the Prime Minister would not respond to the messages of advisors or citizens. Shifts in organisational process that possibly undermine the existing interests of 'stakeholders' can be "regarded and portrayed as the advent of chaos" rather than as the legitimate and often productive insertion of new ideas that best solve environmental problems.

Paehike & Turgerson are writing in the context of a newly established Neoliberalism in New Zealand and are advocating a type of classical 'left wing' Liberal decentralised democracy that, as the Neoliberals did, also underestimates the amount of work that institutional memory and structures shortcut. Nevertheless the argument for intensified participation and agency in real political debate rather than the relegation of devolved

⁶⁵⁴ Paehike & Turgerson, 1990: 9

responsibility to endpoint consumer demands in a society where all decisions are marketised is an important distinction. Neoliberal devolution has succeeded in placing responsibility (and blame) with local agencies and institutions while retaining control of funding and policy in central hands. Unsurprisingly then, Third Way Prime Ministers like Helen Clark and Tony Blair are reproducing the tyrannical conservatism of historical figures such as Muldoon, Churchill, and Thatcher. If regulation, and policing for finance markets and environmental pollution (along with international relations) are centralised to global bodies, democratic or otherwise, but taxation, infrastructure, welfare, health, and education remains at the level of nation states then inevitably the power of transnational corporations will remain intact, and many of the related problems of capitalist consumerism will continue to detrimentally impact particularly vulnerable places and people.

In the end, Giddens' Third Way account at least acknowledges that the market has undergone massive changes since James Ferguson and Adam Smith wrote their early analyses of the cornmarket and the implications of export on local prices and communities. Now there is over one trillion US dollars' worth of currencies exchanged every day, only 5 per cent of which relate to trade and other substantive economic transactions. The other 95 per cent is made up of speculations and arbitrages, as traders wielding huge sums look for rapid profits on exchange fluctuations and interest rate differentials. The huge proportion of 'middlemen' between the producer and the consumer completely interferes with any fiction that the market will 'balance' according to the Invisible Hand.

Giddens wants to regulate what he calls 'market fundamentalism,' "The needs are: to calm excessive movements in currencies and control overshoot; separate short-term currency speculation from investment; and create greater accountability within the transnational organisations involved in world economic management, as well as restructure them."⁶⁵⁵ He hopes that regulating the Stock Market will reintroduce these miraculous balancing effects. Certainly regulation is desperately needed, to weed out the corruption of people like Richard Grasso, the Chair of the New York Stock Exchange for

⁶⁵⁵ Giddens, 1998:148

the last eight years. Grasso signed himself hundreds of millions extra to his excessive salary for years on end for which court proceedings may finally be in place. Regulation may constrain the chances of corporations such as Enron from 'cooking the books' so effectively for so long. But enhanced regulation will not alter the fact that markets never achieve that mythological 'balance.' Neither does owning stock in recommended shares simply 'grow' in economic value in a slightly more variable pattern than bank interest or inflation rates. A vast proportion of consumer products no longer bear any relation to Malthus' 18th century hierarchy of needs. Most production of consumer items, services, and the 'knowledge industry,' are results of the technologically possible combined with our collectively imagined craving for fashion, novelty and the 'good life.' The technology of consumerism has sold us into our own enslavement. Heidegger's analysis is that the 'total mobilisation' of people and resources into the enframing of technology has permeated cultures across the globe so thoroughly that the most intelligent people cannot think their way out of the conundrum.

12 Limits of Liberalism

The enframing of technology has reached global proportions in combination with the colonial spread of modern Liberalism. It is not unlikely that technological enframing could have sheltered under other forms of governance, such as communism which after all, emerges from the same Enlightenment ideas. Germany tried a 'Third Way' during the 1930s and 1940s between the godless communists in the east and the greedy capitalists in the west. Spengler and Jünger both wrote about the characteristics of modernity; the massive storage that has changed technology from 'equipment at hand' to the enframing of technology, and capitalist efficiency as the 'total mobilisation' of all aspects of life to the war machine. To the Oil Baron President, 'nature' is a resource to be exploited. George W. Bush has refused to sign the Kyoto agreement, or acknowledge the environmental difficulties in large part produced by his nation.

Part of Heidegger's critique of modern Liberalism is the machine like, 'total mobilisation' of technological enframing which challenges forth human beings and natural entities to become 'standing reserve.' There is not much room for 'freedom' in total mobilisation, although individuals are not necessarily aware that their choices are shaped to cohere with modernity's objectives. Nesta Devine and I have argued that the 'free' and 'autonomous' individual is a necessary fiction for enabling modern cultures to function.⁶⁵⁶ Jünger argues that total mobilisation has collapsed the distinction between peacetime and war. At all times governments function to enhance the aggressive surveillance and coordination required to mobilise all people, production and raw material into the cohesive machinery required for exponential technological expansion. From the relatively simple organisation of traditional societies, technological 'civilisation' has increasingly enhanced the calculation, measurement and conceptualisation of things has probed the veins, muscles, bones, the brains, and genes of various species, including humans. Technological civilisation has probed the skies, learning to fly across vast areas of the globe, pushing satellites beyond the atmosphere

⁶⁵⁶ Irwin and Devine, 2005 forthcoming

into orbit, tapped into frequencies of sound, light, microwaves and more. Technology has pushed through the depths of the oceans and charted sea floors and mineral deposits, peeled back the surface of the planet to unearth seams of coal, gold, crystals, oil, clay and rock. All these things have been redistributed, creating pathways for further modes of communication and travel. Civilisation is the gradual colonisation of every aspect of planetary Being into the totalising conduits of technological functioning.

Modern Liberalism

Blühdorn emphasizes security and freedom as the two key principles guiding modern Liberal democracies. In the special edition of *The Trumpeter, Journal of Ecosophy* edited by Andrew Stables, Blühdorn argues that the quality of security and freedom has changed over time.⁶⁵⁷ In the post war period, the emphasis was on the security of the entire community and the freedom to buy commodities. The Neoliberal trope makes use of the same Enlightenment principles of freedom, equality, individuality, and justice but reads all of these concepts through the metaphor of the market. The selfish individual becomes *homo economicus*, a ‘rational utility maximiser’ who makes choices in the market place that will enhance their own ‘well-being.’ Like the general will of Rousseau and the Utilitarians, the pragmatic choices of individuals in the market place is supposed to balance out the relationship between demand and supply ‘as though by an invisible hand.’

The shift to the ‘Neo’ Liberal paradigm has coincided with the saturation of commodities on the market. Security and freedom have become increasingly individualised.

Consumable goods and services are also individuated rather than community orientated.

Neoliberalism has taken over key concepts, emptied them of their previous meaning and used them as a political framework for uniting groups that had once polarised over ‘left’ and ‘right,’ community or individual, religious or atheist, conservative or broad-minded.

Blühdorn notes that “The concept of sustainable development has united previously intransigent enemies and forged unexpected strategic alliances.”⁶⁵⁸ Neoliberalism has managed to move us into a *post-ecological* era “in the sense that the ecologist patterns of

⁶⁵⁷ Blühdorn, 2002

⁶⁵⁸ Blühdorn, 2002: 59

thought (diagnoses, values, strategies) have become outdated and have been abandoned.”⁶⁵⁹ There is no genuine attempt to achieve environmental goals of social justice or ecologically friendly behaviours. Rather, he argues, Neoliberalism has a discursive *strategy of disguise* that serves to maintain consumer culture.

Clearly there has been a lot of struggle over the emergence of ecological thinking. The technological changes of the industrial revolution severely impacted on culture and environment at the same time. New ideas emerged as a reaction to these change in circumstances. Some had echoes of earlier notions such as Christian stewardship, Romanticism, or *Volk* thinking, but some were direct products of the rapid change of urbanisation, new technologies, new pollutants and dramatic collapse in previously stable eco-systems. It has become fashionable to attribute the emergence of ideas and attitudes as a function of the purely cultural, of rhetoric, discourse, linguistics and thinking. Clearly discourse formulates a conceptual lens for understanding given environmental conditions. And in the terms of Nietzsche and later, Foucault, the socio-historical conditions impose regulations, schedules, dietary conditions and so forth that concurrently shapes the morphology of our bodies, our surroundings, and our understandings. There is no discernible separation between discursive regime and environmental conditions. Blühdorn teases out the discursive normativity that shapes our judgements on contemporary events and conditions.

