

## THE GRAND NARRATIVE OF THE AGE OF RE- EMBODIMENTS: BEYOND MODERNISM AND POSTMODERNISM\*

Arran Gare

**ABSTRACT:** The delusory quest for disembodiment, against which the quest for re-embodiment is reacting, is characteristic of macroparasites who live off the work, products and lives of others. The quest for disembodiment that characterizes modernism and postmodernism, it is argued, echoes in a more extreme form the delusions on which medieval civilization was based where the military aristocracy and the clergy, defining themselves through the ideal forms of Neo-Platonic Christianity, despised nature, the peasantry and in the case of the clergy, women. This argument is used to expose and reveal the oppressive and ecologically destructive drive underlying the aspirations of the dominant classes in the modern/postmodern world to disembodiment, whether this be seen as the quest to be free of dependence on labour and natural resources, to be unbounded by time and place, to be free of the humdrum of everyday life by entering 'virtual' worlds, or, as with post-humanists, to overcome the limits of the body by fusing with technology. These modern and postmodern forms of the quest for disembodiment, it is suggested, now threaten civilization, the future of humanity and most terrestrial life. This analysis is used to clarify the liberating mission of the grand narrative for re-embodiment, exemplified by the quest for Inclusive Democracy, Earth Democracy, Ecological Civilization, and for an Ecozoic Age. The grand narrative of the Age of Re-embodiments is shown to be inseparable from the struggle for truth, justice and liberty as central to real democracy empowering people to augment rather than undermine the conditions for life.

**KEYWORDS:** Grand Narrative; Age of Re-embodiments; Modernity; Postmodernity; Inverted Totalitarianism; Biosemiotics; Ecosemiotics; Earth Democracy; Ecological Civilization; Ecozoic Age

The quest for re-embodiments is a reaction against a culture that has pretended to become progressively disembodied. It is this pretence that has enabled some segments

of society to engage in a plethora of activities – drilling for oil and gas, ore mining, developing of bureaucracies and extending markets, extending mass consumerism, tourism, air travel and electronic media – that are really disembodied third parties, stripping their communities of their own embodied forms.<sup>1</sup> The greatest obstacle to this quest for re-embodiments is the entrenched, powerful grand narrative of disembodiment that sanctions and normalizes these disembodied activities, that surreptitiously has dominated the modern/postmodern world. It is not called a grand narrative of disembodiment. It is called modernism, or postmodernism. As will be shown later, these are cultural movements which, without appreciating it, have embraced and transmogrified the Neo-Platonic Christian quest for disembodiment so completely that they are unaware of it.

Modernism has been characterized by the quest to not only overcome and leave behind the constraints of living processes, but to ascend to a realm of reified abstractions from the perspective of which these constraints are invisible.<sup>2</sup> As Paul Livingston argued, modernity now consists of ‘forms of life ... determined by the technicization of *information* made possible by the logico-syntactical formalization of language.’ These abstract formal structures have been realized in ‘the actual organization of contemporary politics, for instance [through] the actual communicational and computational technologies that today increasingly determine social, political, and economic institutions and modes of action around the globe.’<sup>3</sup> Deconstructive postmodernists, purportedly leaving behind modernity, claim that there is nothing but an endless play of signifiers which are not only disconnected from any base in reality, but the idea of such a base is nothing but an illusion created by this play of signifiers, a play that with the development of information technology is speeding up so rapidly that experience is losing all temporal coherence. They are even more completely enmeshed in the grand narrative of disembodiment than the modernists. This grand narrative of disembodiment, which is really a fetish serving to force on third parties actual processes of disembodiment that deprives them of their surrounding embodied forms and often their own bodies, is now embodied in people’s *habitus*, in their whole way of life, in their institutions and, most importantly, in the

---

<sup>1</sup> See Alf Hornborg, *Global Ecology and Unequal Exchange: Fetishism in a zero-sum world*, (London: Routledge, 2013). As the subtitle of this book indicates, Hornborg develops Marx’s notion of fetishism (applying it to technology) to analyse this process rather than the notion of disembodiment, but ‘disembodiment’ encompasses such fetishism.

<sup>2</sup> Their thinking is permeated by what Alfred North Whitehead called the ‘fallacy of misplaced concreteness’, taking abstractions for reality while ignoring the level of abstraction involved. The Marxist notion of ‘reification’ is just one instance of this.

<sup>3</sup> Paul M. Livingston, *The Politics of Logic: Badiou, Wittgenstein, and the Consequences of Formalism*, (London: Routledge & Chapman Hall, 2012), p.4.

ends they aspire to. This *habitus* is manifest in the transformation of life into, as Guy Debord observed, ‘an immense accumulation of *spectacles*’ where ‘[e]verything that was directly lived has moved away into a representation. ... [I]t is the common ground of the deceived gaze and of false consciousness, and the unification it achieves is nothing but an official language of generalized separation.’<sup>4</sup>

Progress, identified with economic growth, is seen to be moving towards a dematerialized economy. Robert Solow, a Nobel laureate in economics, argued that through substitution of produced capital for natural capital, the market could generate permanent sustainability. Rejecting claims by environmentalists of imminent resource shortages, he argued: ‘If it is very easy to substitute other factors for natural resources’ he argued, ‘then there is, in principle, no “problem”. The world can, in effect, get along without natural resources, so exhaustion is just an event, not a catastrophe.’<sup>5</sup> The drive for disembodiment is most clearly evident in the development of electronic media and the achievements of those people who are regarded as most successful in the modern world, the new globalized class of super-wealthy managers of transnational corporations and financial institutions who, along with economic advisors to governments who legitimate their dominance, now control not only most of the world’s economy but also its politics. As Zygmunt Bauman observed:

Elites travel in space, and travel faster than ever before, but the spread and density of the power web they weave is not dependent on that travel. Thanks to the new 'body-less-ness' of power in its mainly financial form, the power-holders become truly ex-territorial even if, bodily, they happen to stay 'in place'.<sup>6</sup>

The global web of information and communication has annulled temporal/spatial distance for this new class, apparently emancipating them from all constraints of embodiment.

While this class extends its apparently disembodied power around the globe, ‘others watch helplessly as the locality they inhabit moves out from under their feet.’<sup>7</sup> Their helplessness is increased because many of them, particularly but not only in the technologically advanced countries, have been seduced by the quest for

<sup>4</sup> Guy Debord, *Society of the Spectacle*, Detroit: Black & Red, 1983, p.1. One obvious instance of this is the transformation of sport from play essential to a healthy life and a healthy community into a business in which the ‘players’ are televised professionals, and most of the audience television viewers, echoing the transformation of ‘sport’ that took place in Ancient Rome where the coliseum was built to entertain its disempowered citizenry after the overthrow of the republic.

<sup>5</sup> Robert M. Solow, “The Economics of Resources or the Resources of Economics”, *The American Economic Review*, 64(2): May, 1974: 1-14, p.11.

<sup>6</sup> Zygmunt Bauman, “Time and Class”, *Arena Journal*, New Series, No.10, 1988: 69-84, p.77.

<sup>7</sup> Bauman, loc.cit.

disembodiment. Rather than aspiring to meaningful lives as members of families and communities, as workers and citizens, people live to consume the objects of their fantasies. Their goal in life is to retire with sufficient income to become perpetual consumers, if possible, as jet-setting tourists, with the entire world reduced to spectacles for their consumption (apart from an invisible world of mines, factories and slums, off-limits to tourists). To begin with, their fantasies were conjured up and portrayed by advertisers (who replaced artists as educators of feeling). However, as Jean Baudrillard realized, people are now consumers of signs which gain their value through their relation to other signs, rather than products.

This has allowed the monetary sign 'to escape into infinite speculation, beyond all reference to a real of production.'<sup>8</sup> And as investors have moved from backing companies that produce things to speculating in fictitious capital generated by asset inflation and increasingly abstract investment products, consumers have graduated from the fantasy world of advertising to the high definition fantasy worlds on the internet, culminating in Second Life where the world in which people are embodied becomes merely a starting point to launch into virtual reality.<sup>9</sup> Some people now believe it will become possible to download their minds onto computers and thereby gain immortality, aspiring to 'a culture inhabited by posthumans who regard their bodies as fashion accessories rather than the ground of being.'<sup>10</sup>

As Baudrillard observed, the simulacra has replaced reality:

It is the generation of models of a real without origin or reality: a hyperreal. The territory no longer precedes the map, nor survives it. Henceforth it is the map which precedes the territory ... It is the real, and not the map, whose vestiges subsist here and there, in the deserts which are no longer those of the Empire, but our own.<sup>11</sup>

<sup>8</sup> Jean Baudrillard, *Symbolic Exchange and Death*, trans. Iain Hamilton Grant, (London: Sage, 1993 [1976]), p.7.

<sup>9</sup> See Glenn McLaren, "The Triumph of Virtual Reality and its Implications for Philosophy and Civilization", *Cosmos & History*, 8(1), 2012: 383-411.

<sup>10</sup> N. Katherine Hayles, *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics* (Chicago: Uni. Of Chicago Press, 1999), p.5. That it will become possible to download our minds onto computers was first argued by Hans Moravec in *Mind Children: The Future of Robot and Human Intelligence*, (Cambridge: Cambridge University Press, 1988), endorsed by Marvin Minsky and has since been popularized by Ray Kurzweil. Minsky claimed that in the future, you will be able to put the data defining your consciousness 'on a little disk, and store it for a thousand years, and then turn it on again and you will be alive in the fourth millennium or the fifth millennium' (quoted by Hayles, p.245).

<sup>11</sup> Jean Baudrillard, *Simulations*, trans. Paul Foss, Paul Patton and Philip Beitchman (New York: Semiotext(e), 1983). In this Baudrillard suggests there is no original reality to be simulated, but this should be seen as Baudrillard's strategy to outdo the postmodernists to highlight the absurdity of their views and make it impossible for them to dismiss him.