In examining the ecologist or post-ecologist frames of mind, we are implicitly acknowledging the important fact that climatic change, decline in bio-diversity, contamination-induced epidemics, or any other phenomena or conditions in the social and natural environment are not in themselves problematic but are charged with normative content by being confronted with a pre-established value system.⁶⁶⁰

Generating a discourse happens in many ways. Neoliberalism incorporates existing terminology into the economic paradigm. ‘Sustainability’ for example, as discussed earlier has shifted from its ecological roots towards efficient production. ‘Threshold’ is also becoming an important Neoliberal term because it chimes with risk/cost analysis of insurance management. Crisis discourse has long been associated with green politics. Its normative content is to maintain atmospheric, ocean and surface conditions within

⁶⁵⁹ Blühdorn, 2002: 60

⁶⁶⁰ Blühdorn, 2002: 60

parameters that make life on earth possible. Bush has made good political use of the Muslim ‘terror’ but thus far has been unable to put the environmental crisis to political use – so he has ignored it. It is likely that will change. In the Neoliberal case there appears to be a lot of active agency in how meanings are manipulated. Blühdorn states, “The politics of simulation simulates the ongoing validity of the modernist project for society *as a whole*.”⁶⁶¹ He argues that simulation is an unconscious project rather than a conscious strategy. Nesta Devine illustrates especially well the way Neoliberal thinktanks in the 1950s and 1960s, such as the Mount Pelerin Society, the Independent Economics Association, and New Zealand’s Business Round Table consciously sought to influence public opinion along individualised, marketisation and management principles of efficiency and self-interest.⁶⁶² The New Zealand Finance Minister of the first Neoliberal Labour government, Roger Douglas was extremely specific when he publicly acknowledged a strategy of rushing through Neoliberal funding and policy change specifically in order to minimalise democratic dissent to the new proposals in New Zealand in the 1980s.

However, while the Neoliberals have been overtly strategic in shifting the meanings of older terms (such as ‘equity’) it makes no sense that the rapidly arising environmental changes could have been given meaning other than ‘crisis.’ It is too demanding to expect society to be in control over its own discursive reactions. It is only some way down the line, once the abrupt immediacy of dawning awareness is to some extent accommodated and understood that self reflection can define the flashpoint as an ‘early reactive phase.’ In fact, the normative values that served to write up, as it were, environmental change as problematic had to fight to be heard; as such they were not the ‘norm.’ The discourse of environmental crisis began during the Romantic period at the beginning of the industrial revolution and had little earlier pre-existence of any substance. Once the battles over civil liberties had largely been won in the 1960s the environmental ‘crisis’ re-emerged with some urgency. The subsequent shift to the ‘post-ecological’ is also a battle for community attitude, acceptance and willingness – only this time for stasis, rather than substantial cultural change.

⁶⁶¹ Blühdorn, 2002: 67

⁶⁶² Nesta Devine, 2001

According to Ronald Inglehart, there have been important conceptual shifts in cultural attitudes in late modernity. He argues that the general frame of mind characterising modern times are security and autonomy. During the post war period, Inglehart suggests these two concepts showed up in the pursuit of stable conditions for material production and distribution. Blühdorn adds that security and autonomy were characterised in the post-war period by community and collectivism. The combined effect of radical new technologies that had been developed during the war and the Cold War climate raised awareness of risk. Collective security and social autonomy was threatened by apocalypse; both nuclear and ecological. The following years were characterised by eco-pessimism.

By the 1970s this early emphasis on material goods was in large part sated. The ‘marginal utility of further economic growth’ shifted the emphasis towards autonomy; self-determination, self-realisation and self-expression. The saturation of material goods also allowed attention to be directed towards the needs of civil rights and finally ecology. Hence the publication of books like Schumacher’s *Small is Beautiful*⁶⁶³ and the Club of Rome’s *The Limits to Growth*.⁶⁶⁴ The change entailed a shift towards individualism from the previous focus on the security of the entire community. Many debates on Liberalism, democracy and the ratio of communal versus individual rights emerge during this period, particularly in education. “To the extent that the self and the autonomy, which shifted into the centre of the new frame of mind, were the individual self and individual autonomy, post-material politics might be described as ego-politics.”⁶⁶⁵ But early on in this process of individuation and autonomy a high value was placed on pluralism, egalitarianism and the collective good. Classical Liberalism emphasised culture but this was replaced in the 1970s and 1980s by accountability and economics and the application of the market metaphor to every sphere in life.

Blühdorn thinks there is a third shift in late modernity, from the materialist, towards the post-materialist, and finally to the ‘post-ecologist’ frame of mind that is once again “rearranging the parameters that determine the way in which the social and natural

⁶⁶³ Schumacher, 1973

⁶⁶⁴ Meadows, 1974

⁶⁶⁵ Blühdorn, 2002: 62

environment are perceived.”⁶⁶⁶ The post-war risk society has been taken over by a complacent ‘end of history’ attitude at the fall of communism. The concept of ‘risk’ he argues, has largely been replaced by ‘opportunity.’ The two defining concepts of modernity; security and autonomy, are being reinterpreted through a harsh individualism. No longer concerned with a general material security, the shift from the ecological to the post-ecological frame of mind is constituted by an egoistic, exclusive ‘hyper-materialism.’ The opportunity society is primarily concerned with individual accumulation and consumption. Entrepreneurial opportunism is justified by the belief in perpetual economic growth: that the population has ‘disposable’ income.

These practices of individual security rather than the earlier focus on community have produced a “framework of neo-materialist, neo-authoritarian, and socially exclusive security politics (that is) the post-ecologist frame of mind.”⁶⁶⁷ Blühdorn argues that ecological integrity and social inclusion has been factually abandoned by late modernity and that it is not viable for education to expect to develop a countering ecological frame of mind. Indeed, environmental studies may serve to promote the ‘empty’ Neoliberal version of ‘sustainability’ and depoliticise any attempts by students to think their way out of the contemporary individual, market orientation. For this reason “environmental education, particularly in the shape of education for sustainability, runs the risk of serving purposes to which it might be expected to be fundamentally opposed.”⁶⁶⁸

The implications of Blühdorn and Devine’s critique of Neoliberalism, is a requirement for reclaiming language and meaning; an honest appraisal of the state of late modernity’s economic principles and a clear espousal of the integrated and dynamic relationship between individual subject, ecological community and culture. Perhaps it is a losing battle, to ask of education that we extract ourselves from the governing policy, curriculum, and directives of Neoliberalism on teacher education, and become a prime site for the exploration, the critique, and the development of thinking our way beyond Neoliberalism to an ethical relation between humanity and the environment.

⁶⁶⁶ Blühdorn, 2002: 61

⁶⁶⁷ Blühdorn, 2002: 65

⁶⁶⁸ Blühdorn, 2002: 67

Oil

Blühdorn's analysis is firmly based in existing trends. But it is possible to speculate that the twin Liberal drives of freedom and security in the prevailing current of 'simulation' masks something further than the continuation of entrepreneurial individualism. The technological enframing of human culture has set alight the fastest consumption of oil to occur in ecological history. Oil generates the mass transportation that has made the globalisation of capitalist production and consumption possible. However, the supplies of oil in virtually every field across the globe that are easily accessible to western nations has peaked. As George Monbiot wrote in his 2003 article in the Guardian, "The Bottom of the Barrel,"

On Thursday, the government approved the development of the biggest (north sea oil) deposit discovered in British territory for at least 10 years.... You begin to recognise how serious the human predicament has become when you discover that this 'huge' new field will supply the world with oil for five and a quarter days.⁶⁶⁹

In the USA, Texas oil peaked and began to subside in the 1970s, stimulating the first 'oil shock.' The possibility of the exhaustion of oil drew attention to the finitude of environmental resources in general. North American oil shocks also created the conditions which promoted the OPEC group of countries as amongst the most economically and, increasingly, politically important nations in the world.

In general most oil fields, in Alaska, Australia, parts of Africa and so forth are diminishing at a rate of between 4 and 6% per annum.⁶⁷⁰ The subterranean pressure of the oil reservoirs will push oil out of the ground until the amount of oil has diminished to the point that there is no longer enough pressure. At this point the fields have 'peaked' and the oil must be pumped to the surface; slowing production, increasing costs and exposing the extent of diminishment of the 'resource.' For a while North Sea oil made Great Britain self sufficient, however production peaked in the 1990s. It has dropped 17% since 1998.

There are six or seven nations left in production (although arguably Africa is an unknown quantity in these figures) with major supplies of oil; Saudi Arabia, Iraq, Kurdistan, and

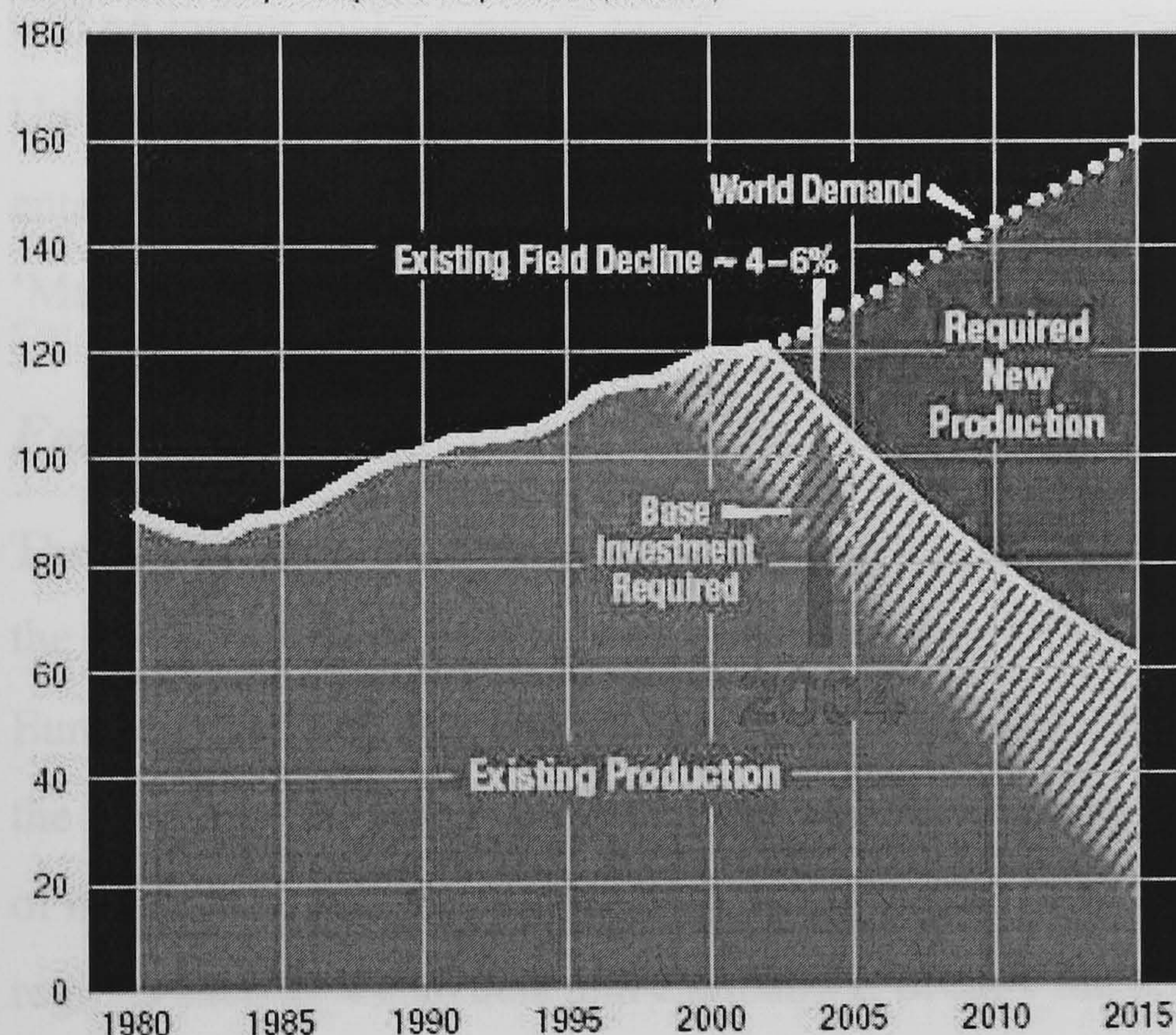
⁶⁶⁹ Monbiot, 2003

⁶⁷⁰ ExxonMobil, 2003 cited in PSRAST, 2004

Turkmenistan, in the Middle East and Kenya, Zimbabwe and Angola in Africa. Even when the present war in Iraq is over and the production and distribution of oil resumes, its major field is estimated to supply the world's oil needs for only four or five years. Shell is estimating that production costs will increase to such an extent that the resource is exhausted world-wide by 2020 – although in March 2004 Shell admitted that it has over-estimated its own established oil reserves by 20%. BP estimates exhaustion will occur some time between 2014 and 2018. Other experts in the US say 2017 and independent advice in Britain estimates as early as 2010 (although these estimates may be hipping the 'crisis' in the hope of re-igniting the price increases of the first oil shock in the 1970s). ExxonMobil released the following graph of oil demand and field decline.

Supplying Oil and Gas Demand Will Require Major Investment

Millions of Barrels per Day of Oil Equivalent (MBOE)



Graph from ExxonMobil ⁶⁷¹

Oil is the undisputed 'driving force' of local and globalised economic interaction, and is increasingly impacting on 'security.' The war in Iraq has been touted as a war upon Terror, yet the absentee 'weapons of mass destruction' have made a mockery of the

⁶⁷¹ ExxonMobil cited in PSRAST, 2004: 4

motives of the U.S.A and the U.K. Oil has commonly been held up as a major factor in the invasion. In Britain's "Energy Review" (2002) the decline in North Sea oil has meant that Great Britain is about to join the rest of the E.U. in having to import oil. They write,

The future for energy policy seems likely to be much less benign.... issues of energy security are likely to become more important. The UK will become increasingly dependent on imported oil and gas.... most other G7 countries already rely substantially on imported energy. ... (One way to maintain security is) to use international action to address global threats to energy security. On just about any scenario the UK will become more dependent on imports both for both its gas and its oil.⁶⁷²

Oil has enabled large scale, cheap transport that allows a majority of individuals in developed nations unprecedented movement between local and far distant communities and places. The global distribution of multinational industry relies completely on cheap, large scale transport. If the price of transportation of materials increases exponentially it will no longer make sense to build component parts in far-flung reaches of the globe. Unless the technology for a viable alternative is developed, the finalé of the oil crisis will entail the return of localised material production. The end of the post-Fordist and 'MacDonaldised' era of production and consumption may be in sight.⁶⁷³

Empire Building

The new empire building of the increasingly monolithic United States has to be seen in the context of an increasingly powerful collegiality being built in the *Olde World* of Europe. The Cold War has changed axis. No longer aimed at those 'commie bastards'; the Russians, the Cubans, the Chinese and the Koreans, now 'Terrorist states' comprising of most of the Islamic Middle East, North Korea, and various other less interesting regions such as Venezuela and Zimbabwe, occupy the hot-headed President George Bush. 'The axis of evil' is clearly held in contempt as 'them' in opposition to 'us.' 'Regime change' is proposed for these nations, in the name of universal democracy. However, other huge conglomerate nations such as the European Union (already democratic) and China hold an ambiguous position in global politics because they present real competition and a potential economic threat to America's immensely privileged wealth and status.

⁶⁷² U.K. Cabinet Office, 2002

⁶⁷³ Dale, 1999

This polarisation has been fuelled by the more recent Iraq crisis manufactured by the father and son oil magnate Presidents of the United States, Georges Bush, senior and junior that continues today. Keeping the Middle East region unstable diverts attention from the vastly inequitable living conditions enjoyed by developed and non-developed nations. Simultaneously, it destabilises two potentially very important political blocs – OPEC and, because of Tony Blair’s ‘defection’ to the U.S.A. rather than United Nations; the EU is also fragmented. Oil wars are the perfect foil for building the U.S. Empire and destabilising any hint of political or economic unity between other states.