The simulated bedroom scenes of Second Life are the consumer equivalent of the optimistic econometric models of the economy produced by neo-classical economists.<sup>12</sup> We now have only the simulacrum of democracy, where all important decisions are made by experts in the service of global corporations, but which people are required to believe is the real thing. As Lacan, Deleuze and Guattari characterized this situation and its consequences: ‘Acting in secret while maintaining a democratic facade, the corporations tend towards conspiracy, and those who suspect this and resist are viewed as paranoid.’<sup>13</sup> The outcome has been a pervasive cynicism about politics and a depoliticization of the general population. We are approaching the state that was foreseen in 1978 by the novelist Philip Dick where ‘fake humans will generate fake realities and then sell them to other humans, turning them, eventually, into forgeries of themselves.’<sup>14</sup>

The different value ascribed to embodied and disembodied practices reflects the de-valorization of embodied and the valorization of the disembodied. It is those working closest to the earth, the growers of food, who are most likely to starve or be driven to suicide through poverty.<sup>15</sup> Increasingly, they are suffering the effects of land degradation and pollution, including the effects of global climate destabilization. Forced off the land in Brazil, India, Bangladesh or China, those who work in factories also live in poverty. In India, factory accidents killing hundreds of people are so common they are not even reported. In China, factory workers work twelve hours per day or more, seven days a week, often living in dormitories.<sup>16</sup> In the deindustrialized countries of the West most people who are still employed, the vast majority of them living in cities, work in the service industries. These are the people who are able to consume exotic and out of season fruits, vegetables and beverages along with seafoods and manufactured goods sent to them from all corners of the globe, which also supply minerals and oil and which are now tourist destinations and, in some cases, sources of body organs. Even here, the more disembodied their practices are the more they are valued. People working at the ‘coalface’, such as foot soldiers, waiters, writers or tutors in universities, are least well paid and least respected. The respected soldiers are

<sup>12</sup> On the dissociation of economic models and the real world, see Michael Perelman, *The Confiscation of American Prosperity* (Macmillan: Palgrave, 2007), Part 4.

<sup>13</sup> N. Katherine Hayles, *How We Became Posthuman*, p.167.

<sup>14</sup> Philip K. Dick, ‘How to Build a Universe That Doesn’t Fall Apart Two Days Later’, cited by Hayles, *How We Became Posthuman*, p.163.

<sup>15</sup> The dynamics of this were revealed by Susan George in *How the Other Half Dies: The Real Reasons for World Hunger* (Harmondsworth: Penguin, 1977). For a more recent analysis, see Vandana Shiva, *Earth Democracy: Justice, Sustainability, and Peace* (Cambridge Mass.: South End Press, 2005), esp. chap.1.

<sup>16</sup> See Jasper Becker, *Dragon Rising: An Inside Look at China Today* (Washington D.C.: National Geographic, 2007), p.141. See also Ching Kwan Lee, *Against the Law: Labor Protests in China’s Rustbelt and Sunbelt* (Berkeley: Uni. of California Press, 2007).

the high tech military personnel who kill people from their offices using drones and missiles which allow them to see on their screens the expressions on the faces of the targeted just before they die. The new profession of 'human resources' has become a growth industry as business enterprises, backed by government policies, work to reduce the costs of employing people who actually dirty their hands with labour. Even more lucrative careers are found in marketing, public relations and other areas associated with the production of simulacra. Managers, who have least to do with the material world, are the most exalted. The pinnacle in this system is finance, almost completely disembodied. In 2007 the financial sector in USA gained 41% of after tax profits, up from 5% in 1982.<sup>17</sup> So exalted are the members of the financial sector that when they created a global economic crisis in 2008 they were rewarded with huge government bail-outs, allowing them to boost their already stratospheric incomes.

The struggle against all these attempts to deny our embodied condition is now being united by a grand narrative of re-embodiments.

#### THE NARRATIVE OF DISEMBOIMENT AND THE HISTORY OF MACROPARASITISM

One of the most important tasks of a grand narrative of re-embodiments is to identify, comprehend, encompass and then supersede the grand narrative of disembodiment. One way to proceed in this is to present intellectual arguments to expose the illusions generated by taking figments of people's imaginations for a superior, super-sensible, disembodied reality, and to reveal the limitations of abstractions and abstract thinking not only to the complexity and dynamism of nature and society, but to its capacity to comprehend and justify such abstract thinking. When conjoined with a respect for the efficacy of imagination and the achievements of abstract thought, this approach has been enormously productive. One only has to think of the work of Heraclitus, Aristotle, Bruno, Schelling, Marx, Nietzsche, Bergson, Peirce, Whitehead, Wittgenstein, Husserl, Heidegger and Merleau-Ponty among others to appreciate this. Arguments involve showing in various combinations that abstract thought presupposes the reality of other minds, an independent, creative nature that has engendered consciousness with the capacity to comprehend it, the will to power, more primitive forms of semiosis, pre-predicative, embodied experience, 'ordinary' language and metaphorical and narrative imagination. These arguments are complemented by the demonstrated failure of abstract thought to be able to justify its claims to truth in its own terms, the most famous demonstration being Gödel's

<sup>17</sup> Martin Wolf, "Why it is so hard to keep the financial sector caged", *The Financial Times*, February 5, 2008. <http://www.ft.com/cms/s/0/9987c5c4-d41f-11dc-a8c6-0000779fd2ac.html#axzz19TKMNVj4>. (accessed 29<sup>th</sup> December, 2010).

incompleteness theorem. In this essay I have taken narratives (which in turn presuppose embodiment, pre-predicative experience, more primitive forms of semiosis and imagination) as more primordial than, as presupposed by and as the condition for the abstract thinking of science, mathematics and symbolic logic, a view that I have defended elsewhere.<sup>18</sup>

However, successfully defending this tradition of thought is more than a mere battle of logical arguments. As Marx, humanistic Marxists, post-structuralists and radical feminists have shown, there is much more to the domination of particular ideas and ways of thinking than such intellectual arguments. What we are facing at present is a transformation by ruling classes of education, educational organizations and other public institutions to eliminate any questioning of the prevailing grand narrative of disembodiment, cemented by pressures from their apparatchiks in bureaucracies to accord significance only to knowledge that can be processed by information technology which embodies an abstract, disembodied notion of information and a conception of humans as Turing machines. It should be clear from the present state of culture, where it is leading us and who is driving it in this direction that the quest for disembodiment is intimately related to what the American historian William McNeill called ‘macroparasitism’, people living off the produce and services of others.<sup>19</sup> The quest for disembodiment by macroparasites has been a recurring, although not universal, feature of civilizations since they began. Through narratives of disembodiment ruling elites have defined their superiority, legitimated their rule, justified their exploitation and oppression of those who work, and neutralized the forms of discourse that would bring their beliefs into question. The Egyptian pharaohs and Mesopotamian kings of the ancient world exemplified this tendency, as did the Inca emperors.<sup>20</sup>

It is the disastrous effects of the reification of abstractions and the mediation of relations of social power by fetishised objects associated with macroparasitism that is the greatest argument against the grand narrative of disembodiment, an argument that could gain force through the struggle for life and liberty by the victims of this

---

<sup>18</sup> See Arran Gare, “MacIntyre, Narratives and Environmental Ethics”, *Environmental Ethics*, 20 (1) February, 1998: 3-21; Arran Gare, ‘Narratives and the Ethics and Politics of Environmentalism: The Transformative Power of Stories’, *Theory & Science*, Vol.2, No.1, Spring, <http://theoryandscience.icaap.org/content/vol002.001/04gare.html> ; and “Narratives and Culture: The Role of Stories in Self-Creation”, *Telos*, Issue 121, Winter, 2002: 80-101.

<sup>19</sup> William H. McNeill, *The Human Condition: An Ecological and Historical View* (Princeton: Princeton University Press, 1980), p.6.

<sup>20</sup> On the Egyptians and Mesopotamians, see Henri Frankfort, Mrs H.A. Frankfort, John a. Wilson and Thorkild Jacobsen, *Before Philosophy* (Harmondsworth: Penguin, 1949). On the fetishism of the Inca, see Hornborg, *Global Ecology and Unequal Exchange*, p.40.

parasitism. While McNeill showed how microparasitism in the form of plagues has played a major role in history,<sup>21</sup> ecological historians have shown that macroparasitism has played a similar role. The bronze-age civilizations initially were associated with population growth, but collapsed some three thousand years ago as macroparasites over-exploited workers, peasants and the land.<sup>22</sup> Subsequently, this process has been repeated on larger scales. For instance, towards the end of the ninth century, the Abbasid Caliphate which up until then was one the greatest civilizations the world had known, collapsed. Increasing taxes on farmers and neglect of their conditions by the ruling elite oriented towards higher ends destroyed agriculture, leaving a region of empty desolation, tangled dunes and rubble strewn mounds of former settlements. Allen, Tainter and Hoekstra wrote of this: ‘The occupied area had shrunk by 94 percent by the eleventh century. Population dropped to the lowest level in five millennia. Urban life in 10,000 square kilometers of the Mesopotamian heartland was eliminated for centuries.’<sup>23</sup> This same tendency operated in Europe. The decline of the Western Roman Empire was largely due to environmental destruction.<sup>24</sup> In the context of this decline the emperor Constantine embraced a form of Christianity which, synthesizing Neo-Platonic and Hebraic thought, denied significance to embodied life, extolling a life devoted to the eternal associated with the realm of Platonic forms.<sup>25</sup> The Earth itself came to be portrayed as the repository of the grossest dregs of the universe.

After the collapse of the Roman Empire, this Neo-Platonic narrative provided the foundation for medieval feudalism. The Church, which had been supported by emperors to facilitate their control over their empires, later succeeded in subordinating the emperors to the Church through their promotion of the narrative of disembodiment.<sup>26</sup> By the thirteenth century they were referring to the rest of society as their slaves. Peasants were treated as the lowest form of humanity, scarcely above

---

<sup>21</sup> William H. McNeill, *Plagues and Peoples*, (New York: Doubleday, 1989).

<sup>22</sup> On this, see Sing C. Chew, *The Recurring Dark Ages: Ecological Stress, Climate Changes, and System Transformation* (Lanham: AltaMira Press, 2007); Roderick J. McIntosh et.al. (eds), *The Way the Wind Blows: Climate, History, and Human Action* (New York: Columbia University Press, 2000), and Joseph A. Tainter, *The Collapse of Complex Societies* (Cambridge: Cambridge University Press, 1990).

<sup>23</sup> T.F.H. Allen, Joseph A. Tainter & Thomas W. Hoekstra, *Supply-Side Sustainability* (New York: Columbia University Press, 2003), p.138f.

<sup>24</sup> See Tainter, op.cit., p.49f.

<sup>25</sup> Saint Augustine *The City of God*, trans. Marcus Dodds, (New York: Random House: 1950), Book 10, chap.14.

<sup>26</sup> See Harold J. Berman, *Law and Revolution: The Formation of the Western Legal Tradition*, (Cambridge: Harvard University Press, 1983).



beasts in the hierarchy of being.<sup>27</sup> From the twelfth century onwards Europe was almost continually at war, most of it directed to domination and blessed by the Church. This involved increasingly large segments of the population, and became ever more burdensome. Another major collapse of this civilization would almost certainly have occurred if Europeans had not developed empires and learned to exploit fossil fuels. Europeans used the wealth from the New World to sustain their competition, further developing their sea power, their empires and their industries based on non-renewable reserves in the process. All this was legitimated by the Christian Neo-Platonic grand narrative of disembodiment.

#### THE DIALECTIC BETWEEN GRAND NARRATIVE OF EMBODIMENT AND DISEMBODIMENT

In reaction to such narratives, oppressed people embraced and even celebrated the finitude of embodied existence. The dialectic between the narratives of disembodiment and re-embodiment can be traced through the history of civilizations, and is best understood in relation to forms of organization. With greater social complexity and greater specialization, coordination of people and actions became a major problem. There are four ways of achieving such coordination: through a hierarchy of hereditary roles, obligations and entitlements (feudalism), bureaucratic administration, markets and democracy.<sup>28</sup> Each of these is capable of innovation, and each has co-evolved with the others and with civilizations. While traditional hunter gatherer societies were democracies with joint action achieved through discussion to reach a consensus, this became too time consuming with civilizations which originally were characterized by a specialized military caste, often slavery and in some instances, feudal hierarchies, and the development of bureaucracies to administer these.<sup>29</sup> Markets developed within the order created by these civilizations. Organization through bureaucracies and markets involve practices and thinking that abstract from the qualitative diversity of the experienced world and making decisions on the basis of these abstractions. While democracy re-emerged in civilizations, to deal with the far greater complexities of civilization, it required a high level of education and cultural development among citizens, cultivating their humanity and imparting a strong sense of responsibility for and loyalty to their communities and a commitment to the common good. It also required the development of formal

<sup>27</sup> See Arran Gare, *Nihilism Inc.* (Sydney: Eco-Logical Press, 1996), chap.3.

<sup>28</sup> Richard Norgaard in 'Democratizing Knowledge', *Development Betrayed: The End of Progress and a Coevolutionary Future* (London: Routledge, 1994), ch.12, argued that there are three ways of coordinating action: markets, bureaucracies and democracy, but feudalism is also a way of coordinating actions, if not by itself, then in conjunction with bureaucracy).

<sup>29</sup> See Eugene Kamenka, *Bureaucracy: New Perspectives on the Past* (Oxford: Basil Blackwell, 1989), chap.1.

procedures for debating issues and decision-making. In the modern world, slavery and feudal relations have largely (although not entirely) been eliminated and bureaucracies, markets and democracy have coevolved.

Impulses to democracy in medieval society began as challenges to concentrated forms of power and the illusions of disembodiment that legitimate such power. As Mikhail Bakhtin has shown, peasants challenged the structure of medieval society by attacking the petrified seriousness of their masters, subverting the content of medieval ideology: asceticism, providentialism, sin, atonement and suffering associated with fear, religious awe and humility, all in the service of an oppressive and intimidating ruling class, by developing a tradition of laughter: the carnival, the parody, buffoonery and the grotesque, opening people to the laughing aspect of reality with its unfinished and open character, with the joy of change and renewal.<sup>30</sup> The association between decay and creativity, symbolized by a very old pregnant woman, was celebrated. Neo-Platonic Christianity was less radically but more comprehensively criticized with the rediscovery and revival of Aristotle's philosophy. Both of these were combined, along with the tradition of Roman republican thought (most importantly, the work of Cicero) with the revival and defence of republicanism and democracy in the Renaissance. The Renaissance was associated with the development of the humanities, civic humanism, the flowering of the arts, and nature enthusiasm, each celebrating embodied existence and each concerned to foster the abilities of people (although excluding the poor and women) to govern themselves.

The quest for democracy has been characterized by alliances by its proponents with either the market against bureaucracy and feudal relations, or bureaucracy against the market. The revival of the quest for democracy in Renaissance Italy was undertaken in the struggle against feudalism and the bureaucracies of Church and Emperors (often playing these off against each other) and tended to foster markets in their struggle. In later centuries, proponents of democracy attempted to make bureaucracies serve them to maintain the conditions for democracy against the forces of the market. Insofar as markets or bureaucracies have been aligned with democracy, their narratives of disembodiment have been muted. Because of these shifting alliances, the conflict between the narratives of disembodiment and re-embodiments has been confused. However, the fundamental opposition between the narrative of embodiment associated with democracy and the narratives of disembodiment associated with those promoting bureaucratic control and the subordination of people

---

<sup>30</sup> Michael Bakhtin. *Rabelais and His World* [1965] trans. Helen Iswolsky (Bloomington: Indiana University Press, 1984), p.83.

to markets can be discerned. This opposition becomes clear when bureaucracies and markets are aligned in opposition to democracy.

The original alliance of bureaucracies and markets against democracy was central to the 'counter-Renaissance', the scientific revolution of the seventeenth and early eighteenth centuries, with Mersenne, Gassendi, Descartes, Hobbes, Boyle, Newton and Locke being its leading figures.<sup>31</sup> Opposing the ideas of the civic humanists and nature enthusiasts, they argued for atomism, mechanism, objectivism and universalism, a world which could be understood through mathematical models and thereby made predictable and controllable. This scientific materialist view of nature reduced the human body to a machine, treating the mind as either a decontextualised substance, only contingently related to a body, or an epiphenomenon, with other humans conceived as nothing but machines driven by appetites and aversions (pleasures and pains). While the first view was defended by Descartes and Kant, and the second by Hobbes and Locke, in practice people accepting this world-orientation assume that they as actors (and consumers) are transcendent beings, while viewing the world as consisting of manipulable objects, and that in the case of animals and humans, can be efficiently controlled through punishments and rewards. At the core of this world-view is the Pythagorean belief, revived by Galileo, that only that which can be objectified, measured and quantified according to simple recursive procedures such as counting, and then can be manipulated, is truly real; all else is subjective and epiphenomenal.<sup>32</sup> It is the world view of accountants. Its peculiarity (as Immanuel Kant pointed out) is that while the domain of mathematics and its operations lie entirely with the inner, private, subjective world, this domain is considered the most objective of realms, and the physical world is only acknowledged as real insofar as it can be made to conform to this subjective world. It is a form of materialism that denies any reality to the physical as such as it had been characterized by Aristotle as that which has the source of acting within itself,<sup>33</sup> and denies any intrinsic meaning to nature, including the human body. Human existence as incarnate consciousness is unintelligible. As R.D. Laing wrote, 'Galileo's program offers us a dead world: Out go sight, sound, taste, touch, and smell, and along with them have gone aesthetic and ethical sensibility, values, quality, soul, consciousness, spirit. Experience as such is cast

---

<sup>31</sup> See Quentin Skinner, *Hobbes and Republican Liberty* (Cambridge: Cambridge University Press, 2008) and Arran Gare, "Reviving the Radical Enlightenment", in *Researching with Whitehead: System and Adventure* (Frieburg: Verlag Karl Alber, 2008), pp.25-57.

<sup>32</sup> On Pythagoras, see Robert Rosen, "The Church-Pythagoras Thesis" in *Essays on Life Itself* (New York: Columbia University Press, 1999), chap.4.

<sup>33</sup> Aristotle, *Metaphysics*, 1015a 13-19., trans. Richard Hope (Ann Arbor: Uni. of Michigan Press, 1960), p.93.

out of the realm of scientific discourse.<sup>34</sup> The abstract concept of information developed by Claude Shannon and Warren Weaver on which modern communication and computing technology is based, defined independently of any context or meaning, is merely a further development of this program.

The hidden agenda of this cosmology, and the grand narrative it supports, was revealed by Stephen Toulmin. It was to transform everything, including other people, into measurable and predicable components of a vast machine.<sup>35</sup> This agenda was made explicit by Henri de Saint Simon who proposed the transformation of the world into a vast factory controlled by a ‘Council of Newton,’ and this agenda was embraced by Lenin and his successors who, turning Marx on his head, called for ‘the transformation of the whole state economic mechanism into a single huge machine’.<sup>36</sup> However, it has been implicit in the whole project of modernity and has been associated not only with mobilization of people for economic growth, but also for war and imperialism. By 1914 Europeans and their offshoots controlled 84% of the earth’s surface, supporting an ever more complex economy, administration and military machine.<sup>37</sup> It has generated complex technological, organizational and political innovations, along with systems of education and research facilitating further innovation. This complex organization, centered in cities, has been made possible by a global imperialist system and the exploitation of fossil fuels and other natural resources from around the globe, allowing an almost complete dissociation of cultural evolution from ecological constraints.<sup>38</sup> This was modernity. Those whose lives are most ecologically destructive are most dissociated from nature, almost blind to both the limits of the ecosystems of which they are part and which have made human life possible, and to the ecological destruction they are causing. The postmodern condition is a manifestation of this blindness.

Despite the advances in mechanistic thinking, the arts, humanities, the ‘humanistic’ human sciences aligned with them and post-mechanistic science, along with the struggle to extend democracy, were able to advance due to the division between bureaucracies and markets. The French revolution revived the quest for

<sup>34</sup> Cited without original reference by Fritjof Capra, *The Web of Life* (London: HarperCollins, 1996), p.19.

<sup>35</sup> Stephen Toulmin, *Cosmopolis: The Hidden Agenda of Modernity* (Chicago: University of Chicago Press, 1992).