This strategy also worked to divert attention away from the recent United Nations Environmental conference in Johannesburg. George Bush the second has pulled the U.S.A. out of the Kyoto Treaty, which aims to bring consumption and pollution levels down to their 1990 levels. This is truly dismaying as per capita the U.S.A. consumes by far the bulk of world commodities and consequently is also the greatest polluter.

There is evidence that the White House forced the Environmental Protection Agency to water down its environmental survey published in June 2002. A four page internal memo complained that due to White House intervention the section on the human impact on climate change does not ‘accurately represent’ scientific consensus on climate change. The changes include removing sections on the ecological and health impact of global warming and deleting a summary that made clear Climate change will impact detrimentally on global human health and the environment. A graph that showed temperature records over the last 1000 years was also removed so that the recent and limited data has no context in the long term and slowly changing fluctuations of the earth’s temperature. Effectively this has watered down the EPA message that Climate change is a very serious concern. The White House also inserted numerous qualifiers such as ‘potentially’ and ‘may’ so that the Environmental Protection Agency complained that – “Uncertainty is inserted where there is essentially none.” In the end the agency completely removed the section on global warming so as to avoid discrediting its own scientific community with the misinformation the White House was asking to be published.

The Iraqi war was ostensibly about security. But the cynicism of America in its attitude towards the United Nations peace keeping role is palpable. In January 2001 George W. Bush said in relation to the undermining of the United Nations role in monitoring Iraq for 'weapons of mass destruction;' "Redefining the role of the United States from enablers to keep the peace to enablers to keep the peace from peacekeepers is going to be an assignment." There was a rather obvious 'hidden agenda' of oil but of more importance the Iraqi war made an excellent opportunity to destabilize the coherence and political clout of both the Middle East and Europe. Only China and Asia are undisturbed monoliths left to compete with Bush's American Empire. It is not really a question of increasing the franchise of democratic 'freedom,' although spreading freedom is the 'reason' to destroy the Iraqi *'d'etat.'*

Evidence for the overt undermining of existing pan-global organisations, especially the United Nations, are beginning to appear. George Bush's former treasury secretary Paul O'Neill claims the Republicans came into power intending to 'pre-empt' 'regime change' in Iraq, well before the 9/11 attack on Washington's twin towers and certainly with no evidence of 'weapons of mass destruction.' There is a think-tank called Project for the New American Century that is run by vice-President Dick Cheney, defence secretary Donald Rumsfeld, his deputy, Paul Wolfowitz, the Governor of Florida – Bush's younger brother Jeb, and Cheney's deputy Lewis Libby. This think-tank has put out a document, referred to as a blueprint for US global domination, called "Rebuilding America's Defences: Strategies, Forces And Resources For A New Century." The document is overt in its desire for more permanent role in Gulf regional security. And more ambitiously, they wish to maintain US global pre-eminence. This means overt policies aiming to 'preclude' the rise of a great-power rival, and to control 'international security' for American principles and interests.

Rather than an Internationalist European Union or world global institutions like the United Nations, or the domination of world finances and politics by OPEC, the U.S.A. is positioning itself as the only pole for world domination. This project for global dominance probably explains why the United States has refused to join the World Court

(they refuse to be liable for international War Crimes) and has failed to ratify the Kyoto Agreement on Climate Change.

The enframing of technology has challenged forth all aspects of culture and nature as objects and potential consumable resources. Jünger argues that the total mobilisation of war is the prevailing conditions for politics in modernity. To some degree, humanity has some agency over our collective interpretations, our discursive norms, the spread and manipulation of ideas, finance, goods and services. Heidegger argues that we need to return to the 'origin' of western thinking in the ancient Greek awe at the arising of *physis* and *aletheia* for a more ethical relation between humanity and the environment, for conditions of survival – not of the fittest – but of integrated, interconnected assemblages, ecology of (an)organic life. Blühdorn is pessimistic about education providing a shelter for reimagining the environment outwith the disguised Neoliberal discourse of objectification, resource, and consumption. Whether we can think our way out of the predicament of totalising technology, globalised capitalism, and rampant consumerism is open to question.

Maintaining the combination of politics and economics that form the status quo is reliant upon an epistemology of categorisation, accountancy, calculation and rationality. Humanity is the vector of reproduction for technology. We have thus far allowed technology to take over our way of understanding ourselves and every other thing objectively as 'standing reserve.' As it stands, the technological frame reduces all ways of knowing to the consumerist ethos of the market. At the moment the two greatest institutions for disseminating knowledge, the media and education, are both complicit in this technological paucity of metaphor and thinking.

13 Conclusion

Byron, *Darkness*

I had a dream, which was not all a dream.
The bright sun was extinguish'd, and the stars
Did wander darkling in the eternal space,
Rayless, and pathless, and the icy earth
Swung blind and blackening in the moonless air;
Morn came and went--and came, and brought no day,
And men forgot their passions in the dread
Of this their desolation; and all hearts
Were chill'd into a selfish prayer for light...

Unknowing who he was upon whose brow
Famine had written Fiend. The world was void,
The populous and the powerful was a lump,
Seasonless, herbless, treeless, manless, lifeless--
A lump of death--a chaos of hard clay.
The rivers, lakes and ocean all stood still,
And nothing stirr'd within their silent depths;
Ships sailorless lay rotting on the sea,
And their masts fell down piecemeal: as they dropp'd
They slept on the abyss without a surge--
The waves were dead; the tides were in their grave,
The moon, their mistress, had expir'd before;
The winds were wither'd in the stagnant air,
And the clouds perish'd; Darkness had no need
Of aid from them--She was the Universe.⁶⁷⁴

Byron's poem, "Darkness" elicits a nihilistic vision of a post-human epoch. Its power evokes the terrible horror of the sublime, and prompts a willingness to transform from a path heading in this desolate direction, to alternative futures, and alternative presents. Awareness that there is a precipice; 'being-towards-death' in the language of Heidegger's *Dasein*, draws the present out of its mundane busyness, and brings our attention to the conditions of the possible. Becoming aware that there *is* a threshold to living Being opens up the present in a brand new light. Nihilism draws a line between the presence of Being and the conditions of Being. Eco-poetics is an attempt at retreat from the threshold of the darkness of nihilism. Nietzsche aims to make nihilism the catalyst for a transformation or metamorphosis. Heidegger believed that technology could be this catalyst too. Enframing

⁶⁷⁴ Byron, 1816

everything, technology is the danger because it reduces both humanity and nature to a stored resource in the total mobilisation of consumerism. Yet in the enigmatic power of technology is the potential for Being to escape the ignorance of objectification and once become alive once more to the safety of *Dasein*'s enquiry.

In the thesis I traced a genealogy of ideas from the Romantics, through environmentalism and environment education to show how the milieu of ideas has shaped both Heidegger's philosophy and contemporary society and environmental policy. In this conclusion I am framing the argument from the perspective of Heidegger's philosophy of Being, technology and *Dasein*. Rather than repeating the historical teleological narrative that structures the thesis, I want to conclude with the premise that technological enframing has brought us to the precipice of a terrible ecological disaster, and how Heidegger's perceptive philosophy could impact on contemporary politics and the underlying philosophy that inform educational policy and pedagogy. This may seem unsystematic, but I want to show stylistically how Heidegger's philosophy mounts a thorough challenge to contemporary and historical modernity. A genealogical reading of history is informed by the present moment as much as it describes an 'objective' past. My reading of environmental concerns has been through a dual lens: Heidegger's critique of modernity and the technological *Gestell*, and my own critique of Heidegger that gleans ideas from various Poststructuralist, environmental, educational and anthropological authors.