<sup>36</sup> V.I. Lenin, *Collected Works* (Moscow: Progress Publishers, 1964), Vol. XXVII, pp.90-1.

<sup>37</sup> See Samuel P. Huntington, *The Clash of Civilizations and the Remaking of World Order* (New York: Simon & Schuster, 2003), p.51.

<sup>38</sup> As noted by Norgaard, *Development Betrayed*, p.47. See also Richard Newbold Adams, *The Eighth Day* (Austin: University of Texas Press, 1988), Alf Hornborg, *The Power of the Machine* (Walnut Creek: AltaMira Press, 2001) and James A. Coffman & Donald C. Mikulecky, *Global Insanity: How Homo sapiens Lost Touch with Reality while Transforming the World*, (Litchfield Park, Arizona: Emergent Publications, 2012).

democracy. Thomas Jefferson, while supporting markets for small farmers and artisans, promoted democracy and the education required for this and opposed bureaucracies as hangovers from feudalism and aristocratic privilege serving wealthy elites. As markets became increasingly oppressive, people sought to utilize bureaucracies to augment democracy. After the revolution in France, government and its officials were reconceived as servants of the people. Bureaucracy was being transformed into a civil service.<sup>39</sup> In 1810 in Germany the Humboldtian model of the university was established, combining teaching and research and privileging the humanities and post-mechanistic science, designed above all to educate and inspire civil servants and professionals to live and work for the common good.<sup>40</sup> In Britain in 1853 the British Prime Minister, Lord Aberdeen, had a scheme drawn up to reorganize the civil service. The Northcote-Trevelyn Report, which had a revolutionary influence on civil services all around the world, including USA, recommended recruitment through the Chinese practice of open competitive examination in place of patronage, the filling of higher positions through promotion within the civil service on the basis of merit rather than seniority, and the elevation of ‘generalist’ against technical education.<sup>41</sup> This was to be in the service of democracy, which was now understood as the accountability of governments and their officials or representatives to the people through regular elections, with successively, the poor, workers and women being included. In the Twentieth Century this was the form of the civil service around which the welfare state was built, providing people with the education and economic security required to fulfil their duties as citizens of democracies. In Sweden, in its most developed form, the civil service was a professional open organization obliged to inform the general public of viable policy options and the reasons for and against them.<sup>42</sup> The growth of the civil service was opposed by others, such as A.V. Dicey, Max Weber and Friedrich von Hayek, as producing a new collectivism threatening the freedom of individuals. However, their arguments were also made in the name of democracy, or at least, were not opposed to it.<sup>43</sup>

---

<sup>39</sup> Kamenka, op.cit., p.122.

<sup>40</sup> On the importance of the Humboldtian model of the university for democracy, see Arran Gare, “Democracy and Education: Defending the Humboldtian University and the Democratic Nation-State as Institutions of the Radical Enlightenment”, *Conscence: The Australasian Journal of Process Thought*, 6, 2005: 3-25.

<sup>41</sup> Kamenka, *ibid.*, p.125f.

<sup>42</sup> This was examined and described in the Fulton report on the civil service, Lord Fulton, *The Civil Service, Vol.1 Report of the Committee 1966-68*, (London: Her Majesty’s Stationary Office, 1968), 138ff..

<sup>43</sup> See F.A. Hayek, *The Road to Serfdom* (Chicago: University of Chicago Press, 1944), chap.V.

---

CORPORATOCRACY: THE ALLIANCE OF MARKETS AND BUREAUCRACY AGAINST DEMOCRACY

In retrospect it can be seen that there were strong propensities to undermine democracy in both bureaucracies and in markets, which became more pronounced as they expanded. Bureaucracies have a strong tendency to emphasize formal and instrumental rationality over substantive rationality, and through increasing regulation to expand their control over while at the same time insulating themselves from those whom originally they were designed to serve.<sup>44</sup> Markets tend to concentrate wealth and power, impoverishing people, creating insecurity and indebtedness and fostering avarice and egocentric greed. Markets and bureaucracies are not inherently opposed to each other. With the development of large scale industry, the growth of corporations and financial institutions and their evolution into massive transnational organizations, businesses themselves became highly bureaucratized. This has been associated with the development of Taylorism, scientific management oriented to concentrating power, knowledge and decision-making in the hands of managers. As bureaucracies they not only operate in the market but deploy their bureaucratic power to extend markets through advertising, public relations, control of the mass media and control of government policies, politicians and political parties. At the same time, these bureaucracies have utilized market principles to keep employees under control, eliminating job security and forcing them to compete with each other to retain their jobs. Craftsmen and professional workers have been proletarianized.

This has resulted in a fusion of bureaucracies and markets, finance and politics. The bonding of big corporations, banks and government has produced what John Perkins characterized as ‘corporatocracy’.<sup>45</sup> Corporatocracy began with the fostering of transnational corporations by governments of technologically advanced countries (mainly USA) and the IMF and World Bank to economically and politically dominate and then suck the wealth out of technologically undeveloped countries.<sup>46</sup> Then in the 1970s and 80s transnational corporations and their allies succeeded in capturing control of governments in technologically advanced countries.<sup>47</sup> Trade barriers and

---

<sup>44</sup> The classic study of this is Max Weber, “Bureaucracy”, *From Max Weber*, ed. H.H. Gerth and C. Wright Mills, (London: Routledge & Kegan Paul, 1970), chap. VIII. See also Robert Michels, *Political Parties: A Sociological Study of the Oligarchical Tendencies of Modern Democracy*, [1911] (New York: Free Press, 1962). See also Bruce G. Charlton, “The cancer of bureaucracy: How it will destroy science, medicine, education; and virtually everything else”, *Medical Hypotheses*, 74 (2010): 961-965.

<sup>45</sup> See John Perkins, *Confessions of an Economic Hit Man* (New York: Plume, 2006), esp. p.94.

<sup>46</sup> Perkins provides an insider account of how this worked.

<sup>47</sup> See David C. Korten, *When Corporations Rule the World*, 2<sup>nd</sup> ed., (San Francisco: Berrett-Koehler, 2001) and William I. Robinson, *A Theory of Global Capitalism* (Baltimore: John Hopkins University Press, 2004). See also John Perkins, *Hoodwinked* (New York: Broadway Books, 2009).

barriers to the movement of capital were eliminated and public institutions and civil services were privatized or reorganized to function like businesses. A new dimension to the economy was added by eliminating secure, full-time work, outsourcing and requiring employees to act as entrepreneurs continually having to sell themselves. With the collapse of Eastern European communism, the mutation of China into an authoritarian free market economy and the conversion of Western European social democratic parties to neoliberalism, an alliance emerged between former Marxists and free marketeers, with bureaucracies being used to impose markets on all facets of life throughout the world.<sup>48</sup> The outcome has been the creation of predator states with political parties and government bureaucracies run as businesses, and with managers moving between political, government, business and financial bureaucracies, plundering public wealth, effecting massive redistributions of wealth and income to the wealthy, and disempowering the general population.<sup>49</sup> Democracy has been ‘managed’, that is, effectively neutralized and eliminated and replaced with what Sheldon Wolin described as ‘inverted totalitarianism’.<sup>50</sup> Inverted totalitarianism involves corrupting language so that the meaning of democracy is transformed by promoting a pseudo-egalitarianism, harnessing the resentment of intellectually lazy, calculating careerists to undermine those whose symbolic power is based on the autonomy of cultural, scientific or educational fields. Institutions supporting these fields, most importantly, institutions of higher education, have been crippled, allowing only one hierarchy of status and power to exist – the hierarchy based on wealth and income – backed by increasingly large and technologically well-equipped security forces.<sup>51</sup> The consequence is a depoliticized, inert population.

The true nature of corporatocracy is most clearly revealed in the collusion of governments and transnational agribusiness corporations to control food production, with corporations granted patents on genes of traditional crops developed by farmers over centuries, and ordinary farmers punished for trading their seeds. As Vandana Shiva pointed out: ‘Corporate globalization is leading to food fascism – threatening the freedom of farmers and consumers and destroying the ecological, economic, and cultural foundation of food and agriculture.’<sup>52</sup> Effectively, a world order is being

---

<sup>48</sup> See Alain Supiot, “Under Eastern Eyes”, *New Left Review*, 73, 2012: 29-36.

<sup>49</sup> James Galbraith, *The Predator State* (New York: Free Press, 2009).

<sup>50</sup> Sheldon S. Wolin, *Democracy Inc.: Managed Democracy and the Specter of Inverted Totalitarianism* (Princeton: Princeton University Press, 2010).

<sup>51</sup> This process has been analysed by Pierre Bourdieu in *Acts of Resistance: Against the Tyranny of the Market*, trans. Richard Nice, (New York: The New Press, 1998) and in *Firing Back: Against the Tyranny of the Market 2*, trans. Loïc Wacquant (London: Verso, 2003).

<sup>52</sup> Vandana Shiva, *Earth Democracy*, p.152, and *Stolen Harvest: The Hijacking of the Global Food Supply* (Cambridge: South End Press, 2000).

created fulfilling the project of transforming the entire world into one giant economic machine, denying any significance to nature, or people, other than as a means to generate profits or as surplus to requirements and a law and order problem. Global climate destabilization, the inevitable consequence of this, is becoming the ultimate weapon of mass destruction without the messy requirement of embodied soldiers and concentration camps that aroused so much hostility to past, less ambitious projects of genocide.<sup>53</sup>

Although the project of understanding the world mechanistically and thereby rendering democracy inconceivable was clearly evident in the work of Hobbes, it was an aspiration rather than something completed. As a project it has advanced on a number of fronts. In the natural sciences, it has been advanced by extending mechanistic thinking from physics to chemistry and then to the life and human sciences. In the human sciences, it has been advanced principally through the development of economics, with Walrasian neo-classical economics being the pinnacle of the denial of reality to anything that cannot be quantified. More recently this program has been vigorously pursued in psychology. The application of mathematical techniques to logic which in turn provided the means to develop information processing technology based on binary arithmetic and Boolean logic, including computers and the internet, has brought this project far nearer to completion.<sup>54</sup> These advances have virtually forced a disembodied set of practices in everyday life, justifying Hobbes' claim that humans are machines, that reasoning is nothing but adding and subtracting, that science is nothing but a means to control the world in the service of satisfying people's appetites and that the arts and humanities are merely forms of entertainment. Information technology has provided the means to organize societies on these assumptions.