In the first chapter on Heidegger, chapter 6, I show how he took up the ideas of Spengler and Jünger in the 1930s to develop his concept of the total mobilisation and enframing of the technological *Gestell*. Once atoms had been invented,⁶⁷⁵ technology made use of them, once wind patterns could be predicted, technology has converted it into power, once the oceans could be plumbed or the atmosphere penetrated, technology has found a utility factor and has continued to widen and better define the territories and spectrums of the resource unleashed. The discourse of sustainability relies upon several assumptions; that everything is measurable, that there is an acceptable threshold of anthropocentrically introduced carbon-monoxide (and other pollutants), and that every aspect of the planet, from people to electrons are all potential resource. No local community, let alone an

⁶⁷⁵ The concept was around for well over 2 thousand years before it was 'proved.'

individual has agency enough to alter the dominant paradigm of the enframing of technology. Through human policy making, increasingly on a global scale (and with little recourse to even a nod in the direction of democracy or community involvement) the technological frame is expanding its scope to include more and more regions of existence.

The issue of environmental damage has changed the scope of ethical concerns in general and educative ethics in particular. The anthropocentric relation of humanity to 'the manifold' cannot continue without irreversibly destroying our habitat – in the same fashion as a deadly virus kills its host. Unfortunately (whether we would wish it or not) there are no alternative host planets available for terraforming and recolonising and so the peril of environmental devastation looms large on the horizon of world wide social organisation.⁶⁷⁶ Technological enframing and environmental nihilism offers humanity the unique opportunity to attend and renegotiate our relationship with the rest of the planet. The danger, as I explained in chapters ten and eleven, is succumbing to the temptation for ever-increasing technological modes of control; a governmentality of surveillance and management that stabilises the ecological system through calculations of quota systems; exchanges of costs and benefits; the assessment and insurance of risk, to create a totalising technological 'farm' for a planetary home.

In short, to reduce our humanity to an object amongst objects, (or a subject amongst subjects) all ensnared by the calculation of total mobilisation – the 'end of history.' As Baudrillard puts it,

After having first been matter, and then energy, nature is today becoming an interactive subject. It is ceasing to be an object... For the ultimate danger is that, in an interactivity build up into a total system of communication, there is no *other*, there are only subjects – and very soon, only subjects without objects... All our problems today as civilized beings originate here: not in an excess of alienation, but a disappearance of alienation in favor of a maximum transparency between subjects. An unbearable situation, all the more so for the fact that, in foisting on nature the status of a subject in law, we are also foisting on it all the vices of subjectivity, decking it out, in our own image, with a bad conscience, with nostalgia (for a lost object which, in this case, can only be *us*), with a range of drives – in particular, an impulse for revenge. The 'balance' we hear so much of in ecology ('out of

⁶⁷⁶ Robinson, 1996

balance') is not so much that of planetary resources and their exploitation as the metaphysical one between subject and object.⁶⁷⁷

There is a tendency to offer technological fixes to what are perceived as technical environmental problems – such as bringing the extinct Tasmanian Tiger to life through a combination of genetically engineering the DNA and emplanting the embryo in another related species. The focus on the gratifying immediate consumer desires means that attempts to rescue environmentally detrimental situations with technological 'fixes' kick in past the point of no-return.

As I outlined in chapter seven, Heidegger is arguing for a reconfiguring of the relationship between humanity and the world and he conceptualises this through the special significance of the ability of *Dasein* to apprehend Being. Heidegger relegates the problem of nihilism to the corrosion of the originary force of this relationship into a rigid representation of the language as *logos*. He describes nihilism as the stagnation of our awareness of Being to an anthropocentric table of *values*. Pre-empting the Neoliberal takeover of Liberal terminology, Heidegger argues that it is this slippage into monetarist terms such as 'value,' 'importance,' 'weight,' rather than 'care' and 'openness,' that inevitably produces a logic of consumerism between humanity and beings-as-a-whole.

At the moment, economics and global capitalism is a process that reaches out and engulfs all nation states, and most regions of the earth. The land (along with crops, humans and animals), the oceans (fish and carbon sink), the forests (as wood, pulp and 'planetary lung'), the mineral deposits, the fresh drinking water, the atmosphere and even the stratosphere is incorporated into a resource base for the ever-widening scope of the technological mode of being. Everything is increasingly gardened or managed.

The notion of the wild is so scarce it is getting lost from the language. Off the east coast of New Zealand, in the deepest and most remote oceans on the planet, plankton is being 'fed' bargeloads of iron filings to help feed the fish food chain and redress some of the problems of over-fishing and species extinctions. An increase in plankton production also enables the ocean to operate better as a carbon sink and to absorb and compensate for

⁶⁷⁷ Baudrillard 80-81 quoted in Oerlemans, 2002: 12

some of the planet's temperature increase. The 'balance' of nature (if ever there was one) is being inextricably altered by technological use, particularly by carbon fuels. According to the Smithsonian Institute there has been a 30% increase of CO₂ in the atmosphere over the last 200 years.⁶⁷⁸ The prevailing aim of environmentalism at present is 'crisis management.' It aims to avoid the ecology of the planet being altered so radically that most living species would be made extinct, including humanity. Technological innovations will have to establish thresholds for a 'normal range,' to actively intervene and manufacture a regular fluctuation and normative status quo.

There is a long held view in polemical green politics, best put by Gregory Bateson, that the environment will withstand a great deal of thrashing, until eventually it reaches a point of no-return, the threshold, which, once crossed will produce unknown and potentially disastrous consequences in climate, oceans, seasonal rhythms, eco-systems, the sustainability of species, and inevitably mass extinctions of life forms and habitats. Crossing the threshold will produce the conditions ripe for an avalanche effect, where suddenly, the build up of greenhouse gases, global climate change and so forth will abruptly produce results, with an unpredictable chain of effects. The result could well resemble Byron's apocalyptic vision. Nobody knows precisely where the threshold lies, or what 'point of difference' will tip off the avalanche. This is the globalisation of environmental risk.

Since the industrial revolution the connections between communities and place have become much more tenuous. As Marx points out, the industrial revolution has alienated people from their connections to their place, history, local resources and environment. Heidegger's argument about the enframing of technology pervades more and more the social relations of communities, their linguistic terminology, and relation to nature.

In chapter six I explain Heidegger's critique of technology which emerged at the time of the building of the autobahn system, the damming of rivers for hydro-electricity, and the development of atomic bombs. The modern period marks a technological shift that allows the forced storage of potential resource, or standing reserve, rather than making the most

⁶⁷⁸ Smithsonian Institute, 2004

of the energy released by the regular rhythms and tempo of the rivers' flow, the seasonal abundance of fruit, or the atom's unfettered participation in molecules. The scale of the technological challenge and capacity for long-term, mass storage has become increasingly disturbing in the 30 odd years since Heidegger's death. Technological 'control' over an increasing spectrum of the earth pushes the ability to store into wider and wider realms. Irradiation is another example, whereby the molecular makeup of fruit and vegetables is changed so that it can be kept in massive silos for months rather than days. Storage and transportation have released reliance on local production and globalised an unparalleled network of consumer relations. Our alienated relation to natural seasons, and the ancient cycles of growth and decay has promoted the market metaphor of utility and resource to permeate all facets of life. Technological enframing encourages excessive consumption of fossil fuels, for example, despite the increasingly obvious environmental devastation to which these practices contribute.

The final chapter in the Heidegger section takes a close look at Bowers application of Heidegger's critique of technology in the classroom. I try to distinguish between the technological enframing that intervenes in the phenomenological apprehension of environmental stimuli, the constraints of ICT technology on communication, and the parameters that are not technological but rather a product of the conceptual framework of modernity. Heidegger himself points out that technology presents the danger but also the saving power and this enigmatic statement has yet to fully realised or understood.

The key then, to the very broad topic of this thesis is how to reconceptualise the relation between human subjects and the environment so that it both recognises the nominal Idealist distinction of interpretation and also integrates people into the ecosystem. The pressures of global warming are proving beyond doubt that humanity is not in a privileged and reified position as King of the beasts but is a component of a complex and infinitely interrelated system that constrains, reacts and changes in multitudinous, necessary but unpredictable ways.

Environmentalism, conservation, and transformation

The thesis tracked the challenge to the Idealist separation of subject from object and the associated objectification and mastery of 'nature' back to the Romantics. I then looked at the variety of environmentalist theories in the canon. Environmental education reflects the many ideas in the canon and the specific needs and roles of education as an apparatus of the State. The sophistication in philosophy of education is having a very positive affect on philosophy of the environment, as educationalists have to engage with the existing praxis of global, national, regional and institutional policy, the curriculum, normative practices of pedagogy, the institutional architecture and physical grounds of schools. Great familiarity with both the promise and the 'failure' of schools as transformative institutions lends a level of critical engagement with contemporary Neoliberal politics not found often in the environmental canon.

Romanticism proffered a remarkable challenge to classical Idealist philosophy by articulating solipsism in connection with nature rather than what Heidegger calls 'subjectivism' which privileges the processes of the mind over any 'reality' of the earth. The Romantics put even emphasis on the body, emotions, thought, economics, politics, gender relations and 'nature' as opposed to the tradition of philosophical Idealism, who privilege rational and universal categorisation. The result is a shift away from God's Invisible Hand authorising hierarchical feudalism towards an ironic, pluralist and egalitarian body politic. The Romantics reinvented nature from the Classical rigor of a rational God-given order to a more allegorical receptiveness that invokes an emotional and poetic reciprocity that challenges the nominalist fallacy while maintaining the irrevocable 'otherness' between nature and human. A solipsism that does not get reduced to self satisfied subjectivism. A sublime materialism that transcends the closed system of language and reverberates with 'the real.'

The Romantics, like the Luddites (but without rejecting technology outright), realised that industrialism was changing the relationship between human society and the land. They raised the issue of conservation and coal pollution in the face of the enclosure of the commons into fenced and privatised pasture and the clearances of the Highlands for lucrative sheep farming. The industrialisation of farming was irrevocably changing the

politics, economics and beauty of the landscape. At the earliest stages of technological industrialism they could only predict the pressing concerns of population explosion, chemical pollution, waste, energy scarcity, resource depletion, desertification, mass species extinctions, greenhouse gas emissions, and climate warming.

Despite the Romantic critique in the 18th century, modern Idealism and associated rational and objective positivism has remained the dominant paradigm that informs the way western society is organised. In the environmental canon two conflicting genealogies of ideas occur, often present in a confused conglomeration in the same edited collection, and even the same author. Neopragmatism is a good example of this. On the one hand Hume and the Romantics influence the original Pragmatists, Dewey, Pierce, and Jameson, on the status of truth and the relationship between subject and object. Yet contemporary Pragmatists also subscribe to rational liberal Utilitarianism, a straight forward acceptance of the Idealist divide between subject and object, the constraints to truth posed by the nominalist fallacy and an associated 20th century antagonism towards theory.

The environmentalists engage with the natural environment in a variety of ways ranging from the poetic; such as Leopold, Heidegger, and the Deep Ecologists, scientific; like Rachel Carson, the Utilitarian and Neopragmatists; Light, Katz, Buchholz and company, legal rights; Christopher Stone, the anthropologist; Gregory Bateson, constructivist; Feenberg, Critical theorist; Tim Luke, Heideggerians; Bonnett, Bowers, and Poststructuralists; Guattari, Deleuze. There are two major responses to environmental damage: firstly, inventing new technologies will fix whatever problems industrial technology has created; secondly, a light environmental 'footprint' and a more ecological relationship between humanity and environment.

Environmental education has engaged with the gamut of ideas in the philosophy of environment canon. In turn, educational norms have shaped environmental education. As an apparatus of the Liberal Capitalist State, education tends to reproduce the prevailing norms and positivist methodology that continues to dominate educational pedagogy and

curriculum. But education has a transformative as well as normative role. Environmental education struggles at the interface of these two, often conflicting, roles for education.

The promise of egalitarian transformation was seen as education's main responsibility, especially during the 1970s to the 1990s. The 'failure' of education to encourage more success and social mobility amongst working class children has been blamed largely on the teaching profession – hence the rhetoric that has continued since the late 1990s of 'failing' schools. During the Keynesian period of anticipation for egalitarian transformation, environmental education emerged at its most radical and hopeful but it was an extremely marginalised discourse and hardly made an impact on the curriculum. The disillusionment with the transformative powers of education to fulfil the egalitarian promise of democracy combined with the overt greed of the Neoliberal subject; the rational individual utility maximiser, has undermined the final purpose of the sociology of education as all analysis gets co-opted by the capitalist economic project.

Environmental education has followed a similar trajectory, from the transformative hope of the plethora of texts in the late 1980s such as the World Wildlife Fund sponsored texts by Greig, Pike and Selby to the more cynical education for sustainability proposed by environmental educationalists such as the Bath School. Guattari and later, Blühdorn both decry the emptying of metaphors by the Neoliberal paradigm which reduces all meaning to a matter of economics. But radical transformation is far from dead. Environmental educationists who are influenced by Poststructuralism, Critical Neomarxism, and Heidegger are all advocating, in subtly different ways, a deepening of the egalitarianism, the enlightened critical thinking, and the allegorical relationship between human society and the environment.

Idealism, and Societies of Control

Part of Heidegger's thesis stems from the critique of the over-emphasis on the subject in philosophical western Idealism. Heidegger's precursor, Schopenhauer describes "The World as my Idea"⁶⁷⁹ explaining that the inevitable divide between subject and object means that humanity relies upon images, or representations to develop truths about an

⁶⁷⁹ Schopenhauer, vol. II, chapter 1, cited in Heidegger, 1968a: 40

object. We *think* representations. Our representations present us with a world. Heidegger is critical of representation as the mediating factor between *Dasein* and Being, subject and nature which privileges the 'Idea' of the subjectivist mind. But he agrees that dominant ways of knowing 'world' in particular epochs. In late modernity technology is 'worlding.' The enframing of technology has permeated our understanding of the world and ourselves, and shapes our bodies, actions, language, and thinking. The enframing of technology has produced globalisation as consumerism and governmentality. Effectively the enframing of technology has 'de-coupled' the integrity of communities (or nation states) from the constraints of the rhythms and flows of their local ecological niche.

Education is grappling to find meaningful human interactions within the constraints of technological enframing. In the 1970s and 1980s environmental education attempted to create ethical awareness based on an understanding of the crisis of nihilism and environmental devastation as a catalyst for an epistemological shift. Like Heidegger, Leopold, Bateson and Foucault, Deleuze and Guattari, environmental education is an attempt at a form of 'redemptive' ethics.

A countervailing force has seen 'environmental education' being shifted away from politically engaged, ethical concerns, towards 'education for sustainability.' While recognising the nihilist environmental threshold for the maintenance of life, the discourse of 'sustainability' has emptied any moral content from the environmental debate and tried to replace it with economic calculations of cost, benefit and risk analyses. The economic model owes a debt to scientific positivism, or 'objectivity' that apparently does not rely on subjective representations, so much as the statistically verifiable Truth of the matter. The representation of correctitude as truth has been held under some suspicion by contemporary educationalists for several decades. Contemporary education prefers to hold itself sceptically aloof from a finally verifiable truth, shows instead a multitudinous presentation of views which approaches the same subject from a variety of angles (again, often the 'plural' perspectives lend themselves to critical assertion of the most correct interpretation).

In his first lecture series upon being allowed to resume teaching, *What is Called Thinking?* (1968, orig. 1954), Heidegger addressed the problem of the separation between subjective interpretation and the ‘reality’ of the object through representation.⁶⁸⁰ When we stand in front of a tree in blossom, no representation can possibly acknowledge the full significance of smells, sighs and rustles, the dappled light, the patter of branches, the multitude of leaves and petals... Nor does representation, especially in its form of the calculating *logos* of rationality, begin to approach the process of thinking. Heidegger wants to direct our attention to the emergence of thinking, before the categorisation of what presents itself to our view is named by language; the treeness of the ‘tree,’ the poetic apprehension of perfumed blossom, mulchy soil, and oxygenated air that is lost in the linguistic system of representations.