With the new corporatocracy, economists have taken over from civil servants with a generalist, humanist education and set about interpreting and evaluating the entire world through the categories of the market. As part of this process, universities and institutions of research are being transformed into transnational business corporations, with arts and science faculties being displaced as the core of universities by business faculties, which have also absorbed economics faculties.<sup>55</sup> The humanities

---

<sup>53</sup> Bruce E. Johansen, "Global Warming as a Weapon of Mass Destruction?", 25<sup>th</sup> October, 2003 <http://www.ratical.org/ratville/GWasWMD.html>. (viewed 26th May, 2013).

<sup>54</sup> See Michael E. Hobart and Zachary S. Schiffman, *Information Ages: Literacy, Numeracy, and the Computer Revolution* (Baltimore: John Hopkins University Press, 1998).

<sup>55</sup> Bill Readings, *The University in Ruins* (Cambridge, Mass., Harvard University Press, 1996) and Arran Gare, "The Liberal Arts, the Radical Enlightenment and the War Against Democracy", in *On The*



and humanistic human sciences are being eliminated. The failure of mainstream neo-classical economists to predict major events such as the 2008 financial crisis (a crisis largely due to governments following economists' policy recommendations), along with their imperviousness to devastating criticism, should dispel the illusion that economics is a science devoted to understanding society.<sup>56</sup> As Robert Nelson has argued, economists 'are more like theologians' serving 'as the priesthood of a modern secular religion of economic progress.'<sup>57</sup> Neo-classical economics, transmogrifying Christian Neo-Platonism, has become the new dogmatic theology, the 'gospel of greed' as John Ruskin called it, and it is this theology that has worshipped and defined everything through the increasingly disembodied realm of money, now largely integrated with information processing technology at the heart of massive bureaucracies that deny any significance to anything that cannot be given a monetary value. While originally, money in the form of silver or gold represented what is valuable, and then paper was used to represent gold, now money has taken the form of electronic records in databanks. From this almost completely disembodied perspective the global ecological crisis is all but invisible except as an opportunity for generating new profits. With the development of electronic media, including the internet, postmodernity has brought this dissociation of culture from ecological conditions to fruition, transforming culture itself into an instrument of control or commodity for consumption. As a consequence we face the immanent destruction of the global ecosystem.<sup>58</sup>

#### DEMOCRACY AND THE GRAND NARRATIVE OF RE-EMBODIMENTS

The fusion of markets and bureaucracies has virtually destroyed the old opposition between the political left (who tended to promote bureaucracies to control, or even eliminate, markets) and the right (who tended to promote markets in place of or against bureaucracies). Those whose primary allegiance was to bureaucracies have joined forces with those whose primary allegiance was to markets, the consensual view now being that the common good is nothing more than growth of GDP and liberty is nothing more than freedom to shop.<sup>59</sup> Those whose primary allegiance was to

---

*Purpose of a University Education*, ed. Luciano Boschiero, (North Melbourne: Australian Scholarly, 2012), pp.48-66.

<sup>56</sup> On this, see John Quiggin, *Zombie Economics: How Dead Ideas Still Walk Among Us: A Chilling Tale Told by John Quiggin* (Princeton: Princeton University Press, 2010).

<sup>57</sup> Robert H. Nelson, *Economics as Religion: from Samuelson to Chicago and Beyond* (University Park, Penn.: Pennsylvania University Press, 2001), p.xv.

<sup>58</sup> See Arran Gare, "Epilogue" in *Integral Biomathics: Tracing the Road to Reality*, ed. Plamen L. Simeonov, Leslie S. Smith and André C. Ehresmann (Heidelberg: Springer, 2012), pp.419-422.

<sup>59</sup> As described by Alain Supiot, "Under Eastern Eyes", *New Left Review*, 73, 2012: 29-36.

democracy, betrayed by their former allies, are finding common ground with old opponents. The division that now matters is between those embracing a globalized economy fusing managerialism and market fundamentalism along with 'liberal individualism', the individualism of irresponsible consumers, and those defending liberty and democracy. While the apologists for the globalization of corporations and the market have embraced the illusion of disembodiment as empowering and liberating and found common ground with apologists for this around the world, those defending democracy and liberty are struggling to hold together the shreds of community as their localities are removed from under their feet. The struggle for democracy and liberty has become not only a struggle to re-empower communities, freeing them from subjugation by global corporations; it is a struggle against the destruction of the natural and social environments of these communities. It is a struggle to regain control over their destinies against processes which are destroying the environmental conditions of their existence.

Despite the relatively powerless position of those promoting liberty and democracy, this realignment has overcome the confusion caused by past allegiances and facilitated a clearer vision of the democratic project.<sup>60</sup> It has become apparent that at a very fundamental level the struggle to protect and revive democracy, that is, to re-empower people as situated, responsible members of communities with the economic and political security and liberty required for effective citizenship, is a struggle for 're-embodiments', situating people not as completely autonomous, transcendent agents in a world of things, nor as mechanisms determined by their constituents and environments to struggle to reduce everything and everyone to their instruments, but as embodied semi-autonomous and creative participants in their social and ecological communities. In Europe this has been characterized by Takis Fotopoulos as 'Inclusive Democracy'.<sup>61</sup> In India this has been characterized by Vandana Shiva as 'Earth Democracy'.<sup>62</sup> In China it has been characterized by Pan Yue as the quest for 'Ecological Civilization'.<sup>63</sup> In USA Thomas Berry characterized this as the Ecozoic Age.<sup>64</sup> Each of these provides evidence that, against great resistance, we are moving into the age of re-embodiments, which are likely to take different forms according to the unique situation and history of each community. To achieve this it will be necessary to consciously and actively work to overcome the

---

<sup>60</sup> See for instance Dick Howard, *The Specter of Democracy*, (New York: Columbia University Press, 2002).

<sup>61</sup> Takis Fotopoulos, *Towards an Inclusive Democracy*, (London: Cassell, 1997).

<sup>62</sup> Vandana Shiva. *Earth Democracy: Justice, Sustainability, and Peace* (Cambridge Mass.: South End Press, 2005).

<sup>63</sup> See Arran Gare. "Toward an Ecological Civilization: The Science, Ethics and Politics of Eco-Poiesis", *Process Studies*, 39(1), 2010: 5-38.

<sup>64</sup> Thomas Berry, *The Great Work: Our Way into the Future* (New York: The Three Rivers Press, 1999).

tyranny of the corporatocracy and replace it with a global order of communities of communities in which people at local levels support a global system of decentralization and local empowerment. Local struggles are now seen as participation in this global struggle, and the apparently lost plot of the struggle for democracy is being recovered, beginning to crystallize a new grand narrative. While the crisis of democracy has spawned new histories of democracy,<sup>65</sup> these histories abstract from broader cultural history and do not mention the new field of environmental history. What is needed is an account of the history of democracy in the broader context of nature. It is now possible to outline the framework which is emerging for such an integrated perspective. To begin with, it is necessary to be more specific about the meaning of democracy to show how this relates to culture more generally, and then show how the development of the culture of democracy should be understood in relation to the rest of nature.

Democracy requires history, philosophy, the arts and post-reductionist science aligned with the humanities to inspire people, to enable them to appreciate at a visceral level, that is, to *feel* the significance of their own and other lives and their relationship to the world around them, and to enable them to coordinate their orientations and actions.<sup>66</sup> They are required to enable people to appreciate that the communities and organizations in which they are participating, whether nations, public institutions or business enterprises, are theirs, and that their governance should be in their hands, and that it is an outrage to be excluded from participation in their governance. Appreciating this involves totally rejecting the transformation of the processes and products of life, including intellectuals, artists and works of art, into supposedly impersonal, value neutral, forces of production, or spectacles for consumption, with aesthetics treated as nothing but an arcane realm of philosophy. As Charles S. Peirce argued, aesthetics, concerned with the education of feeling, is the foundation of ethics, of which logic is just one branch.<sup>67</sup> All complex actions involving many people, which includes all organizations, are lived stories and require the interrogation, telling and retelling the story of the action in which they are engaged,

<sup>65</sup> See for instance John Keane, *The Life and Death of Democracy*, (New York: Norton, 2009) and David Held, *Models of Democracy*, 3<sup>rd</sup> ed. (Stanford: Stanford University Press, 2006).

<sup>66</sup> See Arran Gare, "The Arts and the Radical Enlightenment: Gaining Liberty to Save the Planet", *The Structurist*, No.47/48, 2007/2008, pp.20-27.

<sup>67</sup> Vincent G. Potter, S.J., *Charles S. Peirce: On Norms & Ideals*, (New York: Fordham, 1997), p.31ff. See also Bent Sørensen and Torkild Leo Thellefsen, "The Normative Sciences, The Sign Universe, Self-Control and Rationality – According to Peirce", *Cosmos & History*, 6(1), 2010: 142-142. This view has also been defended by Alfred North Whitehead and John Dewey and in great detail by Mark Johnson. See Johnson, *The Meaning of the Body: Aesthetics of Human Understanding*. See also Steven Shaviro, *Without Criteria: Kant, Whitehead, Deleuze, and Aesthetics*, (Cambridge: MIT Press, 2009).

and then constraining action in accordance with the logic of these stories. Stories, unlike mathematical models, can give a place not only to deterministic patterns and randomness, but also to ‘real vagues’ that are by their very nature imprecise.<sup>68</sup> Stories are also central to the development of communities and their institutions, and to maintaining their vitality. It is only through telling and retelling the history of communities and institutions that the point of their existence can be understood and revised. And stories are central to individuals in their efforts to orient themselves in a socially constituted world, to live life authentically and to refigure the stories they have inherited.<sup>69</sup> Stories must not only be told and retold; they must also be lived. Democracy requires that these stories be open to question and revision by the public and be continually questioned and revised, and then re-embodied in practices.<sup>70</sup>

Through historical narratives the Ancient Greeks, the first people to explicitly defend democracy as such, examined the causes of conflicts, of failures and of greatness, while holding people responsible for their actions and orienting them to create the future, enabling them to build on the achievements of the past. This included the achievements of philosophy which provided a broader framework for the Greeks to orient themselves and a broader framework to defend democracy. By construing the cosmos as self-organizing and evolving through ‘limiting the unlimited’, Anaximander, the first major Greek philosopher, challenged the received view that order has been created by a supposedly divine monarch.<sup>71</sup> Seeing people as part of nature, Anaximander held out the prospect of people governing themselves and taking responsibility for their own institutions, situating human history in the context of the cosmos.<sup>72</sup> The whole history of the development of democracy can be seen as unfolding the full implications of Anaximander’s philosophy. His conception of the world has been rediscovered and developed with each effort to revive democracy and overcome disembodiment fetishism, and in each case, has realized

---

<sup>68</sup> The importance of real vagues was argued by Adam Schaff and C.S. Peirce, and more thoroughly by Murray Code. See his *Myths of Reason: Vagueness, Rationality, and the Lure of Logic*, (New Jersey: Humanities Press, 1995), For further implications of this, see also his *Process, Reality, and the Power of Symbols: Thinking with A.N. Whitehead*, (Houndmills: Palgrave, 2007).

<sup>69</sup> On stories or narratives, see Arran Gare, “MacIntyre, Narratives and Environmental Ethics”, *Environmental Ethics*, Vol. 20 (1) February, 1998: 3-21, Arran Gare, “Narratives and Culture: The Role of Stories in Self-Creation”, *Telos*, Issue 121, Winter, 2002: 80-101, and Arran Gare, “The Primordial Role of Stories in Human Self-Creation”, *Cosmos & History: The Journal of Natural and Social Philosophy*, Vol.3(1), 2007: 93-114.

<sup>70</sup> On the embodiment of stories, see David Carr, *Time, Narrative and History*, (Bloomington: University of Illinois Press, 1986), esp. p.29.

<sup>71</sup> See Cornelius Castoriadis, “The Greek *Polis* and the Creation of Democracy”, *Philosophy, Politics, Autonomy* (New York: Oxford University Press, 1992), chap.5.

<sup>72</sup> Jean-Pierre Vernant, *The Origin of Greek Thought* (Ithaca: Cornell University Press, 1982).

more fully its implications. Slaves, serfs, labourers and women have been emancipated from subjection. The philosophies of Giordano Bruno at the end of the Renaissance, of Johann Herder, F.W. Goethe and Friedrich Schelling at the end of the Eighteenth and beginning of the Nineteenth Centuries, and then of the process metaphysicians, C.S. Peirce, Henri Bergson, Aleksandr Bogdanov, A.N. Whitehead and John Dewey among others can all be seen as rediscoveries and further developments of this philosophy, the philosophy of the Radical Enlightenment, in each case situating humans as historical agents within a creative nature and recognizing the freedom and significance of more and more people.<sup>73</sup> Another revival of this way of thinking began after the Second World War, mainly but not only within science, and has been gaining momentum ever since, challenging Cartesian dualism and creating a new alliance between science, the humanities and the arts. The advance of this alliance is illustrated by the work of Joseph Needham, C.H. Waddington, David Bohm, Ilya Prigogine, Brian Goodwin, John Cobb Jr., Jesper Hoffmeyer, Stan Salthe, Robert Ulanowicz, Christopher Alexander and Robert Rosen. Such ideas are crystallized in the recent work of James A. Coffman and Donald C. Mikulecky (disciples of Rosen), *Global Insanity: How Homo sapiens Lost Touch with Reality while Transforming the World*.<sup>74</sup>

#### TOWARDS NON-LOGOCENTRIC RE-EMBODYING CLAIMS TO TRUTH

While this new alliance was proclaimed first in thermodynamics (by Ilya Prigogine and Isabelle Stengers), it is in ecology that this alliance is coming to fruition. Ecology is now challenging the place accorded physics as the ultimate reference defining science.<sup>75</sup> There are a number of elements being integrated in recent theoretical ecology: non-linear thermodynamics, complexity theory, hierarchy theory, and biosemiotics, including eco-semiotics.<sup>76</sup> Reviving ideas of the process metaphysicians,

<sup>73</sup> See Arran Gare, "From Kant to Schelling to Process Metaphysics: On the Way to Ecological Civilization", *Cosmos & History*, 7(2), 2011: 26-69. Karl Marx should be seen as part of this tradition, but not 'orthodox' Marxists.

<sup>74</sup> James A. Coffman and Donald C. Mikulecky, *Global Insanity: How Homo sapiens Lost Touch with Reality while Transforming the World* (Lichfield Park, Arizona: Emergent Publications).

<sup>75</sup> Robert E. Ulanowicz, *Ecology: The Ascendent Perspective* (New York: Columbia University Press, 1997), p.6.

<sup>76</sup> See Stanley N. Salthe, *Development and Evolution: Complexity and Change in Biology* (Cambridge MIT Press, 1993), Jay L. Lemke, "Opening Up Closure: Semiotics Across Scales", *Closure: Emergent Organizations and their Dynamics* (Annals of the NYAS, New York: New York Academy of Science Press, 2000), pp.100-111, Stanley N. Salthe, 'The natural philosophy of ecology: developmental systems ecology', *Ecological Complexity* 2, 2005: 1-19, Timo Maran, "Towards an integrated methodology of ecosemiotics: The concept of nature-text", *Sign System Studies* 35(1/2): 2007: 269-294, and Arran Gare, "Overcoming the

such developments involve a new way of understanding the nature of life, and justifies Lovelock's Gaia hypothesis that the Earth itself is alive and has produced and is maintaining the conditions for life. These ideas have provided the basis for new developments in human ecology, characterizing humanity as a complex of processes, structures and semiosis (the production and interpretation of signs) within the global ecosystem. Apart from semiosis associated with cells, 'vegetative semiosis' is the most basic form of semiosis.<sup>77</sup> Morphogenesis, the generation of highly complex, ordered structure is a form of vegetative semiosis. And as the theorist of architecture, town planning and complexity, Christopher Alexander, pointed out, 'the enormous and extensive co-adaptive harmony of organisms in Nature is altogether due to morphogenesis.'<sup>78</sup> Such vegetative semiosis, which includes both the human body and humanity's built-up environments, including its instruments of production and communication, is presupposed by 'animal semiosis' or action, which in turn is presupposed by 'intellective semiosis' or reflective thought. It is an illusion to think that the meaning of abstract concepts could be understood except in relation to people's bodily engagement in the world, a world partly formed by past human activities, and that it would be possible to capture the full richness of the world in abstract models of it, and it is a cultural disease to take these models as the source of reality.<sup>79</sup> From this perspective, humanity is a very complex experiment by the global ecosystem characterized by a unique kind of semiosis whereby semiosis itself is reflected upon and interpreted. This second order semiosis, associated with the development of 'cybersemiotics',<sup>80</sup> enables humans to constitute their worlds as shared worlds in which individuals see themselves as components of the worlds of other subjects who could outlive them.<sup>81</sup> Defining oneself through proper recognition of others involves constraining of thought, action and production in taking into account the significance of others. This is greatly augmented by the capacity to produce stories or narratives which allow people to develop complex forms of cooperation for projects

---

Newtonian paradigm: The unfinished project of theoretical biology from a Schellingian Perspective", *Progress in Biophysics and Molecular Biology*, 2013: 1-20.

<sup>77</sup> See K. Kull, "An Introduction to phytosemiotics: Semiotic botany and vegetative sign systems", *Sign, System, Studies*, No.28, 2000:326-350.

<sup>78</sup> Christopher Alexander, "Sustainability and Morphogenesis: The Rebirth of a Living World", *The Structurist*, No. 47/48, 2007/2008: 12-19, p.12.

<sup>79</sup> This has been pointed out by philosophers from Herder and Schelling to Bergson and Merleau-Ponty. For a more recent argument along these lines see Mark Johnson, *The Meaning of the Body: Aesthetics of Human Understanding*, (Chicago: University of Chicago Press, 2007).

<sup>80</sup> See Søren Brier, *Cybersemiotics: Why Information Is Not Enough*, (Toronto: University of Toronto Press, 2008).

<sup>81</sup> On the emergence of culture as a specific kind of semiosis, see Wendy Wheeler, *The Whole Creature: Complexity, Biosemiotics and the Evolution of Culture* (London: Lawrence & Wishart, 2006).

over long durations, extending beyond the lives of individuals, creating a world of communities of communities.

From the perspective of this philosophy, the quest for disembodiment associated with the quest to dissolve the entire world into one global, bureaucratized and bureaucratically imposed market and subject the whole of humanity and all of life to the supposedly autonomous dynamics of technological progress is not only a denial of justice to people and nature and blindness to the conditions for the existence of civilization, but a denial of life itself. It is a corruption of semiosis comparable to the semiotic corruption of cancerous tumours.<sup>82</sup> Opposing such denial of life, this philosophy projects a vision of the future in which people will embrace their embodiment and affirm life with all its complexity, unpredictability and creativity. Feeling a part of a range of social and ecological communities they should engender a commitment to Aldo Leopold's land ethic. According to Leopold: 'All ethics so far evolved rest upon a single premise: that the individual is a member of a community of interdependent parts.' It is necessary to enlarge 'the boundaries of community to include soils, waters, plants, and animals, or collectively: the land.' Following from this, Leopold argued that: 'A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise.'<sup>83</sup> People I should be inspired to augment the life of their social and ecological communities, including the global ecosystem or Gaia, and be prepared to fight for truth, justice and the liberty to live with integrity according to this ethic.<sup>84</sup>

The immediate task to realize this will be to redefine the end of society from growth of GDP to creating the physical, biological and social conditions for vibrant communities that will cultivate authentic individuals who feel responsible for their own and other's lives, liberated from the homogenizing, disembodied and destructive imperatives of the bureaucratically imposed and bureaucratized global market.<sup>85</sup> To this end people need to be involved in interrogating and reformulating the stories they have inherited and been socialized into, along with evaluating and influencing policies of their governments. This will involve rediscovering, affirming

<sup>82</sup> On the semiotic blindness produced by defining value through money and its consequences, see Arran Gare, "The Semiotics of Global Warming", *Theory and Science*, 2007. <http://theoryandscience.icaap.org/content/vol9.2/Gare.html>, Alf Hornborg, "Money and the Semiotics of Ecosystem Dissolution", *Journal of Material Culture*, 4(2), 1999: 143-162, and Mae-Wan Ho and Robert Ulanowicz, "Sustainable systems as organisms?" *Biosystems*, 82 (2005): 39-51, p.47.