To discover *What is Called Thinking?* Heidegger draws connections between language, meaning and empirical environment. Heidegger asks us to stand before a tree in bloom. To stand face to face with the tree. It is a meeting, a relation, both tree and human *are*. At this stage it is not a thinking about, or a rational calculation and picking apart of the elements of the tree. The meeting is a leap out of the realm of science and philosophy. What occurs is - “A curious, indeed unearthly thing that we must first leap onto the soil on which we already stand.”⁶⁸¹ Heidegger’s concept of Being ‘shining forth’ is reminiscent of Wordsworth’s romantic poem, to requote it again; “There is an active principle alive in all things...All beings have their properties which spread/ Beyond themselves, a power by which they make/ Some other being conscious of their life.”⁶⁸² Heidegger suggests, “The tree offers us food for thought. Somehow, the tree presents itself to us – and we can ask whether it be to our consciousness, our soul, our experience, or world? Is the tree in our head?”⁶⁸³

Like the Romantics, Heidegger assumes there is a certain ordering that underlies all things. It is not chaos, mayhem or disarray, but an undisclosed arrangement that produces the entities that shine forth. During Wordsworth’s time, Edmund Burke developed a

⁶⁸⁰ Heidegger, 1968a

⁶⁸¹ Heidegger, 1968a: 41

⁶⁸² Wordsworth, 1798: 676, cited in Nichols, 2001b: 17

⁶⁸³ Heidegger, 1968a: 42

philosophy of the sublime and the beautiful, which permeated life beyond the merely human. The Copernican Revolution had shifted humanity from our central position on a finite and flat earth, as the image of God, at the peak of the Great Chain of Being. Scholars like Goethe and Erasmus Darwin took Ancient Greek ideas about the inter-related flow of atoms, a holistic metaphor for the universe, and posited the connections as passions and intellect in all aspects of Being, from the pairing of swans, to the attraction of magnetism. Since the 18th century and prevailing in the Neoliberal management at global and national level, the integration of all things has disintegrated into minutely classified fields of expertise under scientific positivism. Now the prevailing understanding of ecological systems ignore emotion and intellect in favour of the economics of ecology – sustainability as technological enframing. There are objects, movements, power relations, but no *thinking*.

Paradoxically, at the same point that the modern individual became free and exerts more mastery over nature than ever before, there is an absence of agency about the enframing of technology. Humans lose all subjectivity and become objects amongst objects. Just at the moment of total mobilisation, of total environmental control, humanity has lost something ineffable. The tree has to be understood as wood, as a resource, as a consumable commodity. Under the planetary horizon of total mobilisation both tree and person become objects amongst objects. How then, do we let the tree stand where it stands? How do we simply stand before it? If all nominal categorisations emerge from rational deduction, then ‘intrinsic nature’ is unspeakable.

Adorno comments, “If thought really yielded to the object, if attention were on the object, not on its category, the objects would start talking under the lingering eye.”⁶⁸⁴ There are two apparently incommensurate themes emerging; the first is the critique of subjectivism and the categorisation of nominal representations. The second is the physical, empirical entities, in holistic ecological relation, independent of language. Truth is initially attributed to the subject’s participation in the language game. Heidegger’s important

⁶⁸⁴ Adorno 1973: 27-28

enquiry is about how ‘the real’ erupts into language in the first place. Heidegger looks to poetry to evoke the Being from hidden concealment and allow it to ‘shine forth’ into the light of the subject, *Dasein*’s apprehension.

The second broad theme is also about the patterns and underlying structure of ecology. This time it is dryly scientific; the strata, networks, interlocutions within and between identifiable systems of integrity. It is characterised, according to Heidegger, by the *Gestell* of technological enframing. Humanity is still trapped in the closed circuit of subjectivist representation, yet now we ourselves are included in the categorisations and governmentality of technology. We are objects amongst objects, and determined by the ‘worlding’ of the technological frame. Deleuze and Guattari (1999) evoke ‘lines of flight’ to escape the prevailing closed circuitry of schizophrenic capitalism. Yet they too, find it difficult to cross from the empirical domain of tongues, cheeks, teeth, spittle, expelling air, volume, to the linguistic domain of meaning. The line of flight is *either* a thin chain of molecules that reaches between the subject and the object, or is recaptured by the nominalist fallacy, and the subjectivist reference to pre-existing categorisations of meaning. Gregory Bateson (1979) looks to the way birds and animals understand pattern rather than counting in their communication and use of tools. The *patterns* of repetition and difference reach between the two distinct domains of empiricism and meaning ontology and epistemology. Heidegger’s reference to poetry does not closely examine pattern, style and meter but clearly these are important elements of poetry, music and art. The eco-poetic movement is a subtle epistemological shift away from accountancy, and the volume and measurement of mass storage, mass consumerism, and the paucity of Neoliberal metaphor towards an open receptiveness, a respectful aptitude for existence - as life, as Being, as *Dasein*.

Of course education cannot abandon the norms, the policy directives, the curriculum requirements, the timetables, exams and endless paperwork that provide ‘accountability’ and surveillance. Heidegger accepted education as *Gleichschaltung*, the bringing together of political directives and educational aims. He did not see that this necessarily engaged with positivist governmentality, and tried to elevate the educational side of the association into a leadership position rather than locate education as necessarily

conservative institutions, that reproduce societies' prevailing discourses, economic structures and vocational possibilities. It seems to me that Heidegger accepted education's self understanding as operating on lines of meritocracy, producing the future leaders of society who would rise through the ranks, learn to become philosopher Kings through exposure to a vital and relevant curriculum, who could demonstrate their prowess both within the institutional structure and out in the political world. Sadly, Heidegger's experience demonstrates how flawed a belief this can be. It is easy to put this down to the peculiar political and economic conditions of Nazi Germany, or to the inadequacies of Heidegger's philosophy, or his skills as a teacher. But despite the criticism that the *Volk* movement levelled at the individualism and greed of Britain, and the totalising levelling of Russia, Germany's Third Way remained within the rubric of modernity. Heidegger took pedagogy very seriously. Most of his books after *Being and Time* were first written as lectures. He recognised that teaching requires as much, if not more, openness to learning by the teacher as the student.⁶⁸⁵ Thus, we need to regard educational institutions in the context of their modern emergence, as part of the historical equipment of modern governmentality – and not expect them to operate as an apparatus for generating the transformation necessary to move to a post-modern world, or at least not in isolation. In his much more careful, even bitter, post-war works, Heidegger only requires education to encourage the *conditions of readiness* for new ways of thinking and enquiring into the relationship, the patterns, the differences and repetitions between human beings and Being.

At the moment, education is deeply engrossed in the busy pursuit of producing docile bodies, increasing human capital, assessing students on curriculum aimed at vocational 'skills.' Yet education will never simply be subservient to political exigencies. There is something irreducible about pedagogy. No matter how tightly controlled curriculum documents and assessment procedures become, even with the intervention of computers and distance learning, embodied teachers will still 'stand' before their students. As I argued in chapter nine, both teachers and students will present each other with the complexities of their physical, emotional, sexual, aesthetic health, aptitude, resistance,

⁶⁸⁵ Heidegger, 1968a, chapter 3

style, and comportment. They will engage and communicate with one another and with their politico-ecological surroundings.

Extra to the eternal busyness demanded by Neoliberal education policy, are the demands of ecology. Eco-philosophy can at this stage, only begin to make its needs heard; enlarge the niche; people the environment with its diverse networks of inclusive and exclusive demands. The difficulties with new existentialities, new ways of being and thinking, are that they feel frightening and unspeakable. For most teachers there is a range of responses to globalised capitalism, from a belief in modern progress to an inability to verbalise their informed and overwhelming fear of cataclysmic devastation that continuing capitalism entails. Furthermore, in a society that accentuates economic efficiency and positivist accountability, whole hearted environmentalism seems wishy washy, vague, unfashionable and unattainable.