<sup>83</sup> Aldo Leopold, *A Sand County Almanac* (London: Oxford University Press, 1949), p.203f. & 224.

<sup>84</sup> See Arran Gare, "Toward an Ecological Civilization: The Science, Ethics and Politics of Eco-Poiesis", *Process Studies*, 39(1), 2010: 5-38.

<sup>85</sup> See Arild Vatn, *Institutions and the Environment* (Cheltenham: Edward Elgar, 2005). See also Herman E. Daly and John B. Cobb Jr., *For the Common Good*, 2<sup>nd</sup> ed. (Boston: Beacon Press, 1994).

and developing their own traditions, including traditions of enquiry and production of all kinds, and recovering control over public institutions and the transformations taking place in their environments, thereby avoiding the illusions created by ‘experts’ taking abstract models for reality and basing policy decisions on these, illusions which have been responsible for one social disaster and ecological failure after another.<sup>86</sup> It is necessary to re-embed humanity in nature so that in their everyday lives people appreciate, adjust to and augment the dynamics, resilience and creativity of the ecosystems of which they are part. Re-embodiment of humanity will also involve reviving rural communities, fostering local self-sufficiency, reversing the balance of power between cities and the countryside and reversing the flow of people into the cities while fostering a high level of cultural development in rural communities. Defining economic and social reality to formulate public policy will involve replacing neo-classical economics by institutionalist ecological economics, sociology by human ecology, and cost-benefit analysis by retrospective path analysis and position analysis in which people uphold and continually rework a vision of the future they are striving to realize, and work out how to get there from the positions they are in.<sup>87</sup> Brian Goodwin, the eminent theoretical biologist, summed up what is required in his last book, *Nature's Due*:

The Great Work, the *Magnum Opus* in which we are now inexorably engaged, is a cultural transformation that will either carry us into a new age on earth or will result in our disappearance from the planet. The choice is in our hands. I am optimistic that we can go through the transition as an expression of the continually creative emergence of organic form that is the essence of the living process in which we participate. ... This Gaian Renaissance will lead to what Thomas Berry calls the Ecozoic Age, in which all inhabitants of the planet are governed by the principles of Earth Jurisprudence in an Earth Democracy.<sup>88</sup>

This cultural transformation will alter how people understand themselves at a visceral level, embodying this culture in their built-up environments and their technology, in their institutions and organizations and as part of their *habitus*. Neurologically this will involve a recovery of how the brain should function, with the right hemisphere of the brain, more integrated with the body and its social and natural environment and the locus of the capacity to feel and think holistically and to

---

<sup>86</sup> On this, see Fikret Berkes, Johan Colding and Carl Folke eds., *Navigating Social-Ecological Systems* (Cambridge: Cambridge University Press, 2003).

<sup>87</sup> Retrospective path analysis was developed by Cliff Hooker. See Gare (2002). Position analysis is an approach to policy formation developed by Peter Söderbaum, *Ecological Economics*, (London: Earthscan, 2001), chap.6.

<sup>88</sup> Brian Goodwin, *Nature's Due: Healing Our Fragmented Culture* (Trowbridge: Floris Books, 2007), p.177f.



utilize metaphors and narratives, regaining its properly dominant relation to the left hemisphere with its capacity for focussed, analytic, instrumental cognition.<sup>89</sup> With their brains functioning healthily people will come to feel and understand in the way they live and work, in the environments they build, in their means of production and in the way they organize themselves and participate in communities and organizations, in the way they interpret each situation and in the way they think, that they are embodied members of human and ecological communities. They will experience their cultural life as participation in nature's semiosis, responsible for the resilience and vitality of these communities. They will feel part of and responsible not only for their future, but for and the whole of nature. And they will recognize the lure of disembodiment in all its manifestations and forms, most importantly the tendency identified by Marx and Whitehead to fetishize abstractions, both in practices and in thought, as a life-threatening cultural and psychological disease to be overcome. This is the grand narrative of the age of re-embodiments.

\* An earlier version of this paper was commissioned by Ruth Thomas-Pellicer for an anthology following a conference at Warwick University in 2010 on the Age of Re-Embodiments. I am grateful to her for comments on this earlier version of the paper.

Philosophy and Cultural Inquiry  
Swinburne University  
Australia  
[agare@swin.edu.au](mailto:agare@swin.edu.au)

#### BIBLIOGRAPHY

- Adams, Richard Newbold. *The Eighth Day* (Austin: University of Texas Press, 1988).  
Alexander, Christopher. "Sustainability and Morphogenesis: The Rebirth of a Living World", *The Structurist*, No. 47/48, 2007/2008  
Allen, T.F.H., Joseph A. Tainter & Thomas W. Hoekstra. *Supply-Side Sustainability* (New York: Columbia University Press, 2003).

---

<sup>89</sup> See Iain McGilchrist, *The Master and His Emissary: The Divided Brain and the Making of the Western World* (New Haven and London: Yale University Press, 2010), and Arran Gare, "Review Article: The Master and his Emissary: The Divided Brain and the making of the Western World", *Cosmos & History*, 8(1), 2012: 412-449.

- Aristotle, *Metaphysics* trans. Richard Hope, (Ann Arbor: University Of Michigan Press, 1960).
- Augustine, Saint. *The City of God*, trans. Marcus Dodds, (New York: Random House: 1950).
- Bakhtin, Michael. *Rabelais and His World* [1965] trans. Helen Iswolsky (Bloomington: Indiana University Press, 1984).
- Baudrillard, Jean. *Simulations*, trans. Paul Foss, Paul Patton and Philip Beitchman (New York: Semiotext(e), 1983).
- Baudrillard, Jean. *Symbolic Exchange and Death*, trans. Iain Hamilton Grant (London: Sage, 1993 [1976]).
- Bauman, Zygmunt. "Time and Class", *Arena Journal*, New Series, No.10, 1988: 69-84
- Becker, Jasper. *Dragon Rising: An Inside Look at China Today* (Washington D.C.: National Geographic, 2007).
- Berkes, Fikret, Johan Colding and Carl Folke (eds). *Navigating Social-Ecological Systems* (Cambridge: Cambridge University Press, 2003).
- Berman, Harold J. *Law and Revolution: The Formation of the Western Legal Tradition*, (Cambridge: Harvard University Press, 1983).
- Berry, Thomas. *The Great Work: Our Way into the Future* (New York: The Three Rivers Press, 1999).
- Bourdieu, Pierre. *Acts of Resistance: Against the Tyranny of the Market*, trans. Richard Nice, (New York: The New Press, 1998).
- Bourdieu, Pierre. *Firing Back: Against the Tyranny of the Market 2*, trans Loïc Wacquant (London: Verso, 2003).
- Brier, Søren. *Cybersemiotics: Why Information Is Not Enough*, (Toronto: University of Toronto Press, 2008).
- Coffman, James A. & Donald C. Mikulecky, *Global Insanity: How Homo sapiens Lost Touch with Reality while Transforming the World*, (Litchfield Park, Arizona: Emergent Publications, 2012).
- Capra, Fritjof. *The Web of Life* (London: HarperCollins, 1996).
- Carr, David. *Time, Narrative and History*, (Bloomington: University of Illinois Press, 1986).
- Castoriadis, Cornelius. *Philosophy, Politics, Autonomy* (New York: Oxford University Press, 1992).
- Charlton, Bruce G. "The cancer of bureaucracy: How it will destroy science, medicine, education; and virtually everything else", *Medical Hypotheses*, 74 (2010): 961-965.

- Chew, Sing C. *The Recurring Dark Ages: Ecological Stress, Climate Changes, and System Transformation* (Lanham: AltaMira Press, 2007).
- Code, Murray. *Myths of Reason: Vagueness, Rationality, and the Lure of Logic*, (New Jersey: Humanities Press, 1995).
- Code, Murray. *Process, Reality, and the Power of Symbols: Thinking with A.N. Whitehead*, (Houndmills: Palgrave, 2007).
- Coffman, James A. and Donald C. Mikulecky. *Global Insanity: How Homo sapiens Lost Touch with Reality while Transforming the World* (Lichfield Park, Arizona: Emergent Publications).
- Daly, Herman E. and John B. Cobb Jr., *For the Common Good*, 2<sup>nd</sup> ed. (Boston: Beacon Press, 1994).
- Debord, Guy. *Society of the Spectacle*, (Detroit: Black & Red, 1983).
- Fotopoulos, Takis. *Towards an Inclusive Democracy*, (London: Cassell, 1997).
- Frankfort, Henri, Mrs H.A. Frankfort, John a. Wilson and Thorkild Jacobsen, *Before Philosophy* (Harmondsworth: Penguin, 1949).
- Fulton, Lord. *The Civil Service, Vol.1 Report of the Committee 1966-68*, (London: Her Majesty's Stationary Office, 1968)
- Gare, Arran. *Nihilism Inc.* (Sydney: Eco-Logical Press, 1996).
- Gare, Arran. "MacIntyre, Narratives and Environmental Ethics", *Environmental Ethics*, 20 (1) February, 1998: 3-21.
- Gare, Arran. 'Narratives and the Ethics and Politics of Environmentalism: The Transformative Power of Stories', *Theory & Science*, Vol.2, No.1, Spring. <http://theoryandscience.icaap.org/content/vol002.001/04gare.html>.
- Gare, Arran. "Narratives and Culture: The Role of Stories in Self-Creation", *Telos*, Issue 121, Winter, 2002: 80-101.
- Gare, Arran. "Democracy and Education: Defending the Humboldtian University and the Democratic Nation-State as Institutions of the Radical Enlightenment", *Conrescence: The Australasian Journal of Process Thought*, 6, 2005: 3-25.
- Gare, Arran. "The Semiotics of Global Warming", *Theory and Science*, 2007. <http://theoryandscience.icaap.org/content/vol0.2/Gare.html>.
- Gare, Arran. "The Primordial Role of Stories in Human Self-Creation", *Cosmos & History: The Journal of Natural and Social Philosophy*, Vol.3(1), 2007: 93-114.
- Gare, Arran. "The Arts and the Radical Enlightenment: Gaining Liberty to Save the Planet", *The Structurist*, No.47/48, 2007/2008: 20-27.
- Gare, Arran. "Reviving the Radical Enlightenment", in *Researching with Whitehead: System and Adventure*, Franz Riffert and Hans-Joachim Sander (eds.) (Frieburg: Verlag Karl Alber, 2008), pp.25-57.

- Gare, Arran. "Toward an Ecological Civilization: The Science, Ethics and Politics of Eco-Poiesis", *Process Studies*, 39(1), 2010: 5-38.
- Gare, Arran. "From Kant to Schelling to Process Metaphysics: On the Way to Ecological Civilization", *Cosmos & History*, 7(2), 2011: 26-69.
- Gare, Arran. "The Liberal Arts, the Radical Enlightenment and the War Against Democracy", in *On The Purpose of a University Education*, ed. Luciano Boschiero, North Melbourne: Australian Scholarly, 2012, pp.48-66.
- Gare, Arran "Epilogue", *Integral Biomathics: Tracing the Road to Reality*, Plamen L. Simeonov, Leslie S. Smith and Andrée C. Ehresmann (eds.) (Heidelberg: Springer, 2012), pp.419-422.
- Gare, Arran. "Review Article: The Master and his Emissary: The Divided Brain and the making of the Western World", *Cosmos & History*, 8(1), 2012: 412-449.
- Gare, Arran. "Overcoming the Newtonian paradigm: The unfinished project of theoretical biology from a Schellingian Perspective", *Progress in Biophysics and Molecular Biology*, 2013: 1-20.
- George, Susan. *How the Other Half Dies: The Real Reasons for World Hunger* (Harmondsworth: Penguin, 1977).
- Goodwin, Brian. *Nature's Due: Healing Our Fragmented Culture* (Trowbridge: Floris Books, 2007).
- Hayek, F.A. *The Road to Serfdom* (Chicago: University of Chicago Press, 1944).
- Hayles, N. Katherine. *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics* (Chicago: University of Chicago Press, 1999).
- Held, David. *Models of Democracy* 3<sup>rd</sup> ed. (Stanford: Stanford University Press, 2006).
- Ho, Mae-Wan and Robert Ulanowicz, "Sustainable systems as organisms?" *Biosystems*, 82 (2005): 39-51
- Hobart, Michael E. and Zachary S. Schiffman. *Information Ages: Literacy, Numeracy, and the Computer Revolution* (Baltimore: John Hopkins University Press, 1998).
- Hornborg, Alf. "Money and the Semiotics of Ecosystem Dissolution", *Journal of Material Culture*, 4(2), 1999: 143-162.
- Hornborg, Alf. *The Power of the Machine* (Walnut Creek: AltaMira Press, 2001).
- Hornborg, Alf. *Global Ecology and Unequal Exchange: Fetishism in a zero-sum world* (London: Routledge, 2013).
- Howard, Dick. *The Specter of Democracy*, (New York: Columbia University Press, 2002)
- Huntington, Samuel P. *The Clash of Civilizations and the Remaking of World Order* (New York: Simon & Schuster, 2003).

- Johansen, Bruce E. "Global Warming as a Weapon of Mass Destruction", 25<sup>th</sup> October, 2003 <http://www.ratical.org/ratville/GWasWMD.html>. (viewed 26th May, 2013).
- Johnson, Mark. *The Meaning of the Body: Aesthetics of Human Understanding* (Chicago: University of Chicago Press, 2007).
- Kamenka, Eugene. *Bureaucracy: New Perspectives on the Past* (Oxford: Basil Blackwell, 1989).
- Keane, John. *The Life and Death of Democracy* (New York: Norton, 2009).
- Korten, David C. *When Corporations Rule the World* (San Francisco: Berrett-Koehler, 2001 second edition).
- Kull, K. "An Introduction to phytosemiotics: Semiotic botany and vegetative sign systems", *Sign, System, Studies*, No.28, 2000, pp.326-350.
- Lemke, Jay L. "Opening Up Closure: Semiotics Across Scales", *Closure: Emergent Organizations and their Dynamics* (Annals of the NYAS, New York: New York Academy of Science Press, 2000).
- Lenin, V.I. *Collected Works* (Moscow: Progress Publishers, 1964).
- Leopold, Aldo. *A Sand County Almanac* (London: Oxford University Press, 1949).
- Livingston, Paul M. *The Politics of Logic: Badiou, Wittgenstein, and the Consequences of Formalism*, (London: Routledge & Chapman Hall, 2012).
- Maran, Timo. "Towards an integrated methodology of ecosemiotics: The concept of nature-text", *Sign System Studies* 35(1/2): 2007: 269-294
- McGilchrist, Iain. *The Master and His Emissary: The Divided Brain and the Making of the Western World* (New Haven and London: Yale University Press, 2010).
- McLaren, Glenn. "The Triumph of Virtual Reality and its Implications for Philosophy and Civilization", *Cosmos & History*, 8(1), 2012: 383-411.
- McNeill, William H. *The Human Condition: An Ecological and Historical View* (Princeton: Princeton University Press, 1980).
- McNeill, William H. *Plagues and Peoples*, (New York: Doubleday, 1989).
- McIntosh Roderick J., Joseph A. Tainter, and Susan Keech McIntosh, (eds). *The Way the Wind Blows: Climate, History, and Human Action* (New York: Columbia University Press, 2000).
- Michels, Robert. *Political Parties: A Sociological Study of the Oligarchical Tendencies of Modern Democracy*, [1911] (New York: Free Press, 1962).
- Moravec, Hans. in *Mind Children: The Future of Robot and Human Intelligence*, (Cambridge: Cambridge University Press, 1988)
- Nelson, Robert H. *Economics as Religion: from Samuelson to Chicago and Beyond* (University Park, Penn.: Pennsylvania University Press, 2001).

- Norgaard, Richard B. *Development Betrayed: The End of Progress and a Coevolutionary Future* (London: Routledge, 1994).
- Perelman, Michael. *The Confiscation of American Prosperity* (Macmillan: Palgrave, 2007).
- Perkins, John. *Confessions of an Economic Hit Man* (New York: Plume, 2006).
- Perkins, John. *Hoodwinked* (New York: Broadway Books, 2009).
- Potter, S.J., Vincent G. *Charles S. Peirce: On Norms & Ideals*, New York: Fordham, 1997.
- Quiggin, John. *Zombie Economics: How Dead Ideas Still Walk Among Us: A Chilling Tale Told by John Quiggin* (Princeton: Princeton University Press, 2010).
- Readings, Bill. *The University in Ruins* (Cambridge, Mass., Harvard University Press, 1996).
- Robinson, William I. *A Theory of Global Capitalism* (Baltimore: John Hopkins University Press, 2004).
- Rosen, Robert. "The Church-Pythagoras Thesis" in *Essays on Life Itself* (New York: Columbia University Press, 1999).
- Salthe, Stanley N. *Development and Evolution: Complexity and Change in Biology* (Cambridge MIT Press, 1993).
- Salthe, Stanley N. "The natural philosophy of ecology: developmental systems ecology", *Ecological Complexity*, 2, 2005: 1-19.
- Shaviro, Steven. *Without Criteria: Kant, Whitehead, Deleuze, and Aesthetics* (Cambridge: MIT Press, 2009).
- Shiva, Vandana. *Stolen Harvest: The Hijacking of the Global Food Supply* (Cambridge: South End Press, 2000).
- Shiva, Vandana. *Earth Democracy: Justice, Sustainability, and Peace* (Cambridge Mass.: South End Press, 2005).
- Skinner, Quentin. *Hobbes and Republican Liberty* (Cambridge: Cambridge University Press, 2008).
- Söderbaum, Peter. *Ecological Economics* (London: Earthscan, 2001).
- Solow, Robert M. "The Economics of Resources or the Resources of Economics", *The American Economic Review*, 64(2): May, 1974: 1-14
- Sørensen, Bent and Torkild Leo Thellefsen, "The Normative Sciences, The Sign Universe, Self-Control and Rationality – According to Peirce", *Cosmos & History*, 6(1), 2010: 142-142.
- Supiot, Alain. "Under Eastern Eyes", *New Left Review*, 73, 2012: 29-36.
- Tainter, Joseph A. *The Collapse of Complex Societies* (Cambridge: Cambridge University Press, 1990).
- Toulmin, Stephen. *Cosmopolis: The Hidden Agenda of Modernity* (Chicago: University of Chicago Press, 1992).

- 
- Ulanowicz, Robert E. *Ecology: The Ascendent Perspective* (New York: Columbia University Press, 1997).
- Vatn, Arild. *Institutions and the Environment* (Cheltenham: Edward Elgar, 2005).
- Vernant, Jean-Pierre. *The Origin of Greek Thought* (Ithaca: Cornell University Press, 1982).
- Weber, Max. "Bureaucracy", in *From Max Weber*, H.H. Gerth and C. Wright Mills (eds.) (London: Routledge & Kegan Paul, 1970), chap. VIII.
- Wheeler, Wendy. *The Whole Creature: Complexity, Biosemiotics and the Evolution of Culture* (London: Lawrence & Wishart, 2006).
- Wolf, Martin. "Why it is so hard to keep the financial sector caged", *The Financial Times*, February 5, 2008. <http://www.ft.com/cms/s/o/9987c5c4-d41f-11dc-a8c6-0000779fd2ac.html#axzz19TKMNVj4>.
- Wolin, Sheldon S. *Democracy Inc.: Managed Democracy and the Specter of Inverted Totalitarianism* (Princeton: Princeton University Press, 2010).