George Monbiot tries to rally political action by recognising the cultural reluctance of the British to be uncivilised, immoderate or reckless. Political activism is somehow perceived as irresponsible. But Monbiot points out, taking to the streets and speaking aloud our dissent does have political results, although they may not be immediate. Political dissent disables some pathways that had been considered possible; Monbiot advocates getting rid of Blair for war crimes in Iraq. He writes

British politics is still bound by the spell of Gladstone and Churchill. Every prime minister attempts to emulate them. To be a statesman, you need a world stage on which to strut, and if you don't have one, you must borrow it from someone who does. This is why the 'special relationship' persists. The establishment might break Blair, but it will not break the spell. Only the people can do that. If we dispose the prime minister through direct action, he will doubtless be succeeded by someone almost as bad, but the political context in which that someone operates will have changed.⁶⁸⁶

Felix Guattari wrote a book, *Three Ecologies* that discusses the network, or 'rhizome' of green politics.⁶⁸⁷ While the overarching framework of capitalism presents itself as a totalising force, taking over educational policy and practice, and controlling the bulk of the mass media, the web of connections is always prone to disruption and drastic change. Capitalism has no inevitable *telos*, yet disrupting the unfolding of technological

⁶⁸⁶ Monbiot, 2004

⁶⁸⁷ Guattari, 2001

consumerism is demanding. The rhizome might have continuities and patterns, but it also produces completely new possible frameworks for existence. This 'resingularising' of the territories of education insists that reconceptualising the framework of society outside of global capitalism and its religion of consumerism is possible and that it is our responsibility as educators to invigorate the lines of escape. Guattari writes of the difficulty of enunciating new ways of acting and being;

At the heart of all ecological praxes there is an a-signifying rupture, in which the catalysts of existential change are close at hand, but lack expressive support from the assemblage of enunciation; they therefore remain passive and are in danger of losing their consistency.⁶⁸⁸

Vectors of dissent open up the possibility of real change in surprising, often frightening ways. The process of change is inevitable and disrupts from any systematic attempt at stable management: capitalist or otherwise. The chaos of the unexpected is continuously present and unaccounted for. A philosophy of environmental education involves anxiety, guilt, and pathologies associated with leaving behind the known arrangement of societies' relations of consumption, production and greed in regard to the surrounding planet. Students sometimes seem better able to enunciate these fears and hopes perhaps because, as yet, they have less 'invested' in the current system.

Technological enframing has decoupled the community from integration in the local environment. Early industrial modernity enclosed and privatised the commons, evicting communities from their traditional lands in favour of more profitable pursuits. Late modernity incorporates the enclosure of the commons, but is characterised by the network. Factories have been transformed by global corporatism. Information technologies and cheap transport make possible globalised industrial production, and a global diaspora of advertising and consumerism. Taylorist methods of production still prevail, but the location of resourcing, manufacture, management, ownership and consumerism has become global in scale. Since the 1970s, the realisation that resources are finite, and that consumerism in the west is largely saturated has driven globalisation and Neoliberal governmentality. Technology has diminished the problem of distance and the dialectic of industrialisation between owners of capital and their workers has

⁶⁸⁸ Guattari, 2001: 45

expanded beyond the borders of the nation state. The Keynesian settlement has likewise been disrupted as major corporations make governments bid for their employment opportunities by lowering taxes and making favourable legal conditions for the exploitation of human capital.

In the final chapter I describe Blühdorn's argument that education is not able to counter the Neoliberal era of post-ecology.⁶⁸⁹ Education for sustainability is likely to simply reinforce the market metaphor that confuses ecology with efficiency, sustainability with reproduction of resources and thresholds with insurable risk.

Globalisation is spreading institutions into new locations, wide and far, as well as injecting international clientele into educational institutions. The deference, protection, funding and regulation that connects educational institutions to the particular nation state is transforming. Education still holds on desperately to meaningfulness by producing endless docile bodies that have 'skills' designed to transfer easily from one field of employment to another. Education has adapted admirably to its role in the era of transnational postmodernity, where the casualisation of labour has uprooted and made mobile employees on a new and enormous scale. Vocationalism is thoroughly embedded in schools, colleges and universities as their *raison d'être*. So what happens to education when society finally shifts the basis of meaning from economic 'growth' and conspicuous consumption towards a notion of environmental care?

The superstructure of capitalist production as it was analysed by Marx will fundamentally shift. At the moment education is seen as the vulnerable appendage of a state apparatus, only existent on any national scale due to the Keynesian settlement. Neoliberal theories of minimalising the state tend on the one hand, to categorise education as the result of years of provider capture, where teachers have unethically expanded their clientele and their power base. On the other hand, the utility of education is fundamental and must be universal in order to protect property owning citizens by keeping poor and delinquent children off the streets and normalising children into law-abiding individuals who have added value to their potential utility on the market. Under Neoliberal regimes, the

⁶⁸⁹ Blühdorn, 2002

'knowledge economy' is becoming one of the biggest 'growth' industries. The older Enlightenment expectation that education offers egalitarian opportunity is combining with the Neoliberal rhetoric of 'human capital,' post-tertiary educational institutions are seeing an unprecedented privatisation of funding during the same period that expansion of student numbers peak.

The matrix of the pedagogical enterprise at present is a combination of democratic ideals of citizenship, adding value to students' human capital, and vocationalism. This may shift emphasis profoundly when ecological philosophies define the relationship between state, institution, and teacher/ student interaction. The philosophy of environmental education offers a far more optimistic view of the ethical role and position of education nationally and globally. Heidegger's emphasis on the meaningfulness of the relationship between *Dasein* and Being puts an entirely different weight on education. Nietzsche, Deleuze, and Guattari recontextualise humanity in connection with the anorganic life of the planet. Both these philosophies disrupt economic growth and consumerism as the founding principle for organizing global society. Environmental education has the potential to teach out of awareness and care. It can attempt to scientifically measure the deterioration of planetary conditions conducive to life, and create a philosophical approach that opens radical new questions about the scope and role of humanity in relation to our surrounding universe. Education is a critically important site for these changes in attitude, for transforming norms, and the ensuing changes in societal structure take place.

It remains to be seen whether pollution, exhaustion, and effects of global warming will be so severe that the so called 'balance' of environmental conditions will prevail, thus ensuring the maintenance of diverse animal species as has existed upon the planet up until now. But in all likelihood even a massive 'extinction' such as wiped out the dinosaurs will not annihilate all life from the planet (until the sun eventually burns the earth to a cinder). Hundreds of species of dinosaurs died out during the last mass extinction but many species of plants, insects, lizards, and mammals survived and from them a plethora of new life emerged.

Nevertheless, as far as a human friendly habitat is concerned, problems with pollution and global warming are forcing us to rethink philosophical assumptions of the Idealist separation of subject from object, human culture from nature. This thesis is an attempt to move beyond the frame of modernity and create an eco-philosophy. It involves an immanent recognition of the real, and making a decision to act upon that recognition. Heidegger is particularly important to this endeavour because he began to frame the right questions. The Utilitarians want to know “is it good for the greatest number of people?” the Pragmatists ask “how can we fix it?” the Critical Theorists demand to know, “how is it powerful and whose purpose does it serve?” the Neoliberals only want to know “how much will it make us richer?” Heidegger asks, “what is the question of Being?” The scope of the question is of paramount importance. It sets up the beginning of an enquiry that is worthwhile enough to pursue. That scope invites an amplification in thinking. And thinking is not popular. It is political and risky. Finally we need to ask, questioningly, about *his* term ‘Being.’ As Heidegger indicates, it is the questioning itself that is most fruitful.

Ecology as the philosophical basis of human endeavour cannot be confined to an isolated subject area in the educational syllabus. It constitutes an approach to subjectivity, to politics, to economics, to biology and geology, to physics, chemistry, aesthetics, and to progress and change. A philosophy of the environment challenges the framework of education in the same way as it alters society itself. Resistance to this conceptual realignment is strong, and conformity to market and consumerist norms continues to dominate the policy, practise and physical locality of education throughout the globe. But the challenge to resituate education as a site of positive and creative change that will nurture future generations and the future of the planet is also strong. It is not an either/ or dialectical situation, but a case of reterritorialising the conceptual framework of our minds. We cannot abandon the repressive system of de-localised and alienating capitalism at will. Resorting to a nationalistic Romanticisation of ‘home and hearth’ as Heidegger did is not the answer. But opening up alternative nomadologies, rhizomes of inter-relating might encourage ethical styles of human communication and being in relation with global ecology – that might technologically store to a certain extent, while restraining from total mobilisation, remaining cognizant of the necessary rhythms and

cadences of anorganic life. Through education we can create the readiness, the conditions of possibility, for change to emerge – for a new world.

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